



COOS COUNTY PLANNING DEPARTMENT  
 60 E. SECOND ST. COQUILLE, OR 97423 (LOCATION)  
 250 N. BAXTER, COQUILLE (MAILING ADDRESS)  
 PHONE: 541-396-7770 / EMAIL: PLANNING@CO.COOS.OR.US

**Amendment/Rezone Application**

Date Received: 9/7/23 Receipt #: 142233445 Received by: C. Carr **\$2,730.00**  
 FILE NUMBERS: AM-23- 006 RZ-23- 006

This application shall be filled out electronically. If you need assistance please contact staff.  
 Please be aware if the fees are not included the application will not be processed.  
 (If payment is received on line a file number is required prior to submittal)

**LAND INFORMATION**

Land Owner(s) (print name): Frank John Salvatore Zaita  
 Mailing address: PO BOX 862 Coquille, OR 97423  
 Phone: 541-731-0784 Email: ZAITAFJ@YAHOO.COM

Applicant(s) (print name): Frank John Salvatore Zaita  
 Mailing address: PO BOX 862 Coquille, OR 97423  
 Phone: 541-731-0784 Email: ZAITAFJ@YAHOO.COM

Type of Ownership: Single Ownership - Signed Application   
 Type of Use Requested: Dwelling - Single Family  Temporary Dry Camp

PROPERTY - If multiple properties are part of this review please check here  and attach a separate sheet with property information.

Township: 26S  Range: 11  Section: 28  1/4 Section: Select  1/16 Section: 0 Tax lot: 501

Township: Select  Range: 26  Section: 11  1/4 Section: 29  1/16 Section: Select  Tax lot: 1500

Tax Account Number(s): 453603 Site Address: None

Current Zone: Exclusive Farm Use (EFU)  Acreage: 10.56

Proposed Zone Forest (F)

JUSTIFICATION:

(1) The following questions will need to be answered with an explanation.

a. Will the rezone conform with the comprehensive plan?

YES

b. Will the rezone seriously interfere with the permitted uses on other nearby parcels

NO

c. Will the rezone comply with other adopted plan policies and ordinances?

YES

(2) If a Goal Exception is required please review and address this section.

All land use plans shall include identification of issues and problems, inventories and other factual information for each applicable statewide planning goal, evaluation of alternative courses of action and ultimate policy choices, taking into consideration social, economic, energy and environmental needs. The Coos County Comprehensive Plan (CCCP) and Implementing Zoning Land Development Ordinance (CCZLDO) was acknowledge<sup>1</sup> as having all necessary components of a comprehensive plan as defined in ORS 197.015(5) after the Coos County adopted the documents on April 4, 1985. The date of the effective plan and ordinance is January 1, 1986. Coos County did go through a periodic review exercise in the 1990's but due to lack of gain in population, economic growth and public request plan zones were not altered. Changes to the comprehensive plan and implementing ordinance have been done to ensure that any required statutory or rules requirements have been complied with. However, sometimes it is necessary for property owners or applicants to make a request to have certain properties or situations such as text amendments considered to reflect a current condition or conditions. These applications are reviewed on a case by case basis with the Board of Commissioners making a final determination. This type application and process is way to ensure that process is available to ensure changing needs are considered and met. The process for plan amendments and rezones are set out in CCZLDO Article 5.1.

Exception means a comprehensive plan provision, including an amendment to an acknowledged comprehensive plan, that; (a) Is applicable to specific properties or situations and does not establish a planning or zoning policy of general

A local government may adopt an exception to a goal when one of the following exception process is justified:

(a) The land subject to the exception is "physically developed" to the extent that it is no longer available for uses allowed by the applicable goal;

<sup>1</sup> -Acknowledgment" means a commission order that certifies that a comprehensive plan and land use regulations, land use regulation or plan or regulation amendment complies with the goals or certifies that Metro land use planning goals and objectives, Metro regional framework plan, amendments to Metro planning goals and objectives or amendments to the Metro regional framework plan comply with the goals. In Coos County's case the commission refers to the Land Conservation and Development Commission.

- (b) The land subject to the exception is "irrevocably committed" to uses not allowed by the applicable goal because existing adjacent uses and other relevant factors make uses allowed by the applicable goal impracticable; or
- (c) A "reasons exception" addressing the following standards is met:
- (1) Reasons justify why the state policy embodied in the applicable goals should not apply;
  - (2) Areas which do not require a new exception cannot reasonably accommodate the use;
  - (3) The long-term environmental, economic, social and energy consequences resulting from the use of the proposed site with measures designed to reduce adverse impacts are not significantly more adverse than would typically result from the same proposal being located in areas requiring a goal exception other than the proposed site; and
  - (4) The proposed uses are compatible with other adjacent uses or will be so rendered through measures designed to reduce adverse impacts. Compatible, as used in subparagraph (4) is not intended as an absolute term meaning no interference or adverse impacts of any type with adjacent uses. A local government approving or denying a proposed exception shall set forth findings of fact and a statement of reasons which demonstrate that the

Compatible, as used in subparagraph (4) is not intended as an absolute term meaning no interference or adverse impacts of any type with adjacent uses. A local government approving or denying a proposed exception shall set forth findings of fact and a statement of reasons which demonstrate that the standards for an exception have or have not been met.

**PART III -- USE OF GUIDELINES** Governmental units shall review the guidelines set forth for the goals and either utilize the guidelines or develop alternative means that will achieve the

**REQUIRED SUPPLEMENTAL INFORMATION TO BE SUBMITTED WITH APPLICATION:**

1. A legal description of the subject property (deed);
2. Covenants or deed restrictions on property, if any;
3. A general location map of the property;
4. A detailed parcel map of the property illustrating the size and location of existing and proposed uses and structures on 8 1/2" x 11" paper. If proposed structures are not known then the plot plan will need to include only existing with a note that no new structures are proposed at this time;
5. If applicant is not the owner, documentation of consent of the owner, including:
  - a. A description of the property;
  - b. Date of consent
  - c. Signature of owner
  - d. Party to whom consent is given
6. The applicant must supply a minimum of 2 copies of the entire application or one paper copy and electronic copy (email is acceptable), including all exhibits and color photocopies, or as directed by the Planning Staff.

**Authorization:**

All areas must be initialed by all applicants, if this application pertains to a certain property all property owners<sup>2</sup> must either sign or provide consent for application unless otherwise allowed by Section 5.0.175 of the CCZLDO. As an applicant by initialing each statement I am accepting or agreeing to the statements next to each area designated for my initials and/or signature. All property owners shall sign and initial the designated areas of the application or

<sup>2</sup> Property owner<sup>2</sup> means the owner of record, including a contract purchaser

provide consent from another party to sign on their behalf. If another party is signing as part of a consent that does not release that party that gave consent from complying with requirements listed below or any conditions that may be placed on an application. In the case of a text amendment the procedures for set out in Section 5.1.110 WHO SEEK CHANGE applies and an applicant may not be a property owner.



I hereby attest that I am authorized to make the application and the statements within this application are true and correct to the best of my knowledge, I affirm to the best of my knowledge that the property is in compliance with or will become in compliance with CCCP and CCZLDO. I understand that any action authorized by Coos County may be revoked if it is determined that the action was issued based upon false statements or misrepresentation.

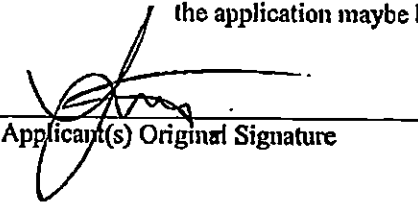



I understand it is the function of the planning staff to impartially review my application and to address all issues affecting it regardless of whether the issues promote or hinder the approval of my application. In the event a public hearing is required to consider my application, I agree, as applicant I have the burden of proof. I understand that approval is not guaranteed and the applicant(s) has the burden of proof to demonstrate compliance with the applicable review criteria.



As the applicant(s) I acknowledge that is in my desire to submit this application of free will and staff has not encouraged or discouraged the submittal of this application.

I understand as applicant I am responsible for actual cost of that review if the Board of Commissioners appoints a hearings officer to hear the application I have submitted. As applicant I will be billed for actual time of planning services, materials and hearings officer cost and if not paid the application maybe become void.

  
Applicant(s) Original Signature  
Applicant(s) Original Signature  
**August 24, 2023**  
Date



# COOS County Assessor's Summary Report

## Real Property Assessment Report

FOR ASSESSMENT YEAR 2023

NOT OFFICIAL VALUE

May 25, 2023 1:21:31 pm

Account # 455100  
 Map # 26S11290001500  
 Code - Tax # 0804-455100

Tax Status ASSESSABLE  
 Acct Status ACTIVE  
 Subtype NORMAL

Legal Descr See Record

Mailing Name ZAITA, FRANK J S

Deed Reference # 2014-4857

Agent

Sales Date/Price 06-09-2014 / \$0.00

In Care Of

Appraiser

Mailing Address PO BOX 862  
 COQUILLE, OR 97423-0862

Prop Class 640 MA SA NH Unit  
 RMV Class 600 04 17 RRL 7491-1

Situs Address(s) Situs City

Code Area		RMV	MAV	Value Summary			RMV Exception	CPR %
				AV	SAV	MSAV		
0804	Land	20,312	0	13,087	20,312	13,087	Land	0
	Impr.	0	0	0	0	0	Impr.	0
<b>Code Area Total</b>		<b>20,312</b>	<b>0</b>	<b>13,087</b>	<b>20,312</b>	<b>13,087</b>		<b>0</b>
<b>Grand Total</b>		<b>20,312</b>	<b>0</b>	<b>13,087</b>	<b>20,312</b>	<b>13,087</b>		<b>0</b>

Code Area		ID#	RFPD	Ex	Plan Zone	Value Source	TD%	LS	Size	Land Class	LUC	Trended RMV
0804	15	<input checked="" type="checkbox"/>	EFU	Designated Forest Land	100	A	16.04	A	006*	20,240		
0804	20	<input checked="" type="checkbox"/>	EFU	Designated Forest Land	100	A	5.00	X	006*	72		
<b>Grand Total</b>										<b>21.04</b>	<b>20,312</b>	

Code Area	Yr Built	Stat Class	Description	Improvement Breakdown	TD%	Total Sq. Ft.	Ex% MS Acct #	Trended RMV
<b>Grand Total</b>								<b>0</b>

### Exemptions / Special Assessments / Potential Liability

**NOTATIONS:**

- FARM/FOREST POT'L ADD'L TAX LIABILITY FOREST

Code Area 0804

**FIRE PATROL:**

- FIRE PATROL TIMBER

Amount 39.01 Acres 21.04 Year 2023

STATUTORY WARRANTY DEED  
(continued)

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.

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

Dated: 2/6/23

Kevin R. Hagstrom, Trustee of the Kevin R. Hagstrom Revocable Trust dated February 6, 2008

BY: [Signature]  
Kevin R. Hagstrom  
Trustee

State of Oregon  
County of Deschutes

This instrument was acknowledged before me on 02/06/23 by Kevin R. Hagstrom, Trustee of the Kevin R. Hagstrom Revocable Trust dated February 6, 2008.

[Signature]  
Notary Public - State of Oregon

My Commission Expires: 10/14/25



RECORDING REQUESTED BY:



201 Central Avenue, PO Box 1075  
Coos Bay, OR 97420

**GRANTOR'S NAME:**

Kevin R. Hagstrom, Trustee of the Kevin R. Hagstrom Revocable  
Trust dated February 6, 2008

**GRANTEE'S NAME:**

Frank J.S. Zalta

**AFTER RECORDING RETURN TO:**

Order No.: 360623041736-VR  
Frank J.S. Zalta  
PO Box 862  
Coquille, OR 97423

**SEND TAX STATEMENTS TO:**

Frank J.S. Zalta  
PO Box 862  
Coquille, OR 97423

APN: 455100  
453603

Map: 26-11-29-TL1500  
26S-11-28 TL 501

0 Fairview Road, Coquille, OR 97423

SPACE ABOVE THIS LINE FOR RECORDER'S USE

**STATUTORY WARRANTY DEED**

Kevin R. Hagstrom, Trustee of the Kevin R. Hagstrom Revocable Trust dated February 6, 2008, Grantor, conveys and warrants to Frank J.S. Zalta, 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:

**PARCEL I:**

That portion of the following real property lying Southwesterly of the Coquille-Fairview County Road:  
The Southwest quarter of the Northwest quarter of Section 28, Township 26 South, Range 11 West of the Willamette Meridian, Coos County, Oregon. Except the West 10 acres of the South half of the Northwest quarter of Section 28, conveyed to H.L. Peak, et ux by deed recorded January 7, 1948 in Book 177, Page 60, Deed Records of Coos County, Oregon.

ALSO: That portion of the Northwest quarter of the Southwest quarter of Section 28, Township 26 South Range 11 West of the Willamette Meridian, Coos County, Oregon, lying Northwesterly of the Coquille-Fairview County Road.

**PARCEL II:**

That portion of the Northeast quarter of the Southeast quarter of Section 29, Township 26 South, Range 11 West of the Willamette Meridian, Coos County, Oregon, lying Northwesterly of the Coquille-Fairview County Road.

THE TRUE AND ACTUAL CONSIDERATION FOR THIS CONVEYANCE IS THREE HUNDRED TWENTY-FIVE THOUSAND AND NO/100 DOLLARS (\$325,000.00). (See ORS 93.030).

**Subject to:**

1. The Land has been classified as Forest Land, as disclosed by the tax roll. If the Land becomes disqualified, said Land may be subject to additional taxes and/or penalties.
2. Rights of the public to any portion of the Land lying within the area commonly known as streets, roads and highways.
3. Right reserved by W.T. Culver Company, a Delaware corporation as disclosed by Bargain and Sale Deed

Recording Date: July 24, 1947  
Recording No: Book 171, Page 158  
Grantor: W.T. Culver Company  
Grantee: William J. Reed and Minnie M. Reed

**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 14, 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**

RECORDING REQUESTED BY:



201 Central Avenue, PO Box 1075  
Coos Bay, OR 97420

**GRANTOR'S NAME:**

Kevin R. Hagstrom, Trustee of the Kevin R. Hagstrom Revocable Trust, dated February 6, 2008

**GRANTEE'S NAME:**

Frank J.S. Zalta

**AFTER RECORDING RETURN TO:**

Order No.: 360623041736-VR

Frank J.S. Zalta

~~33861 Miller Lane~~

~~Cold Beach, OR 97444~~

**SEND TAX STATEMENTS TO:**

Frank J.S. Zalta

~~33861 Miller Lane~~

~~Cold Beach, OR 97444~~

APN: 455100

453603

Map: 26-11-29-TL1500

26S-11-28 TL 501

0 Fairview Road, Coquille, OR 97423

Coos County, Oregon	<b>2023-00782</b>
\$91.00 Pgs=2	02/10/2023 08:53 AM
eRecorded by: TICOR TITLE COOS BAY	
Julie A. Brecke, Coos County Clerk	

SPACE ABOVE THIS LINE FOR RECORDER'S USE

**STATUTORY WARRANTY DEED**

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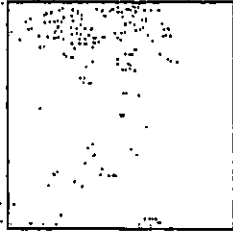
**Subject to:**

1. The Land has been classified as Forest Land, as disclosed by the tax roll. If the Land becomes disqualified, said Land may be subject to additional taxes and/or penalties.
2. Rights of the public to any portion of the Land lying within the area commonly known as streets, roads and highways.
3. Right reserved by W.T. Culver Company, a Delaware corporation as disclosed by Bargain and Sale Deed

Recording Date: July 24, 1947  
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Grantor: W.T. Culver Company  
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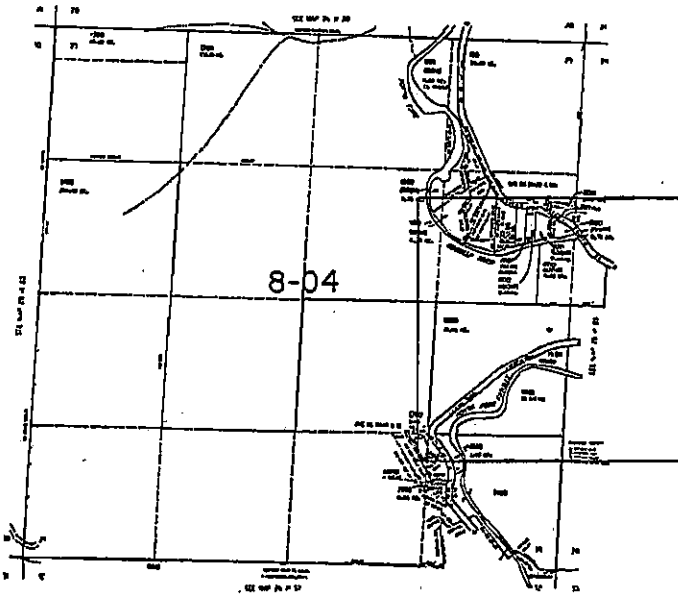
**BEFORE SIGNING OR ACCEPTING THIS INSTRUMENT, THE PERSON TRANSFERRING FEE TITLE SHOULD INQUIRE ABOUT THE PERSON'S RIGHTS, IF ANY, UNDER ORS 195.300, 195.301 AND 195.305 TO 195.336 AND SECTIONS 5 TO 11, CHAPTER 424, OREGON LAWS 2007, SECTIONS 2 TO 9 AND 17, CHAPTER 855, OREGON LAWS 2009, AND SECTIONS 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**

8-04



This map is prepared for  
information only.

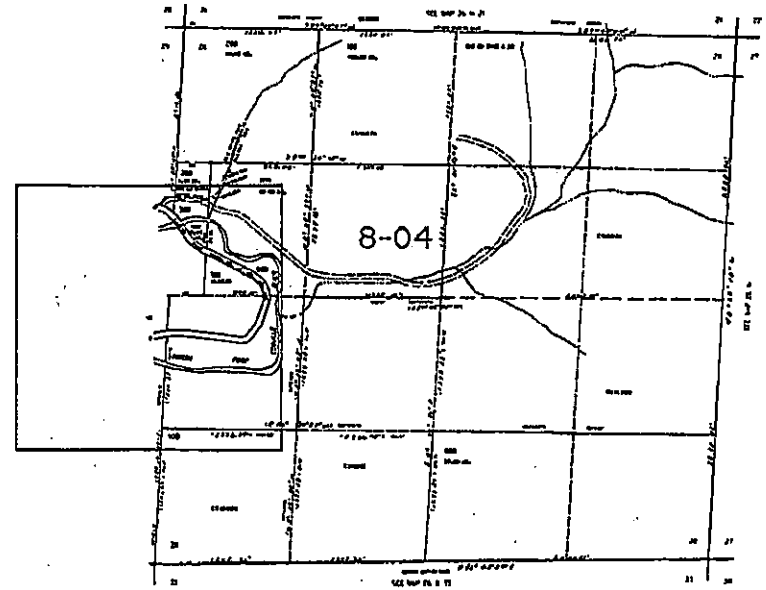
SECTION 29 T.26S. R.11W. W.M.  
COOS COUNTY



This map is prepared for  
information only.

SECTION 28 T.26S. R.11W. W.M.  
COOS COUNTY

26 11 28  
SHOWS



Template and Notice Area Map & List  
Zaita | Fairview Rd

Draft March 17, 2023  
3 / 3

26 11 28



## EXHIBIT "A"

PARCEL I: That portion of the following real property lying Southwesterly of the Coquille-Fairview County Road:

SW 1/4 of NW 1/4, Section 28, Township 26 South, Range 11 West of the Willamette Meridian, Coos County, Oregon, except the West 10 acres of the S 1/2 of the NW 1/4, Section 28, conveyed to H. L. Peak, et ux by deed recorded January 7, 1948, in Book 177, Page 60, Deed Records of Coos County, Oregon.

ALSO: That portion of NW 1/4 of SW 1/4, Section 28, Township 26 South, Range 11 West of the Willamette Meridian, Coos County, Oregon, lying Northwesterly of the Coquille-Fairview County Road.

PARCEL II: That portion of NE 1/4 of SE 1/4, Section 29, Township 26 South, Range 11 West of the Willamette Meridian, Coos County, Oregon, lying Northwesterly of the Coquille-Fairview County Road.

-----  
THE ABOVE DESCRIBED PROPERTY IS SUBJECT TO THE FOLLOWING:

1. As disclosed by the tax roll the premises herein described are classified as Forest Lands. In the event of declassification, said premises will be subject to additional taxes and interest pursuant to the provisions of ORS Chapter 321.
2. Rights of the public in streets, roads and highways.
3. All rights reserved in that certain contract between W.T. Culver Company and William J. Reed and Minnie M. Reed, dated August 3, 1945, as set forth in instrument recorded July 21, 1957, in Book 171, Page 158, Deed Records of Coos County, Oregon.

RECORDED BY

MCORTHA  
INSURANCE

58-232  
Coos County





## **Application Criteria, Findings and Exhibits Comprehensive Plan and Zone Amendment Application**

**Proposal:** This application is for a Comprehensive Plan Amendment and Rezone. The Applicant is seeking to gain approval of amendments to pursue a dwelling on his property. The EFU Zone does not permit a dwelling on the Applicant's property.

The Applicant has organized an application for a Template Dwelling to be reviewed along with the Comprehensive Plan Amendment and Rezone. The Template Dwelling application is also included for approval.

**Subject Property:** Subject Property is made up of two tax lots. Assessor's Maps show the properties and acreages:

T26S, R11W, Section 28, Tax Lot 501 – 10.56 acres  
T26S, R11W, Section 29, Tax Lot 1500 – 21.04 acres  
Total Acreage: 31.6 acres

See Vicinity Map, Attachment B.  
See merged Assessor's Tax Lot Maps, Attachment C.  
See Aerial Map ORMap with Applicant's Tax Lots 501 and 1500, Attachment D.

The proposed Template Dwelling is proposed for Tax Lot 501. The site plan is included with the Template Dwelling application.

**Current Zoning:** Subject Property is currently zoned Exclusive Farm Use (EFU) See zone map (at the time when the dwelling showed on the map provided by the Coos County Planning Department), Attachment E. The zoning on the map remains in place today.

**Owner/Applicant:** Frank John Salvator Zaita  
P.O. Box 862  
Coquille, OR 97423

See Deed attached to the Coos County application form.

**Planner:** Crystal Shoji, AICP  
Shoji Planning, LLC  
[crystal@shojiplanning.com](mailto:crystal@shojiplanning.com)  
Phone: 541-267-2491



## Contents - Criteria and Findings for Zoning (Rezone) and Comprehensive Plan Amendments

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Goal #3: Agricultural Lands	Goal #13: Energy Conservation
Goal #4: Forest Lands	Goal #14: Urbanization
Goal #5: Open Space, Scenic and Historic areas and Natural Resources	Goal # 15: Willamette River Greenway
Goal #6: Air, Water and Land Resources Quality	Goal # 16: Estuarine Resources
Goal #7: Areas Subject to Natural Disasters and Hazards	Goal #17: Shorelands
Goal # 8: Recreation	Goal #18: Beaches and Dunes
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## **List of Exhibits**

### **Part 1: Application and Deed Comprehensive Plan Amendment and Rezone AM-23-006**

<b>Attachment A</b>	Application Criteria, Findings and Exhibits
<b>Attachment B</b>	Vicinity Map
<b>Attachment C</b>	Merged Assessor's Tax Lot Maps
<b>Attachment D</b>	Aerial ORMap with Applicant's Tax Lots
<b>Attachment E</b>	Two Coos County Zone Maps
<b>Attachment F</b>	Coos County Custom Soil Resource Report, Subject Property (90 pages)
<b>Attachment G</b>	Coos County Zone Map with adjacent properties
<b>Attachment H</b>	Adjacent ownerships
<b>Attachment I</b>	Template Test Letter (Coos County Planning research on behalf of Applicant – 3 pages)
<b>Attachment J</b>	Hard copy print NRCS Report descriptions of Soil Unit 24
<b>Attachment K</b>	Forest Productivity Measures (4 pages)
<b>Attachment L</b>	Department of State Lands wetland identification map

### **Part II: Application for Forest Template Dwelling ACU-23-049 Includes Attachments**

## Subject Property Background and Conditions

Subject Property includes two tax lots that straddle the section line between Sections 28 and 29 as shown on the Assessor's Maps. The lots lie along North Road (County Road), west of the banks of the North Fork of the Coquille River in the vicinity of Laverne Park, approximately 15 miles northeast of Coquille. See aerial map, with Tax Lots 501 and 1500, Attachment D.

There was a house on the property approximately twenty years ago. A shop and yurt are located on Tax Lot 501 in the central portion of the lot. The Planning This development is shown on a maps provided by the Coos County Planning Department in a follow-up report from the pre-application meeting, Attachment E.

The Coos County Planning Department provides pertinent background that is helpful for understanding the property and the zoning in their pre-application follow-up, Attachment E, as follows:

"Tax lots 501 and 1500 were originally part of a larger ownership, as seen in the map on the next page. In 1986, the property owner at the time applied for a second farm dwelling. The second map, which you can see on the next page, highlights the portion of the property (shown in red) identified as the farm portion, justifying the need for a second dwelling, also known as an Additional Farm Dwelling. The other portions above Fairview Road were not considered part of the commercial farm operation. It is likely that if the properties had been separated at the time of adoption, only those portion would have been zoned Forest or Forest with a Mixed-Use overlay. However, because it was part of a larger farm property it was zoned Exclusive Farm Use."

Subject Property has gentle slopes on the outer portions of Tax Lot 501, and steep slopes on Tax Lot 1500. Soils within map unit symbol 58F have outcroppings of 70 to 99 percent according to the NRCS Custom Soils Report is included as Attachment F.

County planners identified a stream at the far southwestern corner of Tax Lot 1500 "in the high landslide likely scenario." Landslide areas and flood areas, which can be avoided for building purposes, exist within the two tax lots.

### Access

There is an existing access from Fairview Road, which is also called Laverne Park North Road or North Road. The access is to Tax Lot 501, the 10.56-acre parcel.

### Zoning and Adjacent Uses

See Coos County Zone Map with adjacent properties, Attachment G

Subject Property, Zaita, zoned EFU is shown on the map in yellow. EFU property is to the south, across the road and river, and to the west of Tax Lot 501. EFU property is also to the south of

Tax Lot 1500. The selected map area shows Forest (F) zoning beyond and in addition to Rural Residential (RR-5) and the EFU zoned land.

Properties on the map that follow the road and river within the mapped area are zoned Rural Residential (RR-5). The background information provided by the Planning Department in the section titled *Subject Property Background and Conditions* states that Subject Property was part of a larger operation and that the zoning was likely included as part of the EFU zone due to the ownership. Detailed analysis of each specific property was not always done prior to the County's acknowledgment; many properties were zoned with a wide swath due to ownership or lack of physical development on the property, or lack of commitment that previously established properties for other uses through the Exceptions process.

Detailed soils analysis will be performed and documented within this application to determine whether FMU is an appropriate zone for Subject Property. From the zone map of the vicinity, it is easy to determine that properties in the vicinity along other portions of the road that followed the North Fork of the Coquille River in the vicinity were zoned as Rural Residential (RR-5).

Adjacent properties include forest properties, properties with residences, and properties that are suitable for residential. This will be further explained within this document. See adjacent ownerships, Attachment H, prepared by the Applicant.

A template test was done to determine if Subject Property would likely comply with the eleven (11) parcels required pre-1993 within a 160-acre rectangle applied to Subject Property. This application is being submitted along with the Template Dwelling Application. It is useful to note that there are fifteen such parcels within a 160-acre rectangle applied as per the requirement to subject property. A minimum of three (3) pre-1993 dwellings are required, and (3) three dwellings were found to exist within the 160-acre rectangle applied to Subject Property. The Template Dwelling research test was done to determine whether Subject Property would comply with the Template Dwelling test if rezoned to Forest Mixed Use (FMU).

The template test shows that the proposed use and properties in the vicinity are committed to rural residential development and that FMU zoning would be compatible with properties that are zoned RR-5 and with properties that already have residential dwellings and/or small lots. See Attachment I, Template Test.

Within this document language that is quoted directly from the Coos County Comprehensive Plan, Coos County Zoning and Land Development Ordinance, or NRCS Report is provided in *italic font*. Language that is developed or paraphrased to explain findings of compliance with the ordinance or explain the application is provided in regular font.

## **Coos County Zoning and Land Development Ordinance (CCZLDO)**

### **Article 5.1 Plan Amendments and Rezones**

#### **Section 5.1.200 Rezones**

*Rezoning constitutes a change in the permissible use of a specific piece of property after it has been previously zoned. Rezoning is therefore distinguished from original zoning and amendments to the text of the Ordinance in that it entails the application of a pre-existing zone classification to a specific piece of property, whereas both original zoning and amendments to the text of the Ordinance are general in scope and apply more broadly.*

**Findings:** The rezone will require specific detailed analysis of Subject Property. The original zoning and amendments to the text were more general and broader in scope. Specifically identified analysis and findings of compliance for the proposed zone amendment are the subject of this document.

### **Chapter II. Definitions**

#### **Article 2.1 (FARM/FOREST)**

*AGRICULTURE: Farm use, as defined by ORS 215.203(2)(a), except that in non-EFU areas, agriculture does not have to be for the primary purpose of obtaining a profit in money. Generally, agriculture includes the raising of livestock and harvesting crops using acceptable farming practices and structures and facilities relating to these uses.*

*AGRICULTURAL LANDS: Those lands designated in the Coos County Comprehensive Plan (Volume 1 "Balance of County") for inclusion in Exclusive Farm Use (EFU) Zones. These lands include Soil Capability class I, II, III, and IV lands as defined by the United States Soil Conservation Service in their Soil Capability Classification system and other lands suitable for farm use.*

*FOREST LAND: Those lands designated in the Coos County Comprehensive Plan (Volume I- "Balance of County") for inclusion in a Forest Lands zone. These areas include: (1) lands composed of existing and potential forest lands which are suitable for commercial forest uses, (2) other forested lands needed for watershed protection, wildlife and fisheries habitat and recreation, (3) lands where extreme conditions of climate, soil and topography require the maintenance of vegetative cover irrespective of use, and (4) other forested lands which provide urban buffers, wind breaks, wildlife and fisheries habitat, livestock habitat, scenic corridors and recreational use.*

*HIGH-VALUE FARMLAND: "High-value farmland" means land in a tract composed predominantly of soils that are:*

- A. Irrigated and classified prime, unique, Class I or Class II; or*
- B. Not irrigated and classified prime, unique, Class I or Class II.*

*A and B, above, include the following soils: 2C, 5A, 5B, 33, 17B, 25 and 36C.*

*In addition, high-value farmland includes tracts growing specified perennials as demonstrated by the most recent aerial photography of the Agricultural Stabilization and Conservation Service of the United States Department of Agriculture taken prior to November 4, 1993. "Specified perennials" means perennials grown for market or research purposes including, but not limited to, nursery stock, berries, fruits, nuts, Christmas trees or vineyards, but not including seed crops, hay, pasture or alfalfa.*

*Also, high-value farmland, used in conjunction with a dairy operation on January 1, 1993, includes tracts composed predominantly of the following soils in Class III or IV or composed predominantly of a combination of the soils described in A or B above and the following soils: Meda (37C), Nehalem (40) and Coquille (12).*

**Findings:** The definitions of Forest Land and Agricultural Land included within the CCZLDO are organized to comply with the Statewide Planning Goals. Coos County zoning has been organized to include Subject Property as Exclusive Farm Use. Any designation of the lands within Subject Property to Forest Mixed Use (FMU) will involve utilizing text that explains intent and policies within the Coos County Comprehensive Plan and the CCZLDO. These documents have been acknowledged to comply with the Statewide Planning Goals by the State of Oregon Land Conservation Development (now DLCD). Statewide Planning Goal 3 - Agricultural Lands, and Statewide Planning Goal 4 – Forest Lands, will be addressed to provide the analysis of characteristics that make up Subject Property. In addition, findings will address the relationship of Subject Property to adjacent lands, and lands within close proximity.

*TIMBER FARMING/HARVESTING: Planting, growing, thinning, harvesting, etc., of trees for commercial purposes. Logging road construction is also included in this category.*

**Findings:** Subject Property has not been utilized for commercial purposes described as “timber farming/harvesting.”

*TRACT: A unit of land that has not been partitioned or subdivided that is listed on the same deed of record or multiple contiguous (touching by more than one point) units of land within the same ownership.*

**Findings:** Subject Property is on one deed and the property consists of two contiguous units of land owned by the Applicant.

#### ***Chapter IV, Balance of County Zones, Overlays & Special Consideration*** ***SECTION 4.2.500 RESOURCE ZONES***

##### ***Forest (F)***

*The intent of the Forest District is to include all inventoried "forestlands" not otherwise found to be needed (excepted) for other uses.*

*The purpose of the Forest zone is to conserve and protect forest land for forest uses. Some of the areas covered by the "F" zone are exclusive forest lands, while other areas include a combination of mixed farm and forest uses.*

### *Forest Mixed Use (FMU)*

*The purpose of the Forest Mixed Farm-Forest Areas ("MU" areas) is to include land which is currently or potentially in farm-forest use. Typically such lands are those with soil, aspect, topographic features and present ground cover that are best suited to a combination of forest and grazing uses. The areas generally occupy land on the periphery of large corporate and agency holdings and tend to form a buffer between more remote uplands and populated valleys. In addition, these "mixed use" areas contain ownership of smaller size than in prime forest areas. Some are generally marginal in terms of forest productivity, such as areas close to the ocean.*

*If land is in a zone that allows both farm and forest uses, a dwelling may be sited based on the predominate use of the tract on January 1, 1993.*

*If a use is only allowed in the mixed use zone it will be explained in the text. Otherwise the uses listed are allowed in both the Forest and Forest Mixed Use zones.*

### *Exclusive Farm Use (EFU)*

*These include all inventoried "agricultural lands" not otherwise found to be needed (excepted) for other uses.*

*The purpose of the EFU district is to preserve the integrity and encourage the conservation of agricultural lands within Coos County and thereby comply with the provisions of ORS 215 and OAR 660. Division 33 to minimize conflicts between agricultural practices and non-farm uses by limiting any development to uses distinguished as dependent upon or accessory to supporting agricultural or forestry production and which qualify such farm lands for special tax relief pursuant to the provisions of Oregon Revised Statutes. This zone is also for the cultivation and marketing of specialty crops, horticultural crops and other intensive farm uses.*

*According to the Coos County Comprehensive Plan Exclusive Farm Use lands are inventoried as Agricultural Lands. The Main criterion for establishing the "Agricultural Lands Inventory" was land identified on the agricultural lands based on soils, Class I-IV soils or "other lands" suitable for agricultural use, with the following exceptions:*

- 1. Committed rural residential areas and urban growth areas.*
- 2. Proposed rural residential areas as per the Exception to Goals #3 and #4.*
- 3. Proposed industrial/commercial sites.*
- 4. Existing recreation areas (e.g., golf courses) [Recreation designation]*
- 5. Isolated parcels of Class I-IV soils in upland areas, which are under, forest cover. (Forestlands designation).*
- 6. Narrow valley bottomlands where no agricultural activity is occurring anywhere in the vicinity [Forestlands designation].*

*The secondary criterion for establishing the "Agricultural Lands Inventory" was the use of aerial photos used to identify additional areas without Class I-IV soils in current agricultural use which were not initially identified in the agricultural lands inventory from Assessor's Data. This situation typically occurs on benches, immediately above agricultural valleys, where grazing often takes place on non-class I-IV soils. However, if lands were zoned predominately*



*forest it may have resulted in a Mixed Use Overlay.*

*In addition, these “mixed use” areas contain ownership of smaller size than in prime forest areas. Some are generally marginal in terms of forest productivity, such as areas close to the ocean.*

**Findings:** Subject complies with the above requirements that were considered in the Comprehensive Plan; the property includes some soils of Statewide significance. The County Planner has raised the possibility that the land was zoned for EFU because it was part of a larger tract that was in farm use at the time of the original zoning. This situation would have been a reason to zone Subject Property as EFU. Coos County was utilizing criteria to comply with the Statewide Planning Goals throughout Coos County, but detailed onsite analysis and NRCS analysis would not have been part of the process for every piece of land.

Subject Property appears to be similar to various properties in the vicinity that are in forest use, and also with some properties in Rural Residential use along Fairview Road. The intent of this supplemental analysis for the zone change to FMU is to utilize the NRCS Soils Report to clearly define the options available to utilize Subject Property for its highest and best use, manage the property, and contribute to the economy of Coos County. Coos County Comprehensive Plan Analysis and NRCS Soils Analysis are included under Coos County Comprehensive Plan Volume 1, Part 1 within the following pages:

## ***CHAPTER VII TRANSPORTATION, ACCESS AND PARKING***

Article 7.1.150 states:

*Article 7.1 covers general provisions for public and private roads, as well as driveways serving a single family residence, and access standards. Detailed road standards are covered in Article 7.2.”*

### ***SECTION 7.1.175 FUNCTIONAL CLASSIFICATION:***

*Collectors are described as streets connecting residential neighborhoods with smaller community centers and facilities, as well as providing access to the arterial system. Property access is generally a higher priority for collectors while through traffic movements are served as a lower priority. The county further breaks the collector category into major and minor collectors.*

*Major collectors generally serve higher traffic demands. They tie federal roads, minor collectors, and local roads to the arterial system. These roads also provide access to agricultural, forest, and recreational areas. Major Collectors are listed in Table 3-2 of the TSP. Minor collectors generally serve lower traffic demands than major collectors. They generally branch off from highway, arterial or major collector roadways and provide access to agricultural, forest, recreational areas, and residential homes. Minor collectors are identified in Table 3-3 of the TSP.*

**SECTION 7.1.225 AUTHORITY & RESPONSIBILITY FOR DETERMINING COMPLIANCE WITH THIS CHAPTER:**

*The Coos County Roadmaster has the authority to impose any conditions on any permit required by Chapter VII that is deemed necessary to meet the standards of the American Association of State Highway and Transportation Officials (AASHTO standards), or make the road safe for travel. The Coos County Roadmaster may modify the minimum standards if it is found that the lesser standard is compatible with the area.*

*The Coos County Roadmaster shall be responsible for determining compliance with the provisions of this chapter. When road and driveway improvements are required by this ordinance, the Roadmaster shall provide the Planning Director with written notice when the provisions of this chapter have been satisfied with respect to an application and/or any other matter under review.*

**SECTION 7.1.275 ACCESS MANAGEMENT:**

***Subsection 1 Intent and Purpose:** The intent of this ordinance is to manage access to land development while preserving the flow of traffic in terms of safety, capacity, functional classification, and level of service. Major roadways, including arterials and collectors, serve as the primary network for moving people and goods. These transportation corridors also provide access to businesses and homes and have served as the focus for commercial and residential development. If access points are not properly designed, these roadways will be unable to accommodate the needs of development and retain their primary transportation function. This ordinance is also intended to ensure that there is adequate and safe access for police, fire and other public services. This ordinance balances the right of reasonable access to private property with the right of the citizens of Coos County and the State of Oregon to safe and efficient travel. These regulations also further the orderly layout and use of land, protect community character, and conserve natural resources by promoting well designed road and access systems and discouraging the unplanned subdivision of land.*

***Subsection 2 Applicability:** This ordinance shall apply to all arterials, collectors and local streets within Coos County and properties that abut these roadways and to all access connections.*

***Subsection 3 Conformance with Plans, Regulations, and Statutes:** This ordinance is adopted to implement the access management policies of the county as set forth in the Transportation System Plan.*

**Findings:** Subject property has existing access where there was previously a single-family dwelling with improvements that were made prior to the sale of the property to Frank Zaita. The Applicant is applying for a Template Dwelling, which is a permitted use when all of the conditions are met. The proposed Comprehensive Plan Amendment and Rezone will provide the zoning to permit the Template Dwelling. The Applicant will comply with all of the requirements of road access and schedule an appointment for the Coos County Roadmaster to consider any requirements for the existing access.

**SECTION 7.1.375 PROVISIONS FOR IMPROVEMENTS TO EXISTING TRANSPORTATION FACILITIES:**

1. If the County finds that the development proposal impacts the transportation facilities, then the County may deny, approve, or approve with appropriate conditions development proposals in order to minimize impacts and protect transportation facilities in the following circumstances:

**SECTION 7.1.425 ACCESS CONNECTION AND DRIVEWAY DESIGN:**

*Requirements in this section shall apply to new driveway and access connections intersections with a County Road. When access is needed to a lot or parcel, if the legal status of a lot or parcel has not been determined, the spacing standards in this section shall apply to all contiguous land in an ownership. Any access connection and driveways that involves access to the State Transportation System shall be reviewed by the Oregon Department of Transportation for conformance with state access management standards and other applicable state standards, before the application is accepted by the County. All access measures ODOT deems necessary shall be made a condition of approval.*

2. Driveway access will be established to minor collector or local roadways where possible rather than to arterials or major collectors.

3. Driveway approaches must be designed and located to provide an existing vehicle with an unobstructed view. Construction of driveways along acceleration or deceleration lanes and tapers shall be avoided due to the potential for vehicular weaving conflicts.

4. Driveway and access connections on County Roads shall be located where they do not create undue interference or hazard to the free movement of highway and pedestrian traffic. Locations on sharp curves, steep grades, areas of restricted sight distance or at points that interfere with the placement and proper functioning of signs, lighting, guardrail, or other traffic control devices shall not be permitted.

5. Tables 7.2A and 7.2B shall be used in determining spacing between approaches onto County Roads.

7. Sight distance standards shall follow the standards set forth in the AASHTO Geometric Design for Streets and Highways.

*All new development is required to have a driveway confirmation completed. Driveways for the purpose of serving a single family residence shall comply with figure 7.1.425. An application must be completed prior to obtaining a zoning compliance letter from the Coos County Planning Department.*

*In the event that a driveway cannot be constructed prior to applying for development permits, a bond may be issued using the requirements of Article 7.6.100(2).*

**SECTION 7.5.175 REQUIRED NUMBER OF PARKING SPACES FOR TYPE OF USE:**

*Single-family dwelling.*

*2 spaces per dwelling unit.*

**Findings:** The Applicant understands that access is required to be brought up to Coos County Standards. The access is for one dwelling unit which is requested as a Template Dwelling in the proposed FMU zone. This is subject to specific guidelines and where specific property configurations exist as explained in the Template Dwelling Application. If approved, the proposed zone change does not divide property or permit additional dwellings beyond one dwelling.

Compliance with the requirements will be necessary for the access permit, as set forth in Section 7.1.425 and 7.5.175, and for parking as set forth in *Parking Spaces for type of Use*, Chapter 7. The owner will comply with the requirements of the Coos County Roadmaster and the Coos County Planning Department for access and parking.

### *Coos County Comprehensive Plan Volume 1, Part 1*

#### **5.3 AGRICULTURAL LANDS**

**GOAL:** *Coos County shall preserve and maintain agricultural lands for farm uses "consistent with existing and future needs for agricultural products, forest, and open space, . . . except where legitimate needs for nonfarm uses are justified.*

#### **PLAN IMPLEMENTATION STRATEGIES**

*1. Coos County shall conserve those resources designated as "agricultural lands" on the Comprehensive Plan map by regulating uses and activities in such areas through requirements stipulated in the following Exclusive Farm Use (EFU) zone. The delineation of these zones shall be generally consistent with the locational criteria developed on the Agricultural Lands Inventory and Assessment. Land Divisions shall comply with criteria set forth in the Coos County Zoning and Land Development Ordinance. Implementation of this strategy shall be based on application of the statutory provisions governing uses in EFU zones.*

*This strategy recognizes:*

- a. The provisions of ORS 215.215, which permit this strategy, and*
- b. The benefits of enabling uses on property rezoned in this manner to be considered conforming uses rather than non-conforming uses.*

**Findings:** Analysis within this document shows compliance with the criteria established by applicable Oregon laws, Oregon's Statewide Planning Goals, and the Coos County Zoning and Land Development Ordinance. Agricultural lands are proposed to be redesignated on the zoning and Comprehensive Plan Maps as FMU zone status. This will be based upon the criteria that are established by the State of Oregon and Coos County. Coos County Comprehensive Plan policy recognizes the need to permit zone changes on lands that are designated for farm use that were physically developed for non-farm use prior to acknowledgment of the designated resource zoning. This allowed for exceptions in the case of physically developed land, and also recognizes the need for redesignation of resource-zoned EFU land to a more appropriate resource-based zone utilizing the rezone process set forth in the CCZLDO. This application

does not rely on an exception for physically developed land, but rather uses a process set forth in Oregon law and Coos County planning documents to amend the zoning. Subject Property is not physically developed.

**Findings:** Coos County Comprehensive Plan Volume 1, Part 1 has a 1985 adoption date by the list of County Commissioners. Properties within the vicinity were recognized for rural residential use at the time of acknowledgment of the Coos County Comprehensive Plan and zoning by DLCDC. This rezone application provides language from the Coos County Comprehensive Plan and Oregon law regarding rezoning Subject Property to FMU based upon characteristics of the soils and language in the Coos County Comprehensive Plan. Consideration of the current EFU zoning and adjacent forest zoning to amend the zoning to forest and farm mixed, FMU, would permit a dwelling and onsite management of Subject Property. If Subject Property does not require EFU zoning, and can provide for other needs of Coos County with the FMU designation, this application may be found to comply with Goal 3.

***Statewide Planning Goal #3 Agricultural Lands;  
660-033-0010***

***Purpose***

*The purpose of this division is to preserve and maintain agricultural lands as defined by Goal 3 for farm use, and to implement ORS 215.203 through 215.327 and 215.438 through 215.459 and 215.700 through 215.799.*

***OAR 660-033-0020***

***Definitions***

*For purposes of this division, the definitions in ORS 197.015, the Statewide Planning Goals, and OAR chapter 660 shall apply. In addition, the following definitions shall apply:*

*(1)(a) "Agricultural Land" as defined in Goal 3 includes:*

*(A) Lands classified by the U.S. Natural Resources Conservation Service (NRCS) as predominantly Class I-IV soils in Western Oregon and I-VI soils in Eastern Oregon;*

*(B) Land in other soil classes that is suitable for farm use as defined in ORS 215.203(2)(a), taking into consideration soil fertility; suitability for grazing; climatic conditions; existing and future availability of water for farm irrigation purposes; existing land use patterns; technological and energy inputs required; and accepted farming practices; and*

*(C) Land that is necessary to permit farm practices to be undertaken on adjacent or nearby agricultural lands.*

**Findings:** The U.S. Natural Resources Conservation Service (NRCS) Custom Soil Resource Report for Coos County Oregon is provided with analysis of Subject Property to determine specific suitability for mixed use zoning. The Report includes maps and soil classifications with information about farm and forest productivity. See Attachment F, NRCS Custom Soil Resource Report for Coos County, Oregon. The document includes Subject Property with maps and charts showing three soil types which are also referenced

within the *Soil Survey of Coos County, Oregon*, a hard copy document published in 1989, Both versions of the report have been consulted for analysis within this application.

It is important to note that the Custom Soil Report boundaries for Subject Property are not surveyed boundaries. The boundaries drawn on the map to customize the report, utilize natural and built land features such as roads for placement. This document includes an intertwining of applicable farm and forest facts, just as the farm and forest (FMU) mixed use zoning is proposed to include two resource-based sets permitted uses. Data sources such as the NRCS Custom Soils Report are applicable to both uses.

The proposal is to rezone Subject Property from EFU to FMU. The NRCS Custom Soils Report for Subject Property provides the following detail:

### **NRCS Agricultural Analysis**

1. The Soil map, page 9, shows three soil types on Subject Property, as outlined on the Map Unit Legend, page 11.

Map Unit 24: Map Unit Symbol 24, Gardiner sandy loam includes 5 acres, which is 17% of the Subject Property. Gardner Sandy loam is adjacent to North Road at the south boundary of Tax Lot 1500, and adjacent to the road, and on both sides of the road on the east side of Tax Lot 501. Gardiner sandy loam is described as having less than 15% slopes on page 30.

This map unit has a land capability classification of 4W. Class 4 soils are of statewide importance; however, the “W” indicates that water in or on the soil interferes with plant growth or cultivation, and that in some soils, the wetness can be partly corrected by artificial drainage. Frequent flooding is also listed for this soil within the descriptions on page 13 of the soils report, and elsewhere.

While Gardner sandy loam is described as having lands of statewide importance for farmland, the soil described with the “W” for hydric soils and flooding, *Hydric Rating by Map Unit*, page 36, provides information about hydric soils described as follows:

“ Hydric soils are defined by the National Technical Committee for Hydric Soils (NTCHS) as soils that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part (Federal Register, 1994). Under natural conditions, these soils are either saturated or inundated long enough during the growing season to support the growth and reproduction of hydrophytic vegetation.”

The description continues noting that this is often associated with wetlands that can be seen on site. The Irrigation Capability Subclass map on page 44, and the Legend on page 45 show the Map Unit 24 properties as having excess water. This information is included on several different maps in the NRCS Soils Report.

No irrigation has been identified in the NRCS soils report, and a check with the Oregon Water Resources Department through a Water Rights Inquiry on February 15, 2024, with follow-up through Jenna Seim of the Oregon Water Resources Department, confirms that there are no water rights for irrigation.

Any typical agricultural use of this 5-acre Subject Property that lies along Fairview (North Road) will likely require on-the-ground management if there is to be any agricultural use. This property does not appear to be useful for agricultural purposes without further on-site management.

- a. Map Unit 46D: Map Unit Symbol 46D, Preacher-Bohannon loams is just .2% of the Subject Property. With only .2% of Subject Property shown as 46D is barely visible at the southwestern tip of Tax Lot 1500 and likely not overly relevant to this analysis due to size and location on the map. It is not prime farmland. County planners described a stream at the far southwestern corner of Subject Property.

No further analysis will be done on this Map Unit symbol due to its limited size, barely showing up on the map, not farmland, and a small stream at the site.

- b. Map Unit 58F: Map Unit Symbol 58F, Umpcoos-Rock outcrop association with 70 to 99% slopes includes 82.9% of the Subject Property.

Umpcoos-Rock outcrop Association is described as “Not prime farmland” having 35% rock outcrop. Subject Property is also described as “(irrigated): None specified” and “(nonirrigated): 7e” Class 7 soils are described on page 21 as having “severe limitations that make them unsuitable for cultivation and that restrict their use mainly to pasture, rangeland, forestland or wildlife habitat. The letter “e” letter after #7 shows that the main hazard is the risk of erosion ‘unless close-growing plant cover is maintained.”

- c. The Custom Soil Resource Report Map – Farmland Classification, page 31 shows that only Map unit 24 areas along the roadway in both tax lots of Subject Property have any farmland classification. The total of this is area is 5-acres in narrow strips along the road. There are a number of caveats to this “prime farmland” wording such as “if irrigated” and “if protected from flooding.” These topics have been explored, and there is no EFU” suitability for Subject Property and no reason to maintain EFU zoning due to the issues that have been described.

The NRCS report shows that Subject Property is not high value farmland that needs to be only in EFU. The only NRCS map unit designation of Subject Property that addresses farm use is Map Unit Symbol 24, Gardiner sandy loam. The designated portion of Subject Property includes 5 acres, addressing hydric problems with the soil which include standing water and flooding on narrow portions along Fairview Road. Agricultural use will require management with attention to the narrow strips of land that are included to deal with the hydric soils and drainage. The majority of the property in the tract is unsuitable for farming.

It is possible that grazing could be incorporated on the 24.3-acre parcel, as described within this document's analysis of Coos County Comprehensive Plan language. Umpcoos-Rock outcrop Association, is described in such soils in the document section addressing Coos County Comprehensive Plan forestry inventories.

***Coos County Comprehensive Plan***

***Volume 1, Part 1***

***5.4 FOREST LANDS***

***PLAN IMPLEMENTATION STRATEGIES***

*1. Coos County shall conserve those resources designated as "Forest Lands" on the comprehensive plan map by regulating uses and activities in such areas through requirements stipulated in the Forestry zone ("F").*

*The delineation of this zone shall be generally consistent with the locational criteria developed in the Forest Lands Inventory and Assessment. Land divisions shall comply with criteria set forth in the Coos County Zoning and Land Development Ordinance.*

*This strategy recognizes that Coos County's forestlands are an extremely valuable resource, and that the above-referenced zones are (1) necessary and reasonable to respond to the varying situational characteristics addressed in the inventory, and (2) adequate to conserve the County's forest lands for forest uses.*

*2. Coos County shall ensure that new rural residential dwellings are compatible with adjacent forest and agricultural management practices and production. This strategy shall be implemented by requiring applicants for building and septic permits to sign a statement (to be added to the zoning clearance letter) acknowledging that the normal intensive management practices occurring on adjacent resource land will not conflict with the rural residential landowner's enjoyment of his or her property.*

*This strategy recognizes:*

*1. That intensive forest and agricultural management practices could include herbicidal spraying, slash burning, or fertilization; and*  
*ii. that the potential for conflicts between resource uses and rural residential uses will be reduced by alerting prospective rural residential landowners to the fact that intensive resource management uses are expected in rural areas.*

*3. Coos County shall require all new residential development that is on lots, parcels or tracts within or abutting the "F" zone to agree to construct and maintain a firebreak of at least 30 feet in radius around the dwelling prior to completion of the dwelling. A firebreak is defined as an area free of readily inflammable material and may include lawns,*



*ornamental shrubs, and scattered single specimen trees. This strategy recognizes that these protection measures are the minimum necessary to prevent house fires from spreading to forested areas, and vice-versa.*

*8. Coos County shall consider, and approve where appropriately justified, changes from forestry to agriculture zoning districts, and vice-versa, upon findings which establish:*

- i. That the proposed rezone would be at least as effective at conserving the resource as the existing zone,*
- ii. That the proposed rezone would not create a nonconforming use,*
- iii. That the applicant for the proposed rezone has certified that he/she understands that the rezone, if granted, could have significant tax consequences.*

*Furthermore, Coos County shall, upon a finding to approve the rezone under consideration, amend the "Agricultural Land" or "Forest Land" Comprehensive Plan Map designation so as to correspond to the new zone, as approved.*

**Findings:** The proposed rezone for FMU will be effective at conserving both farm and forest resources; this is a more effective approach where the NCRS data shows that both farm and forest resources exist. There is no nonconforming use that will be created through this proposed FMU zoning. The applicant understands that that the rezoning could have both positive and/or negative consequences.

*Implementation of this policy shall include conducting a "rezone public hearing."*

**Findings:** This findings document and the language about farm and forestry found in the Coos County Comprehensive Plan and CCZLDO and Oregon laws presented herein will be made available at "rezone public hearings."

*IV. This strategy recognizes:*

*a) That agriculture and forestry are closely related in Coos County because the land resource base is capable of and suitable for supporting both agricultural and forest use and activities;*

*b) That this simplified plan revision process for agriculture and forest plan designations is necessary to help support the existing commercial agricultural and forest enterprises because it enables individual management decisions to be made in a timely manner as a response to changing market conditions.*

*9. Coos County shall define development to mean:*

*To bring about growth or availability; to construct or alter a structure, to conduct a mining operation, to make a physical change in the use or appearance of land into parcels, or to create or terminate rights of access excepting normal agricultural or forest management activities. This strategy recognizes the important distinction between resource management and the conversion of land to more intensive uses.*

13. Coos County shall require all owners of forest land requesting a single family dwelling to acknowledge and file in the deed records of Coos County, a Forest Management Easement prior to any final County approval for a dwelling.

**Findings:** The proposed rezone to FMU may permit one residential use of Subject Property. The Applicant will comply with all requirements of Coos County at the time of any proposed development. This application is for the rezone to FMU so that the Template Dwelling can be permitted.

Coos County has strategies and requirements in place to both maximize the use of the land and protect the resource when there are alterations to the configuration, development or classification of lands that come about due to amendments in zoning from EFU to FMU. Such language is provided in the Comprehensive Plan excerpts cited above, and also in Section 4.6.100 Forest and Forest Mixed Use Tables within the CCZLDO. Table 1 identifies the uses and activities in the Forest (F) and Forest/Mixed Use (FMU) zone. The tables describe the use, type of review, applicable review standards. Development shall also comply with Section 4.6.140 Development and Siting Standards.

All dwellings and structures are subject to the siting standards found in Section 4.6.130. The amendment to FMU will help support individual management decisions for Subject Property. The amendment will hopefully permit one dwelling on property that is in need of both agricultural and small woodlot attention. Any single-family dwelling that is permitted through a Template Dwelling permit will be subject to all of the Planned Implementation Strategies addressed in the findings herein.

#### **Statewide Planning Goal #4 Forest Lands; OAR 660-006-0005**

For the purpose of this division, the following definitions apply:

*(1) Definitions contained in ORS 197.015 and the Statewide Planning Goals.*

*(2) "Commercial Tree Species" means trees recognized for commercial production under rules adopted by the State Board of Forestry pursuant to ORS 527.715.*

*(3) "Cubic Foot Per Acre" means the average annual increase in cubic foot volume of wood fiber per acre for fully stocked stands at the culmination of mean annual increment as reported by the USDA Natural Resource Conservation Service (NRCS) soil survey.*

*(4) "Cubic Foot Per Tract Per Year" means the average annual increase in cubic foot volume of wood fiber per tract for fully stocked stands at the culmination of mean annual increment as reported by the USDA Natural Resource Conservation Service (NRCS) soil survey.*

**Findings:** The definitions of Cubic Foot Per Acre and Cubic Foot Per Tract Per Year are pertinent in that the proposed amendment is dependent upon exhibiting that Subject

Property is appropriate to be amended from an EFU to the FMU zone. Analysis above has shown that the stand-alone EFU zoning is not a requirement because of the soil classes and the hydric soils that prevent crops along with the configuration of the narrow strips of land the road. The analysis of Subject Property for Forest use will determine if the FMU zoning could be more appropriate for better utilization of Subject Property.

***Statewide Planning Goal #4: OAR 660-006-0010 Identifying Forest Land***

*(1) Governing bodies shall identify “forest lands” as defined by Goal 4 in the comprehensive plan. Lands inventoried as Goal 3 agricultural lands, lands for which an exception to Goal 4 is justified pursuant to ORS 197.732 and taken, and lands inside urban growth boundaries are not required to be planned and zoned as forest lands.*

*(2) Where a plan amendment is proposed:*

*(a) Lands suitable for commercial forest uses shall be identified using a mapping of average annual wood production capability by cubic foot per acre (cf/ac) as reported by the USDA Natural Resources Conservation Service. Where NRCS data are not available or are shown to be inaccurate, other site productivity data may be used to identify forest land, in the following order of priority:*

*(b) Where data of comparable quality under paragraphs (2)(a)(A) through (C) are not available or are shown to be inaccurate, an alternative method for determining productivity may be used as described in the Oregon Department of Forestry’s Technical Bulletin entitled “Land Use Planning Notes, Number 3 April 1998, Updated for Clarity April 2010.”*

**Findings:** Forestry productivity topics including cubic feet per Acre per year and Tree Site index utilized in the following NRCS analysis information are pertinent to identifying forest land as described in Statewide Planning Goal #4, OAR 660-006-0010 quoted directly above above.

The following NRCS excerpts and ratings are applicable to Subject Property. Further explanations of Forest productivity identification provided in the NRCS discussion are provided within Coos County Comprehensive Plan excerpts in additional section of this document. This document continues to explain Cubic Feet per Acre per Year and Tree Site Index for Douglas Fir. Incense Cedar is also included within some explanations as a component that is present along with Douglas Fir.

**NRCS Forest Analysis**

1. NRCS Map – Forest Productivity (**Cubic Feet per Acre per Year**): Douglas-fir (King 1966 (795)
  - Soils shown with a designation of 58F (in red) on page 66 of the NRCS report are described as less having productivity of less than 72 Cubic Feet per Acre per year on page 67. This is for Douglas Fir as described above.

- Soils shown with a designation of 24 are not rated/not available as described on page 67. Soils that are not rated/not available can be subject to other sources to determine if productivity information is available. The print NRCS Report provides all of the information about the soil that is necessary with descriptions of rock outcroppings, steep landslide slopes and more, Attachment J.
- Soil 46D is only .2% of Subject Property located in a corner, and the designation is not visible by color. This does not equal the 85 cubic feet of wood fiber acre per year.

2. Forest Productivity (**Tree Site Index**): Douglas-fir (King 1966 (795))

ORS 215.750 describes forest land for the Template Dwelling test as having to do with 0-49 cubic feet per acre per year. This property has 72 cubic feet per acre per year in one soils designation, which is 58F.

NRCS Description: ”

*“The site index” is the average height, in feet, that dominant and codominant trees of a given species attain in a specified number of years. The site index applies to fully stocked, even-aged, unmanaged stands. This attribute is actually recorded as three separate values in the database. A low value and a high value indicate the range of this attribute for the soil component. A “representative” value indicates the expected value of this attribute for the component. For this attribute, only the representative value is used.*

3. NRCS Map – Forest Productivity (**Tree Site Index**): Douglas-fir (King 1966 (795))

- The tree site index of designation 58F (in red) on page 69 of the NRCS Report is described as less than 64.
- Soils shown with a designation of 24 are not rated/not available as described on page 67. Soils that are not rated/not available are subject to other sources to determine if productivity information is available.
- Soil 46D is only .2% of Subject Property located in a corner, and the designation is not visible by color, although the Table below shows that this tiny area has the highest tree site index rating.

<b>Table: Forest Productivity (Tree Site Index) Douglas-fir (King 1966 (795))</b>			
<b>Map unit symbol</b>	<b>Map unit name</b>	<b>Rating (feet)</b>	<b>Acres and % of Subject Property</b>
24	Gardiner sandy loam	None	5 acres; 17%
46D	Preacher-Bohannon loams, 3-30% slopes	126	.2%
58F	Umpecoos-Rock outcrop association 70 to 99 percent slopes	64	24.3 acres; 82.9%
<b>Total for Subject Property: 29.4 acres</b>			

**Findings:** The Applicant has provided information showing specific adjacent properties and ownerships. Coos County Zoning confirms that properties to the west are zoned Forest. This is shown in Attachments E and H.

Descriptions in the Soil Survey Report of Coos County describe Umpcoos-Rock outcrop association with slopes of 70 to 99 percent in the Soil. Douglas Fir is the commercial forestry use cited in the Forest Productivity (Cubic Feet per Acre per year) and the Forest Productivity (Tree Site Index) provided above as organized by the NRCS. The description states, "This unit is used for timber production and wildlife habitat." The descriptions go on to indicate limitations with timber production. See NRCS Excerpt Attachment J.

Both forest uses and EFU zoning are prevalent within the area. In addition, there are a number of lots zoned for 5-acre residential along Fairview Road within the vicinity as shown on the Assessor's Map, Attachment C.

The NRCS analysis justifies a change to FMU due to the resource information provided that is specific to Subject Property. The property is suited to the FMU combination resource zone. It is adjacent to larger forest properties and also to EFU lands. There are larger holdings and smaller lots adjacent to subject property. Subject property contains lands that are marginal in terms of both agriculture and forestry due to steep topography, low forest productivity and hydric soils. Subject Property is in the vicinity of other lands along the road that have been zoned for rural residential use.

## **Volume 1, Part 2: Inventories**

### **3.2 Forest Lands**

#### **3.2 FOREST LANDS 1. Legislative Framework**

##### *COMMENTARY*

- 1) *Mapping of site classes. The State Land Conservation and Development Commission has clarified the requirement of the Goal on mapping of site classes. It requires mapping according to "cubic foot site class," a measure of the potential forest productivity of the land.*

*Where cubic foot site class mapping is not directly available, it can be derived by conversion of other readily available mapping showing other types of site classification, e.g., the State Department of Revenue system. The State Department of Forestry has provided a convenient conversion table which is shown in Table 2.*

- 2) *Definition of forest lands. This definition encompasses not only existing and potential commercial forest lands but also non-commercial forest land supporting forest uses other than timber production, non-forest lands which require protection due to their fragility and forested lands in urban and agricultural areas. "Commercial forest land" is not defined in the Goal.*

**Findings:** Volume 1, Part 2 of the Coos County Comprehensive Plan provides the Forest Land Inventory information with Forest Productivity Measures that are included within the NRCS analysis in this document. The Inventory information from Comprehensive Plan shows various site index scales for height at 100 years, potential yields with cubic feet per acre per year, and classification systems. The forest productivity rating for Douglas Fir, the dominant species is on the lower end of the scale in approximately 80% of the soils, not rated in 17% of the soils, and mid range in .2% of the soils where a forest rating is available. See Attachment K, Table 2, Classification Systems for Douglas Fir, from Section 2.1 Forest Productivity Measures.

The Coos County Comprehensive Plan uses Douglas Fir as the basis for productivity because it is the dominant species. This section of the Plan states:

*2.3 There are several types of forest land in Coos County, ranging from that intensively managed for timber production, to and used for both timber and grazing/agriculture, to smaller forest ownerships in areas experiencing pressure from development. The categories may generally be described in terms of their use and ownership characteristics as well as other influencing factors such as topography and access.*

*Particularly on the hill ranches of the southern half of the County the land is characterized by a fluctuation in use between timber production and grazing. This includes both the practice of grazing livestock in wooded areas and conversion of timber land to grazing land after the timber is harvested. This type of use of forest land has been important to the County throughout its history.*

### *5.1 Proposed Forest Zone*

*There are basically two different types of forest areas in Coos County. These are (i) prime forest areas, and (ii) mixed farm-forest areas. Certain non-farm uses not allowed in the former may be allowed as conditional uses in the latter. The two types of forest land are described in greater detail, as follows:*

- (i) "Prime Forest Area". These areas or parcels are typically large contiguous blocks of undeveloped land which are managed exclusively for timber production with some ancillary forest uses. Intensive forest management is practiced within this classification. A parcel or area subject to this classification will be preserved primarily for forest uses.*
- (ii) "Mixed Farm-Forest Area". These areas include land which is currently or potentially in farm-forest use. Typically such lands are those with soil, aspect, topographic features and present ground cover that are best suited to a combination of forest and grazing uses. The areas generally occupy land on the periphery of large corporate and agency holdings and tend to form a buffer between more remote uplands and populated valleys. In addition, these "mixed use" areas contain ownerships of smaller size than in prime forest areas. Some*

*are generally marginal in terms of forest productivity, such as areas close to the ocean.*

*In certain areas of the County, these "mixed use" areas consist of extensive uplands where the lands are held predominantly by ranchers who manage their properties interchangeably between grazing and forestry depending on the economic base of each commodity at any given time. An essential management approach practiced by these ranchers is to maintain enough upland grazing acreage to sustain livestock during the winter months due to the flooding of lowland areas. Some intensive forest management is practiced on these lands, but not to the same extent as in "prime forest areas", and grazing is in many places a co-dominant use. There are typically a mixture of farm and forest uses in these areas. Certain non-forest uses will be allowed in areas that meet the criteria classification as established in the zoning ordinance. The mixed use areas are of this identified at a scale of 1" = 2 miles on the "Mixed Agricultural-Forest Use Areas" Comprehensive Plan inventory map. A change in the boundary of the "mixed use" inventory map will require a comprehensive plan amendment. Criteria used to designate these areas are as follows:*

- 1) Mixed use areas are those areas with soil, aspect, topographic features and present ground cover that are best suited to a combination of forest and agricultural uses.*
- 2) Mixed use areas are those areas generally managed to maintain enough upland acreage to sustain livestock during the winter months due to flooding of lowland areas.*
- 3) Mixed use areas are those areas predominantly co-managed for both farm and forest uses.*

**Findings:** Volume 1, Part 2 of the Coos County Comprehensive Plan describes land including Subject Property; the text states that this land has been important to Coos County throughout its history. It is entirely appropriate to rezone and utilize Subject Property for FMU as described in all of sections of the Comprehensive Plan and CCZLDO language addressed within this document; the purpose of the FMU zone is to accommodate management and use of property such as Subject Property.

Section 5.1 describes mixed use areas, which are consistent with the NRCS findings within this document. The descriptions directly above this set of Findings, describes, "Mixed use areas as those with soil, aspect, topographic features and present ground cover that are best suited to a combination of forest and agricultural uses." The description of maintaining upland acreage to sustain livestock during winter months and flooding of lowland areas is consistent with the findings of the NRCS analysis. Co-management for both farm and forest is appropriate as the descriptions in the Comprehensive Plan anticipate and describe the use zoning and use that is proposed.

## Statewide Planning Goals and Coos County Comprehensive Plan

**Goal 1: Citizen Involvement: To develop a citizen involvement program that insures the opportunity for citizens to be involved in all phases of the planning process.**

**Findings:** Coos County details its process for citizen involvement and balancing goals within Volume 1, Part 1 of the Comprehensive Plan. Section 1.3 provides Historical Perspective. The plan states:

*Since that time, many hundreds of dedicated citizens have contributed thousands of hours towards accomplishing the product represented in part by this plan.*

The plan itself provides many pages of step-by-step background information describing the citizen involvement that went into developing the Comprehensive Plan and implementing ordinances. The Plan provides for uses including rural residential and resource-based uses. Citizen-proposed land use alternatives were considered and incorporated to select the alternative that best addressed citizen involvement. Through this process, problems and planning issues were raised, and local goals and plan implementation strategies were organized to comply with the Statewide Planning Goals and local needs and wants. Specific Plan Implementation strategies are addressed within this section in support of the application for the Comprehensive Plan Amendment and rezone of Subject Property.

The Coos County Planning Commission serves as an ongoing citizen involvement committee for Coos County; Coos County incorporates citizen advisory groups when working on amendments to the planning codes. The Planning Commission takes the cumulative effects of any potential zone change and impacts on the community into consideration. The Planning Commission is familiar with Coos County, having members from throughout the County. The Planning Commission is interested in citizen comments, taking time to understand all that is being presented. To ensure that the community's voice is heard, the Planning Commission and the Coos County Board of Commissioners, an elected body familiar with the needs of citizens and with the properties in Coos County, act upon all rezones. Each of these bodies will hold a public hearing as part of the process for this rezone and Comprehensive Plan redesignation application.

The Applicant is providing detailed information from recognized sources that are the criteria included in Oregon and Coos County law for information when decisions about this application are being made. This application and the exhibits are available to the public. This application complies with Goal 1.

**Goal 2: Land Use Planning: Part 1 Planning**  
**To establish a land use planning process and policy framework as a basis for all decision and actions related to use of land and to assure an adequate factual base for such decisions and actions.**

***Coos County Comprehensive Plan, Volume 1, Part 1***  
**PLAN IMPLEMENTATION STRATEGIES**

3. *Coos County shall:*



*b. amend its plan and implementing ordinance when studies are completed which affect land use planning in Coos County; and*

*c. base the review upon re-examination of data, problems and issues;*

**Findings:** Agricultural Land Strategy is provided within this document, along with findings pertinent to this application. Coos County has completed inventories and organized plans and ordinances that are acknowledged by DLCD. Coos County shows within their planning processes and background information that they understand the balance that is required when designating and redesignating properties to different zones. Coos County bases their decisions upon facts and findings, and maintains policies that are consistent with Oregon law. This was all part of the early process that went into organizing the acknowledged Coos County Comprehensive Plan, and the process continues today. In preparing this application, the Applicant utilized reputable sources that are part of Oregon's planning process and criteria to carry out the analysis and make findings.

This application has been organized to comply with Goal 2. Coos County has provided language with standards for amending the Comprehensive Plan and zone maps. Coos County and the State of Oregon have recognized that such redesignations will be part of an ongoing process to keep the plans current to meet the needs of the citizens and contribute to the economy.

**Goal 3: Agricultural Lands: to preserve and maintain agricultural lands.**

**Findings:** The *Coos County Comprehensive Plan Volume 1, Part 1, Plan Provisions* provides the following goals and strategies, which are in compliance with Statewide Planning Goal 3:

***Coos County Comprehensive Plan Volume 1, Part 1***  
**5.3 AGRICULTURAL LANDS**

**GOAL:** *Coos County shall preserve and maintain agricultural lands for farm uses "consistent with existing and future needs for agricultural products, forest, and open space, . . . except where legitimate needs for nonfarm uses are justified.*

**PLAN IMPLEMENTATION STRATEGIES**

*1. Coos County shall conserve those resources designated as "agricultural lands" on the Comprehensive Plan map by regulating uses and activities in such areas through requirements stipulated in the following Exclusive Farm Use (EFU) zone. The delineation of these zones shall be generally consistent with the locational criteria developed on the Agricultural Lands Inventory and Assessment. Land Divisions shall comply with criteria set forth in the Coos County Zoning and Land Development Ordinance. Implementation of this strategy shall be based on application of the statutory provisions governing uses in EFU zones.*

*This strategy recognizes:*

- c. *The provisions of ORS 215.215, which permit this strategy, and*
- d. *The benefits of enabling uses on property rezoned in this manner to be considered conforming uses rather than non-conforming uses.*

**Findings:** Analysis within this document shows compliance with the criteria established by applicable Oregon laws, Oregon’s Statewide Planning Goals, and the Coos County Zoning and Land Development Ordinance. Agricultural lands will be redesignated on the zoning and Comprehensive Plan Map to FMU land status based upon the criteria that is established by the State of Oregon.

Where it is determined that EFU-zoned land can be organized as mixed farm and forest use, application of both the farm and forest Statewide Planning Goals are applied.

The Coos County Comprehensive Plan Volume 1, Part 1 has a 1985 adoption date by the list of County Commissioners. Adjacent properties contain all of the aspects that were in existence at the time of acknowledgment of the Coos County Comprehensive Plan for properties along Fairview Road including rural residential, farm and forest zoning and uses. Both farm and forest are directly adjacent to Subject Property on different sides of Subject Property as described within this document.

It is appropriate to apply the proposed FMU zoning to protect both farm and forest uses that exist on Subject Property and adjacent properties, while providing for on-site management of the Applicant’s property. This strategy has been outlined in the Coos County Comprehensive Plan. Subject Property can best be utilized for small agricultural uses with on-site attention rather than corporate or commercial farming. This is consistent with the Applicant’s Coos County Comprehensive Plan Inventory analysis. Approval of this application will comply with Goal 3.

**Goal 4: Forest Lands: To conserve forest lands by maintaining the forest land base and to protect the state’s forest economy by making possible economically efficient forest practices that assure the continuous growing and harvesting of forest tree species as the leading use on forest land consistent with sound management of soil, air, water, and fish and wildlife resources and to provide for recreational opportunities and agriculture.**

**Findings:** The *Coos County Comprehensive Plan Volume 1, Part 1, Plan Provisions* provide the following goals and strategies in compliance with Statewide Planning Goal 4:

***Coos County Comprehensive Plan, Volume 1, Part 1***  
**5.4 FOREST LANDS**

***GOAL: Coos County shall conserve forestlands\* by retaining them for the production of wood fiber and other forest uses,\* except where legitimate needs for non-forest uses are justified. [\*Forestlands and forest uses are defined in the Forest Lands Inventory and Assessment.]***

***PLAN IMPLEMENTATION STRATEGIES***

*1. Coos County shall conserve those resources designated as "Forest Lands" on the comprehensive plan map by regulating uses and activities in such areas through requirements stipulated in the Forestry zone ("F").*

*The delineation of this zone shall be generally consistent with the locational criteria developed in the Forest Lands Inventory and Assessment. Land divisions shall comply with criteria set forth in the Coos County Zoning and Land Development Ordinance.*

*This strategy recognizes that Coos County's forestlands are an extremely valuable resource, and that the above-referenced zones are (1) necessary and reasonable to respond to the varying situational characteristics addressed in the inventory, and (2) adequate to conserve the County's forest lands for forest uses.*

**Findings:** The NRCS forestry analysis concludes that Subject Property has some forest value. Rezoning Subject Property to a resource zone that recognizes the forest value for small woodlot forestry is appropriate where a portion of the tract could be managed for small agriculture and rural living, when a Template Dwelling is approved. The analysis within this document provides all of the analysis and findings.

*2. Coos County shall ensure that new rural residential dwellings are compatible with adjacent forest and agricultural management practices and production.*

**Findings:** Plan implementation strategies under CCZLDO, 5.4 Forest Lands are addressed within this document. Policies to protect Coos County forestlands with signed statements and practices will be addressed and required by Coos County prior to a residential development receiving planning clearance when appropriate.

**Goal 5: Open Spaces, Scenic and Historic Areas, and Natural Resources - To conserve open space and protect scenic resources.**

**Programs shall be provided that will:**

- 1) *insure open space,*
- 2) *protect scenic and historic areas and natural resources for future generations, and*
- 3) *promote healthy and visually attractive environments in harmony with the natural landscape character.*

**Coos County Comprehensive Plan, Volume 1, Part 1**  
**5.6 FISH AND WILDLIFE HABITATS**

**GOAL:** *Coos County shall value its identified significant fish and wildlife habitat and shall strive to protect them where practicable.*

**PLAN IMPLEMENTATION STRATEGY**

1. Coos County shall consider as “5c” Goal #5 resources (pursuant to OAR 660-16-000) the following”

- “Sensitive and peripheral Big-game Range” (ORD 85-080010L)
- Bird Habitat Sites (listed in the following table)
- Salmonid Spawning and Rearing Areas

2. Coos County shall manage its riparian vegetation and identified non-agricultural areas so as to preserve their significant habitat value, as well as to protect their hydrological and water quality benefits (ORD 85-08-010L). This strategy does not apply to forest management actions, which are regulated by the Forest Practices Act.

This strategy recognizes that protection of riparian vegetation and other wetland areas is essential to preserve the following qualities deriving from these areas:

<b>Natural Flood Control</b> Flow stabilization of streams and rivers	<b>Environmental diversity</b> Habitat for fish and wildlife, including fish and wildlife of economic concern
<b>Reduction of sedimentation</b>	<b>Recreational opportunities</b>
<b>Improved water quality</b>	<b>Recharge of aquifers</b>

4. Coos County shall protect for agricultural purposes those land areas currently in agricultural use but defined as “Wet meadow” wetland areas by the U.S. Fish and Wildlife Service, and also cranberry bogs associated sumps and other artificial water bodies.

Coos County shall also consider as Goal #5 “5c” resources the following bird habitat areas.

The policy shall be implemented by:

c. (ORD 85.08.010L) Use of the “Special Considerations Map” to identify (by reference to the detail inventory map) salmonid spawning and rearing areas subject to special riparian vegetation protection; and sensitive and peripheral big game range.

6. Coos County shall consider the following to be (“5b) resources pursuant to the inventory information available in this Plan and OAR 660-16-000(5)(b):

- Osprey Nesting Sites
- Snowy Plover Habitat (outside the CBEMP)
- Spotted Owl Nesting sites.

**Findings:** Goal 5: Natural Resources, Scenic and Historic Areas, and Open Spaces includes the following language:

To protect natural resources and conserve scenic and historic areas and open spaces.

The following resources shall be inventoried:

- a. Riparian corridors, including water and riparian areas and fish habitat;
- b. Wetlands;
- c. Wildlife Habitat;
- d. Federal Wild and Scenic Rivers;
- e. State Scenic Waterways;

- f. Groundwater Resources;*
- g. Approved Oregon Recreation Trails;*
- h. Natural Areas;*
- i. Wilderness Areas;*
- j. Mineral and Aggregate Resources;*
- k. Energy sources;*
- l. Cultural areas.*

*Local governments and state agencies are encouraged to maintain current inventories of the following resources:*

- a. Historic Resources;*
- b. Open Space;*
- c. Scenic Views and Sites.*

**Findings:** No fish and wildlife habitat or “Sensitive and peripheral Big-game Range are relevant to this zone change from one resource zone to another. The Coos County Comprehensive Plan’s “Special Considerations Map” should be consulted for any development on Subject Property. Subject Property does include a stream in the southwestern corner of Tax Lot 1500. Riparian setbacks will be pertinent at the time of development on the property to organize the proposed dwelling. The chart referenced as (“listed in the following table”) above refers to Bald Eagle nests, Great Blue Heron colonies and Band-Tailed Pigeon Mineral Springs sites, and lists the Township, Range, Section and area of Coos County where the habitat sites are found. There is no site listed within Township T26S, R11W, Section 28, Tax Lot 501 or T26S, R11W, Section 29, Tax Lot 1500.

The Coos County Planning Department has no identification of Osprey nesting sites, Snowy Plover Habitat or Spotted Owl nesting sites on Subject Property.

Coos County has protected Goal 5 resources of scenic, historic and open space value within its Comprehensive Plan. The language included within Section 5.6 Plan Implementation Strategy addresses wildlife habitat and Sensitive and peripheral big-game range, bird habitat and salmonid spawning and rearing areas. There are no federal wild and scenic rivers, state scenic waterways, groundwater resources, approved Oregon recreation trails, natural areas, wilderness areas, mineral and aggregate resources, or energy sources within Subject Property. Coos County relies upon the Special Considerations Map with overlays to identify specific Goal 5 resources where Exhibits have already been provided in this document.

Farm and Forest use is addressed throughout this document. Any structures placed on future properties will be subject to the flood ordinance if floodplain is identified of concern. Wetlands may encroach Map Unit 24 which has identified wetness as a concern. A search of the Statewide Wetlands Inventory shows that any wetlands can easily be avoided and required setbacks can be enforced at the time of any development on the property. Coos County Planning notifies the Oregon Department of State Lands (DSL) and assures that required riparian setbacks of 50 feet are in place. See Attachment L, wetland map showing Subject Property.

The rezoning and Comprehensive Plan map amendments proposed for Subject Property will not preclude future identification and protection of specific resources that are applicable at the time of the siting of any dwelling or other structures on Subject Property. The rezoning and Comprehensive Plan map amendments proposed for Subject Property will not preclude specific considerations for protection of specific resources that are applicable at the time of the siting of any dwelling or other structures on Subject Property.

***Coos County Comprehensive Plan, Volume 1, Part 1***

***5.7 HISTORICAL, CULTURAL AND ARCHAEOLOGICAL RESOURCES, NATURAL AREAS AND WILDERNESS***

***PLAN IMPLEMENTATION STRATEGIES***

*1. Coos County shall manage its historical, cultural and archaeological areas, sites, structures and objects so as to preserve their original resource value.*

*This strategy recognizes that preservation of significant historical, cultural and archaeological resources is necessary to sustain the County's cultural heritage.*

*2. Coos County shall permit the expansion, enlargement or other modification of identified historical structures or sites provided that such expansion, enlargement or other modification is consistent with the original historical character of the structure or site.*

*3. Coos County shall continue to refrain from widespread dissemination [sic] site specific inventory information concerning identified archaeological sites. Rather, Coos County shall manage development in these areas so as to preserve their value as archaeological resources.*

*This strategy shall be implemented by requiring development proposals to be accompanied by documentation that the proposed project would not adversely impact the historical, cultural and archaeological values of the project's site. "Sufficient document" shall be a letter from a qualified archaeologist/historian and/or duly authorized representative of a local Indian tribe(s). . . . "Appropriate measures" are deemed to be those which do not compromise the integrity of remains, such as (1) paving over the sites, (2) incorporating cluster-type housing design to avoid the sensitive areas, or (3) contracting with a qualified archaeologist to remove and re-inter the cultural remains or burial(s) at the developer's expense. If an archaeological site is encountered in the process of development, which previously had been unknown to exist, then these three appropriate measures shall still apply. Land development activities found to violate the intent of this strategy shall be subject to penalties prescribed by ORS 97.745.<sup>4</sup>*

<sup>4</sup>Coos Bay Plan.

**Findings:** Goal 5 requires protection of "Natural Resources, Scenic and Historic Areas, and Open Spaces." The Coos County Comprehensive policies and strategies have been organized to comply with Goal 5. Goal 5 resources identified on Subject Property include archaeological sites and wetlands. Archaeological sites will be handled by the Planning Director consistent with the policies set forth in section 5.7 ***HISTORICAL, CULTURAL AND ARCHAEOLOGICAL RESOURCES, NATURAL AREAS AND WILDERNESS***, included as part of this analysis.

Goal 5 resources including possible wetlands in narrow sections along Fairview (National Wetlands Inventory) are not specific as to their location at this time. The rezoning and Comprehensive Plan map amendments proposed for Subject Property will not preclude future identification and protection of specific resources that are applicable at the time of the siting of any dwelling or other structures on Subject Property. Wetland areas may be identified when site development is planned whereas the Department of State Lands map shows wetlands close to some property lines. The Oregon Department of State Lands will review the proposals and respond to Coos County regarding any need for setbacks from wetlands, and Coos County will require compliance with any riparian requirements. The application complies with Goal 5.

***Goal 6: Air, Water, and Land Resources Quality: to maintain and improve the quality of the air, water, and land resources of the state.***

**Findings:** Subject Property will maintain soil, air and water quality. The proposed amendments will not have any negative effect on air, water, and land resources for a number of reasons that have already been addressed within this document. The Applicant understands that DEQ requirements for sewage disposal are necessary for any residential use.

***Goal 7: Areas Subject to Natural Disasters and Hazards: To protect life and property from natural disasters and hazards.***

**Findings:** Landslide areas have been identified in the Soils Survey for Map Unit Symbol 58F where there is rough terrain. Landslide areas are not identified on the Special Considerations map as being subject to Coos County Natural Hazard policies. No dwelling is proposed for landslide areas. The application complies with Goal 7.

***Goal 8: Recreational Needs: To satisfy the recreational needs of the citizens of the state and visitors and, where appropriate, to provide for the siting of necessary recreational facilities including destination resorts.***

**Findings:** This goal is not applicable to this application as the Subject Property is not proposed for recreational purposes. Coos County's Laverne Park is in close proximity, adding to the appeal of Subject Property. The application complies with Goal 8.

***Goal 9: Economic Development: To provide adequate opportunities throughout the state for a variety of economic activities vital to the health, welfare and prosperity of Oregon's citizens.***

**Findings:** The Economic goals of Coos County that have been acknowledged by the State of Oregon to comply with Goal 9. Rural homesites are desired, and on-site management of potential farm and forest use on Subject Property will be needed for the property for all of the reasons addressed within the findings in this document. Subject Property can contribute a homesite where one existed in the past. The application complies with Goal 9.

***Goal 10: Housing: To provide the housing needs of the citizens of the state.***

*B. Implementation*

*1. Plans should provide for a continuing review of housing need projections and should establish a process for accommodating needed revisions.*

**Coos County Comprehensive Plan Volume 1, Part 1**

**5.17 HOUSING**

**PLAN IMPLEMENTATION STRATEGIES**

- 1. Coos County shall provide zoning for adequate buildable lands and shall encourage the availability of adequate numbers of housing units for future housing needs at price ranges and rent levels, which are commensurate with the financial capabilities of Coos County households.*
- 2. Coos County shall encourage the availability of a wide variety of housing locations in urban and rural areas. For urban and urbanizable areas, this strategy shall be implemented through urban growth management agreements and appropriate coordinated land use designations. For rural areas this strategy shall be implemented through appropriate land use designations for acreage homesites as selected and justified in the County's rural housing exception.*
- 3. Coos County shall structure its implementing zoning ordinance such that it: (1) permits mobile homes, (2) permits mobile homes and clustering of dwellings under a Planned Unit Development concept in most residential zones, (3) permits multiple family dwellings in selected locations within urban growth boundaries (UGB's), and (4) permits multiple family dwellings outside UGB's when part of a Recreation Planned Unit [sic] development. This strategy recognizes that such flexibility of housing type provides greater choice and enhanced ability to meet the housing needs of the citizens of Coos County.*

**Findings:** In compliance with the criteria of applicable Oregon laws, Oregon's Statewide Planning Goals, and the CCZLDO, Subject Property is proposed for FMU zoning so that it may be possible to incorporate a homesite where one previously existed. The applicability of the Statewide Planning Goals for farm and forest land as provided within the strategies of the Coos County Comprehensive Plan and Oregon laws provide a basis for reevaluating lands that have been zoned for farm and forest use to determine whether mixed resource use is appropriate. That process has been the subject of this application, and the Applicants have been diligent in utilizing all of the applicable laws.

The need for housing is recognized at all levels within the State of Oregon. Statewide Planning Goal 10 addresses housing, and the Coos County Comprehensive Plan, Volume 1, Part 1 includes strategies for housing that are acknowledged to be in compliance with the Statewide Planning Goals.

Subject property can contribute to the needs of Coos County with the data and analysis that



supports FMU zoning. Subject Property is not contributing to the economy under the current scenario. Resource zoning was applied broadly in the development of the Comprehensive Plan. This application provides more detailed analysis of the specific Subject Property to remove the broad designation that has rendered Subject Property with no contributing use or on-site management. The application complies with Goal 10.

***Goal 11: Public Facilities and Services: To plan and develop timely, orderly, and efficient arrangement of public facilities and services that serve as a framework for urban and rural development.***

**Findings:** Subject property is within the Coquille School District and the Fairview Volunteer Fire Department area of oversight. Subject Property is served by Coos Curry Electric Cooperative. Public facilities and services envisioned in urban or urbanized locations are not available. Wells will provide water, and septic tanks will provide sewage disposal. Goal 11 language is not all applicable; the application is not in conflict with Goal 11.

***Goal 12: Transportation: To provide and encourage a safe, convenient and economic transportation system.***

**Findings:** The Coos County Transportation Systems Plan (CCTSP), March 11, 2011, Table 3-2 , Major Collectors in Coos County includes Fairview Road with Minor/Major Collector (depending upon the location). Subject Property has direct access to Fairview Road.

Article 5.1 of the CCZLDO, Chapter VII provides requirements for Rezones in Chapter VII, Transportation Access and Parking. Findings have been presented within this document. The Applicant will comply with the requirements of the Coos County Transportation Systems Plan. Goal 12 is always applicable; the application, which may permit one dwelling unit has an existing access that will need upgrades at the time of development. The rezone to FMU is not in conflict with Goal 12. The requirements of the TSP are addressed within this document; the Applicant will comply with the requirements of Chapter VII which incorporates the requirements of the TSP. The application complies with Goal 12.

***Goal 13: Energy Conservation: Land and uses developed on the land shall be managed and controlled so as to maximize the conservation of all forms of energy, based upon sound economic principles.***

***B. Implementation***

***1. Land use plans should be based on utilization of the following techniques and implementation devices which can have a material impact on energy efficiency.***

***d. Availability of light, wind and air;***

***e. Compatibility of and competition between competing land use activities.***

**Findings:** Subject Property is within a rural setting with competing rural land use activities including forestry, farming, rural residential, and recreational use. The proposal to change the EFU zoning to FMU is compatible with what already exists, and what has existed in the past,

where one dwelling existed on the tract within Tax Lot 501. Any rural residential use that is permitted through a Template Dwelling will utilize an existing County Road, Fairview Road.

Subject Property provides availability of light, wind and air with the location of the property. This application for a rezone has required the Applicant to assure compatibility between competing land use activities as part of the application. Negative effects on farm and forest uses are to be avoided. Findings are included within this document. This application is consistent with the energy conservation goal of Goal 13.

***Goal 14: Urbanization: To provide for an orderly and efficient transition from rural to urban land use.***

**Findings:** Goal 14 has to do with the layout of cities, and the location of areas for future growth. Goal 14 does not apply.

***Goal 15: Willamette River Greenway: To protect, conserve, enhance, and maintain the natural, scenic, historical, agricultural, economic, and recreational qualities of lands along the Willamette River as the Willamette River Greenway.***

**Findings:** The Willamette River Greenway goal is not applicable to this application. Goal 15 does not apply.

***Goal 16: Estuarine Resources: to recognize and protect the unique environmental, economic, and social values of each estuary and associated wetlands; and to protect, maintain, where appropriate develop, and where appropriate restore the long-term environmental, economic, and social values, diversity and benefits of Oregon's estuaries.***

**Findings:** Goal 16 is not applicable to this application for proposed amendments.

***Goal 17: Coastal Shorelands: To conserve, protect, where appropriate, develop and where appropriate restore the resources and benefits of all coastal shorelands, recognizing their value for protection and maintenance of water quality, fish and wildlife habitat, water-dependent uses, economic resources and recreation and aesthetics. The management of these shoreland areas shall be compatible with the characteristics of the adjacent coastal waters; and to reduce the hazard to human life and property, and the adverse effects upon water quality and fish and wildlife habitat, resulting from the use and enjoyment of Oregon's coastal shorelands.***

**Findings:** Subject Property is not within the Coastal Shorelands. Goal 17 is not applicable.

***Goal 18: Beaches and Dunes: To conserve, protect, where appropriate develop, and where appropriate restore the resources and benefits of coastal beach and dune areas; and to reduce the hazard to human life and property from natural or human-caused induced actions associated with these areas.***

**Findings:** Goal 18 applies only where beaches and dunes are in close proximity. Goal 18 does not apply to Subject Property.

**Goal 19: Ocean Resources: To conserve marine resources and ecological functions for the purpose of providing long-term ecological, economic, and social value and benefits to future generations.**

**Findings:** Coos County is blessed with ocean resources, marine resources and social values accrue from those resources. Goal 19 does not apply to this application.

### ***Coos County Zoning and Land Development Ordinance***

#### **ARTICLE 5.1 PLAN AMENDMENTS AND REZONES**

*The Hearings Body shall, after a public hearing on any rezone application, either:*

1. *Recommend the Board of Commissioners approve the rezoning, only if on the basis of the initiation or application, investigation and evidence submitted, all the following criteria are found to exist:*
  - a. *The rezoning will conform with the Comprehensive Plan or Section 5.1.215; and*

**Findings:** SECTION 5.1.215 ZONING FOR APPROPRIATE NON-FARM USE

States that Coos County may zone for the appropriate non-farm use of one or more lots or parcels in the interior of an exclusive farm use zone if the lots or parcels were physically developed for the non-farm use prior to the establishment of the exclusive farm use zone. SECTION 5.1.215 addresses the interior of an exclusive farm use zone where there are physically developed uses.

Subject Property is adjacent to EFU lands on the south and east sides, but not in the interior of EFU lands. Fairview Road serves as the south and east property line of Subject Property. Farm buildings and residences across the road are also adjacent to the road on the north side of their property, which constitutes the dividing line between the properties. The aerial map, Attachment D, shows the configurations. Subject Property has no existing residential physical development. There is a shed, and a yurt with no foundation. A letter describing the status of the yurt is attached to the Template Dwelling Application. There was previously a dwelling with other buildings on Subject Property, which were part of a farming operation. This previous configuration shows up on the black and white zoning map that is included as the second page of Attachment E and on the Cover of the NRCS Custom Soil Report for Coos County, Attachment F.

This proposal is to rezone from zoning designation, EFU. The proposed zoning will include mixed farm and forest use. The proposed rezone is to continue with zoning that includes resource designations. The rezoning will conform to the Comprehensive Plan as presented in findings under farm and forest descriptions and requirements within this document.

- b. *The rezoning will not seriously interfere with permitted uses on other nearby parcels; and*

**Findings:** The proposed rezone will not interfere with permitted uses on other nearby parcels. Access is directly from Fairview Road; there is no reason to drive through any resource lands since the access is on a collector Coos County road. In addition, there are buildings on properties that lie across Fairview Road that are located on EFU zoned land. Fairview Road is between Subject Property and EFU zoned properties. The Applicant has determined that his proposed Template Dwelling will be located approximately 300 feet from adjacent farm and forest uses.

Subject property includes forest lands on NRCS Map Unit 58F which has slopes with rock outcrops with 70-90% slopes on 82.9% of Subject Property. NRCS Map Unit 24 is along the roadway in strips along the road, constituting 17% of Subject Property. While Map Unit 24 soils may be utilized for some farm uses, this could only be possible with on-site work to control ponding and flooding resulting from hydric soils.

As previously discussed, analysis shows that the FMU zoning is expected to permit one Template Dwelling. There are requirements and conditions in Oregon and Coos County laws to protect farm and forest use where Template Dwelling is permitted. The rezone will not seriously interfere with permitted uses on other nearby parcels because the Template Dwelling is allowed by Oregon law and Coos County's codes. Conditions for development including firebreaks and paperwork with signoffs to protect forest uses are addressed.

There are properties along Fairview Road that have been zoned for rural residential use for years. Subject Property appears to be no different than those properties in its proximity to other farm and forest uses; rural residential life and forest uses have co-existed adjacent to one another for many years. The forest designation of Subject Property will make the property subject to some oversight of forestry issues. This has not always been the case when forest zoning was not applicable to Subject Property.

- c. *The rezoning will comply with other policies and ordinances as may be adopted by the Board of Commissioners.*

The rezoning will permit one dwelling. The CCZDLO provides a number of requirements dealing with the siting of the dwelling, access and parking. The rezoning will not change anything, except that it may permit a use that will then be subject to all of the requirements of development that are part of the FMU farm and forest resource zoning. The rezoning is based upon other policies and ordinances adopted by the Board of Commissioners throughout the years. The rezoning should not be in conflict with other policies and ordinances adopted by the Coos County Board of Commissioners in the future because it respects the resources of Coos County and complies with all of the laws put into place by the State of Oregon to protect forest and agricultural resources. This is explained throughout this document with findings that address all of the

components of the Statewide Planning goals and Coos County amendments that have applied over the years.

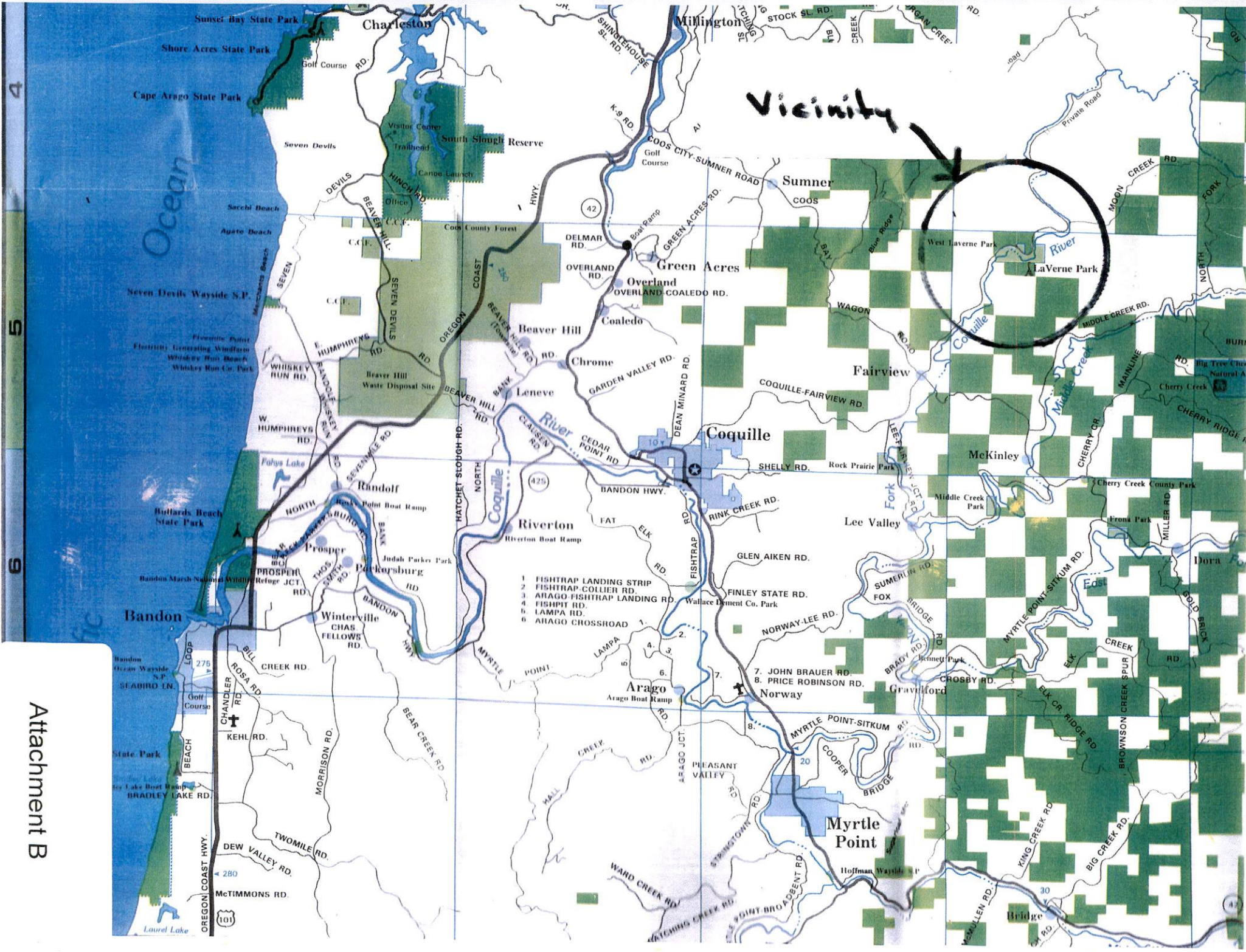
## **Conclusion**

This application provides consideration of County and State criteria, resource analysis, and findings to support the rezone of Subject Property. The findings rely heavily on the Coos County Comprehensive Plan acknowledged by the State of Oregon and the NRCS Custom Soil Survey with mapping and charting of soil components.

The rezone and amended Coos County Comprehensive Plan comply with the requirements of the amendment process. The forest mixed use is appropriate because the property includes both forest and potential farmland consistent with adjacent properties. The continued resource zoning to permit one house recognizes the importance of farm and forest land for all of the reasons addressed in the Coos Comprehensive Plan as common to Coos County rural life and respect for farm and forest uses. The FMU zoning will encourage gardening, grazing and/or other land management that exists on rural residential and rural resource land that are owned by citizens desiring a rural lifestyle.

The Applicant understands that safeguards to protect and enhance Subject Property and neighboring properties are in place and will comply with such safeguards at the time that the property is to be utilized for any residential use. The Applicant respectfully requests approval of this application along with any conditions that may be applied as part of the approval.





Vicinity

- 1 FISHTRAP LANDING STRIP
- 2 FISHTRAP COLLIER RD.
- 3 AHAGO FISHTRAP LANDING RD.
- 4 FISHPIT RD.
- 5 LAMPA RD.
- 6 AHAGO CROSSROAD

Attachment B



SECTION 29 T.26S. R.11W. W.M.  
COOS COUNTY

1"=400'

SECTION 28 T.26S. R.11W. W.M.  
COOS COUNTY

1"=400'

THIS MAP WAS PREPARED FOR  
ASSESSMENT PURPOSE ONLY.

RED FOR  
ONLY.

26-11-29

26-11-28

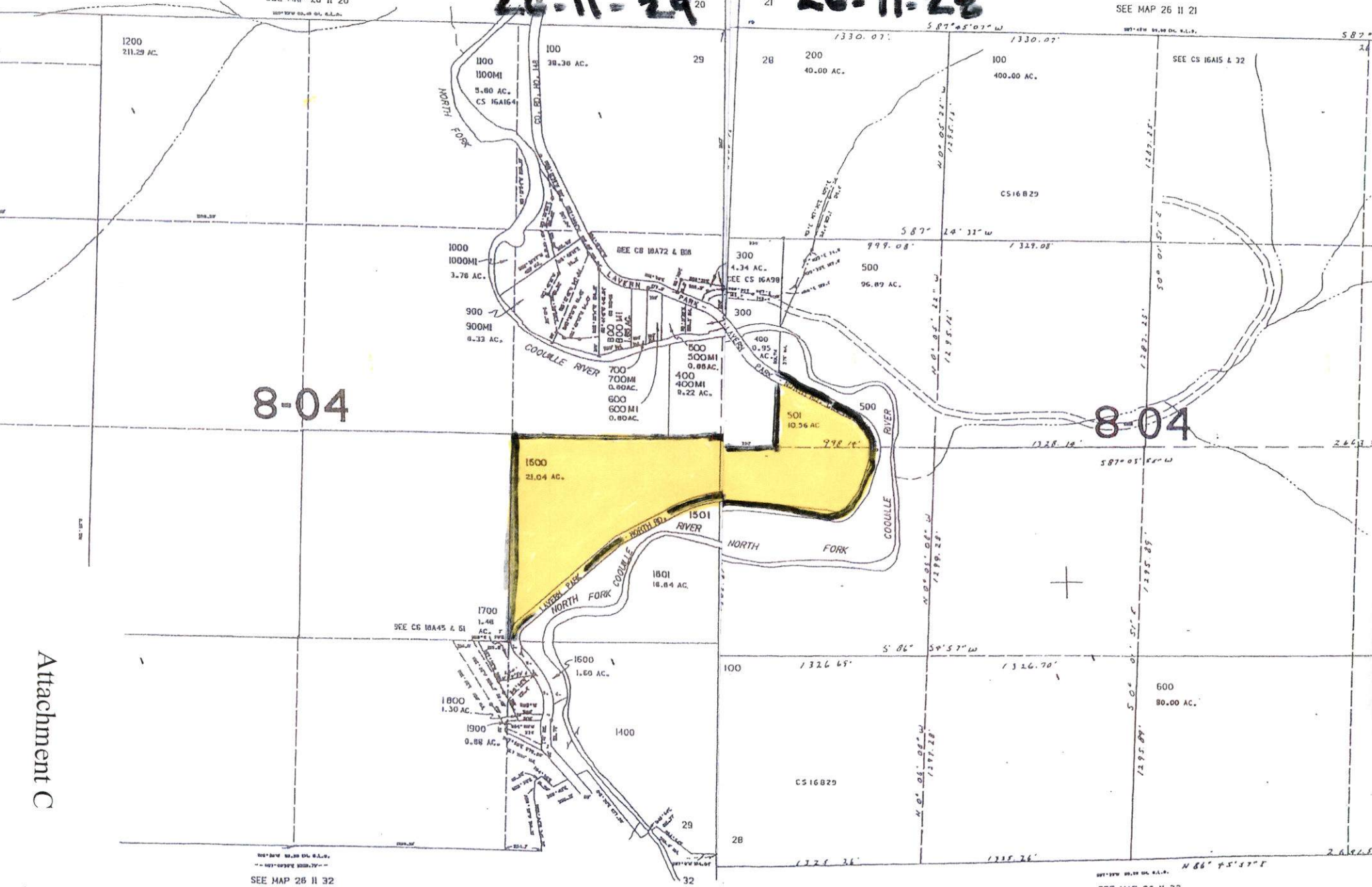
SEE MAP 26 II 20

SEE MAP 26 II 21

8-04

8-04

Attachment C



SEE MAP 26 II 32

SEE MAP 26 II 21





ORMAP

Find address, Map Number, To



1200

900

800

700

1000

200

300

500

400

501

Coos County

26S11W29

1500

1501

1400

44.031 43.293 Degrees

200m

600ft

1700

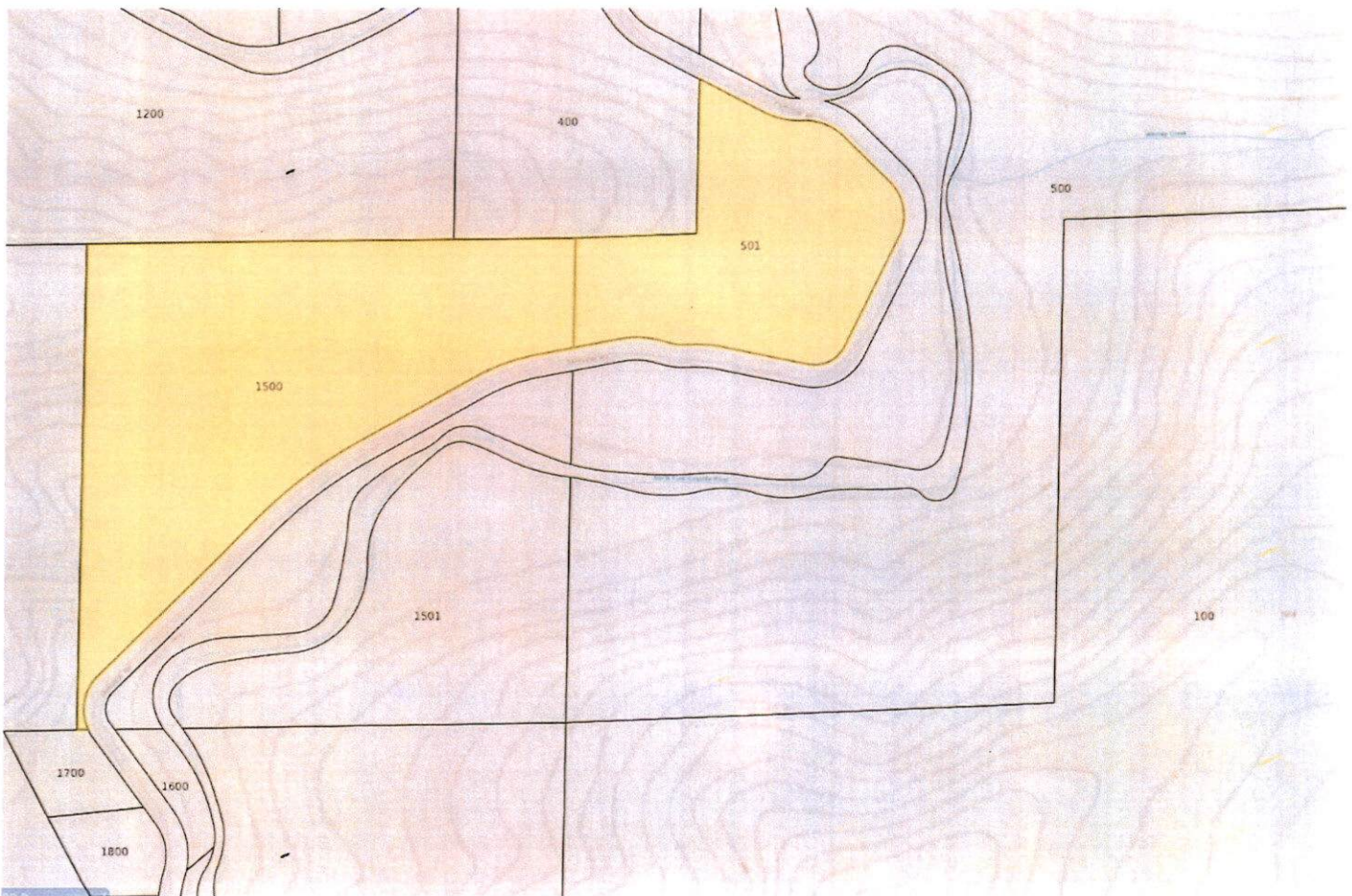
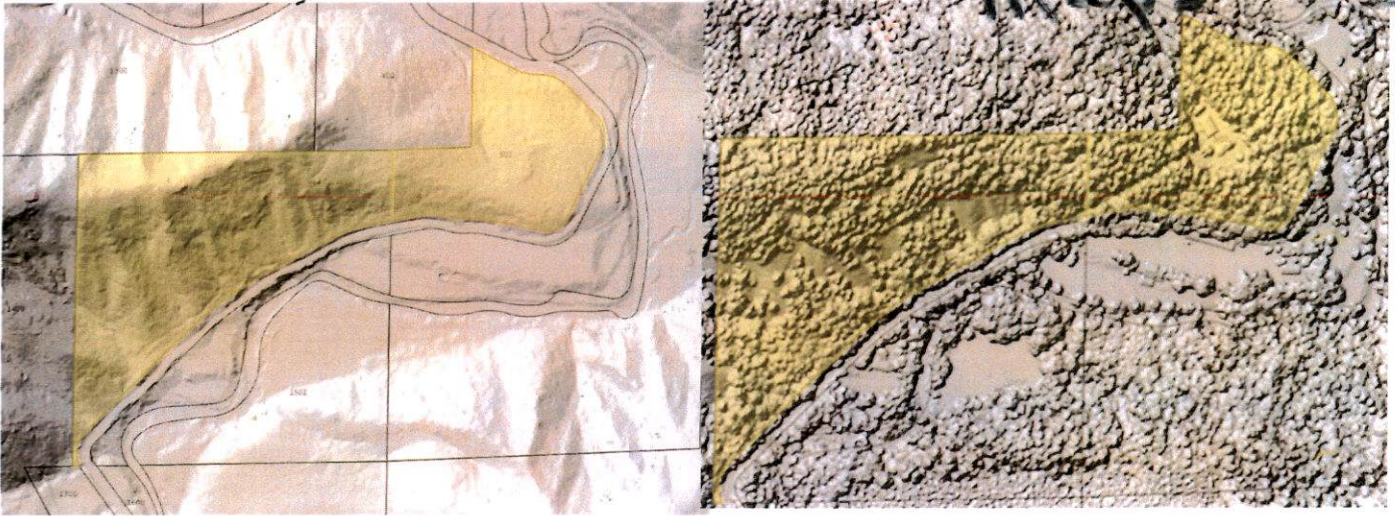
1600



Attachment D



# Excerpt - Coos Planning Maps

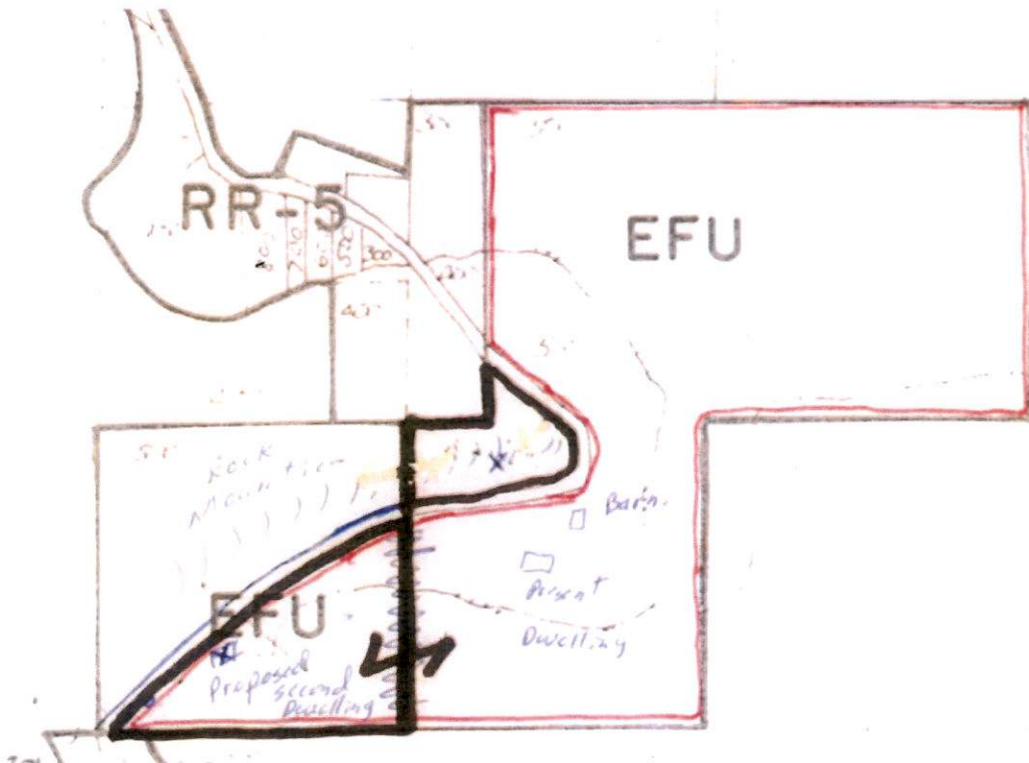
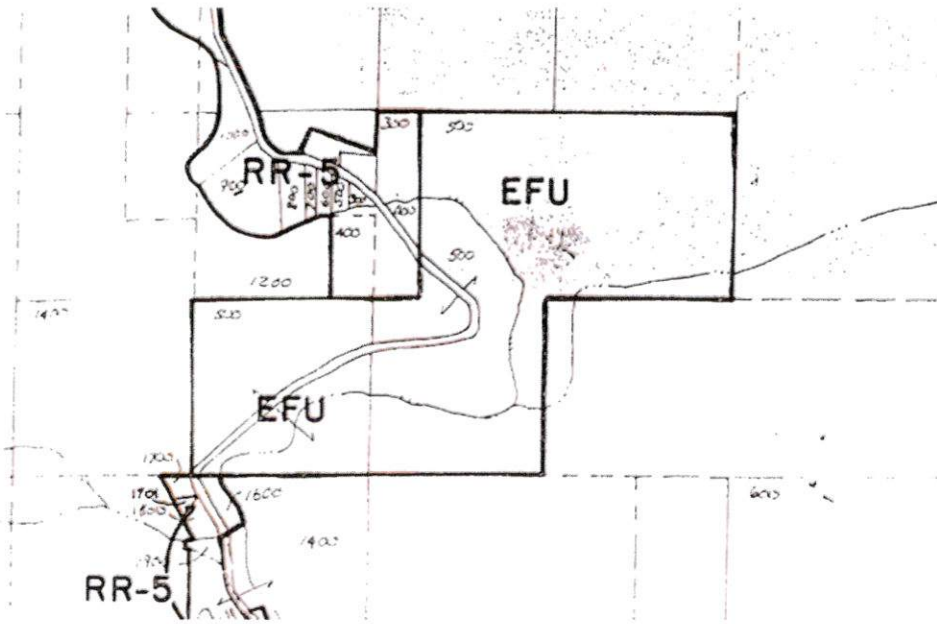


## **I. Property Background:**

Tax lots 501 and 1500 were originally part of a larger ownership, as seen in the map on the next page. In 1986, the property owner at the time applied for a second farm dwelling. The second map, which you can see on the next page, highlights the portion of the property (shown in red) identified as the farm portion, justifying the need for a second dwelling, also known as an Additional Farm Dwelling. The other portions above Fairview Road were not considered part of the commercial farm operation. It is likely that if the properties had been separated at the time of



adoption, only those portions would have been zoned Forest or Forest with a Mixed-Use overlay. However, because it was part of a larger farm property, it was zoned Exclusive Farm Use.



**SUMMARY:**

Based on the fact that the prior application separated out the portion of the property below Fairview Road confirms that the upper portion which is owned by Mr. Zaita is not considered farm land and could be considered for rezoning.



United States  
Department of  
Agriculture

**NRCS**

Natural  
Resources  
Conservation  
Service

A product of the National  
Cooperative Soil Survey,  
a joint effort of the United  
States Department of  
Agriculture and other  
Federal agencies, State  
agencies including the  
Agricultural Experiment  
Stations, and local  
participants

# Custom Soil Resource Report for **Coos County, Oregon**

For Shoji Planning (Zaita  
Property)





# Preface

---

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (<http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/>) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (<https://offices.sc.egov.usda.gov/locator/app?agency=nrcs>) or your NRCS State Soil Scientist ([http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2\\_053951](http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951)).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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# How Soil Surveys Are Made

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Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

## Custom Soil Resource Report

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and



## Custom Soil Resource Report

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

# Soil Map

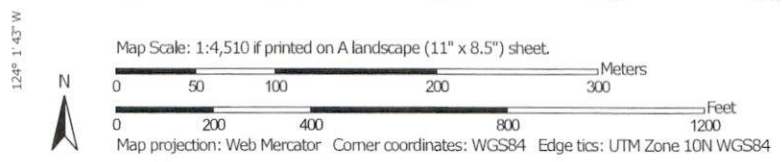
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The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.





































# Custom Soil Resource Report Soil Map



Soil Map may not be valid at this scale.



### MAP LEGEND

<b>Area of Interest (AOI)</b>		 Spoil Area	
 Area of Interest (AOI)		 Stony Spot	
<b>Soils</b>		 Very Stony Spot	
 Soil Map Unit Polygons		 Wet Spot	
 Soil Map Unit Lines		 Other	
 Soil Map Unit Points		 Special Line Features	
<b>Special Point Features</b>		<b>Water Features</b>	
 Blowout		 Streams and Canals	
 Borrow Pit		<b>Transportation</b>	
 Clay Spot		 Rails	
 Closed Depression		 Interstate Highways	
 Gravel Pit		 US Routes	
 Gravelly Spot		 Major Roads	
 Landfill		 Local Roads	
 Lava Flow		<b>Background</b>	
 Marsh or swamp		 Aerial Photography	
 Mine or Quarry			
 Miscellaneous Water			
 Perennial Water			
 Rock Outcrop			
 Saline Spot			
 Sandy Spot			
 Severely Eroded Spot			
 Sinkhole			
 Slide or Slip			
 Sodic Spot			

### MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service  
 Web Soil Survey URL:  
 Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Coos County, Oregon  
 Survey Area Data: Version 19, Sep 7, 2023

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: May 19, 2023—Jun 3, 2023

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.



## Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres In AOI	Percent of AOI
24	Gardiner sandy loam	5.0	17.0%
46D	Preacher-Bohannon loams, 3 to 30 percent slopes	0.0	0.2%
58F	Umpcoos-Rock outcrop association, 70 to 99 percent slopes	24.3	82.9%
<b>Totals for Area of Interest</b>		<b>29.4</b>	<b>100.0%</b>

## Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or

## Custom Soil Resource Report

landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

## Coos County, Oregon

### 24—Gardiner sandy loam

#### Map Unit Setting

*National map unit symbol:* 21n0  
*Elevation:* 20 to 750 feet  
*Mean annual precipitation:* 60 to 90 inches  
*Mean annual air temperature:* 50 to 54 degrees F  
*Frost-free period:* 180 to 220 days  
*Farmland classification:* Farmland of statewide importance

#### Map Unit Composition

*Gardiner and similar soils:* 85 percent  
*Minor components:* 7 percent  
*Estimates are based on observations, descriptions, and transects of the mapunit.*

#### Description of Gardiner

##### Setting

*Landform:* Flood plains  
*Landform position (three-dimensional):* Tread  
*Down-slope shape:* Concave  
*Across-slope shape:* Linear  
*Parent material:* Mixed alluvium

##### Typical profile

*H1 - 0 to 9 inches:* sandy loam  
*H2 - 9 to 60 inches:* loamy sand

##### Properties and qualities

*Slope:* 0 to 3 percent  
*Depth to restrictive feature:* More than 80 inches  
*Drainage class:* Well drained  
*Capacity of the most limiting layer to transmit water (Ksat):* High (1.98 to 5.95 in/hr)  
*Depth to water table:* More than 80 inches  
*Frequency of flooding:* Frequent  
*Frequency of ponding:* None  
*Available water supply, 0 to 60 inches:* Moderate (about 6.3 inches)

##### Interpretive groups

*Land capability classification (irrigated):* 4w  
*Land capability classification (nonirrigated):* 4w  
*Hydrologic Soil Group:* A  
*Ecological site:* F001XD002OR - Mesic Udic Flood Plain Forest  
*Forage suitability group:* Well Drained < 15% Slopes (G001XY004OR)  
*Other vegetative classification:* Well Drained < 15% Slopes (G001XY004OR)  
*Hydric soil rating:* No

#### Minor Components

##### Quosatana

*Percent of map unit:* 7 percent  
*Landform:* Flood plains  
*Landform position (three-dimensional):* Tread

## Custom Soil Resource Report

*Down-slope shape:* Linear  
*Across-slope shape:* Linear  
*Other vegetative classification:* Poorly Drained (G001XY008OR)  
*Hydric soil rating:* Yes

### 46D—Preacher-Bohannon loams, 3 to 30 percent slopes

#### Map Unit Setting

*National map unit symbol:* 21p8  
*Elevation:* 250 to 3,600 feet  
*Mean annual precipitation:* 60 to 100 inches  
*Mean annual air temperature:* 45 to 54 degrees F  
*Frost-free period:* 110 to 200 days  
*Farmland classification:* Not prime farmland

#### Map Unit Composition

*Preacher and similar soils:* 50 percent  
*Bohannon and similar soils:* 30 percent  
*Estimates are based on observations, descriptions, and transects of the mapunit.*

#### Description of Preacher

##### Setting

*Landform:* Ridges, rotational slides, mountain slopes  
*Landform position (two-dimensional):* Summit, backslope  
*Landform position (three-dimensional):* Mountaintop, mountainflank, tread  
*Down-slope shape:* Convex, linear  
*Across-slope shape:* Convex, linear  
*Parent material:* Colluvium and residuum derived from arkosic sandstone

##### Typical profile

*O<sub>i</sub> - 0 to 4 inches:* slightly decomposed plant material  
*H<sub>1</sub> - 4 to 18 inches:* loam  
*H<sub>2</sub> - 18 to 52 inches:* clay loam  
*H<sub>3</sub> - 52 to 64 inches:* clay loam

##### Properties and qualities

*Slope:* 3 to 30 percent  
*Depth to restrictive feature:* More than 80 inches  
*Drainage class:* Well drained  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high to high  
(0.57 to 1.98 in/hr)  
*Depth to water table:* More than 80 inches  
*Frequency of flooding:* None  
*Frequency of ponding:* None  
*Available water supply, 0 to 60 inches:* Very high (about 13.6 inches)

##### Interpretive groups

*Land capability classification (irrigated):* None specified  
*Land capability classification (nonirrigated):* 6e  
*Hydrologic Soil Group:* B



## Custom Soil Resource Report

*Ecological site:* F001XD412OR - Mesic Udic Wet Forest  
*Forage suitability group:* Well Drained > 15% Slopes (G001XY003OR)  
*Other vegetative classification:* Well Drained > 15% Slopes (G001XY003OR)  
*Hydric soil rating:* No

### Description of Bohannon

#### Setting

*Landform:* Mountain slopes  
*Landform position (two-dimensional):* Backslope  
*Landform position (three-dimensional):* Mountainflank  
*Down-slope shape:* Convex  
*Across-slope shape:* Convex  
*Parent material:* Colluvium derived from arkosic sandstone and siltstone

#### Typical profile

*H1 - 0 to 11 inches:* gravelly loam  
*H2 - 11 to 31 inches:* gravelly loam  
*H3 - 31 to 41 inches:* weathered bedrock

#### Properties and qualities

*Slope:* 3 to 30 percent  
*Depth to restrictive feature:* 20 to 40 inches to paralithic bedrock  
*Drainage class:* Well drained  
*Capacity of the most limiting layer to transmit water (Ksat):* High (1.98 to 5.95 in/hr)  
*Depth to water table:* More than 80 inches  
*Frequency of flooding:* None  
*Frequency of ponding:* None  
*Available water supply, 0 to 60 inches:* Low (about 4.4 inches)

#### Interpretive groups

*Land capability classification (irrigated):* None specified  
*Land capability classification (nonirrigated):* 6e  
*Hydrologic Soil Group:* B  
*Ecological site:* F001XD410OR - Mesic Udic Forest  
*Hydric soil rating:* No

## 58F—Umpcoos-Rock outcrop association, 70 to 99 percent slopes

#### Map Unit Setting

*National map unit symbol:* 21q7  
*Elevation:* 100 to 4,300 feet  
*Mean annual precipitation:* 60 to 100 inches  
*Mean annual air temperature:* 45 to 54 degrees F  
*Frost-free period:* 110 to 200 days  
*Farmland classification:* Not prime farmland

#### Map Unit Composition

*Umpcoos and similar soils:* 40 percent  
*Rock outcrop:* 35 percent

## Custom Soil Resource Report

*Estimates are based on observations, descriptions, and transects of the mapunit.*

### Description of Umpcoos

#### Setting

*Landform: Mountain slopes*  
*Landform position (two-dimensional): Backslope*  
*Landform position (three-dimensional): Mountainflank*  
*Down-slope shape: Convex*  
*Across-slope shape: Convex*  
*Parent material: Colluvium derived from sandstone*

#### Typical profile

*Oi - 0 to 2 inches: slightly decomposed plant material*  
*H1 - 2 to 5 inches: very gravelly sandy loam*  
*H2 - 5 to 18 inches: very gravelly sandy loam*  
*H3 - 18 to 22 inches: unweathered bedrock*

#### Properties and qualities

*Slope: 70 to 99 percent*  
*Depth to restrictive feature: 10 to 20 inches to lithic bedrock*  
*Drainage class: Well drained*  
*Capacity of the most limiting layer to transmit water (Ksat): High (1.98 to 5.95 in/hr)*  
*Depth to water table: More than 80 inches*  
*Frequency of flooding: None*  
*Frequency of ponding: None*  
*Available water supply, 0 to 60 inches: Very low (about 2.0 inches)*

#### Interpretive groups

*Land capability classification (irrigated): None specified*  
*Land capability classification (nonirrigated): 7e*  
*Hydrologic Soil Group: D*  
*Ecological site: F001XD412OR - Mesic Udic Wet Forest*  
*Hydric soil rating: No*

### Description of Rock Outcrop

#### Typical profile

*R - 0 to 60 inches: unweathered bedrock*

#### Properties and qualities

*Slope: 70 to 99 percent*  
*Depth to restrictive feature: 0 inches to lithic bedrock*

#### Interpretive groups

*Land capability classification (irrigated): None specified*  
*Land capability classification (nonirrigated): 8*  
*Hydric soil rating: Unranked*

# **Soil Information for All Uses**

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## **Suitabilities and Limitations for Use**

The Suitabilities and Limitations for Use section includes various soil interpretations displayed as thematic maps with a summary table for the soil map units in the selected area of interest. A single value or rating for each map unit is generated by aggregating the interpretive ratings of individual map unit components. This aggregation process is defined for each interpretation.

## **Land Classifications**

Land Classifications are specified land use and management groupings that are assigned to soil areas because combinations of soil have similar behavior for specified practices. Most are based on soil properties and other factors that directly influence the specific use of the soil. Example classifications include ecological site classification, farmland classification, irrigated and nonirrigated land capability classification, and hydric rating.

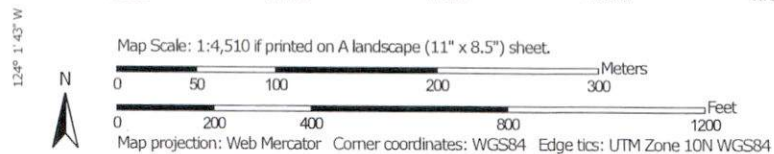
## **Ecological Classification ID: Forage Suitability Groups**

Ecological classifications consist of a series of vegetative classification systems developed by various partners in the National Cooperative Soil Survey. The classifications include, but are not limited to, systematic vegetative groupings. Examples include NRCS ecological sites, United States Forest Service plant associations, and forage suitability groups. The classifications systems are identified by the Ecological Classification Type Name field, which is in the Component Ecological Classification table.

Custom Soil Resource Report  
Map—Ecological Classification ID: Forage Suitability Groups



Soil Map may not be valid at this scale.






# Custom Soil Resource Report

## MAP LEGEND

### Area of Interest (AOI)


 Area of Interest (AOI)

### Soils

#### Soil Rating Polygons

 G001XY003OR

 G001XY004OR

 Not rated or not available

#### Soil Rating Lines

 G001XY003OR

 G001XY004OR

 Not rated or not available


#### Soil Rating Points

 G001XY003OR

 G001XY004OR

 Not rated or not available

### Water Features

 Streams and Canals

### Transportation

 Rails

 Interstate Highways

 US Routes

 Major Roads

 Local Roads

### Background

 Aerial Photography

## MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service  
Web Soil Survey URL:  
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Coos County, Oregon  
Survey Area Data: Version 19, Sep 7, 2023

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: May 19, 2023—Jun 3, 2023

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Custom Soil Resource Report

**Table—Ecological Classification ID: Forage Suitability Groups**

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
24	Gardiner sandy loam	G001XY004OR	5.0	17.0%
46D	Preacher-Bohannon loams, 3 to 30 percent slopes	G001XY003OR	0.0	0.2%
58F	Umpcoos-Rock outcrop association, 70 to 99 percent slopes		24.3	82.9%
<b>Totals for Area of Interest</b>			<b>29.4</b>	<b>100.0%</b>

**Rating Options—Ecological Classification ID: Forage Suitability Groups**

*Class:* Forage Suitability Groups

*Aggregation Method:* Dominant Condition

*Component Percent Cutoff:* None Specified

*Tie-break Rule:* Lower

**Irrigated Capability Class**

Land capability classification shows, in a general way, the suitability of soils for most kinds of field crops. Crops that require special management are excluded. The soils are grouped according to their limitations for field crops, the risk of damage if they are used for crops, and the way they respond to management. The criteria used in grouping the soils do not include major and generally expensive landforming that would change slope, depth, or other characteristics of the soils, nor do they include possible but unlikely major reclamation projects. Capability classification is not a substitute for interpretations that show suitability and limitations of groups of soils for rangeland, for woodland, or for engineering purposes.

In the capability system, soils are generally grouped at three levels—capability class, subclass, and unit. Only class and subclass are included in this data set.

Capability classes, the broadest groups, are designated by the numbers 1 through 8. The numbers indicate progressively greater limitations and narrower choices for practical use. The classes are defined as follows:

Class 1 soils have few limitations that restrict their use.

Class 2 soils have moderate limitations that reduce the choice of plants or that require moderate conservation practices.

## Custom Soil Resource Report

Class 3 soils have severe limitations that reduce the choice of plants or that require special conservation practices, or both.

Class 4 soils have very severe limitations that reduce the choice of plants or that require very careful management, or both.

Class 5 soils are subject to little or no erosion but have other limitations, impractical to remove, that restrict their use mainly to pasture, rangeland, forestland, or wildlife habitat.

Class 6 soils have severe limitations that make them generally unsuitable for cultivation and that restrict their use mainly to pasture, rangeland, forestland, or wildlife habitat.

Class 7 soils have very severe limitations that make them unsuitable for cultivation and that restrict their use mainly to grazing, forestland, or wildlife habitat.

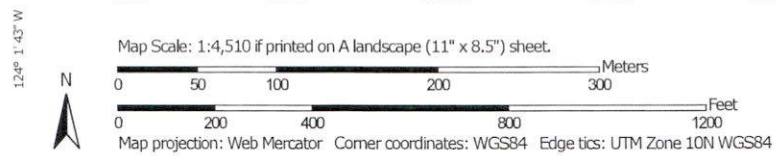
Class 8 soils and miscellaneous areas have limitations that preclude commercial plant production and that restrict their use to recreational purposes, wildlife habitat, watershed, or esthetic purposes.



# Custom Soil Resource Report Map—Irrigated Capability Class






































Soil Map may not be valid at this scale.





### MAP LEGEND

- Area of Interest (AOI)**
  -  Area of Interest (AOI)
- Soils**
  - Soil Rating Polygons**
    -  Capability Class - I
    -  Capability Class - II
    -  Capability Class - III
    -  Capability Class - IV
    -  Capability Class - V
    -  Capability Class - VI
    -  Capability Class - VII
    -  Capability Class - VIII
    -  Not rated or not available
  - Soil Rating Lines**
    -  Capability Class - I
    -  Capability Class - II
    -  Capability Class - III
    -  Capability Class - IV
    -  Capability Class - V
    -  Capability Class - VI
    -  Capability Class - VII
    -  Capability Class - VIII
    -  Not rated or not available
  - Soil Rating Points**
    -  Capability Class - I
    -  Capability Class - II
- Capability Class - III** 
- Capability Class - IV** 
- Capability Class - V** 
- Capability Class - VI** 
- Capability Class - VII** 
- Capability Class - VIII** 
- Not rated or not available** 
- Water Features**
  -  Streams and Canals
- Transportation**
  -  Rails
  -  Interstate Highways
  -  US Routes
  -  Major Roads
  -  Local Roads
- Background**
  -  Aerial Photography

### MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Warning: Soil Map may not be valid at this scale.

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Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service  
 Web Soil Survey URL:  
 Coordinate System: Web Mercator (EPSG:3857)

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 Survey Area Data: Version 19, Sep 7, 2023

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Date(s) aerial images were photographed: May 19, 2023—Jun 3, 2023

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Custom Soil Resource Report

**Table—Irrigated Capability Class**

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
24	Gardiner sandy loam	4	5.0	17.0%
46D	Preacher-Bohannon loams, 3 to 30 percent slopes		0.0	0.2%
58F	Umpcoos-Rock outcrop association, 70 to 99 percent slopes		24.3	82.9%
Totals for Area of Interest			29.4	100.0%

**Rating Options—Irrigated Capability Class**

*Aggregation Method:* Dominant Condition

*Component Percent Cutoff:* None Specified

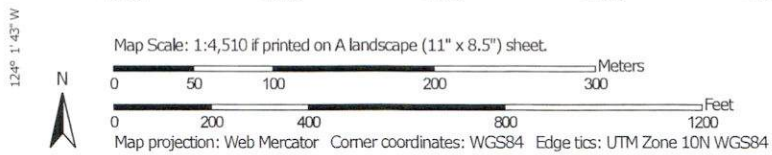
*Tie-break Rule:* Higher

**Ecological Classification ID: Forage Suitability Groups**

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Custom Soil Resource Report  
Map—Ecological Classification ID: Forage Suitability Groups



# Custom Soil Resource Report

## MAP LEGEND

### Area of Interest (AOI)

 Area of Interest (AOI)

### Soils

#### Soil Rating Polygons

 G001XY003OR

 G001XY004OR

 Not rated or not available

#### Soil Rating Lines

 G001XY003OR

 G001XY004OR

 Not rated or not available


#### Soil Rating Points

 G001XY003OR

 G001XY004OR

 Not rated or not available

### Water Features

 Streams and Canals

### Transportation

 Rails


 Interstate Highways

 US Routes

 Major Roads

 Local Roads

### Background

 Aerial Photography

## MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

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Web Soil Survey URL:  
Coordinate System: Web Mercator (EPSG:3857)

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Custom Soil Resource Report

**Table—Ecological Classification ID: Forage Suitability Groups**

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
24	Gardiner sandy loam	G001XY004OR	5.0	17.0%
46D	Preacher-Bohannon loams, 3 to 30 percent slopes	G001XY003OR	0.0	0.2%
58F	Umpcoos-Rock outcrop association, 70 to 99 percent slopes		24.3	82.9%
<b>Totals for Area of Interest</b>			<b>29.4</b>	<b>100.0%</b>

**Rating Options—Ecological Classification ID: Forage Suitability Groups**

*Class:* Forage Suitability Groups

*Aggregation Method:* Dominant Condition

*Component Percent Cutoff:* None Specified

*Tie-break Rule:* Lower

**Ecological Classification Name: Forage Suitability Groups**

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Custom Soil Resource Report  
Map—Ecological Classification Name: Forage Suitability Groups



Map Scale: 1:4,510 if printed on A landscape (11" x 8.5") sheet.

0 50 100 200 300 Meters

0 200 400 800 1200 Feet


Map projection: Web Mercator Corner coordinates: WGS84 Edge ticks: UTM Zone 10N WGS84



# Custom Soil Resource Report

## MAP LEGEND

### Area of Interest (AOI)

 Area of Interest (AOI)

### Soils

#### Soil Rating Polygons

-  Well Drained < 15% Slopes
-  Well Drained > 15% Slopes
-  Not rated or not available


#### Soil Rating Lines

-  Well Drained < 15% Slopes
-  Well Drained > 15% Slopes
-  Not rated or not available

#### Soil Rating Points

-  Well Drained < 15% Slopes
-  Well Drained > 15% Slopes
-  Not rated or not available


### Water Features

 Streams and Canals

### Transportation

-  Rails
-  Interstate Highways
-  US Routes
-  Major Roads
-  Local Roads

### Background

 Aerial Photography

## MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Warning: Soil Map may not be valid at this scale.

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Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service  
Web Soil Survey URL:  
Coordinate System: Web Mercator (EPSG:3857)

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**Table—Ecological Classification Name: Forage Suitability Groups**

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
24	Gardiner sandy loam	Well Drained < 15% Slopes	5.0	17.0%
46D	Preacher-Bohannon loams, 3 to 30 percent slopes	Well Drained > 15% Slopes	0.0	0.2%
58F	Umpcoos-Rock outcrop association, 70 to 99 percent slopes		24.3	82.9%
Totals for Area of Interest			29.4	100.0%

**Rating Options—Ecological Classification Name: Forage Suitability Groups**

*Class:* Forage Suitability Groups

*Aggregation Method:* Dominant Condition

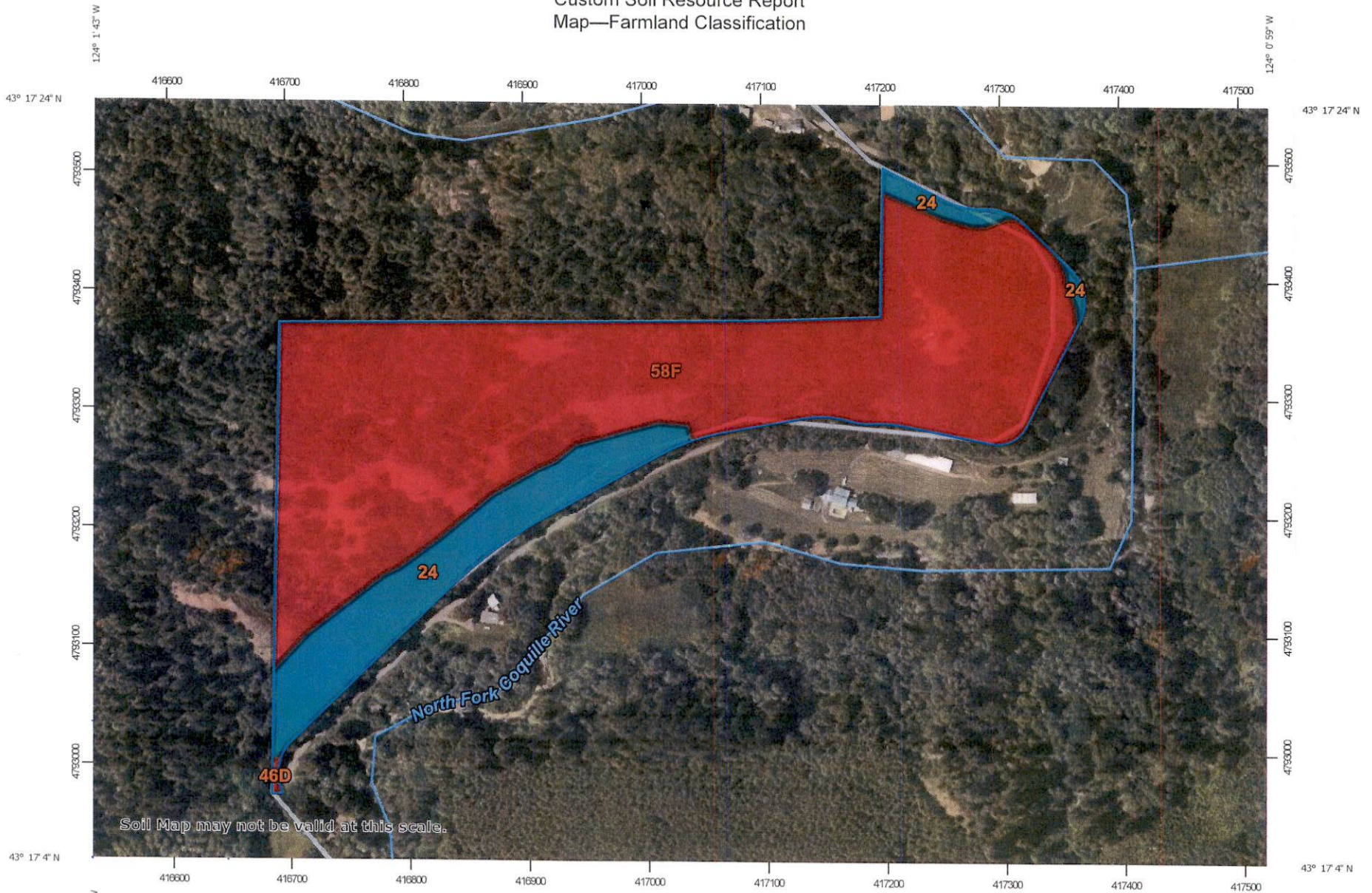
*Component Percent Cutoff:* None Specified

*Tie-break Rule:* Lower

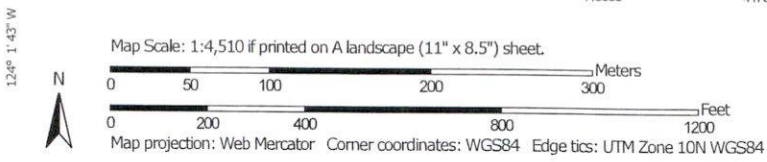
**Farmland Classification**

Farmland classification identifies map units as prime farmland, farmland of statewide importance, farmland of local importance, or unique farmland. It identifies the location and extent of the soils that are best suited to food, feed, fiber, forage, and oilseed crops. NRCS policy and procedures on prime and unique farmlands are published in the "Federal Register," Vol. 43, No. 21, January 31, 1978.

# Custom Soil Resource Report Map—Farmland Classification

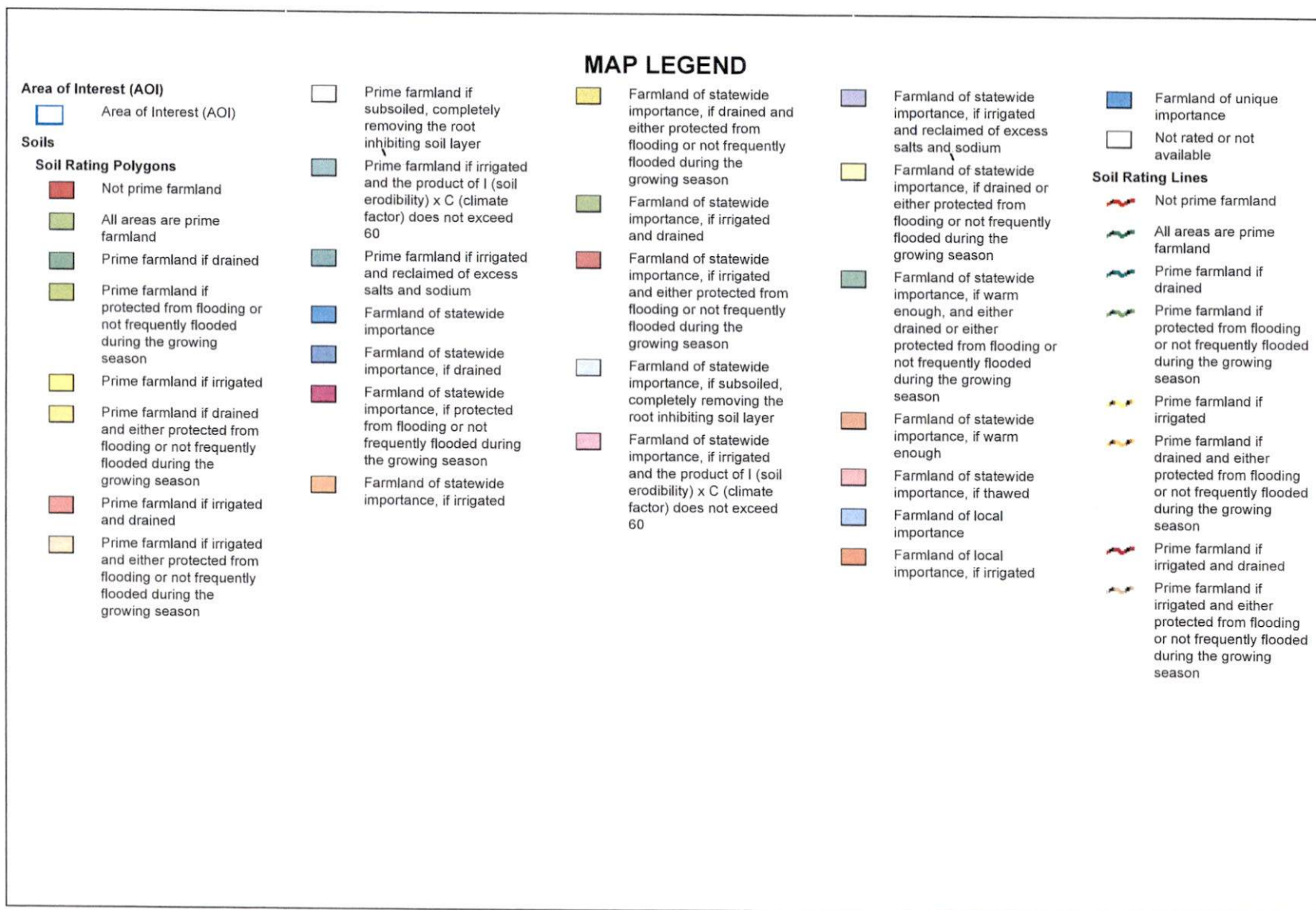


Soil Map may not be valid at this scale.









































# Custom Soil Resource Report



## Custom Soil Resource Report

<p> Prime farmland if subsoiled, completely removing the root inhibiting soil layer</p>	<p> Farmland of statewide importance, if drained and either protected from flooding or not frequently flooded during the growing season</p>	<p> Farmland of statewide importance, if irrigated and reclaimed of excess salts and sodium</p>	<p> Farmland of unique importance</p>	<p> Prime farmland if subsoiled, completely removing the root inhibiting soil layer</p>
<p> Prime farmland if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60</p>	<p> Farmland of statewide importance, if irrigated and drained</p>	<p> Farmland of statewide importance, if drained or either protected from flooding or not frequently flooded during the growing season</p>	<p> Not rated or not available</p>	<p> Prime farmland if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60</p>
<p> Prime farmland if irrigated and reclaimed of excess salts and sodium</p>	<p> Farmland of statewide importance, if irrigated and either protected from flooding or not frequently flooded during the growing season</p>	<p> Farmland of statewide importance, if warm enough, and either drained or either protected from flooding or not frequently flooded during the growing season</p>	<p><b>Soil Rating Points</b></p>	<p> Prime farmland if irrigated and reclaimed of excess salts and sodium</p>
<p> Farmland of statewide importance</p>	<p> Farmland of statewide importance, if subsoiled, completely removing the root inhibiting soil layer</p>	<p> Farmland of local importance</p>	<p> Not prime farmland</p>	<p> Farmland of statewide importance</p>
<p> Farmland of statewide importance, if drained</p>	<p> Farmland of statewide importance, if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60</p>	<p> Farmland of local importance, if irrigated</p>	<p> All areas are prime farmland</p>	<p> Farmland of statewide importance, if drained</p>
<p> Farmland of statewide importance, if protected from flooding or not frequently flooded during the growing season</p>			<p> Prime farmland if drained</p>	<p> Farmland of statewide importance, if protected from flooding or not frequently flooded during the growing season</p>
<p> Farmland of statewide importance, if irrigated</p>			<p> Prime farmland if protected from flooding or not frequently flooded during the growing season</p>	<p> Farmland of statewide importance, if irrigated</p>
			<p> Prime farmland if irrigated</p>	<p> Farmland of statewide importance, if protected from flooding or not frequently flooded during the growing season</p>
			<p> Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season</p>	<p> Farmland of statewide importance, if irrigated</p>
			<p> Prime farmland if irrigated and drained</p>	
			<p> Prime farmland if irrigated and either protected from flooding or not frequently flooded during the growing season</p>	

# Custom Soil Resource Report

<ul style="list-style-type: none"> <li> Farmland of statewide importance, if drained and either protected from flooding or not frequently flooded during the growing season</li> <li> Farmland of statewide importance, if irrigated and drained</li> <li> Farmland of statewide importance, if irrigated and either protected from flooding or not frequently flooded during the growing season</li> <li> Farmland of statewide importance, if subsoiled, completely removing the root inhibiting soil layer</li> <li> Farmland of statewide importance, if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60</li> </ul>	<ul style="list-style-type: none"> <li> Farmland of statewide importance, if irrigated and reclaimed of excess salts and sodium</li> <li> Farmland of statewide importance, if drained or either protected from flooding or not frequently flooded during the growing season</li> <li> Farmland of statewide importance, if warm enough, and either drained or either protected from flooding or not frequently flooded during the growing season</li> <li> Farmland of statewide importance, if warm enough</li> <li> Farmland of statewide importance, if thawed</li> <li> Farmland of local importance</li> <li> Farmland of local importance, if irrigated</li> </ul>	<ul style="list-style-type: none"> <li> Farmland of unique importance</li> <li> Not rated or not available</li> </ul> <p><b>Water Features</b></p> <ul style="list-style-type: none"> <li> Streams and Canals</li> </ul> <p><b>Transportation</b></p> <ul style="list-style-type: none"> <li> Rails</li> <li> Interstate Highways</li> <li> US Routes</li> <li> Major Roads</li> <li> Local Roads</li> </ul> <p><b>Background</b></p> <ul style="list-style-type: none"> <li> Aerial Photography</li> </ul>	<p>The soil surveys that comprise your AOI were mapped at 1:20,000.</p> <div style="border: 1px solid black; padding: 5px; margin: 10px 0;"> <p>Warning: Soil Map may not be valid at this scale.</p> <p>Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.</p> </div> <p>Please rely on the bar scale on each map sheet for map measurements.</p> <p>Source of Map: Natural Resources Conservation Service          Web Soil Survey URL:          Coordinate System: Web Mercator (EPSG:3857)</p> <p>Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.</p> <p>This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.</p> <p>Soil Survey Area: Coos County, Oregon          Survey Area Data: Version 19, Sep 7, 2023</p> <p>Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.</p> <p>Date(s) aerial images were photographed: May 19, 2023—Jun 3, 2023</p> <p>The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.</p>
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## Custom Soil Resource Report

**Table—Farmland Classification**

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
24	Gardiner sandy loam	Farmland of statewide importance	5.0	17.0%
46D	Preacher-Bohannon loams, 3 to 30 percent slopes	Not prime farmland	0.0	0.2%
58F	Umpcoos-Rock outcrop association, 70 to 99 percent slopes	Not prime farmland	24.3	82.9%
<b>Totals for Area of Interest</b>			<b>29.4</b>	<b>100.0%</b>

### Rating Options—Farmland Classification

*Aggregation Method:* No Aggregation Necessary

*Tie-break Rule:* Lower

### Hydric Rating by Map Unit

This rating indicates the percentage of map units that meets the criteria for hydric soils. Map units are composed of one or more map unit components or soil types, each of which is rated as hydric soil or not hydric. Map units that are made up dominantly of hydric soils may have small areas of minor nonhydric components in the higher positions on the landform, and map units that are made up dominantly of nonhydric soils may have small areas of minor hydric components in the lower positions on the landform. Each map unit is rated based on its respective components and the percentage of each component within the map unit.

The thematic map is color coded based on the composition of hydric components. The five color classes are separated as 100 percent hydric components, 66 to 99 percent hydric components, 33 to 65 percent hydric components, 1 to 32 percent hydric components, and less than one percent hydric components.

In Web Soil Survey, the Summary by Map Unit table that is displayed below the map pane contains a column named 'Rating'. In this column the percentage of each map unit that is classified as hydric is displayed.

Hydric soils are defined by the National Technical Committee for Hydric Soils (NTCHS) as soils that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part (Federal Register, 1994). Under natural conditions, these soils are either saturated or inundated long enough during the growing season to support the growth and reproduction of hydrophytic vegetation.

## Custom Soil Resource Report

The NTCHS definition identifies general soil properties that are associated with wetness. In order to determine whether a specific soil is a hydric soil or nonhydric soil, however, more specific information, such as information about the depth and duration of the water table, is needed. Thus, criteria that identify those estimated soil properties unique to hydric soils have been established (Federal Register, 2002). These criteria are used to identify map unit components that normally are associated with wetlands. The criteria used are selected estimated soil properties that are described in "Soil Taxonomy" (Soil Survey Staff, 1999) and "Keys to Soil Taxonomy" (Soil Survey Staff, 2006) and in the "Soil Survey Manual" (Soil Survey Division Staff, 1993).

If soils are wet enough for a long enough period of time to be considered hydric, they should exhibit certain properties that can be easily observed in the field. These visible properties are indicators of hydric soils. The indicators used to make onsite determinations of hydric soils are specified in "Field Indicators of Hydric Soils in the United States" (Hurt and Vasilas, 2006).

### References:

Federal Register. July 13, 1994. Changes in hydric soils of the United States.

Federal Register. September 18, 2002. Hydric soils of the United States.

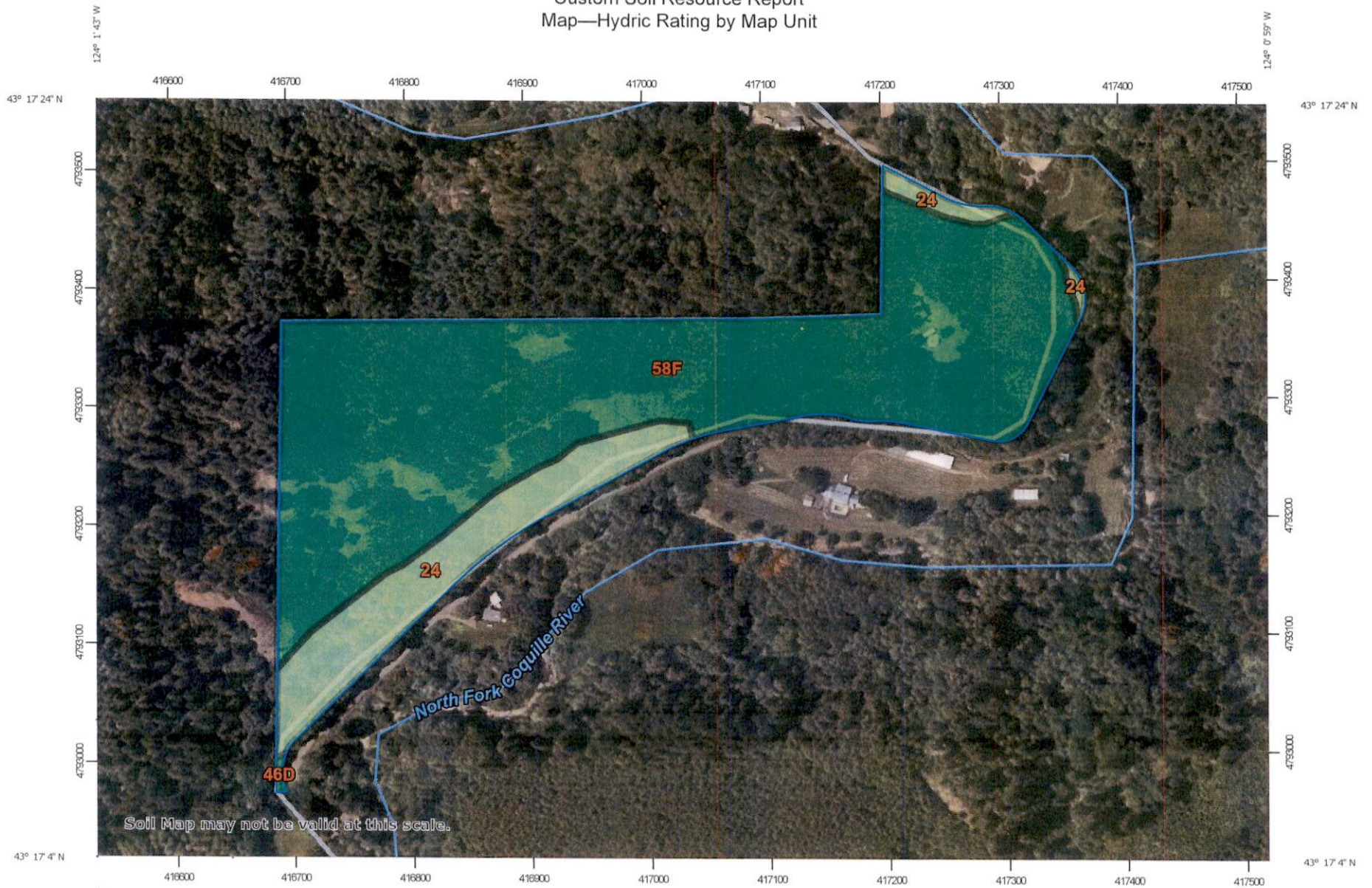
Hurt, G.W., and L.M. Vasilas, editors. Version 6.0, 2006. Field indicators of hydric soils in the United States.

Soil Survey Division Staff. 1993. Soil survey manual. Soil Conservation Service. U.S. Department of Agriculture Handbook 18.

Soil Survey Staff. 1999. Soil taxonomy: A basic system of soil classification for making and interpreting soil surveys. 2nd edition. Natural Resources Conservation Service. U.S. Department of Agriculture Handbook 436.

Soil Survey Staff. 2006. Keys to soil taxonomy. 10th edition. U.S. Department of Agriculture, Natural Resources Conservation Service.

Custom Soil Resource Report  
Map—Hydric Rating by Map Unit



Soil Map may not be valid at this scale.

Map Scale: 1:4,510 if printed on A landscape (11" x 8.5") sheet.



























0 50 100 200 300 Meters

0 200 400 800 1200 Feet

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 10N WGS84



### MAP LEGEND

- Area of Interest (AOI)**
  -  Area of Interest (AOI)
- Soils**
  - Soil Rating Polygons**
    -  Hydric (100%)
    -  Hydric (66 to 99%)
    -  Hydric (33 to 65%)
    -  Hydric (1 to 32%)
    -  Not Hydric (0%)
    -  Not rated or not available
  - Soil Rating Lines**
    -  Hydric (100%)
    -  Hydric (66 to 99%)
    -  Hydric (33 to 65%)
    -  Hydric (1 to 32%)
    -  Not Hydric (0%)
    -  Not rated or not available
  - Soil Rating Points**
    -  Hydric (100%)
    -  Hydric (66 to 99%)
    -  Hydric (33 to 65%)
    -  Hydric (1 to 32%)
    -  Not Hydric (0%)
    -  Not rated or not available
- Water Features**
  -  Streams and Canals
- Transportation**
  -  Rails
  -  Interstate Highways
  -  US Routes
  -  Major Roads
  -  Local Roads
- Background**
  -  Aerial Photography

### MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service  
 Web Soil Survey URL:  
 Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Coos County, Oregon  
 Survey Area Data: Version 19, Sep 7, 2023

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: May 19, 2023—Jun 3, 2023

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Custom Soil Resource Report

**Table—Hydric Rating by Map Unit**

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
24	Gardiner sandy loam	7	5.0	17.0%
46D	Preacher-Bohannon loams, 3 to 30 percent slopes	0	0.0	0.2%
58F	Umpcoos-Rock outcrop association, 70 to 99 percent slopes	0	24.3	82.9%
Totals for Area of Interest			29.4	100.0%

**Rating Options—Hydric Rating by Map Unit**

*Aggregation Method:* Percent Present

*Component Percent Cutoff:* None Specified

*Tie-break Rule:* Lower

**Irrigated Capability Class**

Land capability classification shows, in a general way, the suitability of soils for most kinds of field crops. Crops that require special management are excluded. The soils are grouped according to their limitations for field crops, the risk of damage if they are used for crops, and the way they respond to management. The criteria used in grouping the soils do not include major and generally expensive landforming that would change slope, depth, or other characteristics of the soils, nor do they include possible but unlikely major reclamation projects. Capability classification is not a substitute for interpretations that show suitability and limitations of groups of soils for rangeland, for woodland, or for engineering purposes.

In the capability system, soils are generally grouped at three levels-capability class, subclass, and unit. Only class and subclass are included in this data set.

Capability classes, the broadest groups, are designated by the numbers 1 through 8. The numbers indicate progressively greater limitations and narrower choices for practical use. The classes are defined as follows:

Class 1 soils have few limitations that restrict their use.

Class 2 soils have moderate limitations that reduce the choice of plants or that require moderate conservation practices.

Class 3 soils have severe limitations that reduce the choice of plants or that require special conservation practices, or both.

## Custom Soil Resource Report

Class 4 soils have very severe limitations that reduce the choice of plants or that require very careful management, or both.

Class 5 soils are subject to little or no erosion but have other limitations, impractical to remove, that restrict their use mainly to pasture, rangeland, forestland, or wildlife habitat.

Class 6 soils have severe limitations that make them generally unsuitable for cultivation and that restrict their use mainly to pasture, rangeland, forestland, or wildlife habitat.

Class 7 soils have very severe limitations that make them unsuitable for cultivation and that restrict their use mainly to grazing, forestland, or wildlife habitat.

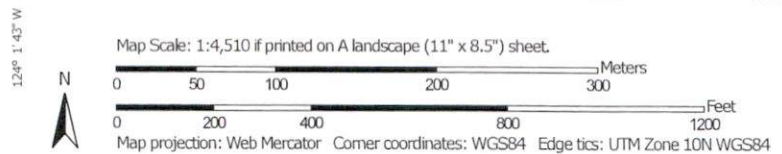
Class 8 soils and miscellaneous areas have limitations that preclude commercial plant production and that restrict their use to recreational purposes, wildlife habitat, watershed, or esthetic purposes.






































# Custom Soil Resource Report Map—Irrigated Capability Class



Soil Map may not be valid at this scale.



### MAP LEGEND

- Area of Interest (AOI)**
  -  Area of Interest (AOI)
- Soils**
  - Soil Rating Polygons**
    -  Capability Class - I
    -  Capability Class - II
    -  Capability Class - III
    -  Capability Class - IV
    -  Capability Class - V
    -  Capability Class - VI
    -  Capability Class - VII
    -  Capability Class - VIII
    -  Not rated or not available
  - Soil Rating Lines**
    -  Capability Class - I
    -  Capability Class - II
    -  Capability Class - III
    -  Capability Class - IV
    -  Capability Class - V
    -  Capability Class - VI
    -  Capability Class - VII
    -  Capability Class - VIII
    -  Not rated or not available
  - Soil Rating Points**
    -  Capability Class - I
    -  Capability Class - II
- Capability Class - III** 
- Capability Class - IV** 
- Capability Class - V** 
- Capability Class - VI** 
- Capability Class - VII** 
- Capability Class - VIII** 
- Not rated or not available** 
- Water Features**
  -  Streams and Canals
- Transportation**
  -  Rails
  -  Interstate Highways
  -  US Routes
  -  Major Roads
  -  Local Roads
- Background**
  -  Aerial Photography

### MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service  
 Web Soil Survey URL:  
 Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Coos County, Oregon  
 Survey Area Data: Version 19, Sep 7, 2023

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: May 19, 2023—Jun 3, 2023

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.



**Table—Irrigated Capability Class**

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
24	Gardiner sandy loam	4	5.0	17.0%
46D	Preacher-Bohannon loams, 3 to 30 percent slopes		0.0	0.2%
58F	Umpcoos-Rock outcrop association, 70 to 99 percent slopes		24.3	82.9%
Totals for Area of Interest			29.4	100.0%

**Rating Options—Irrigated Capability Class**

*Aggregation Method:* Dominant Condition

*Component Percent Cutoff:* None Specified

*Tie-break Rule:* Higher

**Irrigated Capability Subclass**

Land capability classification shows, in a general way, the suitability of soils for most kinds of field crops. Crops that require special management are excluded. The soils are grouped according to their limitations for field crops, the risk of damage if they are used for crops, and the way they respond to management. The criteria used in grouping the soils do not include major and generally expensive landforming that would change slope, depth, or other characteristics of the soils, nor do they include possible but unlikely major reclamation projects. Capability classification is not a substitute for interpretations that show suitability and limitations of groups of soils for rangeland, for woodland, or for engineering purposes.

In the capability system, soils are generally grouped at three levels—capability class, subclass, and unit. Only class and subclass are included in this data set.

Capability subclasses are soil groups within one capability class. They are designated by adding a small letter, "e," "w," "s," or "c," to the class numeral, for example, 2e. The letter "e" shows that the main hazard is the risk of erosion unless close-growing plant cover is maintained; "w" shows that water in or on the soil interferes with plant growth or cultivation (in some soils the wetness can be partly corrected by artificial drainage); "s" shows that the soil is limited mainly because it is shallow, droughty, or stony; and "c," used in only some parts of the United States, shows that the chief limitation is climate that is very cold or very dry.

In class 1 there are no subclasses because the soils of this class have few limitations. Class 5 contains only the subclasses indicated by "w," "s," or "c" because the soils in class 5 are subject to little or no erosion. They have other limitations that restrict their use to pasture, rangeland, forestland, or wildlife habitat.
























# Custom Soil Resource Report Map—Irrigated Capability Subclass



Soil Map may not be valid at this scale.



### MAP LEGEND

- Area of Interest (AOI)**
  -  Area of Interest (AOI)
- Soils**
  - Soil Rating Polygons**
    -  Erosion
    -  Soil limitation within the rooting zone
    -  Excess water
    -  Climate condition
    -  Not rated or not available
  - Soil Rating Lines**
    -  Erosion
    -  Soil limitation within the rooting zone
    -  Excess water
    -  Climate condition
    -  Not rated or not available
  - Soil Rating Points**
    -  Erosion
    -  Soil limitation within the rooting zone
    -  Excess water
    -  Climate condition
    -  Not rated or not available
- Water Features**
  -  Streams and Canals
- Transportation**
  -  Rails
  -  Interstate Highways
  -  US Routes
  -  Major Roads
  -  Local Roads
- Background**
  -  Aerial Photography

### MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Warning: Soil Map may not be valid at this scale.

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Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service  
 Web Soil Survey URL:  
 Coordinate System: Web Mercator (EPSG:3857)

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Soil Survey Area: Coos County, Oregon  
 Survey Area Data: Version 19, Sep 7, 2023

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: May 19, 2023—Jun 3, 2023

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.



**Table—Irrigated Capability Subclass**

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
24	Gardiner sandy loam	w	5.0	17.0%
46D	Preacher-Bohannon loams, 3 to 30 percent slopes		0.0	0.2%
58F	Umpcoos-Rock outcrop association, 70 to 99 percent slopes		24.3	82.9%
<b>Totals for Area of Interest</b>			<b>29.4</b>	<b>100.0%</b>

**Rating Options—Irrigated Capability Subclass**

*Aggregation Method:* Dominant Condition

*Component Percent Cutoff:* None Specified

*Tie-break Rule:* Lower

**Nonirrigated Capability Class**

Land capability classification shows, in a general way, the suitability of soils for most kinds of field crops. Crops that require special management are excluded. The soils are grouped according to their limitations for field crops, the risk of damage if they are used for crops, and the way they respond to management. The criteria used in grouping the soils do not include major and generally expensive landforming that would change slope, depth, or other characteristics of the soils, nor do they include possible but unlikely major reclamation projects. Capability classification is not a substitute for interpretations that show suitability and limitations of groups of soils for rangeland, for woodland, or for engineering purposes.

In the capability system, soils are generally grouped at three levels—capability class, subclass, and unit. Only class and subclass are included in this data set.

Capability classes, the broadest groups, are designated by the numbers 1 through 8. The numbers indicate progressively greater limitations and narrower choices for practical use. The classes are defined as follows:

Class 1 soils have few limitations that restrict their use.

Class 2 soils have moderate limitations that reduce the choice of plants or that require moderate conservation practices.

Class 3 soils have severe limitations that reduce the choice of plants or that require special conservation practices, or both.



## Custom Soil Resource Report

Class 4 soils have very severe limitations that reduce the choice of plants or that require very careful management, or both.

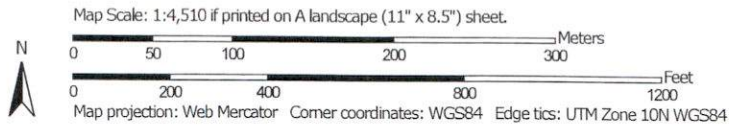
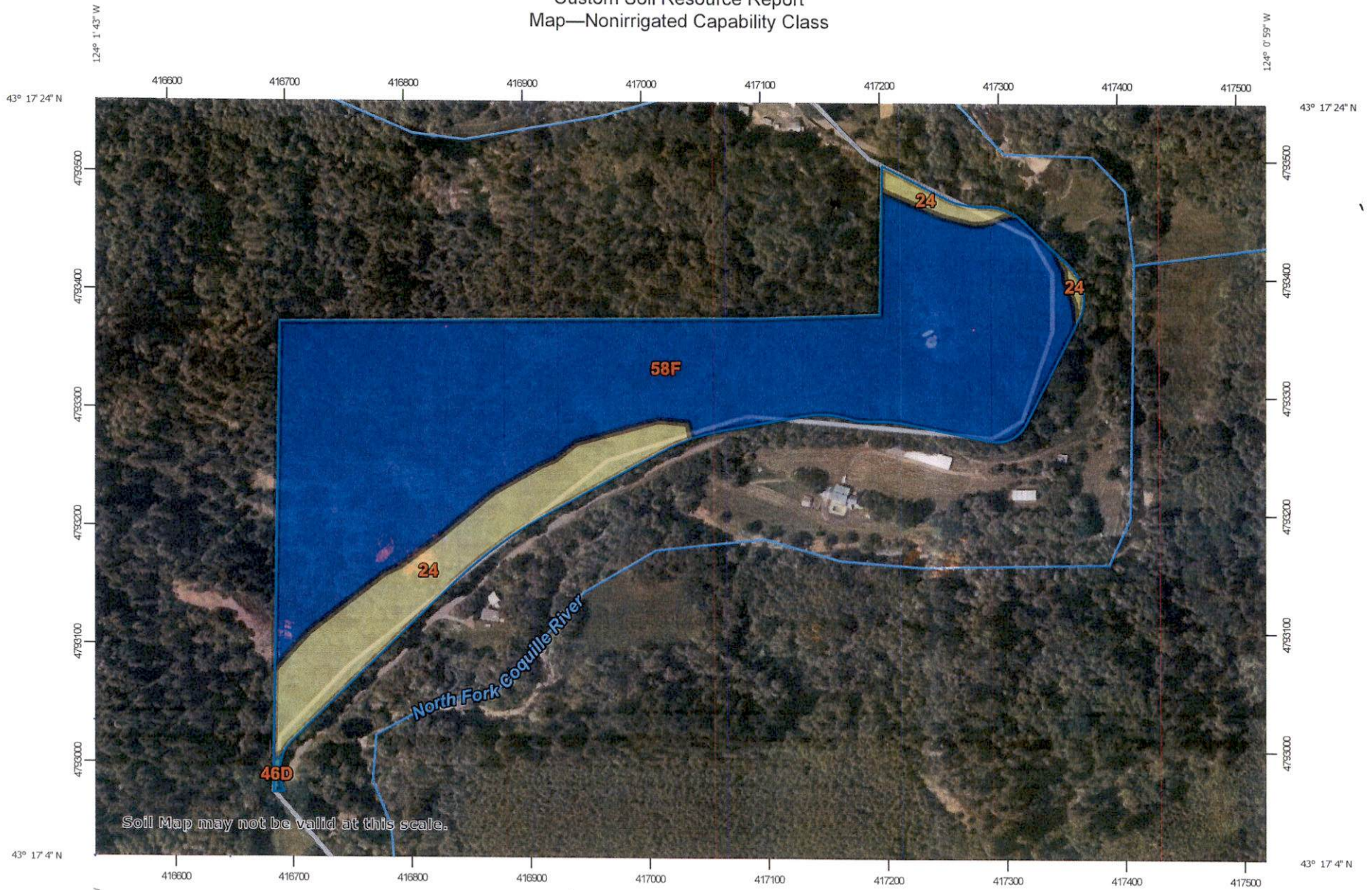
Class 5 soils are subject to little or no erosion but have other limitations, impractical to remove, that restrict their use mainly to pasture, rangeland, forestland, or wildlife habitat.

Class 6 soils have severe limitations that make them generally unsuitable for cultivation and that restrict their use mainly to pasture, rangeland, forestland, or wildlife habitat.

Class 7 soils have very severe limitations that make them unsuitable for cultivation and that restrict their use mainly to grazing, forestland, or wildlife habitat.







Class 8 soils and miscellaneous areas have limitations that preclude commercial plant production and that restrict their use to recreational purposes, wildlife habitat, watershed, or esthetic purposes.

Custom Soil Resource Report  
Map—Nonirrigated Capability Class



# Custom Soil Resource Report

## MAP LEGEND

- Area of Interest (AOI)**
-  Area of Interest (AOI)
- Soils**
- Soil Rating Polygons**
-  Capability Class - I
  -  Capability Class - II
  -  Capability Class - III
  -  Capability Class - IV
  -  Capability Class - V
  -  Capability Class - VI
  -  Capability Class - VII
  -  Capability Class - VIII
  -  Not rated or not available
- Soil Rating Lines**
-  Capability Class - I
  -  Capability Class - II
  -  Capability Class - III
  -  Capability Class - IV
  -  Capability Class - V
  -  Capability Class - VI
  -  Capability Class - VII
  -  Capability Class - VIII
  -  Not rated or not available
- Soil Rating Points**
-  Capability Class - I
  -  Capability Class - II
-  Capability Class - III
  -  Capability Class - IV
  -  Capability Class - V
  -  Capability Class - VI
  -  Capability Class - VII
  -  Capability Class - VIII
  -  Not rated or not available
- Water Features**
-  Streams and Canals
- Transportation**
-  Rails
  -  Interstate Highways
  -  US Routes
  -  Major Roads
  -  Local Roads
- Background**
-  Aerial Photography

## MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service  
 Web Soil Survey URL:  
 Coordinate System: Web Mercator (EPSG:3857)

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This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Coos County, Oregon  
 Survey Area Data: Version 19, Sep 7, 2023

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: May 19, 2023—Jun 3, 2023

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## Custom Soil Resource Report

**Table—Nonirrigated Capability Class**

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
24	Gardiner sandy loam	4	5.0	17.0%
46D	Preacher-Bohannon loams, 3 to 30 percent slopes	6	0.0	0.2%
58F	Umpcoos-Rock outcrop association, 70 to 99 percent slopes	7	24.3	82.9%
<b>Totals for Area of Interest</b>			<b>29.4</b>	<b>100.0%</b>

### Rating Options—Nonirrigated Capability Class

*Aggregation Method:* Dominant Condition

*Component Percent Cutoff:* None Specified

*Tie-break Rule:* Higher

### Nonirrigated Capability Subclass

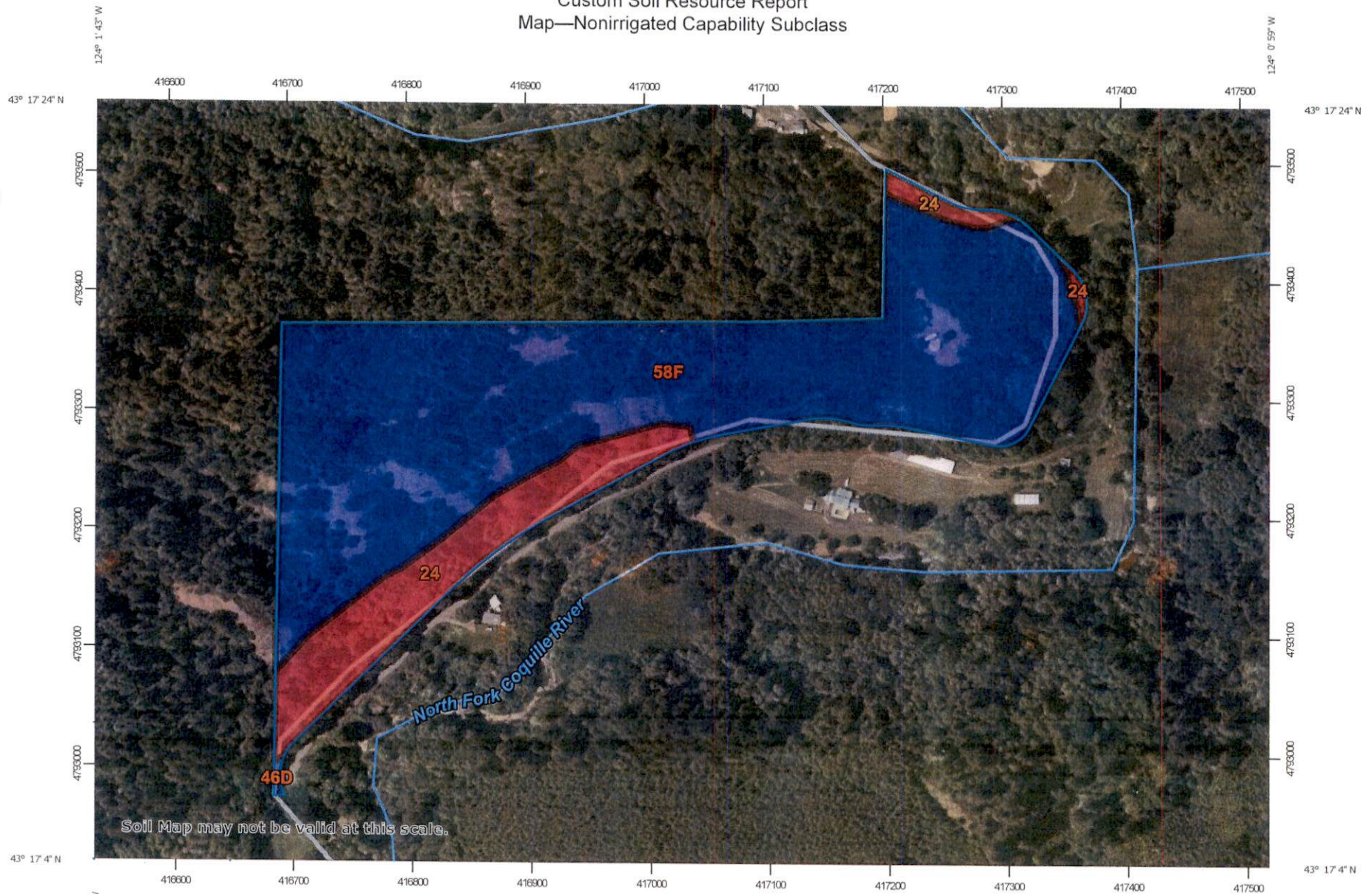
Land capability classification shows, in a general way, the suitability of soils for most kinds of field crops. Crops that require special management are excluded. The soils are grouped according to their limitations for field crops, the risk of damage if they are used for crops, and the way they respond to management. The criteria used in grouping the soils do not include major and generally expensive landforming that would change slope, depth, or other characteristics of the soils, nor do they include possible but unlikely major reclamation projects. Capability classification is not a substitute for interpretations that show suitability and limitations of groups of soils for rangeland, for woodland, or for engineering purposes.

In the capability system, soils are generally grouped at three levels—capability class, subclass, and unit. Only class and subclass are included in this data set.

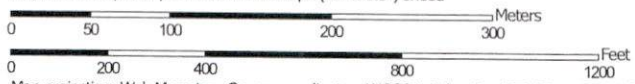
Capability subclasses are soil groups within one capability class. They are designated by adding a small letter, "e," "w," "s," or "c," to the class numeral, for example, 2e. The letter "e" shows that the main hazard is the risk of erosion unless close-growing plant cover is maintained; "w" shows that water in or on the soil interferes with plant growth or cultivation (in some soils the wetness can be partly corrected by artificial drainage); "s" shows that the soil is limited mainly because it is shallow, droughty, or stony; and "c," used in only some parts of the United States, shows that the chief limitation is climate that is very cold or very dry.

In class 1 there are no subclasses because the soils of this class have few limitations. Class 5 contains only the subclasses indicated by "w," "s," or "c" because the soils in class 5 are subject to little or no erosion. They have other limitations that restrict their use to pasture, rangeland, forestland, or wildlife habitat.

Custom Soil Resource Report  
Map—Nonirrigated Capability Subclass


























Map Scale: 1:4,510 if printed on A landscape (11" x 8.5") sheet.



Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 10N WGS84



### MAP LEGEND

<b>Area of Interest (AOI)</b>		<b>Transportation</b>	
	Area of Interest (AOI)		Rails
<b>Soils</b>			Interstate Highways
<b>Soil Rating Polygons</b>			US Routes
	Erosion		Major Roads
	Soil limitation within the rooting zone		Local Roads
	Excess water	<b>Background</b>	
	Climate condition		Aerial Photography
	Not rated or not available		
<b>Soil Rating Lines</b>			
	Erosion		
	Soil limitation within the rooting zone		
	Excess water		
	Climate condition		
	Not rated or not available		
<b>Soil Rating Points</b>			
	Erosion		
	Soil limitation within the rooting zone		
	Excess water		
	Climate condition		
	Not rated or not available		
<b>Water Features</b>			
	Streams and Canals		

### MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Warning: Soil Map may not be valid at this scale.

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Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service  
 Web Soil Survey URL:  
 Coordinate System: Web Mercator (EPSG:3857)

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Soil Survey Area: Coos County, Oregon  
 Survey Area Data: Version 19, Sep 7, 2023

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Custom Soil Resource Report

**Table—Nonirrigated Capability Subclass**

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
24	Gardiner sandy loam	w	5.0	17.0%
46D	Preacher-Bohannon loams, 3 to 30 percent slopes	e	0.0	0.2%
58F	Umpcoos-Rock outcrop association, 70 to 99 percent slopes	e	24.3	82.9%
<b>Totals for Area of Interest</b>			<b>29.4</b>	<b>100.0%</b>

**Rating Options—Nonirrigated Capability Subclass**

*Aggregation Method: Dominant Condition*

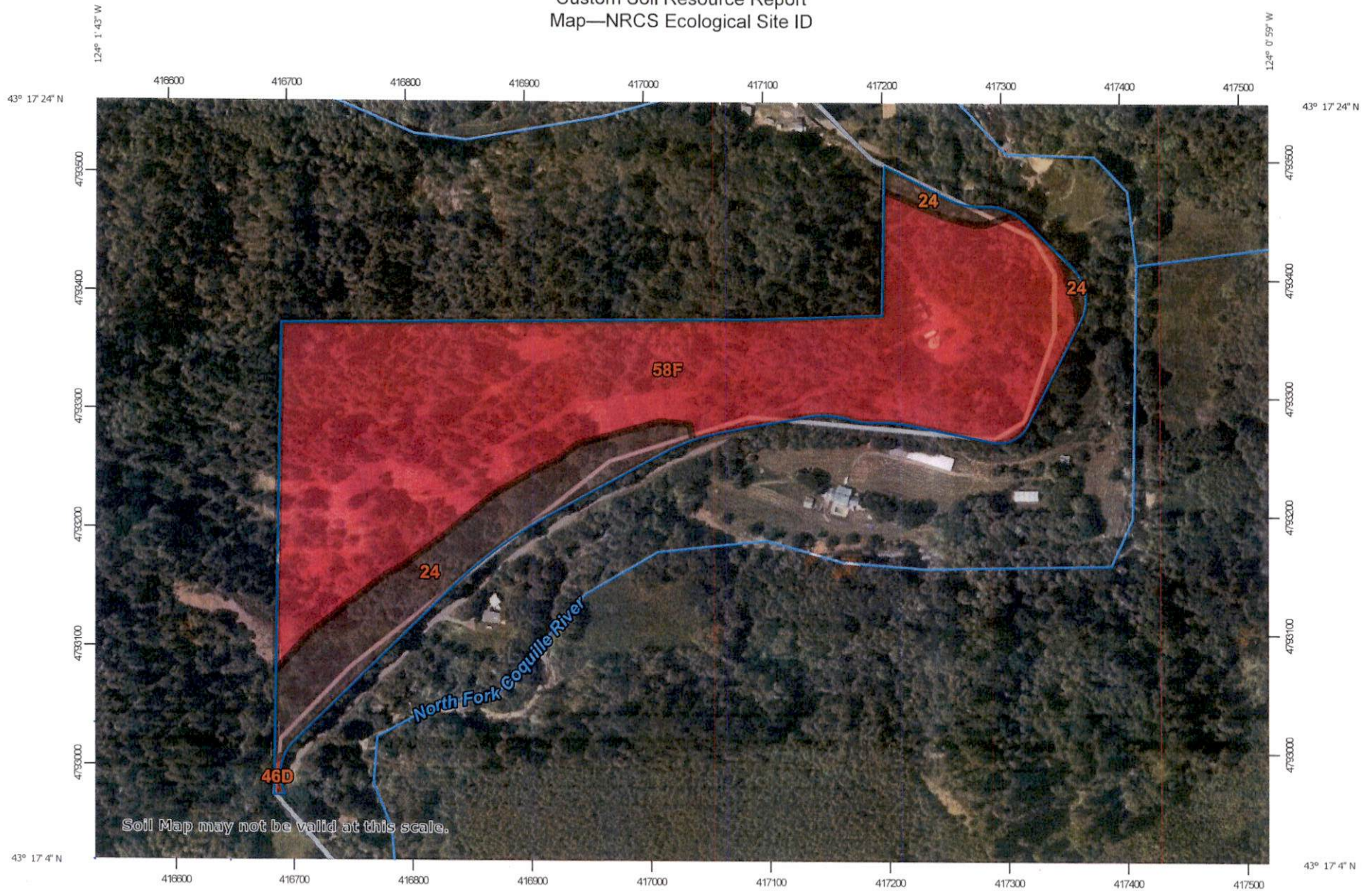
*Component Percent Cutoff: None Specified*

*Tie-break Rule: Lower*

**NRCS Ecological Site ID**

An "ecological site ID" is the symbol assigned to a specific ecological site. An "ecological site" is the product of all the environmental factors responsible for its development. It has characteristic soils that have developed over time; a characteristic hydrology, particularly infiltration and runoff, that has developed over time; and a characteristic plant community (kind and amount of vegetation). The vegetation, soils, and hydrology are all interrelated. Each is influenced by the others and influences the development of the others. For example, the hydrology of the site is influenced by development of the soil and plant community. The plant community on an ecological site is typified by an association of species that differs from that of other ecological sites in the kind and/or proportion of species or in total production. Descriptions of ecological sites are provided in the Field Office Technical Guide, which is available in local offices of the Natural Resources Conservation Service.

Custom Soil Resource Report  
Map—NRCS Ecological Site ID



Soil Map may not be valid at this scale.

Map Scale: 1:4,510 if printed on A landscape (11" x 8.5") sheet.




Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 10N WGS84



# Custom Soil Resource Report

## MAP LEGEND

### Area of Interest (AOI)

 Area of Interest (AOI)

### Soils

#### Soil Rating Polygons

 F001XD002OR

 F001XD412OR

 Not rated or not available

#### Soil Rating Lines

 F001XD002OR


 F001XD412OR

 Not rated or not available


#### Soil Rating Points

 F001XD002OR


 F001XD412OR

 Not rated or not available

### Water Features

 Streams and Canals

### Transportation

 Rails

 Interstate Highways

 US Routes

 Major Roads

 Local Roads

### Background

 Aerial Photography

## MAP INFORMATION

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Custom Soil Resource Report

**Table—NRCS Ecological Site ID**

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
24	Gardiner sandy loam	F001XD002OR	5.0	17.0%
46D	Preacher-Bohannon loams, 3 to 30 percent slopes	F001XD412OR	0.0	0.2%
58F	Umpcoos-Rock outcrop association, 70 to 99 percent slopes	F001XD412OR	24.3	82.9%
Totals for Area of Interest			29.4	100.0%

**Rating Options—NRCS Ecological Site ID**

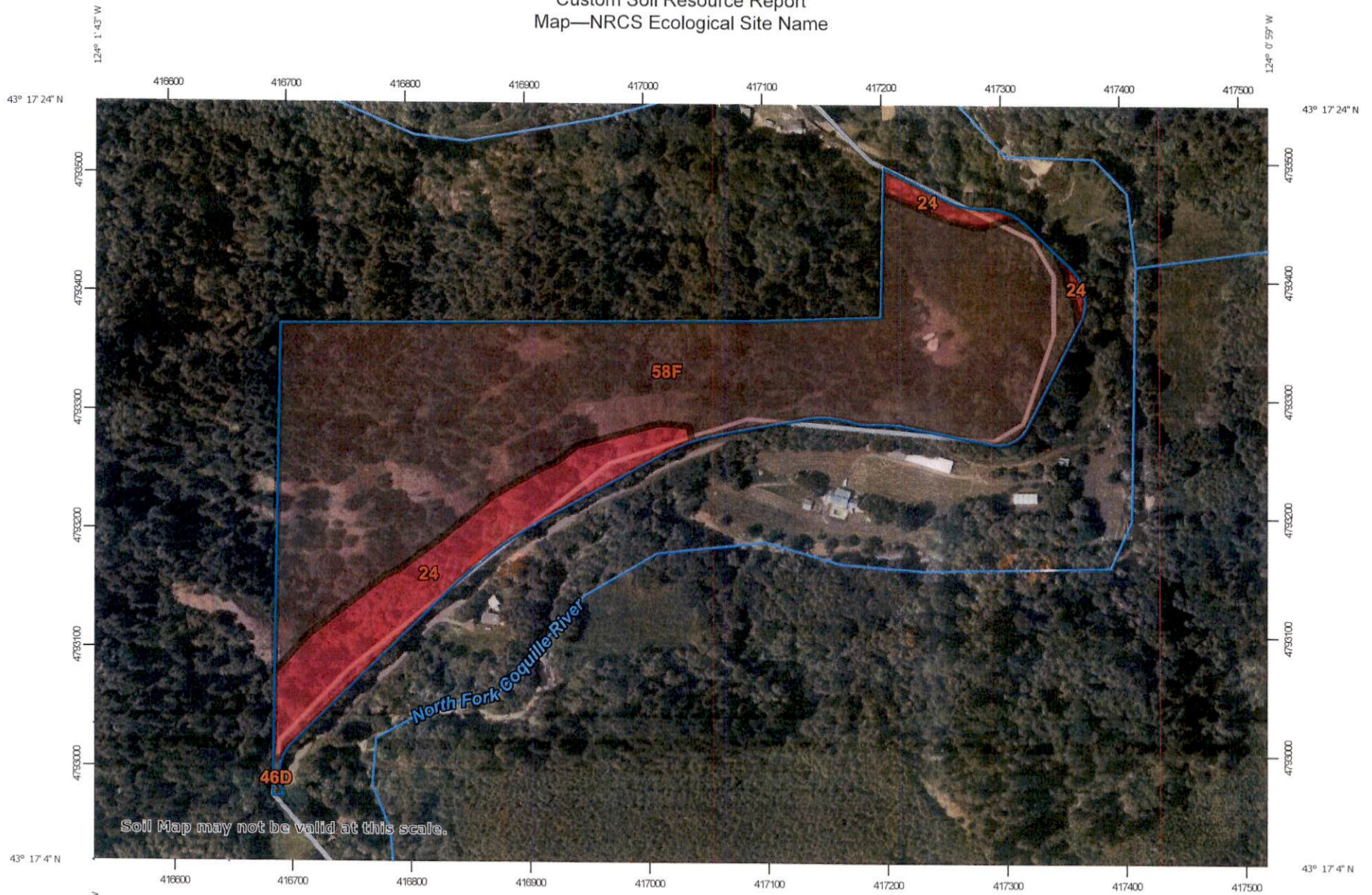
*Aggregation Method:* Dominant Condition  
*Component Percent Cutoff:* None Specified  
*Tie-break Rule:* Lower

**NRCS Ecological Site Name**

An "ecological site ID" is the symbol assigned to a specific ecological site. An "ecological site" is the product of all the environmental factors responsible for its development. It has characteristic soils that have developed over time; a characteristic hydrology, particularly infiltration and runoff, that has developed over time; and a characteristic plant community (kind and amount of vegetation). The vegetation, soils, and hydrology are all interrelated. Each is influenced by the others and influences the development of the others. For example, the hydrology of the site is influenced by development of the soil and plant community. The plant community on an ecological site is typified by an association of species that differs from that of other ecological sites in the kind and/or proportion of species or in total production. Descriptions of ecological sites are provided in the Field Office Technical Guide, which is available in local offices of the Natural Resources Conservation Service.



Custom Soil Resource Report  
Map—NRCS Ecological Site Name




















Map Scale: 1:4,510 if printed on A landscape (11" x 8.5") sheet.



Map projection: Web Mercator Corner coordinates: WGS84 Edge ticks: UTM Zone 10N WGS84

# Custom Soil Resource Report

## MAP LEGEND

- Area of Interest (AOI)**
-  Area of Interest (AOI)
- Background**
-  Aerial Photography
- Soils**
- Soil Rating Polygons**
-  Mesic Udic Flood Plain Forest
  -  Mesic Udic Wet Forest
  -  Not rated or not available
- Soil Rating Lines**
-  Mesic Udic Flood Plain Forest
  -  Mesic Udic Wet Forest
  -  Not rated or not available
- Soil Rating Points**
-  Mesic Udic Flood Plain Forest
  -  Mesic Udic Wet Forest
  -  Not rated or not available
- Water Features**
-  Streams and Canals
- Transportation**
-  Rails
  -  Interstate Highways
  -  US Routes
  -  Major Roads
  -  Local Roads

## MAP INFORMATION

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Custom Soil Resource Report

**Table—NRCS Ecological Site Name**

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
24	Gardiner sandy loam	Mesic Udic Flood Plain Forest	5.0	17.0%
46D	Preacher-Bohannon loams, 3 to 30 percent slopes	Mesic Udic Wet Forest	0.0	0.2%
58F	Umppoos-Rock outcrop association, 70 to 99 percent slopes	Mesic Udic Wet Forest	24.3	82.9%
<b>Totals for Area of Interest</b>			<b>29.4</b>	<b>100.0%</b>

**Rating Options—NRCS Ecological Site Name**

*Aggregation Method: Dominant Condition*

*Component Percent Cutoff: None Specified*

*Tie-break Rule: Lower*

**Land Management**

Land management interpretations are tools designed to guide the user in evaluating existing conditions in planning and predicting the soil response to various land management practices, for a variety of land uses, including cropland, forestland, hayland, pastureland, horticulture, and rangeland. Example interpretations include suitability for a variety of irrigation practices, log landings, haul roads and major skid trails, equipment operability, site preparation, suitability for hand and mechanical planting, potential erosion hazard associated with various practices, and ratings for fencing and waterline installation.

**Drought Vulnerable Soils**

FOR - Forestry

**Drought Vulnerable Soils**

Even in a year, having normal precipitation or slightly less than normal, some soils are prone to having drought stress occur in the plants growing on them. Several conditions can allow this to happen. Most influential may be a relative lack of effective precipitation, as is estimated by subtracting the mean annual precipitation from an estimate of the annual evapotranspiration. Soils west of the 100th meridian frequently fall into this situation, especially at low elevations. Also, a soil may have an inherently low ability to store water. This is typical of sandy or shallow soils or



## Custom Soil Resource Report

soils having a high content of rock fragments. In this case, even though there may be significant rainfall, the soil matrix does not retain sufficient water for crop growth.

Topographic and climatic characteristics can be present to mitigate a soil's droughty tendencies. Some soils exist on water-gathering portions of the landscape and can thus support more plant growth than their similar neighbors because of run on. Some soils have a water table present within the rooting zone during the growing season to supply plant water needs. Finally, some soils exist in a climate where precipitation is much higher than evapotranspiration and the soil is nearly always moist. This can occur in cool climates at high elevations.

The ratings are both verbal and numerical. Rating class terms indicate the extent to which the soils are vulnerable to drought. Numerical ratings indicate the degree of vulnerability associated with each soil or site feature. The ratings are shown in decimal fractions ranging from 0.01 to 1.00. They indicate gradations between the point at which a soil feature imparts the greatest degree of vulnerability (1.00) and the point at which the soil feature helps to mitigate drought vulnerability (0.00).

Verbal ratings are defined as follows:

**Severely drought vulnerable (rating index equals 1.0).** The soil and site properties present are such that the plants growing on the soil must be very drought tolerant even in years with normal amounts of rainfall. The soil may have very low water storage capacity (below 5 cm) or may be in an area of low annual precipitation or high annual temperature or both.

**Drought vulnerable (rating index is greater than 0.67 but less than 1.0).** The soil and site properties are such that drought conditions generally occur every year. The soil may have low water storage capacity (5 to 15 cm) and the site may have low annual precipitation or high annual temperature or both.

**Moderately drought vulnerable (rating index is greater than 0.33 but less than 0.67).** The soil and site properties are such that in an average year, some water stress may occur, but in a good year, plant available water is generally adequate. Water storage is in the range of 15 to 25 cm. Rainfall and estimated potential evapotranspiration are nearly equal.

**Somewhat drought vulnerable (rating index is greater than 0 but less than 0.33).** These soils have greater than 25 cm of water storage and annual precipitation is generally adequate for plant growth. In dry years some water stress may occur.

**Slightly drought vulnerable (rating index equals 0).** These soils are either in lowlying parts of the landscape where plant roots may exploit near-surface ground water or are in areas where precipitation is much higher than potential evapotranspiration. In an extremely dry year plants may be water stressed on these soils.

The map unit components listed for each map unit in the accompanying Summary by Map Unit table in Web Soil Survey or the Aggregation Report in Soil Data Viewer are determined by the aggregation method chosen. An aggregated rating class is shown for each map unit. The components listed for each map unit are only those

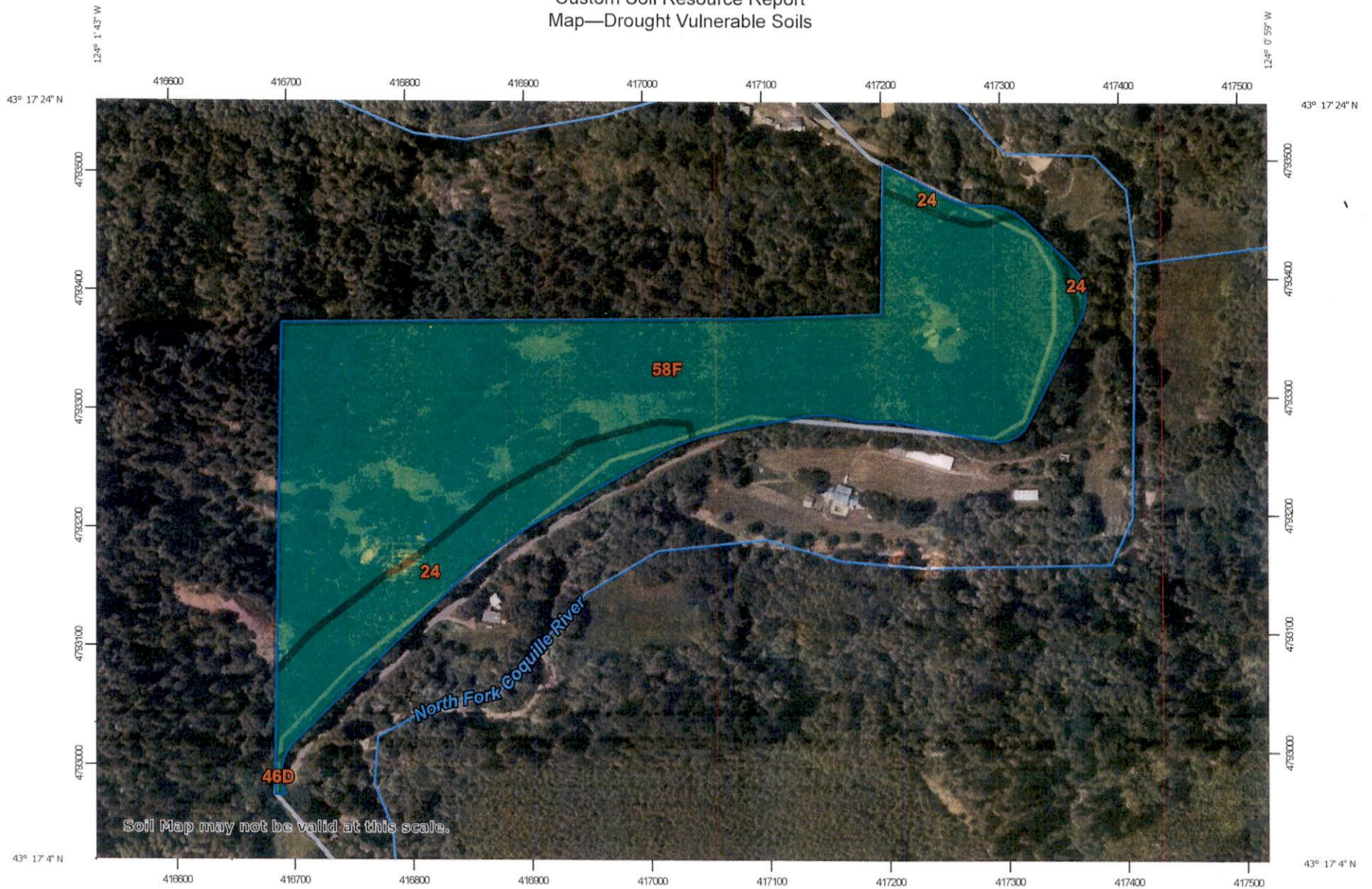
## Custom Soil Resource Report

that have the same rating class as listed for the map unit. The percent composition of each component in a particular map unit is provided to help the user better understand the percentage of each map unit that has the rating presented.

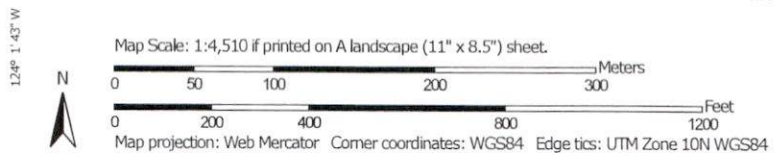
Other components with different ratings may be present in each map unit. The ratings for all components, regardless of the map unit aggregated rating, can be viewed by generating the equivalent report from the Soil Reports tab in Web Soil Survey or from the Soil Data Mart site. Onsite investigation may be needed to validate these interpretations and to confirm the identity of the soil on a given site.





























# Custom Soil Resource Report Map—Drought Vulnerable Soils



Soil Map may not be valid at this scale.



### MAP LEGEND

- Area of Interest (AOI)**
  -  Area of Interest (AOI)
- Soils**
  - Soil Rating Polygons**
    -  Severely drought vulnerable
    -  Drought vulnerable
    -  Moderately drought vulnerable
    -  Somewhat drought vulnerable
    -  Slightly drought vulnerable
    -  Not rated or not available
  - Soil Rating Lines**
    -  Severely drought vulnerable
    -  Drought vulnerable
    -  Moderately drought vulnerable
    -  Somewhat drought vulnerable
    -  Slightly drought vulnerable
    -  Not rated or not available
  - Soil Rating Points**
    -  Severely drought vulnerable
    -  Drought vulnerable
    -  Moderately drought vulnerable
    -  Somewhat drought vulnerable
    -  Slightly drought vulnerable
- Water Features**
  -  Streams and Canals
- Transportation**
  -  Rails
  -  Interstate Highways
  -  US Routes
  -  Major Roads
  -  Local Roads
- Background**
  -  Aerial Photography
  -  Not rated or not available

### MAP INFORMATION

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 Web Soil Survey URL:  
 Coordinate System: Web Mercator (EPSG:3857)

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Custom Soil Resource Report

Tables—Drought Vulnerable Soils

Map unit symbol	Map unit name	Rating	Component name (percent)	Rating reasons (numeric values)	Acres in AOI	Percent of AOI
24	Gardiner sandy loam	Slightly drought vulnerable	Gardiner (85%)	Not subirrigated (1.00)	5.0	17.0%
				Moderate water storage (0.45)		
				Somewhat water gathering (0.13)		
			Quosatana (7%)	Not subirrigated (1.00)		
46D	Preacher-Bohannon loams, 3 to 30 percent slopes	Slightly drought vulnerable	Preacher (50%)	Not subirrigated (1.00)	0.0	0.2%
				Not subirrigated (1.00)		
				Low water storage (0.69)		
			Bohannon (30%)	Not subirrigated (1.00)		
58F	Umpcoos-Rock outcrop association, 70 to 99 percent slopes	Slightly drought vulnerable	Umpcoos (40%)	Very low water storage (1.00)	24.3	82.9%
				Not subirrigated (1.00)		
<b>Totals for Area of Interest</b>					<b>29.4</b>	<b>100.0%</b>

Rating	Acres in AOI	Percent of AOI
Slightly drought vulnerable	29.4	100.0%
<b>Totals for Area of Interest</b>	<b>29.4</b>	<b>100.0%</b>

**Rating Options—Drought Vulnerable Soils**

*Aggregation Method: Dominant Condition*

*Component Percent Cutoff: None Specified*

*Tie-break Rule: Higher*

**Vegetative Productivity**

Vegetative productivity includes estimates of potential vegetative production for a variety of land uses, including cropland, forestland, hayland, pastureland, horticulture and rangeland. In the underlying database, some states maintain crop yield data by individual map unit component. Other states maintain the data at the map unit level. Attributes are included for both, although only one or the other is likely to contain data for any given geographic area. For other land uses,



productivity data is shown only at the map unit component level. Examples include potential crop yields under irrigated and nonirrigated conditions, forest productivity, forest site index, and total rangeland production under of normal, favorable and unfavorable conditions.

### **Forest Productivity (Cubic Feet per Acre per Year): Douglas-fir (King 1966 (795))**

This forest productivity measurement is the maximum wood volume annual growth rate for unmanaged, even-aged stands. Units are cubic feet per acre per year. This is called the "culmination of mean annual increment" (CMAI).

Mean annual increment (MAI) is the average yearly wood volume growth per acre of a stand. This is computed by dividing the total wood volume by the stand age. As the stand increases in age, the MAI also increases until tree-to-tree competition and physiological maturity reduce the rate of increase. The point when a stand reaches its maximum MAI is called the "culmination of mean annual increment" (CMAI).

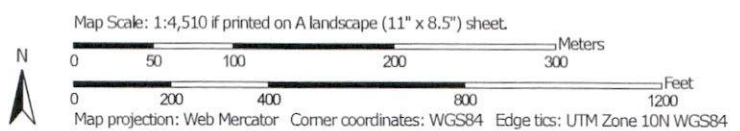
This attribute is actually recorded as three separate values in the database. A low value and a high value indicate the range of this attribute for the soil component. A "representative" value indicates the expected value of this attribute for the component. For this attribute, only the representative value is used.

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Custom Soil Resource Report  
 Map—Forest Productivity (Cubic Feet per Acre per Year): Douglas-fir (King 1966 (795))




















Soil Map may not be valid at this scale.





### MAP LEGEND

- Area of Interest (AOI)**
  -  Area of Interest (AOI)
- Soils**
  - Soil Rating Polygons**
    -  <= 72.00
    -  > 72.00 and <= 186.00
    -  Not rated or not available
  - Soil Rating Lines**
    -  <= 72.00
    -  > 72.00 and <= 186.00
    -  Not rated or not available
  - Soil Rating Points**
    -  <= 72.00
    -  > 72.00 and <= 186.00
    -  Not rated or not available
- Water Features**
  -  Streams and Canals
- Transportation**
  -  Rails
  -  Interstate Highways
  -  US Routes
  -  Major Roads
  -  Local Roads
- Background**
  -  Aerial Photography

### MAP INFORMATION

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 Coordinate System: Web Mercator (EPSG:3857)

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**Table—Forest Productivity (Cubic Feet per Acre per Year):  
Douglas-fir (King 1966 (795))**

Map unit symbol	Map unit name	Rating (cubic feet per acre per year)	Acres in AOI	Percent of AOI
24	Gardiner sandy loam		5.0	17.0%
46D	Preacher-Bohannon loams, 3 to 30 percent slopes	186.00	0.0	0.2%
58F	Umppoos-Rock outcrop association, 70 to 99 percent slopes	72.00	24.3	82.9%
<b>Totals for Area of Interest</b>			<b>29.4</b>	<b>100.0%</b>

**Rating Options—Forest Productivity (Cubic Feet per Acre per Year): Douglas-fir (King 1966 (795))**

*Units of Measure:* cubic feet per acre per year

*Tree:* Douglas-fir

*Site Index Base:* King 1966 (795)

*Aggregation Method:* Dominant Component

*Component Percent Cutoff:* None Specified

*Tie-break Rule:* Higher

*Interpret Nulls as Zero:* No

**Forest Productivity (Tree Site Index): Douglas-fir (King 1966 (795))**

The "site index" is the average height, in feet, that dominant and codominant trees of a given species attain in a specified number of years. The site index applies to fully stocked, even-aged, unmanaged stands.

This attribute is actually recorded as three separate values in the database. A low value and a high value indicate the range of this attribute for the soil component. A "representative" value indicates the expected value of this attribute for the component. For this attribute, only the representative value is used.

Custom Soil Resource Report  
Map—Forest Productivity (Tree Site Index): Douglas-fir (King 1966 (795))



Map Scale: 1:4,510 if printed on A landscape (11" x 8.5") sheet.

0 50 100 200 300 Meters

0 200 400 800 1200 Feet


Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 10N WGS84



# Custom Soil Resource Report

## MAP LEGEND

### Area of Interest (AOI)

 Area of Interest (AOI)

### Soils

#### Soil Rating Polygons

  $\leq 64$


  $> 64$  and  $\leq 126$

 Not rated or not available

#### Soil Rating Lines

  $\leq 64$

  $> 64$  and  $\leq 126$

 Not rated or not available


#### Soil Rating Points

  $\leq 64$

  $> 64$  and  $\leq 126$

 Not rated or not available

### Water Features

 Streams and Canals

### Transportation

 Rails

 Interstate Highways

 US Routes

 Major Roads

 Local Roads

### Background

 Aerial Photography

## MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service  
Web Soil Survey URL:  
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Coos County, Oregon  
Survey Area Data: Version 19, Sep 7, 2023

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: May 19, 2023—Jun 3, 2023

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.



**Table—Forest Productivity (Tree Site Index): Douglas-fir (King 1966 (795))**

Map unit symbol	Map unit name	Rating (feet)	Acres in AOI	Percent of AOI
24	Gardiner sandy loam		5.0	17.0%
46D	Preacher-Bohannon loams, 3 to 30 percent slopes	126	0.0	0.2%
58F	Umppoos-Rock outcrop association, 70 to 99 percent slopes	64	24.3	82.9%
Totals for Area of Interest			29.4	100.0%

**Rating Options—Forest Productivity (Tree Site Index): Douglas-fir (King 1966 (795))**

*Units of Measure:* feet

*Tree:* Douglas-fir

*Site Index Base:* King 1966 (795)

*Aggregation Method:* Dominant Component

*Component Percent Cutoff:* None Specified

*Tie-break Rule:* Higher

*Interpret Nulls as Zero:* No

**Yields of Irrigated Crops (Component): Pasture (AUM)**

These are the estimated average yields per acre that can be expected of selected irrigated crops under a high level of management. In any given year, yields may be higher or lower than those indicated because of variations in rainfall and other climatic factors. It is assumed that the irrigation system is adapted to the soils and to the crops grown, that good-quality irrigation water is uniformly applied as needed, and that tillage is kept to a minimum.

In the database, some states maintain crop yield data by individual map unit component and others maintain the data at the map unit level. Attributes are included in this application for both, although only one or the other is likely to have data for any given geographic area. This attribute uses data maintained at the map unit component level.

The yields are actually recorded as three separate values in the database. A low value and a high value indicate the range for the soil component. A "representative" value indicates the expected value for the component. For these yields, only the representative value is used.

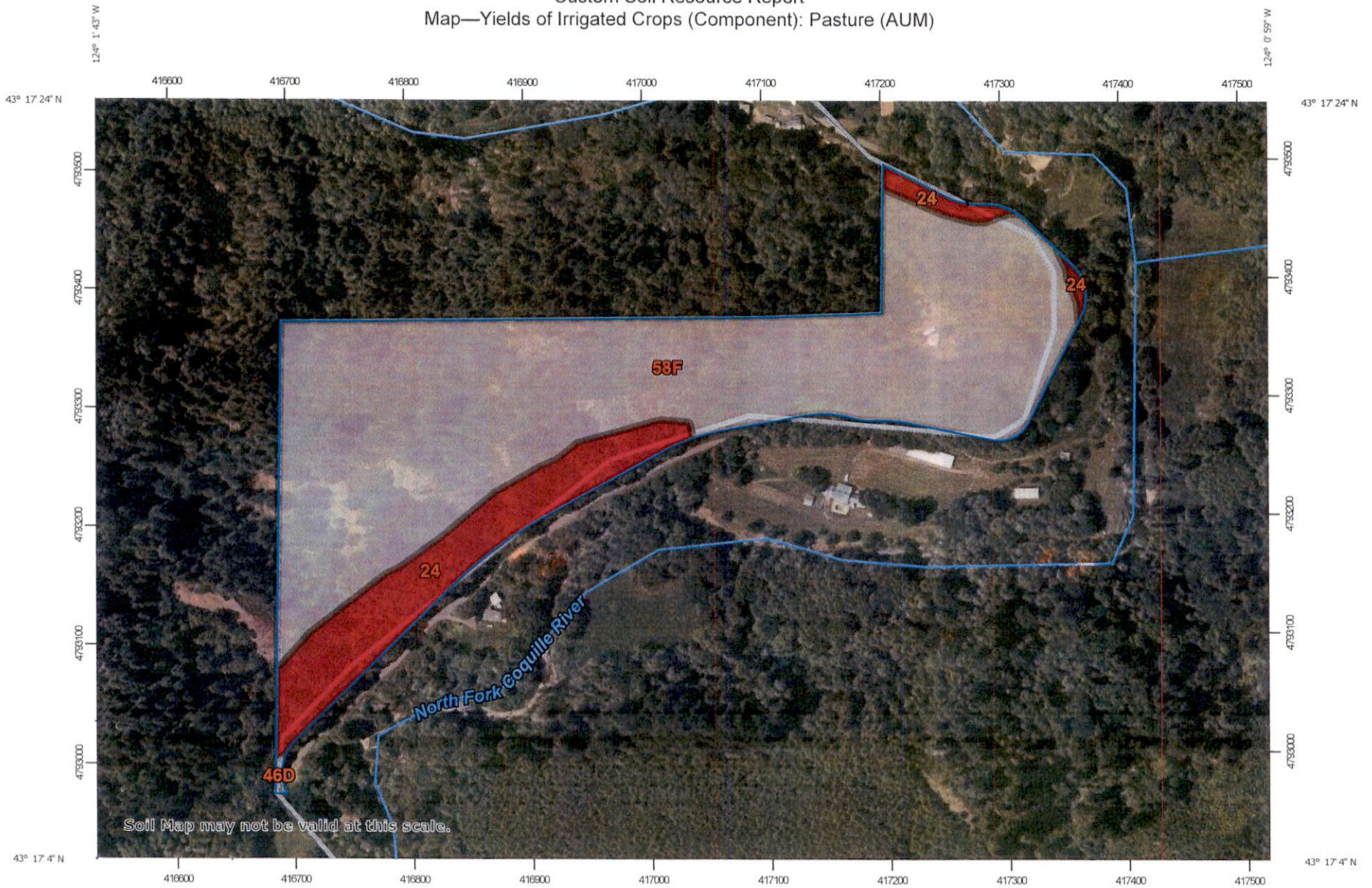
## Custom Soil Resource Report

The yields are based mainly on the experience and records of farmers, conservationists, and extension agents. Available yield data from nearby areas and results of field trials and demonstrations also are considered.

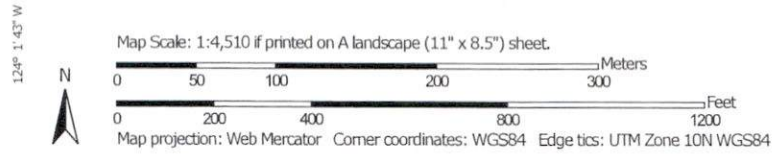
The management needed to obtain the indicated yields of the various crops depends on the kind of soil and the crop. Management can include drainage, erosion control, and protection from flooding; the proper planting and seeding rates; suitable high-yielding crop varieties; appropriate and timely tillage; control of weeds, plant diseases, and harmful insects; favorable soil reaction and optimum levels of nitrogen, phosphorus, potassium, and trace elements for each crop; effective use of crop residue, barnyard manure, and green manure crops; and harvesting that ensures the smallest possible loss.

The estimated yields reflect the productive capacity of each soil for the selected crop. Yields are likely to increase as new production technology is developed. The productivity of a given soil compared with that of other soils, however, is not likely to change.

Custom Soil Resource Report  
Map—Yields of Irrigated Crops (Component): Pasture (AUM)




Soil Map may not be valid at this scale.



# Custom Soil Resource Report

## MAP LEGEND

### Area of Interest (AOI)

 Area of Interest (AOI)

### Soils

#### Soil Rating Polygons

 = 14.08

 Not rated or not available

#### Soil Rating Lines

 = 14.08


 Not rated or not available

#### Soil Rating Points

 = 14.08

 Not rated or not available

### Water Features

 Streams and Canals

### Transportation

 Rails


 Interstate Highways

 US Routes

 Major Roads

 Local Roads

### Background

 Aerial Photography

## MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service  
Web Soil Survey URL:  
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Coos County, Oregon  
Survey Area Data: Version 19, Sep 7, 2023

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: May 19, 2023—Jun 3, 2023

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.



**Table—Yields of Irrigated Crops (Component): Pasture (AUM)**

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
24	Gardiner sandy loam	14.08	5.0	17.0%
46D	Preacher-Bohannon loams, 3 to 30 percent slopes		0.0	0.2%
58F	Umpcoos-Rock outcrop association, 70 to 99 percent slopes		24.3	82.9%
Totals for Area of Interest			29.4	100.0%

**Rating Options—Yields of Irrigated Crops (Component): Pasture (AUM)**

*Crop:* Pasture

*Yield Units:* AUM

*Aggregation Method:* Weighted Average

*Component Percent Cutoff:* None Specified

*Tie-break Rule:* Higher

*Interpret Nulls as Zero:* Yes

**Yields of Irrigated Crops (Component): Grass-legume hay (Tons)**

These are the estimated average yields per acre that can be expected of selected irrigated crops under a high level of management. In any given year, yields may be higher or lower than those indicated because of variations in rainfall and other climatic factors. It is assumed that the irrigation system is adapted to the soils and to the crops grown, that good-quality irrigation water is uniformly applied as needed, and that tillage is kept to a minimum.

In the database, some states maintain crop yield data by individual map unit component and others maintain the data at the map unit level. Attributes are included in this application for both, although only one or the other is likely to have data for any given geographic area. This attribute uses data maintained at the map unit component level.

The yields are actually recorded as three separate values in the database. A low value and a high value indicate the range for the soil component. A "representative" value indicates the expected value for the component. For these yields, only the representative value is used.

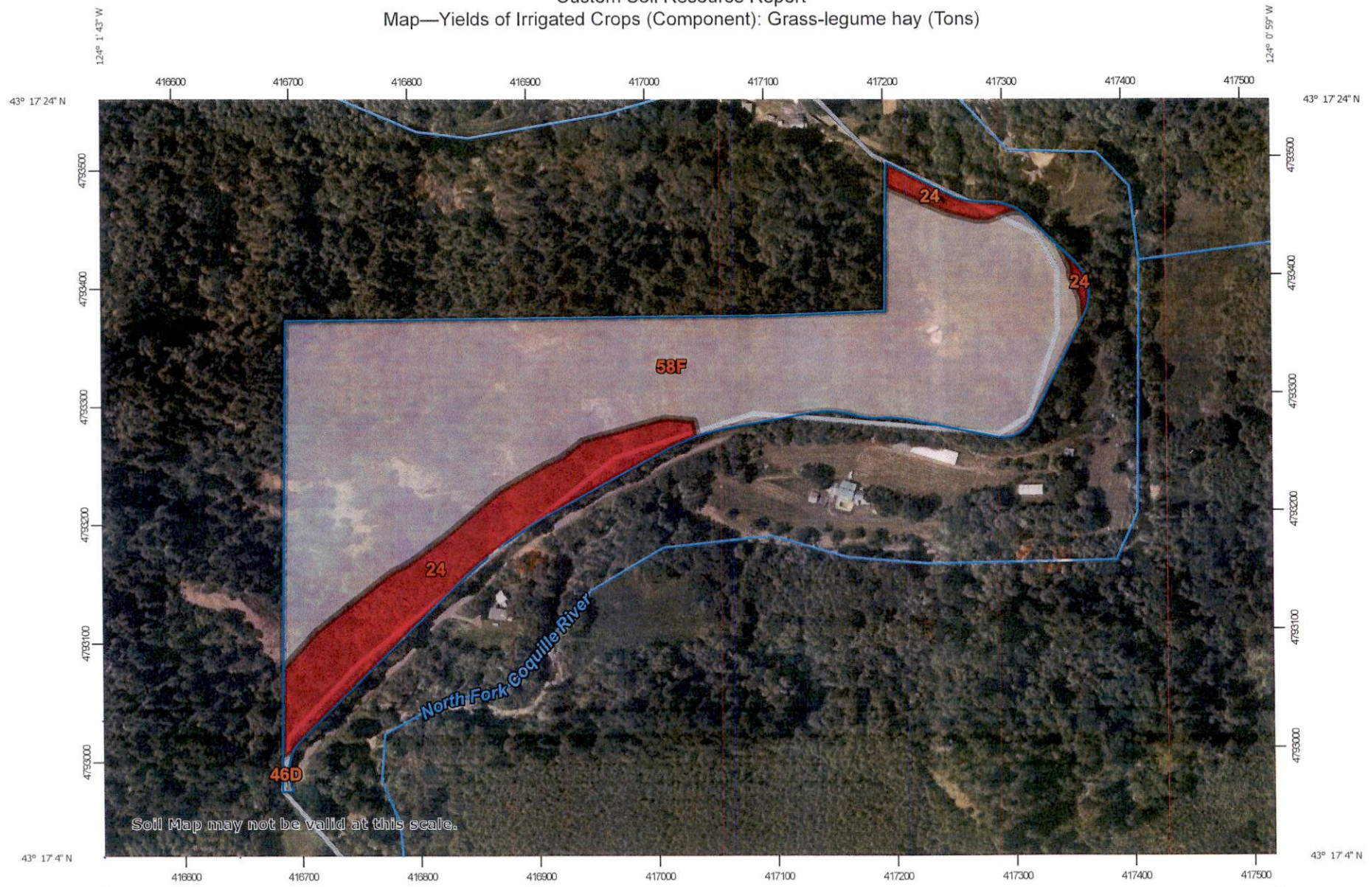
## Custom Soil Resource Report

The yields are based mainly on the experience and records of farmers, conservationists, and extension agents. Available yield data from nearby areas and results of field trials and demonstrations also are considered.

The management needed to obtain the indicated yields of the various crops depends on the kind of soil and the crop. Management can include drainage, erosion control, and protection from flooding; the proper planting and seeding rates; suitable high-yielding crop varieties; appropriate and timely tillage; control of weeds, plant diseases, and harmful insects; favorable soil reaction and optimum levels of nitrogen, phosphorus, potassium, and trace elements for each crop; effective use of crop residue, barnyard manure, and green manure crops; and harvesting that ensures the smallest possible loss.

The estimated yields reflect the productive capacity of each soil for the selected crop. Yields are likely to increase as new production technology is developed. The productivity of a given soil compared with that of other soils, however, is not likely to change.

Custom Soil Resource Report  
 Map—Yields of Irrigated Crops (Component): Grass-legume hay (Tons)



Soil Map may not be valid at this scale.

124° 1' 43" W



Map Scale: 1:4,510 if printed on A landscape (11" x 8.5") sheet.  
 0 50 100 200 300 Meters  
 0 200 400 800 1200 Feet  
 Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 10N WGS84


124° 0' 59" W



# Custom Soil Resource Report

## MAP LEGEND

### Area of Interest (AOI)

 Area of Interest (AOI)

### Soils


#### Soil Rating Polygons

 = 0.38

 Not rated or not available


#### Soil Rating Lines

 = 0.38


 Not rated or not available

#### Soil Rating Points

 = 0.38

 Not rated or not available

### Water Features

 Streams and Canals

### Transportation

 Rails

 Interstate Highways

 US Routes

 Major Roads

 Local Roads

### Background

 Aerial Photography

## MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service

Web Soil Survey URL:

Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Coos County, Oregon

Survey Area Data: Version 19, Sep 7, 2023

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: May 19, 2023—Jun 3, 2023

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.



Custom Soil Resource Report

**Table—Yields of Irrigated Crops (Component): Grass-legume hay (Tons)**

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
24	Gardiner sandy loam	0.38	5.0	17.0%
46D	Preacher-Bohannon loams, 3 to 30 percent slopes		0.0	0.2%
58F	Umpcoos-Rock outcrop association, 70 to 99 percent slopes		24.3	82.9%
<b>Totals for Area of Interest</b>			<b>29.4</b>	<b>100.0%</b>

**Rating Options—Yields of Irrigated Crops (Component): Grass-legume hay (Tons)**

*Crop:* Grass-legume hay

*Yield Units:* Tons

*Aggregation Method:* Weighted Average

*Component Percent Cutoff:* None Specified

*Tie-break Rule:* Higher

*Interpret Nulls as Zero:* Yes

## Soil Reports

The Soil Reports section includes various formatted tabular and narrative reports (tables) containing data for each selected soil map unit and each component of each unit. No aggregation of data has occurred as is done in reports in the Soil Properties and Qualities and Suitabilities and Limitations sections.

The reports contain soil interpretive information as well as basic soil properties and qualities. A description of each report (table) is included.

## Vegetative Productivity

This folder contains a collection of tabular reports that present vegetative productivity data. The reports (tables) include all selected map units and components for each map unit. Vegetative productivity includes estimates of potential vegetative production for a variety of land uses, including cropland, forestland, hayland, pastureland, horticulture and rangeland. In the underlying database, some states maintain crop yield data by individual map unit component. Other states maintain the data at the map unit level. Attributes are included for both, although only one or the other is likely to contain data for any given geographic area. For other land uses, productivity data is shown only at the map unit component level. Examples include potential crop yields under irrigated and nonirrigated conditions, forest productivity, forest site index, and total rangeland production under of normal, favorable and unfavorable conditions.

## Forestland Productivity with Site Index Base

This table is designed to assist forestland owners or managers plan the use of soils for wood crops. It provides the potential productivity of the soils for wood crops.

*Potential productivity* of merchantable or *common trees* on a soil is expressed as a site index and as a volume growth rate number. The *site index* is the average height, in feet, that dominant and codominant trees of a given species attain in a specified number of years. The site index applies to fully stocked, even-aged, unmanaged stands. *Common trees* are those that forestland managers generally favor in intermediate or improvement cuttings. They are selected on the basis of growth rate, quality, value, and marketability. More detailed information regarding site index is available in the "National Forestry Manual," which is available in local offices of the Natural Resources Conservation Service or on the Internet.

The *Base Age* is the age of trees in years on which the site index is based. "TA" indicates total age. "BH" indicates breast height age. "N/A" indicates that base age is not applicable.

The *Site Index Curve Number* is listed in the National Register of Site Index Curves. It identifies the site index curve used to determine the site index.

The *Volume Growth Rate* is the maximum wood volume growth rate likely to be produced by the most important tree species. This number, expressed as cubic feet per acre per year and calculated at the age of culmination of the mean annual

## Custom Soil Resource Report

increment (CMAI), indicates the amount of fiber produced in a fully stocked, even-aged, unmanaged stand.

**Reference:**

United States Department of Agriculture, Natural Resources Conservation Service,  
National Forestry Manual.

Custom Soil Resource Report

Forestland Productivity with Site Index Base—Coos County, Oregon					
Map unit symbol and soil name	Common trees	Site Index	Base Age	Site Index Curve Number	Volume Growth Rate (CMAI)
		<i>ft</i>	<i>yrs</i>		<i>cu ft/ac/yr</i>
24—Gardiner sandy loam					
Gardiner	—	—	—	—	—
Quosatana	—	—	—	—	—
46D—Preacher-Bohannon loams, 3 to 30 percent slopes					
Preacher	bigleaf maple	—	—	—	—
	Douglas-fir	126	50 BH	King 1966 (795)	186.00
	red alder	—	—	—	—
	western hemlock	163	100 TA	Barnes 1962 (990)	257.00
Bohannon	bigleaf maple	—	—	—	—
	Douglas-fir	117	50 BH	King 1966 (795)	172.00
	red alder	—	—	—	—
	tanoak	—	—	—	—
	western hemlock	123	100 TA	Barnes 1962 (990)	186.00
	western red cedar	—	—	—	—
58F—Umpcoos-Rock outcrop association, 70 to 99 percent slopes					
Umpcoos	Douglas-fir	64	50 BH	King 1966 (795)	72.00
	incense cedar	—	—	—	—
	Pacific madrone	—	—	—	—
Rock outcrop	—	—	—	—	—



## **Irrigated and Nonirrigated Yields by Map Unit Component**

The average yields per acre that can be expected of the principal crops under a high level of management are shown in this table. In any given year, yields may be higher or lower than those indicated in the table because of variations in rainfall and other climatic factors.

The yields are based mainly on the experience and records of farmers, conservationists, and extension agents. Available yield data from nearby counties and results of field trials and demonstrations also are considered.

The management needed to obtain the indicated yields of the various crops depends on the kind of soil and the crop. Management can include drainage, erosion control, and protection from flooding; the proper planting and seeding rates; suitable high-yielding crop varieties; appropriate and timely tillage; control of weeds, plant diseases, and harmful insects; favorable soil reaction and optimum levels of nitrogen, phosphorus, potassium, and trace elements for each crop; effective use of crop residue, barnyard manure, and green manure crops; and harvesting that ensures the smallest possible loss.

If yields of irrigated crops are given, it is assumed that the irrigation system is adapted to the soils and to the crops grown, that good-quality irrigation water is uniformly applied as needed, and that tillage is kept to a minimum.

Pasture yields are expressed in terms of animal unit months. An animal unit month (AUM) is the amount of forage required by one mature cow of approximately 1,000 pounds weight, with or without a calf, for 1 month.

The estimated yields reflect the productive capacity of each soil for each of the principal crops. Yields are likely to increase as new production technology is developed. The productivity of a given soil compared with that of other soils, however, is not likely to change.

Crops other than those shown in the table are grown in the survey area, but estimated yields are not listed because the acreage of such crops is small. The local office of the Natural Resources Conservation Service or of the Cooperative Extension Service can provide information about the management and productivity of the soils for those crops.

The land capability classification of map units in the survey area is shown in this table. This classification shows, in a general way, the suitability of soils for most kinds of field crops (United States Department of Agriculture, Soil Conservation Service, 1961). Crops that require special management are excluded. The soils are grouped according to their limitations for field crops, the risk of damage if they are used for crops, and the way they respond to management. The criteria used in grouping the soils do not include major and generally expensive landforming that would change slope, depth, or other characteristics of the soils, nor do they include possible but unlikely major reclamation projects. Capability classification is not a substitute for interpretations designed to show suitability and limitations of groups of soils for rangeland, for forestland, or for engineering purposes.

In the capability system, soils are generally grouped at three levels: capability class, subclass, and unit.

## Custom Soil Resource Report

*Capability classes*, the broadest groups, are designated by the numbers 1 through 8. The numbers indicate progressively greater limitations and narrower choices for practical use. The classes are defined as follows:

- Class 1 soils have slight limitations that restrict their use.
- Class 2 soils have moderate limitations that restrict the choice of plants or that require moderate conservation practices.
- Class 3 soils have severe limitations that restrict the choice of plants or that require special conservation practices, or both.
- Class 4 soils have very severe limitations that restrict the choice of plants or that require very careful management, or both.
- Class 5 soils are subject to little or no erosion but have other limitations, impractical to remove, that restrict their use mainly to pasture, rangeland, forestland, or wildlife habitat.
- Class 6 soils have severe limitations that make them generally unsuitable for cultivation and that restrict their use mainly to pasture, rangeland, forestland, or wildlife habitat.
- Class 7 soils have very severe limitations that make them unsuitable for cultivation and that restrict their use mainly to grazing, forestland, or wildlife habitat.
- Class 8 soils and miscellaneous areas have limitations that preclude commercial plant production and that restrict their use to recreational purposes, wildlife habitat, watershed, or esthetic purposes.

*Capability subclasses* are soil groups within one class. They are designated by adding a small letter, *e*, *w*, *s*, or *c*, to the class numeral, for example, 2e. The letter *e* shows that the main hazard is the risk of erosion unless close-growing plant cover is maintained; *w* shows that water in or on the soil interferes with plant growth or cultivation (in some soils the wetness can be partly corrected by artificial drainage); *s* shows that the soil is limited mainly because it is shallow, droughty, or stony; and *c*, used in only some parts of the United States, shows that the chief limitation is climate that is very cold or very dry.

In class 1 there are no subclasses because the soils of this class have few limitations. Class 5 contains only the subclasses indicated by *w*, *s*, or *c* because the soils in class 5 are subject to little or no erosion.

*Capability units* are soil groups within a subclass. The soils in a capability unit are enough alike to be suited to the same crops and pasture plants, to require similar management, and to have similar productivity. Capability units are generally designated by adding an Arabic numeral to the subclass symbol, for example, 2e-4 and 3e-6. These units are not given in all soil surveys.

### Reference:

United States Department of Agriculture, Soil Conservation Service. 1961. Land capability classification. U.S. Department of Agriculture Handbook 210.

## Report—Irrigated and Nonirrigated Yields by Map Unit Component

## Custom Soil Resource Report

Irrigated and Nonirrigated Yields by Map Unit Component—Coos County, Oregon						
Map symbol and soil name	Land capability		Grass-legume hay		Pasture	
	Irrigated	Nonirrigated	Irrigated	Nonirrigated	Irrigated	Nonirrigated
			<i>Tons</i>		<i>AUM</i>	
24—Gardiner sandy loam						
Gardiner	4w	4w	—	—	14.0	6.0
46D—Preacher-Bohannon loams, 3 to 30 percent slopes						
Preacher	—	6e	—	3.00	—	9.0
Bohannon	—	6e	—	—	—	—
58F—Umpcoos-Rock outcrop association, 70 to 99 percent slopes						
Umpcoos	—	7e	—	—	—	—
Rock outcrop	—	8	—	—	—	—

### Nonirrigated Yields by Map Unit Component

The average yields per acre that can be expected of the principal crops under a high level of management are shown in this table. In any given year, yields may be higher or lower than those indicated in the table because of variations in rainfall and other climatic factors.

The yields are based mainly on the experience and records of farmers, conservationists, and extension agents. Available yield data from nearby counties and results of field trials and demonstrations also are considered.

The management needed to obtain the indicated yields of the various crops depends on the kind of soil and the crop. Management can include drainage, erosion control, and protection from flooding; the proper planting and seeding rates; suitable high-yielding crop varieties; appropriate and timely tillage; control of weeds, plant diseases, and harmful insects; favorable soil reaction and optimum levels of nitrogen, phosphorus, potassium, and trace elements for each crop; effective use of crop residue, barnyard manure, and green manure crops; and harvesting that ensures the smallest possible loss.

If yields of irrigated crops are given, it is assumed that the irrigation system is adapted to the soils and to the crops grown, that good-quality irrigation water is uniformly applied as needed, and that tillage is kept to a minimum.

Pasture yields are expressed in terms of animal unit months. An animal unit month (AUM) is the amount of forage required by one mature cow of approximately 1,000 pounds weight, with or without a calf, for 1 month.

The estimated yields reflect the productive capacity of each soil for each of the principal crops. Yields are likely to increase as new production technology is developed. The productivity of a given soil compared with that of other soils, however, is not likely to change.

Crops other than those shown in the table are grown in the survey area, but estimated yields are not listed because the acreage of such crops is small. The

## Custom Soil Resource Report

local office of the Natural Resources Conservation Service or of the Cooperative Extension Service can provide information about the management and productivity of the soils for those crops.

The land capability classification of map units in the survey area is shown in this table. This classification shows, in a general way, the suitability of soils for most kinds of field crops (United States Department of Agriculture, Soil Conservation Service, 1961). Crops that require special management are excluded. The soils are grouped according to their limitations for field crops, the risk of damage if they are used for crops, and the way they respond to management. The criteria used in grouping the soils do not include major and generally expensive landforming that would change slope, depth, or other characteristics of the soils, nor do they include possible but unlikely major reclamation projects. Capability classification is not a substitute for interpretations designed to show suitability and limitations of groups of soils for rangeland, for forestland, or for engineering purposes.

In the capability system, soils are generally grouped at three levels: capability class, subclass, and unit.

*Capability classes*, the broadest groups, are designated by the numbers 1 through 8. The numbers indicate progressively greater limitations and narrower choices for practical use. The classes are defined as follows:

- Class 1 soils have slight limitations that restrict their use.
- Class 2 soils have moderate limitations that restrict the choice of plants or that require moderate conservation practices.
- Class 3 soils have severe limitations that restrict the choice of plants or that require special conservation practices, or both.
- Class 4 soils have very severe limitations that restrict the choice of plants or that require very careful management, or both.
- Class 5 soils are subject to little or no erosion but have other limitations, impractical to remove, that restrict their use mainly to pasture, rangeland, forestland, or wildlife habitat.
- Class 6 soils have severe limitations that make them generally unsuitable for cultivation and that restrict their use mainly to pasture, rangeland, forestland, or wildlife habitat.
- Class 7 soils have very severe limitations that make them unsuitable for cultivation and that restrict their use mainly to grazing, forestland, or wildlife habitat.
- Class 8 soils and miscellaneous areas have limitations that preclude commercial plant production and that restrict their use to recreational purposes, wildlife habitat, watershed, or esthetic purposes.

*Capability subclasses* are soil groups within one class. They are designated by adding a small letter, *e*, *w*, *s*, or *c*, to the class numeral, for example, 2e. The letter *e* shows that the main hazard is the risk of erosion unless close-growing plant cover is maintained; *w* shows that water in or on the soil interferes with plant growth or cultivation (in some soils the wetness can be partly corrected by artificial drainage); *s* shows that the soil is limited mainly because it is shallow, droughty, or stony; and *c*, used in only some parts of the United States, shows that the chief limitation is climate that is very cold or very dry.

In class 1 there are no subclasses because the soils of this class have few limitations. Class 5 contains only the subclasses indicated by *w*, *s*, or *c* because the soils in class 5 are subject to little or no erosion.



## Custom Soil Resource Report

*Capability units* are soil groups within a subclass. The soils in a capability unit are enough alike to be suited to the same crops and pasture plants, to require similar management, and to have similar productivity. Capability units are generally designated by adding an Arabic numeral to the subclass symbol, for example, 2e-4 and 3e-6. These units are not given in all soil surveys.

Reference:

United States Department of Agriculture, Soil Conservation Service. 1961. Land capability classification. U.S. Department of Agriculture Handbook 210.

### Report—Nonirrigated Yields by Map Unit Component

Nonirrigated Yields by Map Unit Component—Coos County, Oregon			
Map symbol and soil name	Land capability	Grass-legume hay	Pasture
		<i>Tons</i>	<i>AUM</i>
24—Gardiner sandy loam			
Gardiner	4w	—	6.0
46D—Preacher-Bohannon loams, 3 to 30 percent slopes			
Preacher	6e	3.00	9.0
Bohannon	6e	—	—
58F—Umpcoos-Rock outcrop association, 70 to 99 percent slopes			
Umpcoos	7e	—	—
Rock outcrop	8	—	—

## Water Features

This folder contains tabular reports that present soil hydrology information. The reports (tables) include all selected map units and components for each map unit. Water Features include ponding frequency, flooding frequency, and depth to water table.

## Hydrologic Soil Group and Surface Runoff

This table gives estimates of various soil water features. The estimates are used in land use planning that involves engineering considerations.

*Hydrologic soil groups* are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The four hydrologic soil groups are:

## Custom Soil Resource Report

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas.

*Surface runoff* refers to the loss of water from an area by flow over the land surface. Surface runoff classes are based on slope, climate, and vegetative cover. The concept indicates relative runoff for very specific conditions. It is assumed that the surface of the soil is bare and that the retention of surface water resulting from irregularities in the ground surface is minimal. The classes are negligible, very low, low, medium, high, and very high.

### Report—Hydrologic Soil Group and Surface Runoff

Absence of an entry indicates that the data were not estimated. The dash indicates no documented presence.

Hydrologic Soil Group and Surface Runoff—Coos County, Oregon				
Map symbol and soil name	Pct. of map unit	Surface Runoff	Hydrologic Soil Group	
24—Gardiner sandy loam				
Gardiner	85	—	A	
Quosatana	7	—	D	
46D—Preacher-Bohannon loams, 3 to 30 percent slopes				
Preacher	50	—	B	
Bohannon	30	—	B	
58F—Umpcoos-Rock outcrop association, 70 to 99 percent slopes				
Umpcoos	40	—	D	
Rock outcrop	35	—	—	

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## Custom Soil Resource Report

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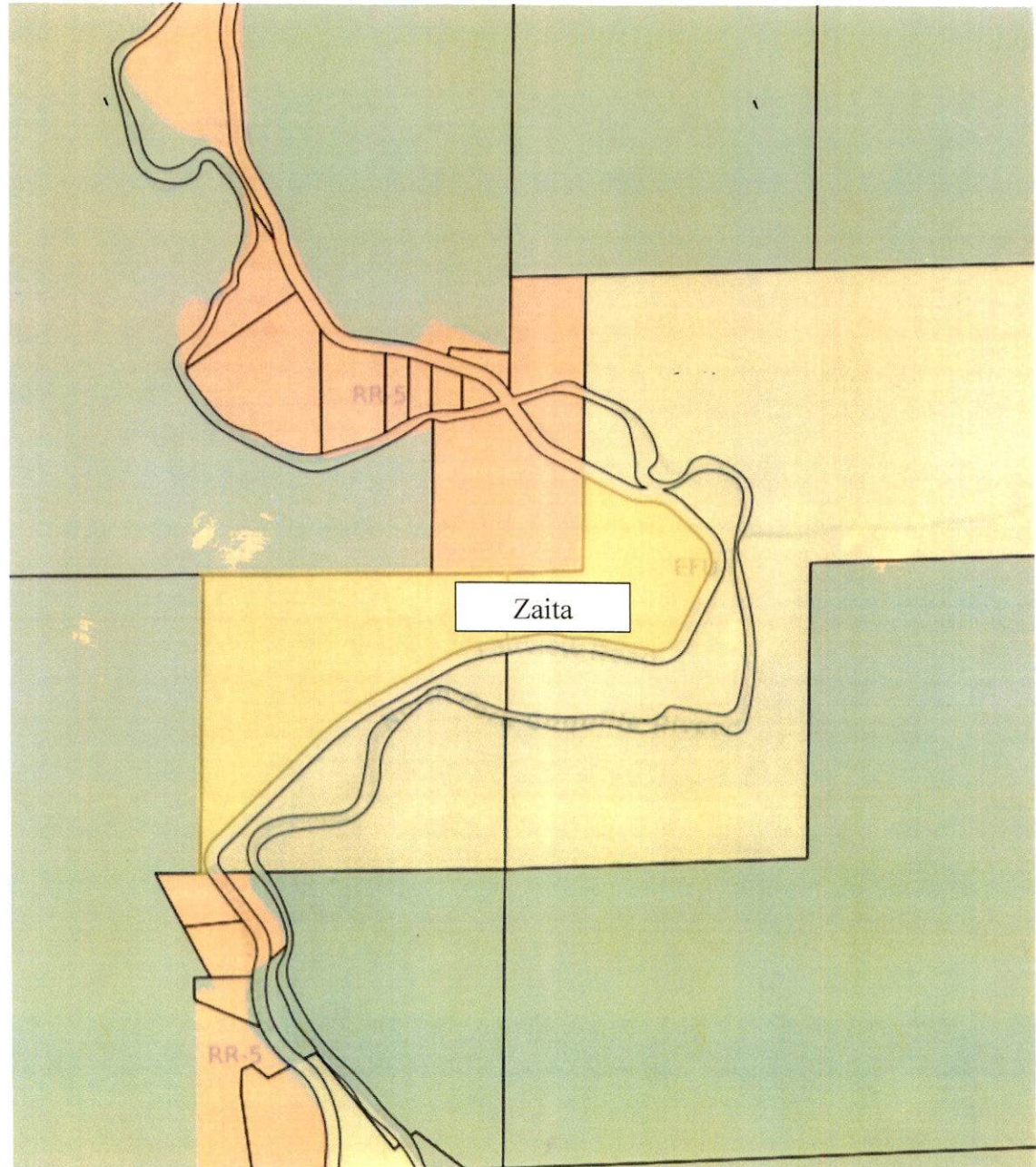
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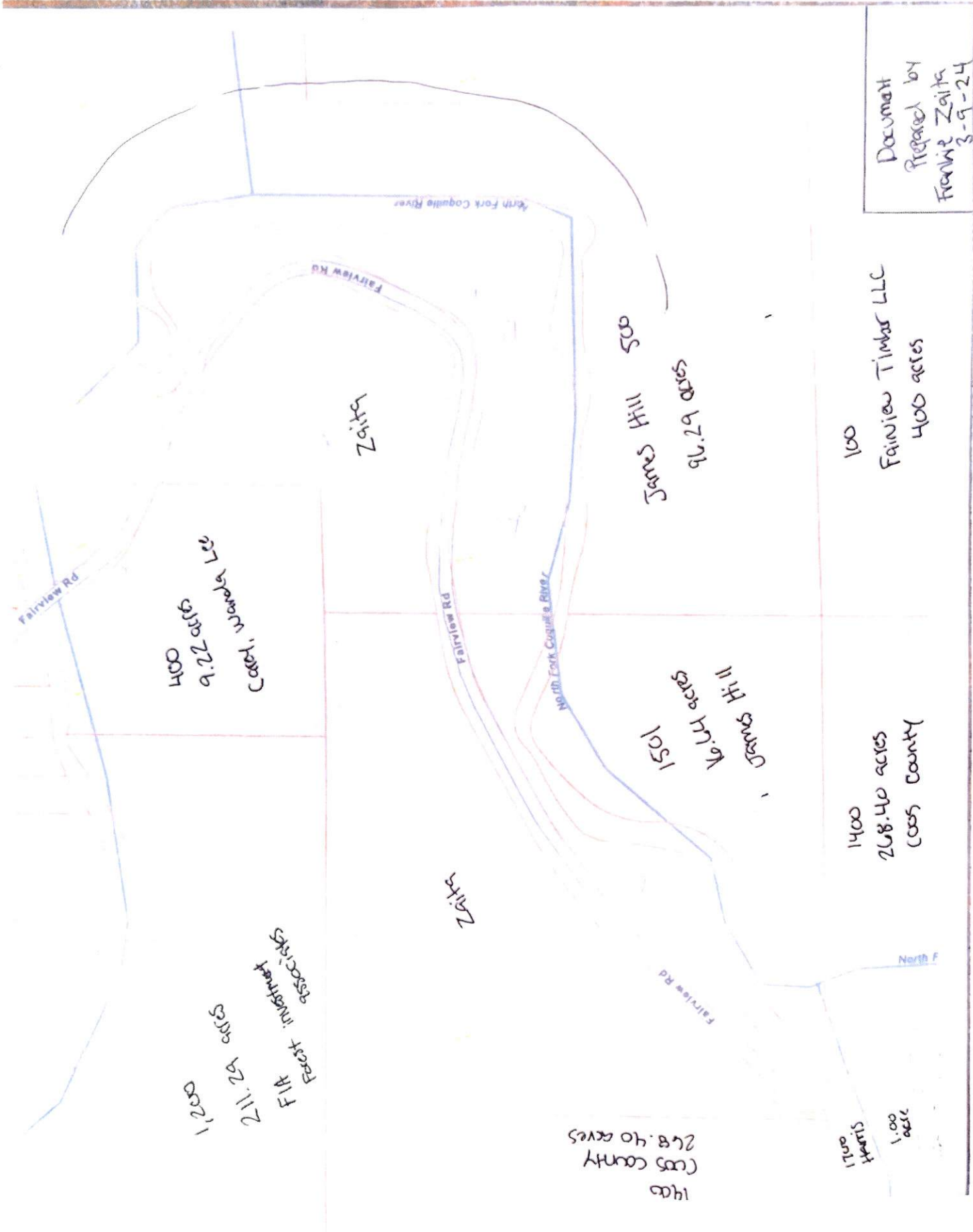
# Coos County Zoning – 2022 Oregon Coastal Atlas

## Legend

- Commercial
- Controlled Development 10
- Controlled Development 5
- City Zoning
- City Estuary Plan - Aquatic
- City Estuary Plan - Shoreland
- Coos Bay Estuary Plan - Aquatic
- Coos Bay Estuary Plan - Shoreland
- Coquille River Estuary Plan - Aquatic
- Coquille River Estuary Plan - Shoreland
- Exclusive Farm Use
- Forest
- Industrial
- Minor Estuary and Shorelands
- Rural Center
- Recreation
- Rural Residential 2
- Rural Residential 5
- South Slough
- Urban Residential 1
- Urban Residential 2
- Urban Residential M







Document  
Prepared by  
Frankie Zaita  
3-9-24



## Coos County Planning Department

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Jill Rolfe, Planning Director

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July 13, 2023

Frank John Salvator Zaita  
PO Box 862 – C  
Coquille, OR 97423

RE: Research Request R-23-006 on property located at Township 26S, Range 11W, Section 28 Tax Lot 501

Mr. Zaita,

Pursuant to your research request, a limited forest template dwelling test was conducted for the parcel located north east of the City of Coquille. The purpose of the test was to determine if the parcel was zoned Forest (F) Mixed Use (MU), the number of current qualifying pre-1993 parcels and dwellings for a new dwelling based on the relevant Coos County Zoning and Land Development Ordinance (“CCZLDO”) provisions.

Only the following applicable CCZLDO criteria for the template test were researched:

**(II) Template Dwelling - 215.750 Alternative forestland dwellings; criteria.**

- (1) In western Oregon, a governing body of a county or its designate may allow the establishment of a single family “template” dwelling authorized under ORS 215.750 on a lot or parcel located within a forest zone if the lot or parcel is predominantly composed of soils that are:
  - (a) Capable of producing zero to 49 cubic feet per acre per year of wood fiber if:
    - (A) All or part of at least three other lots or parcels that existed on January 1, 1993, are within a 160-acre square centered on the center of the subject tract;  
and
    - (B) At least three dwellings existed on January 1, 1993 and continue to exist on the other lots or parcels.
  - (b) Capable of producing 50 to 85 cubic feet per acre per year of wood fiber if:
    - (A) All or part of at least seven other lots or parcels that existed on January 1, 1993, are within a 160-acre square centered on the center of the subject tract;  
and
    - (B) At least three dwellings existed on January 1, 1993 and continue to exist on the other lots or parcels.
  - (c) Capable of producing more than 85 cubic feet per acre per year of wood fiber if:
    - (A) All or part of at least 11 other lots or parcels that existed on January 1, 1993, are within a 160-acre square centered on the center of the subject tract;  
and
    - (B) At least three dwellings existed on January 1, 1993 and continue to exist on the other lots or parcels.
  - (d) As used in this section, “center of the subject tract” means the mathematical centroid of the tract.
- (2) The following review standards apply to “template” dwellings approved under this rule:

- (a) Lots or parcels within urban growth boundaries may not be used to satisfy the eligibility requirements under this rule.
- (b) Except as provided by subsection (c) of this section, if the tract under section (1) of this rule abuts a road<sup>1</sup> that existed on January 1, 1993, the measurement may be made by creating a 160-acre rectangle that is one mile long and one-quarter mile wide centered on the center of the subject tract and that is to the maximum extent possible, aligned with the road.
- (c) If the:
  - (A) Tract 60 acres or larger described under section (1) of this rule abuts a road or perennial stream, the measurement shall be made in accordance with subsection (b) of this section. However, one of the three required dwellings must be on the same side of the road or stream as the tract, and:
    - (i) Be located within a 160-acre rectangle that is one mile long and one-quarter mile wide centered on the center of the subject tract and that is, to the maximum extent possible aligned with the road or stream; or
    - (ii) Be within one-quarter mile from the edge of the subject tract but not outside the length of the 160-acre rectangle, and on the same side of the road or stream as the tract.
  - (B) Road crosses the tract on which the dwelling will be located, at least one of the three required dwellings shall be on the same side of the road as the proposed dwelling.
- (d) Notwithstanding subsection (6)(a) of this rule, if the acknowledged comprehensive plan and land use regulations of a county require that a dwelling be located in a 160-acre square or rectangle described in sections (3) and (4) of this rule or subsections (b) or (c) of this section, a dwelling is in the 160-acre square or rectangle if any part of the dwelling is in the 160-acre square or rectangle.

As the property does abut a road that existed prior to January 1, 1993. The rectangle template was used and results are as follows:

**Rectangle Template Results:**

---

Minimum of eleven (11) required pre-1993 parcels within a 160 acre rectangle:	MET (15 parcels)
Minimum of three (3) required pre-1993 dwellings within a 160 acre rectangle:	MET (3 dwellings)

This test shows that CCZLDO Section 4.6.120 (II)(1)(c) **might be satisfied** using the property’s current configuration.

This is not a land use review and this is not an approval for a dwelling on the subject parcel. All other applicable rules and regulations will need to be addressed for a complete application. There is no

---

<sup>1</sup> The statutory definition of “public road” at ORS 368.001(5) is not applicable to approval of a forest template dwelling required by ORS 215.750(5) to be located on a tract that abuts a “road.” Interpretation of a local code requirement that such dwellings be located on a “public road” is controlled by local legislative intent rather than by statute. *Petersen v. Yamhill County*, 33 Or LUBA 584 (1997). The road may be public or private as long as it has been existence and continued to be in existence since January 1, 1993 and meets the following local definition: A public or private way created or intended to provide ingress or egress for persons to one or more lots, parcels, areas, or tracts of land. A road does not include: (a) driveway located exclusively on the same lot, parcel or tract of land as the use it serves; (b) a private way that is created or intended to provide ingress or egress to such land in conjunction with the use of such land exclusively for forestry, mining, or agricultural purposes.

guarantee this parcel will be approved for a template dwelling. A complete application, including template test, will be reviewed for each future application.

If there are any questions regarding this test, please contact the Planning Department.

Sincerely,

*Amy Dibble*

Amy Dibble, Business Operations Manager

Attachment: Template Test Map – Rectangle Template Test

C: File





This is a scanned version of the text of the original Soil Survey report of Coos County, Oregon issued July 1989. Original tables and maps were deleted. There may be references in the text that refer to a table that is not in this document.

Updated tables were generated from the NRCS National Soil Information System (NASIS). The soil map data has been digitized and may include some updated information. These are available from <http://soildatamart.nrcs.usda.gov>.

Please contact the State Soil Scientist, Natural Resources Conservation Service (formerly Soil Conservation Service) for additional information.

## Foreword

This soil survey contains information that can be used in land-planning programs in Coos County, Oregon. It contains predictions of soil behavior for selected land uses. The survey also highlights limitations and hazards inherent in the soil, improvements needed to overcome the limitations, and the impact of selected land uses on the environment.

This soil survey is designed for many different users. The purpose of the survey is to provide data necessary to plan and manage land for agriculture, timber production, urban development, wildlife habitat, watershed, and recreational areas. Farmers, foresters, and agronomists can use it to evaluate the potential of the soil and the management needed for maximum food and fiber production. Planners, community officials, engineers, developers, builders, and home buyers can use the survey to plan land use, select sites for construction, and identify special practices needed to ensure proper performance. Conservationists, teachers, students, and specialists in recreation, wildlife management, waste disposal, and pollution control can use the survey to help them understand, protect, and enhance the environment.

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are shallow to bedrock. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

These and many other soil properties that affect land use are described in this soil survey. Broad areas of soils are shown on the general soil map. The location of each soil is shown on the detailed soil maps. Each soil in the survey area is described. Information on specific uses is given for each soil. Help in using this publication and additional information are available at the local office of the Soil Conservation Service or the Cooperative Extension Service.

Jack P. Kanalz  
State Conservationist  
Soil Conservation Service

# Excerpt

mulching, benching, and compacting the soil can reduce erosion. Unsurfaced roads and skid trails are slippery when wet or moist, and they may be impassable during rainy periods. Logging roads require suitable surfacing for year-round use. Rock for road construction is not readily available in this unit. Steep yarding paths, skid trails, and firebreaks are subject to rilling and gullying unless they are provided with adequate water bars or are protected by plant cover, or both. Road location and maintenance costs are greater in the more steeply sloping areas. Material cast to the side when building roads can damage vegetation. It is also a potential source of sedimentation. End hauling of waste material minimizes damage to the vegetation downslope and reduces the potential for sedimentation. Sitka spruce, a shallow rooted species, is subject to windthrow.

When openings are made in the canopy, invading brushy plants can delay natural reforestation. Undesirable plants prevent adequate natural or artificial reforestation unless intensive site preparation and maintenance are provided. Reforestation can be accomplished by planting Sitka spruce, western hemlock, and Douglas fir seedlings.

This map unit is in capability subclass VIe.

**57-Udorthents, level.** This map unit is on flood plains, marshes, and tidal flats along major streams, bays, and estuaries. It consists of areas that have been filled and leveled for commercial and industrial uses. Slopes are 0 to 1 percent.

The areas of this unit on flood plains are made up of sandy, silty, or clayey material. The areas on marsh and tidal flats are made up of dredging spoil, dune sand, and wood chips. Drainage, permeability, and other physical properties vary considerably.

Onsite investigation is needed to determine suitability of areas of this unit for the intended use.

This unit is not placed in a capability subclass.

**58F-Umpcoos-Rock outcrop association, 70 to 99 percent slopes.** This map unit is on precipitous mountainsides, narrow ridgetops, and headwalls of mountains. The native vegetation on the Umpcoos soil is mainly conifers, shrubs, forbs, and hardwoods. The areas of Rock outcrop support mosses, lichens, and occasional shrubs in fractures. Elevation is 100 to 4,300 feet. The average annual precipitation is 60 to 100 inches, the average annual air temperature is 45 to 53 degrees F, and the average frost-free period is 110 to 200 days.

This unit is 40 percent Umpcoos very gravelly sandy loam and 35 percent Rock outcrop. The Umpcoos soil

is on ridgetops and in the more gently sloping areas, and the Rock outcrop is in the steeper areas along drainageways and on the upper slopes of mountains (fig. 14).

Included in this unit are small areas of Digger soils in the southern part of the survey area and Milbury soils in the northern part. Also included are small areas of Bohannon soils. Included areas make up about 25 percent of the total acreage.

The Umpcoos soil is shallow and well drained. It formed in colluvium derived dominantly from sandstone. Typically, the surface is covered with a mat of organic litter 2 inches thick. The surface layer is dark grayish brown very gravelly sandy loam 3 inches thick. The subsoil is brown very gravelly sandy loam 13 inches thick. Hard sandstone is at a depth of 16 inches.

Permeability of the Umpcoos soil is moderately rapid. Available water capacity is about 0.5 inch to 1.5 inches. Effective rooting depth is 10 to 20 inches. Runoff is rapid, and the hazard of water erosion is high.

Rock outcrop consists mainly of exposures of fractured, hard sandstone. In some areas the sandstone is fractured to stone-sized fragments, and talus is common at the base of these areas.

This unit is used for timber production and wildlife habitat.

The Umpcoos soil is suited to the production of Douglas fir. Among the other species that grow on this soil are incense cedar, Pacific madrone, Oregon myrtle, and canyon live oak. The understory vegetation is mainly red huckleberry, evergreen huckleberry, creambush oceanspray, cascade Oregon grape, and longtube twinflower.

On the basis of a 100-year site curve, the mean site index for Douglas fir is 79. At the culmination of the mean annual increment (CMAI), the production of 70-year-old Douglas fir trees 1.5 inches in diameter or more at breast height is 58 cubic feet per acre per year. On the basis of a 50-year site curve, the mean site index for Douglas fir is 61.

The main limitations for the management of timber on this soil are steepness of slope, the hazard of erosion, seedling mortality, the hazard of windthrow, and plant competition. Harvesting of timber is limited mainly by steepness of slope. Rock outcrop may cause breakage of timber and hinder yarding. Helicopter, balloon, or total-suspension cable systems are the most suitable methods for harvesting timber.

Proper design of road drainage systems and care in the placement of culverts help to control erosion. Cuts and fills are subject to erosion unless treated. Seeding, mulching, benching, and compacting the soil can reduce





Figure 14.-Area of Umpcoos -Rock outcrop association, 70 to 99 percent slopes.

erosion. Locating roads on midslopes results in large cuts and fills and thus removes land from production. Material cast to the side when building roads can damage vegetation. It is also a potential source of sedimentation. End hauling of waste material minimizes damage to the vegetation downslope and reduces the potential for sedimentation.

Because roots are restricted by bedrock, trees commonly are subject to windthrow. When openings are made in the canopy, invading brushy plants can delay natural reforestation. Undesirable plants reduce natural or artificial reforestation unless intensive site preparation and maintenance are provided. Reforestation can be accomplished by planting Douglas fir seedlings. The high content of rock fragments in the

soil increases seedling mortality. To compensate for the higher mortality that can be expected, larger trees or more trees than normal can be planted.

This map unit is in capability subclass VIIe.

**59D-Waldport fine sand, 0 to 30 percent slopes.**

This deep, excessively drained soil is on stabilized sand dunes. It formed in eolian deposits. The native vegetation is mainly conifers, shrubs, grasses, and forbs. Elevation is 10 to 120 feet. The average annual precipitation is 50 to 70 inches, the average annual air temperature is 51 to 53 degrees F, and the average frost-free period is 200 to 240 days.

Typically, the surface layer is very dark grayish brown and brown fine sand 7 inches thick. The

An O horizon 1 to 3 inches thick is in forested areas. The solum is as much as 5 to 15 percent partially weathered gravel. The profile is 40 to 60 inches deep or more to weathered siltstone and sandstone. The 10- to 40-inch control section is silty clay loam, heavy silt loam, or light silty clay and is 25 to 35 percent clay. Reaction is very strongly acid or strongly acid. The umbric epipedon is 10 to 18 inches thick. The difference between the mean summer and mean winter soil temperatures ranges from 5 to 9 degrees F.

The A horizon has hue of 10YR, 7.5YR, or 5YR, value of 2 or 3 when moist and 4 or 5 when dry, and chroma of 2 or 3 when moist or dry.

The B horizon has hue of 7.5YR or 5YR, value of 5 or 6 when dry, and chroma of 3 to 8 when moist and 3 to 6 when dry. It has weak or moderate and subangular blocky structure.

The IICr horizon has hue of 5YR, 7.5YR, or 10YR, value of 4 or 5 when moist and 5 to 7 when dry, and chroma of 4 to 8.

#### Umpcoos Series

The Umpcoos series consists of shallow, well drained soils on mountains. These soils formed in colluvium derived from sandstone. Slope is 50 to 99 percent. The average annual precipitation is about 80 inches, and the average annual air temperature is about 50 degrees F.

Typical pedon of Umpcoos very gravelly sandy loam in an area of Umpcoos-Rock outcrop association, 70 to 99 percent slopes, 8 miles east of Fairview, on the north side of the Burnt Ridge Access Road; 1,900 feet south and 1,000 feet west of the northeast corner of sec. 17, T. 27 S., R. 10 W.

O-2 inches to 0; litter of leaves, twigs, roots, and partially decomposed material.

A1-0 to 3 inches; dark grayish brown (10YR 4/2) very gravelly sandy loam, pale brown (10YR 6/3) dry; moderate fine and medium granular structure; soft, very friable, nonsticky and nonplastic; many very fine, fine, and medium roots; many very fine, fine, and medium tubular and irregular pores; 50 percent gravel; medium acid; clear smooth boundary.

B-3 to 16 inches; brown (10YR 4/3) very gravelly sandy loam, pale brown (10YR 6/3) dry; weak fine subangular blocky structure; soft, very friable, nonsticky and nonplastic; many very fine, fine, and medium roots; many very fine, fine, and medium tubular and irregular pores; 40 percent gravel and 20 percent cobbles; medium acid; abrupt wavy boundary.

IIR-16 inches; consolidated sandstone of the Tye Formation.

Depth to bedrock and thickness of the solum range from 10 to 20 inches. Content of rock fragments ranges from 35 to 75 percent, of which 35 to 50 percent is gravel and 0 to 25 percent is cobbles.

The A horizon has hue of 10YR or 7.5YR, value of 3 to 5 when moist and 5 or 6 when dry, and chroma of 2 or 3 when moist or dry.

The B horizon has hue of 7.5YR or 10YR, value of 4 or 5 when moist and 5 or 6 when dry, and chroma of 2 or 3 when moist or dry. It is very gravelly sandy loam, very gravelly loam, or very cobbly loam and is less than 18 percent clay.

The IIR horizon is hard or slightly weathered sandstone or siltstone.

#### Waldport Series

The Waldport series consists of deep, excessively drained soils on stabilized sand dunes. These soils formed in eolian deposits. Slope is 0 to 70 percent. The average annual precipitation is about 60 inches, and the average annual air temperature is about 52 degrees F.

Typical pedon of Waldport fine sand, 0 to 30 percent slopes, 50 feet west of North Bank Road, north of Bandon; 330 feet south and 1,180 feet east of the northwest corner of sec. 17, T. 28 S., R. 14 W.

A1-0 to 7 inches; very dark grayish brown (10YR 3/2) fine sand, dark grayish brown (10YR 4/2) dry; weak fine granular structure; very friable, nonsticky and nonplastic; many very fine and fine roots; many very fine irregular pores; medium acid; abrupt smooth boundary.

AC-7 to 10 inches; brown (7.5YR 4/4) fine sand, yellowish brown (10YR 5/4) dry; single grain; loose, nonsticky and nonplastic; common very fine and fine roots and few medium and coarse roots; many very fine irregular pores; medium acid; clear smooth boundary.

C-10 to 60 inches; dark yellowish brown (10YR 4/4) fine sand, pale brown (10YR 6/3) dry; single grain; loose, nonsticky and nonplastic; common medium and coarse roots; many very fine irregular pores; medium acid.

Thickness of the solum ranges from 6 to 17 inches. The profile is fine sand or loamy fine sand. The difference between the mean summer and mean winter soil temperatures ranges from 5 to 9 degrees F.

The A horizon has hue of 10YR or 2.5Y, value of 2 to



2. Forest Land Inventory

2.1 Forest Productivity Measures.

The 'site index' concept is used to measure the forest productivity of a particular location. 'Site index' is based on the height that a free-growing forest tree will reach within a certain time period (normally 100 years). A fully-stocked stand of trees of this species will add a certain volume of wood growth per acre per year. An alternative measurement of productivity is based on this volume and is called "cubic foot site class." There is a variety of productivity classifications based on these two measures. The classification systems used for Douglas Fir in Western Oregon are summarized in Table 2 below.

Table 2

Classification Systems for Douglas Fir  
(below 2500 feet in western Oregon)

Growth Measures	Scale																
Site Index: Height in Ft. at 100 years	50	60	70	80	90	100	110	120	130	140	150	160	170	180	190	200	210
Potential Yield: cubic feet/acre/year	20	20-49	50-80			85-119		120-164			165-224						
<u>Classification Systems</u>																	
Cubic Foot Site Class	7	6	5			4		3			2						
Site Class (Bulletin 201)			V		IV			III			II			I			
Dept. of Revenue Forest Land Class	FX		FG		FF		FE		FD	FC		FB		FA			

Source: Oregon State Department of Forestry

Douglas fir is used as the basis for productivity because it is the dominant species in most areas west of the Cascades. Along the coast, however, other species like Shore pine or Sitka spruce may be dominant. While the shore pine areas are usually older stabilized sand dune areas and are of low productivity, in Sitka spruce areas the site class may be higher for this species than for Douglas fir.

The Forest Lands Goals requires that forest productivity be inventoried and mapped by 'cubic foot site class.' However, as noted earlier, the Department of Revenue Forest Land Classification System is recognized as an acceptable equivalent, and may be converted to cubic foot site class by Table 2 above.

2.2 Forest Productivity Mapping

Generalized forest site classes for the forest lands of Coos County have been identified on the Forest Resources map at a scale of 1/2" = 1 mile and include:

1. Cubic Foot Site Classes 2 and 3 (combined) with a potential yield of 120-220 cubic foot per acre per year for Douglas fir.
2. Cubic Foot Site Class 4 (85-119 cu. ft./acre/year)
3. Cubic Foot Site Class 5 (50-84 cu. ft./acre/year)
4. Boundary of area in which Sitka spruce and Hemlock tend to dominate as the major timber type.

The site productivity mapping is based on the Forest Land classification of the Oregon State Department of Revenue.

These classifications reflect observed growth, rates on sites that were forested in 1967 and are generalized to 40 acre map units. The bounded area addresses the concern of the Coos County Forestry Department that in many areas where a relatively low site class is indicated for Douglas fir, a significantly higher site class exists for Sitka Spruce or Western Hemlock.<sup>43</sup>

As Table 2 shows, there is not an exact correspondence between the divisions of the Department of Revenue site classes and those of cubic foot site class. For instance, the lower half of Class FE and the upper half of FF correspond with Site Class 4. Thus, some map interpolation is done in order to approximate the extent of Site Class 4 and 5, as suggested by the State Department of Forestry<sup>44</sup>, the procedure followed was to separate Class FE and FF lands into upper or lower divisions based on whether one or more of the neighboring 40 acre units were in a higher or lower class, or the same class. For instance, if a unit of FF is bounded by one or more units of FE, then it is placed in Site Class 4. Otherwise, it is in Site Class 5. The Cape Arago to Beaver Hill area, which includes part of the Coos County Forest, is generally site class 3 or 4 land for Douglas fir. However, it is considerably more productive for Sitka spruce and Hemlock.

As the Forest Resources map indicates, much of the County is highly suitable for timber production of major commercial species. It should be noted that the flood plains, where in agricultural use, were not given site classes by the D.O.R. due to the fact that they were not under forest cover in 1967, though these soils are highly productive.

The original tree cover was mainly hardwoods, alder, maple, ash and myrtle, with some conifers. Technically, these lands could be classified as forest lands, because of the potential vegetation, but their primary value will continue to be as agricultural lands. A somewhat lower productivity is indicated on the coastal plain, where poorer soils and climate limit growth and in the Siskiyou National Forest in the southern part of the county, where elevation and rocky soils are limiting factors. However, even these sites have a potential productivity well above 20 cu. ft./acre/year, which is the standard definition of commercial forest land.

Only the sand dune areas of the coastal fringes have so little growth potential that they fall outside the definition of "commercial forest lands."

Unlike the definition of 'Agricultural Land', which has a different standard in Eastern Oregon, the definition of "commercial forest lands" is the same state-wide. However, in reality a rather different standard operates on the Oregon Coast, where the levels of forest productivity are generally very high.

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<sup>43</sup> Theodore Ellingsen, County Forester, letter, September 21, 1979.

<sup>44</sup> Letter from Laurie Dene, State Dept. of Forestry, June 29, 1979.

Land of lower site classes in Coos County (site class 4 or below) is regarded as relatively poor timber growing land. Commercial timber production is only feasible on lower site class lands where large contiguous tracts are managed (for example in the Coos County Forest or the upper elevations of the Siskiyou National Forest.) There are a few large corporate holdings on the coastal plain in these lower site class areas which may still be economically feasible to manage. However, many citizens in this area have complained that most timber companies are not interested in purchasing land and in the area for commercial timber production. Thus while these low site class lands are technically "commercial" forest lands, in practice they are not often managed intensively, particularly where they are in smaller private ownerships.

### 2.3 Forest Land Types

There are several types of forest land in Coos County, ranging from that intensively managed for timber production, to land used for both timber and grazing/agriculture, to smaller forest ownerships in areas experiencing pressure from development. The categories may generally be described in terms of their use and ownership characteristics as well as other influencing factors, such as topography and access.

Much of the commercial forest land in the County is devoted primarily to the growing and harvesting of timber and other forest products, though other forest benefits are also derived from the land (water, wildlife habitat and recreation, for instance.) Generally, the topography is quite rugged, and access provided through private logging roads. Lands in this category are the steep mountain slopes in the northern, eastern, and extreme southern portions of the County. This category includes much of the publicly-owned land in the County (Elliott State Forest, Bureau of Land Management, Coos County Forest, Siskiyou National Forest), and much of the forest-industry owned land. Basically, this type of land is unsuited for other non-forest uses. The remoteness of these areas, however, makes them well suited to "intensive" forms of forest management such as fertilization by helicopter and slash burning.

Forest and grazing land includes land that either by use or land ownership pattern, combines forested land with grazing land. Typically, this land is owned by farmers who combine cattle and sheep raising with timber production. There are distinct differences in land ownership/use patterns between different parts of the County. In the southern part of the County, particularly in the drainage of the South Fork of the Coquille River and south of Bandon, there are hill ranches, generally of very large acreage where open grazing land is intermingled with forested land. A few operations may cover an entire major drainage basin. In other parts of the County, particularly the northern and eastern parts, farm/forest ownerships follow narrow valleys. Typically, the bottom lands are in agricultural use, while the lower slopes and benches will also often be in open grazing. However, the upper slopes are generally forested. (Such farm ownerships generally lie along valleys, with the property extending well beyond the bottom land on either side and often reaching to the top of the first ridge.) Beyond that the uplands on all sides are typically in forest industry or public ownership. Good examples of this ownership pattern may be seen in the valleys of the East Bay or Tenmile Lakes. This ownership pattern historically stemmed from the fact that the more inaccessible lands originally in small private ownership were allowed to revert to the County due to non-payment of taxes mostly during the Depression years, and were bought by the major timber companies.

Particularly on the hill ranches of the southern half of the County the land is characterized by a fluctuation in use between timber production and grazing. This includes both the practice of grazing livestock in wooded areas and conversion of timber land to grazing land after the timber is harvested. This type of use of forest land has been important to the County throughout its history.

In certain parts of the County, there are substantial acreages of forest land in smaller private ownerships (mostly under 160 acres) which are not managed in conjunction with farms. This type of land is found

primarily in coastal areas north and south of Bandon and also in the Hauser area, on predominately low site class lands (as defined in 2.2 above). There are also similar smaller ownerships in higher site forest lands further inland, particularly close to urban areas, like the Isthmus Heights, Sumner area. Most of this land is still under forest cover, but is generally not being managed intensively by modern forestry techniques. This is in part due to a low productivity (at least in the Bandon and Hauser areas), and in part due to the intrusion of developed uses, particularly rural homesites on small acreages into many of these areas. Inevitably, the pressure is great to remove any merchantable timber from these lands and convert it to rural homesites of various acreages. The bulk of citizen requests for rural residential designation (as expressed through the citizen involvement program) have been in areas like north and south of Bandon, Isthmus Heights/Sumner and Hauser. The rural housing section and Exception Statement have stated that such areas might best accommodate the public need for future rural residential growth in the County, given the commitment of nearby land to residential use, and other favorable factors, as assessed in the Suitability Rating System. The problem which remains is, how best to plan rural residential growth so that small-scale forest management remains a viable option on the remaining lands.

Finally, there are also certain corporate forest holdings in close proximity to established residential areas. Primary examples are found adjacent to the communities of Glasgow, Cooston, Barview and Millington. While acreages are substantial, there are still problems with the use of industrial forest management practices. The owners may eventually have to look at other options for these lands.

#### 2.4 Forest Land Base

Preservation or enlargement of the amount of land available for timber production is essential to the maintenance of sufficient timber harvest levels. A decline in the amount of land available for growing trees will mean a decline in the potential harvest, unless the degree of intensive forest management practiced on the available lands is increased correspondingly. Estimates for 1973 show that there were 873,000 acres of "commercial forest land" in Coos County,<sup>45</sup> while there were 847,000 acres in 1975.<sup>46</sup>

"Commercial Forest Land," according to the source's definition, is land that is (a) producing or capable of producing usable wood crops (b) economically feasible to harvest now or in the future; (c) not withdrawn from timber harvest. The 1975 figure reflects a net loss of 53,000 acres of commercial forest land over a 12 year period (see Table 3 below). Some of this land went into the "unproductive forest land" category (land not capable of producing wood due to adverse site conditions) and the "productive-reserved" category (productive land removed from commercial use by statute or administrative order).

Of particular concern to land use planning is the 33,000 acre increase in the amount of non-forest land in the county. While most of this acreage may be attributed to conversion of tree-covered land to agricultural and grazing land, it must be assumed that some of it at least, has been permanently removed from the realm of resource production through development as rural homesites. The exact acreage is not known at this time. Land converted to agricultural or grazing use may, in a sense, be assumed to be only temporarily removed, as it can be reclaimed for the production of timber if economic feasibility and the landowner's desires so dictate.

Land converted to urban uses, however, cannot be reclaimed at all and may be assumed to be permanently lost. Considering the County's substantial economic dependence on the timber/forest products industry, the impact of these land losses to development may be significant. The extent of the impact depends on whether the land lost is of high or lower site class. A fair proportion of rural homesite development over

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<sup>45</sup> Source – Patricia M. Bassett, Timber Resources of Southwest Oregon, (USFS Resource Bulletin, PNW-72, 1977).

<sup>46</sup> Ibid.



