



**Mailing Date:**  
Thursday, March 21, 2024

## Coos County Community Development

FILE NUMBER: ACU-23-074/FP-23-012

HEARING DATE: **Thursday, March 28, 2024 at 1:30 PM**

HEARING LOCATION: 201 N. Adams Street, Coquille Oregon 97423  
This meeting can be attended virtually at  
**Board of Commissioners Hearings**  
**Please join my meeting from your computer, tablet or smartphone.**  
<https://meet.goto.com/964495293>  
**You can also dial in using your phone.**  
Access Code: 964-495-293  
United States: [+1 \(571\) 317-3122](tel:+15713173122)

APPLICANT(s): Fred Messerle, Beaver Drainage District  
Caley Sowers, Coos Soil and Water District Manager  
Fred Messerle, Treasure, Fred Messerle & Sons, Inc.  
Cynthia Henson, President, Everett-Ona Isenhardt Ranch, Inc.  
Laura and John Isenhardt, Trustee, Isenhardt Living Trust  
Sara Gregory, ODFW, Umpqua Watershed District Manager  
Luke Fitzpatrick, Trustee, The Bridges Family Trust  
Juliana Ruble, District 7 Permit Specialist

STAFF CONTACT: Jill Rolfe, Planning Director  
Phone: 541-396-7770  
Email: [planning@co.coos.or.us](mailto:planning@co.coos.or.us)

HEARINGS BODY: Board of Commissioners

RECORD: [Record items can be viewed and downloaded from the website](#)

SUMMARY/REQUEST: The applicants have requested an Administrative Conditional Use Review. There have been some public concerns raised with this request and the Board of Commissioners called the matter up during a work session on March 5, 2024. The Winter Lake Phase III project entails a working lands infrastructure rehabilitation effort proposed on 1,290 acres within the 1,790-acre Beaver Slough Drainage District and two additional parcels totaling 99 acres in the Coaledo Drainage District. The project aims to replace/consolidate a total of 42 pasture culverts with associated tidegates, install over 90,000 ft of new and reconstructed tidal/farm drainage channels, repair five segments of failing berms, excavate deposited sediments from China Camp Creek, and install up to nine heavy-use watering site troughs.

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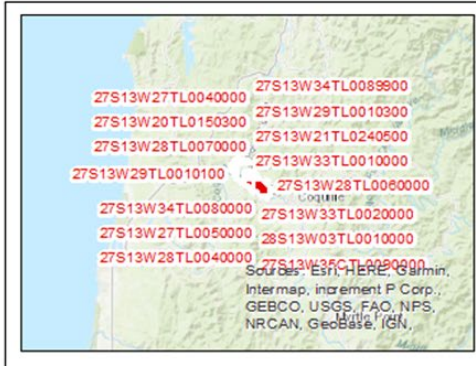
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SUBJECT PROPERTY DETAILS:  
(map not to scale)

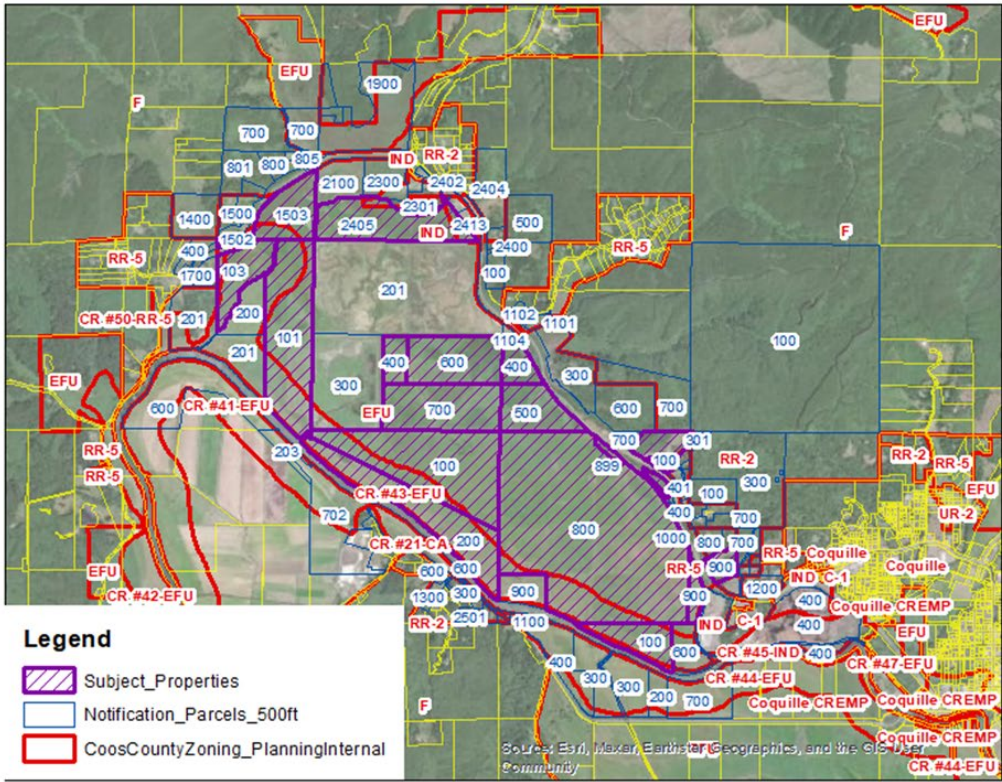


## COOS COUNTY PLANNING DEPARTMENT

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 Physical Address: 60 E. Second, Coquille Oregon  
 Phone: (541) 396-7770  
 TDD (800) 735-2900



File: ACU-23-074/FP-23-012  
 Applicant/ Oregon Department of Fish & Wildlife/  
 Coos Soil & Water Conservation District/  
 Owner: Various  
 Date: February 13, 2024  
 Location: Various  
 Proposal: Conditional Use/Floodplain Review



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Account Number:	716702	716800	717401
Map Number:	27S132700-00400	27S132700-00500	27S132800-00600
Property Owner:	THE BRIDGES FOUNDATION C/O FITZPATRICK, LUKE, TRUSTEE PO BOX 1123 TURNER, OR 97392-1123	THE BRIDGES FOUNDATION C/O FITZPATRICK, LUKE, TRUSTEE PO BOX 1123 TURNER, OR 97392-1123	THE BRIDGES FOUNDATION C/O FITZPATRICK, LUKE, TRUSTEE PO BOX 1123 TURNER, OR 97392-1123
Acreage:	25.36 Acres	54.43 Acres	80.00 Acres
Zoning:	EXCLUSIVE FARM USE (EFU)	EXCLUSIVE FARM USE (EFU)	EXCLUSIVE FARM USE (EFU)
Special Development Considerations and Overlays:	FLOODPLAIN (FP) NATIONAL WETLAND INVENTORY (NWI) NH LIQUEFACTION (NHEQL) NH TSUNAMI (NHTHO)	FLOODPLAIN (FP) NATIONAL WETLAND INVENTORY (NWI) NH LIQUEFACTION (NHEQL) NH TSUNAMI (NHTHO) WET MEADOW WETLAND (WM)	FLOODPLAIN (FP) NATIONAL WETLAND INVENTORY (NWI) NH LIQUEFACTION (NHEQL) NH TSUNAMI (NHTHO) WET MEADOW WETLAND (WM)
Account Number:	717500	717600	721200
Map Number:	27S132800-00700	27S132900-00101	27S133300-00200
Property Owner:	THE BRIDGES FOUNDATION C/O FITZPATRICK, LUKE, TRUSTEE PO BOX 1123 TURNER, OR 97392-1123	THE BRIDGES FOUNDATION C/O FITZPATRICK, LUKE, TRUSTEE PO BOX 1123 TURNER, OR 97392-1123	ISENHART LIVING TRUST ET AL ISENHART, JOHN & LAURA J TTEE PO BOX 174 BROADBENT, OR 97414-0174
Acreage:	100.00 Acres	148.51 Acres	120.60 Acres
Zoning:	EXCLUSIVE FARM USE (EFU)	COQUILLE RIVER ESTUARY MGT PLN CREMP AQUATIC D21 CONSERVATION (CRA21C)	COQUILLE RIVER ESTUARY MGT PLN CREMP AQUATIC D21 CONSERVATION (CRA21C)
Special Development Considerations and Overlays:	FLOODPLAIN (FP) NATIONAL WETLAND INVENTORY	CREMP EXCLUSIVE FARM USE (CR-EFU) CREMP SHORELAND SEGMENT 43 (CRS43) EXCLUSIVE FARM USE (EFU)	CREMP EXCLUSIVE FARM USE CREMP SHORELAND SEGMENT 43 EXCLUSIVE FARM USE (EFU)
Special Development Considerations and Overlays:	NH LIQUEFACTION (NHEQL) NH TSUNAMI (NHTHO) WET MEADOW WETLAND (WM)	BIRD SITE MEETS GOAL 5C REQRMT (B5C) COLEDO DISTRICT AREA (CDA) FLOODPLAIN (FP) NATIONAL WETLAND INVENTORY (NWI) NH LIQUEFACTION (NHEQL) WET MEADOW WETLAND (WM)	ARCHAEOLOGICAL AREAS (ARC) FLOODPLAIN (FP) NATIONAL WETLAND INVENTORY (NWI) NH LIQUEFACTION (NHEQL)

Account Number:	722300	99916787	99916790
Map Number:	27S133400-00800	27S132900-00103	27S132000-01503
Property Owner:	FRED MESSERLE & SONS, INC. 94881 STOCK SLOUGH LN COOS BAY, OR 97420-6346	THE BRIDGES FOUNDATION C/O FITZPATRICK, LUKE, TRUSTEE PO BOX 1123 TURNER, OR 97392-1123	THE BRIDGES FOUNDATION C/O FITZPATRICK, LUKE, TRUSTEE PO BOX 1123 TURNER, OR 97392-1123
Acreage:	554.53 Acres	47.34 Acres	52.19 Acres
Zoning:	COQUILLE RIVER ESTUARY MGT PLN CREMP AQUATIC D21 CONSERVATION (CRA21C) CREMP EXCLUSIVE FARM USE CREMP SHORELAND SEGMENT 43 EXCLUSIVE FARM USE (EFU)	COQUILLE RIVER ESTUARY MGT PLN CREMP EXCLUSIVE FARM USE (CR-EFU) CREMP SHORELAND SEGMENT 43 (CRS43) EXCLUSIVE FARM USE (EFU)	COQUILLE RIVER ESTUARY MGT PLN CREMP EXCLUSIVE FARM USE CREMP SHORELAND SEGMENT 43 (CRS43) EXCLUSIVE FARM USE (EFU)
Special Development Considerations and Overlays:	FLOODPLAIN (FP) NATIONAL WETLAND INVENTORY NH LIQUEFACTION (NHEQL) NH TSUNAMI (NHTHO)	BIRD SITE MEETS GOAL 5C REQMT (B5C) COLEDO DISTRICT AREA (CDA) FLOODPLAIN (FP) NATIONAL WETLAND INVENTORY (NWI) NH LIQUEFACTION (NHEQL) NH TSUNAMI (NHTHO) WET MEADOW WETLAND (WM)	COLEDO DISTRICT AREA (CDA) FLOODPLAIN (FP) NATIONAL WETLAND INVENTORY NH LIQUEFACTION (NHEQL) NH TSUNAMI (NHTHO) WET MEADOW WETLAND (WM)
Account Number:	712904	716702	724600
Map Number:	27S132100-02405	27S132700-00400	27S1335C0-00900
Property Owner:	OREGON DEPARTMENT OF FISH AND WILDLIFEC/O REALTY SERVICES 4034 FAIRVIEW INDUSTRIAL DR SE SALEM, OR 97302-1142	THE BRIDGES FOUNDATION C/O FITZPATRICK, LUKE, TRUSTEE PO BOX 1123 TURNER, OR 97392-1123	FRED MESSERLE & SONS, INC. 94881 STOCK SLOUGH LN COOS BAY, OR 97420-6346
Acreage:	109.20 Acres	25.36 Acres	27.00 Acres
Zoning:	EXCLUSIVE FARM USE (EFU) INDUSTRIAL (IND)	EXCLUSIVE FARM USE (EFU)	EXCLUSIVE FARM USE (EFU) INDUSTRIAL (IND)
Special Development Considerations and Overlays:	FLOODPLAIN (FP) NATIONAL WETLAND INVENTORY NH LANDSLIDE (NHLND) NH LIQUEFACTION (NHEQL)	FLOODPLAIN (FP) NATIONAL WETLAND INVENTORY (NWI) NH LIQUEFACTION (NHEQL)	COQUILLE MUTUAL INTEREST AREA FLOODPLAIN (FP) NATIONAL WETLAND INVENTORY NH LIQUEFACTION (NHEQL)

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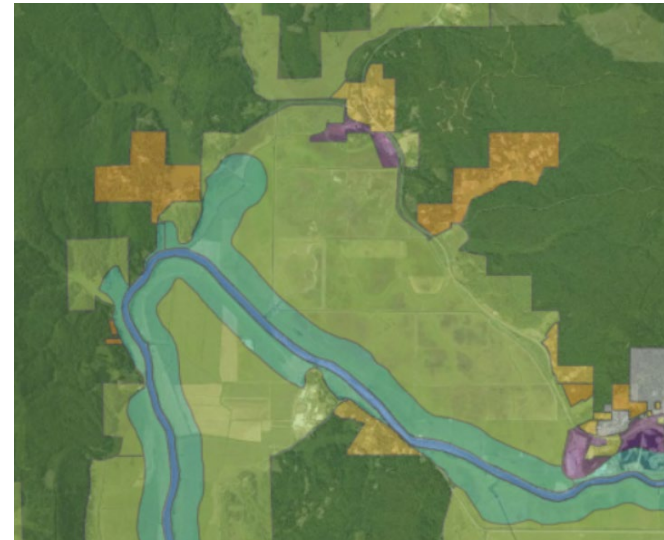
Account Number:	898300	7715000	721202
Map Number:	28S130300-00100	27S133400-00899	27S133300-00100
Property Owner:	FRED MESSERLE & SONS, INC. 94881 STOCK SLOUGH LN COOS BAY, OR 97420-6346	STATE OF OREGON 61036 HWY 101 SOUTH COOS BAY, OR 97420	EVERETT-ONA ISENHART RANCH,INC; ETAL 97065 LANGLOIS MOUNTAIN RD LANGLOIS, OR 97450-9668
Acreage:	46.24 Acres	4.06 Acres	175.68 Acres
Zoning:	COQUILLE RIVER ESTUARY MGT PLN CREMP EXCLUSIVE FARM USE (CR- EFU) CREMP SHORELAND SEGMENT 43 (CRS43) EXCLUSIVE FARM USE (EFU)	EXCLUSIVE FARM USE (EFU)	COQUILLE RIVER ESTUARY MGT PLN CREMP EXCLUSIVE FARM USE CREMP SHORELAND SEGMENT 43 (CRS43) EXCLUSIVE FARM USE (EFU)
Special Development Considerations and Overlays:	FLOODPLAIN (FP) NATIONAL WETLAND INVENTORY NH LIQUEFACTION (NHEQL)	FLOODPLAIN (FP) NATIONAL WETLAND INVENTORY (NWI) NH TSUNAMI (NHTHO)	ARCHAEOLOGICAL AREAS (ARC) FLOODPLAIN (FP) NATIONAL WETLAND INVENTORY NH LIQUEFACTION (NHEQL) WET MEADOW WETLAND (WM)

Zoning: Exclusive Farm Use (EFU)  
Coquille River Estuary Management Segments:

- CREMP-Exclusive Farm Use Shoreland Segment CREMP EFU 43,
- CREMP Aquatic 21 Conservation Aquatic

Industrial

The project will take place in the Exclusive Farm Use and Coquille River Estuary Management Plan Zoning.



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## I. APPLICABLE CRITERIA

### COOS COUNTY ZONING AND LAND DEVELOPMENT ORDINANCE (CCZLDO)

#### CHAPTER III – ESTUARY ZONES

##### SECTIONS

- 3.3.710(2) – Coquille River Estuary Management Plan - Exclusive Farm Use (CREMP-EFU) Shoreland Segments - Administrative Conditional Development and Use: Drainage and Tide Gating
- 3.3.730 – Criteria and Review Standards for Conditional Use Permits (Both Administrative & Hearings Body)
- § 3.3.740 – Development and Use Standards

##### Coquille River Estuary Policies

- Policy #14 – General Policy Uses within the Rural Coastal Shorelands
- Policy #18 – Protection of Historic, Cultural, and Archaeological Sites
- Policy #19 – Management of “Wet-Meadow” wetlands within Coastal Shorelands
- Policy #22 – Mitigation Sites: Protection against Pre-emptory Uses
- Policy #23 – Riparian Vegetation/Streambank Protection
- Policy #27 – Floodplain Protection within Coastal Shorelands

#### CHAPTER IV - BALANCE OF COUNTY ZONES, OVERLAYS & SPECIAL CONSIDERATION

##### SECTIONS

- 4.6.200(8) – Exclusive Farm Use – Use Table - Diking, drainage, tide-gating, fill, mitigation, non-shoreland stabilization, dredge material disposal and restoration
- 4.11.243(4) – Duties and Responsibilities of the Floodplain Administrator – Alteration of Watercourses
- 4.11.251 – Floodplain - General Standards – Other Development

#### CHAPTER V – ADMINISTRATION

##### SECTIONS

- 5.0.600 Board of Commissioners Review of Applications and Appeals \*\*\* The Board of Commissioners reserves the right to pre-empt any permit review process or appeal process and hear any permit application or appeal directly. The Board also reserves the right to appoint a Hearings Officer or Hearings Body to hear and consider any permit application or appeal. Notice of appeals of administrative actions shall be promptly forwarded to the Board of Commissioners, which may elect to hear the appeal instead of the Planning Commission.

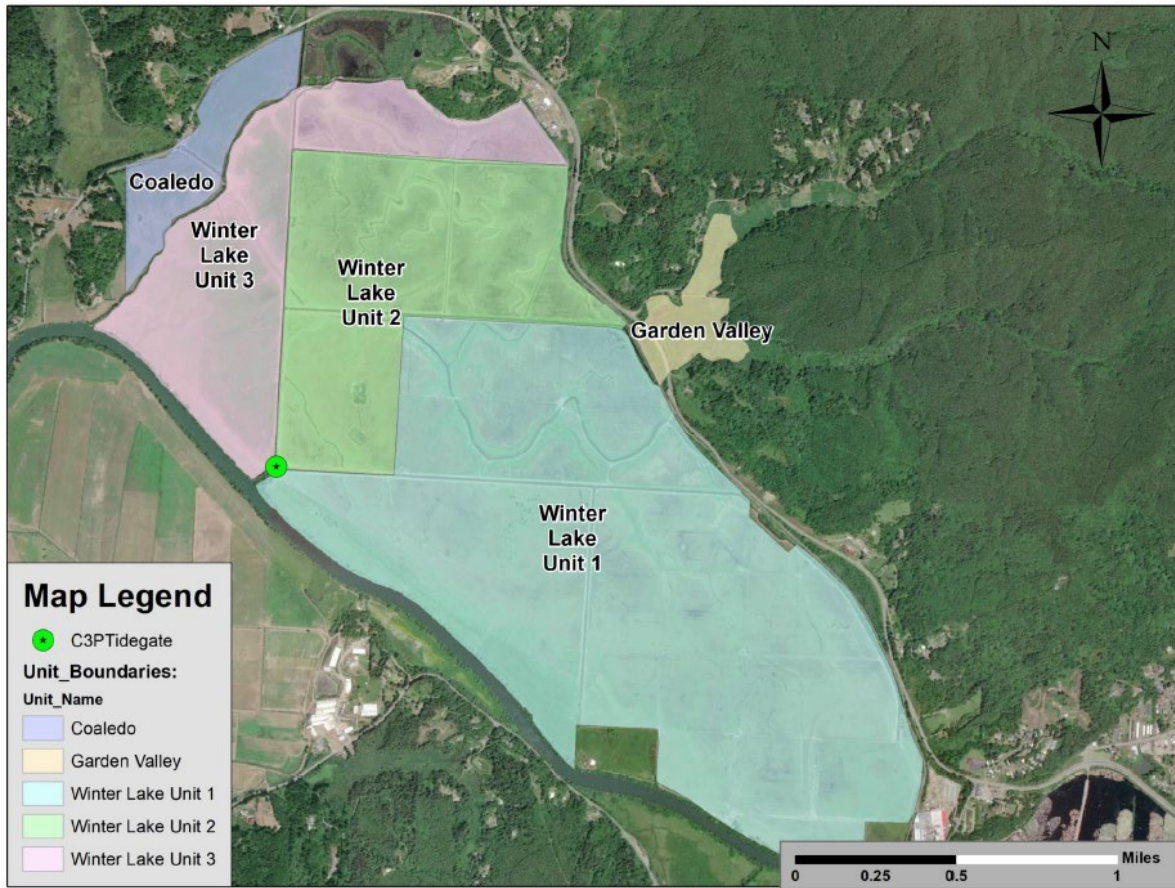
## II. BASIC FINDINGS

**LEGALLY CREATED UNITS OF LAND STATUS:** The Coos County Zoning and Land Development Ordinances requires that property are legally created pursuant to Article 6.1 Lawfully Created Lots and Parcels ORS 92. Staff found that all units of land that are part of the project are legally created units of land.

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SITE DESCRIPTION AND LAND USE HISTORY: The property was mainly farmland with drainage area including tidegates.



In 2016 an administrative conditional use was approved to allow:

- Replacement of the existing corrugated metal pipe (CMP) culvert and flap-gate tide gate structures with new concrete culverts and side-hinged tide gates, mounted on a vertical slide, controlled by a muted tidal regulator (MTR) and supplemental hydraulic power;
- Excavation of a new primary habitat channel and secondary tidal channels throughout Unit 2 properties;
- Placement of excavated material for topographic diversity and to fill in some existing linear drainage ditches;
- Modification of existing berms and creation of two new berms to isolate Unit 2 from adjacent agricultural properties;
- Excavation of a new alignment of the China Camp Creek canal (proposed North-South Canal) to further isolate the restored site from adjacent properties;
- Removal of nine (9) existing interior or channel crossing culverts (some with existing flap gates) and minor canal excavation in the Wheeler/ODFW canal;
- Installation of up to five (5) new interior culverts with side-hinged tide gate to allow continued drainage from two adjacent landowners in Units I and 3 into primary drainage canals after modifying berms (# depends on preferred drainage route for landowners);
- Installation of five (5) bridges to cross existing drainage canals and the new habitat channel on the ODFW property in Unit 2, to provide construction access, provide more reliable permanent access to the site after

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removal of the 9 culverts/flap gates for operation and maintenance of the drainage infrastructure, and to provide potential future public access to the ODFW property;

- Installation of a water control structure and side-hinged tide gate on China Camp Creek at Hwy 42 to prevent normal tidal fluctuations during spring, summer, and early fall from flooding low subsided areas upstream of the highway; and,
- Modification of the existing North Dike and excavation to relocate portions of historical channel along the north side of the upgraded dike in Unit 3 for construction access and permanent access for operation and maintenance for the BSDD;
- Canal maintenance on the North, East, and Messerle/Smith/Isenhart Canals to ensure water flow with the new culverts/tide gates (up to 30,000 linear feet of maintenance);
- Replacement of drainage culverts/tide gates on Messerle, Isenhart Ranch and Isenhart parcels to take advantage of the new flows/water regime with the new culverts/tide gates. These culverts will be the same 48-inch plastic pipes with side-hinged tide gates as proposed above.
- Re-vegetation in Unit 2 with native trees and shrubs.

2016 AERIAL IMAGE



2018 AERIAL IMAGE:



2022 AERIAL IMAGE:

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Since the 2016 application there have been other minor applications applied for to facilitate the project. The current application is referenced to as Phase III of the project.

**PROPOSAL:** According to the applicants the Winter Lake Phase III project is a working lands infrastructure rehabilitation project proposed on 1,290 acres of the 1,790 acre Beaver Slough Drainage District and two additional parcels totaling 99 acres in the Coaledo Drainage District. The project will replace/consolidate a total of 42 pasture culverts with associated tidegates, install over 90,000 ft of new and reconstructed tidal/farm drainage channel, repair five segments of failing berm, excavate deposited sediments from China Camp Creek, and install up to nine heavy use watering site troughs (see 404 Fill and Removal permit application and associated Additional Materials). The project area is fully within properties that are zoned as EFU, EFU/CREMP, and or EFU/IND. As such the proposed actions to rehabilitate drainage infrastructure for farming use are facilitatively allowed under the Coos County Planning Code. The lands are within the FEMA floodway Zone A. An engineer floodplain certification application documenting that the project complies with FEMA guidelines is in preparation for submission separately to accompany the 404 Fill and Removal permit application materials to the County Planning Department.

**REVIEW PERIOD:** The subject applications were submitted on December 21, 2023, and during the preliminary 30-day review, they were found to be complete for the purpose of review. The completeness review is defined in Section 5.0.200. Calculating the 150-day time frame to complete the review from January 19, 2024, which means a final decision of the county is required to be rendered no later than June 18, 2024. Upon receipt of a complete application, the Planning Department may take action on a conditional use request by issuing an administrative decision or scheduling a public hearing as determined by the applicable zoning. In this case, there appears to be some controversy with this matter which led to the decision to have the Board of Commissioners review the matter to see if they would be the decision-maker in place of the Planning Director.

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Originally the matter was scheduled for a formal hearing but after reviewing the language regarding pre-empting hearings by the Board of Commissioners it was found to be appropriate to have a work session to allow input on the matter regarding if a public hearing should be granted at this stage or allow the matter to move forward the administrative decision process.

The Board of Commissioners choose to pre-empt the Planning Director's review of the matter and hold a public hearing. An administrative conditional use process (Staff Decision) does not provide for interaction with the public and agency comments to understand concerns or allow the applicant to respond. Therefore, it is staff's opinion that a public hearing would be appropriate. Also, after staff has read some of the comments and assessed the likelihood of an appeal of a lower decision, staff does recommend that the Board of Commissioners hear the presentation and comments but reserve the merits of the matter directed to the criteria for a separate public hearing. Staff recommends setting this hearing in early April unless the applicant would like additional time to address the comments regarding how they relate to the criteria.

**PUBLIC AGENCY COMMENTS:** The Planning Department provided notice of the proposal on February 14, 2024. There have been no public agency comments received as of the date of this report. The project is subject to additional state and federal permitting processes and that is likely why there have been no agency comments at this level.


**PUBLIC COMMENTS:** The Planning Department mailed notice of the conditional use application to all property owners within 500 feet of the subject property on February 14, 2024 prior to the work session and then again on March 7, 2024 for the public hearing . Staff complied with all notice requirements of Section 5.0.900. Public comments were received and are referenced and summarized below. The full comments can be found at Attachment B.

Staff notes that seven (7) comments were received, six (6) in opposition or concerned over the proposal and one (1) in support.

- Exhibit 1        John Krall and Catherine Krall – Written testimony stating they are owners of property located directly across from the acreage included in Winter Lake Phase III. Expansion of the project will further exacerbate the mosquito problem making it impossible for Coquille residents to enjoy any outdoor activities from the beginning of August and into fall of the year. It is our position that no further expansion should be taken until the mosquito problem that was created by the first part of the project is resolved.
- Exhibit 2        Benny Hempstead, Adjacent Property Owner – Written testimony stating he is an adjacent property owner who owns tax lot 2300 Industrial / EFU, The Old Chromite Mill. He received a notice of a meeting in regards to future work to be done in the area surrounding my property in three directions: north, south, and west. He explained a few years back there was a project immediately west of my Tax Lot 2300, on Tax Lot 2100 owned by ODFW. The project lowered the dike on the west of what was referred to as The Old Luckman Parcel on Tax Lot 2100, opened up areas of the dike and installed two bridges allowing waters from the channels west of the dike to flow onto and flood the easterly areas of Tax Lot 2100, and deepened the water channels significantly from the main channel under bridges, and throughout the Old Luckman Parcel (now owned by ODFW). That project has permanently damaged my EFU land by allowing the flow of water through Tax Lot 2100 to flow on to my Tax Lot 2300, as a dike or berm on the east side of Tax Lot 2100 abutting my property was never constructed. Water that never reached my parcel is now allowed to flow freely and flood. No effort to prevent flooding on parcel 2300 was attempted.

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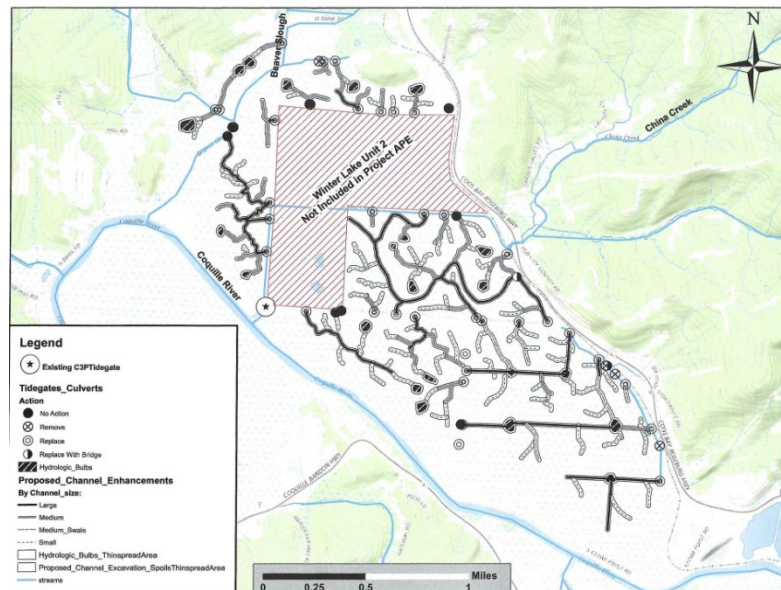
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He is concerned with approval of any work to be done on or through Parcel 2300 which could create flooding, deposits of soils, or modify water flows. Additionally, he objects to projects adjacent to his property that could now or in the future possibly cause damage or a loss of value to, due to activities created from any private project, permitted project, or Agency projects/work. He is in general supportive of projects such as restorations of lands designated for such projects, however does not support of over-reach of State or Federal agencies making significant modifications which create a negative impact on private properties. He is concerned about his financial investment of his land. It is my hope that ODFW would provide the required water dike on the westerly side of my land to protect my parcel 2300 from previous projects. The same for future projects as to the one being given notice to.

- Exhibit 3 Verna Rose, Land Owner – Written testimony she resides in the Beaver Slough Drainage District and opposes any land from being removed from the Drainage District without her request being honored. The testimony is related to the taxes being used for larger owner and no benefit for smaller owners.
- Exhibit 4 Sharon Waterman, Land Owner - Written testimony concerning the impacts to their farmlands and other farmland. She questions if this is all pre-wetland work under the disguise of irrigation, water quality and fish habitat. Stating that Oregon Department of Fish and Wildlife already is moving forward with acquisition of the Bridges Foundation property. The attached "Attachment A, Figure 12b" shows, in black and white, a considerable amount of grazing land will be removed from production to build channels but it does not show the fence and planting buffers which take up more grazing land in the project area.



Due to the fact they own a house in proximity to the proposed project, my major concern is mosquitos. The numerous "hydrologic bulbs" being built throughout the project area are concerning. "At the endpoints of selected channels, the project will construct 'hydrologic bulbs'. These habitat improvement actions will: a). Provide areas of greater depth long distances within the pasture networks where native fish, e.g. coho can shelter and feed during winter months prior to floodwaters rising and allowing fish to

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feed on pastures; b). These habitat improvement structures will provide volumetric areas at endpoints where the hydraulic forces of inflow/outflow will flush minor sediment accumulations from the length of the channel network downstream." "Hydrologic bulbs at the terminus of larger channel networks that provide a small basinal low area excavated to provide fish habitat in winter and channel flushing to move any accumulation of sediments from the channel network." These excavated "bulbs" (approximately 22 of them) will be filled with water during irrigation and rain events (Figure 12 & page 45 of 81). The concern is that the bulbs will retain water during hot summer weather especially after irrigation events and the water pools (bulbs) will enhance mosquito habitat. No one wants more mosquitos.


She goes on to explain that "parrot feather" is choking the waterways in the wetland. Its dense growth provides a breeding ground for mosquitos and it can degrade both water quality and habitat for fish and wildlife. There is concern with the potential for spread of this invasive on private property. She speculates that the parrot feather may have been transferred to this area during the last two phases of the Winter Lakes Project.

Sharon Waterman made some recommendations to the Board of Commissioners and/or Coos County Planning the following "conditions" on this Application:

- 1) ODFW should be required to utilize their CVWA Management Plan (mosquito section) and Vector Control Guidance for Sensitive Areas policy to treat the mosquitos in the existing wetland. BTI is one tool.
  - 2) BSDD landowners, Bridges Foundation, and ODFW should also be required to ensure all hydrologic bulbs have connectivity to the channels. The hydrologic bulbs should be designed to drain completely after each irrigation event to reduce the creation of more mosquito habitat.
  - 3) Invasive species (parrot feather and others) in the project area need to be eradicated prior to the beginning of the work. All equipment must be thoroughly cleaned and free from invasive species prior to entering the site.
- Exhibit 5 Gail Olsen and Eric Olsen, Property Owners – Written testimony that are property owners on Garden Valley echoed the same concerns that Sharon Waterman has expressed.
  - Exhibit 6 Jan Hopmans and Mieke Vandenreeck, Property Owners – Written testimony that she owns property in the Garden Valley area and has concerns about additional wetlands and mosquitoes. It appears she also requested to be removed from the Beaver Slough Drainage District.
  - Exhibit 7 Jeffrey Jackson, Fish Biologist – Written testimony in support of the Beaver Slough Drainage District's and Coos Soil and Water Conservation District's application for infrastructure upgrades as outlined in the Winter Lake Phase III project. He has been a fish biologist with nearly 25 years of experience working for federal, state and non-profit organizations in Oregon, Alaska and California, he expresses confidence that habitat restoration projects such as Winter Lake not only benefit salmon to a great degree, but also benefit drainage that increases use and productivity by agricultural landowners. Recent research at Winter Lake conducted by the Coquille Watershed Association has shown how incredibly productive off-channel areas are to coho salmon. Juvenile coho move downstream and seek areas to over-winter, get out of heavy winter flows and find food and shelter. Replacing internal tidegates will facilitate water movement and help juvenile salmon find their way out of the channels and canals as water temperatures become too high later in the spring. A suite of native fish and amphibians thrive in Winter Lake: steelhead, Cutthroat trout, Pacific lamprey can all be found there seasonally. And while it is true that a variety of non-native fish are present, active water management makes this a less hospitable environment for them to flourish. In addition to the natural

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resources benefits afforded by this project, Winter Lake Phase III will replace aging and non-functional infrastructure that will greatly benefit grazing and pasture management. As spring turns into summer, native fish move out of the project area, water can be drawn down, and Winter Lake goes into another mode of production – for livestock. Landowners can't turn their animals out until the land is dried out, and upgraded infrastructure will facilitate maximum use. That's the beauty of projects such as this: promote agricultural use in the summer and salmon in the winter.

- Exhibit 8 Susan and Lawrence Graham, Resident – Written testimony explain that they have lived the last two years since Fish and Game took over the wetlands with thousands of mosquitoes. They are opposed to the creation of additional wetlands as they will not help the situation.
- Exhibit 9 Verna Rose, Property Owner – Written testimony asking drainage questions, concerns about back up of water flow impacting drinking water sources from China Creek, issues with the makeup of the drainage district and benefits to one property owner.

### III. FINDINGS & CONCLUSIONS

Coos County Zoning and Land Development  
Chapter III – Estuary Zones

#### Coquille River Estuary Management Plan - Exclusive Farm Use (CREMP-EFU) Shoreland Segments

- *Exclusive Farm Use Shoreland Segments 23 (23-EFUS) and 26 (26-EFUS) shall be managed for the continuation of farm use as defined in ORS 215.203 (2) (a) and such other non-farm uses as are conditionally permitted in ORS 215.213. Mitigation shall also be permitted, and designated mitigation sites shall be protected against pre-emptory uses.*
- *Exclusive Farm Use Shoreland Segments: 27 (27-EFUS), 28 (28-EFUS), 31(31-EFUS), 32(32-EFUS), 33 (33-EFUS), 34 (34-EFUS), 36 (36-EFUS), 37 (37-EFUS), 41 (41-EFUS), 42 (42-EFUS), 43 (43-EFUS), 44 (44-EFUS), 47(47-EFUS), 53(53-EFUS), 55 (55-EFUS), 56 (56-EFUS), 60 (60-EFUS), 62 (62-EFUS), 73 (73-EFUS), 75 (75-EFUS) shall be managed for the continuation of farm use as defined in ORS 215.203 (2)(a) and such other farm uses as are conditionally permitted in ORS 215.213.*


**FINDING:** In the Estuary Zones the applicant is required to show how a proposal meets the management objective. The applicant is required to show that the use will continue and for the property to be managed for uses as defined in ORS 215.203 and such other farm uses as are conditionally permitted in ORS 215.213.

The applicant submitted supplemental application information on March 19, 2024 to address the estuary requirements regarding impacts to adjacent properties. The applicant explains that Proposed modifications to channels have been designed to provide tidal inflow access as well as improve drainage from interior pasture locations. All proposed new channels and any modifications to existing channel networks have been engineered on-grade to fully accommodate proper drain out and to address habitats where water could otherwise pond and develop conditions where there was potential for mosquito production. The overall Winter Lake Phase III project goals include:

- **substantively increasing pasture grass production through maintenance and enhancement of existing agricultural drainage infrastructure**

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- Substantively increasing capability of the project area to facilitate salmonid (specifically juvenile coho) access to and use of overwintering and rearing habitats
- Implementing generally accepted best management practices for the protection of agricultural water quality and reducing non-point source pollution.

Farm use is defined by ORS 215.203, “farm use” means the current employment of land for the primary purpose of obtaining a profit in money by raising, harvesting and selling crops or the feeding, breeding, management and sale of, or the produce of, livestock, poultry, fur-bearing animals or honeybees or for dairying and the sale of dairy products or any other agricultural or horticultural use or animal husbandry or any combination thereof. “Farm use” includes the preparation, storage and disposal by marketing or otherwise of the products or by-products raised on such land for human or animal use. “Farm use” also includes the current employment of land for the primary purpose of obtaining a profit in money by stabling or training equines including but not limited to providing riding lessons, training clinics and schooling shows. “Farm use” also includes the propagation, cultivation, maintenance and harvesting of aquatic, bird and animal species that are under the jurisdiction of the State Fish and Wildlife Commission, to the extent allowed by the rules adopted by the commission. “Farm use” includes the on-site construction and maintenance of equipment and facilities used for the activities described in this subsection. “Farm use” does not include the use of land subject to the provisions of ORS chapter 321, except land used exclusively for growing cultured Christmas trees or land described in ORS 321.267 (Lands not eligible for special assessment) (3) or 321.824 (Lands not eligible for special assessment) (3).

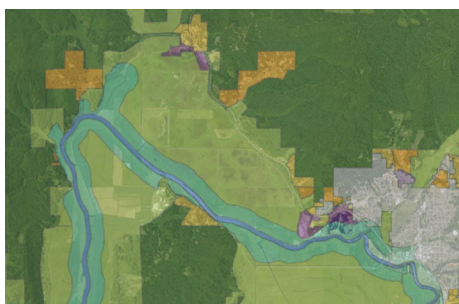
Given the understanding of the proposal is to facilitate enhanced pasture land for the purpose of farm use and increase aquatic and bird habitat the project complies with the management unit objective.

*SECTION 3.3.710 ADMINISTRATIVE CONDITIONAL DEVELOPMENT AND USE:*

*The following uses and their accessory uses may be allowed as administrative conditional uses in the “CREMP-EFU” zone subject to applicable requirements in Sections 3.3.730 and 3.3.740.*

1. *Diking (construction and maintenance). CREMP Policies #14, #18, #19, #22, #23, and #27.*
2. *Drainage and tide-gating. The applicable review criteria are CREMP Policies #14, #18, #19, #22, #23, and #27.*
3. *Fill. CREMP Policies #14, #18, #19, #22, #23, and #27. Use not permitted in Segment 26.*
13. *Shoreland structural stabilization. Flood elevation certificate required. CREMP Policies #9, #14, #23, #27, #18, #19, and #22. Use not permitted in Segment 47.*

**FINDING: Policies #14, #18, #19, #22, #23, and #27 and Sections 3.3.730 and 3.3.740 are required to be addressed as part of this project for the portions that will occur in the Coquille River Estuary Management Plan. The applicant has stated the project is consistent with the criteria and did submit supplemental documentation to further address Sections 3.3.730.**



**The area identified as bluish in color are subject to the estuary zone. The areas outside of the blue area are zoned Elusive Farm Use and not subject to the policies identified in this section.**

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## Coquille River Estuary Policies

- Policy #14 – General Policy Uses within the Rural Coastal Shorelands
- I. Coos County shall manage its rural areas with the "Coquille River Coastal Shorelands Boundary" by allowing only the following uses in rural shoreland areas, as prescribed in the management units of this Plan, except for areas where mandatory protection is prescribed by LCDC Goal #17 and #18:
- a. farm uses as provided in ORS 215;
  - b. propagation and harvesting of forest products consistent with the Oregon Forest Practices Act;
  - c. private and public water-dependent recreation developments;
  - d. aquaculture;
  - e. water-dependent commercial and industrial uses, water-related uses and other uses only upon a finding by the county that such uses satisfy a need which can not be accommodated on uplands or in urban and urbanizable areas or in rural areas built upon or irrevocably committed to non-resource use;
  - f. single family residences on lots, parcels, or units of land existing on January 1, 1977 when it is established that:
    1. the dwelling is in conjunction with a permitted farm or forest use, or
    2. the dwelling is in a documented "committed" area, or
    3. the dwelling has been justified through a goal exception, or
    4. such uses do not conflict with the resource preservation and protection policies established elsewhere in this Plan;
  - g. any other uses, provided that the Board of Commissioners determines that such uses satisfy a need which cannot be accommodated at other upland locations or in urban or urbanizable areas. In addition, the above uses shall only be permitted upon a finding that such uses do not otherwise conflict with the resource preservation and protection policies established elsewhere in this Plan.

This strategy recognizes (1) that Coos County's rural shorelands are a valuable resource and accordingly merit special consideration, and (2) that LCDC Goal #17 places strict limitations on land divisions within coastal shorelands. This strategy further recognizes that rural uses "a" through "g" above, are allowed because of need and consistency findings documented in the "factual base" that supports this plan.


**FINDING: The applicant has provided information to show how the use is consistent with a use permitted under ORS 215. Therefore, this has been addressed.**

- Policy #18: Protection of "Historical, Cultural and Archaeological Sites"

Local government shall provide special protection to historic and archaeological sites and shall continue to refrain from widespread dissemination of site-specific information about identified archaeological sites.

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I. This strategy shall be implemented by requiring review of all development proposals involving an archaeological or historical site to determine whether the project as proposed would protect the historical and archaeological values of the site.

II. The development proposal, when submitted shall include a site development plan showing, at a minimum, all areas proposed for excavation, clearing and construction. Within three (3) working days of receipt of the development proposal, the local government shall notify the Coquille Tribe in writing, together with a copy of the site development plan. The Coquille Tribe shall have the right to submit a written statement to the local government within Thirty (30) days of receipt of such notification, stating whether the project as proposed would protect the historical and archaeological values of the site, or, if not, whether the project could be modified by appropriate measure to protect those values. "Appropriate measures" may include, but shall not be limited to, the following:

- a. retaining the historic structure in-situ or moving it intact to another site; or
- b. paving over the site without disturbance of any human remains or cultural objects upon the written consent of the Tribe; or
- c. clustering development so as to avoid disturbing the site; or
- d. setting the site aside for non-impacting activities, such as storage; or
- e. if permitted pursuant to the substantive and procedural requirements of ORS 97.750 and 358.920, contracting with a qualified archaeologist to excavate the site and remove any cultural objects and human remains and reintering the human remains at the developer's expense.
- f. Using civil means to ensure adequate protection of the resources, such as acquisition of easements, public dedications, or transfer of title.


If a previously unknown or unrecorded archaeological site is encountered in the development process, the above measures shall still apply. Land development activities, which violate the intent of this strategy, shall be subject to penalties prescribed in ORS Chapter 97.990.

III. Upon receipt of the statement by the Tribe, or upon expiration of the Tribe thirty day (30) response period, the local government shall conduct an administrative review of the development proposal and shall:

- a. approve the development proposal if no adverse impacts have been identified, as long as consistent with other portions of this Plan, or
- b. approve the development proposal subject to appropriate measures agreed upon by the landowner and the Tribe, as well as any additional measures deemed necessary by the local government to protect the historical and archaeological values of the site. If the property owner and the Tribe cannot agree on the appropriate measures, then the governing body shall hold a quasi-judicial hearing to resolve the dispute. The hearing shall be a public hearing at which the governing body shall determine by preponderance of evidence whether the development project may be allowed to proceed, subject to any modifications deemed necessary by the governing body to protect the historical and archaeological values of the site.
- c. Through the "overlay concept" of this policy and the Special Considerations Map, unless an Exception has been taken, no uses other than propagation and selective harvesting of forest products consistent with the Oregon

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Forest Practices Act, grazing, harvesting wild crops, and low-intensity water-dependent recreation shall be allowed unless such uses are consistent with the protection of the historic and archaeological values, or unless appropriate measures have been taken to protect the historic and archaeological values of the site.

This strategy recognizes that protection of historical and archaeological sites is not only a community's social responsibility, is also legally required by ORS 97.745. It also recognizes that historical and archaeological sites are non-renewable cultural resources.

**FINDING: Staff provided notice to the Coquille Tribe. The Tribe has been involved with the project through the Corp permitting process and has not made in comments on the local process. Therefore, this has been addressed.**

- Policy #19: Management of "Wet-Meadow" Wetlands within Coastal Shorelands
- I. Coos County shall protect for agricultural purposes those areas defined as 'wet meadow' wetlands by the U.S. Fish and Wildlife Service but currently in agricultural use or with agricultural soils and not otherwise designated as "significant wildlife habitats" or "major marshes", unless an Exception allows otherwise. Permitted uses and activities in these areas shall include farm use and any drainage activities, which are necessary to improve agricultural production. Filling of these areas, however, shall not be permitted, so as to retain these areas as wildlife habitats during periods of seasonal flooding and high water tables, with the following exceptions:
- a. for transportation corridors where an Exception has been taken to Goal #3 (Agricultural Lands); or
  - b. agricultural buildings, where no alternative site exists on the applicant's property; or
  - c. minor improvements for which there is no practical alternative; or
  - d. where no fill permit is required under Section 404 of the Water Pollution Control Act; or
  - e. for priority dredged material disposal sites designated by this Plan for protection from pre-emptory uses.


Any activity or use requires notification of Division of State Lands, with their comments received prior to the issuance of any permits.

- II. This policy shall be implemented by designating these lands as "Agricultural Lands" on the Special Considerations Map and by making findings in response to a request for comment by the Division of State Lands, which show whether the proposed action is consistent with the Comprehensive Plan. This strategy recognizes:
- a. that protection of these areas for agricultural use is necessary to ensure the continuation of the local agricultural economy;
  - b. that improved drainage is necessary to maintain or enhance productivity by establishing preferred forage types;
  - c. that the present system of agricultural use in the Coquille Valley is compatible with wildlife habitat values because the land is used for agriculture during the season when the land is dry and therefore not suitable as wetland habitat, and provides habitat areas for wildfowl during the flooding season when the land is unsuitable for most agricultural uses; and
  - d. that these habitat values will be maintained provided filling is not permitted.

**FINDING: This property does have identified wet meadow wetlands. The wetlands are hydraulic soils and wetland plants but not identified as protected wetlands subject to this policy. Therefore, this policy is not applicable.**

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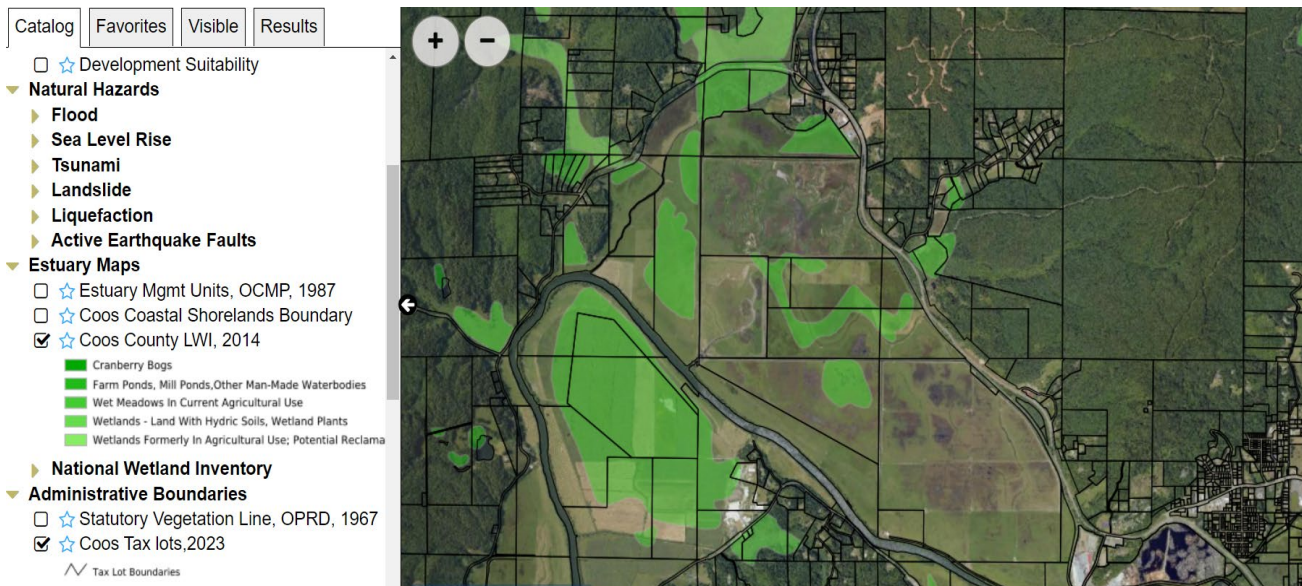
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- Policy #22: Mitigation Sites: Protection Against Pre-emptory Uses

Consistent with permitted uses and activities:

- ~ "High Priority" designated mitigation sites shall be protected from any new uses or activities which could preempt their ultimate use for this purpose.
- ~ "Medium Priority" designated mitigation sites shall also be protected from uses which would preempt their ultimate use for this purpose.

However, repair of existing dikes or tidegates and improvement of existing drainage ditches is permitted, with the understanding that the permitting authority (Division of State Lands) overrides the provisions of Policy #38. Wetland restoration actions designed to answer specific research questions about wetland mitigation and/or restoration processes and techniques, may be permitted upon approval by Division of States Lands, and as prescribed by the uses and activities table in this Plan.

- ~ "Low Priority" designated mitigation sites are not permanently protected by the Plan. They are intended to be a supplementary inventory of potential sites that could be used at the initiative of the landowner. Pre-emptory uses shall be allowed on these sites, otherwise consistent with uses and activities permitted by the Plan. Any change in priority rating shall require a Plan Amendment.

Except as provided above for research of wetland restoration and mitigation processes and techniques, repair of existing dikes, tidegates and improvement of existing drainable ditches, "high" and "medium" priority mitigation sites shall be protected from uses and activities which would preempt their ultimate use for mitigation.

I. This policy shall be implemented by:

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- a. Designating "high" and "medium" priority mitigation sites in the plan inventory.
- b. Implementing an administrative review process that allows uses otherwise permitted by this Plan but proposed within an area designated as a "high" or "medium" priority mitigation site only upon satisfying all of the following criteria:
  1. The proposed use must not entail substantial structural or capital improvements (such as roads, permanent buildings or non-temporary water and sewer connections);
  2. The proposed use must not require any major alteration of the site that would affect drainage or reduce the usable volume of the site (such as extensive site grading/excavation or elevation from fill); and
  3. The proposed use must not require site changes that would prevent the expeditious conversion of the site to estuarine habitat; or
  4. For proposed wetland restoration research projects in "medium" priority mitigation sites the following must be submitted:
    - i. A written approval of the project from Division of State Lands, and
    - ii. A description of the proposed research, resource enhancement and benefits expected
- c. Local government's review of and comment on state and federal waterway permit applications for dike/tidegate and drainage ditch actions.


This policy recognizes that potential mitigation sites must be protected from pre-emptory uses. However, "low priority" sites are not necessarily appropriate for mitigation use and are furthermore in plentiful supply. It further recognizes that future availability of "medium priority" sites will not be pre-empted by repair of existing functional dikes, tidegates and drainage ditches or otherwise allowed by this policy. This insures the continuation of agricultural production until such time as sites may be required for mitigation. This policy also recognizes that research activities designed to gain further understanding of wetland, restoration and mitigation processes and techniques are needed. The consideration of "medium priority" mitigation sites for this purpose will facilitate future identification and successful use of mitigation sites (OR 95-11-010PL 1/24/96).

**FINDING: According to the CCCP map this property is not located within a mitigation site. Therefore, this policy does not apply.**

- Policy #23: Riparian Vegetation and Streambank Protection
  - I. Local government shall strive to maintain riparian vegetation within the shorelands of the estuary, and when appropriate, restore or enhance it, as consistent with water-dependent uses. Local government shall also encourage use of tax incentives to encourage maintenance of riparian vegetation, pursuant to ORS 308.792 - 308.803.

Appropriate provisions for riparian vegetation are set forth in the CCZLDO Section 3.2.180 (OR 92-05-009PL).

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- II. Local government shall encourage streambank stabilization for the purpose of controlling streambank erosion along the estuary, subject to other policies concerning structural and non-structural stabilization measures.

This strategy shall be implemented by Oregon Department of Transportation (ODOT) and local government when erosion threatens roads. Otherwise, individual landowners in cooperation with the Ports of Bandon and Coquille, Coos Soil and Water Conservation District, Watershed Council, Division of State Lands and Oregon Department of Fish & Wildlife shall be responsible for bank protection.

This strategy recognizes that the banks of the Coquille Estuary are susceptible to erosion and has threatened valuable farm land, roads and other structures.

**FINDING: The applicant has provided a plan for stabilization of any disturbed areas but there are none anticipated within this project. The work is internal. Therefore, this has been addressed.**

- Policy #27: Floodplain Protection within Coastal Shorelands

The respective Flood Regulations of local governments set forth requirements for uses and activities in identified flood areas; these shall be recognized as implementing ordinances of this Plan.

This strategy recognizes the risk of substantial loss of stock and property damage resulting from the widespread flooding of the Coquille River Valley floor which occurs during most winters.

**FINDING: The applicant is required to address Section 4.11.251 for compliance with the relevant floodplain ordinance. This is done further on in the staff report.**

Section 3.3.730 – Criteria and Review Standards for Conditional Use Permits (Both Administrative & Hearings Body)  
A use may be allowed provided the following requirements are met:


1. Such uses will not force a significant change in accepted farm or forest practices on surrounding lands devoted to farm or forest use.
2. Will not significantly increase the cost of accepted farm or forest practices on lands devoted to farm or forest use.
3. Siting Standards for Dwellings and Structures in the EFU Zone. (Not Applicable)

**FINDING: The applicant is required to do an impacts analysis showing that the proposed use will not force a significant change in accepted farm or forest practices on surrounding properties zoned and devoted to farm or forest. The applicant shall address how the proposal will not increase the cost of accepted farm or forest practices on lands devoted to farm or forest use. The analysis is required to define the study area, look at current practices within that area and then make a determination if the current proposal will significantly force a change in accepted farm and forest practices and if it would increase the cost of accepted farm or forest practices. The applicant submitted this information on March 19, 2024. The full results of the study are found at Attachment A, Application Submittal.**

**The methodology used by the applicant is as follows:**

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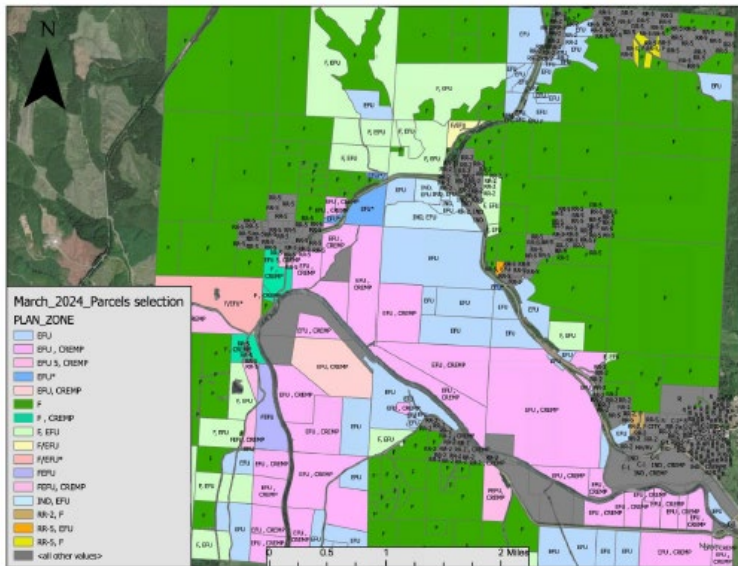
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The Geographic Scope of this analysis includes all parcels within an approximate 1-mile radius of the project area. For this analysis, only lands zoned for farm and/or forestry practices were considered. Properties with industrial, commercial, rural residential, or other zoning were not evaluated for impacts unless combined with a farm or forest plan zoning. It should be noted here that most of the Garden Valley area parcels are zoned RR-5 and were not analyzed according to the selected evaluation criteria.

The results provided a total of 234 parcels for consideration, 15 of which are already included in the proposed project area. Project Area parcels were evaluated separately (see applicants Appendix A. Winter Lake Phase III Project Area and Surrounding Lands Impacts Analysis Tables 1. And 2.) as well as in combination with surrounding land parcels.



Based on the provided details of this enhancement project within the Beaver Slough Drainage District and the Coaledo Drainage District, here are the anticipated significant changes in accepted farm or forest practices and associated costs for adjacent landowners that have been raised:

1. **Altered Drainage Patterns and Loss of Water Sources:** The replacement and consolidation of pasture culverts, installation of new drainage channels, and repair of failing berms may alter the drainage patterns within the affected areas. This could impact the way adjacent landowners manage water on their properties, potentially requiring adjustments to irrigation systems, drainage infrastructure, water sources or land grading practices. Landowners may need to invest in new equipment or infrastructure to adapt to the changed drainage conditions.
2. **Increased Maintenance Responsibilities:** The installation of new infrastructure, such as tidegates, drainage channels, and watering site troughs, may require ongoing maintenance by adjacent landowners. This could involve tasks such as cleaning debris from channels, inspecting and repairing tidegates, or managing vegetation around watering sites. Landowners may need to allocate resources for regular maintenance activities and potentially invest in equipment or labor to ensure the proper functioning of the infrastructure.

3. **Potential Pest and Invasive Plant Management:** Wetlands can serve as breeding grounds for mosquitoes and other pests, which may pose a nuisance to adjacent landowners, particularly during certain times of the year. The change the land may also bring in invasive plants and that can spread to adjacent properties. Landowners may need to implement pest and/or invasive plan management strategies to mitigate the impact of increased pest or plant populations on their farming or forestry activities. This could involve measures such as insecticide application, pesticide applications, habitat modification, or the installation of mosquito control devices, which may entail additional costs.
4. **Loss of Agricultural Lands:** The project could contribute to the ongoing loss of agricultural lands due to various factors. Firstly, the installation of new infrastructure and drainage systems may require the conversion of agricultural land into construction sites or water management areas, directly reducing the available acreage for farming activities. Additionally, alterations in drainage patterns and the introduction of wetlands as part of the project may render certain portions of agricultural land less suitable for cultivation, further diminishing the overall area available for farming. Furthermore, the potential increase in maintenance responsibilities for adjacent landowners could divert resources and attention away from agricultural activities, leading to reduced productivity or abandonment of agricultural land.

Overall, the wetland enhancement project is not likely to bring significant changes to accepted farm or forest practices and associated costs for adjacent landowners. The applicants have provided a comprehensive study to show that the project does not intend to have any significant changes to adjacent accepted farm or forest practices or significantly change the cost of Farm or Forest Practices. The applicant did provide additional information specific to the reductions of mosquito population as a result of this project.

Therefore, the applicant has addressed the criteria. However, the Board may find any of these issues relevant to adjacent farm and forest operations and find it appropriate to condition the application to address specific impacts to those adjacent properties.

Section 3.3.740 – Development and Use Standards

All dwellings and structures approved shall be sited in accordance with this section.

**FINDING:** Development and Use standards only apply to structures. There are no planned structures at this time; therefore, this criterion is not applicable.

#### CHAPTER IV - BALANCE OF COUNTY ZONES, OVERLAYS & SPECIAL CONSIDERATION

Section 4.6.200(8) – Exclusive Farm Use – Use Table - Diking, drainage, tide-gating, fill, mitigation, non-shoreland stabilization, dredge material disposal and restoration.


**FINDING:** In the EFU portion of the properties that are not located in the CREMP the use is permitted subject to notifications to Department of State Lands and the local Tribes. This is a permitted outright use and does not have any discretionary criteria. Therefore, there are no standards to apply. However, the property is subject to floodplain standards which is addressed in the next section.

Section 4.11.243(4) – Duties and Responsibilities of the Floodplain Administrator – Alteration of Watercourses

#### 4. Alteration of Watercourses

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- a. Notify adjacent communities, the Department of Land Conservation and Development and other appropriate state and federal agencies, prior to any alteration or relocation of a watercourse, and submit evidence of such notification to the Federal Insurance & Mitigation Administration.
- b. Require that maintenance is provided within the altered or relocated portion of said watercourse so that the flood carrying capacity is not diminished.

Section 4.11.251 – Floodplain - General Standards – Other Development \*\*\*

- 7. Other Development. Includes mining, dredging, filling, grading, paving, excavation or drilling operations located within the area of a special flood hazard, but does not include such uses as normal agricultural operations, fill less than 12 cubic yards, fences, road and driveway maintenance, landscaping, gardening and similar uses which are excluded from definition because it is the County’s determination that such uses are not of the type and magnitude to affect potential water surface elevations or increase the level of insurable damages.

Review and authorization of a floodplain application must be obtained from the Coos County Planning Department before “other development” may occur. Such authorization by the Planning Department shall not be issued unless it is established, based on a licensed engineer’s certification that the “other development” shall not:

- a. Result in any increase in flood levels during the occurrence of the base flood discharge if the development will occur within a designated floodway; or,
- b. Result in a cumulative increase of more than one foot during the occurrence of the base flood discharge if the development will occur within a designated flood plain outside of a designated floodway.


**FINDING: The applicant is required to address the cumulative increase as addressed by a licensed engineer. The applicant submitted a report that was completed by Ryan Wesley Kilgren, Kilgren Water Resources, LLC. Mr. Kilgren is a registered licensed professional civil engineer. The report documents hydraulic analysis demonstrating the proposed project will maintain the flood carrying capacity of the watercourse, and with no cumulative increase in the associated base flood inundation or base flood levels per Coos County Zoning and Land Development Ordinances Chapter 4 Section 4.11.251(7b) General Standards for other development. This hydraulic analysis evaluated the existing conditions and proposed conditions for the 1-percent annual chance exceedance flood event (i.e., the base flood) conditions documented in the FEMA Flood Insurance Study (FIS) for Coos County, Oregon and Incorporated Areas (FIS Number 41011CV001C with a revised date of December 7, 2018; FEMA 2018c). The analysis and this report provide documentation and support for compliance with Coos County Zoning and Land Development Ordinances Chapter 4 Section 4.11.251(7b) General Standards for other development, and the National Flood Insurance Program (NFIP) regulations governed by Title 44 of the Code of Federal Regulations (CFR) Section 60.3(d)(3). The full report is part of Attachment A.**

**IV. STAFF RECOMMENDATIONS – The Board of Commissioners will need to make the determination that implementing the proposed project will not necessitate substantial alterations to the established agricultural or forestry methods practiced on adjacent lands designated for such purposes and there will not be significant expenses associated from the project on accepted Farm or Forest practices on these designated lands. The applicant did provide analysis to show compliance. There were public comments not related to the relevant criteria.**

**In summary the issues seem to be: potential for alteration of drainage patterns and loss of water sources, increased maintenance responsibilities, potential pest and invasive plan management, and loss of additional agricultural land. The applicant has addressed these issues through their analysis and there is no other documentation in the record to dispute the analysis.**

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# ATTACHMENT A

## APPLICATION SUBMITTAL COOS COUNTY CONDITIONAL USE LAND USE APPLICATION



*SUBMIT TO COOS COUNTY PLANNING DEPT. AT 60 E. SECOND STREET OR MAIL TO:  
COOS COUNTY PLANNING 250 N. BAXTER, COQUILLE OR 97423. EMAIL  
[PLANNING@CO.COOS.OR.US](mailto:PLANNING@CO.COOS.OR.US) PHONE: 541-396-7770*

If the fee is not included the application will not be processed  
*(If payment is received on line a file number is required prior to submittal)*

Date Received: \_\_\_\_\_ Receipt #: \_\_\_\_\_ Amount: \_\_\_\_\_ Received by: \_\_\_\_\_

This application shall be filled out electronically. If you need assistance please contact staff.

Applications shall be submitted by the property owner or a purchaser under a recorded land sale contract. "Property owner" means the owner of record, including a contract purchaser.

The application shall include the signature of all owners of the property.

A legal representative may sign on behalf of an owner upon providing evidence of formal legal authority to sign.

### LAND INFORMATION

#### A. Property Owner(s)

Mailing address:

Phone:

Email:

Township: \_\_\_\_\_ Range: \_\_\_\_\_ Section: \_\_\_\_\_ ¼ Section: \_\_\_\_\_ 1/16 Section: \_\_\_\_\_ Tax lots: \_\_\_\_\_

Tax Account Number(s):

Zone: Select Zone

Tax Account Number(s)

#### B. Special Districts and Services

Water

Sewage Disposal

School

Fire District

#### C. Type of Application (s) please consult with staff to determine prior to submittal

Administrative Conditional Use for

Hearings Body Conditional Use for

Historical, Cultural and Archaeological Resources, Natural Areas of Wilderness

Beaches and Dunes

Non-Estuarine Shoreland Boundary

Significant Wildlife Habitat

Natural Hazards

Flood

Landslide

Liquefaction

Erosion

Wildfires

Airport Surfaces Overlay

Variance to which standard

Include the supplemental application with all criteria addressed. If you require assistance with the criteria please contact a land use attorney or professional consultant. Property information may be obtained from a tax statement or can be found on the County Assessor's web page at the following links:

[Map Information](#) Or [Account Information](#)

D. **ATTACHED WRITTEN STATEMENT.** With all land use applications, the “burden of proof” is on the applicant. It is important that you provide information that clearly describes the nature of the request and indicates how the proposal complies with all of the applicable criteria within the Coos County Zoning and Land Development Ordinance (CCZLDO). You must address each of the Ordinance criteria on a point-by-point basis in order for this application to be deemed complete. A planner will explain which sections of the Ordinance pertain to your specific request. The information described below is required at the time you submit your application. The processing of your application does not begin until the application is determined to be complete. An incomplete application will postpone the decision, or may result in denial of the request. Please mark the items below to ensure your submittal is complete.

Application Check List: Please make off all steps as you complete them.

- I. **PROPOSAL AND CRITERIA:** A written statement of intent, attached to this application, with necessary supporting evidence which fully and factually describes the following:
  1. Project summary and details including timelines.
  2. A complete explanation of how the request complies with the applicable provisions and criteria in the Zoning Ordinance. A planner will explain which sections of the Ordinance pertain to your specific request. You must address each of the Ordinance criteria on a point-by-point basis in order for this application to be deemed complete. This shall be addressed on the supplemental criteria page (see staff for criteria).
- II. **PLOT PLAN OR SKETCH PLAN:** A detailed drawing delineating the following:
  - Owner's name, address, and phone number, map and Tax lot number
  - North Arrow and Scale - using standard engineering scale.
  - Accurate shape and dimensions of parcel, development site, including the lengths of the all property lines.
  - Any adjacent public or private roads, all easements and/or driveway locations. Include road names. Driveway location and parking areas, including the distance from at least one property line to the intersection of the driveway and the road (apron area);
  - All natural features, which may include, but are not limited to water features, wetlands, ravines, slope and distances from features to structures.
  - Existing and proposed structures, water sources, sewage disposal system and distances from these items to each other and the property boundaries.
- III. **DEED:** A copy of the current deed, including the legal description, of the subject property. *See Attached Appendix A. Pages 11-19*
- IV. **CERTIFICATION:** I certify that this application and its related documents are accurate to the best of my knowledge. I am aware that there is an appeal period following the date of the Planning Director’s decision on this land use action. I understand that the signature on this application authorizes representatives of the Coos County Planning Department to enter upon the subject property to gather information pertinent to this request. If this application is referred directly to a hearings officer or hearings body I understand that I am obligated to pay the additional fees incurred as part of the conditions of approval. I understand that I/we are not acting on the county’s behalf and any fee that is a result of complying with any conditions of approval is the applicants/property owner responsibility. I understand that conditions of approval are required to be complied with at all time and an violation of such conditions may result in a revocation of this permit. If the property owner would like staff to contact a legal representative or consultant please provide the contact information using a consent form.

## **PROPERTY OWNER SIGNATURES REQUIRED FOR PROCESSING**

**(13) SIGNATURES**

Application is hereby made for the activities described herein. I certify that I am familiar with the information contained in the application, and, to the best of my knowledge and belief, this information is true, complete and accurate. I further certify that I possess the authority to undertake the proposed activities. By signing this application I consent to allow Corps or DSL staff to enter into the above-described property to inspect the project location and to determine compliance with an authorization, if granted. I hereby authorize the person identified in the authorized agent block below to act in my behalf as my agent in the processing of this application and to furnish supplemental information in support of this permit application. I understand that the granting of other permits by local, county, state or federal agencies does not release me from the requirement of obtaining the permits requested before commencing the project. I understand that payment of the required state processing fee does not guarantee permit issuance. To be considered complete, the fee must accompany the application to DSL. The fee is not required for submittal of an application to the Corps.

Fee Amount Enclosed \$

**Applicant Signature (required) must match the name in Block 2**

Print Name Fred R. Messerle	Title District Manager
--------------------------------	---------------------------

Signature <i>Fred R. Messerle</i>	Date 06/01/2022
--------------------------------------	--------------------

**Authorized Agent Signature**

Print Name Caley Sowers	Title District Manager
----------------------------	---------------------------

Signature <i>Caley Sowers</i>	Date 02/09/2023
----------------------------------	--------------------

**Landowner Signature(s)****Landowner of the Project Site (if different from applicant)**

Print Name Fred Messerle & Sons, Inc.	Title Secretary-Treasurer
--	------------------------------

Signature <i>Fred R. Messerle</i>	Date 6/10/2022
--------------------------------------	-------------------

**Landowner of the Project Site (if different from applicant)**

Print Name Everett-Ona Isenhart Ranch, Inc.	Title President
--	--------------------

Signature <i>Cynthia Henson</i>	Date 06/02/2022
------------------------------------	--------------------

**Landowner of the Project Site (if different from applicant)**

Print Name Laura Isenhart	Title <del>Owner</del> Trustee, Isenhart Living Trust
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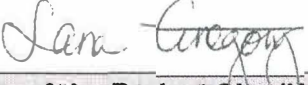
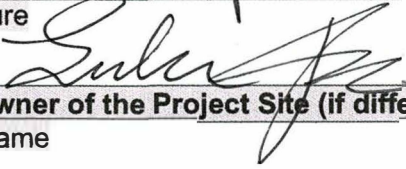
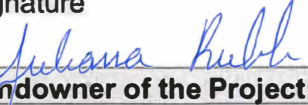
Signature <i>Laura Isenhart</i>	Date 6.10.22
------------------------------------	-----------------

**Landowner of the Project Site (if different from applicant)**

Print Name John Isenhart	Title <del>Trustee,</del> Isenhart Living Trust
-----------------------------	--

Signature <i>John Isenhart</i>	Date 6.10.22
-----------------------------------	-----------------



<b>Landowner Signature(s)*</b>	
<b>Landowner of the Project Site (if different from applicant)</b>	
Print Name Sara Gregory	Title ODFW, Umpqua Watershed District Manager
Signature 	Date April 13, 2022
<b>Landowner of the Project Site (if different from applicant)</b>	
Print Name Luke Fitzpatrick	Title Trustee, The Bridges Foundation
Signature 	Date 7-28-2022
<b>Landowner of the Project Site (if different from applicant)</b>	
Print Name Juliana Ruble	Title District 7 Permit Specialist
Signature 	Date 04.04.2023
<b>Landowner of the Project Site (if different from applicant)</b>	
Print Name	Title
Signature	Date

**ACCESS INFORMATION**

The Coos County Road Department will be reviewing your proposal for safe access, driveway, road, and parking standards. There is a fee for this service. If you have questions about these services please contact the Road Department at 541-396-7660.

Property Address: \_\_\_\_\_

Type of Access: \_\_\_\_\_ Name of Access: \_\_\_\_\_

Is this property in the Urban Growth Boundary? \_\_\_\_\_

Is a new road created as part of this request? \_\_\_\_\_

Required parking spaces are based on the use of the property. If this is for a residential use two spaces are required. Any other use will require a separate parking plan submitted that is required to have the following items:

- Current utilities and proposed utilities;
- Roadmaster may require drawings and specs from the Oregon Standards Specification Manual (OSSC) (current edition).
- The location and design of bicycle and pedestrian facilities shall be indicated on the site plan if this is a parking plan;
- Location of existing and proposed access point(s) on both sides of the road where applicable;
- Pedestrian access and circulation will be required if applicable. Internal pedestrian circulation shall be provided in new commercial, office, and multi-family residential developments through the clustering of buildings, construction of walkways, landscaping, accessways, or similar techniques;
- All plans (industrial and commercial) shall clearly show how the internal pedestrian and bicycle facilities of the site connect with external existing or planned facilities or systems;
- Distances to neighboring constructed access points, median openings (where applicable), traffic signals (where applicable), intersections, and other transportation features on both sides of the property;
- Number and direction of lanes to be constructed on the road plus striping plans;
- All planned transportation features (such as sidewalks, bikeways, auxiliary lanes, signals, etc.); and
- Parking and internal circulation plans including walkways and bikeways, in UGB's and UUC's.

Additional requirements that may apply depending on size of proposed development.

- a. Traffic Study completed by a registered traffic engineer.
- b. Access Analysis completed by a registered traffic engineer
- c. Sight Distance Certification from a registered traffic engineer.

Regulations regarding roads, driveways, access and parking standards can be found in Coos County Zoning and Land Development Ordinance [\(CCZLDO\) Article 7](#).

By signing the application I am authorizing Coos County Roadmaster or designee to enter the property to determine compliance with Access, Parking, driveway and Road Standards. Inspections should be made by calling the Road Department at 541-396-7660

**Coos County Road Department Use Only**

Roadmaster or designee: \_\_\_\_\_

Driveway

Parking

Access

Bonded

Date:

Receipt #

\_\_\_\_\_

File Number: DR-

**SANITATION INFORMATION**

If this is a request for a recreational, commercial, industrial, vacation rental, manufactured home park, mass or small gathering Coos Health and Wellness, Environmental Health Staff will be reviewing the proposal to ensure the use meets environmental health standards for sanitation and water requirements to serve the facility. If the proposal indicates that you are using a community water system a review may be required. A fee is charged for this service and shall be submitted with the application \$83.00. If you have questions about regulations regarding environmental health services please call 541-266-6720. This form is required to be signed off for any type of subdivision, recreational, commercial, industrial, vacation rental, manufactured home park, mass or small gathering.

Water Service Type: Choose a Service-Type.

Sewage Disposal Type: Choose a Type.

Please check  if this request is for industrial, commercial, recreational or home base business use and complete the following questions:

- How many employees/vendors/patrons, total, will be on site?
- Will food be offered as part of the an on-site business?
- Will overnight accommodations be offered as part of an on-site business?
- What will be the hours of operation of the business?

Please check  if the request is for a land division.

**Coos County Environmental Health Use Only:**

Staff Reviewing Application: \_\_\_\_\_

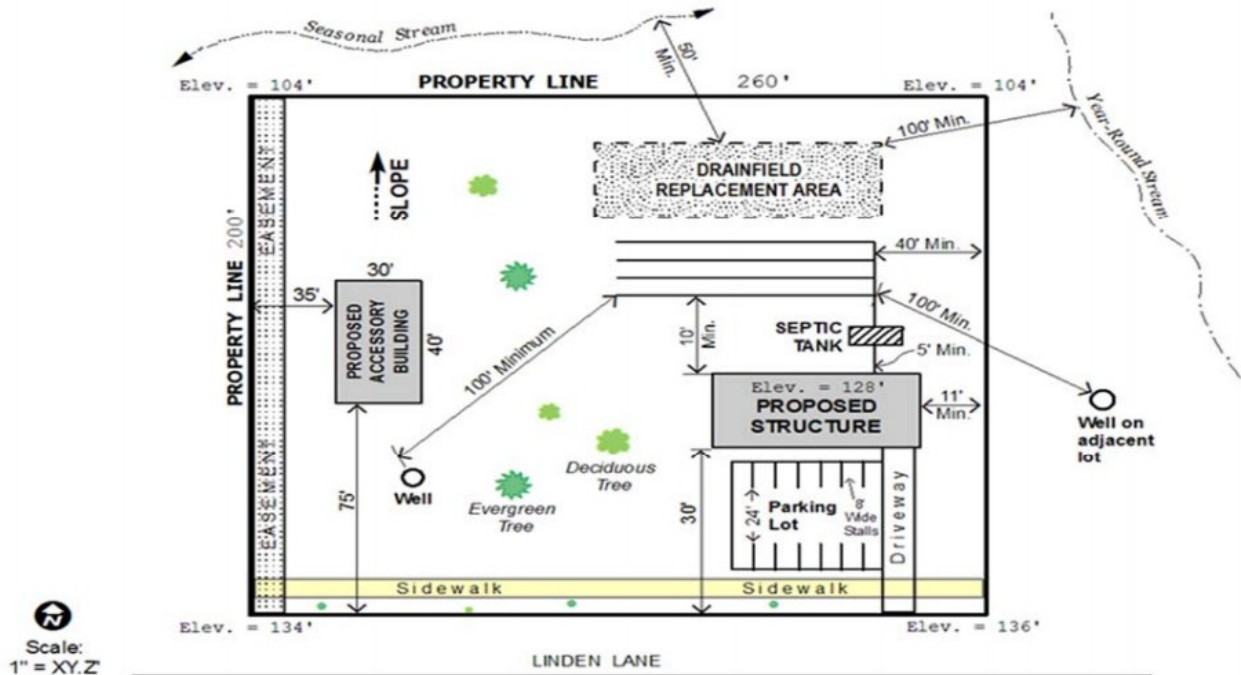
Staff Signature: \_\_\_\_\_

- This application is found to be in compliance and will require no additional inspections
- This application is found to be in compliance but will require future inspections
- This application will require inspection prior to determining initial compliance. The applicant shall contact Coos Health and Wellness, Environmental Health Division to make an appointment.

Additional Comments:

Plot Plan  
The grid for the plot plan is found on the next page

**SAMPLE PLOT PLAN**



**ITEMS THAT MUST BE ON THE PLOT PLAN:**

At a minimum, the site plan should provide information on the following items:

- Existing and proposed lot lines, lot or parcel numbers, and acreage/square footage of lots.
- Dimensions of all illustrated features (i.e. all structures, septic systems, driveways, roads, etc.)
- Significant natural features (slopes greater than 20%, geologic hazards, wetlands, drainage ways, rivers, streams, and the general location of existing trees, etc.).
- Existing easements (access, storm drainage, utility, etc.).
- Existing and proposed (structures, outbuildings, septic, etc.) on site and on adjoining properties.
- Existing and proposed road locations including widths, curbs, and sidewalks.
- Existing and proposed driveway approach locations on site, existing driveway approaches on adjoining properties on the same side of the street, and existing driveway approaches across the street from the site.
- Contiguous properties under the same ownership.
- General predevelopment topographical information (minimum 10' contour intervals).
- Location of utilities.
- If redevelopment is viable in the future, a redevelopment plan should be included.
- Preliminary site utility plan.
- Please add any additional Road or parking items from the parking form.



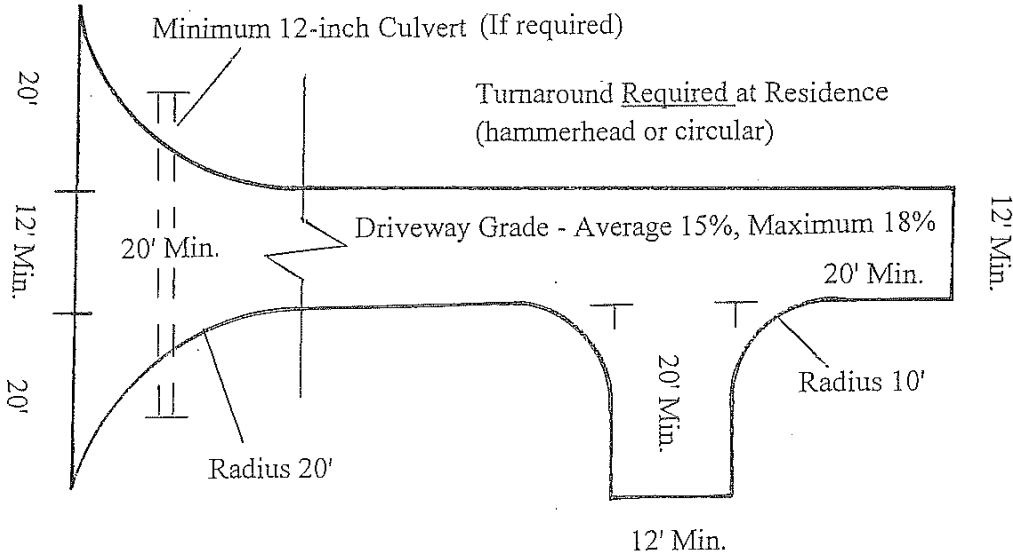
**ADDITIONAL DRIVEWAY, ROAD, PARKING STANDARDS  
DRIVEWAY STANDARDS DRAWING – SINGLE RESIDENCE**

Sight Distance Requirements (at the approach entrance)

- Speed less than 35 mph – 100' both directions
- Speed greater than 35mph – 150' both directions

All Weather Surface – minimum 4 – inches aggregate base or as required by Roadmaster.

Figure 7.1.425



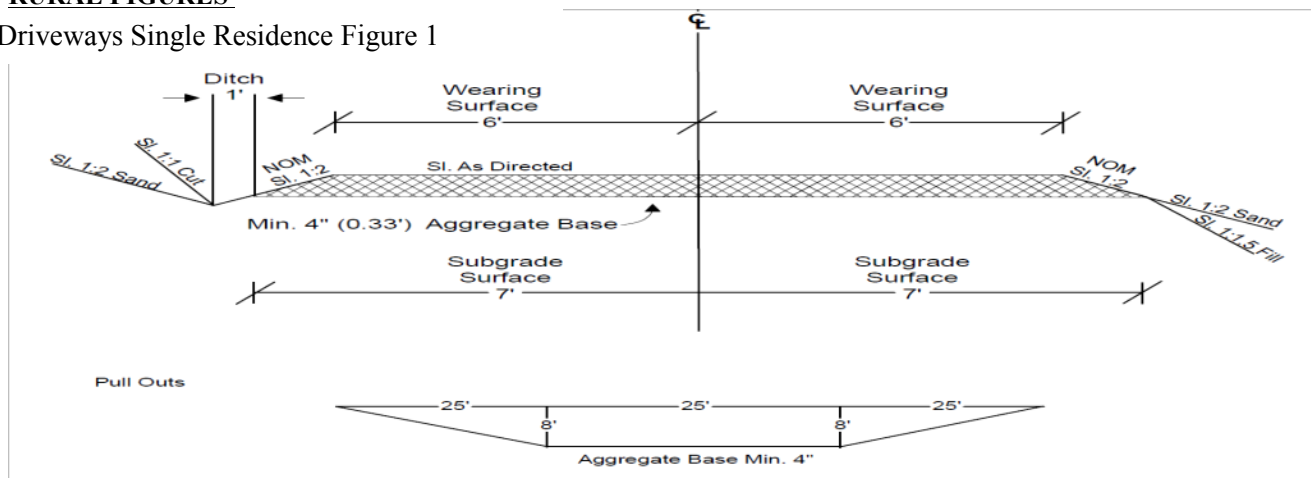
Construct appropriate ditches to prevent water runoff from discharging from the land onto a public road under county jurisdiction. Pursuant to ORS 368.256 the creation of a road hazard prohibited.

If driveway is over 1,000 ft., a pullout is required every 600 ft.

If a driveway cannot meet the maximum 18% grade then a legal agreement may be signed and recorded at the County Clerk's office releasing the County from any liability from such driveway development. This document must be referenced on the property deed to allow future purchasers know that the driveway does meet standard. A sign shall be placed at the bottom of the driveway to warn any users of the driveway that it is not built to standard. Proof must be filed with the Planning and Road Department that the documents have been filed and a sign has been placed. The form located on the following page must be completed, signed and recorded prior to any land use authorizations.

**RURAL FIGURES**

Driveways Single Residence Figure 1



FORESTRY, MINING OR AGRICULTURAL ACCESS:

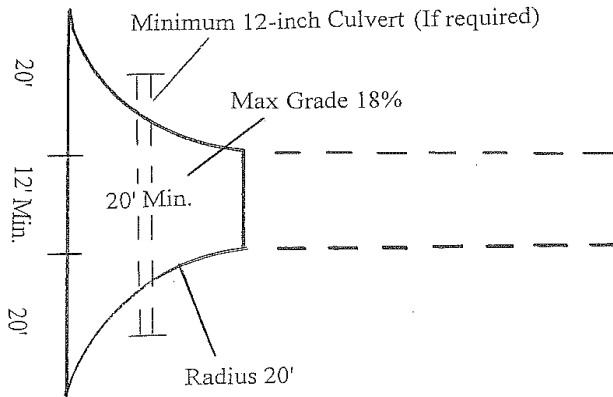
A private road which is created to provide ingress or egress in conjunction with the use of land for forestry, mining or agricultural purposes shall not be required to meet minimum road, bridge or driveway standards set forth in this ordinance, nor are such resource-related roads, bridges or driveways reviewable by the County. However, all new and re-opened forestry, mining or agricultural roads shall meet the access standards listed in this section.

**Forestry, Mining or Agricultural Access Standard drawing**  
Sight Distance Requirements (at the approach entrance)

- Speed less than 35 mph – 100’ both directions
- Speed greater than 35 mph – 150’ both directions

All Weather Surfaces – minimum aggregate base as required by the Roadmaster  
The access will be developed from the edge of the developed road.

Figure 7.1.450

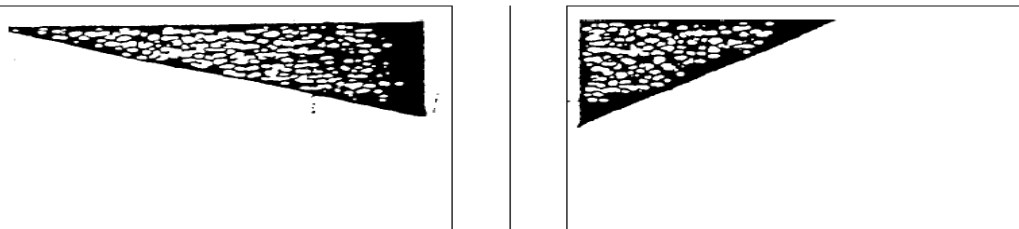
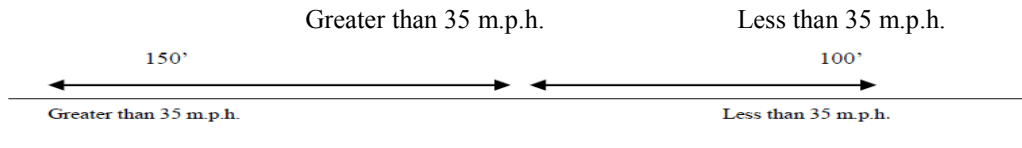


Construct appropriate ditches to prevent water runoff from discharging from the land onto a road under county jurisdiction. Pursuant to ORS 368.256 creation of a road hazard is prohibited.

**VISION CLEARANCE TRIANGLE:**

The following regulations shall apply to all intersections of streets and roads within all districts in order to provide adequate visibility for vehicular traffic. There shall be no visual obstructions over thirty-six (36) inches in height within the clear vision area established herein. In addition to street or road intersections, the provisions of this section shall also apply to mobile home park, recreational vehicle park, and campground accesses (entrances or exists).

The clear vision area shall extend along the right-of-way of the street for a minimum of 100 feet where the speed limit is less than 35 M.P.H.; and not less than 150 feet where the speed limit is greater than 35 m.p.h. The clear vision area shall be effective from a point in the center of the access not less than 25 feet back from the street right-of-way line.



PARKING STANDARDS

USE	STANDARD
Retail store and general commercial except as provided in subsection b. of this section.	1 space per 200 square feet of floor area, plus 1 space per employee. 1 Bicycle space
Retail store handling bulky merchandise (furniture, appliances, automobiles, machinery, etc.)	1 space per 600 square feet of floor area, plus 1 space per employee. 1 Bicycle space
Bank, general office, (except medical and dental).	1 space per 600 square feet of floor area, plus 1 space per employee. 1 Bicycle space
Medical or dental clinic or office.	1 ½ space per examination room plus 1 space per employee. 1 Bicycle space
Eating or drinking establishment.	1 space per 200 square feet of floor area, plus 1 space for every 4 seats. 1 Bicycle space
Bowling Alley	5 spaces per alley plus 1 space per 2 employees. 1 Bicycle space
Dance hall, skating rink, lodge hall.	1 space per 100 square feet of floor area plus 1 space per 2 employees. 1 Bicycle space
Stadium, arena, theater, race track	1 space per 4 seats or every 8 feet of bench length or equivalent capacity if no seating is provided. 1 Bicycle space
Storage warehouse, manufacturing establishment, or trucking freight terminal	1 space per employee. 1 Bicycle space
Wholesale establishment.	1 space per employee plus 1 space per 700 square feet of patron serving area. 1 Bicycle space
Welfare or correctional institution	1 space per 5 beds for patients or inmates, plus 1 space per employee. 1 Bicycle space
Convalescent hospital, nursing home, sanitarium, rest home, home for the aged.	1 space per 5 beds for patients or residents, plus 1 space per employee. 1 Bicycle space
Church, mortuary, sports arena, theater.	1 space for 4 seats or every 8 feet of bench length in the main auditorium. 1 Bicycle space
Library, reading room.	1 space per 400 square feet of floor area plus 1 space per employee. 1 Bicycle space
Preschool nursery, kindergarten.	2 spaces per teacher; plus off-street loading and unloading facility. 1 Bicycle space per 20 students
Elementary or junior high school.	1 space per classroom plus 1 space per administrative employee or 1 space per 4 seats or every 8 feet of bench length in the auditorium or assembly room whichever is greater. 1 Bicycle space per 10 students
High school	1 space per classroom plus 1 space per administrative employee plus 1 space for each 6 students or 1 space per 4 seats or 8 feet of bench length in the main Auditorium, whichever is greater. 1 Bicycle space per 20 students

Other auditorium, meeting room.	1 space per 4 seats or every 8 feet of bench length. 1 Bicycle space
Single-family dwelling.	2 spaces per dwelling unit.
Two-family or multi- family dwellings.	1 ½ spaces per dwelling unit. 1 bicycle space per unit for buildings with 4 or more units.
Motel, hotel, rooming or boarding house.	1 space per guest accommodation plus 1 space per employee.
Mobile home or RV park.	1 ½ spaces per mobile home or RV site.

Parking lot standards – Use the table above along with the area available to calculate the number of spaces required and determine the type of parking lot that needs to be created. The table below explains the spacing and dimensions to be used.

Minimum Horizontal Parking Widths for Standard Automobiles					
	One-way Parallel	30 deg	45 deg	60 deg	90 deg
<b>Figures</b>	A	B	C	D	E
<b>Single row of Parking</b>					
Parking Aisle	9'	20'	22'	23'	20'
Driving Aisle	12'	16'	17'	20'	24'
Minimum width of module (row and aisle)	21'	36'	39'	43'	44'
<b>Figures #'s</b>					
<b>Two Rows of Parking</b>					
Parking Aisle	18'	40'	44'	46'	40'
Driving Aisle	12'	16'	17'	20'	24'
Minimum width of module (row and aisle)	30'	56'	61'	66'	64'

For figures please see Coos County Zoning and Land Development Ordinance (CCZLDO) § 7.5.175.

**Please note: If you are developing in any wetlands or floodplain please contact Department of State Lands to ensure you are not required to obtain a state permit.**



## APPENDIX A.

### Winter Lake Phase III Restoration Project

#### *Assessment of Project Actions and Coos County Planning/Zoning*



*Prepared by,*

*Christopher W. Claire  
Habitat Protection Biologist  
ODFW  
Charleston, OR*

*Caley Sowers  
District Manager  
Coos Soil and Water Conservation District  
Coquille, OR*

## Introduction

The Winter Lake Phase III project is a working lands infrastructure rehabilitation project proposed on 1,290 acres of the 1,790 acre Beaver Slough Drainage District and two additional parcels totaling 99 acres in the Coaledo Drainage District. The project will replace/consolidate a total of 42 pasture culverts with associated tidegates, install over 90,000ft of new and reconstructed tidal/farm drainage channel, repair five segments of failing berm, excavate deposited sediments from China Camp Creek, and install up to nine heavy use watering site troughs (see 404 Fill and Removal permit application and associated Additional Materials). The project area is fully within properties that are zoned as EFU, EFU/CREMP, and or EFU/IND. As such the proposed actions to rehabilitate drainage infrastructure for farming use are facilitatively allowed under the Coos County Planning Code. The lands are within the FEMA floodway Zone A. An engineer floodplain certification application documenting that the project complies with FEMA guidelines is in preparation for submission separately to accompany the 404 Fill and Removal permit application materials to the County Planning Dept. All potentially affected parcels are noted in Table 1. Herefore, this report is written feedback for specifically applicable planning criteria that directly guide project actions within these zoning codes. Ownership documentation in Appendix A.

Table 1. Winter Lake Phase III taxlot parcels within and included in project action area.

<b>Owner Name</b>	<b>TLID</b>	<b>Tax Account #</b>	<b>Plan Zoning</b>
<i>BRIDGES FOUNDATION LANDS</i>	27S13W29TL0010300	99916787	EFU , CREMP
<i>BRIDGES FOUNDATION LANDS</i>	27S13W20TL0150300	99916790	EFU*
<i>BRIDGES FOUNDATION LANDS</i>	27S13W29TL0010100	717600	EFU , CREMP
<i>BRIDGES FOUNDATION LANDS</i>	27S13W28TL0040000	717402	EFU
<i>BRIDGES FOUNDATION LANDS</i>	27S13W28TL0060000	717401	EFU
<i>BRIDGES FOUNDATION LANDS</i>	27S13W27TL0040000	716702	EFU
<i>BRIDGES FOUNDATION LANDS</i>	27S13W27TL0050000	716800	EFU
<i>BRIDGES FOUNDATION LANDS</i>	27S13W28TL0070000	717500	EFU
<i>EVERETT-ONA ISENHART RANCH,INC; ETAL</i>	27S13W33TL0010000	721202	EFU , CREMP
<i>ISENHART, JOHN &amp; LAURA J TTEE</i>	27S13W33TL0020000	721200	EFU , CREMP
<i>FRED MESSERLE &amp; SONS, INC.</i>	27S13W34TL0080000	722300	EFU , CREMP
<i>FRED MESSERLE &amp; SONS, INC.</i>	28S13W03TL0010000	898300	EFU , CREMP
<i>FRED MESSERLE &amp; SONS, INC.</i>	27S13W35CTL0090000	724600	EFU
<i>OREGON DEPARTMENT OF FISH/WILDLIFE</i>	27S13W21TL0240500	712904	IND, EFU
<i>STATE OF OREGON</i>	27S13W34TL0089900	7715000	EFU

## Responses to Applicable Coos Planning Code Criterion

### Criterion One

#### **SECTION 3.3.710, pg 491 ADMINISTRATIVE CONDITIONAL DEVELOPMENT AND USE:**

*The following uses and their accessory uses may be allowed as administrative conditional uses in the "CREMP-EFU" zone subject to applicable requirements in Sections 3.3.730 and 3.3.740.*

1. *Diking (construction and maintenance). CREMP Policies #14, #18, #19, #22, #23, and #27.*
2. *Drainage and tide-gating. CREMP Policies #14, #18, #19, #22, #23, and #27.*
3. *Fill. CREMP Policies #14, #18, #19, #22, #23, and #27. Use not permitted in Segment 26.*
5. *Dredge material disposal. CREMP Policies #14, #18, #19, #20, #22, #23, and #27. DMD is to include stabilization measures to control run-off and prevent sloughing. Use not permitted in Segment 26.*
13. *Shoreland structural stabilization. Flood elevation certificate required. CREMP Policies #9, #14, #23, #27, #18, #19, and #22. Use not permitted in Segment 47.*

#### **Winter Lake Phase III Project Information in regard to Criterion One**

##### **Response items #1-5):**

- *The Winter Lake Phase III project will address insufficient culvert size at 42 existing interior pasture drain culverts upstream of the Winter Lake Phase I control point large tidegates installed in 2017 and upstream of the Coaledo Tidegates upgraded last in the 1990's. Project actions are within Zoning codes EFU, EFU/IND, and EFU/CREMP. The full suite of project actions, tactics, and Best Management Practices are illuminated in detail within the 404 Fill and Removal permit application and associated Additional Materials submitted with this assessment.*
- *The project will address rehabilitation of five segments of existing dike, installation of new larger culverts and upgraded tidegates, place fill to 3" depths in accordance with Oregon Department of State Lands (DSL) and U.S. Army Corps of Engineers (USACE) guidelines, and dispose of dredge fill through 3" thinspread in alignment with DSL/USACE. All actions are designed to minimize effects to the floodplain and estuary habitat in accordance with the National Marine Fisheries Service (NMFS) Tidal Area Restoration Programmatic (TARP), which requires construction actions within tidal areas to be implemented with specific tact and measures to minimize negative effects.*
- *The project materials will include (in progress) an engineer Flood certification (in progress) for submission to the County providing documentation the project will align with the FEMA Floodway guidelines for the project area, which is designated Zone A.*

## Criterion Two

### **SECTION 3.3.730, pg 495 CRITERIA AND REVIEW STANDARDS FOR CONDITIONAL USE PERMITS (BOTH ADMINISTRATIVE AND HEARINGS BODY)**

*A use may be allowed provided the following requirements are met:*

- 1. Such uses will not force a significant change in accepted farm or forest practices on surrounding lands devoted to farm or forest use.*
- 2. Will not significantly increase the cost of accepted farm or forest practices on lands devoted to farm or forest use.*
- 3. Siting Standards for Dwellings and Structures in the EFU Zone. The following siting criteria shall apply to all dwellings, including replacement dwellings and structures in the EFU zone. Replacement dwellings may be sited in close proximity to the existing developed homesite. These criteria are designed to make such uses compatible with forest operations and agriculture, to minimize wildfire hazards and risks and to conserve values found on agricultural lands. These criteria may include setbacks from adjoining properties, clustering near or among existing structures, siting close to existing roads, and siting on that portion of the parcel least suited for agricultural uses, and shall be considered together with the requirements in Section 3.3.740 to identify the building site. Dwellings and structures shall be sited on the parcel so that:
  - a. They have the least impact on nearby or adjoining forest or agricultural lands;*
  - b. The siting ensures that adverse impacts on forest operations and accepted farming practices on the tract will be minimized;*
  - c. The amount of agricultural lands used to site access roads, service corridors, the dwelling and structures is minimized; and*
  - d. The risks associated with wildfires are minimized.**

### ***Winter Lake Phase III Project Information in regard to Criterion Two***

**Response items #1-3):**

- The Winter Lake project is designed specifically to improve the functional production of forage grasses, while allowing for increased ecological productivity. The project will provide substantial benefit to the farming/ranching operations. The project is expected to improve irrigation water delivery and benefit operations costs of ranching/farming. No dwellings, barns, or similar structure will be installed/sited within the project area as part of the project.*

## Criterion Three

### **SECTION 3.3.740, pg 496 DEVELOPMENT AND USE STANDARDS**

***Development Standards*** All dwellings and structures approved shall be sited in accordance with this section.

### ***Winter Lake Phase III Project Information in regard to Criterion Three***

**Response:**



- *The Winter Lake Phase III project will not implement installation of any housing, dwelling, barn, or other similar infrastructure. The project is designed to minimize removal of riparian woody vegetation. The actions of the project will include installation of 72,000ft of fencing to provide for planting of native riparian woody species (willow, cottonwood, ash) along selected reconstructed/new channels. This riparian enhancement is a critical component of the design of the project with the goal of improving water quality (temperature and dissolved oxygen).*

## **Criterion Four**

### **SECTION 4.6.200, EXCLUSIVE FARM USE – USE TABLES:**

*Table II identifies the uses and activities in the Exclusive Farm Use (EFU) zone. The tables describe the use, type of review, applicable review standards and Section 4.6.210 Development and Siting Standards. Properties that are located in a Special Development Consideration and/or overlays shall comply with the applicable review process identified by that Special Development Consideration and/or overlay located in Article 4.11.*

### ***Winter Lake Phase III Project Information in regard to Criterion Four***

#### **Response:**

- *The Winter Lake Phase III project will enhance riparian habitat through project actions which in compliance with the CREMP goals. The channel excavation, installation of interior field drain culverts/tidegates and fence construction are allowed actions under the Exclusive Farm Use.*

## **Criterion Five**

### **SECTION 4.6.210, pg 142 ADMINISTRATIVE CONDITIONAL DEVELOPMENT AND USE:**

*The following uses and their accessory uses may be allowed as administrative conditional uses in the "Exclusive Farm Use" zone and "Mixed Use" overlay subject to the applicable requirements in and applicable siting and development requirements. Additional conditional use review criteria can be found in § 4.6.230 and must be addressed unless otherwise specified by the ordinance.*

*i. Creating of, restoration of, or enhancement of wetlands. The removal of high value farmland from agricultural production for the purpose of creating wetlands except within 35 feet of the mean high water mark (extended riparian vegetation area). The applicant must address floodplain requirements.*

### ***Winter Lake Phase III Project Information in regard to Criterion Five***

#### **Response:**

- *The project will improve inflow outflow drainage from the Beaver Slough Drainage District (BSDD) and Coaledo Drainage District (CDD) lands where work will be completed. Improvement of drainage will be accomplished by replacing undersized culverts with new appropriately sized infrastructure addressing issues at 42 locations in the Winter Lake floodplain and reconstructing/installing a greatly increased channel network.*

- *The project is designed to enhance Exclusive Farm Use and Coquille River Estuary Management Plan (EFU/CREMP) habitat function for native fish and wildlife. The improved drainage will facilitate reduced water souring of pasture soils and allow for appropriate irrigation in the summer months. Management of water during winter through the new tidegates*
- *The proposed project actions have been reviewed and evaluated for relationship to the 100 year floodflow levels. The project floodplain certification is currently in progress by the project engineer to delineate that the project will not result in greater than 1.0ft of floodwater rise associated with the 100yr flood.*

### Criterion Six

#### **SECTION 4.6.230, 4.6.230, pg 194 CRITERIA AND REVIEW STANDARDS FOR CONDITIONAL USE PERMITS (BOTH ADMINISTRATIVE AND HEARINGS BODY):**

*A use may be allowed provided the following requirements are met:*

- 1. Such uses will not force a significant change in accepted farm or forest practices on surrounding lands devoted to farm or forest use.*
- 2. Will not significantly increase the cost of accepted farm or forest practices on lands devoted to farm or forest use.*
- 3. Siting Standards for Dwellings and Structures in the EFU Zone. The following siting criteria shall apply to all dwellings, including replacement dwellings and structures in the EFU zone. Replacement dwellings may be sited in close proximity to the existing developed homesite. These criteria are designed to make such uses compatible with forest operations and agriculture, to minimize wildfire hazards and risks and to conserve values found on agricultural lands. These criteria may include setbacks from adjoining properties, clustering near or among existing structures, siting close to existing roads, and siting on that portion of the parcel least suited for agricultural uses, and shall be considered together with the requirements in § 4.6.240 to identify the building site. Dwellings and structures shall be sited on the parcel so that:*
  - a. They have the least impact on nearby or adjoining forest or agricultural lands.*
  - b. The siting ensures that adverse impacts on forest operations and accepted farming practices on the tract will be minimized.*
  - c. The amount of agricultural lands used to site access roads, service corridors, the dwelling and structures is minimized.*
  - d. And The risks associated with wildfires are minimized.*

#### **Winter Lake Phase III Project Information in regard to Criterion Six**

- *The Winter Lake Phase III project is designed to improve the drainage and irrigation capacity for the lands that are in the project area. Accordingly, the project goals will maintain or increase function for farming use. There is not forestry use on the project area. Project actions will not have offsite effects to neighboring properties.*

- *The project actions (reconstructed/new channels, culverts, water control structures) will provide infrastructure that will reduce the effort of the agricultural landowners to manage water levels that occur from flooding and rainfall on the pastures. In that context the cost to manage the lands will be maintained or reduced over current levels.*
- *No structures such as houses, barns, sheds, or other will be constructed as part of this project.*

### Criterion Seven

#### **SECTION 4.6.240, pg 194 DEVELOPMENT AND USE STANDARDS**

**Development Standards** *All dwellings and structures approved shall be sited in accordance with this section.*

#### **Winter Lake Phase III Project Information in regard to Criterion Seven**

*1). The Winter Lake Phase III project will not implement construction of houses, barns, or similar structures or roads, thus this Section 4.6.240, 1-9 are not applicable.*

*2. The project area has few if any trees, however, riparian sedges and grass vegetation will be impacted through excavation actions that will be used to construct channels, rebuild berms, and install new culverts. ODFW guidance for the project has been incorporated to develop tactics and strategies that minimize impacts to the riparian vegetation and wetlands. ODFW technical oversight is noted as an approved pathway for compliance with the county ordinance 4.6.240 (10)(d).*

### Criterion Eight

#### **SECTION 4.11.125, 4.11.125(3), pg 228 SPECIAL DEVELOPMENT CONSIDERATIONS:**

*The considerations are map overlays that show areas of concern such as hazards or protected sites. Each development consideration may further restrict a use. Development considerations play a very important role in determining where development should be allowed in the Balance of County zoning. The adopted plan maps and overlay maps have to be examined in order to determine how the inventory applies to the specific site.*

#### **Winter Lake Phase III Project Information in regard to Criterion Eight**

*Section 1, 2, 4, and 7 not applicable*

*Section 3. Historical, Cultural and Archaeological Resources, Natural Areas and Wilderness (Balance of County Policy 5.7): The Winter Lake Phase III project area has legacy berms/dikes that were constructed in 1908 and 1909 when the interior pasture canals were excavated (see DSL/USACE 404 Fill and Removal permit application). These berms have been altered repeatedly over the years through repair and additional excavation events. These berms will not be permanently altered in character or nature during rebuilding as the rebuilt sections will be blended in to match with those segments that need no repair.*

*Section 5. 5. Non-Estuarine Shoreland Boundary (Balance of County Policy 5.10)*

- *Riparian Vegetation*
- *Wetlands under agricultural use*

*The Winter Lake Phase III project is designed to reconstruct and install channels, replace existing culverts, and water control structures that will improve the wetland hydrology and facilitate a more functional level of pasture management. Riparian vegetation in the project area consists of sedges and grasses. These cover types and all channel adjacent vegetation will be benefitted by the more natural inflow/outflow tidal regimes that will be able to be incorporated as a goal of the project.*

*Section 6. Significant Wildlife Habitat (Balance of County Policy 5.6): The wetland pastures comprise the majority of the work area (other than berms). These pastures are able to serve as high quality habitat for juvenile anadromous fish. The current undersized culverts and lack of channel networks inhibit full wetland function and access for anadromous fish. This project has as a major goal incorporated features that will improve the access for juvenile anadromous fish to rear and feed in the wetland pastures. As such the project proposed actions fully support County Planning goals in Section 6 of 4.11.125, 4.11.125(3).*

### Criterion Nine

**SECTION 4.11.217, pg 249; PROCEDURAL REQUIREMENTS FOR DEVELOPMENT WITHIN SPECIAL FLOOD HAZARD AREAS:**

4. Other Development. Includes mining, dredging, filling, grading, paving, excavation or drilling operations located within the area of a special flood hazard, but does not include such uses as normal agricultural operations, fill less than 12 cubic yards, fences, road and driveway maintenance, landscaping, gardening and similar uses which are excluded from definition because it is the County's determination that such uses are not of the type and magnitude to affect potential water surface elevations or increase the level of insurable damages.

Review and authorization of a floodplain application must be obtained from the Coos County Planning Department before "other development" may occur. Such authorization by the Planning Department shall not be issued unless it is established, based on a licensed engineer's certification that the "other development" shall not:

- a. Result in any increase in flood levels during the occurrence of the base flood discharge if the development will occur within a designated floodway. or,
- b. Result in a cumulative increase of more than one foot during the occurrence of the base flood discharge if the development will occur within a designated flood plain outside of a designated floodway.

***Winter Lake Phase III Project Information in regard to Criterion Nine***

1). *The Winter Lake Phase III project designs and proposed actions have been developed by ODFW, the Coos Soil and Water District, the Beaver Slough Drainage District, and are under review by an Oregon Licensed engineer. The Oregon licensed engineer is currently developing information to support the proposed designs do not have attributes or features incorporated into the project that will: a). Not raise the base flood discharge; and b). Will not result in a cumulative increase of more than one foot during the occurrence of the base flood discharge. (see attached floodplain certification).*

## Criterion Ten

### **SECTION 4.11.231, pg 255; ALTERATION OF WATER COURSES:**

*If a development application proposes a stream, creek or other water body relocation or alteration, Coos County shall:*

- 1. Notify affected cities and the State Coordinating Agency (Department of Land Conservation and Development – DLCD) and other appropriate state and federal agencies prior to any alteration or relocation of a water course, and shall submit evidence of such notification to the Federal Insurance Administration at the following address (or if the office moves, at any subsequent address):*

*Federal Insurance Administration  
500 C Street SW*

*Washington, DC 20472*

- 2. Require that maintenance is provided within the altered or relocated portion of said water course so that the flood carrying capacity is not diminished.*

### **Winter Lake Phase III Project Information in regard to Criterion Ten**

*Note: The Winter Lake Phase III project will realign tidal/drainage channels, however, they are within the control and upstream of the Winter Lake Beaver Slough Drainage District C3P tidegate. As such the realignment of drainage networks is subservient hydrologically to that tidegate structure and the associated Water Management Plan.*

- The project will install numerous additional on grade channels within agricultural wetland pastures that follow historical tidal channel paths and provide hydrologic connectivity that mimics conditions that were present pre-European settlement.*
- These channels and increased culvert sizes on pasture channels will provide for improved pasture drainage and designs have been evaluated to not have potential to raise the floodflows as is specified with FEMA guidelines.*
- There will not be impacts to adjacent properties associated with the project actions.*
- Channels and culverts will increase the outflow capacity improving hydrologic function. Channels will be inspected by landowners annually for drainage function and if there is an accumulation of material that needs cleaned it will be addressed.*



Appendix A. Ownership documentation for parcels within the Winter Lake Phase III project area.

RECORDING REQUESTED BY:



105 E 2nd Street  
Coquille, OR 97423

Luke E. Fitzpatrick as trustee of The Bridges Foundation  
approves this document and conveyance

X

Luke E. Fitzpatrick, trustee of  
The Bridges Foundation

Dated: \_\_\_\_\_

**GRANTOR'S NAME:**

Hanna Elizabeth Hart, Successor Trustee of the Maria Concepcion  
Frias 1996 Revocable Trust dated August 12, 1996 as amended  
and restated on October 9, 2006

**GRANTEE'S NAME:**

The Bridges Foundation

**AFTER RECORDING RETURN TO:**

Order No.: 360621038553-TT  
The Bridges Foundation, an Oregon non-profit corporation  
Attn: Luke Fitzpatrick, Trustee, PO Box 1123  
Turner, OR 97392

**SEND TAX STATEMENTS TO:**

The Bridges Foundation  
Attn: Luke Fitzpatrick, Trustee, PO Box 1123  
Turner, OR 97392

APN: 99916790  
716702  
716800  
717402  
717401  
717500  
717600  
99916787

Map: 27S13200001503  
27S13270000400  
27S13270000500  
27S13280000400  
27S13280000600  
27S13280000700  
27S13290000101  
27S13290000103

Vacant Land Lower Coquille River (Chisholm Tract) 528 Acres,  
Coos Bay, OR 97420

SPACE ABOVE THIS LINE FOR RECORDER'S USE

**STATUTORY WARRANTY DEED**

Hanna Elizabeth Hart, Successor Trustee of the Maria Concepcion Frias 1996 Revocable Trust dated August 12, 1996 as amended and restated on October 9, 2006, Grantor, conveys and warrants to The Bridges Foundation, an Oregon non-profit corporation, Grantee, the following described real property, free and clear of encumbrances except as specifically set forth below, situated in the County of Coos, State of Oregon:

SEE EXHIBIT "A" ATTACHED HERETO AND MADE A PART HEREOF

THE TRUE AND ACTUAL CONSIDERATION FOR THIS CONVEYANCE IS TWO MILLION SIX HUNDRED FORTY THOUSAND AND NO/100 DOLLARS (\$2,640,000.00). (See ORS 93.030).

Subject to:

SEE EXHIBIT "B" ATTACHED HERETO AND MADE A PART HEREOF

BEFORE SIGNING OR ACCEPTING THIS INSTRUMENT, THE PERSON TRANSFERRING FEE TITLE SHOULD INQUIRE ABOUT THE PERSON'S RIGHTS, IF ANY, UNDER ORS 195.300, 195.301 AND 195.305 TO 195.336 AND SECTIONS 5 TO 11, CHAPTER 424, OREGON LAWS 2007, SECTIONS 2 TO 9 AND 17, CHAPTER 855, OREGON LAWS 2009, AND SECTIONS 2 TO 7, CHAPTER 8, OREGON LAWS 2010. THIS INSTRUMENT DOES NOT ALLOW USE OF THE PROPERTY DESCRIBED IN THIS INSTRUMENT IN VIOLATION OF APPLICABLE LAND USE LAWS AND REGULATIONS. BEFORE SIGNING OR ACCEPTING THIS INSTRUMENT, THE PERSON ACQUIRING FEE TITLE TO THE PROPERTY SHOULD CHECK WITH THE APPROPRIATE CITY OR COUNTY PLANNING DEPARTMENT TO VERIFY THAT THE UNIT OF LAND BEING TRANSFERRED IS A LAWFULLY ESTABLISHED LOT OR PARCEL, AS DEFINED IN ORS 92.010 OR 215.010, TO VERIFY THE APPROVED USES OF THE LOT OR PARCEL, TO DETERMINE ANY LIMITS ON LAWSUITS AGAINST FARMING OR FOREST PRACTICES, AS DEFINED IN ORS 30.930, AND TO INQUIRE ABOUT THE RIGHTS OF NEIGHBORING PROPERTY OWNERS, IF ANY, UNDER ORS 195.300, 195.301 AND 195.305 TO 195.336 AND SECTIONS 5 TO 11, CHAPTER 424, OREGON LAWS 2007, SECTIONS 2 TO 9 AND 17, CHAPTER 855, OREGON LAWS 2009, AND SECTIONS 2 TO 7, CHAPTER 8, OREGON LAWS 2010.

**STATUTORY WARRANTY DEED**  
(continued)

IN WITNESS WHEREOF, the undersigned have executed this document on the date(s) set forth below.

Dated: \_\_\_\_\_

Hanna Elizabeth Hart, Successor Trustee of the Maria Concepcion Frias 1996 Revocable Trust dated August 12, 1996 as amended and restated on October 9, 2006

BY: \_\_\_\_\_  
Hanna Elizabeth Hart  
Successor Trustee

State of \_\_\_\_\_  
County of \_\_\_\_\_

This instrument was acknowledged before me on \_\_\_\_\_ by Hanna Elizabeth Hart, Successor Trustee of the Maria Concepcion Frias 1996 Revocable Trust dated August 12, 1996 as amended and restated on October 9, 2006.

\_\_\_\_\_  
Notary Public - State of Oregon

My Commission Expires: \_\_\_\_\_

**COOS COUNTY ASSESSOR  
REAL PROPERTY ACCOUNT NAMES**

**Account #** 721202  
**Map** 27S133300 00100  
**Owner** EVERETT-ONA ISENHART RANCH,INC; ETAL  
 97065 LANGLOIS MOUNTAIN RD  
 LANGLOIS OR 97450-9668

<b>Name Type</b>	<b>Name</b>	<b>Ownership Type</b>	<b>Own Pct</b>
OWNER	EVERETT-ONA ISENHART RANCH,INC,ETAL	OWNER	100.00
OWNER	SMITH, CLATIE & ONA	OWNER	

**AFTER RECORDING RETURN TO:**  
Law Offices of Patrick M. Terry  
PO Box 630  
Coos Bay, OR 97420

Coos County, Oregon      **2021-13197**  
**\$91.00**    Pgs=2    11/29/2021 02:25 PM  
eRecorded by: PATRICK M. TERRY LAW OFFICE  
Debbie Heller, CCC, Coos County Clerk

**SEND TAX STATEMENTS TO:**  
John Isenhart and Laura J. Isenhart, Trustees  
Isenhart Living Trust  
PO Box 174  
Broadbent, OR 97414

**CONSIDERATION: \$0.00**

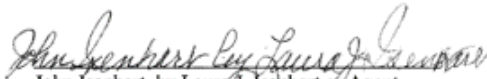
**BARGAIN AND SALE DEED**

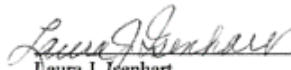
John Isenhart and Laura J. Isenhart, hereinafter known as Grantors, do hereby grant, bargain, sell, and convey unto John Isenhart and Laura J. Isenhart, Trustee of the Isenhart Living Trust as restated in its entirety on March 18, 2014, hereinafter known as Grantees, with power of sale, the following described real property; that is, the fee shall vest in the survivor of the Grantees:

See Exhibit A

BEFORE SIGNING OR ACCEPTING THIS INSTRUMENT, THE PERSON TRANSFERRING FEE TITLE SHOULD INQUIRE ABOUT THE PERSON'S RIGHTS, IF ANY, UNDER ORS 195.300, 195.301 AND 195.305 TO 195.336 AND SECTIONS 5 TO 11, CHAPTER 424, OREGON LAWS 2007, SECTIONS 2 TO 9 AND 17, CHAPTER 855, OREGON LAWS 2009, AND SECTIONS 2 TO 7, CHAPTER 8, OREGON LAWS 2010. THIS INSTRUMENT DOES NOT ALLOW USE OF THE PROPERTY DESCRIBED IN THIS INSTRUMENT IN VIOLATION OF APPLICABLE LAND USE LAWS AND REGULATIONS. BEFORE SIGNING OR ACCEPTING THIS INSTRUMENT, THE PERSON ACQUIRING FEE TITLE TO THE PROPERTY SHOULD CHECK WITH THE APPROPRIATE CITY OR COUNTY PLANNING DEPARTMENT TO VERIFY THAT THE UNIT OF LAND BEING TRANSFERRED IS A LAWFULLY ESTABLISHED LOT OR PARCEL, AS DEFINED IN ORS 92.010 OR 215.010, TO VERIFY THE APPROVED USES OF THE LOT OR PARCEL, TO DETERMINE ANY LIMITS ON LAWSUITS AGAINST FARMING OR FOREST PRACTICES, AS DEFINED IN ORS 30.930, AND TO INQUIRE ABOUT THE RIGHTS OF NEIGHBORING PROPERTY OWNERS, IF ANY, UNDER ORS 195.300, 195.301 AND 195.305 TO 195.336 AND SECTIONS 5 TO 11, CHAPTER 424, OREGON LAWS 2007, SECTIONS 2 TO 9 AND 17, CHAPTER 855, OREGON LAWS 2009, AND SECTIONS 2 TO 7, CHAPTER 8, OREGON LAWS 2010.

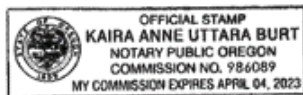
WITNESS my hand and seal this 29<sup>th</sup> day of November, 2021.

  
John Isenhart, by Laura J. Isenhart as Agent  
Durable Power of Attorney, dated 10/24/14

  
Laura J. Isenhart

STATE OF OREGON  
County of Coos

Before me this 29<sup>th</sup> day of November, 2021, personally appeared the above named Laura J. Isenhart, individually and in her capacity as Agent under Durable Power of Attorney dated 10/24/14 for John Isenhart, and acknowledged that she executed the foregoing instrument freely and voluntarily.



  
Kaira Anne Uttara Burt  
Notary Public for Oregon



**COOS COUNTY ASSESSOR  
REAL PROPERTY ACCOUNT NAMES**

**Account #** 722300  
**Map** 27S133400 00800  
**Owner** FRED MESSERLE & SONS, INC.  
94881 STOCK SLOUGH LN  
COOS BAY OR 97420-6346

---

<b>Name Type</b>	<b>Name</b>	<b>Ownership Type</b>	<b>Own Pct</b>
OWNER	FRED MESSERLE & SONS, INC.	OWNER	100.00

**COOS COUNTY ASSESSOR  
REAL PROPERTY ACCOUNT NAMES**

**Account #** 724600  
**Map** 27S1335C0 00900  
**Owner** FRED MESSERLE & SONS, INC.  
94881 STOCK SLOUGH LN  
COOS BAY OR 97420-6346

---

<b>Name Type</b>	<b>Name</b>	<b>Ownership Type</b>	<b>Own Pct</b>
OWNER	FRED MESSERLE & SONS, INC.	OWNER	100.00

**COOS COUNTY ASSESSOR  
REAL PROPERTY ACCOUNT NAMES**

**Account #** 898300  
**Map** 28S130300 00100  
**Owner** FRED MESSERLE & SONS, INC.  
94881 STOCK SLOUGH LN  
COOS BAY OR 97420-6346

---

<b>Name Type</b>	<b>Name</b>	<b>Ownership Type</b>	<b>Own Pct</b>
OWNER	FRED MESSERLE & SONS, INC.	OWNER	100.00

COOS COUNTY, OREGON **2017-09908**  
\$81.00 10/16/2017 10:16:00 AM  
DEBBIE HELLER, CEA, COOS COUNTY CLERK Pgs=8

**SEND TAX STATEMENTS TO:**  
Oregon Department of Fish and Wildlife  
ATTN: REALTY SERVICES (Tofte)  
4034 Fairview Industrial Drive SE  
Salem, OR 97302

**AFTER RECORDING, RETURN TO:**  
same as above

**AFTER RECORDING  
RETURN TO**  
Ticor Title Company  
300 West Anderson Ave. - Box 1075  
Coos Bay, OR 97420-0233  
60152235

**WARRANTY DEED**  
(ORS 93.850)

RAYMOND C. WHEELER, Grantor, conveys and warrants to the STATE OF OREGON, by and through the OREGON DEPARTMENT OF FISH AND WILDLIFE, Grantee, the following described real property free of all encumbrances except as specifically set forth herein:

Land in Coos County, Oregon, as described on **Exhibit "A"** attached hereto and by this reference made a part hereof.

SUBJECT TO the encumbrances described on **Exhibit "B"** attached hereto and by this reference made a part hereof; and

The true consideration for this conveyance is \$294,900.00

**RESERVING UNTO THE GRANTOR**, a personal, non-assignable, non-appurtenant easement for the purpose of ingress and egress to Grantor's property North and adjacent to property conveyed herein, for the term of Grantors life, forty (40) feet in width, which is twenty (20) feet on each side of the following described centerline:

Beginning on the Southerly boundary of the old Southern Pacific Railroad right-of-way at a point that bears North 73°10'14" East 864.34 feet from a 2" iron pipe per CS PB3-1 marking the Center South Sixteenth (CS1/16) corner of said Section 21, Township 27 South, Range 13 West of the Willamette Meridian, Coos County, Oregon, thence along the centerline of the herein described easement South 00°25'39" East 248.64 feet, said center line being perpendicular and offset 15 feet West of the East boundary of that property described per Warranty Deed 90-11-0535, Deed Records of Coos County, Oregon;

Thence leaving said parallel offset and continuing along said easement centerline, also being the centerline of an existing dirt road as follows:

South 36°45'37" East 187.93;  
South 02°05'55" East 62.28 feet;  
South 20°34'05" West 39.23 feet;  
South 39°51'48" West 65.56 feet;  
South 59°44'35" West 350.45 feet;  
South 56°11'21" West 142.27 feet;

Page 1 of 8







**COOS COUNTY ASSESSOR  
REAL PROPERTY ACCOUNT NAMES**

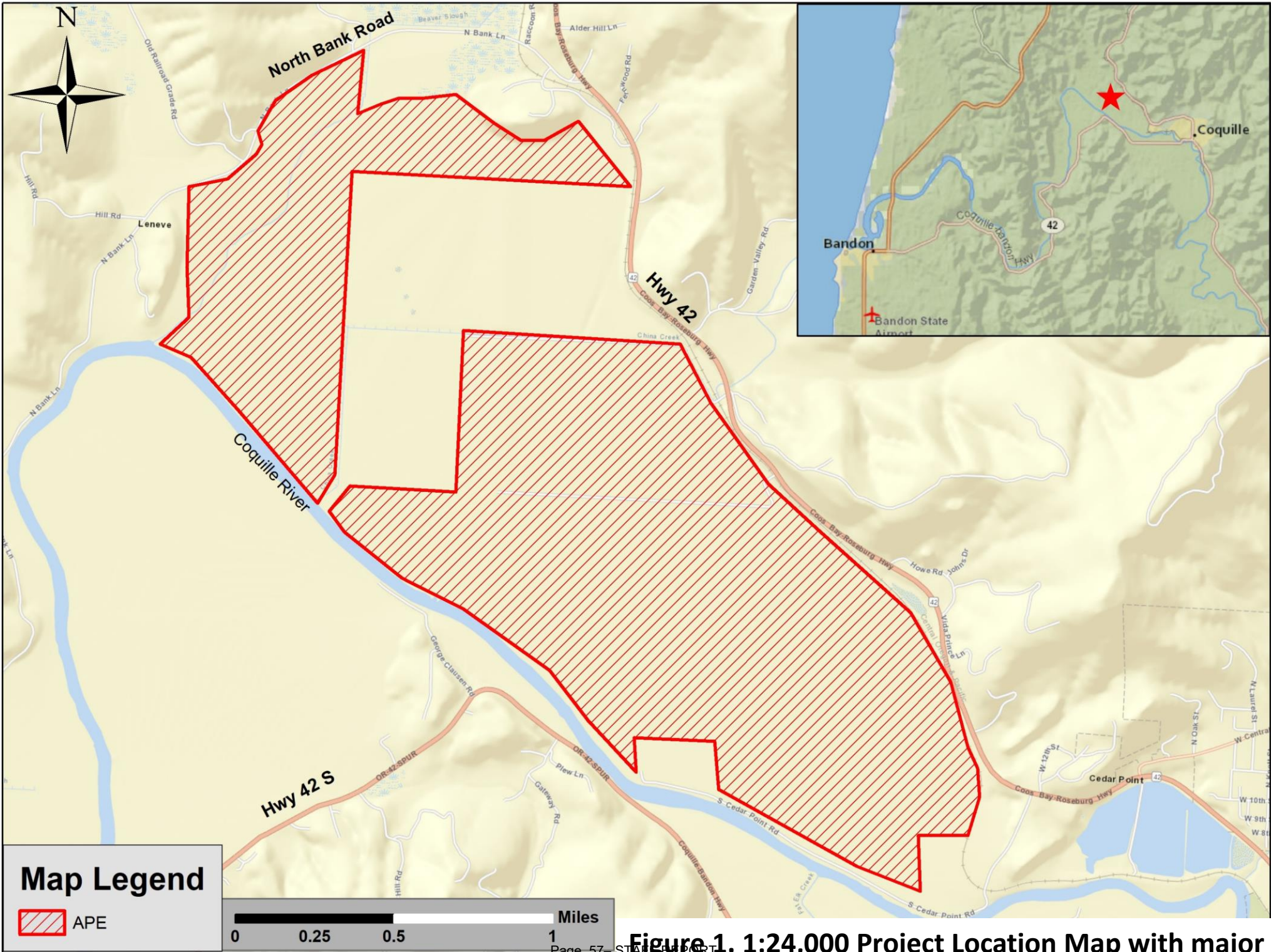
**Account #** 7715000  
**Map** 27S133400 00899  
**Owner** STATE OF OREGON  
61036 HWY 101 SOUTH  
COOS BAY OR 97420

---

<b>Name Type</b>	<b>Name</b>	<b>Ownership Type</b>	<b>Own Pct</b>
OWNER	STATE OF OREGON	OWNER	

# Appendix B: FIGURES AND PHOTOS

WINTER LAKE PHASE III



**Figure 1. 1:24,000 Project Location Map with major roads/highways identified**



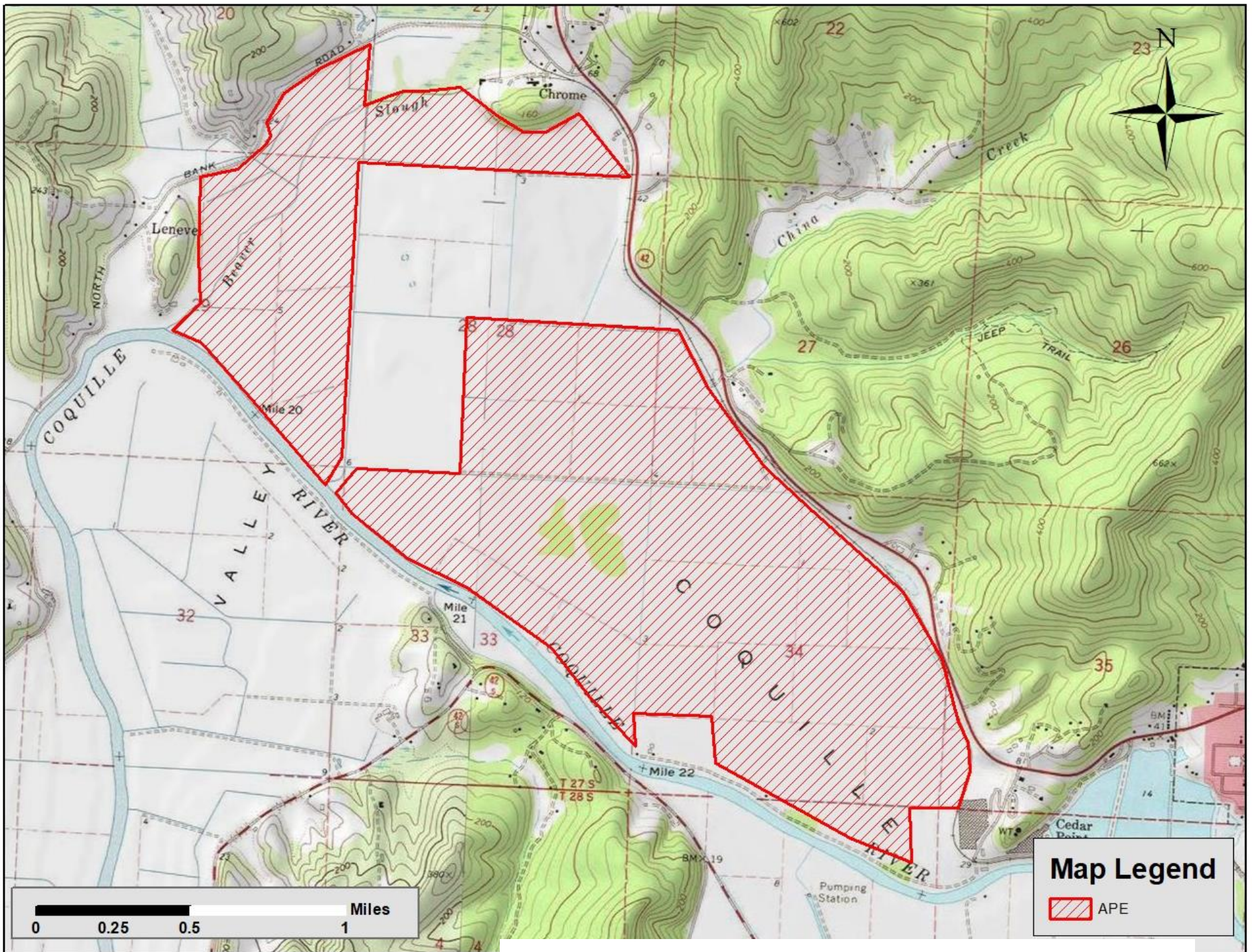


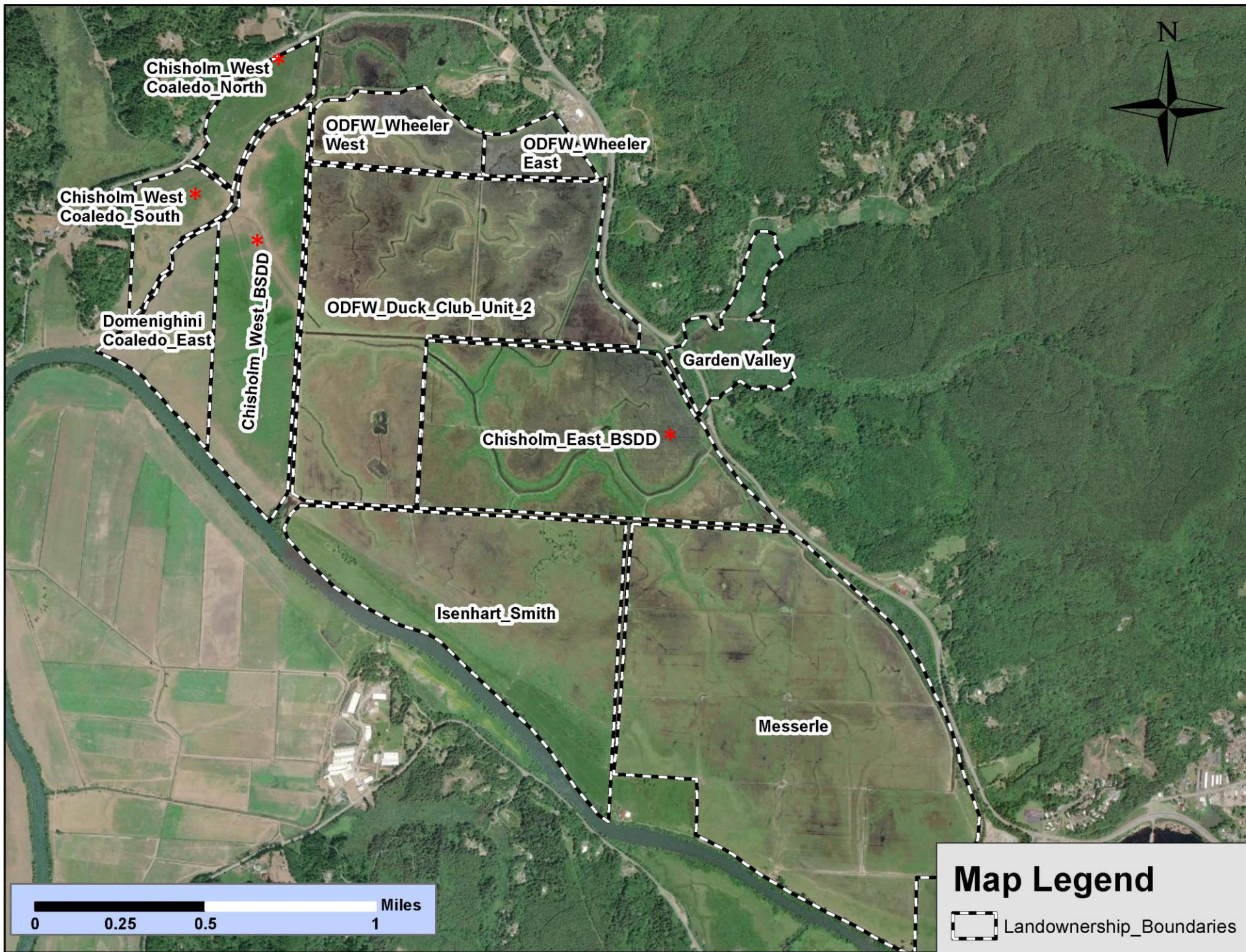
Figure 2. 1:24,000 USGS Topographic Map of Area of Project Effect (APE)





Figure 3. Taxlot ID Map





\*Update 8/6/2022 Chisholm Properties now owned by The Bridges Foundation

Figure 4. Winter Lake Land Ownership Map



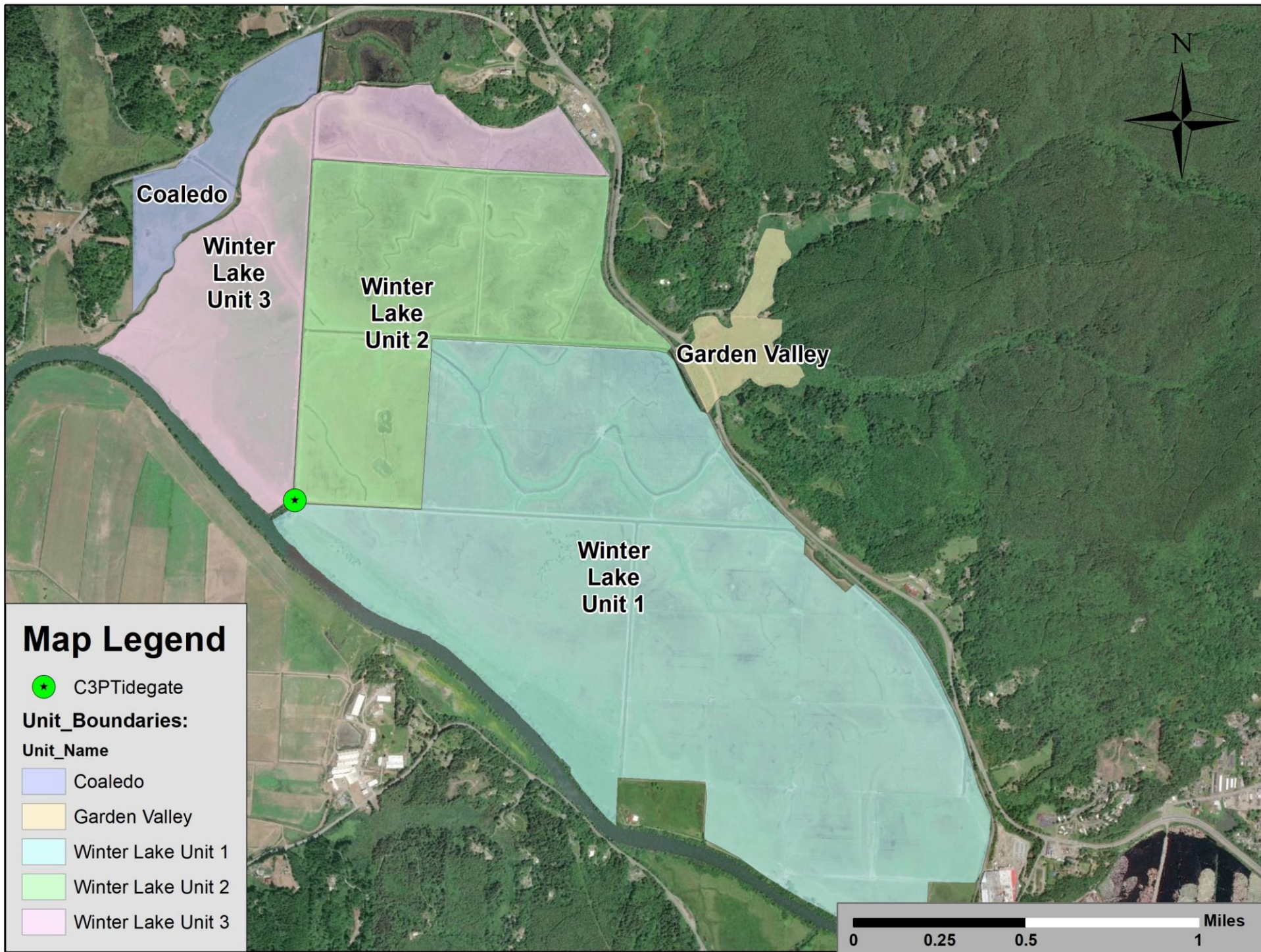
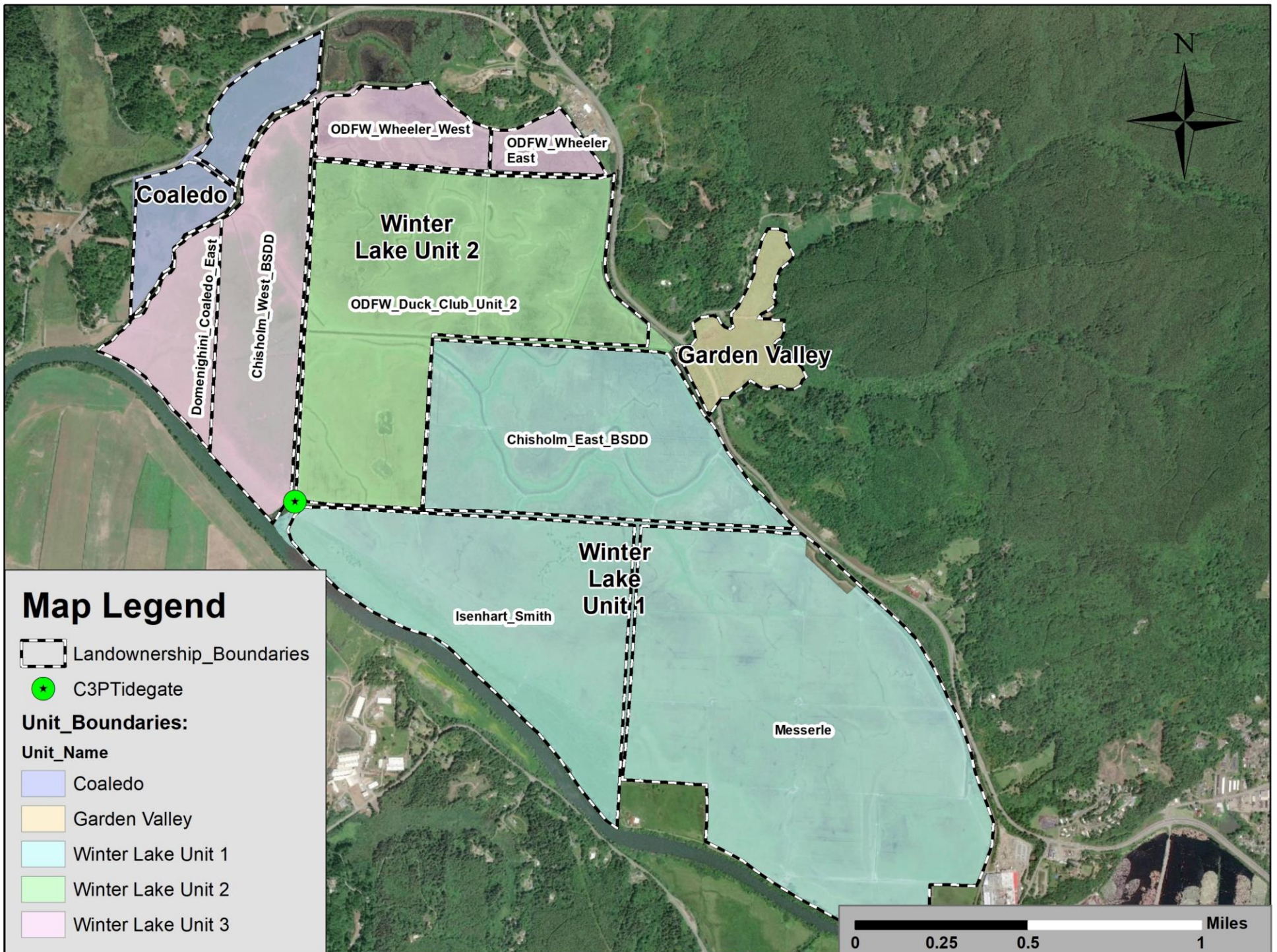


Figure 5. Winter Lake Unit Map





### Map Legend

Landownership\_Boundaries

C3PTidegate

#### Unit\_Boundaries:

##### Unit\_Name

- Coaledo
- Garden Valley
- Winter Lake Unit 1
- Winter Lake Unit 2
- Winter Lake Unit 3

**Figure 6. Winter Lake Land Ownership and Unit Map**



November 28<sup>th</sup>, 2017



Sept 13<sup>th</sup>, 2017; looking north



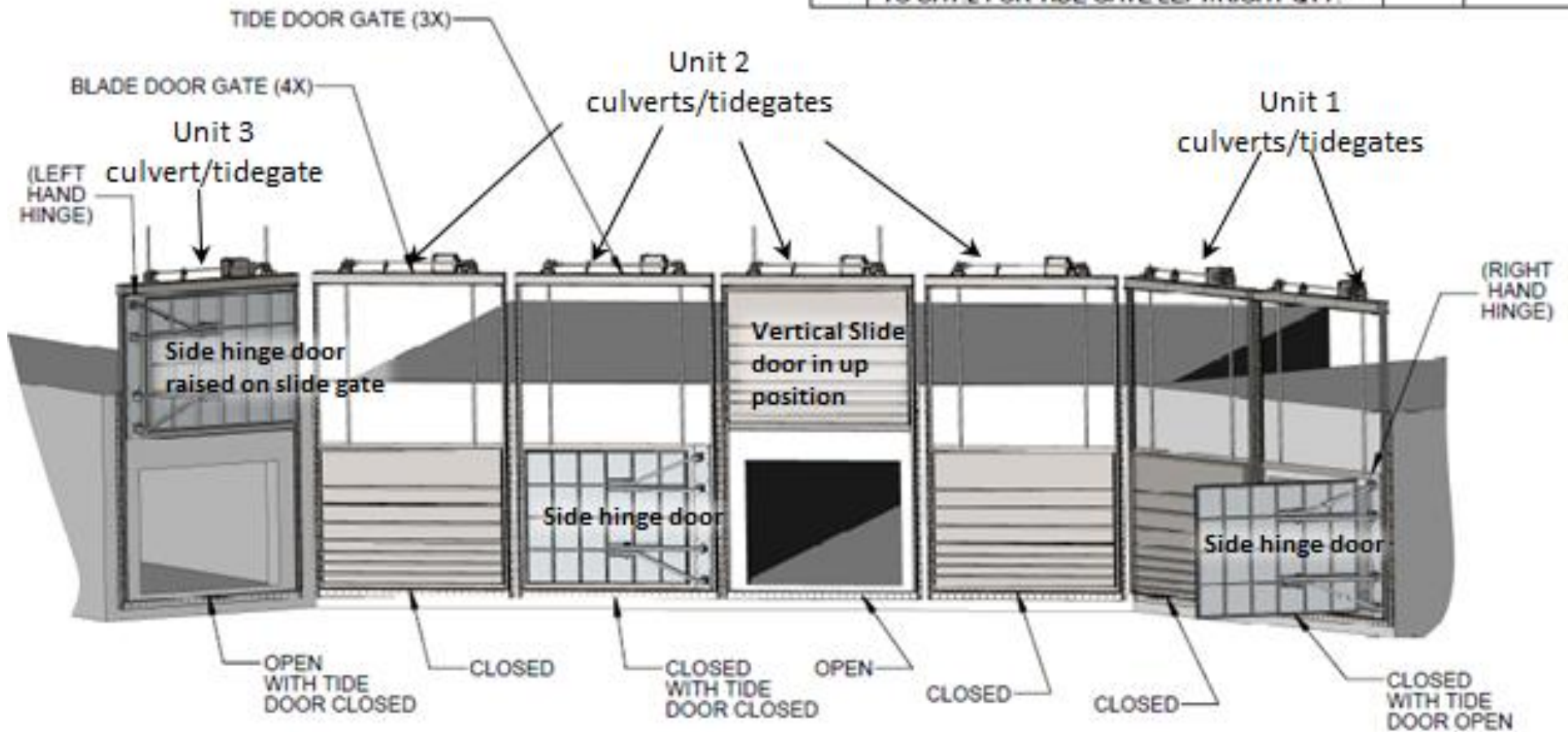
August 21<sup>st</sup>, 2017



Figure 7. Winter Lake Phase I, CP3 Tidegate



REVISIONS:			
REV.	DESCRIPTION	DATE	DRAWN
00B	MOVED GATES PER CUSTOMER EMAIL. MADE ONE TIDE GATE LEFT HANDED. ADDED NOTE TO SHT. 2 FOR TIDE GATE LEFT/RIGHT QTY.	4/12/17	REUTER



PROPOSED CONCEPTUAL SITE VIEW  
 4 GATES WITHOUT TIDE DOORS  
 3 GATE WITH TIDE DOORS  
 SHOWN IN VARIOUS OPENED/CLOSED STATES

UNLESS OTHERWISE NOTED DIMENSIONS AND TOLERANCES ARE IN INCHES. STANDARD TOLERANCES: .XX = +/- .01 .XXX = +/- .005 XX* = +/- .1"		<b>Watch Technologies, Inc</b> 2185 SPALDING AVE. SUITE 10 GRANT'S PASS, OR 97526 OFFICE: 541.472.6095 CELL: 541.660.3182		PROPRIETARY AND CONFIDENTIAL THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF WATCH TECHNOLOGIES, INC. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF WATCH TECHNOLOGIES, INC. IS PROHIBITED.	
NAME:	DATE:	JOB:	DWG:		
DRAWN: REUTER	4/7/17	CUSTOMER: CHINA CREEK	PROPOSED CONCEPT SITE GATES		
APPROV:		SCALE: DO NOT SCALE	SHT. 1 OF 2   REV.: 00B		
RELEASE:					

Page 64- STAFF REPORT  
**Figure 8. Winter Lake Phase I, CP3 Tidegate**





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**Figure 9. Winter Lake Phase II, Unit 2 Tidal Channel Restoration**



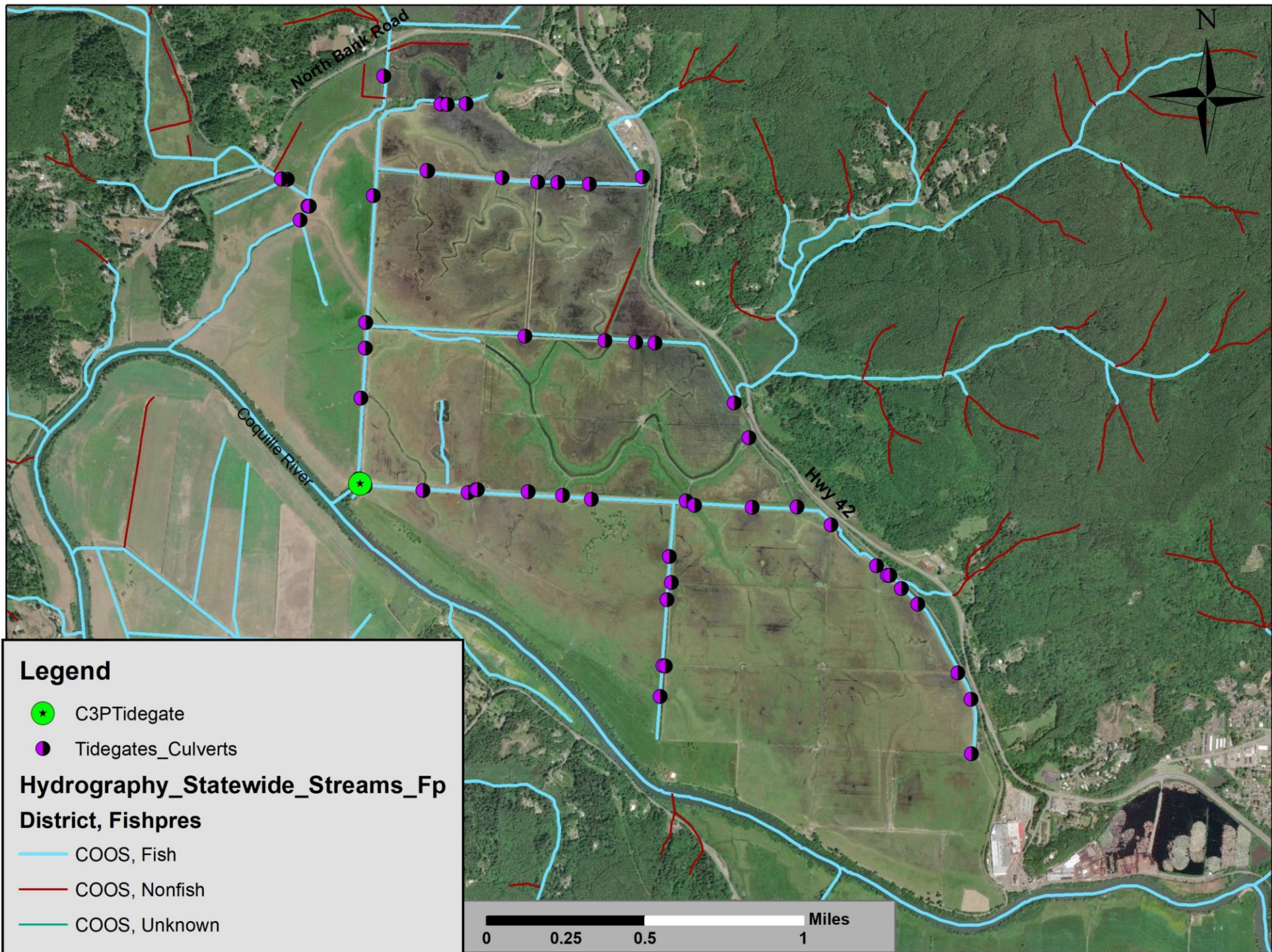


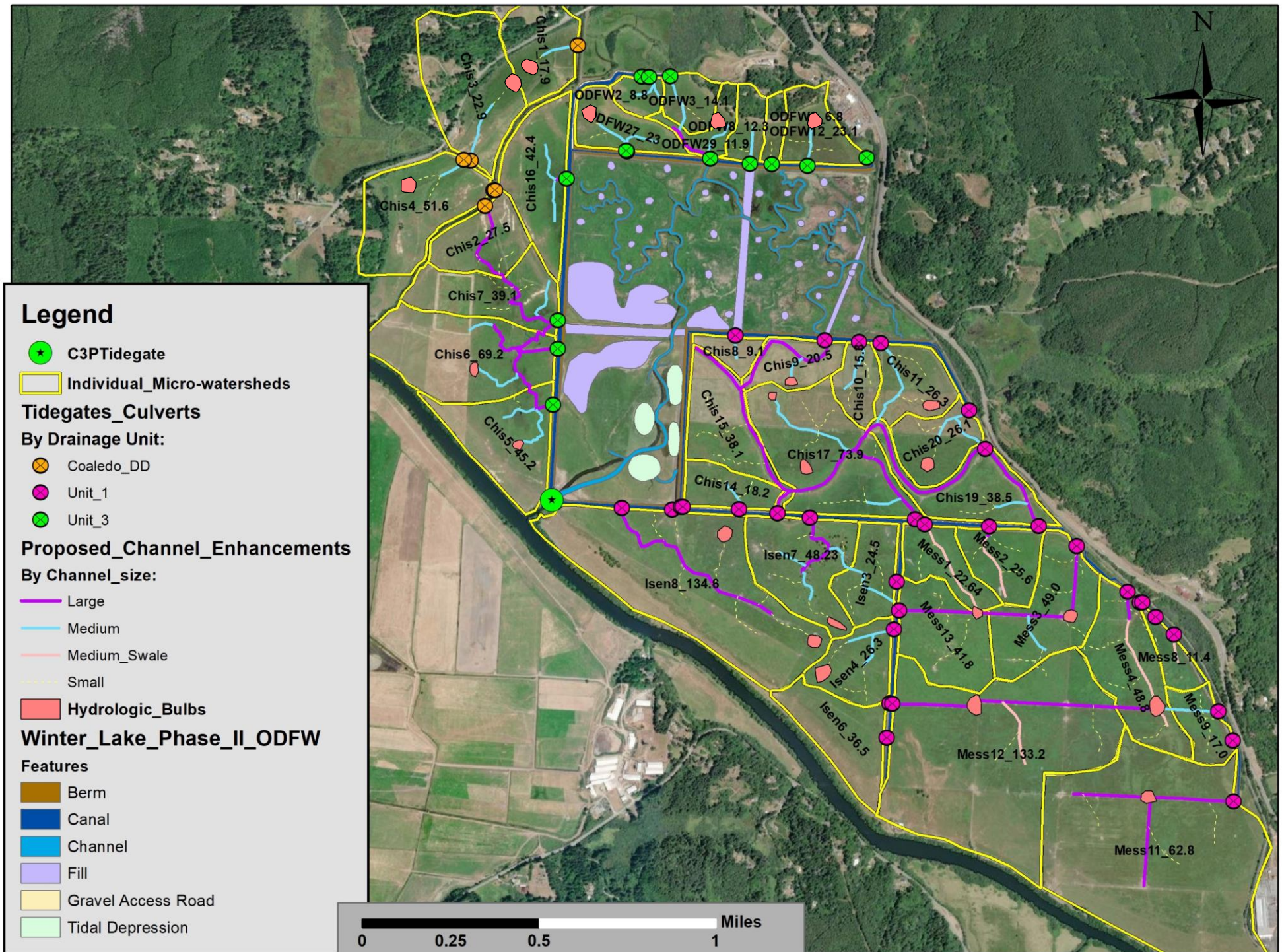
Figure 10. Winter Lake Aerial Imagery with existing linear channel network





Figure 11. "Flapper" and Top-hinge style interior tidegates





**Figure 12. Individual micro-watersheds associated with culverts and proposed channel enhancements**





Figure 13. Examples of a side-hinge aluminum tidegate

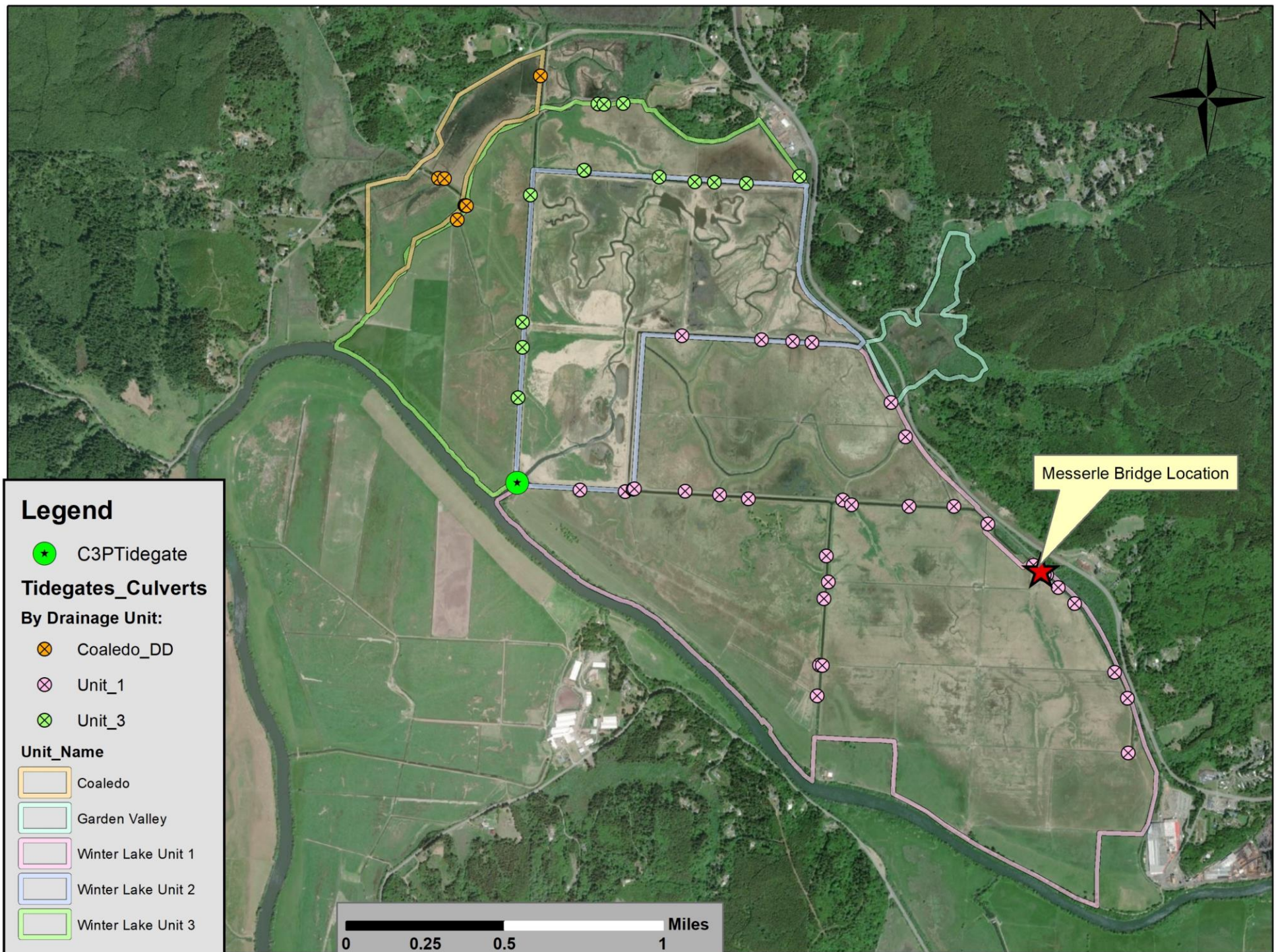
# Aluminum Waterman Style Gate

<http://www.agriexpo.online/prod/waterman-industries/product-174233-19232.html>



**Figure 14. Aluminum Waterman Style gate**





**Figure 15. Messerle Bridge Location Map**





Culvert-to-Bridge Location

**Figure 16. Bridge Site Photo**



4.18.2020 - Water level = 2.43'  
 Canal Invert = -2.0

Excavation:

Hill  
 Middle  
 field.

Fill:  
 Field Approach

Road Profile

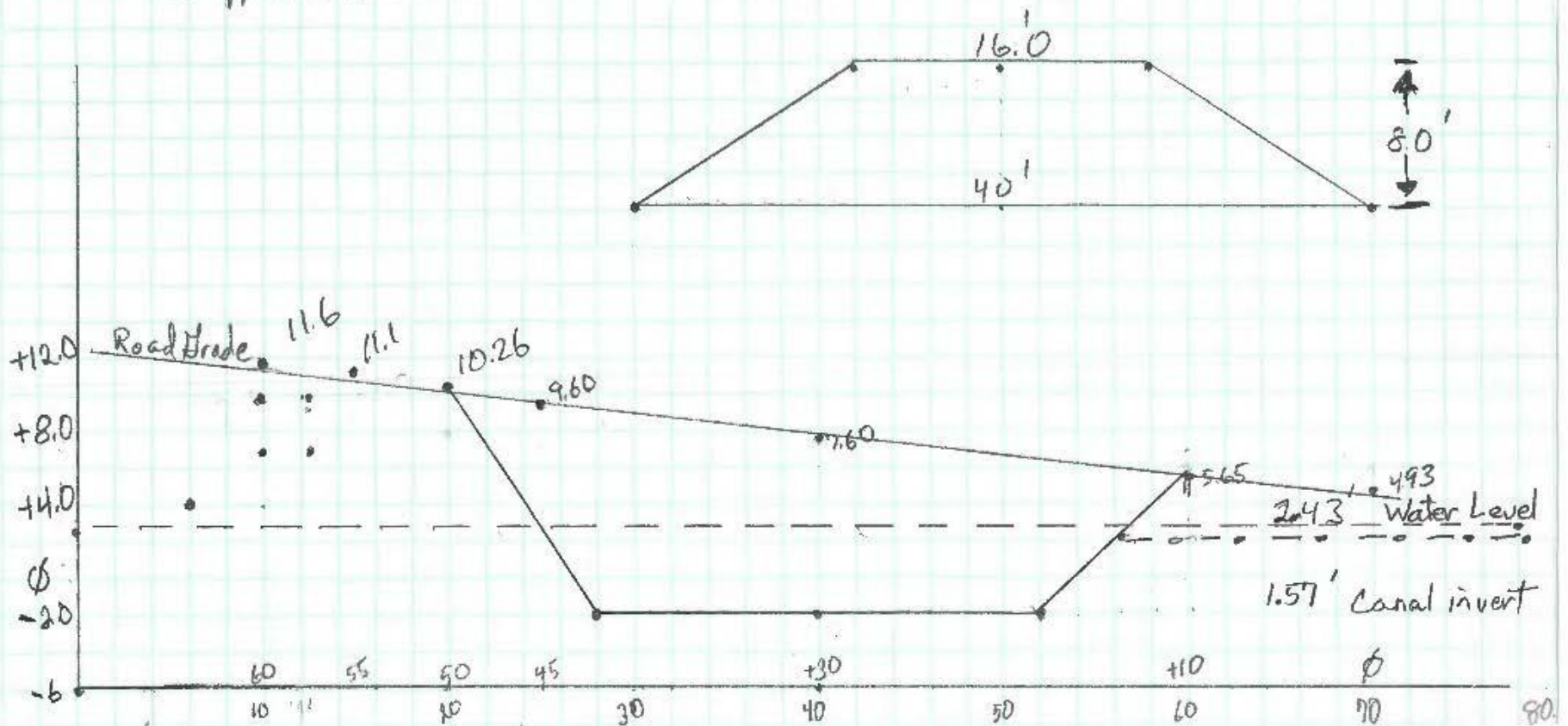


Figure 17. Bridge Design Drawing

MTS Bridge - Unit 1 East Canal  
 60' RR Bridge with 10' Wide Deck.  
 12" I Beam Header  
 3 - Eco Blocks  
 3" shallow Mat Pad Foundation  
 with 12" 3"  $\phi$  fabric Burrito Waps

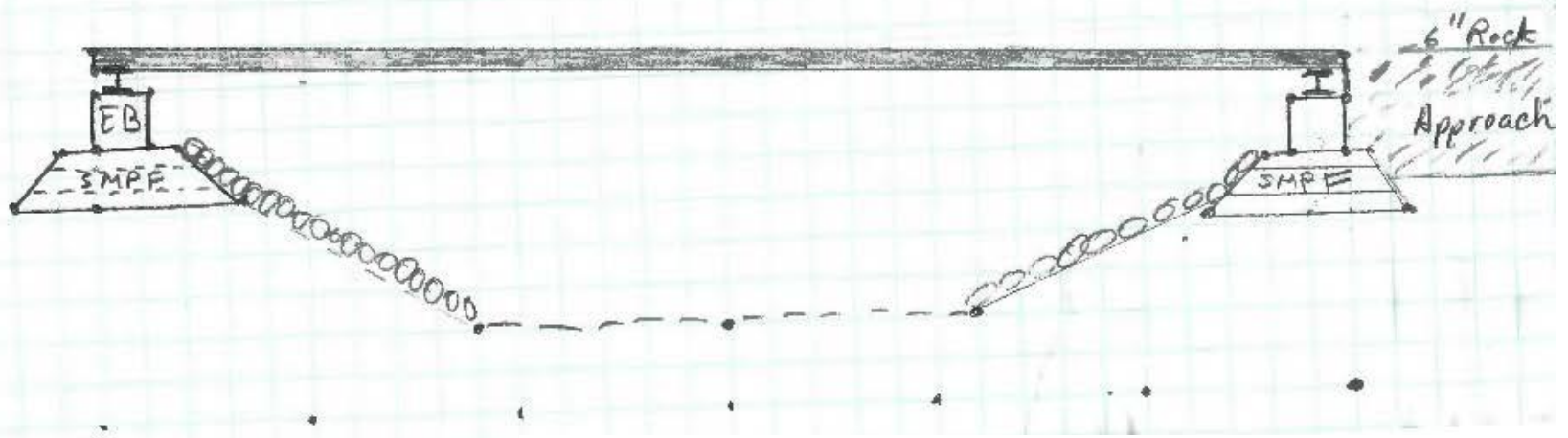
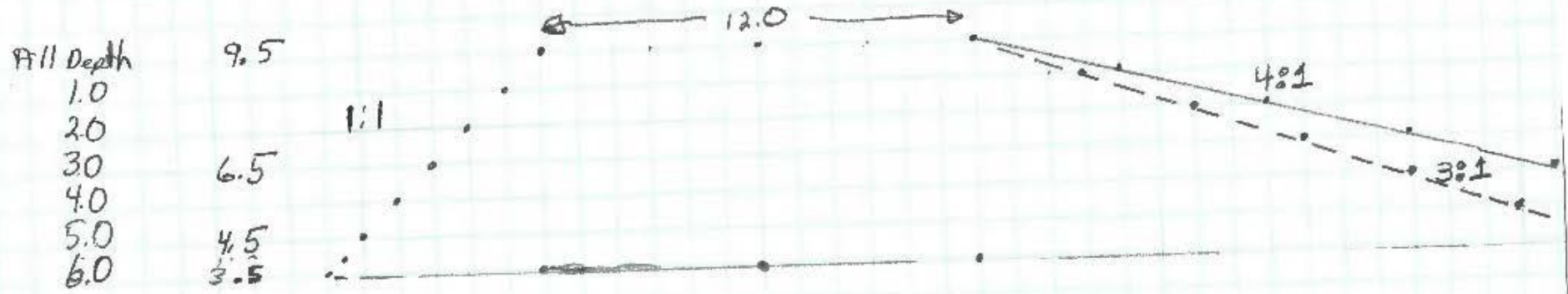


Figure 18. Bridge Design Drawing



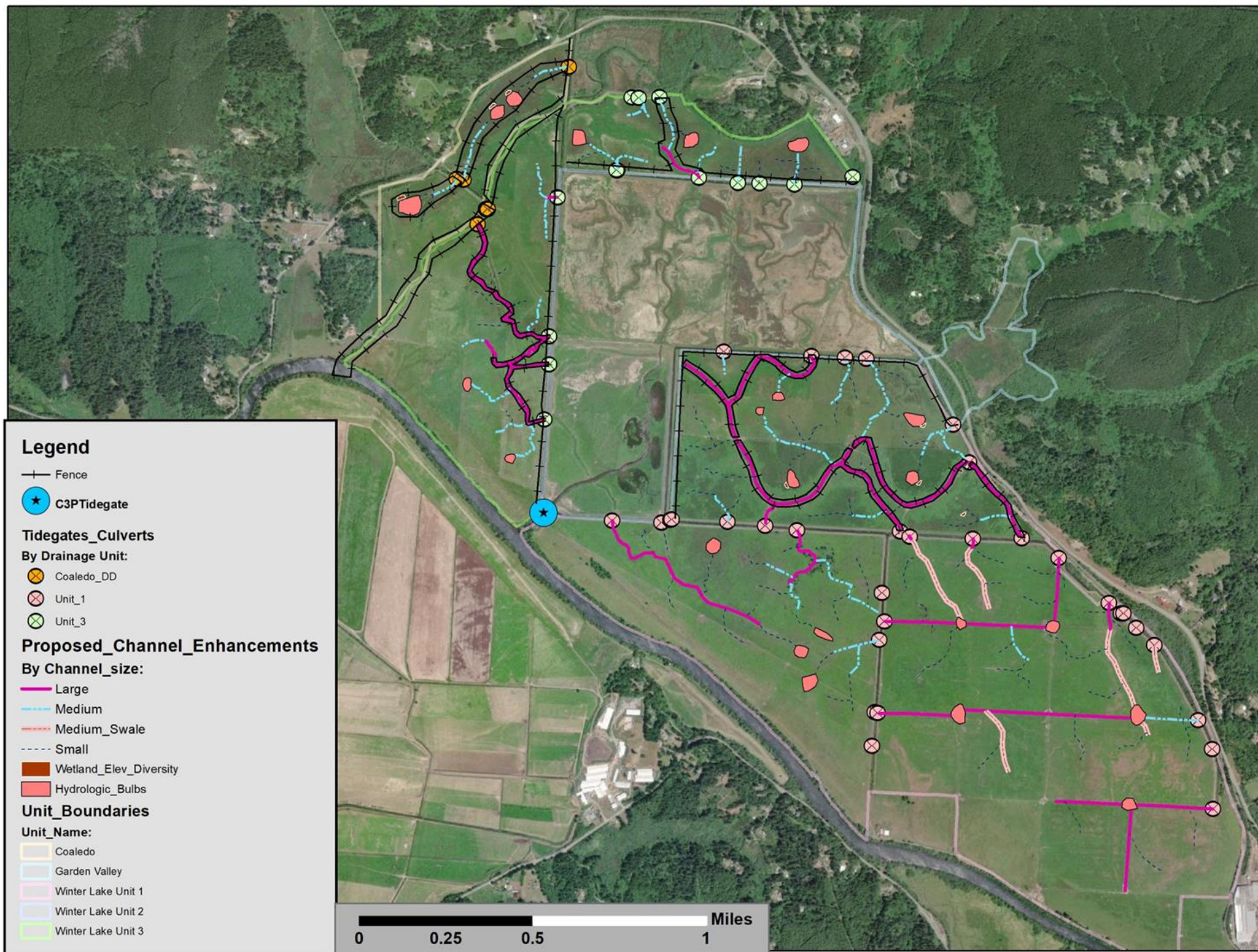
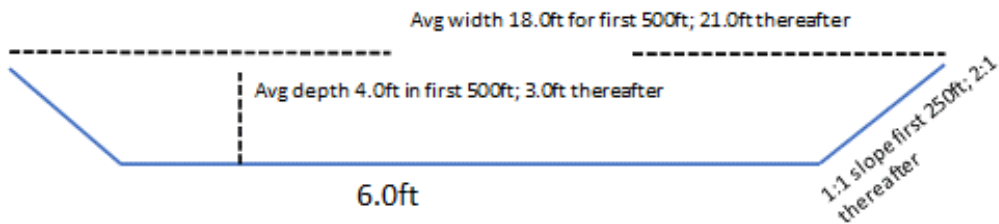


Figure 19. Winter Lake Phase III Proposed Channel Enhancements

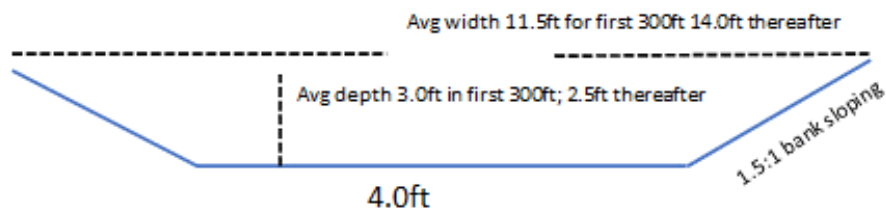


## Pasture Channel Cross-Sections

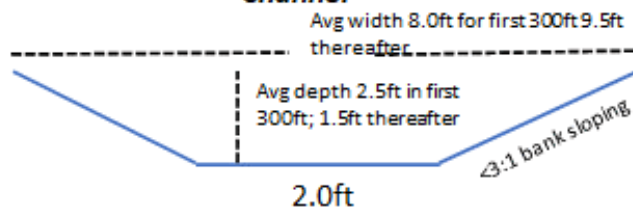
### Large Channel



### Medium Channel



### Small Channel



**Note:** For large channels first 500ft and for medium channels the first 300ft of selected channels that connect to main canals will have a invert grade that is steeper.

**Note:** Channel drawings not to scale.

Figure 20. Pasture Channel Cross Sectional Drawings

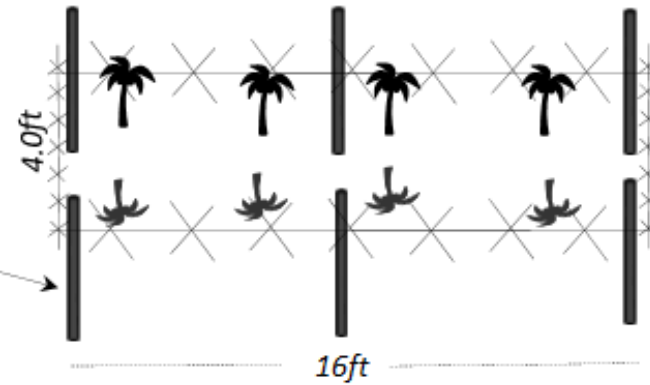




## Large/Medium Connecting Channel Skip Planting Concepts Option #1

**Planting Plots #1:** Welded panels or wire; 4.0w x 20ft in length alternated on channel sides with 50ft spacing. Trees planted (cottonwood or ash) inside enclosure 8 total trees planted on six ft spacing. Planting plots are on large and medium channels that connect to main canals for first 500ft. **Note:** Welded panels or wire is needed with 4"x4" mesh to protect trees from livestock and beaver.

### Expanded Plot View



Wooden or T-post

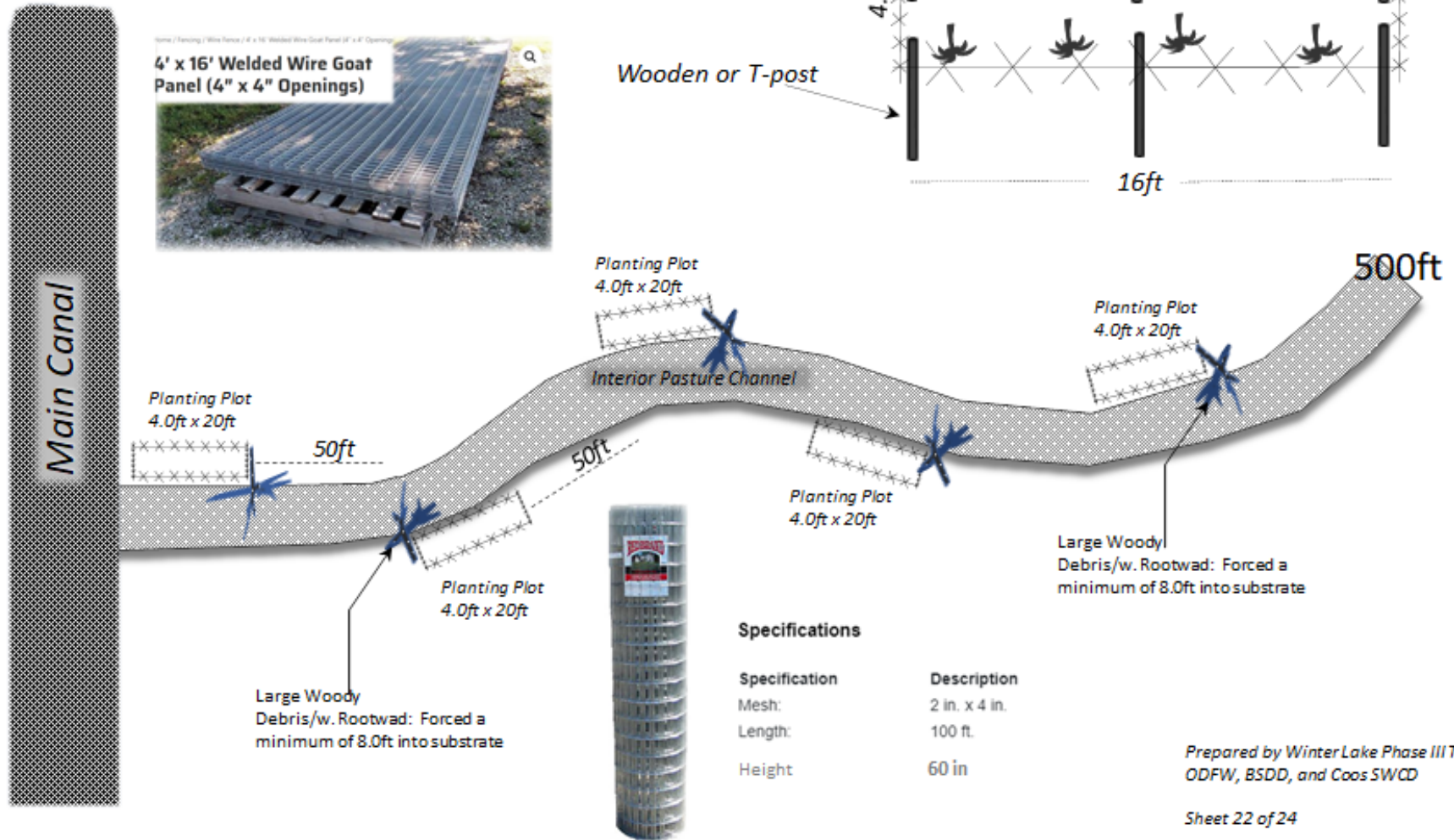


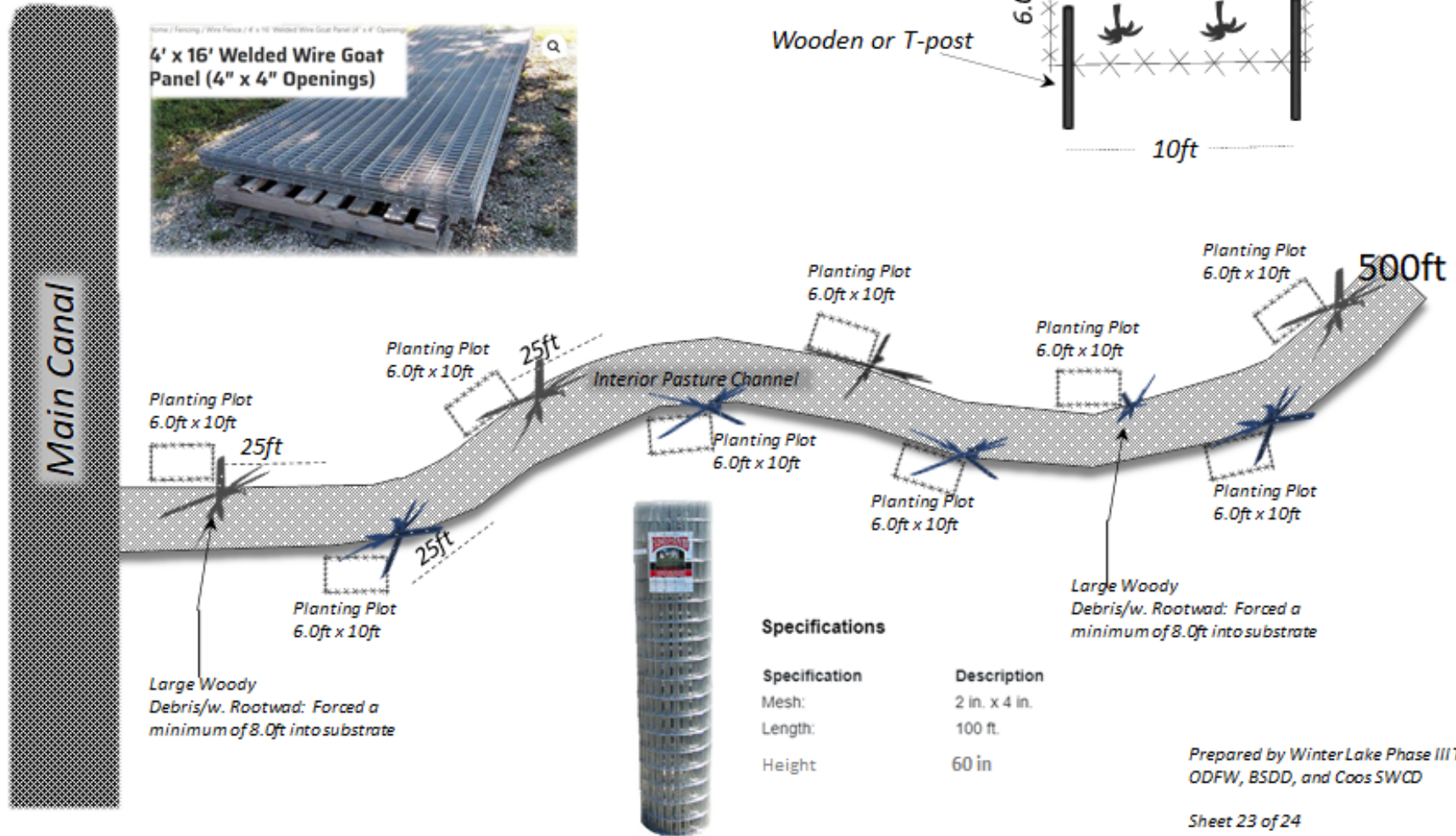
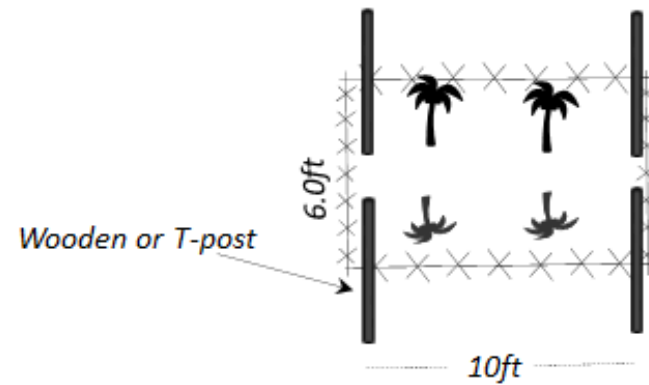
Figure 21. Photos of existing shallow swale channels



## Large/Medium Connecting Channel Skip Planting Concepts Option #2

**Planting Plots #2:** Welded panels or wire; 4.0w x 10ft in length alternated on channel sides with 25ft spacing. Trees planted (cottonwood or ash) inside enclosure 8 total trees planted on six ft spacing. Planting plots are on large and medium channels that connect to main canals for first 500ft. **Note:** Welded wire is needed with 4"x4" mesh to protect trees from livestock and beaver.

### Expanded Plot View



### Specifications

Specification	Description
Mesh:	2 in. x 4 in.
Length:	100 ft.
Height:	60 in

Prepared by Winter Lake Phase III Team  
ODFW, BSDD, and Coos SWCD

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Figure 22. Photos of existing shallow swale channels







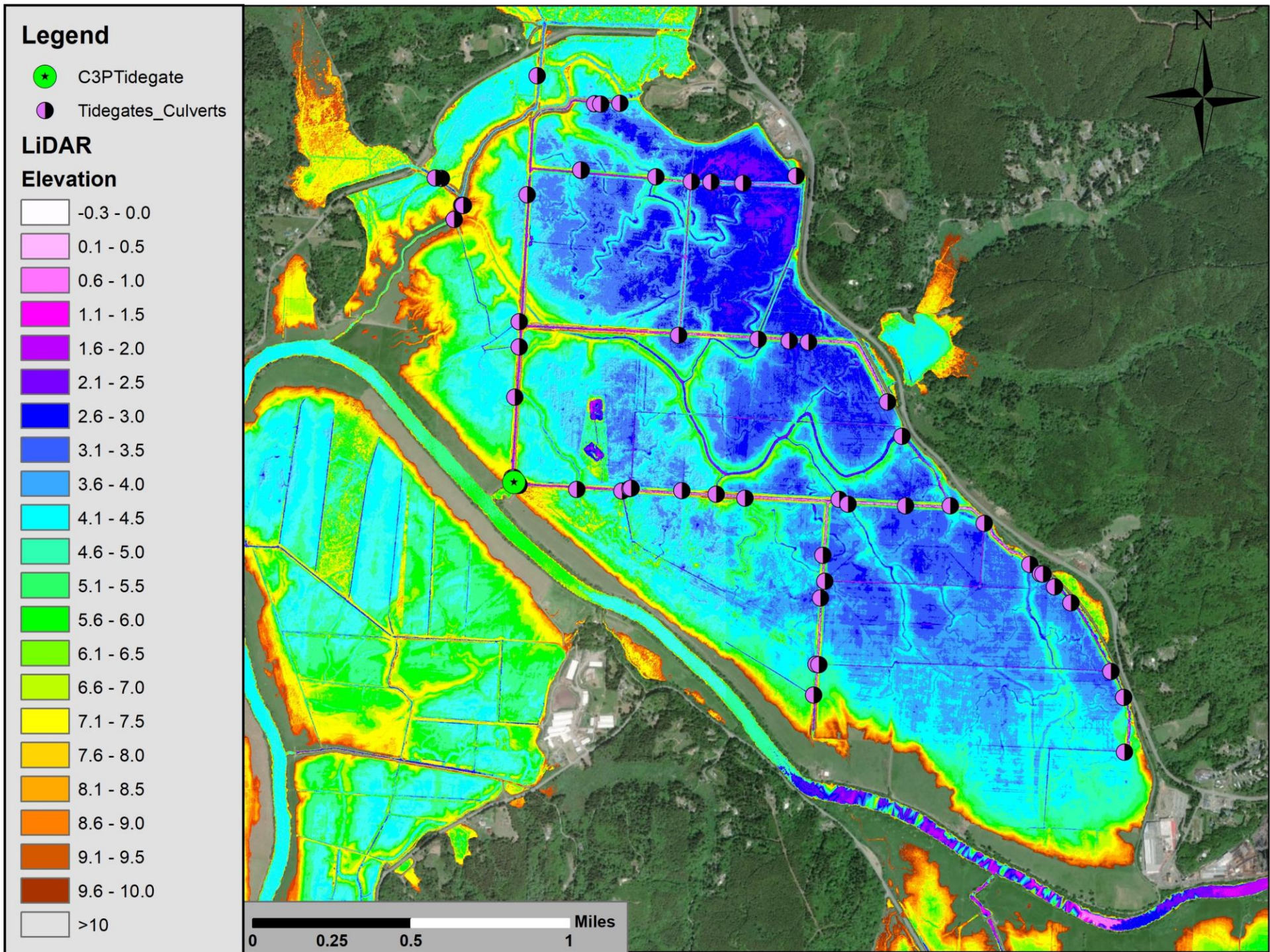
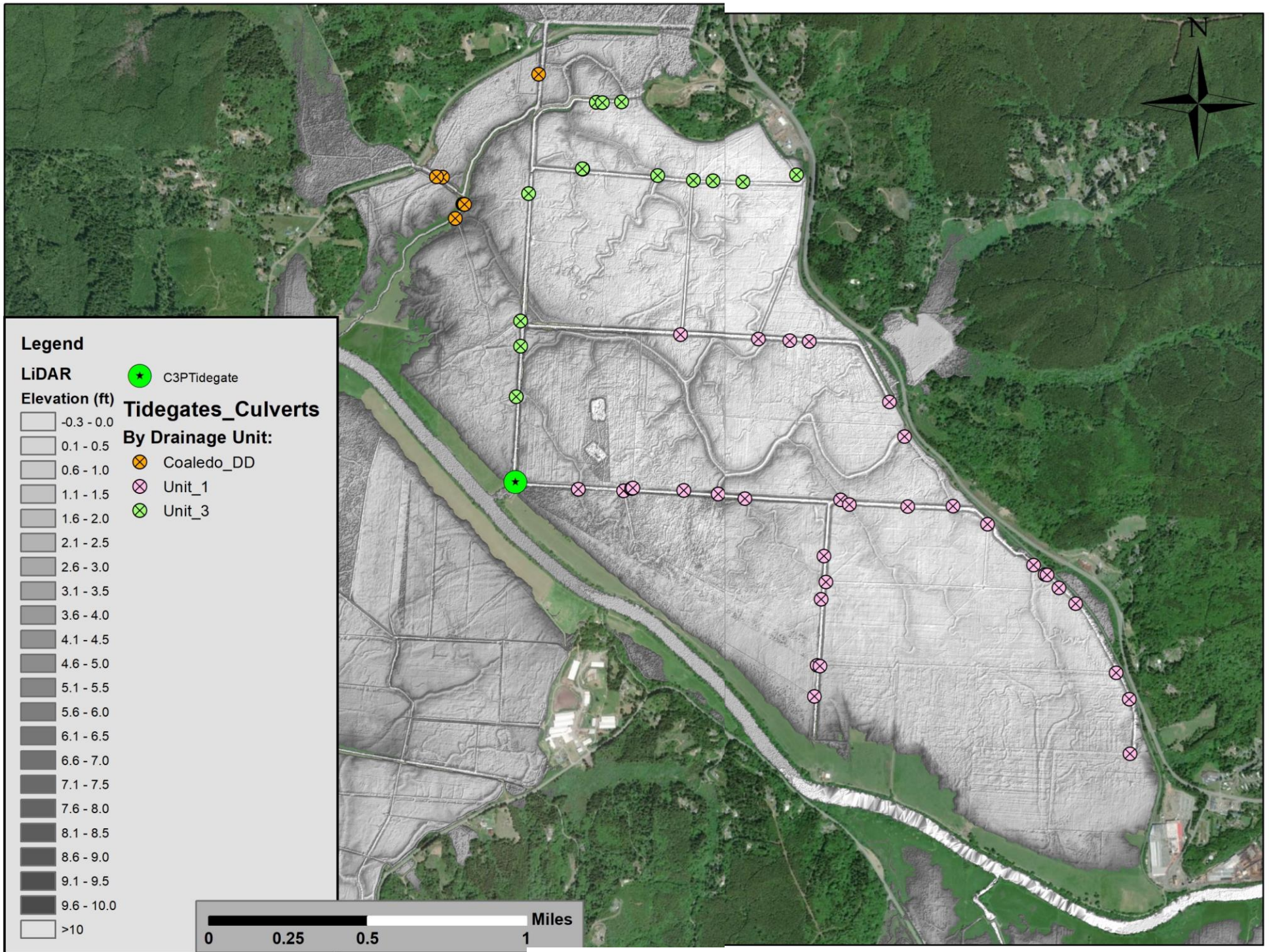


Figure 24. LiDAR color map





**Figure 25. LiDAR Hillshade Imagery**



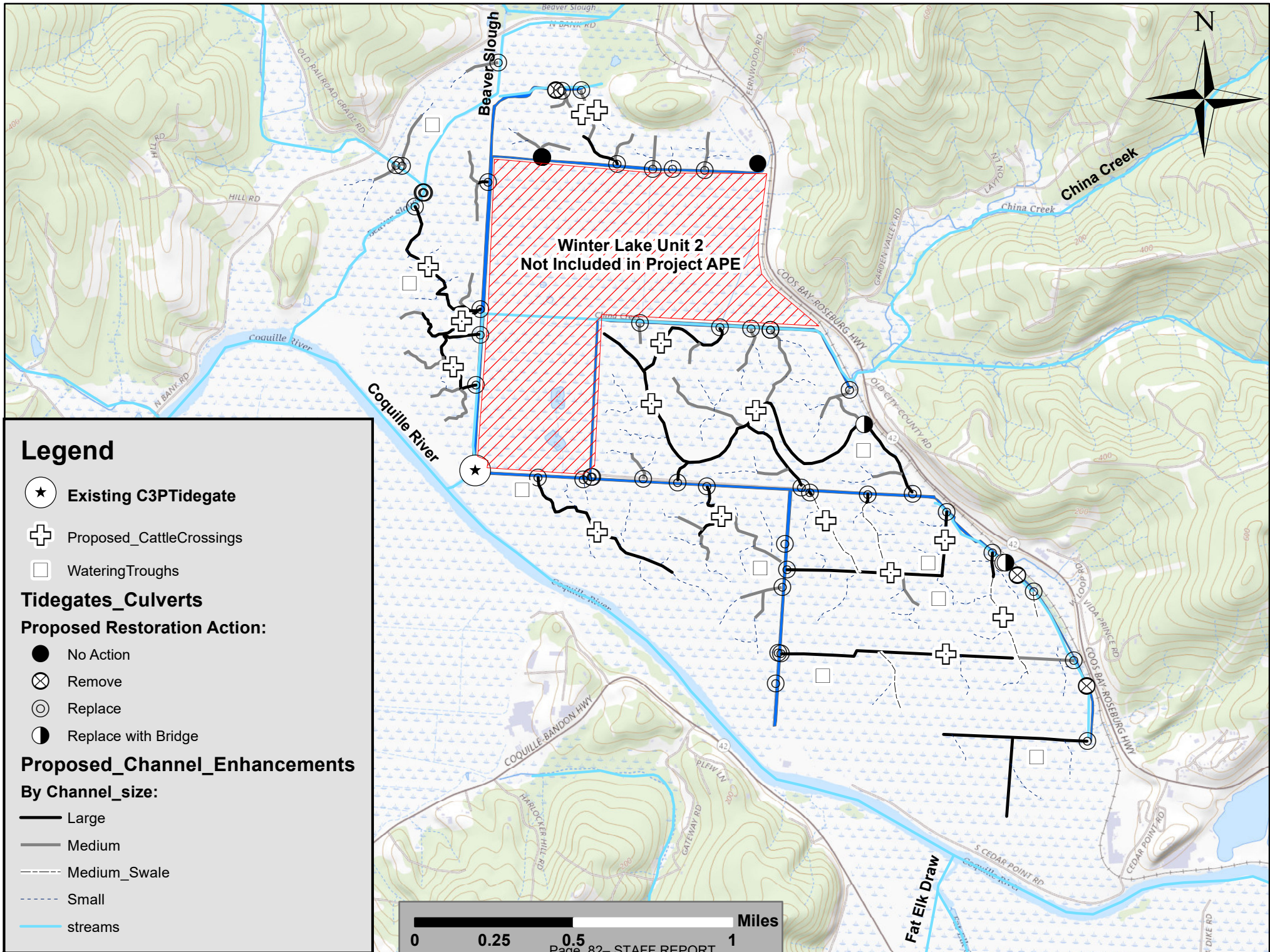


Figure 25.b (Revised): Map showing the locations of proposed Watering Troughs and Cattle Crossings.



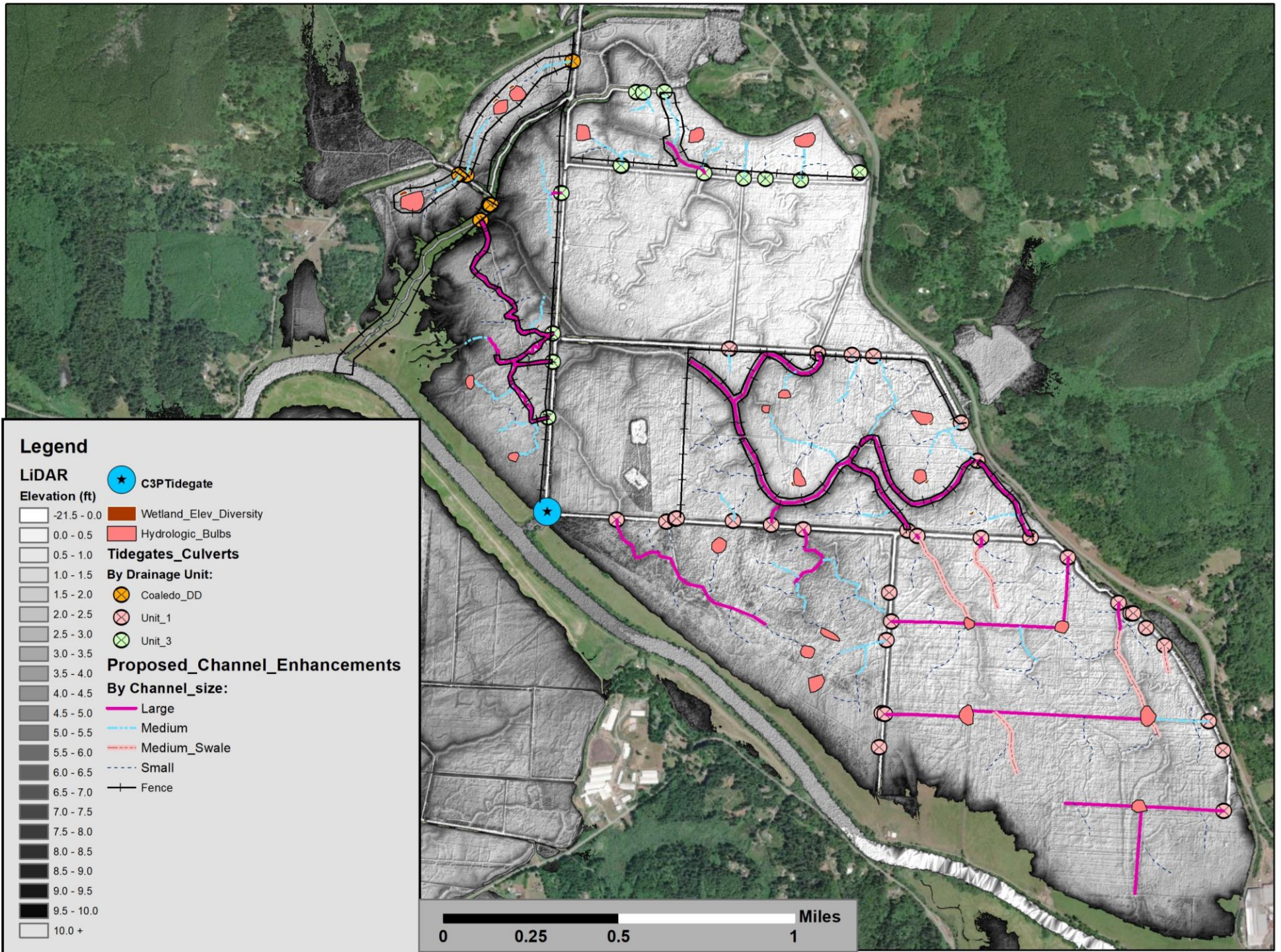


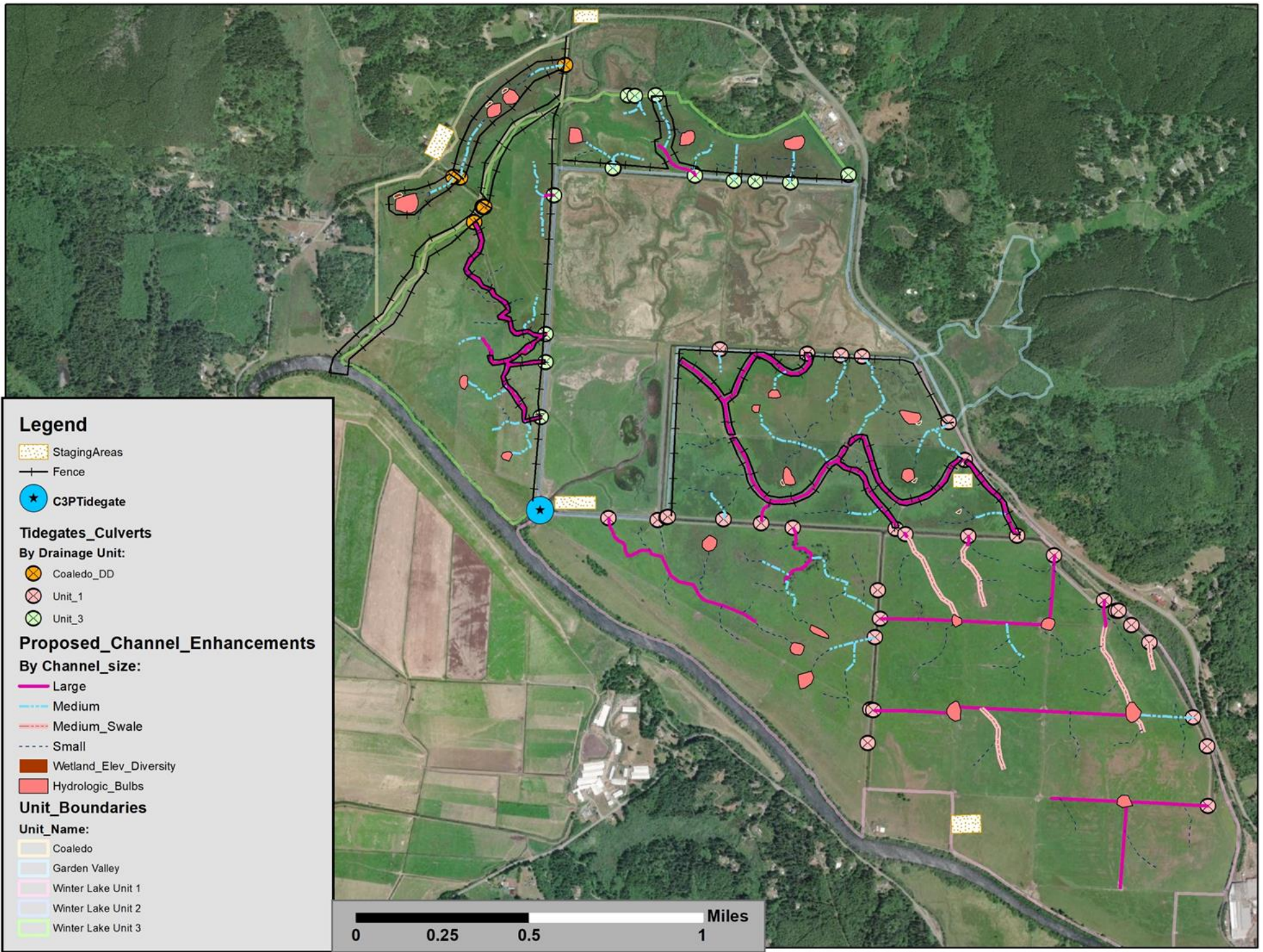
Figure 26. LiDAR Hillshade Imagery with proposed channel network





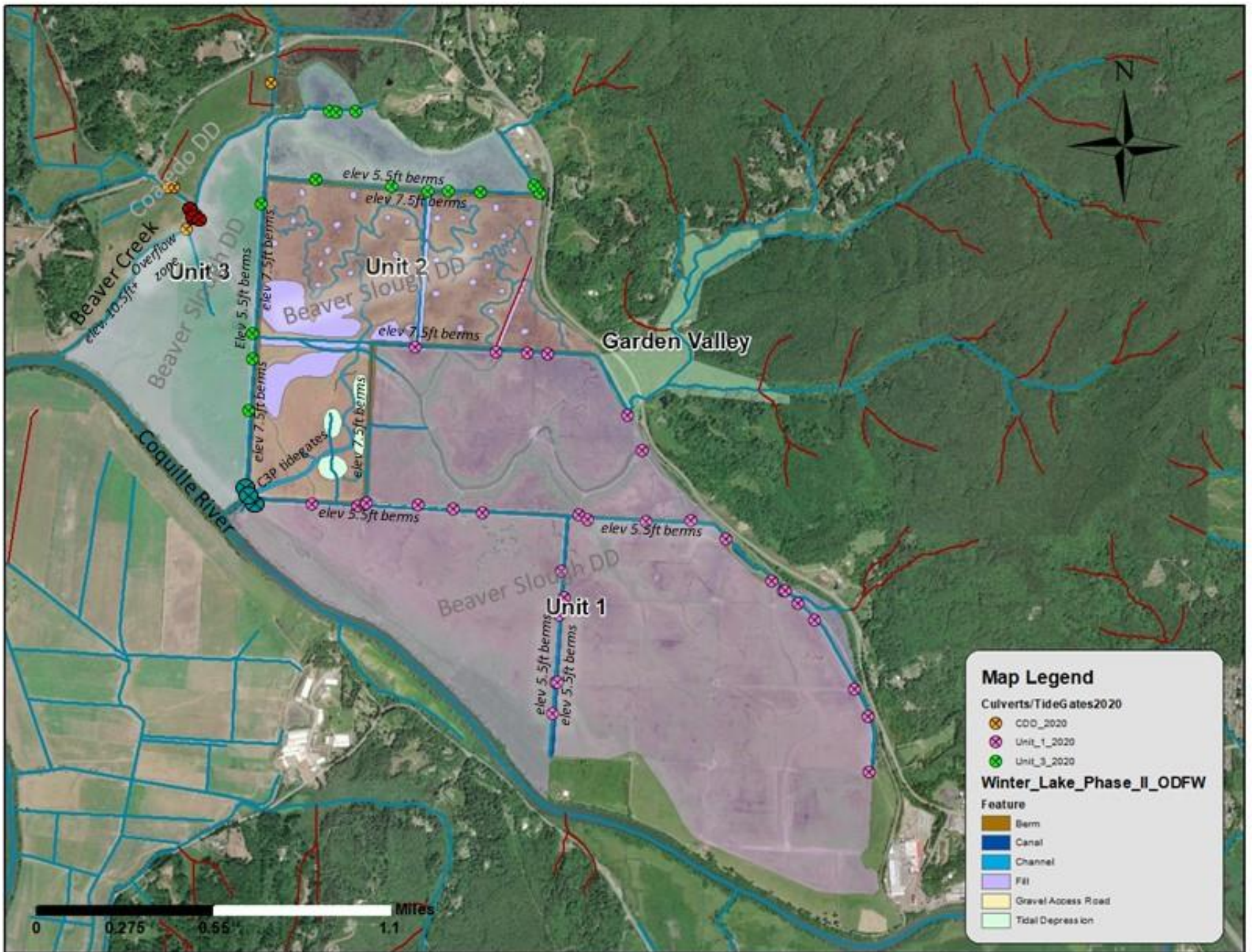
Page 44 of 67  
**Figure 27. Photos of existing shallow swale channels**





Page 85- STAFF REPORT **Figure 28. Map of Equipment Staging Areas**





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**Figure 29. Berm Map**



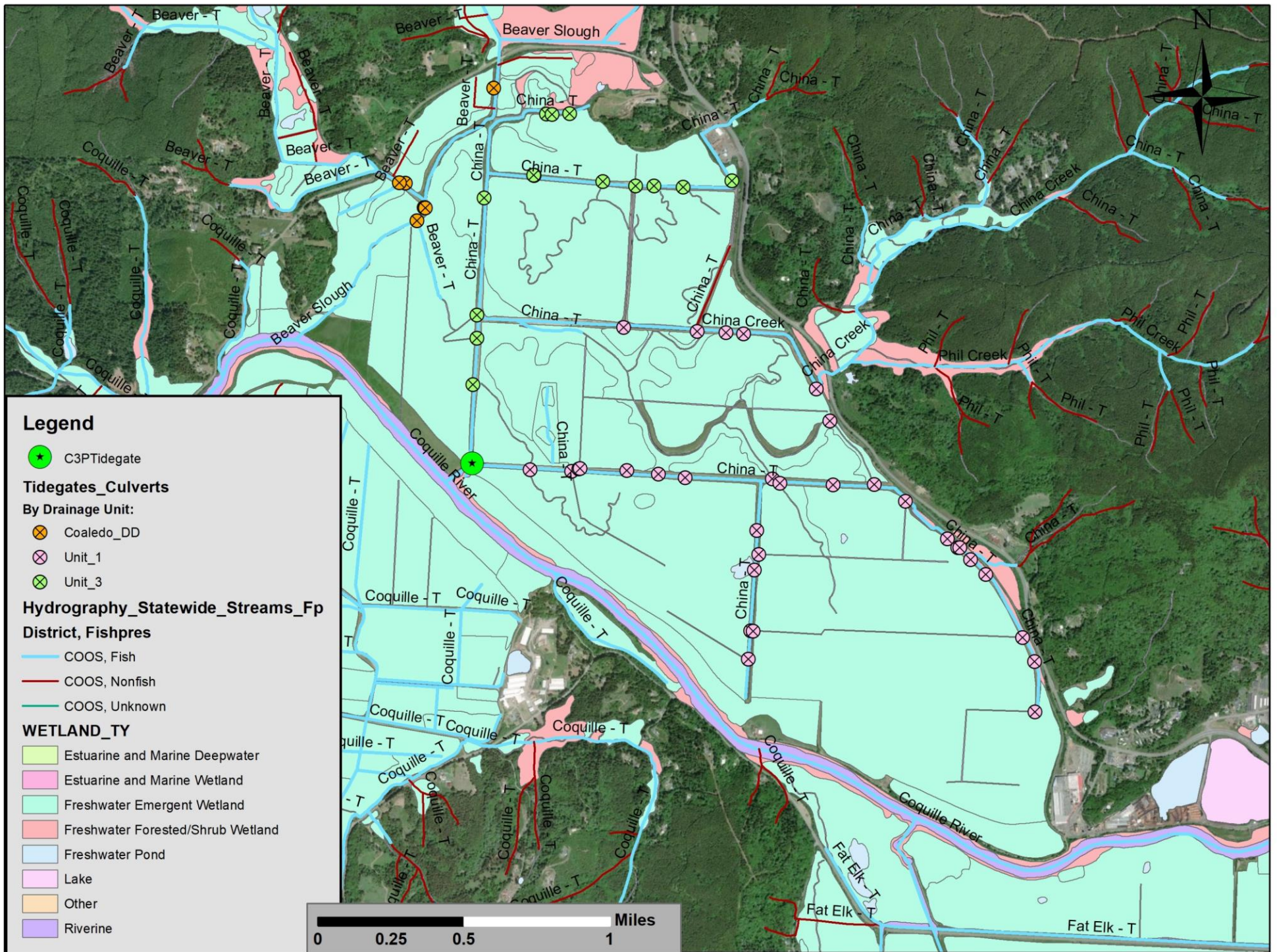


Figure 30. Wetlands Map



# Winter Lake Phase III Project: FLOODPLAIN ANALYSIS

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**JUNE 30, 2023**

---

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## Appendices

Appendix A: HEC-RAS standard summary table for existing conditions and proposed conditions hydraulic models

Appendix B: Design Plans



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# 1 Introduction

## 1.1 Background

The Winter Lake Phase III Project is being designed by Kilgren Water Resources (KWR) on behalf of the Coos County Soil and Water Conservation District (Coos SWCD). The proposed project is located within Coos County, Oregon and adjacent to the Coquille River (Figure 1 and Figure 2). The entirety of the project area is located on property within the Beaver Slough Drainage District and Coaledo Drairage District, and included tax lots are listed in Table 1.

**Table 1. Tax lots included within the project area.**

Township	Range	Section	Tax Lot
27S	13W	20	1503
27S	13W	27	400
27S	13W	27	500
27S	13W	28	400
27S	13W	28	600
27S	13W	28	700
27S	13W	29	101
27S	13W	29	103
27S	13W	33	100
27S	13W	33	200
27S	13W	34	800

The project area is located within the Federal Emergency Management Agency (FEMA) delineated Special Flood Hazard Area (SFHA) Zone A mapped for the Coquille River and shown on FEMA Flood Insurance Rate Map (FIRM) Map Numbers 41011C0510F, 41011C0540F, and 41011C0550F (FEMA 2018a). The SFHA Zone A is used by FEMA to identify areas likely to be inundated by the 1-percent annual chance flood, as determined by approximate methods, rather than detailed studies, and do not have specified base flood elevations (BFE's) nor designated floodways. The flood mapping from the Digital Flood Insurance Rate Map (DFIRM) database for Coos County (FEMA 2018b) is shown on Figure 3 for the proposed project area.

## 1.2 Proposed Project

Prior uses of the property, including for agricultural pasture grazing, resulted in degraded wetland functions and habitat quality, and have led to difficulty in maintaining optimal pasturage. The proposed project is focused on voluntary working landscape improvements that combine improved agricultural outcomes with floodplain and wetland restoration actions that benefit native plant communities and wetland conditions to enhance habitat opportunities for populations of juvenile salmonids, among other terrestrial and aquatic wildlife species.

## 1.3 Purpose of Analysis

This report documents hydraulic analysis demonstrating the proposed project will maintain the flood carrying capacity of the watercourse, and with no cumulative increase in the associated base flood inundation or base flood levels per Coos County Zoning and Land Development Ordinances Chapter 4 Section 4.11.251(7b)



General Standards for other development. This hydraulic analysis evaluated the existing conditions and proposed conditions for the 1-percent annual chance exceedance flood event (i.e., the base flood) conditions documented in the FEMA Flood Insurance Study (FIS) for Coos County, Oregon and Incorporated Areas (FIS Number 41011CV001C with a revised date of December 7, 2018; FEMA 2018c). The analysis and this report provide documentation and support for compliance with Coos County Zoning and Land Development Ordinances Chapter 4 Section 4.11.251(7b) General Standards for other development, and the National Flood Insurance Program (NFIP) regulations governed by Title 44 of the Code of Federal Regulations (CFR) Section 60.3(d)(3). Excerpts of these provisions are provided here for reader reference:

### 1.3.1 Coos County Zoning and Land Development Ordinances: Chapter 4

- Section 4.11.251 General Standards, 7. Other Development

*“b. Result in a cumulative increase of more than one foot during the occurrence of the base flood discharge if the development will occur within a designated flood plain outside of a designated floodway.”*

### 1.3.2 NFIP Regulations 44 CFR 60.3 (d) (3)

*“prohibit encroachments, including fill, new construction, substantial improvements and other development within the adopted regulatory floodway unless it has been demonstrated through hydrologic and hydraulic analyses performed in accordance with standard engineering practice that the proposed encroachment would not result in any increase in flood levels within the community during the occurrence of the base (100-year) flood discharge.”*

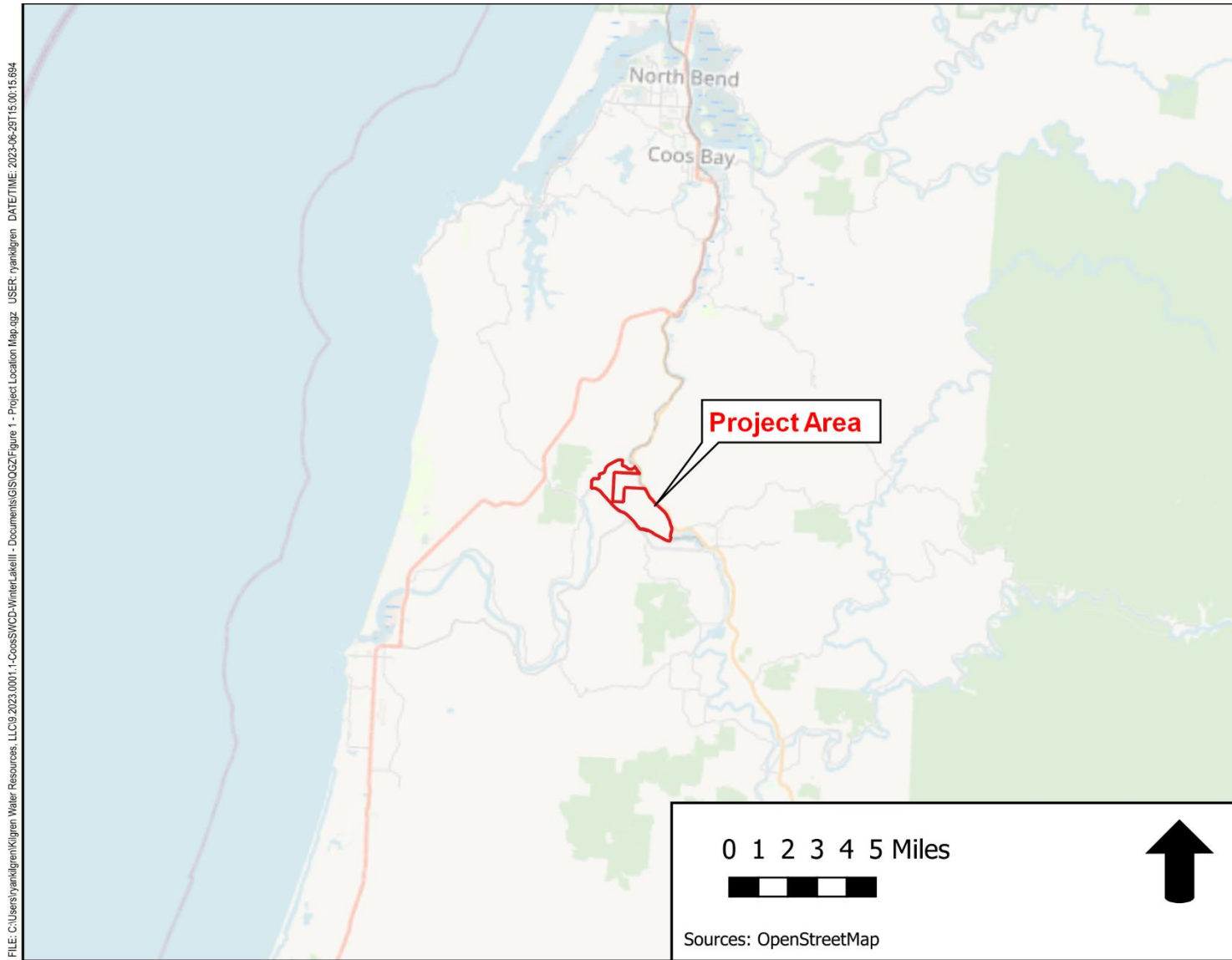


Figure 1. Project area location map.



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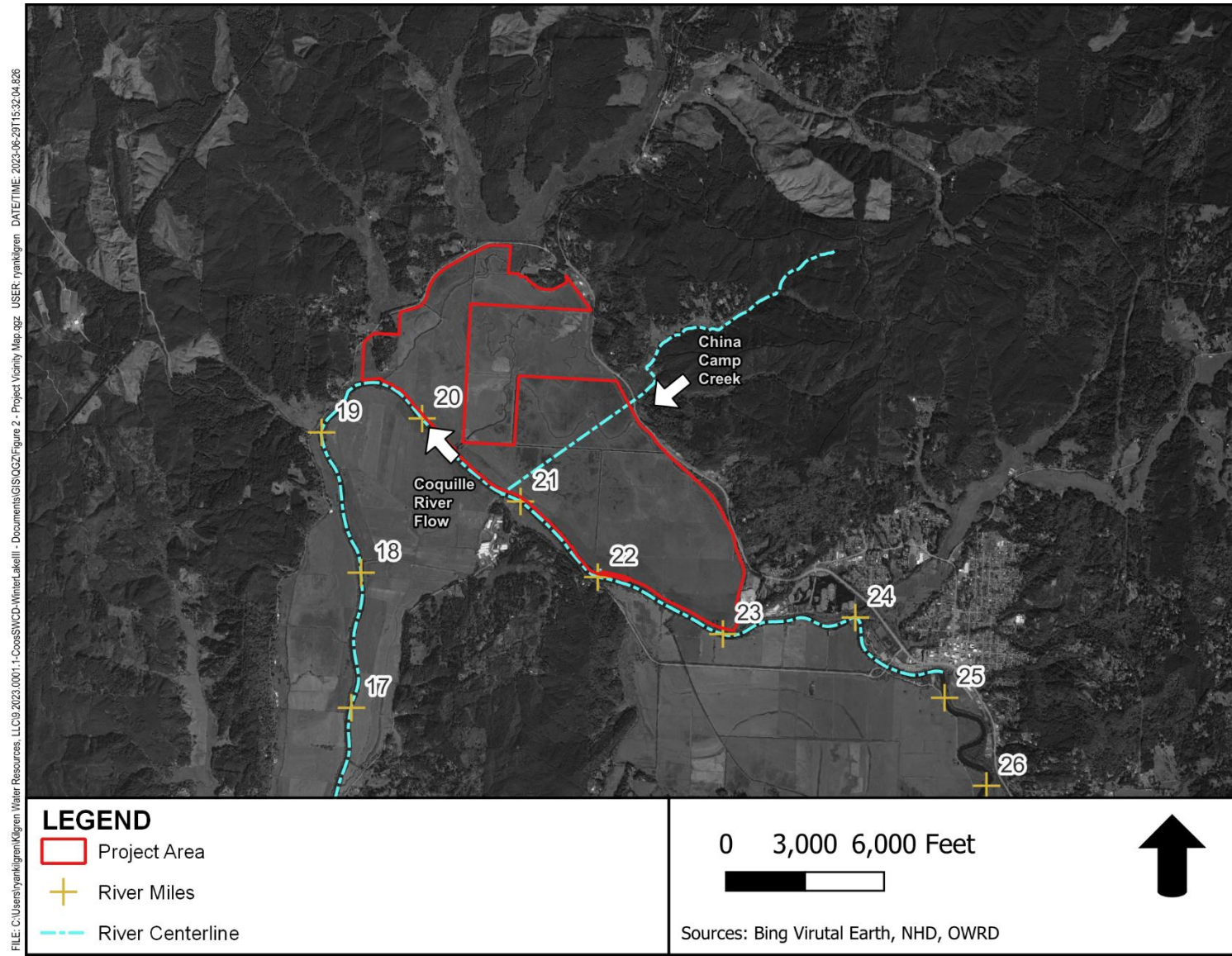


Figure 2. Project area vicinity map.

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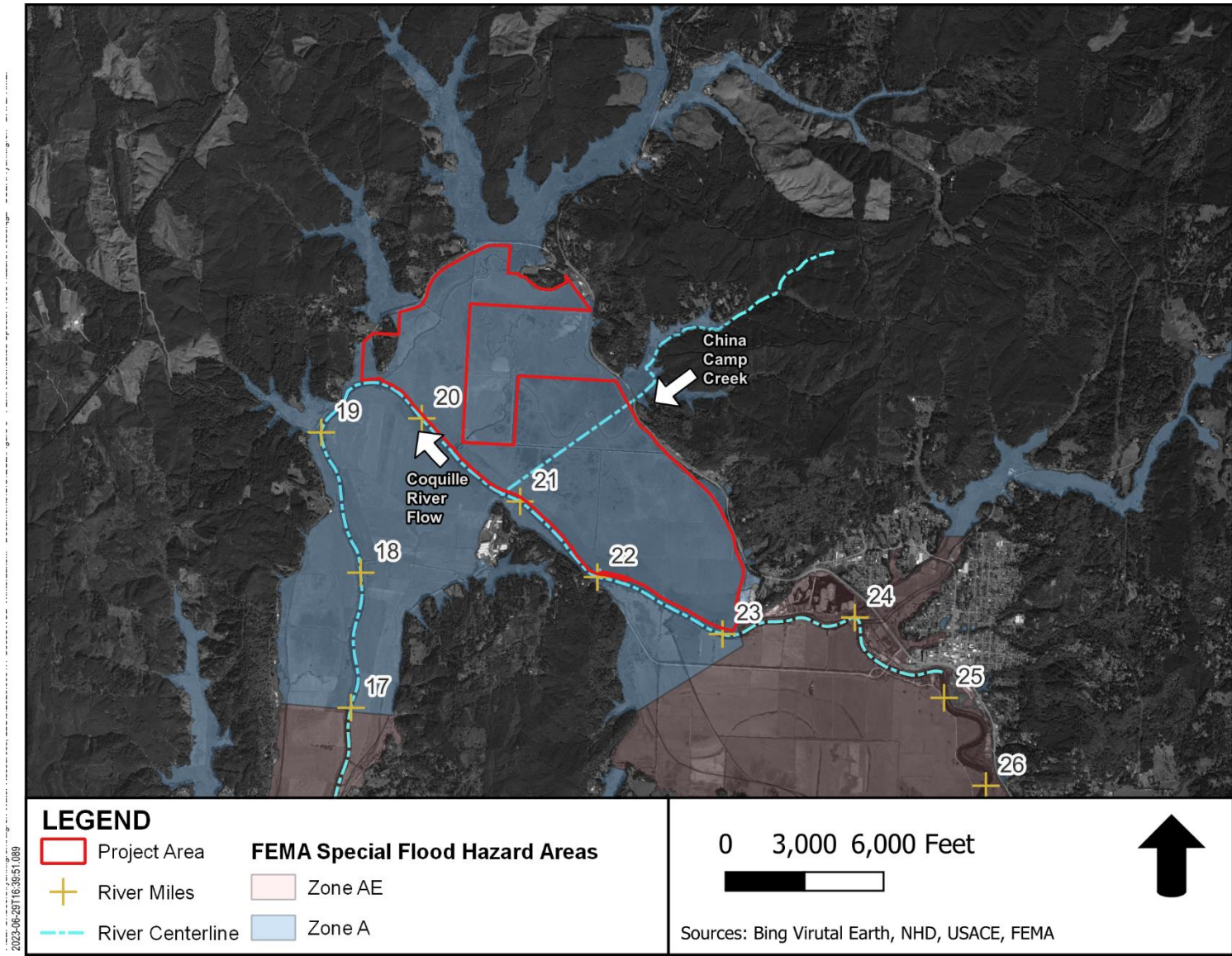


Figure 3. FEMA delineated special flood hazard areas.

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## 2 Hydraulic Analysis

### 2.1 Methodology

Hydraulic modeling analysis following FEMA guidance (FEMA 2013 and 2021b) using the U.S. Army Corps of Engineers (USACE) Hydrologic Engineering Center's River Analysis System (HEC-RAS) computer program, Version 6.3 (USACE 2022), was conducted to evaluate potential floodplain effects for the proposed project. Since the FEMA Special Flood Hazard Area delineated at the proposed project is designated as Zone A, no effective FIS HEC-RAS model is available and FEMA's floodplain area is derived by approximate methods only. For the purposes of evaluating the potential effects of the proposed project on the existing floodplain conditions, a comparative hydraulic model analysis was prepared. The existing conditions modeling was derived from a previous similar project at the Winter Lake site and which modeling was developed to assess floodplain compliance for Coos County (Tetra Tech 2014). The proposed conditions of the previous model were implemented through construction actions during 2018, and provide the existing conditions for the current analysis, in an effort to best evaluate for cumulative impacts.

The model includes a total of 80 cross sections were developed for the analysis, 17 of which transect the property of the proposed project (Figure 4). These cross-section locations were used for both the existing conditions and proposed conditions modeling. The proposed conditions geometry was updated from the proposed channel grading geometry for drainage improvements.

Similar to the previous (Tetra Tech 2014) analysis, China Camp Creek is included as a flow input to the flood conditions of the project area.

### 2.2 Project Datum

The effective study (FEMA 2018c) uses elevations that are relative to NAVD88 with units of feet. The analyses presented in relationship to the proposed project utilizes this same (i.e., NAVD88) datum for consistency.

### 2.3 Topographic Data

Topographic survey data have been collected at the project area and combined with LiDAR terrain datasets for the development of the proposed designs. These datasets are used for the analysis presented in this report, and include:

- LiDAR based bare earth elevation digital terrain model (DTM) development from the Oregon Department of Geology and Mineral Industries (DOGAMI 2009); and,
- Previous project constructed grading surface.

The Design Plans for the proposed channels are included as Appendix B of this report. Hydraulic model cross sections for the refined model were developed using the previously developed modeling for the existing conditions and then revising the cross section geometry for the proposed conditions grading.

### 2.4 Hydrology

The hydrologic input for the flood modeling was utilized from the previous modeling effort. The 100-year discharge of 111,000 cubic feet per second (cfs) for the detailed FEMA flood study (FEMA 2018c) upstream of the project site and for the City of Coquille, Oregon was used as the upstream boundary for the Coquille River.



The downstream boundary condition was set as a known water surface elevation of 15.2 feet for the Coquille River at Bandon from the FIS (FEMA 2018c). The 100-year discharge for China Camp Creek was computed using regional regressions (USGS 2023) as 281 cfs.

## 2.5 Roughness Coefficients

Manning's coefficients were used to represent the roughness characteristics associated with the river channel and overbank areas. These roughness coefficients were derived from the previous analysis (Tetra Tech 2014) and are in line with USACE (2022) recommended values corresponding to land cover types for the project area and Coquille River channel and floodplain. The values generally ranged from 0.03 – 0.1 for the channel and overbank for the studied reach.

## 3 Hydraulic Results

A comparison of existing and proposed water surface elevations at cross sections within the extent of study is included in Table 2. The results show that the proposed conditions **do not** cause a cumulative increase the water surface elevation for the modeled 1-percent annual chance exceedance flood above the one-foot allowance per Coos County Zoning and Land Development Ordinances Chapter 4 Section 4.11.251(7b) General Standards for other development. The proposed conditions meet the Coos County General Standards for other development and will not impact the natural flood carrying capacity. The standard summary table for the existing and proposed conditions hydraulic modeling is provided in Appendix A.

## 4 Conclusions

The proposed actions for the Winter Lake Phase III Project seek to restore degraded wetland functions and habitat quality and improve agricultural use conditions. The proposed project was evaluated using a hydraulic analysis for potential impacts on flooding. The results of this analysis demonstrate compliance with the requirements of the regulations referenced in Section 1.3 of this report and as summarized here:

### 4.1.1 Coos County Zoning and Land Development Ordinances: Chapter 4

- Section 4.11.251 General Standards, 7. Other Development

The proposed actions are located within the SFHA Zone A, only, and do not have specified BFE's or a designated floodway, as shown on FEMA FIRM Map Numbers 41011C0510F, 41011C0540F, and 41011C0550F (FEMA 2018a). The SFHA Zone A extent in the vicinity of the proposed project are depicted on Figure 3 and the proposed conditions are shown in Appendix B of this report.

Pursuant to subpart b, proposed project during the base flood discharge has no cumulative effect on the flood levels. The cumulative effect was evaluated using the best available topographic information for the project area, and which utilized previous construction grading and hydraulic modeling analysis (Tetra Tech 2014).

### 4.1.2 NFIP Regulations 44 CFR 60.3 (d) (3)

The proposed actions are located within designated SFHA Zone A areas, only, and **do not have specified BFE's or a floodway.** These extents are shown on the FEMA FIRM Map Numbers 41011C0510F, 41011C0540F, and 41011C0550F (FEMA 2018a).

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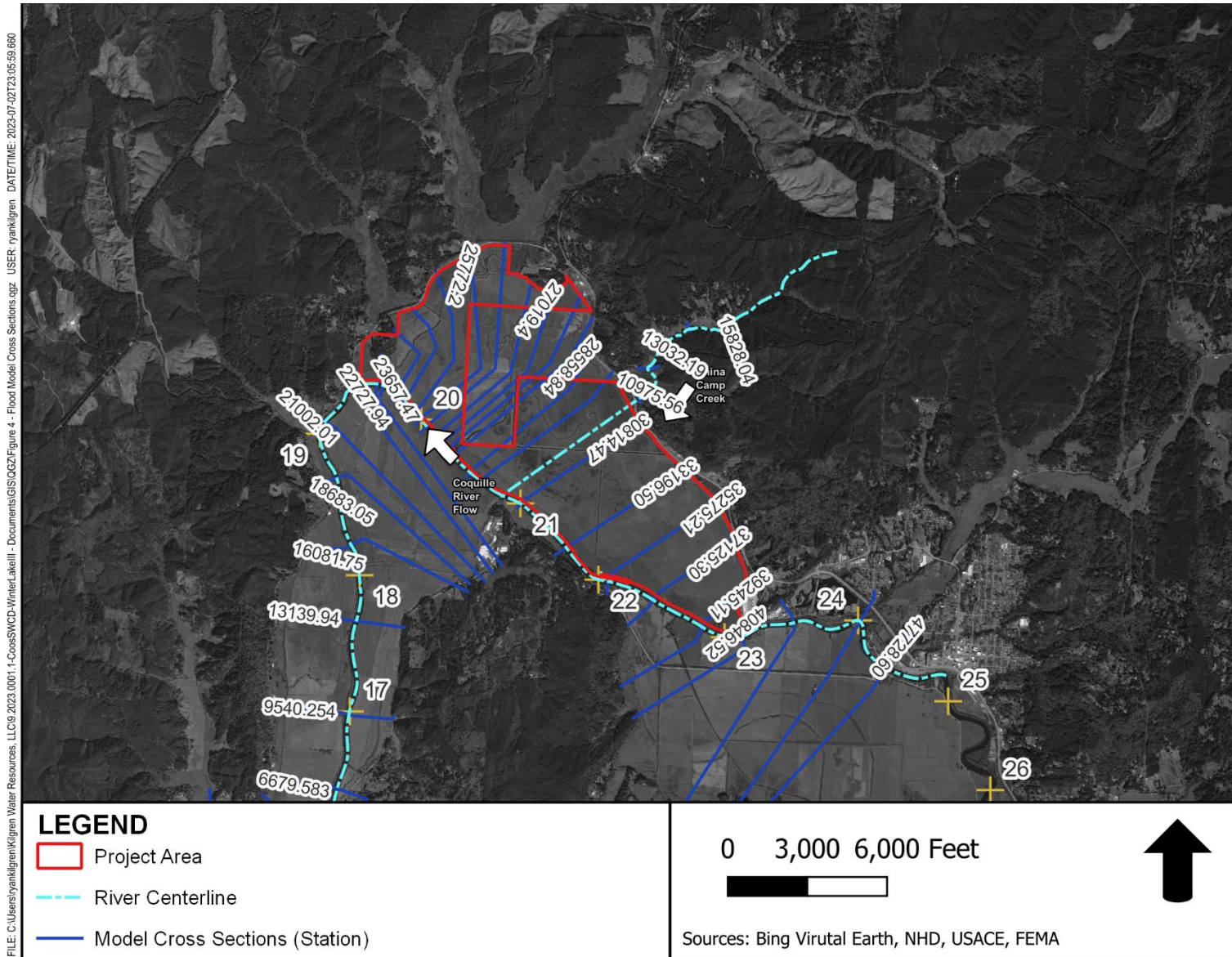


Figure 4. Hydraulic model cross sections near the project area for flood analysis.

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**Table 2. A comparison of existing and proposed flood model results. Table rows with yellow highlighting correspond to flood model cross section station numbers within the property of the proposed project.**

Flood model cross section station number	Water surface elevation (Feet)		Change in water surface elevation (proposed conditions minus existing conditions) [Feet]
	Existing conditions	Proposed conditions	
45576.66	28.00	28.00	0.00
42897.18	27.99	27.99	0.00
40846.52	27.83	27.83	0.00
39245.11	27.82	27.82	0.00
37125.3	27.68	27.68	0.00
35275.21	27.55	27.55	0.00
33196.5	27.38	27.38	0.00
30814.47	27.13	27.13	0.00
29098.84	26.99	26.99	0.00
28558.84	26.94	26.94	0.00
27645.12	26.90	26.90	0.00
27331.19	26.88	26.88	0.00
27019.4	26.86	26.86	0.00
26707.6	26.83	26.83	0.00
26084	26.82	26.82	0.00
25772.2	26.78	26.78	0.00
25460.45	26.69	26.69	0.00
24820.45	26.53	26.53	0.00
24451.45	26.31	26.31	0.00
23882.51	25.39	25.39	0.00
23657.47	26.06	26.06	0.00
22727.94	26.05	26.05	0.00
21002.01	26.04	26.04	0.00



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## 5 State of Oregon Professional Engineer Certification

I Ryan W. Kilgren am a qualified civil engineer licensed to practice in the State of Oregon. I certify that the engineering analyses provided in this memorandum indicate compliance with the required regulations:

- Coos County Zoning and Land Development Ordinances Chapter 4 Section 4.11.251(7b) General Standards for other development; and,
- NFIP regulations governed by Title 44 of the CFR, Section 60.3(d)(3).

  
\_\_\_\_\_  
**Signature**

June 30, 2023

\_\_\_\_\_  
**Date**

Civil & Water Resources Engineer

\_\_\_\_\_  
**Title**

83634PE

\_\_\_\_\_  
**License No.**



RENEWS: 6/30/2025

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## 6 References

- Federal Emergency Management Agency (FEMA). 2013. Procedures for “No-Rise” Certification For Proposed Developments in the Regulatory Floodway. US Department of Homeland Security Region X. October 2013.
- FEMA. 2018a. Flood Insurance Rate Map (FIRM) Map Number 41011C0510F, 41011C0540F, and 41011C0550F. Revised Date: December 7, 2018.
- FEMA. 2018b. Digital Flood Insurance Rate Map (DFIRM) database for Coos County, Oregon and Incorporated Areas. Database Revision Date December 7, 2018.
- FEMA. 2018c. Flood Insurance Study (FIS), Coos County, Oregon and Incorporated Areas. Flood Insurance Study Number 41011CV001C. Revised Date: December 7, 2018.
- FEMA. 2021b. Guidance for Flood Risk Analysis and Mapping; Floodway Analysis and Mapping, Guidance Document No. 79. November 2021.
- Oregon Department of Geology and Mineral Industries (DOGAMI). 2009. LiDAR Remote Sensing Data Collection; Department of Geology and Mineral Industries; South Coast, Oregon. Submitted by Watershed Sciences. May 8, 2009.
- Tetra Tech. 2014. Winter Lake Restoration Project: No-Rise Analysis. November 2014.
- United States Army Corps of Engineers (USACE). 2022. HEC-RAS Analysis System: Hydraulic Reference Manual. Version 6.3. Available online at: <http://www.hec.usace.army.mil/software/hec-ras>
- United States Geological Survey (USGS). 2023. StreamStats program for Oregon. Available online at: <https://streamstats.usgs.gov/ss/>

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# Appendix A

## HEC-RAS STANDARD SUMMARY TABLE FOR EXISTING CONDITIONS AND PROPOSED CONDITIONS HYDRAULIC MODELS



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HEC-RAS standard summary table for existing conditions and proposed conditions hydraulic models.

Reach	River Sta	Profile	Plan	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Crit W.S. (ft)	E.G. Elev (ft)	E.G. Slope (ft/ft)	Vel Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)	Froude # Chl
Reach 1	47728.6	1-PCT AEP	Existing Conditions	111000	-8.25	28.08	15.64	28.09	0.000009	1.43	166023.8	8759.45	0.04
Reach 1	47728.6	1-PCT AEP	Proposed Conditions	111000	-8.25	28.08	15.64	28.09	0.000009	1.43	166029.3	8759.47	0.04
Reach 1	45576.66	1-PCT AEP	Existing Conditions	111000	-38.67	28	6.23	28.05	0.000046	3.14	96573.24	8838.1	0.09
Reach 1	45576.66	1-PCT AEP	Proposed Conditions	111000	-38.67	28	6.23	28.05	0.000046	3.14	96578.93	8838.1	0.09
Reach 1	42897.18	1-PCT AEP	Existing Conditions	111000	-12.53	27.99	13.61	28	0.000007	1.22	185361.5	9400.7	0.04
Reach 1	42897.18	1-PCT AEP	Proposed Conditions	111000	-12.53	27.99	13.61	28	0.000007	1.22	185367.4	9400.71	0.04
Reach 1	40846.52	1-PCT AEP	Existing Conditions	111000	-14.21	27.83	15.45	27.95	0.000109	4.73	64023.88	6315.26	0.15
Reach 1	40846.52	1-PCT AEP	Proposed Conditions	111000	-14.21	27.83	15.45	27.95	0.000109	4.73	64028.16	6315.26	0.15
Reach 1	39245.11	1-PCT AEP	Existing Conditions	111000	-14.11	27.82	12.99	27.85	0.000026	2.49	103291.9	6649.05	0.07
Reach 1	39245.11	1-PCT AEP	Proposed Conditions	111000	-14.11	27.82	12.99	27.85	0.000026	2.49	103296.3	6649.06	0.07
Reach 1	37125.3	1-PCT AEP	Existing Conditions	111000	-14.49	27.68	15.07	27.76	0.00008	3.79	66458.48	5255.66	0.11
Reach 1	37125.3	1-PCT AEP	Proposed Conditions	111000	-14.49	27.68	15.07	27.76	0.00008	3.79	66462.05	5255.66	0.11

HEC-RAS standard summary table for existing conditions and proposed conditions hydraulic models (Continued).

Reach	River Sta	Profile	Plan	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Crit W.S. (ft)	E.G. Elev (ft)	E.G. Slope (ft/ft)	Vel Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)	Froude # Chl
Reach 1	35275.21	1-PCT AEP	Existing Conditions	111000	-9.91	27.55	12.89	27.63	0.000073	3.63	73031.66	6380.85	0.12
Reach 1	35275.21	1-PCT AEP	Proposed Conditions	111000	-9.91	27.55	12.89	27.63	0.000073	3.63	73035.77	6380.88	0.12
Reach 1	33196.5	1-PCT AEP	Existing Conditions	111000	-12.01	27.38	19.91	27.47	0.000104	4.07	64780.77	5823.55	0.12
Reach 1	33196.5	1-PCT AEP	Proposed Conditions	111000	-12.01	27.38	19.91	27.47	0.000104	4.07	64783.97	5823.55	0.13
Reach 1	30814.47	1-PCT AEP	Existing Conditions	111000	-12.41	27.13	11.71	27.23	0.000089	4.2	64891.05	5624.38	0.13
Reach 1	30814.47	1-PCT AEP	Proposed Conditions	111000	-12.41	27.13	11.71	27.23	0.000089	4.2	64892.05	5624.38	0.13
Reach 2	29098.84	1-PCT AEP	Existing Conditions	111281	-11.67	26.99	11.19	27.05	0.000064	3.39	79051.23	6737.33	0.1
Reach 2	29098.84	1-PCT AEP	Proposed Conditions	111281	-11.67	26.99	11.19	27.05	0.000064	3.39	79051.77	6737.33	0.1
Reach 2	28558.84	1-PCT AEP	Existing Conditions	111281	-11.67	26.94	11.22	27.01	0.000064	3.38	79447.67	6810.49	0.1
Reach 2	28558.84	1-PCT AEP	Proposed Conditions	111281	-11.67	26.94	11.22	27.01	0.000064	3.38	79448.25	6810.49	0.1
Reach 2	27645.12	1-PCT AEP	Existing Conditions	111281	-11.86	26.9	11.19	26.94	0.000064	2.83	85949.57	7655.25	0.09
Reach 2	27645.12	1-PCT AEP	Proposed Conditions	111281	-11.86	26.9	11.19	26.94	0.000064	2.83	85950.23	7655.25	0.09



HEC-RAS standard summary table for existing conditions and proposed conditions hydraulic models (Continued).

Reach	River Sta	Profile	Plan	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Crit W.S. (ft)	E.G. Elev (ft)	E.G. Slope (ft/ft)	Vel Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)	Froude # Chl
Reach 2	27331.19	1-PCT AEP	Existing Conditions	111281	-11.86	26.88	11.21	26.92	0.000047	2.92	94399.15	8108.54	0.09
Reach 2	27331.19	1-PCT AEP	Proposed Conditions	111281	-11.86	26.88	11.21	26.92	0.000047	2.92	94399.87	8108.54	0.09
Reach 2	27019.4	1-PCT AEP	Existing Conditions	111281	-12	26.86	18.37	26.91	0.000051	3.07	89534.11	7623.44	0.09
Reach 2	27019.4	1-PCT AEP	Proposed Conditions	111281	-12	26.86	18.37	26.91	0.000051	3.07	89534.86	7623.44	0.09
Reach 2	26707.6	1-PCT AEP	Existing Conditions	111281	-12.13	26.83	18.45	26.88	0.000057	3.12	85341	7273.18	0.1
Reach 2	26707.6	1-PCT AEP	Proposed Conditions	111281	-12.13	26.83	18.45	26.88	0.000057	3.12	85341.73	7273.18	0.1
Reach 2	26084	1-PCT AEP	Existing Conditions	111281	-12.41	26.82	18.06	26.85	0.000043	2.54	100168.3	8433.14	0.08
Reach 2	26084	1-PCT AEP	Proposed Conditions	111281	-12.41	26.82	18.06	26.85	0.000043	2.54	100169	8433.14	0.08
Reach 2	25772.2	1-PCT AEP	Existing Conditions	111281	-12.54	26.78	18.04	26.82	0.000049	2.8	92124.59	7683.49	0.08
Reach 2	25772.2	1-PCT AEP	Proposed Conditions	111281	-12.54	26.78	18.04	26.82	0.000049	2.8	92124.98	7683.49	0.08
Reach 2	25460.45	1-PCT AEP	Existing Conditions	111281	-12.68	26.69	10.93	26.77	0.000067	3.85	74565.17	6189.76	0.11
Reach 2	25460.45	1-PCT AEP	Proposed Conditions	111281	-12.68	26.69	10.93	26.77	0.000067	3.85	74565.11	6189.76	0.11

HEC-RAS standard summary table for existing conditions and proposed conditions hydraulic models (Continued).

Reach	River Sta	Profile	Plan	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Crit W.S. (ft)	E.G. Elev (ft)	E.G. Slope (ft/ft)	Vel Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)	Froude # Chl
Reach 2	24820.45	1-PCT AEP	Existing Conditions	111281	-12.68	26.53	10.94	26.69	0.000112	4.94	54624.75	4447.66	0.15
Reach 2	24820.45	1-PCT AEP	Proposed Conditions	111281	-12.68	26.53	10.94	26.69	0.000112	4.94	54624.44	4447.66	0.15
Reach 2	24451.45	1-PCT AEP	Existing Conditions	111281	-12.68	26.31	10.94	26.61	0.000177	6.2	40583.18	3255.63	0.19
Reach 2	24451.45	1-PCT AEP	Proposed Conditions	111281	-12.68	26.31	10.94	26.61	0.000177	6.2	40583.18	3255.63	0.19
Reach 2	23882.51	1-PCT AEP	Existing Conditions	111281	-10.52	25.39		26.36	0.000368	8.98	19747.93	1262.04	0.28
Reach 2	23882.51	1-PCT AEP	Proposed Conditions	111281	-10.52	25.39		26.36	0.000368	8.98	19747.93	1262.04	0.28
Reach 2	23657.47	1-PCT AEP	Existing Conditions	111281	-11.97	26.06	9.83	26.07	0.00001	1.52	150393.7	7842.03	0.05
Reach 2	23657.47	1-PCT AEP	Proposed Conditions	111281	-11.97	26.06	9.83	26.07	0.00001	1.52	150393.7	7842.03	0.05
Reach 2	22727.94	1-PCT AEP	Existing Conditions	111281	-18.18	26.05	11.14	26.06	0.000009	1.29	166901.4	8650.2	0.04
Reach 2	22727.94	1-PCT AEP	Proposed Conditions	111281	-18.18	26.05	11.14	26.06	0.000009	1.29	166901.4	8650.2	0.04
Reach 2	21002.01	1-PCT AEP	Existing Conditions	111281	-17.28	26.04	10.82	26.04	0.000007	1.24	190827.1	9719.59	0.04
Reach 2	21002.01	1-PCT AEP	Proposed Conditions	111281	-17.28	26.04	10.82	26.04	0.000007	1.24	190827.1	9719.59	0.04

HEC-RAS standard summary table for existing conditions and proposed conditions hydraulic models (Continued).

Reach	River Sta	Profile	Plan	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Crit W.S. (ft)	E.G. Elev (ft)	E.G. Slope (ft/ft)	Vel Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)	Froude # Chl
Reach 2	18683.05	1-PCT AEP	Existing Conditions	111281	-16.71	26.01	13.59	26.02	0.000011	1.58	143947.1	7177.9 1	0.05
Reach 2	18683.05	1-PCT AEP	Proposed Conditions	111281	-16.71	26.01	13.59	26.02	0.000011	1.58	143947.1	7177.9 1	0.05
Reach 2	16081.75	1-PCT AEP	Existing Conditions	111281	-17.59	25.97	10.58	25.99	0.000017	1.8	120976.5	6427.0 6	0.05
Reach 2	16081.75	1-PCT AEP	Proposed Conditions	111281	-17.59	25.97	10.58	25.99	0.000017	1.8	120976.5	6427.0 6	0.05
Reach 2	13139.94	1-PCT AEP	Existing Conditions	111281	-15.51	25.9	8.74	25.93	0.000024	2.36	94995.25	4746.7 3	0.07
Reach 2	13139.94	1-PCT AEP	Proposed Conditions	111281	-15.51	25.9	8.74	25.93	0.000024	2.36	94995.25	4746.7 3	0.07
Reach 2	9540.254	1-PCT AEP	Existing Conditions	111281	-18.89	25.78	9.45	25.82	0.000034	2.71	83438.67	4413.6 6	0.08
Reach 2	9540.254	1-PCT AEP	Proposed Conditions	111281	-18.89	25.78	9.45	25.82	0.000034	2.71	83438.67	4413.6 6	0.08
Reach 2	6679.583	1-PCT AEP	Existing Conditions	111281	-16.2	25.59	9.84	25.68	0.00007	3.84	56920.51	3060.7	0.11
Reach 2	6679.583	1-PCT AEP	Proposed Conditions	111281	-16.2	25.59	9.84	25.68	0.00007	3.84	56920.51	3060.7	0.11
Reach 2	4448.807	1-PCT AEP	Existing Conditions	111281	-16.06	25.35	9.24	25.49	0.000097	4.63	47546.03	2638.2 6	0.14
Reach 2	4448.807	1-PCT AEP	Proposed Conditions	111281	-16.06	25.35	9.24	25.49	0.000097	4.63	47546.03	2638.2 6	0.14



HEC-RAS standard summary table for existing conditions and proposed conditions hydraulic models (Continued).

Reach	River Sta	Profile	Plan	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Crit W.S. (ft)	E.G. Elev (ft)	E.G. Slope (ft/ft)	Vel Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)	Froude # Chl
Reach 2	2252.086	1-PCT AEP	Existing Conditions	111281	-11.26	24.74	9.11	25.17	0.000197	6.6	28782.55	1612.28	0.21
Reach 2	2252.086	1-PCT AEP	Proposed Conditions	111281	-11.26	24.74	9.11	25.17	0.000197	6.6	28782.55	1612.28	0.21
Reach 2	2193.92*	1-PCT AEP	Existing Conditions	111281	-11.52	24.31		24.77	0.000203	6.66	27867.01	1597.95	0.21
Reach 2	2193.92*	1-PCT AEP	Proposed Conditions	111281	-11.52	24.31		24.77	0.000203	6.66	27867.01	1597.95	0.21
Reach 2	2135.75*	1-PCT AEP	Existing Conditions	111281	-11.79	23.87		24.36	0.000208	6.71	26991.75	1582.24	0.21
Reach 2	2135.75*	1-PCT AEP	Proposed Conditions	111281	-11.79	23.87		24.36	0.000208	6.71	26991.75	1582.24	0.21
Reach 2	2077.59*	1-PCT AEP	Existing Conditions	111281	-12.05	23.42		23.94	0.000212	6.74	26160.7	1565.66	0.21
Reach 2	2077.59*	1-PCT AEP	Proposed Conditions	111281	-12.05	23.42		23.94	0.000212	6.74	26160.7	1565.66	0.21
Reach 2	2019.42*	1-PCT AEP	Existing Conditions	111281	-12.31	22.97		23.51	0.000215	6.76	25376.55	1551.9	0.22
Reach 2	2019.42*	1-PCT AEP	Proposed Conditions	111281	-12.31	22.97		23.51	0.000215	6.76	25376.55	1551.9	0.22
Reach 2	1961.26*	1-PCT AEP	Existing Conditions	111281	-12.58	22.52		23.08	0.000217	6.76	24647.7	1538.89	0.22
Reach 2	1961.26*	1-PCT AEP	Proposed Conditions	111281	-12.58	22.52		23.08	0.000217	6.76	24647.7	1538.89	0.22

HEC-RAS standard summary table for existing conditions and proposed conditions hydraulic models (Continued).

Reach	River Sta	Profile	Plan	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Crit W.S. (ft)	E.G. Elev (ft)	E.G. Slope (ft/ft)	Vel Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)	Froude # Chl
Reach 2	1903.09*	1-PCT AEP	Existing Conditions	111281	-12.84	22.07		22.65	0.000218	6.75	23973.63	1525.2 6	0.22
Reach 2	1903.09*	1-PCT AEP	Proposed Conditions	111281	-12.84	22.07		22.65	0.000218	6.75	23973.63	1525.2 6	0.22
Reach 2	1844.93*	1-PCT AEP	Existing Conditions	111281	-13.1	21.62		22.22	0.000217	6.7	23366.24	1509.1	0.22
Reach 2	1844.93*	1-PCT AEP	Proposed Conditions	111281	-13.1	21.62		22.22	0.000217	6.7	23366.24	1509.1	0.22
Reach 2	1786.77*	1-PCT AEP	Existing Conditions	111281	-13.37	21.19		21.79	0.000214	6.64	22829.79	1494.2 1	0.21
Reach 2	1786.77*	1-PCT AEP	Proposed Conditions	111281	-13.37	21.19		21.79	0.000214	6.64	22829.79	1494.2 1	0.21
Reach 2	1728.60*	1-PCT AEP	Existing Conditions	111281	-13.63	20.76		21.37	0.000211	6.57	22362.02	1480.7 1	0.21
Reach 2	1728.60*	1-PCT AEP	Proposed Conditions	111281	-13.63	20.76		21.37	0.000211	6.57	22362.02	1480.7 1	0.21
Reach 2	1670.44*	1-PCT AEP	Existing Conditions	111281	-13.89	20.35		20.95	0.000205	6.47	21968.11	1466.8 6	0.21
Reach 2	1670.44*	1-PCT AEP	Proposed Conditions	111281	-13.89	20.35		20.95	0.000205	6.47	21968.11	1466.8 6	0.21
Reach 2	1612.27*	1-PCT AEP	Existing Conditions	111281	-14.16	19.96		20.55	0.000199	6.35	21656.38	1445.7 5	0.21
Reach 2	1612.27*	1-PCT AEP	Proposed Conditions	111281	-14.16	19.96		20.55	0.000199	6.35	21656.38	1445.7 5	0.21

HEC-RAS standard summary table for existing conditions and proposed conditions hydraulic models (Continued).

Reach	River Sta	Profile	Plan	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Crit W.S. (ft)	E.G. Elev (ft)	E.G. Slope (ft/ft)	Vel Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)	Froude # Chl
Reach 2	1554.11*	1-PCT AEP	Existing Conditions	111281	-14.42	19.58		20.16	0.000192	6.23	21417.79	1433.7 6	0.2
Reach 2	1554.11*	1-PCT AEP	Proposed Conditions	111281	-14.42	19.58		20.16	0.000192	6.23	21417.79	1433.7 6	0.2
Reach 2	1495.94*	1-PCT AEP	Existing Conditions	111281	-14.68	19.22		19.78	0.000184	6.09	21257.13	1419.0 2	0.2
Reach 2	1495.94*	1-PCT AEP	Proposed Conditions	111281	-14.68	19.22		19.78	0.000184	6.09	21257.13	1419.0 2	0.2
Reach 2	1437.78*	1-PCT AEP	Existing Conditions	111281	-14.95	18.88		19.42	0.000175	5.94	21179.71	1403.5 6	0.19
Reach 2	1437.78*	1-PCT AEP	Proposed Conditions	111281	-14.95	18.88		19.42	0.000175	5.94	21179.71	1403.5 6	0.19
Reach 2	1379.61*	1-PCT AEP	Existing Conditions	111281	-15.21	18.56		19.07	0.000166	5.78	21178.17	1388.0 8	0.19
Reach 2	1379.61*	1-PCT AEP	Proposed Conditions	111281	-15.21	18.56		19.07	0.000166	5.78	21178.17	1388.0 8	0.19
Reach 2	1321.45*	1-PCT AEP	Existing Conditions	111281	-15.47	18.26		18.74	0.000157	5.62	21255.63	1372.9 2	0.18
Reach 2	1321.45*	1-PCT AEP	Proposed Conditions	111281	-15.47	18.26		18.74	0.000157	5.62	21255.63	1372.9 2	0.18
Reach 2	1263.29*	1-PCT AEP	Existing Conditions	111281	-15.74	17.97		18.43	0.000147	5.45	21429.26	1311.1 1	0.18
Reach 2	1263.29*	1-PCT AEP	Proposed Conditions	111281	-15.74	17.97		18.43	0.000147	5.45	21429.26	1311.1 1	0.18



HEC-RAS standard summary table for existing conditions and proposed conditions hydraulic models (Continued).

Reach	River Sta	Profile	Plan	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Crit W.S. (ft)	E.G. Elev (ft)	E.G. Slope (ft/ft)	Vel Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)	Froude # Chl
Reach 2	1205.12*	1-PCT AEP	Existing Conditions	111281	-16	17.71		18.14	0.000138	5.29	21690.75	1275.85	0.17
Reach 2	1205.12*	1-PCT AEP	Proposed Conditions	111281	-16	17.71		18.14	0.000138	5.29	21690.75	1275.85	0.17
Reach 2	1146.96*	1-PCT AEP	Existing Conditions	111281	-16.26	17.46		17.87	0.000129	5.12	22047.07	1191.01	0.17
Reach 2	1146.96*	1-PCT AEP	Proposed Conditions	111281	-16.26	17.46		17.87	0.000129	5.12	22047.07	1191.01	0.17
Reach 2	1088.79*	1-PCT AEP	Existing Conditions	111281	-16.52	17.24		17.62	0.00012	4.95	22586.14	951.08	0.16
Reach 2	1088.79*	1-PCT AEP	Proposed Conditions	111281	-16.52	17.24		17.62	0.00012	4.95	22586.14	951.08	0.16
Reach 2	1030.63*	1-PCT AEP	Existing Conditions	111281	-16.79	17.02		17.38	0.000111	4.79	23264.92	822.32	0.16
Reach 2	1030.63*	1-PCT AEP	Proposed Conditions	111281	-16.79	17.02		17.38	0.000111	4.79	23264.92	822.32	0.16
Reach 2	972.467*	1-PCT AEP	Existing Conditions	111281	-17.05	16.83		17.16	0.000103	4.63	24030.32	822.36	0.15
Reach 2	972.467*	1-PCT AEP	Proposed Conditions	111281	-17.05	16.83		17.16	0.000103	4.63	24030.32	822.36	0.15
Reach 2	914.302*	1-PCT AEP	Existing Conditions	111281	-17.31	16.64		16.96	0.000096	4.48	24823.66	836.2	0.14
Reach 2	914.302*	1-PCT AEP	Proposed Conditions	111281	-17.31	16.64		16.96	0.000096	4.48	24823.66	836.2	0.14

HEC-RAS standard summary table for existing conditions and proposed conditions hydraulic models (Continued).

Reach	River Sta	Profile	Plan	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Crit W.S. (ft)	E.G. Elev (ft)	E.G. Slope (ft/ft)	Vel Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)	Froude # Chl
Reach 2	856.138*	1-PCT AEP	Existing Conditions	111281	-17.58	16.48		16.77	0.000089	4.34	25650.94	847.52	0.14
Reach 2	856.138*	1-PCT AEP	Proposed Conditions	111281	-17.58	16.48		16.77	0.000089	4.34	25650.94	847.52	0.14
Reach 2	797.973*	1-PCT AEP	Existing Conditions	111281	-17.84	16.32		16.59	0.000082	4.2	26497.26	867.74	0.13
Reach 2	797.973*	1-PCT AEP	Proposed Conditions	111281	-17.84	16.32		16.59	0.000082	4.2	26497.26	867.74	0.13
Reach 2	739.809*	1-PCT AEP	Existing Conditions	111281	-18.1	16.17		16.43	0.000076	4.07	27364.93	888.07	0.13
Reach 2	739.809*	1-PCT AEP	Proposed Conditions	111281	-18.1	16.17		16.43	0.000076	4.07	27364.93	888.07	0.13
Reach 2	681.644*	1-PCT AEP	Existing Conditions	111281	-18.37	16.04		16.28	0.00007	3.94	28262.42	908.5	0.12
Reach 2	681.644*	1-PCT AEP	Proposed Conditions	111281	-18.37	16.04		16.28	0.00007	3.94	28262.42	908.5	0.12
Reach 2	623.480*	1-PCT AEP	Existing Conditions	111281	-18.63	15.92		16.14	0.000065	3.81	29172.81	929.08	0.12
Reach 2	623.480*	1-PCT AEP	Proposed Conditions	111281	-18.63	15.92		16.14	0.000065	3.81	29172.81	929.08	0.12
Reach 2	565.316*	1-PCT AEP	Existing Conditions	111281	-18.89	15.8		16.01	0.00006	3.7	30104.43	949.79	0.12
Reach 2	565.316*	1-PCT AEP	Proposed Conditions	111281	-18.89	15.8		16.01	0.00006	3.7	30104.43	949.79	0.12

HEC-RAS standard summary table for existing conditions and proposed conditions hydraulic models (Continued).

Reach	River Sta	Profile	Plan	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Crit W.S. (ft)	E.G. Elev (ft)	E.G. Slope (ft/ft)	Vel Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)	Froude # Chl
Reach 2	507.151*	1-PCT AEP	Existing Conditions	111281	-19.16	15.69		15.89	0.000056	3.58	31065.21	970.62	0.11
Reach 2	507.151*	1-PCT AEP	Proposed Conditions	111281	-19.16	15.69		15.89	0.000056	3.58	31065.21	970.62	0.11
Reach 2	448.987*	1-PCT AEP	Existing Conditions	111281	-19.42	15.6		15.78	0.000052	3.47	32037.96	991.59	0.11
Reach 2	448.987*	1-PCT AEP	Proposed Conditions	111281	-19.42	15.6		15.78	0.000052	3.47	32037.96	991.59	0.11
Reach 2	390.822*	1-PCT AEP	Existing Conditions	111281	-19.68	15.5		15.68	0.000048	3.37	33030.95	1012.69	0.1
Reach 2	390.822*	1-PCT AEP	Proposed Conditions	111281	-19.68	15.5		15.68	0.000048	3.37	33030.95	1012.69	0.1
Reach 2	332.657*	1-PCT AEP	Existing Conditions	111281	-19.95	15.42		15.58	0.000045	3.27	34053	1033.92	0.1
Reach 2	332.657*	1-PCT AEP	Proposed Conditions	111281	-19.95	15.42		15.58	0.000045	3.27	34053	1033.92	0.1
Reach 2	274.493*	1-PCT AEP	Existing Conditions	111281	-20.21	15.34		15.5	0.000042	3.17	35085.63	1055.19	0.1
Reach 2	274.493*	1-PCT AEP	Proposed Conditions	111281	-20.21	15.34		15.5	0.000042	3.17	35085.63	1055.19	0.1
Reach 2	216.328*	1-PCT AEP	Existing Conditions	111281	-20.47	15.27		15.41	0.000039	3.08	36137.5	1076.68	0.09
Reach 2	216.328*	1-PCT AEP	Proposed Conditions	111281	-20.47	15.27		15.41	0.000039	3.08	36137.5	1076.68	0.09



HEC-RAS standard summary table for existing conditions and proposed conditions hydraulic models (Continued).

Reach	River Sta	Profile	Plan	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Crit W.S. (ft)	E.G. Elev (ft)	E.G. Slope (ft/ft)	Vel Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)	Froude # Chl
Reach 2	158.164*	1-PCT AEP	Existing Conditions	111281	-20.74	15.2		15.34	0.000036	2.99	37218.54	1098.43	0.09
Reach 2	158.164*	1-PCT AEP	Proposed Conditions	111281	-20.74	15.2		15.34	0.000036	2.99	37218.54	1098.43	0.09
Reach 2	100	1-PCT AEP	Existing Conditions	111281	-21	15.13		15.26	0.000034	2.9	38308.04	1120.44	0.09
Reach 2	100	1-PCT AEP	Proposed Conditions	111281	-21	15.13		15.26	0.000034	2.9	38308.04	1120.44	0.09
Reach 2	85.*	1-PCT AEP	Existing Conditions	111281	-25.83	15.18		15.22	0.000008	1.58	70454.69	1769.3	0.04
Reach 2	85.*	1-PCT AEP	Proposed Conditions	111281	-25.83	15.18		15.22	0.000008	1.58	70454.69	1769.3	0.04
Reach 2	70.*	1-PCT AEP	Existing Conditions	111281	-30.67	15.19		15.21	0.000003	1.02	108924.2	2416.95	0.03
Reach 2	70.*	1-PCT AEP	Proposed Conditions	111281	-30.67	15.19		15.21	0.000003	1.02	108924.2	2416.95	0.03
Reach 2	55.*	1-PCT AEP	Existing Conditions	111281	-35.5	15.2		15.21	0.000001	0.72	153693.9	3063.72	0.02
Reach 2	55.*	1-PCT AEP	Proposed Conditions	111281	-35.5	15.2		15.21	0.000001	0.72	153693.9	3063.72	0.02
Reach 2	40.*	1-PCT AEP	Existing Conditions	111281	-40.33	15.2		15.2	0.000001	0.54	204785.9	3709.85	0.01
Reach 2	40.*	1-PCT AEP	Proposed Conditions	111281	-40.33	15.2		15.2	0.000001	0.54	204785.9	3709.85	0.01

HEC-RAS standard summary table for existing conditions and proposed conditions hydraulic models (Continued).

Reach	River Sta	Profile	Plan	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Crit W.S. (ft)	E.G. Elev (ft)	E.G. Slope (ft/ft)	Vel Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)	Froude # Chl
Reach 2	25.*	1-PCT AEP	Existing Conditions	111281	-45.17	15.2		15.2	0	0.42	262245.4	4355.5	0.01
Reach 2	25.*	1-PCT AEP	Proposed Conditions	111281	-45.17	15.2		15.2	0	0.42	262245.4	4355.5	0.01
Reach 2	10	1-PCT AEP	Existing Conditions	111281	-50	15.2	-47.52	15.2	0	0.34	325991.5	5000.74	0.01
Reach 2	10	1-PCT AEP	Proposed Conditions	111281	-50	15.2	-47.52	15.2	0	0.34	325991.5	5000.74	0.01

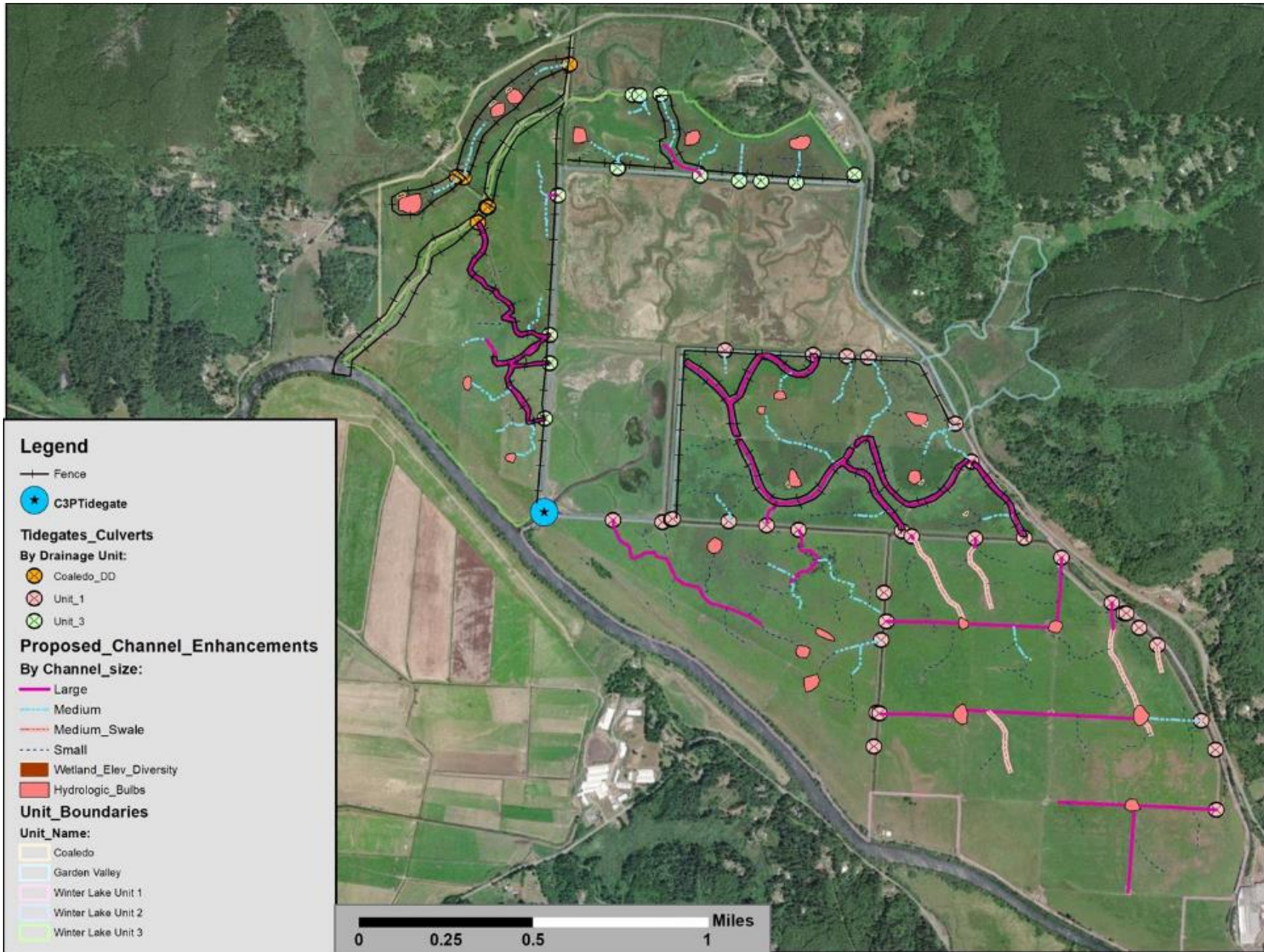
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# Appendix B

## SITE DESIGN PLAN

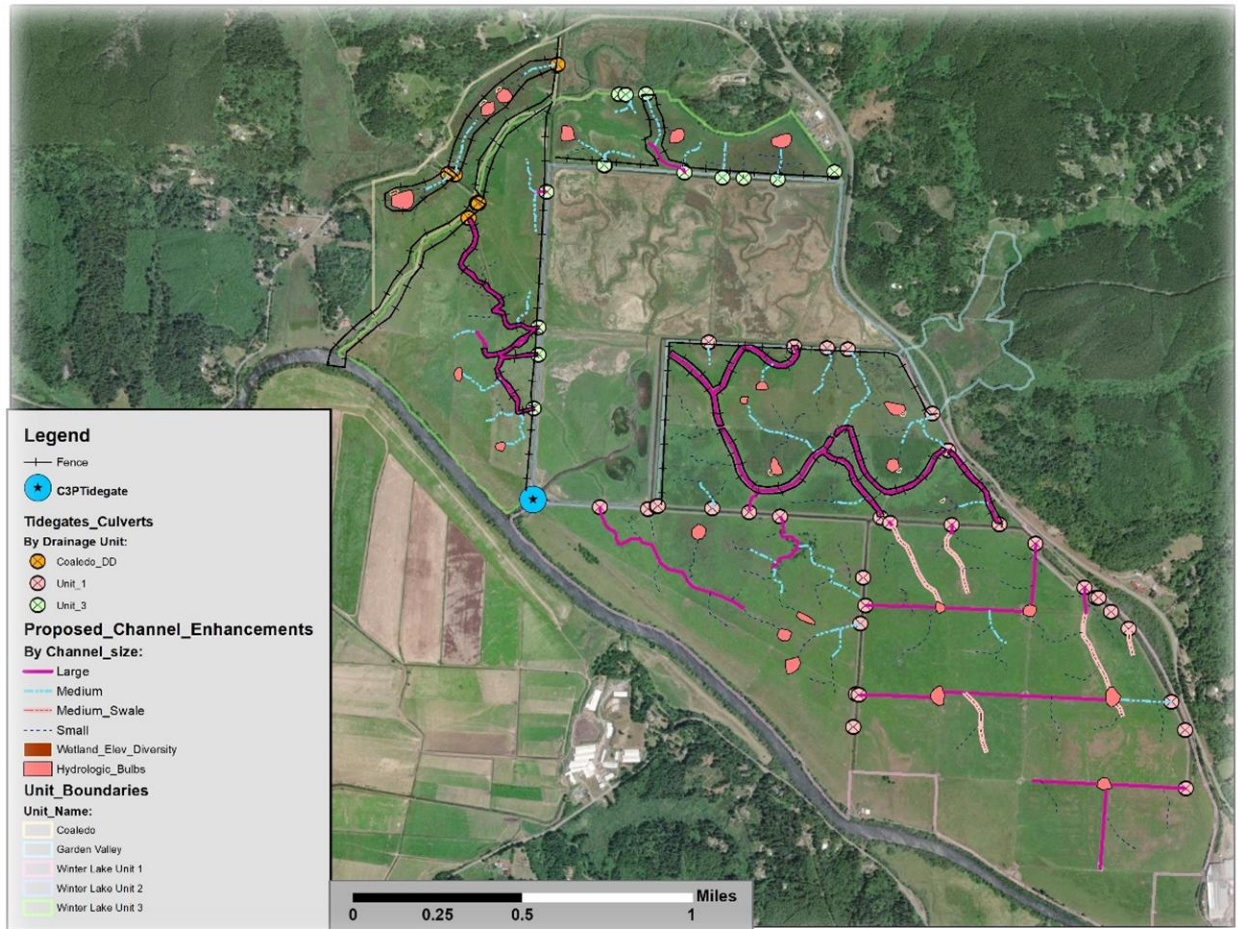
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Winter Lake Phase III Project Phase III  
County Planning Zoning Impacts Analysis  
File #ACU-23-074/FP-23-012

March 18<sup>th</sup>, 2024



Caley Sowers  
District Manager, Coos Soil & Water Conservation District  
Authorized Agent  
for the Beaver Slough Drainage District

and

Christopher W. Claire  
Habitat Protection Biologist  
ODFW Charleston, OR

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## I. Introduction

The Winter Lake Phase III Team has developed a wholistic approach to restoring functional hydrology within the Winter Lake floodplain. Proposed modifications to channels have been designed to provide tidal inflow access as well as improve drainage from interior pasture locations. All proposed new channels and any modifications to existing channel networks have been engineered on-grade to fully accommodate proper drain out and to address habitats where water could otherwise pond and develop conditions where there was potential for mosquito production. The overall Winter Lake Phase III project goals include:

- substantively increasing pasture grass production through maintenance and enhancement of existing agricultural drainage infrastructure
- Substantively increasing capability of the project area to facilitate salmonid (specifically juvenile coho) access to and use of overwintering and rearing habitats
- Implementing generally accepted best management practices for the protection of agricultural water quality and reducing non-point source pollution.

This Impacts analysis has been developed in regard to the project need to align with Coquille River Estuary Management Plan Exclusive Farm Use (CREMP-EFU) under Section 3.3.710 and Chapter IV of the County Planning Zone Overlays and Special Consideration; Section 4.6.200, 4.11.243 and 4.11.251. This analysis provides additional information for the originally submitted County Zoning assessment completed and submitted as part of the compliance process. The original 404 Fill and Removal Permit application and County Planning Zoning Criteria assessment was submitted the second quarter of 2023. This was updated with additional information in December 2023, including the FEMA Floodplain certification and Conditional Use Application forms.

## II. Background

The project area is located primarily within the Beaver Slough Drainage District (BSDD), encompassing lands that were diked and tidegated since 1908. A small portion of proposed project actions lies within the adjacent Coaledo Drainage District (CDD). All lands within the direct project action area (other than equipment staging areas) are under elevation 8.0ft NAVDD88. This is significant in the understanding of water management/control and the inability of the project to deliver or have tidal-associated effects. **The average high-tide elevation at Coquille during non-flood stage or storm conditions is under 8.0ft.** The main BSDD C3P tidegate controls water within the 1,295 acres of the project land area under that jurisdiction. Two pastures in the CDD comprising 99 acres are also within proposed action areas.

The proposed project actions are:

- 1). Construction/reconstruction of tidal floodplain channels to deliver and drain water from the project area more similar to natural historical conditions;
- 2). Install new culverts and tidegates to facilitate channel hydrology inflow/outflow; with the goals of
  - a). Address poor pasture production due to dysfunctional hydrology;
  - b). Provide fish access to highly productive floodplain habitats in winter/spring months; and
  - c). Increase suitability for waterfowl overwintering.
- 3). Implement Agricultural Best Management Practices to protect water quality, including
  - a). Off-channel watering systems to provide livestock with alternatives to watering directly in channels and canals;
  - b). Hardened-surface livestock heavy-use areas to reduce soil erosion and mud at feeding/watering locations;
  - c). Fencing to exclude livestock from sensitive riparian areas.



All landowners within the proposed action area are project collaborators and have signed cooperative partnership agreements with Coos Soil and Water District. No monies for the project have come from County Sources to-date, and the Team does not anticipate that any County funds will be used to fund the project. Of adjacent properties, only a small portion of 5 parcels in the BSDD are under elevation 8.0ft. In the CDD the main Coaledo tidegate controls water to Beaver Slough. Several properties in that watershed, not associated with the project are under elevation 8.0ft, however, water management at Coaledo tide gate is designed to accommodate drain out only, with no ability to deliver tidal inflow.

The Project Team has designed the project to eliminate conditions that would support production of mosquitoes. Mosquitoes are produced by two factors that the Winter Lake Phase III project will address:

- a). In locations where water ponds and remains unmoving for a minimum of 8 days;
- b). Locations where fish are not present and don't have access channels; and
- c). Water must be on the landscape in the noted areas where mosquitoes would potentially be produced in the warmer months of the year (primarily mid-May through September).

The project will install new/reconstructed channels to these locations and strongly address these conditions in a manner that limits potential for production of mosquitoes. The Team has incorporated strong actions to address potential for mosquito production, although noting that County Planning and Zoning code addressing mosquito production are not listed as a criterion.

### **III. Methodology**

The Project Team has been asked to analyze the project's potential impacts to surrounding farm and forest lands. The following methodology was employed in the analysis to determine the proposed project actions' potential to impact surrounding farm and forest lands in accordance with Section 3.3.730.

#### **Geographic Scope**

The Geographic Scope of this analysis includes all parcels within an approximate 1-mile radius of the project area (see Figure 1.). For this analysis, only lands zoned for farm and/or forestry practices were considered. Properties with industrial, commercial, rural residential, or other zoning were not evaluated for impacts unless combined with a farm or forest plan zoning. It should be noted here that most of the Garden Valley area parcels are zoned RR5 and therefore not analyzed according to the selected evaluation criteria. This resulted in a total of 234 parcels for consideration, 15 of which are already included in the proposed project area. Project Area parcels were evaluated separately (see Appendix A. Winter Lake Phase III Project Area and Surrounding Lands Impacts Analysis Tables 1. And 2.) as well as in combination with surrounding land parcels.

#### **Evaluation Criteria**

Criteria used in this analysis include:

- Plan Zoning (only zonings that included Exclusive Farm Use - EFU or Forest -F were considered)
- Whether the parcel includes Proposed Project Actions
- The apparent current on-ground usage of the parcel
- Whether the parcel contains lands above elevation 8.0ft (NAVDD 88)
- Whether the parcel is hydrologically connected to the project area
- Whether the Winter Lake Phase III Project has capacity or potential to cause additional water on the parcel
- Whether the Winter Lake Phase III Project has capacity or potential to inhibit drainage of water from the parcel
- Whether the Winter Lake Phase III Project has potential to reduce mosquito effects on a parcel
- Whether the Winter Lake Phase III Project has potential to significantly increase the cost of accepted farm

or forest practices on a parcel

- Whether the Winter Lake Phase III Project proposes to modify or construct additional access roads on a parcel
- Whether the Winter Lake Phase III Project will remove any farm or forest land from production on a parcel
- Whether the Winter Lake Phase III Project has capacity or potential to economically impact farm or forest uses on a parcel
- Whether the Winter Lake Phase III Project as proposed will result in net ecological benefits on a parcel

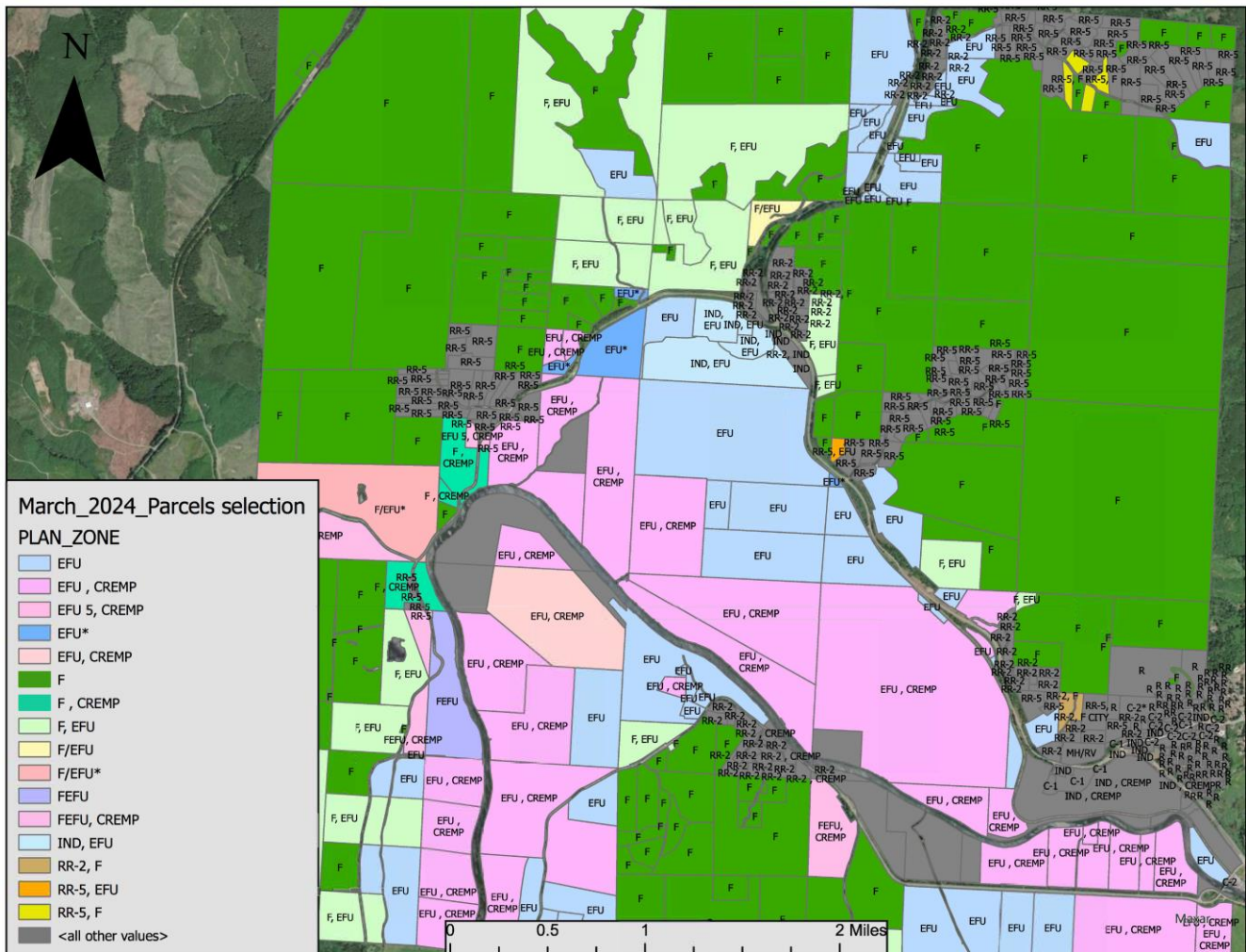


Figure 1. Winter Lake Phase III Project Area Surrounding Lands Impacts Analysis Geographic Extent and Zoning Map

## Analysis

Utilizing ArcGIS Pro Software and importing the most recent publicly available parcel data (March 2024), the Project Team was able to measure and select parcels for up to an approximate 1-mile radius surrounding the project area. There was a total of 786 parcels in this selection (see Figure 1.). The attributes for these 786 parcels were then copied and exported to an excel spreadsheet, where they were sorted alphabetically and filtered to remove any plan zonings that did not include either EFU or F. This reduced the selection to a total of 234 remaining parcels. Those 234 parcels were then evaluated according to each of the criteria listed above.

LiDAR elevation data up to 8.0ft NAVDD 88 was imported into GIS and overlaid with the selected parcel layer data



to determine which parcels contain lands that are above elevation 8.0ft NAVDD 88. The project Team determined there to be 125 parcels out of the 234 that are entirely above elevation 8.0ft NAVDD88. The project team considers this to be a highly important criterion because 8.0ft NAVDD 88 is a higher elevation than would ever be purposely administered under water management of the Beaver Slough Drainage District. All parcels above elevation 8.0ft are above the highest average high tide. This criterion was the primary factor in determining whether the Winter Lake Phase III project has capacity or potential to cause additional water on a particular parcel, or to inhibit drainage of a particular parcel.

Out of the remaining 109 parcels located within a 1-mile radius of the proposed project area, zoned and used for farming and/or forestry, and containing lands lower than elevation 8.0ft NAVDD 88, only 22 were identified as being hydrologically connected to the project area. These 22 parcels were each evaluated and analyzed to determine the Winter Lake Phase III project’s potential capacity to impact their farm or forest uses. Individual findings for each of those parcels are provided in Table 2. Under Column U. Notes.

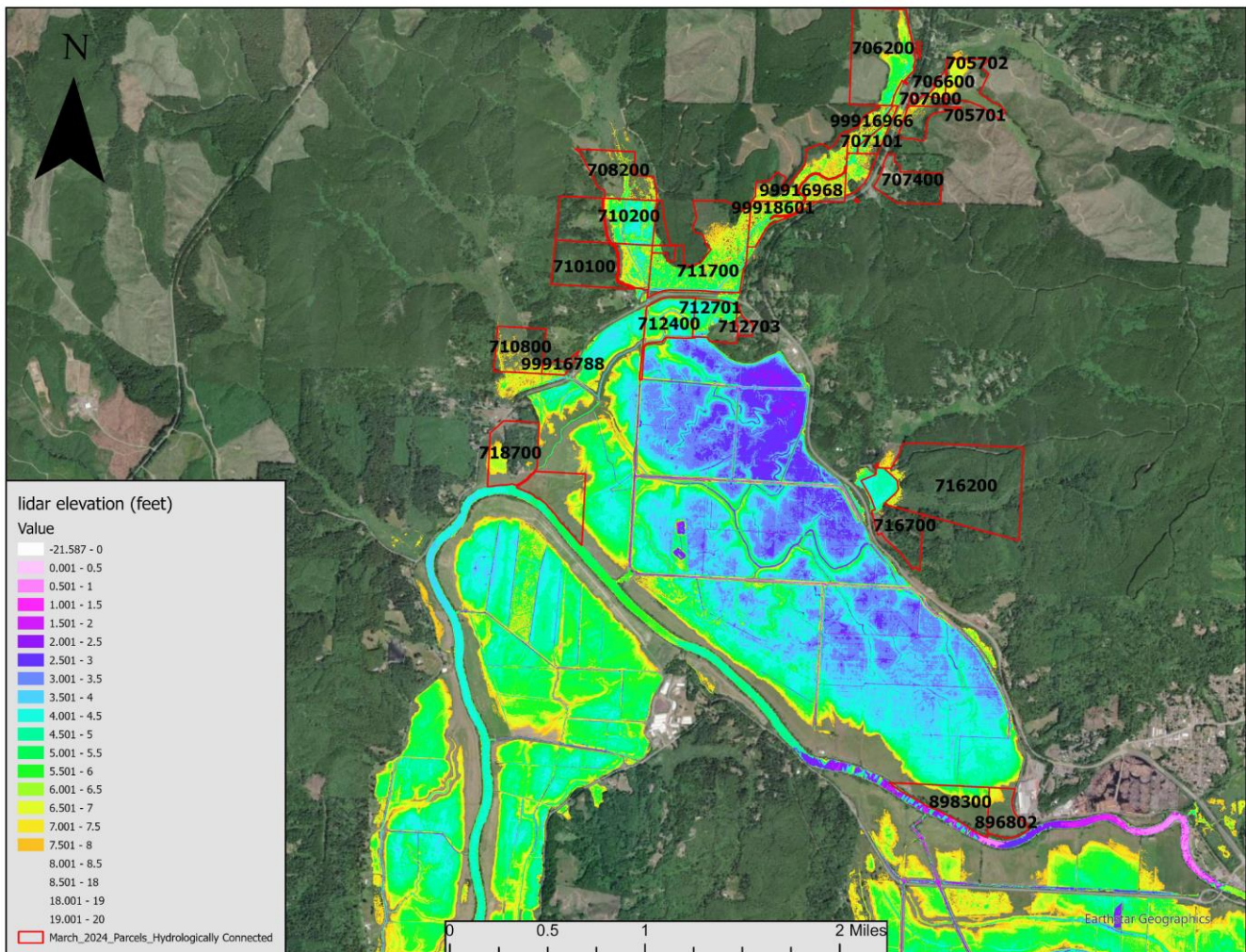


Figure 2. Winter Lake Phase III surrounding lands zoned for farm or forest use, below elevation 8.0' NAVDD 88, and hydrologically connected to the project area.

#### IV. Summary and Conclusion

The Proposed Winter Lake Phase III Project area includes 15 unique parcels, privately owned by 7 different landowners. The combined project parcel area is 1,563.3 acres, nearly all of which is below elevation 8.0' NAVDD



88. Out of the total 1,563.3-acre project area, only 400.67 or roughly 25% of the project area is within the Coquille River Estuary Management Plan (CREMP) shoreland zone and the remainder are zoned Exclusive Farm Use (EFU).

The lands surrounding the Winter Lake Project Area are diverse and comprised of a mixture of plan zonings, but larger acreage parcels are primarily zoned for farm or forest use, while the smaller acreage parcels are predominantly rural residential, commercial, or industrial zones.

- The Winter Lake Phase III project area is bordered on the northern side by Oregon State Highway 42, which is entirely above elevation 8.0ft NAVDD 88. The rural unincorporated community of Garden Valley is located to the north of the project area on the north side of highway 42 and is hydrologically connected to the project area by China Creek. However, most of Garden Valley is zoned RR5. Lands on the hillslopes surrounding Garden Valley are zoned F and used for forestry but are all above elevation 8.0ft NAVDD 88 and will not be affected by proposed project actions. Two parcels (Tax accounts 716200 and 716700) at the lower reaches of Garden Valley are zoned EFU and F, and any potential impacts from the proposed project actions have been evaluated in Table 2. Rows 193 and 231.
- The Winter Lake Phase III project area is bordered to the north and western sides by the Coaledo Drainage District and Beaver Slough/Beaver Creek subbasin. A subset of 20 parcels within the Coaledo Drainage were identified through this analysis as having lands both below elevation 8.0ft NAVDD 88, AND hydrologically connected to the project area by Beaver Creek. These have each been individually assessed and evaluated for potential impacts in Table 2., rows 3, 6, 13, 39, 47, 50, 78, 89, 91, 94, 99, 158, 162, 163, 165, 166, 168, 201, 210, 222. The Project is designed to be implemented independently, without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. These parcels will not be directly impacted by the three interior culverts that will be installed in the Coaledo Drainage District. The main Coaledo Tidegate is the control point for water management in the CDD as the interior tidegates are subservient. Reduction of any potential mosquito breeding habitats will be addressed on the project area parcels directly by proposed project actions, with the effects of any mosquito habitat reduction extending beyond into surrounding parcels.
- The Winter Lake Phase III project area is bordered on the southern edge by the Coquille River, meaning that any farm and forest lands located to the south of Winter Lake are separated by the Coquille River and are not hydrologically connected. The surrounding lands impacts analysis finds no effects to farm or forest uses on these lands by any proposed Winter Lake project actions.
- The project area is bordered on the eastern side by the Roseburg Forest Products Lumber and Sawmill. These lands are not zoned or used for farming or forestry, are entirely above elevation 8.0ft NAVDD 88, and are not hydrologically connected to the project area.
- All other surrounding lands above elevation 8.0ft NAVDD 88 and not hydrologically connected to the project area will also not be affected by any of the proposed project actions (see Appendix A. Table 2. Winter Lake Surrounding Lands Impacts Analysis).

## Appendix A. Winter Lake Phase III Project Area and Surrounding Land Impacts Analysis

Table 1. Winter Lake Phase III Project Area Parcels

A. Owner Name	B. TLID	C. Tax Account #	D. Plan Zoning	E. Parcel Acres	F. Parcel acres in CREMP	G. Parcel % in CREMP	H. Parcel contains proposed project actions, Y/N	I. Apparent current on-ground usage	J. Above Elevation 8.0ft NAVDD 88'	K. Parcel is hydrologically connected to the Winter Lake Phase III Project Area	L. Will Phase III Cause Additional Water on Property Y/N	M. Will Phase III Inhibit Drainage of Water on Property Y/N	N. Will Phase III Project Reduce Potential Mosquito Effects on Parcel Y/N?	Phase III Project Force a Significant Change in Farm or Forest Practices on Parcel Y/N?	P. Will Phase III Project Increase Cost of Farm or Forest Practices on Parcel, Y/N?	Q. Will Phase III Project Modify Existing or Require New Access Roads, Y/N?	R. Will Phase III Project Result in the Removal of Productive Farm or Forest Land, Y/N?	S. Will Phase III Project have Economic Effect On farm/forest uses on Parcel: Improve/Decline/No Effect	T. Will Winter Lake Phase III Project result in ecological/fish /wildlife benefits on parcel	U. Notes
BRIDGES FOUNDATION	27513W29TL0010300	99916787	EFU , CREMP	47.3	44.13	93%	Yes	HIGH AND BEST USE FARM LAND	No	Yes	No	No	Yes	No	No	No	No	Improve	Yes	Strong project benefits for pasture grass/increase in economic output. Ecological uplift increase for winter/spring rearing of salmonids. Channel designs/layout developed to: 1). Connect low-lying areas of fish stranding & mosquito risk addressing this concern; 2). Channels provide fish access, benefitting fish and elimination of mosquito larva.
BRIDGES FOUNDATION	27513W20TL0150300	99916790	EFU*	52.2	10.68	20%	Yes	HIGH AND BEST USE FARM LAND	No	Yes	No	No	Yes	No	No	No	No	Improve	Yes	Strong project benefits for pasture grass/increase in economic output. Ecological uplift increase for winter/spring rearing of salmonids. Channel designs/layout developed to: 1). Connect low-lying areas of fish stranding & mosquito risk addressing this concern; 2). Channels provide fish access, benefitting fish and elimination of mosquito larva.
BRIDGES FOUNDATION	27513W29TL0010100	717600	EFU , CREMP	148.5	72.11	49%	Yes	HIGH AND BEST USE FARM LAND	No	Yes	No	No	Yes	No	No	No	No	Improve	Yes	Strong project benefits for pasture grass/increase in economic output. Ecological uplift increase for winter/spring rearing of salmonids. Channel designs/layout developed to: 1). Connect low-lying areas of fish stranding & mosquito risk addressing this concern; 2). Channels provide fish access, benefitting fish and elimination of mosquito larva.
BRIDGES FOUNDATION	27513W28TL0040000	717402	EFU	20.0	0.00	0%	Yes	HIGH AND BEST USE FARM LAND	No	Yes	No	No	Yes	No	No	No	No	Improve	Yes	Strong project benefits for pasture grass/increase in economic output. Ecological uplift increase for winter/spring rearing of salmonids. Channel designs/layout developed to: 1). Connect low-lying areas of fish stranding & mosquito risk addressing this concern; 2). Channels provide fish access, benefitting fish and elimination of mosquito larva.
BRIDGES FOUNDATION	27513W28TL0060000	717401	EFU	80.0	0.00	0%	Yes	HIGH AND BEST USE FARM LAND	No	Yes	No	No	Yes	No	No	No	No	Improve	Yes	Strong project benefits for pasture grass/increase in economic output. Ecological uplift increase for winter/spring rearing of salmonids. Channel designs/layout developed to: 1). Connect low-lying areas of fish stranding & mosquito risk addressing this concern; 2). Channels provide fish access, benefitting fish and elimination of mosquito larva.
BRIDGES FOUNDATION	27513W27TL0040000	716702	EFU	23.6	0.00	0%	Yes	HIGH AND BEST USE FARM LAND	No	Yes	No	No	Yes	No	No	No	No	Improve	Yes	Strong project benefits for pasture grass/increase in economic output. Ecological uplift increase for winter/spring rearing of salmonids. Channel designs/layout developed to: 1). Connect low-lying areas of fish stranding & mosquito risk addressing this concern; 2). Channels provide fish access, benefitting fish and elimination of mosquito larva.
BRIDGES FOUNDATION	27513W27TL0050000	716800	EFU	54.4	0.00	0%	Yes	HIGH AND BEST USE FARM LAND	No	Yes	No	No	Yes	No	No	No	No	Improve	Yes	Strong project benefits for pasture grass/increase in economic output. Ecological uplift increase for winter/spring rearing of salmonids. Channel designs/layout developed to: 1). Connect low-lying areas of fish stranding & mosquito risk addressing this concern; 2). Channels provide fish access, benefitting fish and elimination of mosquito larva.
BRIDGES FOUNDATION	27513W28TL0070000	717500	EFU	100.0	0.00	0%	Yes	HIGH AND BEST USE FARM LAND	No	Yes	No	No	Yes	No	No	No	No	Improve	Yes	Strong project benefits for pasture grass/increase in economic output. Ecological uplift increase for winter/spring rearing of salmonids. Channel designs/layout developed to: 1). Connect low-lying areas of fish stranding & mosquito risk addressing this concern; 2). Channels provide fish access, benefitting fish and elimination of mosquito larva.

## Winter Lake Phase III Project Area and Surrounding Land Impacts Analysis

Table 1. Winter Lake Phase III Project Area Parcels

A. Owner Name	B. TUID	C. Tax Account #	D. Plan Zoning	E. Parcel Acres	F. Parcel acres in CREMP	G. Parcel % in CREMP	H. Parcel contains proposed project actions, Y/N	I. Apparent current on-ground usage	J. Above Elevation 8.0ft NAVDD 88'	K. Parcel is hydrologically connected to the Winter Lake Phase III Project Area	L. Will Phase III Cause Additional Water on Property Y/N	M. Will Phase III Inhibit Drainage of Water on Property Y/N	N. Will Phase III Project Reduce Potential Mosquito Effects on Parcel Y/N?	Phase III Project Force a Significant Change in Farm or Forest Practices on Parcel Y/N?	P. Will Phase III Project Significantly Increase Cost of Farm or Forest Practices on Parcel, Y/N?	Q. Will Phase III Project Modify Existing or Acquire New Access Roads, Y/N?	R. Will Phase III Project Result in the Removal of Productive Farm or Forest Land, Y/N?	S. Will Phase III Project have Economic Effect On farm/forest uses on Parcel: Improve/Decline/No Effect	T. Will Winter Lake Phase III Project result in ecological/fish /wildlife benefits on parcel	U. Notes
9	EVERETT-ONA ISENHART RANCH, INC; ETAL	27513W33TL0010000	721202	EFU , CREMP	175.7	39.95	22%	Yes	HIGH AND BEST USE FARM LAND	No	Yes	No	No	No	No	No	No	Improve	Yes	Strong project benefits for pasture grass/increase in economic output. Ecological uplift increase for winter/spring rearing of salmonids. Channel designs/layout developed to: 1. Connect low-lying areas of fish stranding & mosquito risk addressing this concern; 2. Channels provide fish access, benefitting fish and elimination of mosquito larva.
10	ISENHART, JOHN & LAURA J TTEE	27513W33TL0020000	721200	EFU , CREMP	120.6	116.49	97%	Yes	HIGH AND BEST USE FARM LAND	No	Yes	No	No	No	No	No	No	Improve	Yes	Strong project benefits for pasture grass/increase in economic output. Ecological uplift increase for winter/spring rearing of salmonids. Channel designs/layout developed to: 1. Connect low-lying areas of fish stranding & mosquito risk addressing this concern; 2. Channels provide fish access, benefitting fish and elimination of mosquito larva.
11	FRED MESSERLE & SONS, INC.	27513W34TL0080000	722300	EFU , CREMP	554.5	52.53	9%	Yes	HIGH AND BEST USE FARM LAND	No	Yes	No	No	Yes	No	No	No	Improve	Yes	Strong project benefits for pasture grass/increase in economic output. Ecological uplift increase for winter/spring rearing of salmonids. Channel designs/layout developed to: 1. Connect low-lying areas of fish stranding & mosquito risk addressing this concern; 2. Channels provide fish access, benefitting fish and elimination of mosquito larva.
12	FRED MESSERLE & SONS, INC.	28513W03TL0010000	898300	EFU , CREMP	46.2	37.78	82%	Yes	HIGH AND BEST USE FARM LAND	No	Yes	No	No	Yes	No	No	No	Improve	Yes	Strong project benefits for pasture grass/increase in economic output. Ecological uplift increase for winter/spring rearing of salmonids. Channel designs/layout developed to: 1. Connect low-lying areas of fish stranding & mosquito risk addressing this concern; 2. Channels provide fish access, benefitting fish and elimination of mosquito larva.
13	FRED MESSERLE & SONS, INC.	27513W35CTL0090000	724600	EFU	27.0	27.00	100%	Yes	HIGH AND BEST USE FARM LAND	No	Yes	No	No	Yes	No	No	No	Improve	Yes	Strong project benefits for pasture grass/increase in economic output. Ecological uplift increase for winter/spring rearing of salmonids. Channel designs/layout developed to: 1. Connect low-lying areas of fish stranding & mosquito risk addressing this concern; 2. Channels provide fish access, benefitting fish and elimination of mosquito larva.
14	OREGON DEPARTMENT OF FISH/WILDLIFE	27513W21TL0240500	712904	IND, EFU	109.2	0.00	0%	Yes	MISCELLANEOUS	No	Yes	No	No	Yes	No	No	No	N/A	Yes	Strong project benefits for pasture grass/increase in economic output. Ecological uplift increase for winter/spring rearing of salmonids. Channel designs/layout developed to: 1. Connect low-lying areas of fish stranding & mosquito risk addressing this concern; 2. Channels provide fish access, benefitting fish and elimination of mosquito larva.
15	STATE OF OREGON (ODOT)	27513W34TL0089900	7715000	EFU	4.1	0.00	0%	Yes	MISCELLANEOUS	No	Yes	No	No	Yes	No	No	No	N/A	Yes	Strong project benefits for pasture grass/increase in economic output. Ecological uplift increase for winter/spring rearing of salmonids. Channel designs/layout developed to: 1. Connect low-lying areas of fish stranding & mosquito risk addressing this concern; 2. Channels provide fish access, benefitting fish and elimination of mosquito larva.

1). 8.0ft NAVDD88 is a higher elevation than would ever be purposely administered under water management of the Beaver Slough Drainage District Water Management Plan or Irrigation Strategies. All parcels above elevation 8.0ft are above the highest average high tide.

2). Where Winter Lake Phase III Proposed Project Actions include creation/restoration of new channels, a select percentage will have riparian corridor fencing and vegetation planting in accordance with CREMP Policy #23. CCZLDO Section 3.2.180 (OR 92-05-009PL)



## Winter Lake Phase III Project Area and Surrounding Land Impacts Analysis

Table 2. Winter Lake Phase III Project Area Surrounding Lands Impacts Analysis

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1 ALAN & NANCY BANGERT TRUST	28S13W03TL0100000	899200	EFU	10.8	N/A	N/A	No	HIGH AND BEST USE FARM LAND	No	No	No	No	Yes	No	No	No	No	No Effect	No	Notes
2 BACKMAN, DENNIS L. & TERESA A.	27S13W33TL0120000	721701	EFU	3.32	N/A	N/A	No	HIGH AND BEST USE FARM LAND	Yes	No	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. Adjacent lands are predominately above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
3 BALDRIDGE, LONNIE & SHARON	27S13W15ATL0090000	705800	EFU	19.05	N/A	N/A	No	HIGH AND BEST USE FARM LAND	No	Yes	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. This parcel is below elevation 8.0ft and hydrologically connected. However, this parcel is not directly impacted by the three interior culverts that will be installed in the Coaledo Drainage District. The main Coaledo Tidegate is the control point for water management in the CDD as the interior tidegates are subservient. Mosquito production habitats will be addressed on the project area (see footnote #2).
4 BARNARD, KENNETH J & MACKEY, CHRISTA N	27S13W29TL0050000	718801	F	5.86	N/A	N/A	No	RESIDENTIAL - IMPROVED	Yes	No	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. Adjacent lands are predominately above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
5 BEAVER HILL RANCH, INC.	27S13W30TL0070000	719400	F	165.32	N/A	N/A	No	HIGH AND BEST USE FOREST LAND	Yes	No	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. Adjacent lands are predominately above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
6 BEAVERHILL INDUSTRIAL PARK LLC	27S13W21DBTL0140100	712703	IND, EFU	4.46	N/A	N/A	No	INDUSTRIAL LAND W/IMPROVEMENTS	No	Yes	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. Adjacent lands are predominately above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
7 BILLIE J. PULVERMACHER TRUST; ETAL	27S13W29TL0030000	718800	F, CREMP	50.34	N/A	N/A	No	HIGH AND BEST USE FARM LAND	Yes	No	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. Adjacent lands are predominately above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
8 BILLIE J. PULVERMACHER TRUST; ETAL	27S13W30TL0060000	719200	F	40	N/A	N/A	No	HIGH AND BEST USE FOREST LAND	Yes	No	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. Adjacent lands are predominately above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
9 BOLDEN, PARKER TULLOCH ET AL	28S13W05TL0090000	900600	EFU	10.88	N/A	N/A	No	HIGH/BEST USE FOREST W/IMPROV	No	No	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. Adjacent lands are predominately above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).

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10	BONITA W CLARKE LIVING TRUST	28513W04TL0080000	899703	F																Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. Adjacent lands are predominately above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
11	BREITKREUTZ, MARK	28513W04TL0010200	899604	F																Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. Adjacent lands are predominately above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
12	BREUER, JOHN D.	27513W35ATL0010000	723903	F																Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. Adjacent lands are predominately above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
13	C & S WATERMAN RANCH LLC	27513W20TL0150200	99916788	EFU*																Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. This parcel is below elevation 8.0ft and hydrologically connected. However, this parcel is not directly impacted by the three interior culverts that will be installed in the Coaledo Drainage District. The main Coaledo Tidegate is the control point for water management in the COD as the interior tidegates are subservient. Mosquito production habitats will be addressed on the project area (see footnote #2).
14	CARNAHAN, ELENA	28513W04TL0040000	899702	F																Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. Adjacent lands are predominately above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
15	CHARD, MICHAEL R. & KATHI J.	27513W21TL0010000	711500	F																Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. Adjacent lands are predominately above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
16	CHARLES T BATES AND INGRID I BATES TRUST	28513W06TL0050000	901400	F																Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. Adjacent lands are predominately above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
17	CHINA CAMP GUN CLUB, INC.	27513W28TL0030000	717300	EFU, CREMP																Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. Adjacent lands are predominately above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
18	CITY OF COQUILLE	27513W27TL0060000	716901	F, EFU																Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. Adjacent lands are predominately above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).

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19 CITY OF COQUILLE	27S13W35ATL0030000	723901	F	2.87	N/A	N/A	No	MISCELLANEOUS	Yes	No	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. Adjacent lands are predominately above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
20 CITY OF COQUILLE	28S13W018TL0040000	887900	EFU	15	N/A	N/A	No	MISCELLANEOUS	Yes	No	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. Adjacent lands are predominately above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
21 CLARK, SHARON L	27S13W33DTL0120000	722103	F	14.76	N/A	N/A	No	TRACT LAND W/IMPROVEMENTS	Yes	No	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. Adjacent lands are predominately above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
22 CLAUSEN, JULIANNA	28S13W04TL0110000	899803	F	40	N/A	N/A	No	HIGH AND BEST USE FOREST LAND	Yes	No	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. Adjacent lands are predominately above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
23 COLFAX, DOUGLAS	27S13W14ATL0020000	705312	F	19.68	N/A	N/A	No	HIGH AND BEST USE FOREST LAND	Yes	No	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. Adjacent lands are predominately above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
24 COOS COUNTY	27S13W16TL0020000	707900	F	160	N/A	N/A	No	MISCELLANEOUS	Yes	No	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. Adjacent lands are predominately above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
25 COOS COUNTY	27S13W17TL0050000	708501	F	160	N/A	N/A	No	MISCELLANEOUS	Yes	No	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. Adjacent lands are predominately above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
26 COOS COUNTY	27S13W18TL0010000	709000	F	610.55	N/A	N/A	No	MISCELLANEOUS	Yes	No	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. Adjacent lands are predominately above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
27 COOS COUNTY	27S13W30TL0090000	719500	F	65.2	N/A	N/A	No	MISCELLANEOUS	Yes	No	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. Adjacent lands are predominately above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
28 COPLIN, WILLIAM E. & JILL E.	28S13W04TL0010100	899603	F	9.39	N/A	N/A	No	RESIDENTIAL - IMPROVED	Yes	No	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. Adjacent lands are predominately above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).



## Winter Lake Phase III Project Area and Surrounding Land Impacts Analysis

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29 COQUILLE RIVER BROADCASTERS, INC	28513W01CTL01100A1	890910	EFU, CREMP		N/A	N/A	No	INDUSTRIAL LAND W/IMPROVEMENTS	No	No	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighboring lands. Adjacent lands are predominantly above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
30 CRANE, DOUGLAS	27513W31TL0060100	719909	F	1.23	N/A	N/A	No	HIGH AND BEST USE FOREST LAND	No	No	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighboring lands. Adjacent lands are predominantly above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
31 CRANE, DOUGLAS	27513W31TL0070200	719907	F	1.2	N/A	N/A	No	HIGH AND BEST USE FOREST LAND	Yes	No	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighboring lands. Adjacent lands are predominantly above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
32 CRANE, DOUGLAS	27513W31TL0090000	720100	F	1	N/A	N/A	No	HIGH AND BEST USE FOREST LAND	Yes	No	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighboring lands. Adjacent lands are predominantly above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
33 CRANE, DOUGLAS	27513W31TL0100000	720200	F	37.95	N/A	N/A	No	HIGH AND BEST USE FOREST LAND	Yes	No	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighboring lands. Adjacent lands are predominantly above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
34 CRANE, DOUGLAS G. & CAROLYN M.	27513W31TL0010000	719900	F, CREMP	32.82	N/A	N/A	No	HIGH AND BEST USE FARM LAND	Yes	No	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighboring lands. Adjacent lands are predominantly above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
35 CRANE, DOUGLAS G. & CAROLYN M.	27513W31TL0110000	720001	F	60	N/A	N/A	No	HIGH AND BEST USE FARM LAND	Yes	No	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighboring lands. Adjacent lands are predominantly above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
36 CRANE, DOUGLAS G. & CAROLYN M.	27513W31TL0120000	719800	F, EFU	62.25	N/A	N/A	No	HIGH AND BEST USE FARM LAND	Yes	No	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighboring lands. Adjacent lands are predominantly above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
37 CRANE, DOUGLAS G. & CAROLYN M.	27513W31TL0120300	719804	F, EFU	55.12	N/A	N/A	No	HIGH AND BEST USE FARM LAND	Yes	No	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighboring lands. Adjacent lands are predominantly above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
38 CRANE, DOUGLAS G. & CAROLYN M.	28513W06TL0010000	900900	F	32.98	N/A	N/A	No	HIGH AND BEST USE FARM LAND	Yes	No	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighboring lands. Adjacent lands are predominantly above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).

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39 CRAWFORD, TREVOR & STACY	27513W20TL0070000	710100	F, EFU	78.62	N/A	N/A	No	HIGH AND BEST USE FARM LAND	No	Yes	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. This parcel is below elevation 8.0ft and hydrologically connected. However, this parcel is not directly impacted by the three interior culverts that will be installed in the Coaledo Drainage District. The main Coaledo Tidegate is the control point for water management in the CDD as the interior tidegates are subservient. Mosquito production habitats will be addressed on the project area (see footnote #2).
40 CRYSTAL M. COX LIVING TRUST	27513W33TL0110000	721912	F	34	N/A	N/A	No	HIGH AND BEST USE FOREST LAND	Yes	No	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. Adjacent lands are predominately above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
41 DARREL AND ANN MULKEY TRUST	27513W278TL0090000	716501	F	39.37	N/A	N/A	No	HIGH/BEST USE FOREST W/IMPROV	Yes	No	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. Adjacent lands are predominately above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
42 DARREL AND ANN MULKEY TRUST	27513W28TL0010000	717001	F	13.1	N/A	N/A	No	TRACT LAND	Yes	No	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. Adjacent lands are predominately above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
43 DARREL AND ANN MULKEY TRUST	27513W28TL0020200	717003	F	3.76	N/A	N/A	No	RESIDENTIAL - UNIMPROVED	Yes	No	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. Adjacent lands are predominately above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
44 DAVIDSON, ALISTAIR N & KELLY E	27513W20TL0150000	710900	EFU , CREMP	10.74	N/A	N/A	No	HIGH AND BEST USE FARM LAND	Yes	No	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. Adjacent lands are predominately above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
45 DENNIS. JAMES G & DEBORAH L	28513W04TL0030000	899700	F	9.05	N/A	N/A	No	RESIDENTIAL - IMPROVED	Yes	No	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. Adjacent lands are predominately above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
46 DENNIS. JAMES G & DEBORAH L	28513W04TL0030000	899700	F	9.05	N/A	N/A	No	RESIDENTIAL - IMPROVED	Yes	No	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. Adjacent lands are predominately above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).

## Winter Lake Phase III Project Area and Surrounding Land Impacts Analysis

Table 2. Winter Lake Phase III Project Area Surrounding Lands Impacts Analysis

Owner Name	TUID	Tax Account #	Plan Zoning	Parcel Acres	Parcel acres in CREMP	Parcel % in CREMP	Parcel contains proposed project actions, Y/N	Apparent current on-ground usage	Above Elevation 8.0ft NAVDD 88'	Parcel is hydrologically connected to the Winter Lake Phase III Project Area	Will Phase III Cause Additional Water on Property Y/N	Will Phase III Inhibit Drainage of Water on Property Y/N	Will Phase III Project Reduce Potential Mosquito Habitat/Effects on Parcel Y/N?	Will Phase III Force a Significant Change in Farm or Forest Practices on Parcel	Will Phase III Significantly Increase Cost of Farm or Forest Practices on Parcel, Y/N?	Will Phase III Project Modify Existing or Require New Access Roads, Y/N?	Will Phase III Project Result in the Removal of Productive Farm or Forest Land, Y/N?	Will Phase III Project have Economic Effect On farm/forest uses on Parcel: Improve/Decline/No Effect	Will Winter Lake Phase III Project result in ecological/fish/wildlife benefits on parcel	
47 DIAMOND BAR Z LLC	27513W15TL0030000	707101	EFU	10.36	N/A	N/A	No	HIGH AND BEST USE FARM LAND	No	Yes	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. This parcel is below elevation 8.0ft and hydrologically connected. However, this parcel is not directly impacted by the three interior culverts that will be installed in the Coaledo Drainage District. The main Coaledo Tidegate is the control point for water management in the CDD as the interior tidegates are subservient. Mosquito production habitats will be addressed on the project area (see footnote #2).
48 DIAMOND BAR Z LLC	27513W15TL0040000	707400	EFU	50.43	N/A	N/A	No	HIGH AND BEST USE FARM LAND	No	No	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. Adjacent lands are predominately above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
49 DIAMOND BAR Z LLC	27513W22TL0030000	713602	F	0.26	N/A	N/A	No	HIGH AND BEST USE FARM LAND	No	No	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. Adjacent lands are predominately above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
50 DOMENIGHINI FAMILY LTD PARTNERSHIP	27513W29TL0020100	718700	EFU, CREMP	88.26	N/A	N/A	No	HIGH AND BEST USE FARM LAND	No	Yes	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. This parcel is below elevation 8.0ft and hydrologically connected to waters within the project area. However, this parcel is not directly impacted by the culverts or channels being installed. The main BSDD tidegate is the water management control point with the interior culverts/channels being replaced being subservient. Mosquito production habitats will be addressed on the project area (see footnote #2).
51 DONALDSON, CYNTHIA E ET AL	27513W15TL0100000	707402	EFU	3.48	N/A	N/A	No	RESIDENTIAL-IMPROVED	Yes	No	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. Adjacent lands are predominately above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
52 DOROTHY E. FOSTER REV TRUST ET AL	27513W32TL0030000	720800	EFU, CREMP	95.04	N/A	N/A	No	HIGH AND BEST USE FARM LAND	No	No	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. Adjacent lands are predominately above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
53 DOROTHY E. FOSTER REV TRUST ET AL	27513W32TL0050000	721000	EFU, CREMP	111.6	N/A	N/A	No	HIGH AND BEST USE FARM LAND	No	No	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. Adjacent lands are predominately above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
54 DOROTHY E. FOSTER REV TRUST ET AL	27513W32TL0060000	721001	EFU	80	N/A	N/A	No	HIGH AND BEST USE FARM LAND	No	No	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. Adjacent lands are predominately above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).



## Winter Lake Phase III Project Area and Surrounding Land Impacts Analysis

Table 2. Winter Lake Phase III Project Area Surrounding Lands Impacts Analysis

Owner Name	TUID	Tax Account #	Plan Zoning	Parcel Acres	Parcel acres in CREMP	Parcel % in CREMP	Parcel contains proposed project actions, Y/N	Apparent current on-ground usage	Above Elevation 8.0ft NAVDD 88'	Parcel is hydrologically connected to the Winter Lake Phase III Project Area	Will Phase III Cause Additional Water on Property Y/N	Will Phase III Inhibit Drainage of Water on Property Y/N	Will Phase III Project Reduce Potential Mosquito Habitat/Efforts on Parcel Y/N?	Will Phase III Force a Significant Change in Farm or Forest Practices on Parcel	Will Phase III Project Significantly Increase Cost of Farm or Forest Practices on Parcel, Y/N?	Will Phase III Project Modify Existing or Require New Access Roads, Y/N?	Will Phase III Project Result in the Removal of Farm or Forest Land, Y/N?	Will Phase III Project have Economic Effect On farm/forest uses on Parcel: Improve/Decline/No Effect	Will Winter Lake Phase III Project result in ecological/fish/wildlife benefits on parcel	
55 DOROTHY E. FOSTER REV TRUST ET AL	27513W33TL0070200	721704	EFU	128.45	N/A	N/A	No	HIGH AND BEST USE FARM LAND	No	No	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. Adjacent lands are predominantly above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
56 DOROTHY E. FOSTER REV TRUST ET AL	27513W33TL0070500	721709	EFU	5.52	N/A	N/A	No	HIGH AND BEST USE FARM LAND	Yes	No	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. Adjacent lands are predominantly above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
57 DOROTHY E. FOSTER REV TRUST ET AL	27513W33TL0070600	721710	EFU, CREMP	8	N/A	N/A	No	HIGH AND BEST USE FARM LAND	Yes	No	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. Adjacent lands are predominantly above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
58 DOROTHY E. FOSTER REV TRUST ET AL	27513W33TL0080000	721801	F, EFU	34.3	N/A	N/A	No	HIGH AND BEST USE FARM LAND	No	No	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. Adjacent lands are predominantly above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
59 DOROTHY E. FOSTER REV TRUST ET AL	27513W33TL0130000	721700	EFU	2.11	N/A	N/A	No	HIGH AND BEST USE FARM LAND	Yes	No	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. Adjacent lands are predominantly above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
60 DOROTHY E. FOSTER REV TRUST ET AL	28513W04TL0070000	899802	F	0.23	N/A	N/A	No	RESIDENTIAL - UNIMPROVED	Yes	No	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. Adjacent lands are predominantly above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
61 DOROTHY E. FOSTER REV TRUST ET AL	28513W05TL0020000	900100	EFU, CREMP	199.92	N/A	N/A	No	HIGH AND BEST USE FARM LAND	No	No	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. Adjacent lands are predominantly above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
62 DOROTHY E. FOSTER REV TRUST ET AL	28513W05TL0070000	900602	EFU, CREMP	69	N/A	N/A	No	HIGH AND BEST USE FARM LAND	No	No	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. Adjacent lands are predominantly above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
63 DURRER, RAY SCOTT & RHONDA LEIGH	28513W02TL0110000	895600	EFU, CREMP	14	N/A	N/A	No	HIGH AND BEST USE FARM LAND	No	No	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. Adjacent lands are predominantly above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
64 ELLIS F. FOSTER TRUST, ETAL	27513W29TL0060100	718901	EFU, CREMP	39.42	N/A	N/A	No	HIGH AND BEST USE FARM LAND	No	No	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. Adjacent lands are predominantly above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).

## Winter Lake Phase III Project Area and Surrounding Land Impacts Analysis

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65 ELLIS F. FOSTER TRUST; ETAL	27S13W32TL0020100	719002	EFU, CREMP	169.68	N/A	N/A	No	HIGH AND BEST USE FARM LAND	No	No	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. Adjacent lands are predominantly above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
66 ELLIS F. FOSTER TRUST; ETAL	28S13W05TL0010000	900101	EFU	32.84	N/A	N/A	No	HIGH AND BEST USE FARM LAND	No	No	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. Adjacent lands are predominantly above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
67 ENYEART, ALBERT S.	27S13W27BL0110000	716701	RR-5, EFU	5.07	N/A	N/A	No	RESIDENTIAL - IMPROVED	Yes	No	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. Adjacent lands are predominantly above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
68 EVANS, JAMES P & ERIKA NICOLE	27S13W20TL0080500	99917746	EFU*	5.33	N/A	N/A	No	HIGH AND BEST USE FARM LAND	No	No	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. Adjacent lands are predominantly above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
69 EVERETT-ONA ISENHART RANCH, INC; ETAL	27S13W33TL0010000	721202	EFU, CREMP	175.68	39.95	23%	Yes	HIGH AND BEST USE FARM LAND	No	Yes	No	No	yes	No	No	No	No	Improve	Yes	Project area parcel; see comment in Table 1.
70 FAIRVIEW TIMBER LLC	28S13W04TL0020000	899601	F	132.05	N/A	N/A	No	HIGH AND BEST USE FOREST LAND	Yes	No	No	No	yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. Adjacent lands are predominantly above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
71 FAIRVIEW TIMBER LLC	28S13W04TL0100000	899901	F	145	N/A	N/A	No	HIGH AND BEST USE FOREST LAND	Yes	No	No	No	yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. Adjacent lands are predominantly above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
72 FAIRVIEW TIMBER LLC	28S13W04TL0120000	899801	F	40	N/A	N/A	No	HIGH AND BEST USE FOREST LAND	Yes	No	No	No	yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. Adjacent lands are predominantly above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
73 FAIRVIEW TIMBER LLC	28S13W04TL0130000	900000	F	80	N/A	N/A	No	HIGH AND BEST USE FOREST LAND	Yes	No	No	No	yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. Adjacent lands are predominantly above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
74 FLINN, DAMON & GINA Y	27S13W15TL0050000	707500	EFU	0.2	N/A	N/A	No	RESIDENTIAL - UNIMPROVED	No	No	No	No	yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. Adjacent lands are predominantly above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).

## Winter Lake Phase III Project Area and Surrounding Land Impacts Analysis

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75 FLINN, DAMON & GINA Y	27S13W15TL0060000	707501	EFU	1	N/A	N/A	No	RESIDENTIAL - IMPROVED	No	No	No	No	yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighboring lands. Adjacent lands are predominantly above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
76 FLINN, DAMON & GINA Y	27S13W15TL0070000	707470	EFU	0.44	N/A	N/A	No	RESIDENTIAL - UNIMPROVED	No	No	No	No	yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighboring lands. Adjacent lands are predominantly above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
77 FOGARTY, THOMAS M. & ANITA	28S13W05TL0090300	900607	EFU	15.29	N/A	N/A	No	HIGH AND BEST USE FOREST LAND	Yes	No	No	No	yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighboring lands. Adjacent lands are predominantly above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
78 FRED MESSERLE & SONS, INC.	27S13W15TL0010000	706200	EFU	92.8	N/A	N/A	No	HIGH AND BEST USE FARM LAND	No	Yes	No	No	yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighboring lands. This parcel is below elevation 8.0ft and hydrologically connected. However, this parcel is not directly impacted by the three interior culverts that will be installed in the Coaledo Drainage District. The main Coaledo Tidegate is the control point for water management in the CDD as the interior tidegates are subservient. Mosquito production habitats will be addressed on the project area (see footnote #2).
79 FRED MESSERLE & SONS, INC.	27S13W16TL0010000	707800	F	43.5	N/A	N/A	No	HIGH AND BEST USE FOREST LAND	Yes	No	No	No	yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighboring lands. Adjacent lands are predominatly above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
80 FRED MESSERLE & SONS, INC.	27S13W16TL0010100	99917070	F	38.71	N/A	N/A	No	HIGH AND BEST USE FOREST LAND	Yes	No	No	No	yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighboring lands. Adjacent lands are predominatly above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
81 FRED MESSERLE & SONS, INC.	27S13W16TL0010200	99917071	F	77.79	N/A	N/A	No	HIGH AND BEST USE FARM LAND	Yes	No	No	No	yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighboring lands. Adjacent lands are predominatly above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
82 FRED MESSERLE & SONS, INC.	27S13W34TL0080000	722300	EFU , CREMP	554.5	52.53	9%	Yes	HIGH AND BEST USE FARM LAND	No	Yes	No	No	Yes	No	No	No	No	Improve	Yes	Project area parcel; see comment in Table 1.
83 FRED MESSERLE & SONS, INC.	27S13W35CTL0090000	724600	EFU	27.0	27.00	100%	Yes	HIGH AND BEST USE FARM LAND	No	Yes	No	No	Yes	No	No	No	No	Improve	Yes	Project area parcel; see comment in Table 1.
84 FRED MESSERLE & SONS, INC.	28S13W03TL0010000	898300	EFU , CREMP	46.2	37.78	82%	Yes	HIGH AND BEST USE FARM LAND	No	Yes	No	No	Yes	No	No	No	No	Improve	Yes	Project area parcel; see comment in Table 1.



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85 GILL, GEORGE D. & PATRICIA L.	27S13W20TL0110100	710502	F	13.92	N/A	N/A	No	TRACT LAND W/IMPROVEMENTS	Yes	No	No	No	yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. Adjacent lands are predominantly above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
86 GOETTE, JOSEPH ETAL	27S13W15BDTL0140000	707000	EFU	5.49	N/A	N/A	No	RESIDENTIAL - IMPROVED	No	No	No	No	yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. This parcel is below elevation 8.0ft and hydrologically connected. However, this parcel is not directly impacted by the three interior culverts that will be installed in the Coaledo Drainage District. The main Coaledo Tidegate is the control point for water management in the CDD as the interior tidegates are subservient. Mosquito production habitats will be addressed on the project area (see footnote #2).
87 GOSLIN, DANIEL B & SUSAN M	27S13W21TL0030000	711800	F	10.27	N/A	N/A	No	RESIDENTIAL - IMPROVED	Yes	No	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. Adjacent lands are predominatly above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
88 GRABOWSKI, DEBRA	28S13W05TL0100000	902700	EFU	10.05	N/A	N/A	No	HIGH/BEST USE FOREST W/IMPROV	Yes	No	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. Adjacent lands are predominatly above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
89 GRAMI, WILLIAM E. & SUZANNE M.	27S13W17TL0030000	708200	EFU	44.84	N/A	N/A	No	HIGH AND BEST USE FARM LAND	No	Yes	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. This parcel is below elevation 8.0ft and hydrologically connected. However, this parcel is not directly impacted by the three interior culverts that will be installed in the Coaledo Drainage District. The main Coaledo Tidegate is the control point for water management in the CDD as the interior tidegates are subservient. Mosquito production habitats will be addressed on the project area (see footnote #2).
90 GRAMI, WILLIAM E.; ETAL	27S13W17TL0030200	708202	F	133.32	N/A	N/A	No	HIGH AND BEST USE FARM LAND	No	No	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. Adjacent lands are predominatly above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
91 HACKETT INVESTMENTS LLC	27S13W21TL0230000	712701	IND, EFU	30.15	N/A	N/A	No	INDUSTRIAL LAND W/IMPROVEMENTS	No	Yes	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. This parcel is below elevation 8.0ft and hydrologically connected to waters within the project area. However, this parcel is not directly impacted by the three interior culverts that will be installed in the Coaledo Drainage District. The main Coaledo Tidegate is the control point for water management in the CDD as the interior tidegates are subservient. Mosquito production habitats will be addressed on the project area (see footnote #2).

## Winter Lake Phase III Project Area and Surrounding Land Impacts Analysis

Table 2. Winter Lake Phase III Project Area Surrounding Lands Impacts Analysis

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92 HANNA HART SEPARATE SHARE TRUST	27513W20TL0160000	711000	EFU , CREMP	8.9	N/A	N/A	No	HIGH AND BEST USE FARM LAND	No	No	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. Adjacent lands are predominantly above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
93 HARLESS, BONNIE	28513W02TL0100000	895700	EFU , CREMP	30.68	N/A	N/A	No	HIGH AND BEST USE FARM LAND	No	No	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. Adjacent lands are predominatly above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
94 HEROLD FAMILY LIVING TRUST	27513W15ATL0160000	705702	EFU	30.2	N/A	N/A	No	HIGH AND BEST USE FARM LAND	No	Yes	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. This parcel is below elevation 8.0ft and hydrologically connected to waters within the project area. However, this parcel is not directly impacted by the three interior culverts that will be installed in the Coaledo Drainage District. The main Coaledo Tidegate is the control point for water management in the CDD as the interior tidegates are subservient. Mosquito production habitats will be addressed on the project area (see footnote #2).
95 HEROLD FAMILY LIVING TRUST	28513W04TL0010000	899600	F	10.81	N/A	N/A	No	HIGH/BEST USE FOREST W/IMPROV	Yes	No	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. Adjacent lands are predominantly above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
96 HIDDEN CANYON RANCH	28513W06TL0020000	901000	F, EFU	276.4	N/A	N/A	No	HIGH AND BEST USE FARM LAND	Yes	No	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. Adjacent lands are predominatly above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
97 HOMOLAC FAMILY PARTNERSHIP	27513W31TL0070000	719902	F	244.67	N/A	N/A	No	HIGH/BEST USE FOREST W/IMPROV	Yes	No	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. Adjacent lands are predominantly above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
98 HOOK, MAREY ET AL	28513W04TL0060200	899806	F	10.22	N/A	N/A	No	HIGH AND BEST USE FOREST LAND	Yes	No	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. Adjacent lands are predominantly above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
99 HUGH M. HOYT JR. TRUST, ETAL	27513W20TL0140000	710800	F	40	N/A	N/A	No	HIGH AND BEST USE FOREST LAND	No	Yes	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. This parcel is below elevation 8.0ft and hydrologically connected to waters within the project area. However, this parcel is not directly impacted by the three interior culverts that will be installed in the Coaledo Drainage District. The main Coaledo Tidegate is the control point for water management in the CDD as the interior tidegates are subservient. Mosquito production habitats will be addressed on the project area (see footnote #2).

## Winter Lake Phase III Project Area and Surrounding Land Impacts Analysis

Table 2. Winter Lake Phase III Project Area Surrounding Lands Impacts Analysis

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100 ISENHART, JOHN & LAURA J TTEE	27513W33TL0020000	721200	EFU , CREMP	120.6	116.49	97%	Yes	HIGH AND BEST USE FARM LAND	No	Yes	No	No	Yes	No	No	No	No	Improve	Yes	Project area parcel; see comment in Table 1.
101 JACKSON, MADELYN DOLORES ET AL	28513W01CTL0110000	890902	EFU , CREMP	52.7	N/A	N/A	No	HIGH AND BEST USE FARM LAND	No	No	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. Adjacent lands are predominately above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
102 JACKSON, MADELYN DOLORES ET AL	28513W02TL0130000	898000	EFU , CREMP	190.75	N/A	N/A	No	HIGH AND BEST USE FARM LAND	No	No	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. Adjacent lands are predominately above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
103 JEAN-CLAUDE HOOK REV LIVING TRUST ET AL	28513W04TL0060000	899804	F	13.65	N/A	N/A	No	HIGH AND BEST USE FOREST LAND	Yes	No	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. Adjacent lands are predominately above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
104 JONES, CARY & ARIUNKHISHIG	27513W20TL0050000	710401	F	1	N/A	N/A	No	RESIDENTIAL - IMPROVED	Yes	No	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. Adjacent lands are predominately above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
105 JONES, STANLEY K.	27513W31TL0120100	719801	F	0.77	N/A	N/A	No	RESIDENTIAL - IMPROVED	No	No	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. Adjacent lands are predominately above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
106 KARL P SODERBERG REVOCABLE LIVING TRUST	27513W34TL0060000	722302	EFU	1.24	N/A	N/A	No	RESIDENTIAL - UNIMPROVED	No	No	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. Adjacent lands are predominately above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
107 KARL P SODERBERG REVOCABLE LIVING TRUST	27513W35BCTL0010000	724200	F	20	N/A	N/A	No	HIGH AND BEST USE FOREST LAND	Yes	No	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. Adjacent lands are predominately above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
108 KARL P SODERBERG REVOCABLE LIVING TRUST	27513W35CTL0060000	725001	RR-2, F	1.02	N/A	N/A	No	RESIDENTIAL - UNIMPROVED	Yes	No	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. Adjacent lands are predominately above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
109 KARL P SODERBERG REVOCABLE LIVING TRUST	27513W35TL0030000	724000	F	114.48	N/A	N/A	No	HIGH AND BEST USE FOREST LAND	Yes	No	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. Adjacent lands are predominately above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).



## Winter Lake Phase III Project Area and Surrounding Land Impacts Analysis

Table 2. Winter Lake Phase III Project Area Surrounding Lands Impacts Analysis

Owner Name	TUID	Tax Account #	Plan Zoning	Parcel Acres	Parcel acres in CREMP	Parcel % in CREMP	Parcel contains proposed project actions, Y/N	Apparent current on-ground usage	Above Elevation 8.0ft NAVDD 88'	Parcel is hydrologically connected to the Winter Lake Phase III Project Area	Will Phase III Cause Additional Water on Property Y/N	Will Phase III Inhibit Drainage of Water on Property Y/N	Will Phase III Reduce Potential Mosquito Habitat/Efforts on Parcel Y/N?	Will Phase III Force a Significant Change in Farm or Forest Practices on Parcel	Will Phase III Significantly Increase Cost of Farm or Forest Practices on Parcel, Y/N?	Will Phase III Project Modify Existing or Require New Access Roads, Y/N?	Will Phase III Project Result in the Removal of Productive Farm or Forest Land, Y/N?	Will Phase III Project have Economic Effect On farm/forest uses on Parcel: Improve/Decline/No Effect	Will Winter Lake Phase III Project result in ecological/fish/wildlife benefits on parcel	
110 KARL P SODERBERG REVOCABLE LIVING TRUST	27513W35TL00302Z1	724002	F	0.23	N/A	N/A	No	INDUSTRIAL LAND W/IMPROVEMENTS	Yes	No	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. Adjacent lands are predominately above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
111 KARL P SODERBERG REVOCABLE LIVING TRUST	27513W35TL00303Z1	724005	F	0.23	N/A	N/A	No	INDUSTRIAL LAND W/IMPROVEMENTS	Yes	No	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. Adjacent lands are predominately above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
112 KIRBY, DEBORAH	28513W05TL0090200	900606	EFU	10.64	N/A	N/A	No	HIGH/BEST USE FOREST W/IMPROV	Yes	No	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. Adjacent lands are predominately above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
113 KRALL, JOHN	27513W35TL0030100	724001	F, EFU	5	N/A	N/A	No	RESIDENTIAL - IMPROVED	Yes	No	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. Adjacent lands are predominately above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
114 LAFRANCHI, RON	27513W31TL0120200	719802	EFU	1.16	N/A	N/A	No	HIGH AND BEST USE FARM LAND	No	No	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. Adjacent lands are predominately above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
115 LAFRANCHI, RON	27513W31TL0130000	720900	FEFU, CREMP	37.12	N/A	N/A	No	HIGH AND BEST USE FARM LAND	No	No	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. Adjacent lands are predominately above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
116 LAFRANCHI, RON	27513W32TL0040000	720901	FEFU	83.46	N/A	N/A	No	HIGH AND BEST USE FARM LAND	No	No	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. Adjacent lands are predominately above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
117 LAFRANCHI, RON	28513W02TL0070000	897200	EFU, CREMP	46.31	N/A	N/A	No	HIGH AND BEST USE FARM LAND	No	No	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. Adjacent lands are predominately above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
118 LAFRANCHI, RON	28513W02TL0080000	896000	EFU, CREMP	55.71	N/A	N/A	No	HIGH AND BEST USE FARM LAND	No	No	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. Adjacent lands are predominately above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
119 LAFRANCHI, RON	28513W02TL0090000	896001	EFU, CREMP	6.8	N/A	N/A	No	HIGH AND BEST USE FARM LAND	No	No	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. Adjacent lands are predominately above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).

## Winter Lake Phase III Project Area and Surrounding Land Impacts Analysis

Table 2. Winter Lake Phase III Project Area Surrounding Lands Impacts Analysis

Owner Name	TUID	Tax Account #	Plan Zoning	Parcel Acres	Parcel acres in CREMP	Parcel % in CREMP	Parcel contains proposed project actions, Y/N	Apparent current on-ground usage	Above Elevation 8.0ft NAVDD 88'	Parcel is hydrologically connected to the Winter Lake Phase III Project Area	Will Phase III Cause Additional Water on Property Y/N	Will Phase III Inhibit Drainage of Water on Property Y/N	Will Phase III Project Reduce Potential Mosquito Habitat/Efforts on Parcel Y/N?	Will Phase III Force a Significant Change in Farm or Forest Practices on Parcel	Will Phase III Significantly Increase Cost of Farm or Forest Practices on Parcel, Y/N?	Will Phase III Project Modify Existing or Require New Access Roads, Y/N?	Will Phase III Project Result in the Removal of Productive Farm or Forest Land, Y/N?	Will Phase III Project have Economic Effect On farm/forest uses on Parcel: Improve/Decline/No Effect	Will Winter Lake Phase III Project result in ecological/fish/wildlife benefits on parcel	
120 LAFRANCHI, RON	28513W05TL0030000	900200	EFU , CREMP	41.5	N/A	N/A	No	HIGH AND BEST USE FARM LAND	No	No	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. Adjacent lands are predominately above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2) .
121 LAFRANCHI, RON	28513W05TL0050000	900400	EFU , CREMP	42.22	N/A	N/A	No	HIGH AND BEST USE FARM LAND	No	No	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. Adjacent lands are predominately above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2) .
122 LAFRANCHI, RON	28513W05TL0060000	900500	EFU , CREMP	42.1	N/A	N/A	No	HIGH AND BEST USE FARM LAND	No	No	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. Adjacent lands are predominately above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2) .
123 LAFRANCHI, RON	28513W06TL0010100	900901	EFU	35.8	N/A	N/A	No	HIGH AND BEST USE FARM LAND	No	No	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. Adjacent lands are predominately above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2) .
124 LAFRANCHI, RON	28513W06TL0040000	901401	EFU	73.19	N/A	N/A	No	HIGH AND BEST USE FARM LAND	No	No	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. Adjacent lands are predominately above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2) .
125 LAFRANCHI, RON	28513W06TL0060000	901300	F, EFU	50.56	N/A	N/A	No	HIGH AND BEST USE FARM LAND	No	No	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. Adjacent lands are predominately above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2) .
126 LAFRANCHI, RONALD C.	28513W05TL0040000	900300	EFU , CREMP	42.07	N/A	N/A	No	HIGH AND BEST USE FARM LAND	No	No	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. Adjacent lands are predominately above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2) .
127 LAFRANCHI, RONALD C.	28513W06TL0030000	900800	F, EFU	78.14	N/A	N/A	No	HIGH AND BEST USE FARM LAND	No	No	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. Adjacent lands are predominately above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2) .
128 LEMKE, BARRY J & SHIRLEY L	27513W148TL0170000	705408	RR-5, F	10.99	N/A	N/A	No	HIGH AND BEST USE FARM LAND	Yes	No	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. Adjacent lands are predominately above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2) .
129 LESLIE FAMILY, LLC	27513W30TL0070100	719600	FEFU, CREMP	110.42	N/A	N/A	No	HIGH/BEST USE FOREST W/IMPROV	Yes	No	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. Adjacent lands are predominately above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2) .

## Winter Lake Phase III Project Area and Surrounding Land Impacts Analysis

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130 LESLIE FAMILY, LLC	27513W30TL0070300	99919394	F/EFU*	178.58	N/A	N/A	No	HIGH AND BEST USE FARM LAND	Yes	No	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. Adjacent lands are predominantly above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
131 LONE ROCK TT LANDCO LLC	27513W14TL0030000	705602	F	115.52	N/A	N/A	No	HIGH AND BEST USE FOREST LAND	Yes	No	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. Adjacent lands are predominantly above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
132 LONE ROCK TT LANDCO LLC	27513W14TL0040000	705500	F	166	N/A	N/A	No	HIGH AND BEST USE FOREST LAND	Yes	No	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. Adjacent lands are predominantly above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
133 LONE ROCK TT LANDCO LLC	27513W15ATL0070000	705803	F	16.65	N/A	N/A	No	HIGH AND BEST USE FOREST LAND	Yes	No	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. Adjacent lands are predominantly above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
134 LONE ROCK TT LANDCO LLC	27513W15TL0130000	705700	F	224.58	N/A	N/A	No	HIGH AND BEST USE FOREST LAND	Yes	No	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. Adjacent lands are predominantly above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
135 LONE ROCK TT LANDCO LLC	27513W21TL0050000	711403	F	33.01	N/A	N/A	No	HIGH AND BEST USE FOREST LAND	Yes	No	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. Adjacent lands are predominantly above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
136 LONE ROCK TT LANDCO LLC	27513W21TL0240100	711300	RR-2, F	0.65	N/A	N/A	No	HIGH AND BEST USE FOREST LAND	Yes	No	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. Adjacent lands are predominantly above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
137 LONE ROCK TT LANDCO LLC	27513W23TL0010000	714101	F	160	N/A	N/A	No	HIGH AND BEST USE FOREST LAND	Yes	No	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. Adjacent lands are predominantly above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
138 LOWELL J BOYER & JEANETTE M BOYER TRUST	27513W33TL0090100	721803	F	6.07	N/A	N/A	No	RESIDENTIAL - UNIMPROVED	Yes	No	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. Adjacent lands are predominantly above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
139 LOWELL J BOYER & JEANETTE M BOYER TRUST	28513W04TL0030100	899704	F	34.93	N/A	N/A	No	HIGH/BEST USE FOREST W/IMPROV	Yes	No	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. Adjacent lands are predominantly above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).



## Winter Lake Phase III Project Area and Surrounding Land Impacts Analysis

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140 LUCAS, DAVID B.	27S13W14ATL0010000	705301	F	10.22	N/A	N/A	No	HIGH/BEST USE FOREST W/IMPROV	Yes	No	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. Adjacent lands are predominantly above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
141 LUCAS, MARK L. & JUDITH M.	27S13W14ATL0010100	705315	F	10.09	N/A	N/A	No	HIGH/BEST USE FOREST W/IMPROV	Yes	No	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. Adjacent lands are predominatly above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
142 LUCKMAN, EVERETT L. & LORRAINE	27S13W20TL0090000	711101	F	5.49	N/A	N/A	No	RESIDENTIAL - IMPROVED	Yes	No	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. Adjacent lands are predominantly above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
143 LUCKMAN, HEIDI Y.	27S13W20TL0080200	711103	F	3.74	N/A	N/A	No	HIGH AND BEST USE FARM LAND	No	No	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. Adjacent lands are predominatly above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
144 MALLICK, M JOAN ET AL	27S13W21TL0020000	711600	F	12.53	N/A	N/A	No	HIGH AND BEST USE FOREST LAND	Yes	No	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. Adjacent lands are predominatly above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
145 MANNING, JOHN	27S13W14ATL0160000	705316	F	31.5	N/A	N/A	No	HIGH AND BEST USE FOREST LAND	Yes	No	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. Adjacent lands are predominatly above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
146 MARTIN, ALEXANDER TROY	27S13W20TL0020000	710302	F	80	N/A	N/A	No	TRACT LAND W/IMPROVEMENTS	Yes	No	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. Adjacent lands are predominatly above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
147 MASON, LOGAN	27S13W20TL0110000	710500	F	15	N/A	N/A	No	RESIDENTIAL - IMPROVED	Yes	No	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. Adjacent lands are predominatly above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
148 MAUSETH FAMILY TRUST	27S13W148TL0160000	705409	F	7.74	N/A	N/A	No	RESIDENTIAL - IMPROVED	Yes	No	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. Adjacent lands are predominatly above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
149 MCALLISTER, WALTER	27S13W15TL0040100	707403	EFU	10.1	N/A	N/A	No	TRACT LAND W/IMPROVEMENTS	Yes	No	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. Adjacent lands are predominatly above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).

## Winter Lake Phase III Project Area and Surrounding Land Impacts Analysis

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150 MCDONALD, IMOGENE	28513W03TL0050000	898700	FEFU, CREMP	61.16	N/A	N/A	No	HIGH/BEST USE FOREST W/IMPROV	Yes	No	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. Adjacent lands are predominately above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
151 MCGILVER, KEITH & RANDILEE	28513W04TL0050000	899701	F	20.7	N/A	N/A	No	HIGH AND BEST USE FOREST LAND	Yes	No	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. Adjacent lands are predominately above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
152 MCNEELY, CSAGGE WHYATT	28513W02TL0140000	897901	EFU	63.09	N/A	N/A	No	HIGH AND BEST USE FARM LAND	No	No	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. Adjacent lands are predominately above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
153 MCNEELY, CSAGGE WHYATT	28513W02TL0150000	897902	EFU	51.49	N/A	N/A	No	HIGH AND BEST USE FARM LAND	No	No	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. Adjacent lands are predominately above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
154 MCNEELY, CSAGGE WHYATT	28513W03TL0090000	899302	EFU	61.15	N/A	N/A	No	HIGH AND BEST USE FARM LAND	No	No	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. Adjacent lands are predominately above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
155 MCWILLIAMS, MICHAEL KEVIN & KOREN RENEE	27513W21TL0160000	711802	F	3.4	N/A	N/A	No	RESIDENTIAL - IMPROVE D	No	No	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. Adjacent lands are predominately above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
156 MILLET, BROCK WILLIAM & MELINDA ANN	27513W20TL0080100	711102	F	30.02	N/A	N/A	No	HIGH/BEST USE FOREST W/IMPROV	Yes	No	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. Adjacent lands are predominately above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
157 MORGAN, LANCE ET AL	27513W29TL0040000	718803	F, CREMP	5.62	N/A	N/A	No	RESIDENTIAL - IMPROVE D	Yes	No	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. Adjacent lands are predominately above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
158 MYERS, STANLEY J. & NANCY E.R.	27513W15TL0120000	705701	EFU	16.72	N/A	N/A	No	TRACT LAND W/IMPROVEMENTS	No	Yes	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. This parcel is below elevation 8.0ft and hydrologically connected to waters within the project area. However, this parcel is not directly impacted by the three interior culverts that will be installed in the Coaledo Drainage District. The main Coaledo Tidegate is the control point for water management in the CDD as the interior tidegates are subservient. Mosquito production habitats will be addressed on the project area (see footnote #2).

## Winter Lake Phase III Project Area and Surrounding Land Impacts Analysis

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159	MYERS, STANLEY J. & NANCY E.R.	27513W15TL0120100	705710	EFU	0.98	N/A	N/A	No	HIGH AND BEST USE FARM LAND	No	No	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. Adjacent lands are predominately above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
160	NELSON, ROBERT E.	28513W03TL0070000	898900	F, EFU	77.51	N/A	N/A	No	HIGH AND BEST USE FARM LAND	No	No	No	No	yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. Adjacent lands are predominately above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
161	NICHOLS, STEVEN D. & MELANIE C.	28513W04TL0090000	899900	F	15	N/A	N/A	No	HIGH/BEST USE FOREST W/IMPROV	No	No	No	No	yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. Adjacent lands are predominately above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
162	OREGON DEPARTMENT OF FISH & WILDLIFE	27513W21TL0190300	99918601	F/EFU	21.44	N/A	N/A	No	MISCELLANEOUS	No	Yes	No	No	yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. This parcel is below elevation 8.0ft and hydrologically connected to waters within the project area. However, this parcel is not directly impacted by the three interior culverts that will be installed in the Coaledo Drainage District. The main Coaledo Tidegate is the control point for water management in the CDD as the interior tidegates are subservient. ODFW lands, never used for pasture grazing. Mosquito production habitats will be addressed on the project area (see footnote #2).
163	OREGON DEPARTMENT OF FISH AND WILDLIFE	27513W15TL0020100	99916966	EFU	18.07	N/A	N/A	No	MISCELLANEOUS	No	Yes	No	No	yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. This parcel is below elevation 8.0ft and hydrologically connected to waters within the project area. However, this parcel is not directly impacted by the three interior culverts that will be installed in the Coaledo Drainage District. The main Coaledo Tidegate is the control point for water management in the CDD as the interior tidegates are subservient. ODFW lands, never used for pasture grazing. Mosquito production habitats will be addressed on the project area (see footnote #2).
164	OREGON DEPARTMENT OF FISH AND WILDLIFE	27513W16TL0030100	99916967	F	17.1	N/A	N/A	No	MISCELLANEOUS	No	No	No	No	yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. Adjacent lands are predominately above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).



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165 OREGON DEPARTMENT OF FISH AND WILDLIFE	27513W16TL0030200	99916968	F	74.08	N/A	N/A	No	MISCELLANEOUS	No	Yes	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighboring lands. This parcel is below elevation 8.0ft and hydrologically connected to waters within the project area. However, this parcel is not directly impacted by the three interior culverts that will be installed in the Coaledo Drainage District. The main Coaledo Tidegate is the control point for water management in the CDD as the interior tidegates are subservient. Mosquito production habitats will be addressed on the project area (see footnote #2).
166 OREGON DEPARTMENT OF FISH AND WILDLIFE	27513W21TL0190000	711700	F, EFU	128.83	N/A	N/A	No	MISCELLANEOUS	No	Yes	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighboring lands. This parcel is below elevation 8.0ft and hydrologically connected to waters within the project area. However, this parcel is not directly impacted by the three interior culverts that will be installed in the Coaledo Drainage District. The main Coaledo Tidegate is the control point for water management in the CDD as the interior tidegates are subservient. Mosquito production habitats will be addressed on the project area (see footnote #2).
167 OREGON DEPARTMENT OF FISH/WILDLIFE	27513W21TL0240500	712904	IND, EFU	109.2	0.00	0%	Yes	MISCELLANEOUS	No	Yes	No	No	Yes	No	No	No	No	N/A	Yes	Project area parcel; see comment in Table 1.
168 OREGON DEPARTMENT OF FISH AND WILDLIFE	27513W28TL0020100	717002	EFU	285.97	N/A	N/A	No	TRACT LAND	No	Yes	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighboring lands. This parcel is below elevation 8.0ft and hydrologically connected to waters within the project area. However, this parcel is not directly impacted by the three interior culverts that will be installed in the Coaledo Drainage District. The main Coaledo Tidegate is the control point for water management in the CDD as the interior tidegates are subservient. Mosquito production habitats will be addressed on the project area (see footnote #2).
169 OTTERBACH, PATRICIA L.	27513W33TL0140000	720400	EFU	1.27	N/A	N/A	No	RESIDENTIAL - IMPROVED	No	No	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighboring lands. Adjacent lands are predominantly above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
170 PUSCHEL, MICHAEL & TONI	27513W148TL0120000	705415	F	2.6	N/A	N/A	No	RESIDENTIAL - IMPROVED	Yes	No	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighboring lands. Adjacent lands are predominantly above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
171 R. & R HOFFINE FAMILY TRUST	27513W14TL0010000	705601	EFU	39.85	N/A	N/A	No	HIGH AND BEST USE FARM LAND	Yes	No	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighboring lands. Adjacent lands are predominantly above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).

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172 R & R HOFFINE FAMILY TRUST	27S13W14TL0020000	705600	F	2.33	N/A	N/A	No	RESIDENTIAL - IMPROVED	Yes	No	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighboring lands. Adjacent lands are predominantly above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
173 REYNOLDS, JOHN W JR & KATE MARIE ROSE	27S13W20TL0030000	710300	F	20	N/A	N/A	No	HIGH/BEST USE FOREST W/IMPROV	Yes	No	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighboring lands. Adjacent lands are predominantly above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
174 REYNOLDS, JOHN W JR & KATE MARIE ROSE	27S13W20TL0040000	710301	F	90	N/A	N/A	No	HIGH/BEST USE FOREST W/IMPROV	Yes	No	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighboring lands. Adjacent lands are predominantly above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
175 ROSE CITY WOOD PRODUCTS	27S13W27TL0070000	716900	F	52.3	N/A	N/A	No	HIGH AND BEST USE FOREST LAND	Yes	No	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighboring lands. Adjacent lands are predominantly above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
176 ROSE, RONNIE R.; ETAL	27S13W35CTL0070000	724900	RR-2, F	13.66	N/A	N/A	No	RESIDENTIAL - UNIMPROVED	Yes	No	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighboring lands. Adjacent lands are predominantly above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
177 ROSEBURG FOREST PRODUCTS CO.	28S13W02TL0060000	896802	EFU, CREMP	24.17	N/A	N/A	No	HIGH AND BEST USE FARM LAND	No	No	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighboring lands. This parcel is below elevation 8.0ft and hydrologically connected to waters within the project area. However, this parcel is not directly impacted by the culverts or channels being installed. The main BSSD tidegate is the water management control point with the interior culverts/channels being replaced being subservient. Mosquito production habitats will be addressed on the project area (see footnote #2).
178 ROSEBURG RESOURCES CO	27S13W15TL0020000	707300	EFU	4.73	N/A	N/A	No	HIGH AND BEST USE FOREST LAND	Yes	No	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighboring lands. Adjacent lands are predominantly above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
179 ROSEBURG RESOURCES CO	27S13W15TL0090000	707401	EFU	0.03	N/A	N/A	No	HIGH AND BEST USE FOREST LAND	No	No	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighboring lands. Adjacent lands are predominantly above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
180 ROSEBURG RESOURCES CO	27S13W16TL0030000	708000	F, EFU	228.37	N/A	N/A	No	HIGH AND BEST USE FOREST LAND	Yes	No	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighboring lands. Adjacent lands are predominantly above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).

## Winter Lake Phase III Project Area and Surrounding Land Impacts Analysis

Table 2. Winter Lake Phase III Project Area Surrounding Lands Impacts Analysis

Owner Name	TUID	Tax Account #	Plan Zoning	Parcel Acres	Parcel acres in CREMP	Parcel % in CREMP	Parcel contains proposed project actions, Y/N	Apparent current on-ground usage	Above Elevation 8.0ft NAVDD 88'	Parcel is hydrologically connected to the Winter Lake Phase III Project Area	Will Phase III Cause Additional Water on Property Y/N	Will Phase III Inhibit Drainage of Water on Property Y/N	Will Phase III Project Reduce Potential Mosquito Habitat/Effects on Parcel Y/N?	Will Phase III Force a Significant Change in Farm or Forest Practices on Parcel	Will Phase III Project Significantly Increase Cost of Farm or Forest Practices on Parcel, Y/N?	Will Phase III Project Modify Existing or Require New Access Roads, Y/N?	Will Phase III Project Result in the Removal of Productive Farm or Forest Land, Y/N?	Will Phase III Project have Economic Effect On farm/forest uses on Parcel: Improve/Decline/No Effect	Will Winter Lake Phase III Project result in ecological/fish/wildlife benefits on parcel	
181 ROSEBURG RESOURCES CO	27513W17TL0030100	708201	F, EFU	296.12	N/A	N/A	No	HIGH AND BEST USE FOREST LAND	Yes	No	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighboring lands. Adjacent lands are predominately above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
182 ROSEBURG RESOURCES CO	27513W19TL0010000	709500	F	279.74	N/A	N/A	No	HIGH AND BEST USE FOREST LAND	Yes	No	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighboring lands. Adjacent lands are predominately above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
183 ROSEBURG RESOURCES CO	27513W19TL0020000	709600	F	344.52	N/A	N/A	No	HIGH AND BEST USE FOREST LAND	Yes	No	No	No	yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighboring lands. Adjacent lands are predominately above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
184 ROSEBURG RESOURCES CO	27513W21TL0190100	99916969	F, EFU	29.9	N/A	N/A	No	RESIDENTIAL - UNIMPROVED	Yes	No	No	No	yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighboring lands. Adjacent lands are predominately above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
185 ROSEBURG RESOURCES CO	27513W22TL0010000	713500	F	160	N/A	N/A	No	HIGH AND BEST USE FOREST LAND	Yes	No	No	No	yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighboring lands. Adjacent lands are predominately above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
186 ROSEBURG RESOURCES CO	27513W22TL0020000	713601	F	79.74	N/A	N/A	No	HIGH AND BEST USE FOREST LAND	Yes	No	No	No	yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighboring lands. Adjacent lands are predominately above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
187 ROSEBURG RESOURCES CO	27513W22TL0040000	713600	F	198.19	N/A	N/A	No	HIGH AND BEST USE FOREST LAND	No	No	No	No	yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighboring lands. Adjacent lands are predominately above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
188 ROSEBURG RESOURCES CO	27513W22TL0060000	714000	F	80	N/A	N/A	No	HIGH AND BEST USE FOREST LAND	No	No	No	No	yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighboring lands. Adjacent lands are predominately above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
189 ROSEBURG RESOURCES CO	27513W23TL0020000	714100	F	480	N/A	N/A	No	HIGH AND BEST USE FOREST LAND	No	No	No	No	yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighboring lands. Adjacent lands are predominately above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).

## Winter Lake Phase III Project Area and Surrounding Land Impacts Analysis

Table 2. Winter Lake Phase III Project Area Surrounding Lands Impacts Analysis

Owner Name	TUID	Tax Account #	Plan Zoning	Parcel Acres	Parcel acres in CREMP	Parcel % in CREMP	Parcel contains proposed project actions, Y/N	Apparent current on-ground usage	Above Elevation 8.0ft NAVDD 88'	Parcel is hydrologically connected to the Winter Lake Phase III Project Area	Will Phase III Cause Additional Water on Property Y/N	Will Phase III Inhibit Drainage of Water on Property Y/N	Will Phase III Project Reduce Potential Mosquito Habitat/Efforts on Parcel Y/N?	Will Phase III Project Force a Significant Change in Farm or Forest Practices on Parcel	Will Phase III Project Significantly Increase Cost of Farm or Forest Practices on Parcel, Y/N?	Will Phase III Project Modify Existing or Require New Access Roads, Y/N?	Will Phase III Project Result in the Removal of Productive Farm or Forest Land, Y/N?	Will Phase III Project have Economic Effect On farm/forest uses on Parcel: Improve/Decline/No Effect	Will Winter Lake Phase III Project result in ecological/fish/wildlife benefits on parcel	
190 ROSEBURG RESOURCES CO	27513W26TL0010000	715800	F	640	N/A	N/A	No	HIGH AND BEST USE FOREST LAND	No	No	No	No	yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighboring lands. Adjacent lands are predominately above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
191 ROSEBURG RESOURCES CO	27513W27ATL0010000	716308	F	54.4	N/A	N/A	No	HIGH AND BEST USE FOREST LAND	No	No	No	No	yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighboring lands. Adjacent lands are predominately above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
192 ROSEBURG RESOURCES CO	27513W27ATL0010100	99919879	F	0.62	N/A	N/A	No	HIGH AND BEST USE FOREST LAND	No	No	No	No	yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighboring lands. Adjacent lands are predominately above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
193 ROSEBURG RESOURCES CO	27513W27TL0010000	716200	F	169	N/A	N/A	No	HIGH AND BEST USE FOREST LAND	No	Yes	No	No	yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighboring lands. This parcel is below elevation 8.0ft and hydrologically connected to waters within the project area. However, this parcel is not directly impacted by the culverts or channels being installed. The main BSSD tidegate is the water management control point with the interior culverts/channels being replaced being subservient. Mosquito production habitats will be addressed on the project area (see footnote #2).
194 ROSEBURG RESOURCES CO	27513W27TL0020000	716400	F	3.63	N/A	N/A	No	HIGH AND BEST USE FOREST LAND	No	No	No	No	yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighboring lands. Adjacent lands are predominately above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
195 SIMPSON COLLEGE FOUNDATION	27513W21TL0180000	711904	F	0.92	N/A	N/A	No	RESIDENTIAL - UNIMPROVED	No	No	No	No	yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighboring lands. Adjacent lands are predominately above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
196 SMITH FAMILY REVOCABLE LIVING TRU	28513W03TL0080000	899000	EFU	79.28	N/A	N/A	No	HIGH AND BEST USE FARM LAND	No	No	No	No	yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighboring lands. Adjacent lands are predominately above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
197 SOLOMON, WALTER A. & JOYCE L.	27513W298TL0210000	718802	EFU 5, CREMP	5.68	N/A	N/A	No	RESIDENTIAL - IMPROVED	No	No	No	No	yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighboring lands. Adjacent lands are predominately above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
198 SPRINGTIME INVESTMENTS LLC	27513W31TL0060000	719906	F	60.83	N/A	N/A	No	HIGH AND BEST USE FOREST LAND	No	No	No	No	yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighboring lands. Adjacent lands are predominately above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).



## Winter Lake Phase III Project Area and Surrounding Land Impacts Analysis

Table 2. Winter Lake Phase III Project Area Surrounding Lands Impacts Analysis

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199 STAPERT, JOHN R.; ETAL	27S13W148TL0180000	705407	F	5.62	N/A	N/A	No	RESIDENTIAL-IMPROVED	No	No	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. Adjacent lands are predominately above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
200 STATE OF OR - OR DEPT OF FISH & WILDLIFE	27S13W21TL0200000	712100	F	4.01	N/A	N/A	No	MISCELLANEOUS	No	No	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. Adjacent lands are predominately above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
201 STATE OF OR - OR DEPT OF FISH & WILDLIFE	27S13W21TL0210000	712400	EFU	37.35	N/A	N/A	No	MISCELLANEOUS	No	Yes	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. This parcel is below elevation 8.0ft and hydrologically connected to waters within the project area. However, this parcel is not directly impacted by the three interior culverts that will be installed in the Coaledo Drainage District. The main Coaledo Tidegate is the control point for water management in the CDD as the interior tidegates are subservient. ODFW lands, never used for pasture grazing. Mosquito production habitats will be addressed on the project area (see footnote #2).
202 STATE OF OREGON	27S13W15ATL0080000	705802	F	2.94	N/A	N/A	No	MISCELLANEOUS	No	No	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. Adjacent lands are predominately above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
203 STATE OF OREGON	27S13W15TL0080000	707405	EFU	4.1	N/A	N/A	No	MISCELLANEOUS	No	No	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. Adjacent lands are predominately above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
204 STATE OF OREGON	27S13W18TL0020000	709101	F	5.17	N/A	N/A	No	MISCELLANEOUS	No	No	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. Adjacent lands are predominately above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
205 STATE OF OREGON	27S13W33TL0100000	721802	F	0.52	N/A	N/A	No	MISCELLANEOUS	No	No	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. Adjacent lands are predominately above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
206 STATE OF OREGON	27S13W34TL0070000	722603	EFU	7.48	N/A	N/A	No	MISCELLANEOUS	No	No	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. Adjacent lands are predominately above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).

## Winter Lake Phase III Project Area and Surrounding Land Impacts Analysis

Table 2. Winter Lake Phase III Project Area Surrounding Lands Impacts Analysis

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207 STATE OF OREGON	27513W34TL0089900	7715000	EFU	4.06	0.00	0%	No	MISCELLANEOUS	No	Yes	No	No	Yes	No	No	No	No	No Effect	Yes	Project area parcel; see comment in Table 1.
208 STATE OF OREGON DEPT OF FISH & WILDLIFE	27513W278TL0110400	99920212	EFU*	2.05	N/A	N/A	No	HIGH AND BEST USE FARM LAND	No	No	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighboring lands. Adjacent lands are predominantly above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
209 STENGAR, ELLEN V.; ETAL	28513W03TL0060000	898701	F	97.54	N/A	N/A	No	HIGH AND BEST USE FARM LAND	No	No	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighboring lands. Adjacent lands are predominantly above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
210 STRADER, TRACY ET AL	27513W158DTL0130000	706600	EFU	4.66	N/A	N/A	No	HIGH AND BEST USE FARM LAND	No	Yes	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighboring lands. This parcel is below elevation 8.0ft and hydrologically connected to waters within the project area. However, this parcel is not directly impacted by the three interior culverts that will be installed in the Coaledo Drainage District. The main Coaledo Tidegate is the control point for water management in the CDD as the interior tidegates are subservient. Mosquito production habitats will be addressed on the project area (see footnote #2).
211 SUTPHIN, STEVEN CRAIG	28513W02TL0120000	895300	EFU , CREMP	36.55	N/A	N/A	No	HIGH AND BEST USE FARM LAND	No	No	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighboring lands. Adjacent lands are predominantly above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
212 BRIDGES FOUNDATION	27513W20TL0150300	99916790	EFU*	52.2	10.68	20%	Yes	HIGH AND BEST USE FARM LAND	No	Yes	No	No	Yes	No	No	No	No	Improve	Yes	Project area parcel; see comment in Table 1.
213 BRIDGES FOUNDATION	27513W27TL0040000	716702	EFU	23.6	0.00	0%	Yes	HIGH AND BEST USE FARM LAND	No	Yes	No	No	Yes	No	No	No	No	Improve	Yes	Project area parcel; see comment in Table 1.
214 BRIDGES FOUNDATION	27513W27TL0050000	716800	EFU	54.4	0.00	0%	Yes	HIGH AND BEST USE FARM LAND	No	Yes	No	No	Yes	No	No	No	No	Improve	Yes	Project area parcel; see comment in Table 1.
215 BRIDGES FOUNDATION	27513W28TL0040000	717402	EFU	20.0	0.00	0%	Yes	HIGH AND BEST USE FARM LAND	No	Yes	No	No	Yes	No	No	No	No	Improve	Yes	Project area parcel; see comment in Table 1.

## Winter Lake Phase III Project Area and Surrounding Land Impacts Analysis

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	Owner Name	TUID	Tax Account #	Plan Zoning	Parcel Acres	Parcel acres in CREMP	Parcel % in CREMP	Parcel contains proposed project actions, Y/N	Apparent current on-ground usage	Above Elevation 8.0ft NAVDD 88'	Parcel is hydrologically connected to the Winter Lake Phase III Project Area	Will Phase III Cause Additional Water on Property Y/N	Will Phase III Inhibit Drainage of Water on Property Y/N	Will Phase III Project Reduce Potential Mosquito Habitat/Effects on Parcel Y/N?	Will Phase III Project Force a Significant Change in Farm or Forest Practices on Parcel	Will Phase III Project Significantly Increase Cost of Farm or Forest Practices on Parcel, Y/N?	Will Phase III Project Modify Existing or Require New Access Roads, Y/N?	Will Phase III Project Result in the Removal of Productive Farm or Forest Land, Y/N?	Will Phase III Project have Economic Effect On farm/forest uses on Parcel: Improve/Decline/No Effect	Will Winter Lake Phase III Project result in ecological/fish/wildlife benefits on parcel	
216	BRIDGES FOUNDATION	27513W28TL0060000	717401	EFU	80.0	0.00	0%	Yes	HIGH AND BEST USE FARM LAND	No	Yes	No	No	Yes	No	No	No	No	Improve	Yes	Project area parcel; see comment in Table 1.
217	BRIDGES FOUNDATION	27513W28TL0070000	717500	EFU	100.0	0.00	0%	Yes	HIGH AND BEST USE FARM LAND	No	Yes	No	No	Yes	No	No	No	No	Improve	Yes	Project area parcel; see comment in Table 1.
218	BRIDGES FOUNDATION	27513W29TL0010100	717600	EFU, CREMP	148.5	72.11	49%	Yes	HIGH AND BEST USE FARM LAND	No	Yes	No	No	Yes	No	No	No	No	Improve	Yes	Project area parcel; see comment in Table 1.
219	BRIDGES FOUNDATION	27513W29TL0010300	99916787	EFU, CREMP	47.3	44.13	93%	Yes	HIGH AND BEST USE FARM LAND	No	Yes	No	No	Yes	No	No	No	No	Improve	Yes	Project area parcel; see comment in Table 1.
220	TICE, TERRY R. & TAMMY F.	27513W14BTL0200000	705406	RR-5, F	10.07	N/A	N/A	No	HIGH/BEST USE FOREST W/IMPROV	Yes	No	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. Adjacent lands are predominately above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
221	TRIGG, KIRK R & JUANICE M	28513W05TL0080000	900601	EFU	31.4	N/A	N/A	No	HIGH AND BEST USE FARM LAND	No	No	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. Adjacent lands are predominately above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
222	VAN BURGER, SUSANNE L	27513W20TL0010000	710200	F, EFU	78.8	N/A	N/A	No	HIGH AND BEST USE FARM LAND	No	Yes	No	No	Yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. This parcel is below elevation 8.0ft and hydrologically connected to waters within the project area. However, this parcel is not directly impacted by the three interior culverts that will be installed in the Coaledo Drainage District. The main Coaledo Tidegate is the control point for water management in the CDD as the interior tidegates are subservient. Mosquito production habitats will be addressed on the project area (see footnote #2).
223	VOTAW, UTIS G.	27513W15TL0110000	707200	EFU	2.1	N/A	N/A	No	RESIDENTIAL-IMPROVED	No	No	No	No	yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. Adjacent lands are predominately above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
224	WAKKINEN, MICHAEL & MEE, MOLLY	28513W05TL0090600	99920035	EFU	56.82	N/A	N/A	No	HIGH AND BEST USE FOREST LAND	Yes	No	No	No	yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. Adjacent lands are predominately above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
225	WALTER, RUBY A ET AL	27513W20TL0100000	710501	F	10	N/A	N/A	No	HIGH/BEST USE FOREST W/IMPROV	Yes	No	No	No	yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighbor lands. Adjacent lands are predominately above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).

## Winter Lake Phase III Project Area and Surrounding Land Impacts Analysis

Table 2. Winter Lake Phase III Project Area Surrounding Lands Impacts Analysis

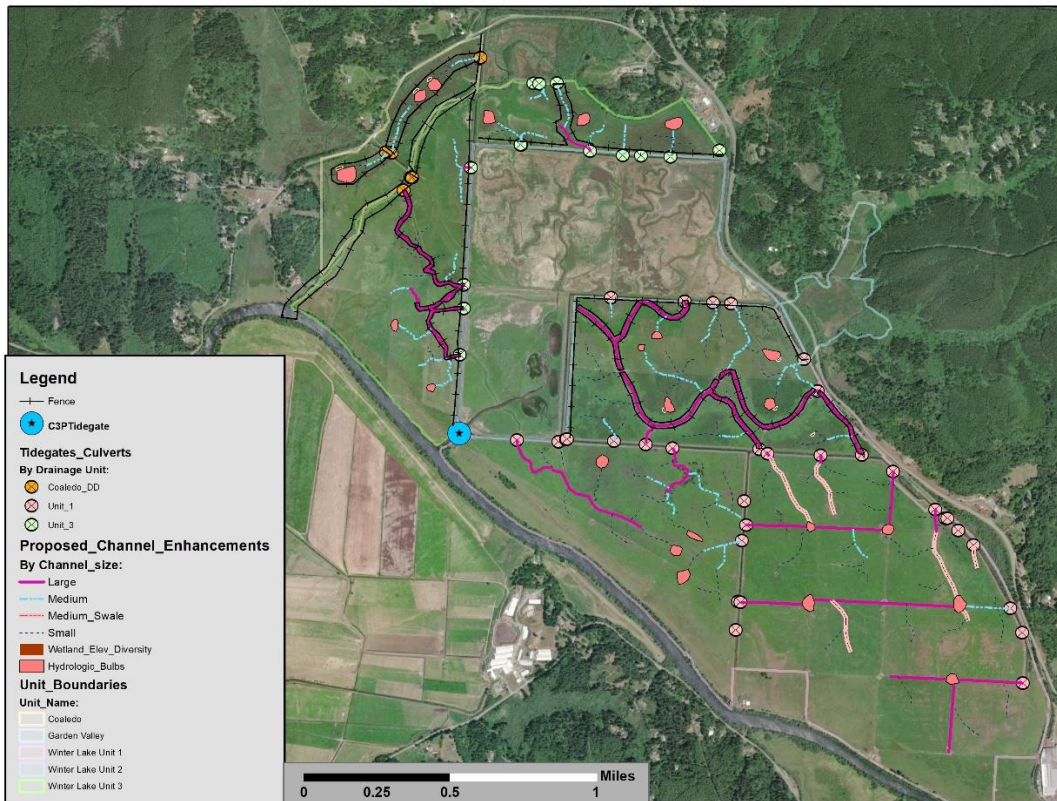
Owner Name	TUID	Tax Account #	Plan Zoning	Parcel Acres	Parcel acres in CREMP	Parcel % in CREMP	Parcel contains proposed project actions, Y/N	Apparent current on-ground usage	Above Elevation 8.0ft NAVDD 88'	Parcel is hydrologically connected to the Winter Lake Phase III Project Area	Will Phase III Cause Additional Water on Property Y/N	Will Phase III Inhibit Drainage of Water on Property Y/N	Will Phase III Project Reduce Potential Mosquito Habitat/Efforts on Parcel Y/N?	Will Phase III Project Force a Significant Change in Farm or Forest Practices on Parcel	Will Phase III Project Significantly Increase Cost of Farm or Forest Practices on Parcel, Y/N?	Will Phase III Project Modify Existing or Require New Access Roads, Y/N?	Will Phase III Project Result in the Removal of Productive Farm or Forest Land, Y/N?	Will Phase III Project have Economic Effect On farm/forest uses on Parcel: Improve/Decline/No Effect	Will Winter Lake Phase III Project result in ecological/fish/wildlife benefits on parcel	
226 WARD, CASEY L & DELORES J	28513W04TL0060100	899805	F	10.13	N/A	N/A	No	HIGH/BEST USE FOREST W/IMPROV	Yes	No	No	No	yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighboring lands. Adjacent lands are predominately above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
227 WHEELER, RAYMOND C	27513W21TL0230100	712704	IND, EFU	17.39	N/A	N/A	No	HIGH AND BEST USE FARM LAND	Yes	No	No	No	yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighboring lands. Adjacent lands are predominately above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
228 WILLIARD, MARY ELIZABETH	27513W20TL0060000	710400	F	8.12	N/A	N/A	No	HIGH/BEST USE FOREST W/IMPROV	Yes	No	No	No	yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighboring lands. Adjacent lands are predominately above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
229 WILSON, CLARK E. & SHEILA F.	27513W21TL0240000	712900	F, EFU	6.6	N/A	N/A	No	RESIDENTIAL - IMPROVE D	No	No	No	No	yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighboring lands. Adjacent lands are predominately above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
230 WIRT, CASEY & DANIELLE	27513W20TL0080000	711100	F	9.67	N/A	N/A	No	HIGH/BEST USE FOREST W/IMPROV	Yes	No	No	No	yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighboring lands. Adjacent lands are predominately above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
231 WISELY, BRETT	27513W27TL0030000	716700	EFU	51.58	N/A	N/A	No	HIGH AND BEST USE FARM LAND	No	Yes	No	No	yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighboring lands. This parcel is below elevation 8.0ft and hydrologically connected to waters within the project area. However, this parcel is not directly impacted by the three interior culverts that will be installed in the Coaledo Drainage District. The main Coaledo Tidegate is the control point for water management in the CDD as the interior tidegates are subservient. Mosquito production habitats will be addressed on the project area (see footnote #2).
232 YATES, CHARLES L & JOHANNA	27513W21TL0240400	712903	F, EFU	38.4	N/A	N/A	No	HIGH AND BEST USE FARM LAND	Yes	No	No	No	yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighboring lands. Adjacent lands are predominately above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
233 YATES, CHARLES L & JOHANNA	27513W22TL0050000	713700	F	41.8	N/A	N/A	No	HIGH AND BEST USE FARM LAND	Yes	No	No	No	yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighboring lands. Adjacent lands are predominately above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).
234 YEAGER, KEVIN S.	27513W15BATL0020000	705900	F	7.1	N/A	N/A	No	RESIDENTIAL - IMPROVE D	Yes	No	No	No	yes	No	No	No	No	No Effect	No	Project is designed independently without need for roads or change to neighboring land use actions or increase costs of use on neighboring lands. Adjacent lands are predominately above elevation 8.0ft, the highest level of tide. Mosquito production habitats will be addressed on the project area (see footnote #2).



SPECIFIC EXERPTS FROM THE WINTER LAKE PHASE III  
404 FILL AND REMOVAL APPLICATION  
to the  
USACE, DSL, and COOS County Planning Dept.

ADDRESSING HYDROLOGY RELATED TO POTENTIAL FOR MOSQUITO PRODUCTION

March 12<sup>th</sup>, 2024



Caley Sowers  
Authorized Agent  
for the Beaver Slough Drainage District

and

Christopher W. Claire  
Habitat Protection Biologist  
ODFW Charleston, OR

# Excerpts from the Winter Lake Phase III 404 Permit App.

**Note:** Additional important information, has been added on 03/11/24 (highlighted) in several short sections of this document to clarify hydrology/geomorphic conditions on site and project effects to address fish stranding and the potential for mosquito production.

This is a joint application, and must be sent to all agencies (Corps, DSL, and DEQ). Alternative forms of permit applications may be acceptable; contact the Corps and DSL for more information.

Date Stamp

	<b>U.S. Army Corps of Engineers Portland District</b>		<b>Oregon Department of State Lands</b>		<b>Oregon Department of Environmental Quality</b>
Action ID Number		Number			

## (1) TYPE OF PERMIT(S) IF KNOWN (check all that apply)

**Corps:** Individual  Nationwide No.: \_\_\_\_\_ Regional General Permit \_\_\_\_\_ Other (specify): \_\_\_\_\_

**DSL:**  Individual Waiver  GP Trans  GP Min Wet  GP Maint Dredge  GP Ocean Energy  No Permit

## (2) APPLICANT AND LANDOWNER CONTACT INFORMATION

	Applicant	Property Owners (if different)	Authorized Agent (if applicable) <input checked="" type="checkbox"/> Consultant <input type="checkbox"/> Contractor
<b>Name (Required)</b>	Beaver Slough Drainage District Manager: Fred Messerle	Fred Messerle & Sons, Inc.	Caley Sowers/ Coos SWCD District Manager
<b>Business Name</b>	Beaver Slough Drainage District	Bridges Foundation (Luke Fitzpatrick)	379 N Adams St, Coquille, OR 97423
<b>Mailing Address 1</b>	60196 Old Wagon Rd.	Everett-Ona Isenhart ranch, Inc.	
<b>City, State, Zip</b>	Coos Bay, OR 97420	Laura Isenhart	
<b>Business Phone</b>	541-404-6105		541-396-6879
<b>Cell Phone</b>			971-645-6634
<b>Fax</b>			541-824-0356
<b>email</b>	bsddbos@gmail.com		info@coosswcd.org

## (3) PROJECT INFORMATION

**A. Provide the project location.**

<b>Project Name</b> <i>Winter Lake Phase III</i>		<a href="#">Latitude &amp; Longitude*</a>		
<b>Project Address / Location</b>		<b>City (nearest)</b> Coquille		<b>County</b> Coos
<b>Township</b>	<b>Range</b>	<b>Section</b>	<b>Quarter / Quarter</b>	<b>Tax Lot</b>
27	13W	20		1503
27	13W	27		400

27	13W	27		500
27	13W	28		400
27	13W	28		600
27	13W	28		700
27	13W	29		101
27	13W	29		103
27	13W	33		100
27	13W	33		200
27	13W	34		800

Brief Directions to the Site:

The Winter Lake Phase III project action area is located on private and state-owned floodplain pastures within the Beaver Slough Drainage District (BSDD and Coaledo Drainage Districts (CDD) wetlands to the South of North Bank Lane/Hwy 42 and west of Coquille, OR, on the historic China Camp and Beaver Creek floodplain (**Attachment A: Figures and Photos, Figures 1-4**).

**B. What types of waterbodies or wetlands are present in your project area? (Check all that apply.)**

- |  |  |  |
|--|--|--|
| <input checked="" type="checkbox"/> River / Stream           | <input type="checkbox"/> Non-Tidal Wetland | <input type="checkbox"/> Lake / Reservoir / Pond |
| <input checked="" type="checkbox"/> Estuary or Tidal Wetland | <input type="checkbox"/> Other             | <input type="checkbox"/> Pacific Ocean           |

Waterbody or Wetland Name**	River Mile	<a href="#">6th Field HUC Name</a>	<a href="#">6th Field HUC (12 digits)</a>
China Camp Creek and tributaries (Winter Lake)			

\* In decimal format (e.g., 44.9399, -123.0283)

\*\* If there is no official name for the wetland or waterbody, create a unique name (such as "Wetland 1" or "Tributary A").

**Key Textual Excerpts on Project Need and Goals  
From Phase III 404 Fill and Removal Application Submitted  
to DSL, USACE, and Coos County Planning Dept.**

**Note:** Additional important information, has been added on 03/11/24 (highlighted) in several short sections of this document to clarify hydrology/geomorphic conditions on site and project effects to address fish stranding and the potential for mosquito production.

From pg 2

**A. Summarize the overall project including work in areas both in and outside of waters or wetlands.**

**INTRODUCTION /OVERALL PROJECT DESCRIPTION:**

Historically, the Coquille River valley floor contained extensive freshwater tidal wetlands, tidal channels, and non-tidal wetland habitats that are estimated to have once comprised over 12,000+ acres of prime fish and wildlife habitat (Benner 1992). Native salmonids, specifically coho juveniles, used these habitats heavily during fall/winter/spring months to feed and rear prior to smoltification. A significant percentage of those habitats were cleared, leveed, tidedgated, and drained for agriculture in the late 19th - early 20th century, thereby substantially altering the land from its natural state as a freshwater tidal wetland complex into drained pasture used seasonally to year round for grazing and hay production.

The "Winter Lake" floodplain area south of North Bank Lane/Hwy 42S, and west of Coquille, OR, at over 1,806 acres, represents one of the largest contiguous land areas in the lower Coquille Basin with high

potential for Oregon Coast (OC) coho overwinter habitat and high-quality pasture production. Approximately 1,295 acres within the Beaver Slough Drainage District (BSDD) are below elevation 8.0ft NAVDD 88, and thus below the highest measured tides. The project-area is upstream of saline influence at River Mile (RM) 21.5 in the Coquille estuary (**Attachment A, Figure 2**). All figures and photos referenced within this permit text can be found within **Attachment A: Figures and Photos**. The Beaver Slough Drainage District (BSDD) was formed in 1906-1907 and this collaboration provided the framework for initiating converting the forested tidal floodplain at the project area, which prior to agricultural development and installation of the linear canals and tidegates in 1908-1909, the lands were forested and contained a dense tidal channel network (Benner 1992). The Coaledo Drainage District (CDD) was formed thereafter and installation of a tidegate on Beaver Creek in the “Winter Lake” area west of the BSDD allowed for drainage of pastures on the west side of Beaver Creek.

From 2010 to 2017 the BSDD, Oregon Department of Fish and Wildlife (ODFW), and The Nature Conservancy (TNC) developed restoration actions for a portion of lands within the BSDD. The plans focused on two projects (Phase I and II) within three management Units (**Attachment A, Figure 5-6**) of the BSDD. The “Winter Lake Phase I,” project installed seven new tidegates to replace the previously existing undersized and top-hinged gates that had obstructed fish movements. Four 8.0ft corrugated metal culverts (CMP's) installed in the early 1990's were replaced with seven 10.0x8.0ft concrete box culverts at the interface of the BSDD floodplain with the Coquille River. Slide-gate style and side-hinged aluminum tidegates (**Attachment A, Figure 7-8**) were installed to provide a dual controllability. The Vertical Slideframe Style Tidegates (VSFTG) network is configured with both manual and remote access control. The new tidegates have the capacity to be operated with Muted Tidal Regulator (MTR) technology, whereby the tidegates can be opened to allow for tidal inflow to a desired set level, computer controlled, and linked to river/tidal level feedback. The new gates have increased the capacity for water movement into and out of the 1,700-acre BSDD by 300%.

Unit 2 lands are owned by the China Camp Gun Club and ODFW and account for 407 acres of the BSDD. The China Camp Gun Club lands are managed for summer pasture grazing and recreational duck hunting during winter months. The ODFW lands comprise 286 acres (northern portion of Unit 2) with the Gun Club accounting for the remaining 121 acres that extend south to the C3P tidegate in Unit 2. In 2018 the Unit 2 restoration project or “Winter Lake Phase II” was implemented and a total of 31,000ft of tidal channel were excavated as designed by Tetrattech Engineering staff through coordination with ODFW and the BSDD in the 407 acres of Unit 2 (**Attachment A, Figure 9**). The main tidal channel upstream of the C3P tidegates in Unit 2 was designed with capacity that exceeds the four concrete box culverts and tidegates. This has allowed for full ability to serve water from the C3P tidegates to Unit 2 lands and provide juvenile coho and other native fish passage into the site as well as provide for pasture irrigation into Units 1 and 3 at appropriate elevations that tidal inflow will reach.

The Winter Lake C3P tidegate construction (Phase I) and tidal channel restoration in Unit 2 (Phase II) resolved hydrologic restriction that existed prior to the projects and is currently allowing for water management strategies that are designed to more closely mimic historical conditions in Unit 2. Hydrologic connectivity in Unit 2 is considered fully adequate following restoration in 2017-2018. The proposed Phase III project does not include any actions within Unit 2. However, interior culverts/channel networks within Units 1 and 3 (**Figures 5,6**) remained unchanged following completion of Phase I and II. These remaining 1,399 acres in Units 1 and 3 and CDD pastures (1,806 minus Unit 2) of Winter Lake, which have had no internal restorative actions to date upstream of C3P, suffer from rampant hydrologic discontinuity across the land area. The main drainage canals in Winter Lake were aligned East/West and North/South (**Attachment A, Figure 10**) rather than based on land elevations or natural flow paths. Overall these main canals are sufficient in capacity to provide proper hydrology for the new concrete box culvers and tidegates for Units 1 and 3. However, the interior pasture drainage channels were installed historically largely on property lines, pasture boundaries, and without concern for “microtopography.”



The proposed “Winter Lake Phase III” project has been developed by a team of partners including Coos Soil and Water Conservation District (Coos SWCD), the ODFW, and the BSDD. The project is designed as both ecological restoration and agricultural improvement to complement the BSDD C3P tidegate replacement project completed in 2017 (Winter Lake Phase I) and the 2018 installation of 31,000 ft of restored natural tidal channel which was completed in Unit 2 (Winter Lake Phase II). The Phase III Project Proposal seeks to address hydrologic connectivity within BSDD Units 1 and 3 (1,700 acres) and two pastures, which are 62 and 44 acres respectively, in the Coaledo Drainage District (CDD) (**Attachment A, Figure 5**).

Winter Lake Units 1 and 3 have high inherent potential for fish production; however, their current hydrologic disconnection yields:

- a). Poor access for fish from existing canals into floodplains which are rich in macroinvertebrate food items when flooded; resultantly, there is limited potential for fish use of the floodplain for foraging.
- b). Few or no channels present across large portions of the floodplain land area to provide refugia for native fishes when floodwaters periodically recede, which results in high potential for mortality due to predation and stranding.
- c). Poor capacity for landowning ranchers to move irrigation water from the canals into pastures during summer months.

Winter Lake Phase III specifically proposes to replace 42 existing undersized culverts and associated old style top-hinged tidegates with 38 new culverts and redesigned channels. The project actions are anticipated to maximize hydrologic connectivity in order to achieve a balance of fish/wildlife and agricultural (pasture) production.

*From pg 4-6*

**PROPOSED PROJECT ACTIONS: ALL ASSOCIATED WORK BOTH WITHIN AND OUTSIDE OF WATERS/WETLANDS AND TOTAL GROUND DISTURBANCE**

***There are no active streams generated or moving through the active work areas on project site.***

**Note:** *The lands within the project area were Shrub/Scrub and Forested wetland historically with tidal inflow/outflow. The Phase III project is designed to provide a substantial net benefit increase in wetland function over current condition that fully offsets the impacts of work. The site is anticipated to be for the most part dry during the work period although there will be water in existing historical channels. Some non-salmonid fish may be present in low lying areas during construction although no coho or other salmonids will likely be present in channels and ponded water in pastures during July 1 to September 15th as the temperatures are known to exceed thermal lethal limits during summer months in these habitats.*

### **1. Installation of New HDPE Culverts**

We will be replacing 38 individual culverts in Units 1 and 3, (see **Attachment B “Project Actions,” Sheet 1, pg. 16**) that connect pasture floodplain channels with canals. New culverts will be primarily HDPE materials as this material provides for maximized life expectancy in tideland soils (with possibility of installation of three Corrugated Metal Pipes). The interior pasture channel network culverts currently are substantively undersized, and the new culverts have been sized to accommodate appropriate inflow/outflow. This **“Winter Lake Hydrologic Assessment”** is located in **Attachment C**. Sizing was based on:

- a). The volumetric inflow/outflow capacity of the C3P project and previous ODFW and NMFS approvals for fish passage.
- b). The precipitation hydrology for the “micro-watershed” pasture areas specifically associated with the individual culverts (Figure 12).
- c). Culvert hydraulic capacity for a given culvert size, which was then paired to a, and b.

The overall BSDD Water Management Plan (DWMP) guides inflow/outflow into Units 1 and 3 through the C3P tidegate. This DWMP plan has substantive effects on the methodology for the hydrology within Units 1 and 3, which is fully discussed in the **“Winter Lake Phase III Hydrologic Assessment.”** The **DWMP and Winter Lake Phase III Hydrologic Assessment** are located within **Attachment C**.

## 2. Installation of New Water Control Mechanisms

We will install two styles of water control mechanisms on the on the new HDPE pasture channel and canal connection culverts that provide for a higher degree of control over previously used top-hinged wooden and flapper tidegates. These new structures will allow for an open culvert strategy during late fall and winter months maximizing fish access to pasture channels and floodplain habitats and they will provide for individual pasture irrigation tactics during summer months.

Water control structures that will be used shall consist of two styles (specific style based on individual site and landowner needs):

- a). Side-hinged aluminum tidegates (**Attachment A, Figure 13**) with an additional arm that can be set in a manner for the tidegate to be managed fully open or closed as is the water management strategy. Aluminum slide-gates (**Attachment A, Figure 14**) on adjustable worm drive hand wheel operated.
- b). Aluminum slide-gates (**Attachment A, Figure 14**) on adjustable worm drive hand wheel operated shafts that allow for incremental degrees of door openness.
- c). The BSDD and ODFW are in the process of developing a third louvered water control structure and seek the approval to install a single site as a prototype for testing.

## 3. Install New Bridge:

One new free-spanning 60ft railcar that is channel spanning ("Winter Lake Phase III Project Actions" in Attachment B; Figures 15-18) will be installed over the S.E. portion of the Unit 1 main canal (see Attachment A, Figure 15, 16 for location of bridge). This bridge provides the landowner livestock management access point into the Messerle property from Hwy 42 ~1.0 miles west of the City of Coquille. This bridge will have appropriate approach sloping so as to minimize erosion. Riprap will be installed on banks to prevent inflow/outflow scour. The earthen streambanks provides the channel form and the location is generally low-energy hydrology, with the site subject to slow rising tidal inflow and outflow. Footer design will be a rock/fabric layered pattern with a railcar beam for the decking to rest upon (Attachment A, Figures 17-18). The bridge is designed to have fully sufficient capacity to provide for proper hydrologic connectivity and fish passage for all channels developed upstream of that location.

## 4. Construct On-Grade Tidal/Floodplain Channels:

NOTE: (All channels proposed for construction are assumed to have the ecological productive capacity similar or equal to "Pasture Trenches" referenced in North Bank Access permit application (ODFW unpublished 2016).

These channels will provide a greatly improved level of accessibility to the site for fish that has not been present since the interior pastures were originally bermed and drained in the early 1900's. Additionally the channels will allow for natural hydrologic regimes to the extent that is possible. The C3P tidegate ultimately controls water levels during low and moderate elevations and flows. The project is anticipated to improve water quality through:

- a). Increased movement of water inflow/outflow and mixing. Elimination of stagnation of water where organic decomposition results in high levels of bioprocessed compounds, related to increased movement.
- b). Improved thermal regimes resulting in decreased water temperatures during warmer months due to movement of water and elimination of shallow ponded areas where solar input is extreme. On-grade channels constructed to connect these low-lying areas in the floodplain will address this issue.
- c). Greatly improved nutrient and energy cycling, which will result from increased inflow/outflow and movement of waters in winter through pasture stubble height vegetation prior to entering the main canals and Coquille River mainstem.

### *Small Swale Channels:*

A total of 38,090 smaller swale type channels with an avg depth of 2.5ft in first 300ft; 1.5ft thereafter Avg width 8.0ft for first 300ft 9.5ft thereafter (“**Winter Lake Phase III Project Actions” Attachment B; Sheets 2-17**); will be constructed on grade with side-sloping of 4:1 from connection point with Medium Size Conveyance Channels. Bottom width will be on average 2.0ft in width (**Attachment A, Sheets 2-17**). **These channels will be at a depth that varies depending on the surrounding pasture elevations, however, are designed to provide fish ingress/egress to locations currently that have juvenile coho/salmonid stranding potential during the winter months and generate stagnate water areas during the summer that present risk for mosquito production.** These will be on-grade and located in the low-lying zones of the landscape as determined by LiDAR (**Attachment A, Figure 24-26**).

*From pgs 13-14*

### **Key Hydrology/Habitat Issues**

The current culvert/tidegate infrastructure and channel network within the BSDD interior floodplain upstream of the C3P tidegate have multiple features that remain dysfunctional for tidal and floodwater inflow/outflow. Specifically, the project will work to improve conditions for Oregon Coast (OC) juvenile coho overwinter rearing and landowner pasture grazing production in Units 1 and 3. The project will address:

- Hydrologic Flow Paths: Discontinuity of channel networks due to construction of linear networks in 1909-current that redirected flow from the historical natural hydrologic flow paths.
- Channel Density/Limited Intrusion: Lack of density, per acre and limited length of interior channels within Units 1 and 3. These features are needed to provide access routes to feed and sufficient refugia depth for juvenile fish within the BSDD floodplain. This deficiency results in very limited use of large portions of the floodplain by native salmonid fishes except at very high flood levels.
- Salmonid Stranding Areas: Low-lying land areas within individual ownership pastures are in many locations disconnected from channel networks, which results in water retention when flood levels decline resulting in high stranding risk for juvenile coho on the floodplain. **Note in addition to 404 permit info; 01/10/24: Linear channels constructed historically traversed across and disconnected low spots that can be visually identified on site and from the LIDAR. These low spots now struggle to drain during lower tidal conditions and if irrigation water is delivered to an elevation to fill these locations. Resultantly, there currently are numerous locations where mosquito production can occur if water is delivered into these locations during the warmer months of the year (June-September). These areas represent locations where salmonids tend to feed as they are slightly deeper (1-3ft deeper) than the surrounding pasture area. As the water recedes fish can become stranded and eventually die during late spring from warmer temperatures and predation. This project specifically used a new and hybrid channel layout to develop channel networks that enter these low lying stranding and potential mosquito production areas to ensure they will drain as waters recede in late spring and on low tide drainout following irrigation events. Project actions will address ponding water locations that currently serve as fish stranding and mosquito production risk locations.**
- Undersized Culverts for Hydrology: Undersized culverts connecting to the main canals within Units 1 and 3 that restrict proper tidal/flood-flow and underserve irrigation needs in summer months. **Note in addition to 404 permit info 01/10/24: Installation of this water control infrastructure will provide greater ability to drain low-lying areas that have potential for mosquito production.**
- Invert Elevations Inappropriate: Culverts that were installed with an elevation invert where interior pasture channel networks at early winter flow levels are disconnected from the main canals resulting in delayed ability for fish to enter the floodplain and subsequent increased potential for stranding and predation as floodflows recede.

- Top Hinged Tidegates: Top-hinged tidegates on the existing interior culverts upstream of the C3P tidegates that are difficult to manage in the open position. This results in long periods where the tidegate doors are closed leading to restriction of fish movements from the main canals into pasture floodplain channels where food availability is higher and competition with non-native fish lower.
- Channels Not On Grade: Channel networks that were not constructed on-grade and thus do not allow for sediments to be transported properly, resulting in premature accumulation, limited connectivity for fish movement, and poor drainage for landowners. **Note in addition to 404 permit info 01/10/24: Installation of redesigned and new channels will provide greater ability to drain low-lying areas that have potential for mosquito production.**
- Poor Channel Locations: Poorly located linear channel networks that do not follow land elevation hydrologic paths and undersized internal channels that do not provide sufficient length or route to provide connectivity to hundreds of acres of agricultural pastures within the BSDD resulting in highly limited ability to utilize the capacity of the new C3P tidegate for irrigation.
- Non-Native Fish: Canal networks that do not have substantial upstream channels that result in limited exchange volume when tidal influence is induced at the C3P tidegate. Resultantly, non-native fish including bullhead catfish, yellow perch, black crappie, bluegill, and mosquitofish are served by the relatively slack conditions within the canals that serve Units 1 and 3. This project will allow much greater exchange of volume in those canals reducing life history preference for the current condition and move favorability towards native fish.
- Low-Lying Pasture Production Issues: Channel networks that do not connect to low-lying areas properly resulting in long periods of standing water reducing pasture grass production during spring drain-out and early summer.
- Channel Location Irrigation Issues: Channel networks that are not located properly for individual pasture irrigation, resulting in over/under-watering of individual landowner pastures. **Note in addition to 404 permit info 01/10/24: Installation of redesigned and new channels in elevationally appropriate paths will provide greater ability to drain low-lying areas that have potential for mosquito production.**

## **(6) DESCRIPTION OF RESOURCES IN PROJECT AREA**

**A. Describe the existing physical, chemical, and biological characteristics of each wetland or waterbody. Reference the wetland and waters delineation report if one is available. Include the list of items provided in the instructions.**

The Coquille River Valley is an expansive alluvial floodplain extending upstream from the mouth of the Coquille River at Bandon, OR upstream to the head of tidal influence at river mile 41. Other than the Columbia River, the Coquille River Valley encompasses the longest coastal estuary in Oregon. Historically the Coquille valley floor contained extensive freshwater tidal wetlands, tidal channels, and non-tidal wetland habitats that are estimated to have comprised over 12,000+ acres (Benner 1992) with some estimates as high as 17,000 acres. These habitats provided very high-quality fish and wildlife habitat historically (Benner 1992; Scranton, 2004). The Winter Lake Phase III project action area is located on floodplain pastures within the BSDD and CDD wetlands to the South of Northbank Lane/Hwy 42 and west of Coquille, OR, on the historic China Camp and Beaver Creek floodplain (**Attachment A, Figures 1 - 6**). The project area is predominated by lands that are below elevation 8.0ft (1,295+ acres).

The predominant majority of the floodplain and wetlands habitats in the Coquille estuary were cleared,



leveed, tidegated, and drained for agricultural purposes in the late 19th - early 20th century, thereby substantially altering the land from its historical natural state as a freshwater tidal wetland complex into drained pasture lands. These lands are currently used seasonally to year-round for grazing. By the 1990s, the amount of tidally influenced and standing wetland within the Coquille Valley was reduced to less than 600 acres or ~5% of historical. Resultantly, there have been widespread ecological changes in the capacity of the valley floor to produce fish and wildlife. Coho abundance has averaged ~14,499 annually in the 1990- 2020 period compared to peak estimated abundance of over 400,000 historically and an annual abundance that likely averaged near ~150,000.

Research and salmonid population monitoring indicate that tidal floodplains, wetlands, and estuaries are a highly important habitat for young salmon. Restoration of these habitats is repeatedly identified as a critical action for increasing endangered coho populations in multiple federal, state, and local recovery plans. Substantial scientific evidence indicates that body size at ocean entry is an important, if not the primary, indicator of an individual's probability of returning from the ocean to spawn (*Katz JVE, et al. 2017*). Studies of the Coquille River Basin specifically have shown smolt growth rates are often 1.5-2.0 times greater for off channel and wetland habitats (*Nickelson 2012*) compared to stream and river locations. The Coquille River valley floodplain channels and freshwater tidally influenced habitats are believed to have the capacity to rear sufficient numbers of juvenile coho to produce up to 11-17 returning coho adults per acre of restored habitat on average (*Nickelson 2012*).

Enabling native salmonid fish access onto these productive floodplain rearing habitats is currently presents a widespread and complex challenge within the Coquille watershed. One of the largest factors suppressing juvenile fish use of the Coquille River Valley floodplains specifically has been the elimination of tidal inflow and access for fish due to installation of tidegate and levee networks onto such low-lying floodplain pastures that historically comprised large tidal wetlands. These tidegate networks were installed historically to facilitate agricultural production. Currently exhibited tidegate styles reflect legacy design and are typically top-hinged wood or steel (**See Attachment A, Figure 11**); typical style of existing top-hinge interior tidegate). The angle these gates open is generally <20% when open on an outgoing tide and velocities during winter months can be above swimming thresholds for juvenile salmonid fish. When tide levels are above inside pasture water elevations the tidegate doors are closed and the resultant condition result is severe restriction of juvenile fish movements from the main stem Coquille River into locations that would historically have provided very high quality fall and winter rearing.

**Wetland Habitats:** The project area has a substantial component of wetlands below elevation 8.0ft NAVDD 88 (**as determined by LiDAR and ground engineering survey; Attachment A, Figures 24 and 25**). Above elevation 8.0ft. the vegetative community is primarily a mixture of upland grasses and shrubs. All lands (except for berm crests that run east-west along the main Unit 1 canal and north-south along the new China Camp Creek canal to the east of Unit 2) within the action area are predominantly classified as Freshwater Emergent Wetlands (Figure 30). They are specifically classified as PEM1Ch or PEM1Ah (Palustrine Emergent Persistent Semi Permanently Flooded Berm Impounded and Palustrine Shrub-Shrub Broad Leafed Seasonally Flooded Berm Impounded wetland) and under the Hydrogeomorphic Class and Cowardin Class wetlands based on information obtained from the U.S. Fish and Wildlife Service National Wetlands Inventory. For this project the small strips of land elevated by historical berm construction that are not classed as wetland, under the USFWS national wetlands Inventory, will be considered wetland and ecological uplift of the implemented as a restoration action has been designed to develop ecological uplift that exceeds impacts. Overall there will be around 130 acres of impact (**Table 2 and “Winter Lake Phase III Project Actions” Attachment B**).

**Hydrology:** Diking and land elevation manipulations have resulted in a high degree of dysconnectivity in the project area as documented on the landscape and visible from LiDAR elevation information (Figure 24-25). Resultantly, accessibility for anadromous and resident fish is limited and stranding potential following

flooding events is currently high. Function of the pasture wetlands has also been substantially altered due to lack of nutrient movements that would have occurred historically with tidal inflow/outflow and excessive persistent water in low-lying areas during late spring months that have been disconnected due to Euro-human channel construction tactics. In native tidal floodplains channel densities have been documented to have been as high as 192ft per acre. Densities at this magnitude and would have resulted in daily tidal inflow/outflow patterns. The historical plant communities adapted to tidal water regimes. Those conditions had vegetative native composition with a high disposition for aquatic production. Floodwaters currently flow onto a number of locations in the project area and remain for long periods in low areas surrounded by berms or where culvert and channels have altered historical flow paths. Overall the project actions are anticipated to improve Ecological Function for aquatic plants and production of fish/wildlife substantively:

- The project will restore more natural fish passage from main canal networks into secondary channel networks and pasture floodplain habitats.
- There will be a greater quantity of water exchange within the networks and the Coquille River improving oxygenation loading.
- There will be a greatly enhanced processing of livestock nutrients. New channels are designed with 1:1 (main channels), 2:1 (medium channels), and 4:1 (pasture swale channels) side-sloping. This side-sloping will provide for greatly reduced bank erosion over traditional channels. The bottom and side slopes will be planted with a pasture seed mix. Roughly 60-70% of the channel surface in the upper 2/3 distance of these channels will be at an elevation where grasses will grow providing filtering of livestock nutrients during outflow from pasture floodplains.
- The amplified size of culverts feeding channels will increase the ability to irrigate pastures during single high tide events.

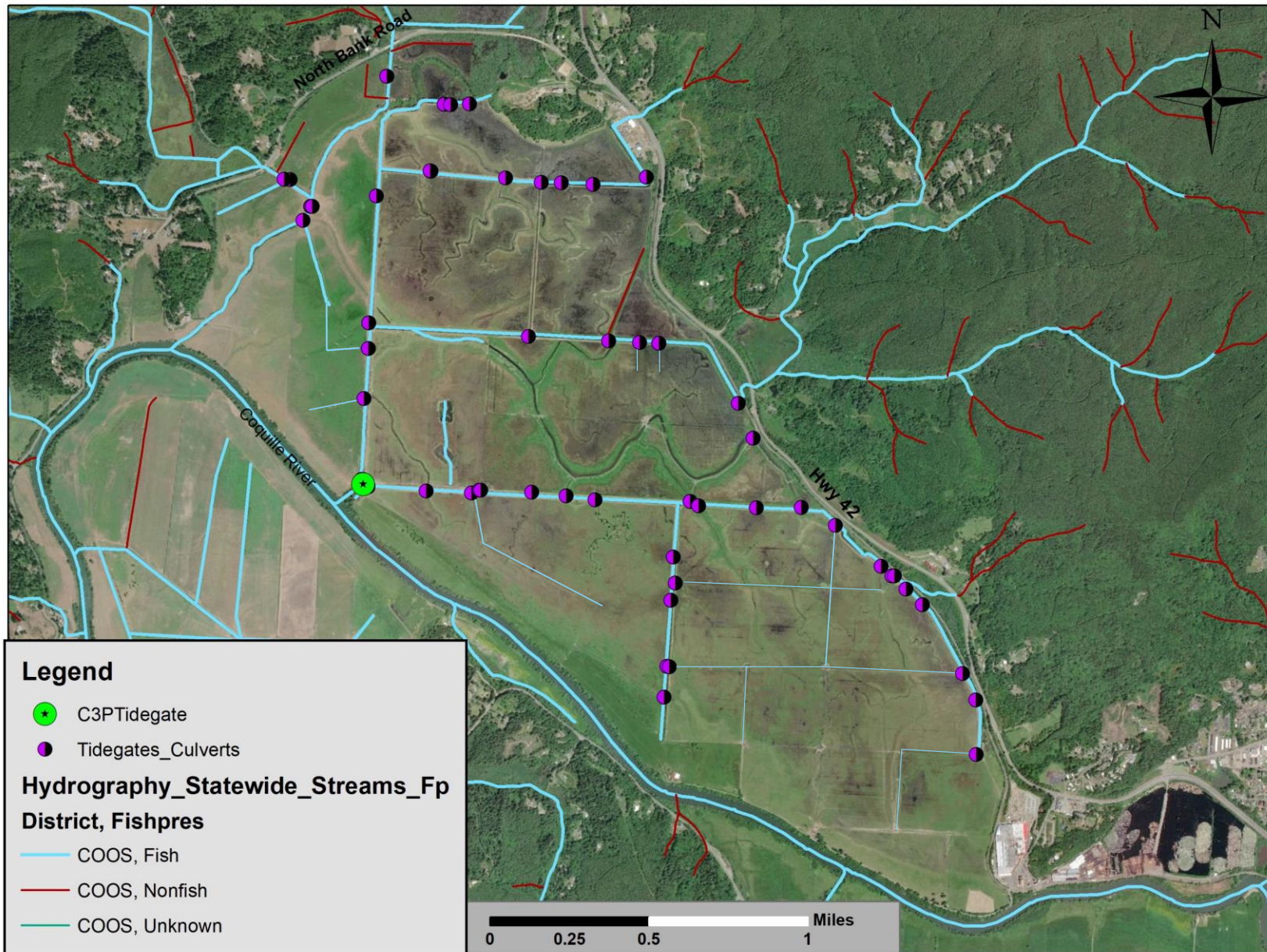


Figure 1. Winter Lake Phase III project area tidal channel *existing* layout (w. aerial imagery) with largely linear configuration and traverse connections without penetrating small channels across and disconnecting low-lying swales where water can collect.



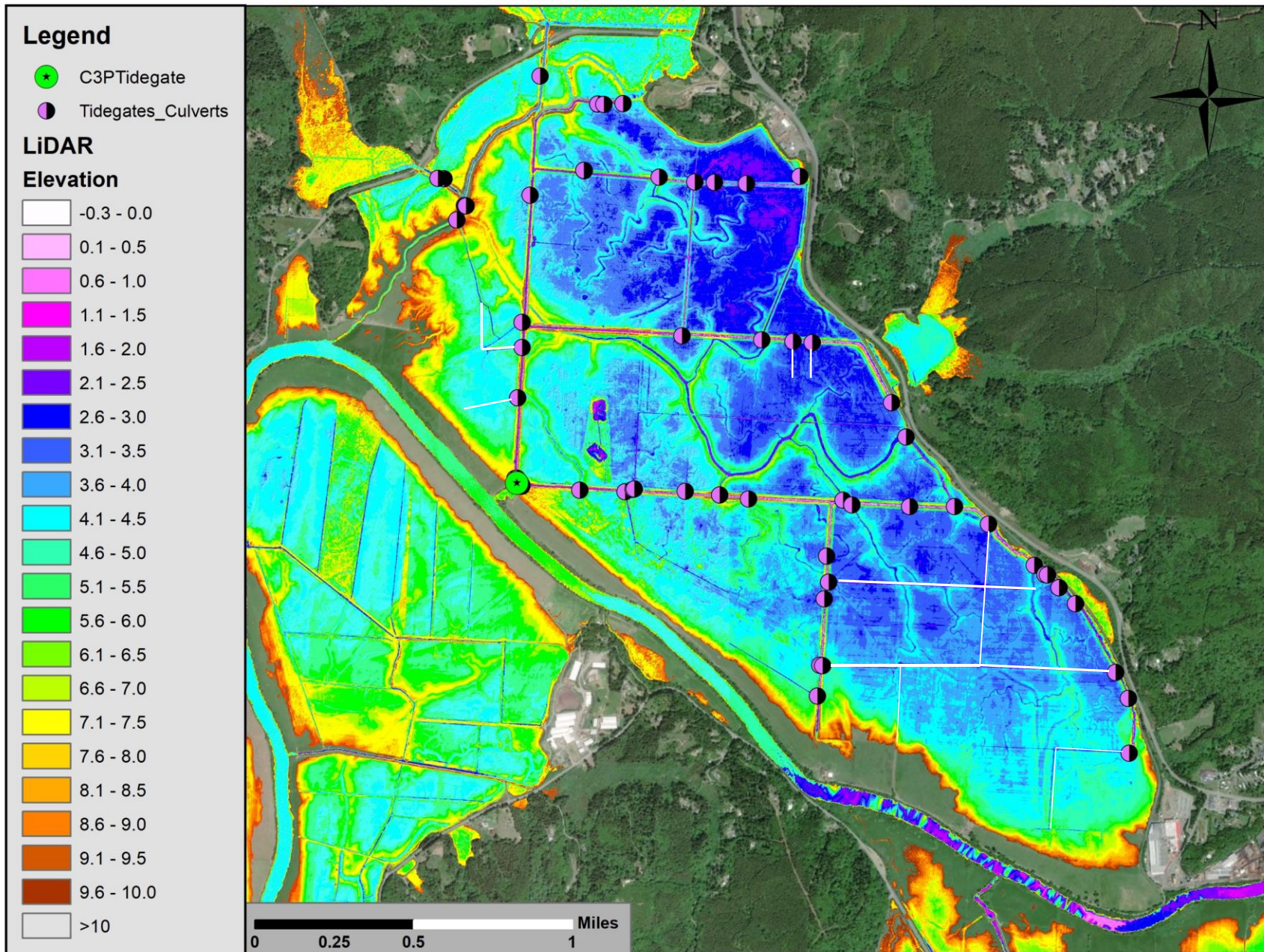


Figure 2. Winter Lake Phase III project area tidal channel *existing* layout (w. LiDAR imagery) with largely linear configuration and traverse connections without penetrating small channels across and disconnecting low-lying swales where water can collect.



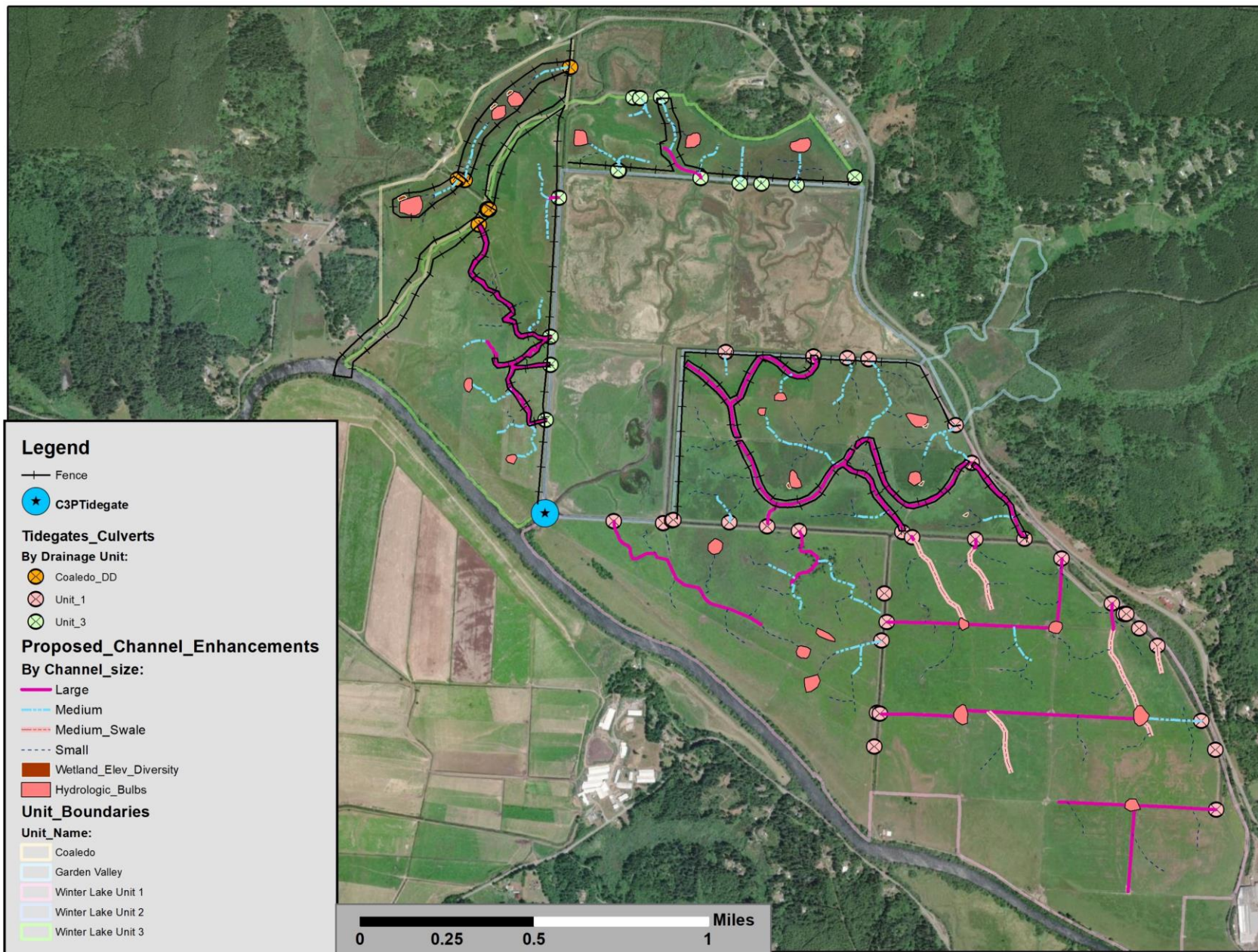


Figure 3. Winter Lake Phase III project area tidal project proposed reconstructed channel layout (w. aerial imagery) designed to develop channels traversing to enter low-lying swale areas to facilitate drain-out in spring and during low tide elevations. **Note: Hydrologic bulbs are sloped to drain fully into channels.**



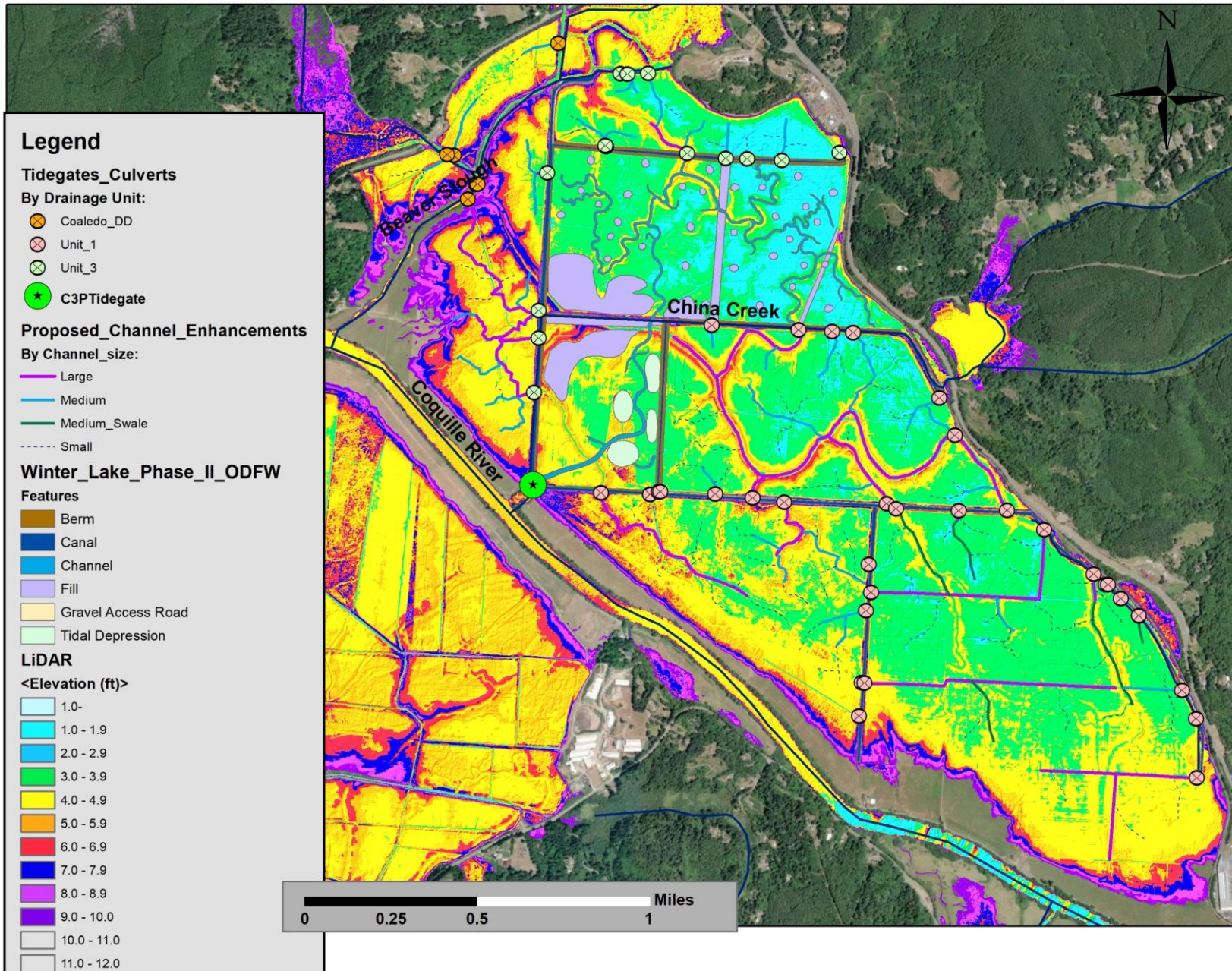


Figure 3. Winter Lake Phase III project area tidal project proposed reconstructed channel layout (w. LiDAR imagery) designed to develop channels traversing to enter low-lying swale areas to facilitate drainout in spring and on and low tide elevations.

**ATTACHMENT B  
EXHIBITS - COMMENTS**

**Amy Dibble**

---

**From:** Catherine Krall <cathyewelch@aol.com>  
**Sent:** Wednesday, February 21, 2024 1:50 PM  
**To:** Planning Department  
**Subject:** Notice of Coos County Public Land Use Hearing

**This Message originated outside your organization.**

---

We are owners of property located directly across from the acreage included in Winter Lake Phase III. Expansion of the project will further exacerbate the mosquito problem making it impossible for Coquille residents to enjoy any outdoor activities from the beginning of August and into fall of the year. It is our position that no further expansion should be taken until the mosquito problem that was created by the first part of the project is resolved.

John Krall  
Catherine Krall  
57926 Johns Dr.  
Coquille, OR 97423  
541-290-6255

**EX 1**

## Amy Dibble

---

**From:** Benny Hempstead <bennyhempstead@gmail.com>  
**Sent:** Wednesday, February 21, 2024 5:21 PM  
**To:** Planning Department  
**Subject:** Winter Lake Phase 3 project

**This Message originated outside your organization.**

---

Hello, Board of Commissioners,

Regarding: Notice of Public Use Land Hering; Item A File # ACU-23-074/FP-23-012

I own tax lot 2300 Industrial / EFU, The Old Chromite Mill. I have received a notice of a meeting in regards to future work to be done in the area surrounding my property in three directions: north, south, and west.

A few years back there was a project immediately west of my Tax Lot 2300, on Tax Lot 2100 owned by ODFW. The project lowered the dike on the west of what was referred to as The Old Luckman Parcel on Tax Lot 2100, opened up areas of the dike and installed two bridges allowing waters from the channels west of the dike to flow onto and flood the easterly areas of Tax Lot 2100, and deepened the water channels significantly from the main channel under bridges, and throughout the Old Luckman Parcel (now owned by ODFW). That project has permanently damaged my EFU land by allowing the flow of water through Tax Lot 2100 to flow on to my Tax Lot 2300, as a dike or berm on the east side of Tax Lot 2100 abutting my property was never constructed. Water that never reached my parcel is now allowed to flow freely and flood. No effort to prevent flooding on parcel 2300 was attempted.

I am writing this letter to notify the Board that I do not approve any work to be done on or through Parcel 2300 which could create flooding, deposits of soils, or modify water flows. Additionally I am not in favor of projects adjacent to my property that could now or in the future possibly cause damage or a loss of value to, due to activities created from any private project, permitted project, or Agency projects/work. I am in support of projects such as restorations of lands designated for such projects, however I am not a supporter of over-reach of State or Federal agencies making significant modifications which create a negative impact on private properties. I have a financial stake in the development of this land.

It is my hope that ODFW would provide the required water dike on the westerly side of my land to protect my parcel 2300 from previous projects. The same for future projects as to the one being given notice to.

**"Anyone entering a signed petition(s) into the record is responsible for providing individual notice to the signee(s) of the petition(s). Please be aware that failure to raise an issue prior to the close of the evidentiary record, in person or by letter, or failure to provide statements or evidence sufficient to afford the decision makers an opportunity to respond to the issue, precludes appeal to the Land Use Board of Appeals based on that issue. An appeal of a Hearings Body decision shall be made pursuant to Article 5.8 of the CCZLDO.**

**Further explanation concerning any information contained in this notice can be obtained by contacting the Planning Staff members at (541) 396-7770, or by visiting the Planning Department Website. This notice was posted, mailed and published."**

I raise concern that any such project could adversely impact adjacent properties. A recommended potential impact study including surveys of all adjacent properties be completed to ensure such activities are contained



within the proposed work boundaries and ensure the adjacent lots are not affected, along with post construction survey and verification. I request additional information providing the full parameters for the proposed activities be provided specifying the grades and water flows at all lot boundaries.

Sincerely,

Benny Hempstead  
541-297-5600

Verna L. Rose  
58392 Garden Valley Road  
Coquille, Oregon 97423

Coos County Community Development  
250 North Baxter Street  
Coquille, Oregon 97423

Response to ITEM A-File ACU- ourout23-074/FP-23-012

I oppose any changes in the remove of a  
Land out of Beaver Slough Drainage District for any reason  
unless they honor my request and remove my land from this  
District. I was told numerous times that all I, have to do is  
submit the request and would be removed. That was done  
to the Drainage District guidelines, many years ago. All kinds  
of delays of answers such as, not working on that now, not  
on the agenda. Even one statement we can't change the  
acres in a district. It's not fair to each landowner that the big  
landowners have all the control over the all the lands. The  
financial impact of levying bonds and how tax money only  
goes to the larger landowners on the West side of route 42.  
The landowners on the East side of route 42, only get to pay

EX 3

taxes to district, without any benefit. The Board of directors on many occasions have stated openly they will not ever do anything for landowners on the east side of route 42. This isn't a fair district. These landowners have rights or say. I've paid taxes for decades to this district. I've submitted my request to be removed from this district so if you grant their request then you should honor my request for removal. Beaver Slough Drainage District which were submitted all the paperwork but didn't process them. There were other landowners who submitted the forms to their guidelines.

**SO, NO MORE BENEFITS FOR THE BIG LANDOWNERS ON THE WEST SIDE OF ROUTE 42 IN THE DISTRICT. NO REMOVAL OF LANDS EVEN FOR WILDLIFE TRUST. Unless other individuals get their land out of the Beaver Slough Drainage District and their tax control and land control.**

I would guess this is part of estate planning on the part of the large landowners and not just wildlife preservation. Also, they have used that land for income properties and their homes are not on them. Larger landowners paid a different tax base than the small landowners. My taxes paid to the drainage hasn't benefited me at all in over 50 years from this district. I do not want to still pay taxes to this district for the remaining landowner or owners on the west side of route 42. They were supposed to let the landowners out and repay the taxes and remove us from the Large Bond they voted in that the small land owner could stop. Get me out of this

self-serving large landowner district. This is my home with land in a district that cost without help from them. The land west of 42 in the valley, large landowners are doing commercial business, as at until now that want to put it into wildlife trust.

This change isn't any benefit to me at all. Since they have been, doing their changes in the past few years. There has been more insects and mosquitoes than ever. My father used to say," wow you don't have flies or mosquitoes, I'm surprised you living so close to ocean".

I pray, my comments don't go to deaf ear and but go to ones that can hear what is fair to other landowners and not vote for their request without the Beaver Slough Drainage District releasing me and others from the district as they said they would.

Sincerely,

Verna Rose



February 23, 2024

Coos County Planning Department  
2250 North Baxter  
Coquille, Oregon 97423  
Emailed to: [planning@co.coos.or.us](mailto:planning@co.coos.or.us)

**RE: File # ACU-23-074/FP-23-012: Winter Lake Phase III**

Dear Coos County Planning Department and Coos County Board of Commissioners:

We have a house on North Bank Lane and property in the Coaledo Drainage District. Thank you for the public meeting notice and the opportunity to comment on the proposed Winter Lake Phase III.

After reviewing the application, it makes me wonder if this is all pre-wetland work under the guise of irrigation, water quality and fish habitat. Oregon Department of Fish and Wildlife already is moving forward with acquisition of the Bridges Foundation property. The attached "Attachment A, Figure 12b" shows, in black and white, a considerable amount of grazing land will be removed from production to build channels but it does not show the fence and planting buffers which take up more grazing land in the project area. What agriculture producer can afford such a loss of forage land if your heart is truly for agriculture?

Since I have a rental house near the proposed project, my major concern is mosquitos. The numerous "hydrologic bulbs" being built throughout the project area are concerning. "At the endpoints of selected channels, the project will construct 'hydrologic bulbs'. These habitat improvement actions will: a). Provide areas of greater depth long distances within the pasture networks where native fish, e.g. coho can shelter and feed during winter months prior to floodwaters rising and allowing fish to feed on pastures; b). These habitat improvement structures will provide volumetric areas at endpoints where the hydraulic forces of inflow/outflow will flush minor sediment accumulations from the length of the channel network downstream." "Hydrologic bulbs at the terminus of larger channel networks that provide a small basinal low area excavated to provide fish habitat in winter and channel flushing to move any accumulation of sediments from the channel network." These excavated "bulbs" (approximately 22 of them) will be filled with water during irrigation and rain events (Figure 12 & page 45 of 81). The concern is that the bulbs will retain water during hot summer weather especially after irrigation events and the water pools (bulbs) will enhance mosquito habitat. **No one wants more mosquitos.**

It has been mentioned that "parrot feather" is choking the waterways in the wetland. Its dense growth provides a breeding ground for mosquitos and it can degrade both water quality and habitat for fish and wildlife. There is concern with the potential for spread of this invasive on

**EX 4**

lands adjacent to the CVWA wetland. Where did the parrot feather come from? Could it have been brought in on the equipment used for the Unit 2 restoration or could it have been planted in the wetland?

My recommendation is the Board of Commissioners and/or Coos County Planning require the following "conditions" on this Application:

1) ODFW should be required to utilize their CVWA Management Plan (mosquito section) and Vector Control Guidance for Sensitive Areas policy to treat the mosquitos in the existing wetland. BTI is one tool.

2) BSDD landowners, Bridges Foundation, and ODFW should also be required to ensure all hydrologic bulbs have connectivity to the channels. The hydrologic bulbs should be designed to drain completely after each irrigation event to reduce the creation of more mosquito habitat.

3) Invasive species (parrot feather and others) in the project area need to be eradicated prior to the beginning of the work. All equipment must be thoroughly cleaned and free from invasive species prior to entering the site.

Who wants to rent a house or live in an area where mosquitos are creating such a huge issue? No one wants a rerun of the Bandon Marsh which was a concern of many when the ODFW presented the CVWA wetland to the public. These mosquito outbreaks have the potential to reduce the property value in the area. They have a huge impact on the lives of the people who actually live in the area. I have attached the article on the West Nile Virus which was news during the mosquito outbreak in Bandon. Wetlands are not compatible with rural residential and ranching community.

Thank you for your consideration.

Respectfully,



Sharon Waterman, Landowner

Attachments: A, Figures 12b and 12 from DSL Joint Permit  
Hydrologic Bulb Layout Cross-Section  
Winter Lake Phase III; Tidal Restoration Project, TARP, Page 1  
West Nile Virus article  
Table I: Fish sampling summary



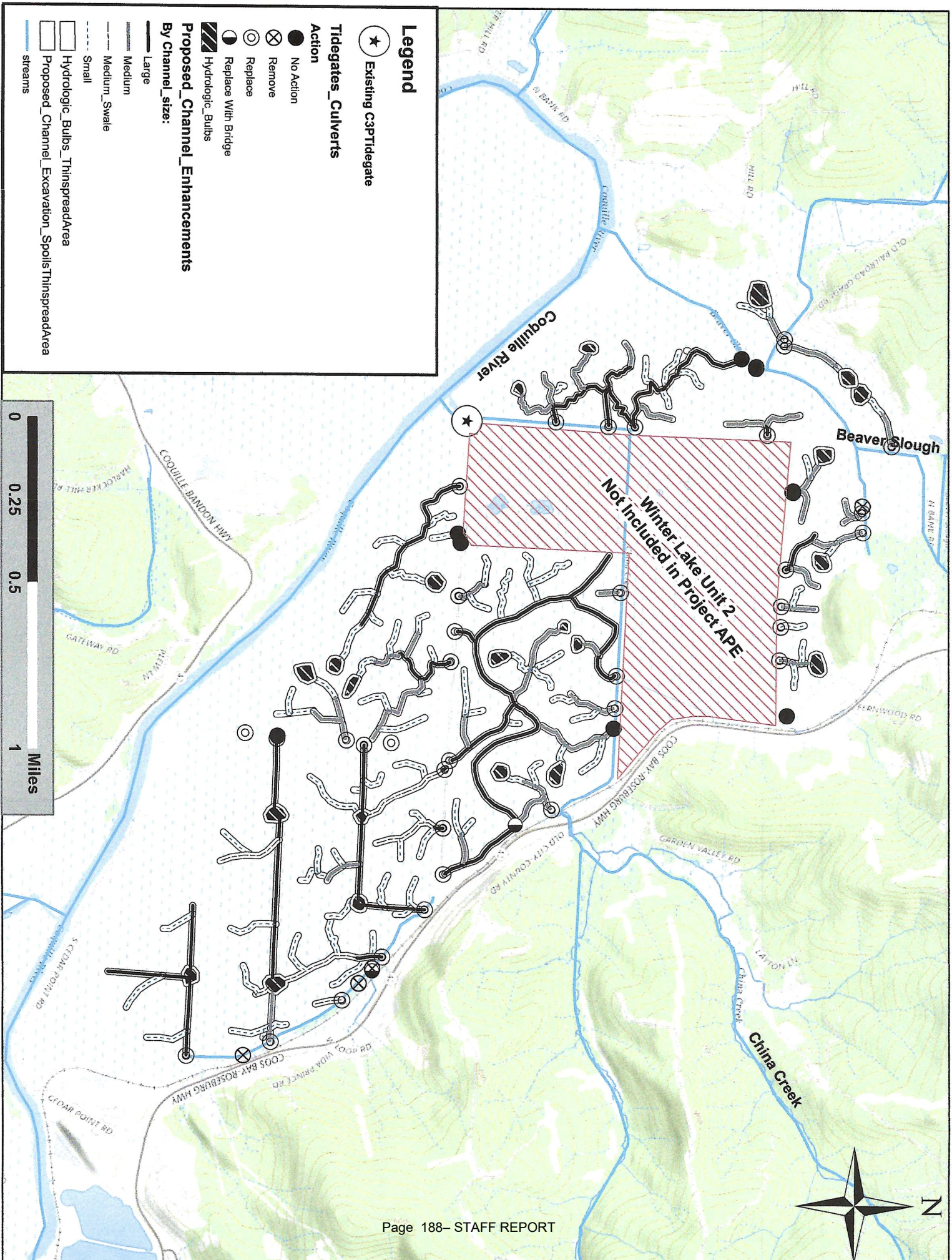


Figure 12. h Geographic Extent of Excavated Spoils



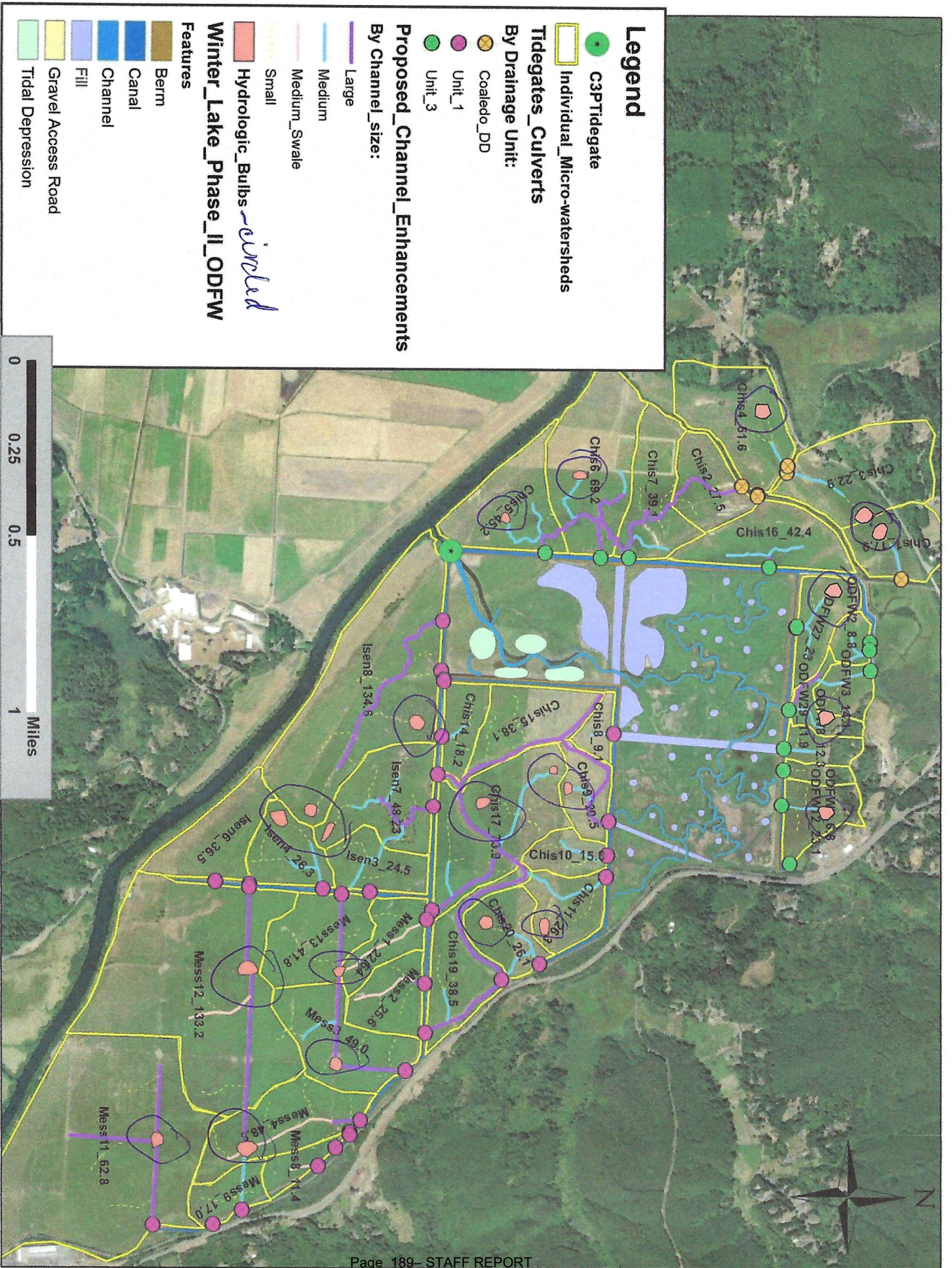


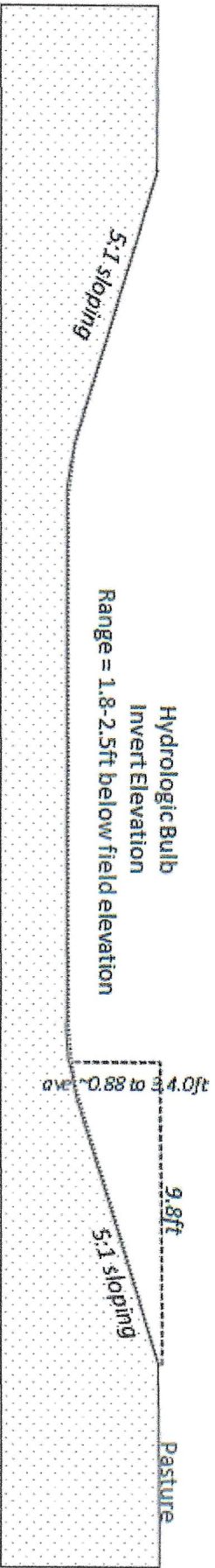
Figure 12. Individual micro-watersheds associated with culverts and proposed channel enhancements





## Hydrologic Bulb Layout Cross-Section

Hydro Bulb I.D.	Channel Connect Size	Distance from Chan (ft)	NAVD88 Invert (ft)	Field Elevation (ft)	Excavate Depth (ft)	Acre	Sq ft	Excavate Volume CY
Isen8a2	Small	3,995	2.5	3.85	1.35	0.73	31,799	1,827
Mess1a2	Medium-S	1,571	1.8	4.35	2.55	0.7	30,492	3,112
Mess11d	Large	1,250	2.5	4.67	2.17	0.74	32,234	2,841
Mess1c2	Large	1,075	2.5	3.84	1.34	1.19	51,836	2,883
Isen7a3	Small	2,137	2.0	4.27	2.27	0.61	26,572	2,511
Mess2a	Large	1,215	1.8	2.99	1.19	0.46	20,038	1,081
Chis5b	Medium	837	2.1	3.74	1.64	0.43	18,731	1,331
Chis19c3	Small	688	1.8	2.88	1.12	0.8	34,848	1,686
Chis20c	Small	1,130	1.8	2.91	1.11	0.76	33,106	1,604
Chis5d	Medium	895	2.0	5.39	3.39	0.39	16,988	2,311
Chis19c	Small	1,500	2.3	4.33	2.03	0.28	12,197	1,071
Chis7c	Medium	902	3.5	4.79	1.28	0.47	20,473	1,172
Chis12b	Small	550	1.8	3.14	1.34	1.12	48,787	2,675
Mess1e	Small	880	2.5	3.96	1.46	1.14	49,658	2,990
Isen4a2	Small	1,333	2.0	4.62	2.62	1.05	45,738	4,631
Isen8d	Small	732	2.5	3.65	1.15	0.92	40,075	1,972
ODFW12a	Medium	655	1.0	2.71	1.71	1.2	52,272	3,627
ODFW3a	Small	422	1.0	2.89	1.89	0.94	40,946	2,866
ODFW27a: Small		230	1.0	3.23	2.23	0.941	40,990	3,666
Chis1b	Small	377	1.5	3.82	2.32	0.94	40,946	3,790
Chis4b	Small	338	1.5	4.18	2.68	0.85	37,026	3,939
Chis3c	Small	516	1.5	4.94	3.44	1.9	82,764	10,921
<b>Totals</b>						<b>18.56</b>	<b>808,517</b>	<b>64,505</b>



Prepared by Winter Lake Phase III Team  
ODFW, BSD, and Coas SWCD

Sheet 26 of 26

# Winter Lake Phase III Tidal Restoration Project

## Tidal Area Restoration Programmatic (TARP)

### Project Design Criteria - General Construction Measures Assessment

*Christopher W. Claire; Oregon Dept. of Fish and Wildlife  
and*

*Caley Sowers; Coos SWCD  
02/03/23*

#### **Project Summary**

*The Winter Lake Phase III Tidal Restoration project developed by the Coos Soil and Water District has been specifically designed to maximize ecological uplift while retaining early summer/summer/fall pasture grass farming operations. The site located at RM 20.5 in the Coquille River estuary. The project area is upstream of the C3P tidegates and C3P provides the overarching water control under the Beaver Slough Drainage District (BSDD) NMFS/ODFW water management plan. The land area, 1,290 acres below elevation 8.0ft and two pastures comprising 99 acres) within the Coaledo Drainage District (CDD) were historically a tidal forested freshwater complex with elevations that were predominantly below elevation 8.0ft. The project area has complex hydrology dominated by tidal amplitudes in dryer months, however, heavily influenced by rising river levels and floodwater in winter. The site plant species historically included red alder (*Alnus rubra*), however, predominantly Oregon ash (*Fraxinus latifolia*) and willow (*Salix spp.*). Vegetative species typified by slough sedge (*Carex obnupta*), small fruited bullrush (*Scirpus microcarpus*), and bur reed (*Sparganium Americanum*). This vegetative community would have in turn provided a strong detrital macroinvertebrate energy source. The site conditions as examined by LiDAR imagery indicate that there were substantial tidal channels penetrating the project area from the mainstem Coquille River prior to human alteration. These channels would have provided the rearing habitat for native salmonid and estuarine fish to feed within the marsh plain on the heavy loading of macroinvertebrate food items that were produced. In 1907-1908 pathways were cleared through the wetland forest, a new exit location was excavated through the Coquille River natural levee, tidegates were installed, the land area was drained during dry months and burned to create grazing land pastures.*

*The Project Team has proposed installing over 90,000ft of new/reconstructed channel. The project will address 42 aging culverts with fish passage obstructive top-hinged tidegates. These culverts are placed to provide for individual water management precision through interior low elevation berms. Culverts will be upsized to appropriately meet the site hydrology (see Hydrologic Assessment). Tidegates will be replaced with side-hinged aluminum tidegates fitted with devices to allow doors to be held open in the fall/winter/early spring allowing for maximization of fish passage into reconstructed channels. The full network of channels upstream of C3P main tidegates is under the BSDD Water Management Plan. Overall the project is anticipated to have a substantive ability to increase access for juvenile coho production and other native fish compared to the current conditions.*



# West Nile infects Bandon man

## Health officials urge protection, not panic

BY DANIEL SIMMONS-RITCHIE  
The World

**NORTH BEND** — An elderly Bandon man has become the first person in Coos County history to be infected with West Nile virus.

The man, and a woman in Malheur County, each were confirmed to have the illness Tuesday by health officials. The pair are Oregon's first

human cases since 2009.

Lena Hawtin, Coos County's communicable disease coordinator, said the Bandon man was bitten by a mosquito near his home last month. He later experienced muscle weakness and was diagnosed at Oregon Health and Science University in Portland.

Hawtin said he is expected to fully recover.

"I talked to him yesterday," she said.

"He seemed like he was doing better. He was able to talk, and it seems like he's doing pretty good."

### County first

Oregon joins a national surge in infections of the mosquito-borne virus. The Centers for Disease Control and Prevention says this year's outbreak is on track to be America's worst.

Hawtin said, with only one reported case in Coos County, it is unclear how pervasive West Nile virus is among local mosquitoes.

Although human infections in Oregon are rare, the virus is found each year in a small number of

SEE WEST NILE | A8

## WEST NILE

Continued from Page A1

birds and mammals.

Hawtin said residents should remain cautious but calm. Eighty percent of those infected show no symptoms. Others experience only mild fever, headaches, or nausea.

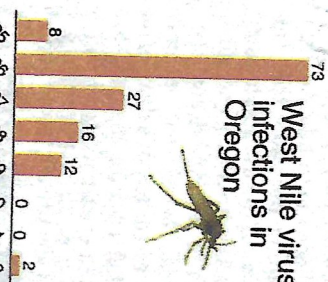
In less than 1 percent of cases, the disease can cause convulsions, disorientation, and affect the central nervous system.

### Elders at risk

Hawtin said the Bandon man and the Malheur County woman were more likely to experience severe symptoms because they were older than 49. Elderly people generally have higher blood pressure and weaker immune systems than the general population.

Frances Smith, the county's public health director, says the virus would likely have spread to Coos County mosquitoes through migrat-

West Nile virus infections in Oregon



SOURCE: Centers for Disease Control and Prevention  
By Jeff Tronhelle, The World



### How to protect against mosquitoes

- Eliminate sources of standing water that are a breeding grounds for mosquitoes, including watering troughs, bird baths, clogged gutters and old tires.
- When outdoors at dusk or dawn when mosquitoes are most active, protect yourself by using mosquito repellents that contain DEET (N,N-diethyl-m-tolu-amide), oil of lemon eucalyptus, or picaridin, and follow the directions on the container.



Table 1. Fish sampling summary from the Dec 2020-May 2021 sampling season.

	Mainstem Sampling	Cochran <sup>1</sup>	Seestrom	Beaver Creek	Beaver Creek Captured, Transferred to Unit 2	Winter Lake, Unit 1 <sup>2</sup>	Winter Lake, Unit 2 <sup>3</sup>	Winter Lake, Unit 3
# of Sampling Events <sup>4</sup>	9	6	7	11	4	0	19	6
Total coho caught	54	502	570	1045	137	0	67	1
Total coho tagged	54	139	271	428	137	0	62	1
Total Chinook caught	5	20	34	0	n/a	0	41	0

1 - The first sampling event (12/11) caught 0 coho, the 4th sampling event (2/25) caught few coho because a nutria had chewed a hole through the hoop trap

2 - No trapping was completed in Unit 1 and no detections were made by the PIT array on the tide gate for tagged fish entering the site

3 - Water levels were high during trapping events, causing low densities of coho and low trapping efficiency. See ODFW Winter Lake Volume Analysis for further information.

4 - Sampling events consisted of seining (beach or purse) and hoop traps. The number of hoop traps varied between 1 and 5, CPUE was not calculated for this chart.

A total of 21 other species of fish and aquatic organisms were captured in addition to coho, listed in Table 2. Winter Lake Unit 2 had the highest number of non-native fish species, a total of 1,051 bullhead catfish (*Ameiurus nebulosus*), 3,287 bluegill (*Lepomis macrochirus*), 283 yellow perch (*Perca flavescens*), and 269 largemouth bass (*Micropterus salmoides*). All are competing for food with coho juveniles while the large non-native fish are considered a potential predator on coho juveniles. Pacific lamprey (*Entosphenus tridentata*) were captured in all Units of Winter Lake, including flooded pastures of southern Unit 1 (Cedar Pt 2). All Pacific lamprey caught, a total of 6, were ammocoetes.

A surprisingly high number of juvenile fall Chinook salmon were caught at all three tide gated project sites starting in April. During the planning phase of these restoration projects it was hypothesized juvenile fall Chinook would not use these restoration sites heavily, because they typically reside in larger channels. During the last sampling event at each project site only Chinook were captured using a beach seine and they were also the last PIT tagged salmonids to leave Winter Lake.



February 22, 2024

Coos County Planning Department  
2250 North Baxter  
Coquille, Oregon 97423

**RE: File # ACU-23-074/FP-23-012: Winter Lake Phase III**

Dear Coos County Planning Department, Planning Commissioners and Coos County Board of Commissioners:

I would like to thank you for the opportunity to comment on the Winter Lake Phase III project application by Coos Soil Water Conservation District. I am a landowner in the Beaver Slough Drainage District and as a resident in the area, I do not want any projects which have the potential to increase the mosquito issues we are facing.

This project includes hydrologic bulbs which I believe need to be designed to drain after each irrigation event by the district so that it won't create more mosquito habitat if water is left in the bulbs during the warm summer weather.

I am against any expansion of the Coquille Valley Wildlife area and a portion of this project includes agriculture land targeted for acquisition by ODFW. ODFW has not been good neighbors. From the beginning of the Winter Lake wetland project, Beaver Slough Drainage District, Oregon Department of Fish and Wildlife and The Nature Conservancy assured us there would be no mosquito problems. As residents of the area, our lives are awful during the summer and fall due to the mosquitos. This is a new problem since the wetland project was completed. Mike Gray told us the ODFW has a stock pile of BTI but they haven't used it.

Coquille Watershed said "parrot feather" is choking the waterways in the wetland. The literature says "dense growths of parrotfeather provide breeding areas for mosquitos and will degrade both water quality and habitat for fish and wildlife."

Mosquitos carry diseases. They are impacting our physical and mental health by forcing us to stay indoors during the fly-off times during the summer and fall. Mosquitos are a hazard to drivers when mosquitos are flying around inside their cars.

Solutions: According to the ODFW Vector Control Guidance for Sensitive Areas, there is a process to resolve the mosquito problem.


The Board of Commissioners and/or Coos County Planning needs to ask for "conditions" on this Application: 1) Require the ODFW to utilize their Vector Control Guidance for Sensitive Areas as a guideline to treat the mosquitos in the wetland, 2) BSDD landowners and Bridges Foundation or ODFW should also be required to ensure the drainage of the hydrologic bulbs after each irrigation event to reduce the creation of more mosquito habitat, 3) Any invasive species in the project area need to be eradicated and all equipment is cleaned and free from invasive species prior to construction.

Thank you for your consideration.

Respectfully,



Gail Olsen  
Garden Valley Landowner



ERIC OLSEN  
Garden Valley landowner

EX 5





# FACT SHEET

Freshwater Aquatic Invasive Species in Rhode Island

November 2017

## Parrot Feather



Parrot feather has rubbery leaves that stay in their form out of the water. Parrot feather can take over a shallow pond.

### Species Description and General Information

Parrot feather (*Myriophyllum aquaticum*) is a rooted aquatic plant that colonizes slow moving, nutrient rich waters. Stems rooted in the substrate grow through the water and emerge at the surface, sticking up above the surface at heights 1 inch to 1 foot in the air. Emergent leaves are bright green to bluish green and have a waxy surface. Leaves measure 1/2 inch to 2 inches long, and look like a feather divided with 6-18 leaflet pairs along the main vein of the leaf. Leaves are arranged around the stem in whorls of 4-6 leaves. Leaves are stiff and maintain shape out of water like plastic fish tank plants. Submerged leaves are slightly smaller than leaves above the water and have 10-15 leaflet pairs if present. Inconspicuous flowers form in the axils of emergent leaves. Only female flowers are present in the United States, restricting reproduction exclusively to fragmentation.

### Why is Parrot Feather Considered an Invasive Species?

Because it reproduces easily by fragmentation, parrot feather can easily spread to new locations. It may establish itself in a new waterbody with only a small piece transported by birds or wildlife, or stuck to fishing gear, or boats, or trailers. Invasives grow in large abundances to quickly displace native plants, by competing for space, sunlight and nutrients. Plants can become a nuisance for recreational activities such as boating, fishing and swimming, and can slow water flow, making a breeding ground for mosquitoes.

### How Did Parrot Feather Become Established in Rhode Island?

Parrot feather is native to South America. Due to its attractiveness, it was likely first introduced to the United States as an aquarium or water garden plant that escaped cultivation or was dumped into a natural water body. Parrot feather was first observed by DEM in Rhode Island at Pocasset Pond in Johnston Memorial Park, Johnston, RI in 2009. Once introduced to a water body, plant fragments carried by currents, waterfowl or boats can spread the infestation throughout a water body. Because of its robust stems and waxy leaves, plants can survive for long periods of time out of water. Thus, fragments attached to boats, trailers or fishing gear can be transported over long distances and introduced into new water bodies.

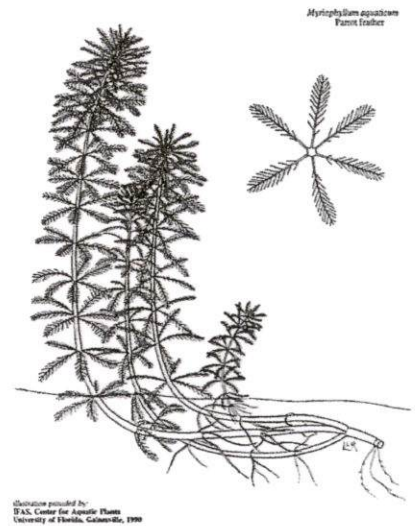


## What Methods Can Be Used to Control Parrot Feather?

Due to its ability to reproduce through fragmentation, physical control of parrot feather is limited. Mechanical cutting or harvesting can spread plant fragments in a water body, unintentionally exacerbating the infestation. Hand pulling small patches may be effective if entire plants are removed. By law, the manual removal of submerged aquatic vegetation is restricted to that area adjacent to, but no more than fifteen feet from, existing or permitted docks, beaches or swimming areas under the Fresh Water Regulations (Rule 6.02). Manual plant removal outside this area requires a DEM wetlands permit (contact RIDEM Water Quality and Wetlands Restoration Team).

Parrot feather is adapted to water level fluctuations and is known to survive on wet river banks and lake shores. Water level draw downs are not an effective control option.

Chemical control of parrot feather is difficult as the waxy coating of the emergent leaves is difficult for herbicides to penetrate. Thus, eradication of parrot feather in a water body is unlikely once established. Several herbicides demonstrate potential for partial control. The DEM Division of Agriculture licenses the applicators that can apply federally regulated herbicides to treat target invasive plants. Each herbicide treatment requires a specific permit from the Division of Agriculture. The most appropriate means of selecting a specific treatment plan is to consult a lake manager or licensed herbicide applicator, who can provide treatment options and estimate the associated costs. A more detailed survey of the entire water body will likely be needed to develop the most effective and cost efficient long-term management plan.





About 1,230,000 results (0.47 seconds)

Showing results for mosquito habitat and **parrot feather**

Search instead for mosquito habitat and parrott feather

Dense growths of parrotfeather provide breeding areas for mosquitoes and will degrade both water quality and habitat for fish and wildlife. It fouls intakes used to supply municipal drinking water and irrigation and becomes a navigation hazard. Parrotfeather should never be introduced to open waters.

NC Dept. of Environmental Quality (.gov) https://www.deq.nc.gov/about/water-supply-planning

### Parrotfeather (Myriophyllum aquaticum) - NC DEQ

About featured snippets Feedback

#### People also ask :

- What is the problem with Parrot feather plants? ▾
- How does Parrot feather affect the environment? ▾
- What is the habitat of the Parrot feather plant? ▾
- Is the Parrot feather an invasive species? ▾

Feedback

USGS (.gov) https://nas.er.usgs.gov/queries/greatlakes/FactSheet

### Species Profile - Parrot feather

**Myriophyllum aquaticum monocultures provide prime mosquito habitat; higher parrot feather density has been correlated with higher mosquito egg and larval ...**

State of Michigan (.gov) https://www.michigan.gov/plants/aquatic/parrot...

### Invasive Species: Parrot Feather

U.S. Distribution: Parrot feather can be **found in at least 26 states, including those along the Eastern, Southern, and Western coasts.** Local Concern: This ...

Invasive.Org https://www.invasive.org/pubs/midatlantic/myaq

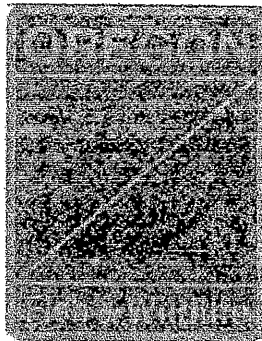
### Parrot-Feather (Myriophyllum aquaticum)

It can form dense mats and compete with native aquatic plants, especially in shallow ponds. It also provides **habitat for mosquito larvae, impedes** boats and ...

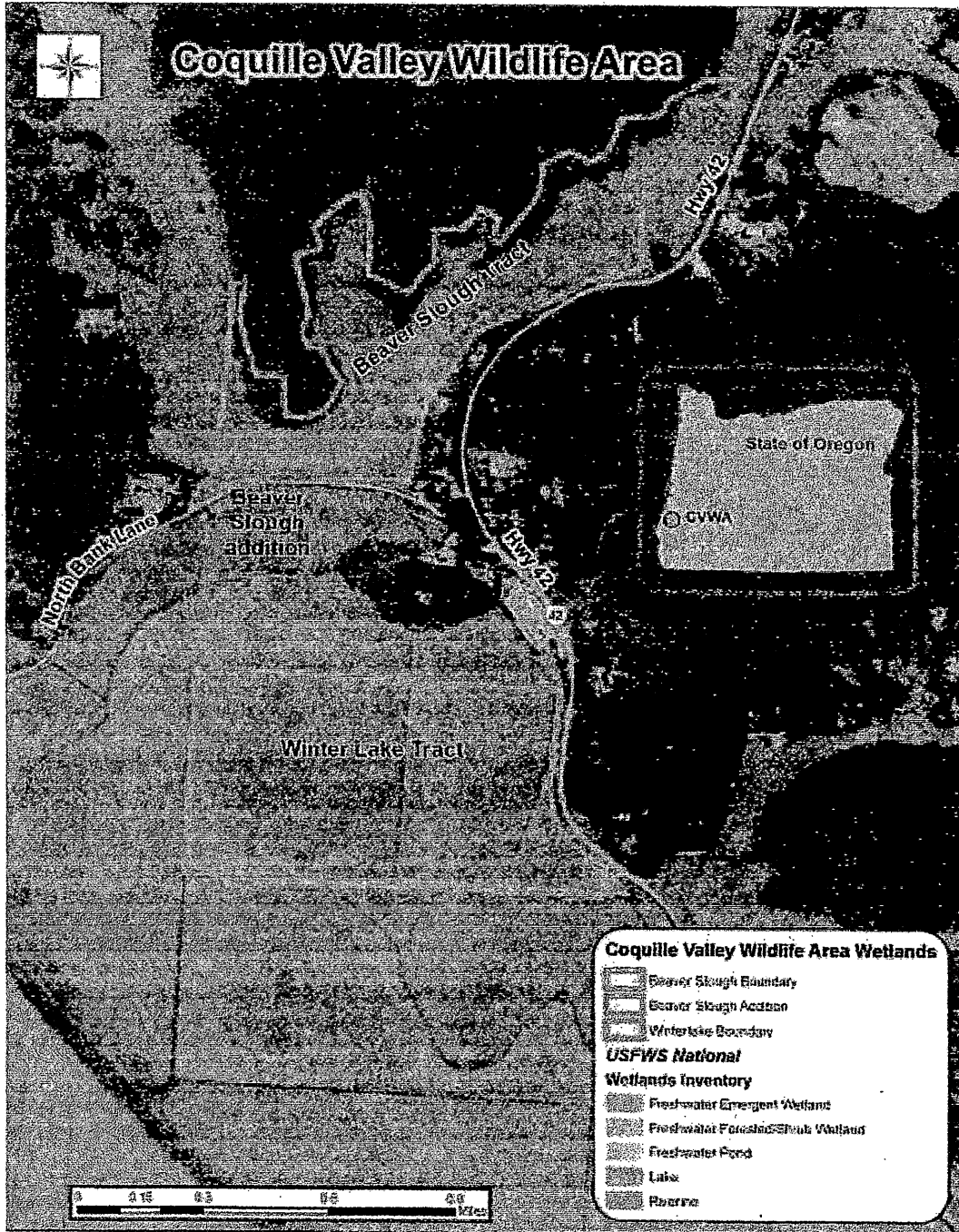
# Coquille Valley Wildlife Area Management Plan

April 22, 2016

Oregon Department of Fish and Wildlife  
4034 Fairview Industrial Drive SE  
Salem, OR 97302



**Figure 1. Coquille Valley Wildlife Area, including wetland habitat designation from USFWS National Wetlands Inventory.**





## Monitoring Section

winter and spring (early December through May). Monitoring will provide a better understanding of migration patterns through and within CVWA, abundance, changes to fish species composition over time and the quality of habitat.

Although the fish monitoring plan is not yet finalized, the following is a list of parameters that will likely be monitored:

- water temperature,
- dissolved oxygen (DO),
- water velocity,
- riparian shading,
- pool availability,
- large wood availability,
- fish passage,
- relative fish abundance,
- species composition.

Fish biologists have established index sites for evaluating fish use based on habitat types and will establish basic monitoring protocols. Continued monitoring efforts will be overseen by UWD. Fish habitat parameters such as water quality and dissolved oxygen can be monitored using passive data loggers. These have been deployed and are periodically downloaded by UWD.

Fish use and presence is monitored through a variety of collection methods, depending on the sites selected and effectiveness of techniques. Methods have included (and likely will continue to include) the following; electrofishing, beach seines, fyke traps, hoop traps, or other nets/traps. Some of the work may be conducted by contractors, graduate students, researchers, or other entities like watershed councils. ODFW is seeking funding and outside expertise to develop and implement scientific studies evaluating both habitat change and fish response to restoration efforts.

### **Plants**

Vegetation photo points are useful for documenting vegetative response to restoration activities. Photo points have been established in Winter Lake Tract to document the progress of restoration activities. Measurements of tree height in areas of vegetative plantings may be established to monitor seedling establishment and survival of willow, ash and other tree and shrubs. These photo points and surveys may also be used to identify exotic plants and direct removal efforts.

### **Wildlife**

Shortly after CVWA lands were acquired by ODFW, wildlife surveys were initiated to begin documenting species and relative abundance of individuals using CVWA lands. These surveys were point count surveys of wildlife species along specific survey routes. These surveys will continue for the life of this plan on a quarterly basis. (See Appendix 1)

Ground-based point count surveys along two transects (one in Beaver Slough and one in Winter Lake) will be conducted to document water bird and other wildlife use of the project area. During these surveys, we will record wildlife species and approximate number of individuals seen. Twelve surveys will be conducted in different months to represent wildlife use during all seasons of the year. After each monthly representative survey has been accomplished, these surveys will continue as quarterly surveys to monitor wildlife response to habitat restoration efforts. Wildlife surveys began before the initiation of restoration activities in Winter Lake Tract and will continue through the life of this plan.

Burrowing and feeding activities by some wildlife (beaver and muskrat) can damage berms, and tree and shrub plantings as well as neighboring private property. Beaver and muskrat populations will be monitored as part of a population management program.

### **Wildlife Diseases**

ODFW will cooperate with the Coos County Health Department and the USFWS to monitor wildlife diseases. Animals showing signs of disease may be tested as they are reported by the public or ODFW depending on the suspected disease involved. Wildlife diseases that may occur in the project area include West Nile Virus (*Flavivirus sp.*), Avian Influenza (*Influenza*), Avian Botulism (*Clostridium botulinum*), Avian Cholera (*Pasturella multocida*), Deer Hair Loss Syndrome and others. ODFW district biologists will coordinate as appropriate with the ODFW veterinarian to respond appropriately to disease issues that arise.

### **Mosquitoes**

Restoration and management of the CVWA are being planned to minimize the possibility of enhancing mosquito populations. ODFW and our restoration partners have consulted with mosquito experts who indicate that proposed management should not create an abundance of salt marsh mosquito (*Aedes sp.*). However, some mosquitoes may respond to the restoration of aquatic habitats on the CVWA. If mosquitos do become an issue, we will follow the ODFW Vector Control Guidance for Sensitive Areas (February 13, 2014).

Engineering of the restoration project will ensure that all lands inundated with tide water will either drain on each tide cycle or will be connected daily with water in the channel on Winter Lake Tract where fish populations exist. This will cause mosquito larvae to be accessible by fish and other predators. Three-spined Stickleback and Mosquitofish populations exist in the waters of CVWA, and these fish are known to effectively reduce mosquito production. If any disconnected water bodies are inadvertently created during the restoration project, ODFW will connect these areas hydrologically in an effort to allow natural predators of mosquitos to access mosquito larvae. If this is not effective for controlling mosquitoes or if hydrologic connection is not possible for some reason, ODFW



will release fish, such as Three-spined Stickleback, into these water bodies to prey on mosquito larvae.

Methods that have been successful in controlling mosquitoes at Bandon Marsh National Wildlife Refuge include the use of *Bacillus thuringiensis israelensis* (BTI) and controlling tidal inundation and connectivity in areas where mosquito reproduction is likely to occur. (William Bridgeland, USFWS Pers. Comm). BTI is a bacteria that kills mosquito larvae living in water bodies. Also, the ability to control the extent of tidal inundation on land can be useful in creating a situation that is not advantageous for mosquito reproduction (Dr. Daniel Markowski, Pers. Comm). ODFW intends to explore employing these techniques on CVWA to control mosquito reproduction and plans to monitor effectiveness through trapping mosquito adults and sampling larvae throughout the reproductive season on Winter Lake Tract as appropriate. Depending on need, ODFW may progressively use more aggressive means to control mosquitos.

### **Water Distribution**

Water distribution will be monitored using wells, hydrographs, and water height gages placed in key locations. With neighboring landowner approval and coordination, monitoring sites may include neighboring lands.

### **Cultural Resources**

The Coquille Valley is an area where a significant amount of historic and prehistoric human activity has occurred. Radio carbon dating of archeological sites found in the Coquille Valley indicates Native Americans were present and subsisting in the area at least as far back as 140 A.D. to 420 AD. Middens, or locations where shells and remains of wildlife used for human subsistence have been uncovered in the Coquille Valley, indicate that these people relied on the river, associated wetlands and estuary to find food. During the development of the Ni-les'tun Unit of Bandon Marsh National Wildlife Refuge, many significant archeological sites and objects were found which were related to the history of Native American people stretching far back into prehistory. ODFW is sensitive to the significance of these findings and is committed to preserving and protecting any archeological sites on CVWA. To detect and appropriately protect these sites, ODFW and project contractors will coordinate and consult with the Coquille Indian Tribe, the Confederated Tribes of Coos, Lower Umpqua, and Siuslaw Indians, and the Oregon State Historic Preservation Office.

### **European Settlement of the Coquille Valley**

According to the book *A Guide to the Oregon South Coast History* (Douthit 1999), the first Europeans to settle the Coquille Valley did so in the late 1850s for the purpose of establishing small farms that produced a variety of crops. One of the major crops was hay with livestock such as cattle (*Bos sp.*) and pigs (*Sus sp.*) also being important products. Douthit noted, "By the mid-1890s, dairying had become next in importance to crop production." Douthit also state that "By



**Comment** – Coos County Board of Commissioners regarding Coos County Conditional Land Use Application: ACU-23-074/FP-23-012 Winter Lake Phase III project

Name: Jan Hopmans and Mieke Vandenreek

Mailing address: 1120 NW 17<sup>th</sup> street, Corvallis, OR 97330

**For reasons outlined below, we ask for the proposal submitted by BSDD to be amended to consider inclusion of plans that would minimize mosquito invasions in Garden Valley, as the proposed expansion of habitat restoration in the Coquille Valley Wildlife Area (CVWA) would likely result in continued and increasing mosquito populations.**

In 2015, we bought a 5-acre property at 58494 Garden Valley Rd, which is within the boundaries of the Beaver Slough Drainage District (BSDD). As a side note, for many years Garden Valley residents that own land within the boundaries of BSDD have petitioned to withdraw their properties from the boundaries of BSDD.

Let me start by stating that in principle we are very supportive of land restoration efforts such as in the CVWA, and in fact had plans initially to propose restoration of China Creek in Garden Valley (GV). However, our main concern is that since completion of the Unit 2 restoration, mosquitos have been a major nuisance and health issue in the past 4 years for the Garden Valley residents.

Over time, as I learnt about the restoration plan of Unit 2 of the Winter Lake area and the need to replace the tidal gate for better control of irrigation, flooding and drainage in the Winter Lake area. The construction of the new tidal gate was completed in the fall of 2018. Until that time, after my purchase of the GV property in 2015, there had been no mosquito issue at any time during those years. However, GV residents started complaining about the mosquito issue in August of 2019, the year after the completion of the tidal gate construction. We expressed concerns about this to the BSDD and speculated that it was caused by the restoration of Unit 2. We also inquired with ODFW and contacted with Chris Claire. He agreed that mosquitos are likely to breed in non-fish bearing breeding pools, through flooding of non-connected valleys. But he also indicated that it could be explained by the hot summer and the lack of strong summer winds that year.

Since 2019, the mosquitos have been a major issue starting in July of every year. Repeated complaints have not made any difference, and if anything, the mosquito

EX 6

invasions have increased and were of longer duration. Therefore, when learning about the expansion of the CVWA restoration to Units 1 and 3, is it my expectation that the mosquito problem in Garden Valley will become an even greater issue. It is therefore that I urge BSDD and ODFW to include assurances in their proposal to address the mosquito issue heads on in their application.

The lack of addressing the mosquito issue is contrary to the 2016 ODFW's five-year Management Plan of the CVWA that specifically addresses mosquitos and plans to minimize the possibility of increasing mosquito populations. In this Plan<sup>1</sup>, it states that "some mosquitoes may respond to the restoration of aquatic habitats on the CVWA." The same Plan states that "Restoration and management of the CVWA are being planned to minimize the possibility of enhancing mosquito populations." In their Plan, ODFW provides a series of solutions, including enhancing the population of mosquito-attacking fish such as Stickleback and Mosquito fish, after connecting nonflowing waters, so that this fish can prey on the mosquito larvae. If all else fails, ODFW stated to introduce bacteria such as BTI which was successful in controlling mosquitoes at Bandon Marsh. ODFW concluded in this 2016 Plan that "depending on need, ODFW may progressively use more aggressive means to control mosquitos". However, to our knowledge no or little action was taken by ODFW in the past years towards mitigating mosquito populations in the CVWA.

Regarding actions taken by the BSDD, their response has been that their ability to drain the Winter Lake area has been compromised by the faulty tidal gate not allowing to control water drainage when needed. In their responses, they have stated that much improved water level management will be possible after the tidal gate's repair, hopefully this year.

To conclude, I would like for the proposal to include provisions for ODFW to ensure that mosquito mitigating plans are included in the proposal and that such plans will be executed when needed. Moreover, for BSDD to ensure that all lands inundated with tidal water will be connected hydrologically so that mosquito larvae be accessible by fish and other predators.

Jan W. Hopmans

February 24, 2024



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<sup>1</sup> Coquille Valley Wildlife Area Management Plan, April 22, 2016. Oregon Department of Fish and Wildlife, 4034 Fairview Industrial Drive SE, Salem, OR 97302

22 February 2024

To: Coos County Commissioners, Coquille OR

From: Jeffrey Jackson, Resident, Coquille OR

**RE: File Number ACU-23-074, Winter Lake Phase III Project**

Dear Commissioners,

This letter indicates support for the Beaver Slough Drainage District's and Coos Soil and Water Conservation District's application for infrastructure upgrades as outlined in the Winter Lake Phase III project. As a fish biologist with nearly 25 years of experience working for federal, state and non-profit organizations in Oregon, Alaska and California, I write to you that there is no doubt whatsoever that habitat restoration projects such as Winter Lake not only benefit salmon to a great degree, but also benefit drainage that increases use and productivity by agricultural landowners.

Recent research at Winter Lake conducted by the Coquille Watershed Association has shown how incredibly productive off-channel areas are to coho salmon. Juvenile coho move downstream and seek areas to over-winter, get out of heavy winter flows and find food and shelter. Replacing internal tidegates will facilitate water movement and help juvenile salmon find their way out of the channels and canals as water temperatures become too high later in the spring. A suite of native fish and amphibians thrive in Winter Lake: steelhead, Cutthroat trout, Pacific lamprey can all be found there seasonally. And while it is true that a variety of non-native fish are present, active water management makes this a less hospitable environment for them to flourish.

In addition to the natural resources benefits afforded by this project, Winter Lake Phase III will replace aging and non-functional infrastructure that will greatly benefit grazing and pasture management. As spring turns into summer, native fish move out of the project area, water can be drawn down, and Winter Lake goes into another mode of production – for livestock. Landowners can't turn their animals out until the land is dried out, and upgraded infrastructure will facilitate maximum use. That's the beauty of projects such as this: promote agricultural use in the summer and salmon in the winter.

Here's the bottom line: Winter Lake Phase III is completely, legally, environmentally and administratively within the scope, scale and intent of Coos County Planning and Land Use Ordinances. Landowners, natural resource specialists, fisherman and anyone who knows about fish and grazing all realize the benefits of this project. I invite the Commissioners who are opposed to this project to educate themselves by reaching out to ODFW and see first hand how the project is positively influencing the economy of Coos County.

Sincerely,

*Jeff Jackson*

**EX 7**

Jeffrey Jackson

1390 N. Gould

Coquille OR



March 5, 2024

Coos County Board of Commissioners:

We have lived on Garden Vally Road for 20 years. The last two years since Fish and Game took over the so-called "wet lands", we have been bombarded with thousands of mosquitoes. It has been simply overwhelming. We can't go outside from the time they start hatching in spring until late fall when the temperature causes them to die. We have purchased electric mosquito killer machines which help somewhat, but we spend hours killing them in the house in the evening

Adding more wetlands will certainly NOT help this situation, but only make it worse!

**Please, please** find some solution to this problem so that we can enjoy our lives, work outside, and not be miserable all summer! It is an **unbearable** way to have to live.

Thank you,



Susan and Lawrence Graham

58803 Garden Valley Rd.

Coquille, OR 97423

EX 8

# Beaver Slough Drainage District Proposal.




Verna Rose <verna.l.rose@gmail.com>

To Bob Main; Rod Taylor; John Sweet; Planning Department

Thu 3/14



 You forwarded this message on 3/19/2024 8:12 AM.

If there are problems with how this message is displayed, [click here to view it in a web browser.](#)

I do not believe any zone changes or project go forward without in depth discussions as to which way these ditches are flowing water. Are they really draining water out Coquille Valley and adjoining lands to the river and ocean, or is this project rerouting water to certain areas for the benefit of the large landowners wants and needs. Will the tide gates be used to let water flow back to Coquille River or hold water in the Coquille Valley and adjoining lands?

My concern is this project will not drain the water from Garden Valley or the Coquille Valley and there will be damages caused by standing water or the forming of a lake. If the water can not flow out of Garden Valley it will backup causing many problems to the homes in Garden Valley. Those in the Beaver Slough Drainage District as well as those who are not in this Drainage District. It could possibly cause health issues and possibly stop the flow of water draining from our drinking water. We need flow in China Creek so our drinking water doesn't backup and become stagnant and cause problems with it. Is the Beaver Slough Drainage District garranteeing the continual flowing of water out Garden Valley by China Creek?

We already know about the mosquitoes problems. What else is going be a health problem in the future.?

My first and most concern is getting out of this Beaver Slough Drainage District under ORS: 198.883. Being less than 5% income to this District, less than 5% acreage in this District and have received NO BENEFIT from this District.

I've filled out all their paperwork and was told several times I'd be let put of the Beaver Slough Drainage District. As was many of the small landowners within the Beaver Slough Drainage District. The Board of Directors need to honor their words and release me and others who complied them with their request to withdrawal.

As I stated before the this Beaver Slough Drainage District is only for the large landowners (5 or 6) who are the Board of Directors with all the voting power or rights. This ISN'T a fair District to Everyone in it. IT IS TAXATION WITHOUT RESENTATION. IT ONLY BENEFIT THOSE five or six.

IF FLOW OF WATER DOES NOT DRAIN TO WATER BACK INTO RIVER then it is Not a Drainage District. Dissolve this District and let those five or six large landowners form a District with them only in. Whether it is grazing land or wildlife.

Quit being a dictatorship District for your self benefit. You have stated many times that all taxes and funding goes only to the large Coquille Valley Landowners and never has and never will provide funding anywhere else in the Beaver Slough Drainage District.

Where is small landowners freedom and rights being upheld in this kind of special district?

**EX 9**

# Beaver Slough Drainage District




Verna Rose <verna.l.rose@gmail.com>

To Bob Main; Rod Taylor; John Sweet; Planning Department

Thu 3/14



 You forwarded this message on 3/19/2024 8:12 AM.

If there are problems with how this message is displayed, [click here to view it in a web browser.](#)

I'm opposed to any changes to Beaver Slough Drainage District by zoning or their current project of changes water flow. It needs more information about how the water draining is going to flow. Is the water going to flow back into Coquille River or will it be directed to other areas in the Coquille Valley for self purposes of the large landowners and Board of Directors of Beaver Slough Drainage District. Will these changes allow the water to flow for drainage or will it be directed to keep land wet for certain large landowners?

Does these changes effect the small landowners in or out of Beaver Slough Drainage District? Will the water from Garden Valley and other landowners opposite of Coquille Valley, will the water be route to drain or does this project stop the water draining to Coquille River?

Will China Creek water out of Garden Valley be able to flow to Coquille River or will a tide gate hold water so it back up farther into Garden Valley? It seemed to me that's what it implied. That the gate was to hold water so it did not flow to lower land. Is that right or wrong?

The flow of water from China Creek in Garden Valley is very important to the landowners in Garden Valley. Some are in the Beaver Slough Drainage District but others are not.

There is many concerns with the water flow of China Creek. If the water can not flow out to the Coquille River, it can create several problems for the homeowners. There bottom land getting wetter. Stagnant water from back water, causing health issues and contamination of drinking water..

Do you have all the answers to this project? The effects to land, health issues and financial effects of small landowners in and out of this Beaver Slough Drainage District?

We already know about the mosquitoes we have. What else is yet to come is the question.

If the flow of water in this project isn't to drain the water from the Coquille Valley and adjoining lands by Beaver Slough Drainage District, THEN THIS IS NOT A DRAINAGE DISTRICT ANYMORE. It should be dissolved and the five or six large landowners form another district that is for their grazing of cattle, estuaries, wildlife, or gun clubs. Leave the homeowner homes and land out of their district.

As you know, I want out of this Beaver Slough Drainage District. It has not ever or will not ever provide a benefit to my land or my home.

I own less than 5% of acreage in the Beaver Slough Drainage District and provide less than 5% of the income to this District.

Under ORS 198.882, I should be or could be removed from Beaver Slough Drainage District. This District has all my paperwork and request and has verbally stated that I could be removed. They also have other landowners requests and paperwork but won't do whatever they need to do to go forward.

They also stated that they would repay the taxes and bond funds paid by the landowners who asked to be removed from the Beaver Slough Drainage District. I personally want out of this Beaver Slough Drainage District. They can keep what I've paid so far to the Beaver Slough Drainage District. **JUST STOP ALL TAXES AND BOND ASSESSMENT FROM 2024 ON PLEASE.**

It's an unfair taxation and bond levy.



Five or six large landowners, who are the Board of Directors control all the voting power, get all the benefits from the taxation and bonds they place upon everyone else in this District. It is an unfair Special District. The small landowners has no way of stopping project or financial burden from this Beaver Slough Drainage District. .

I will be at the meeting and probably have more comments.  
Verna Rose