



COMMUNITY DEVELOPMENT

HEARINGS OFFICER HEARING - LAND USE: TE AMO DESPACIO, LLC AND CTH INVESTMENTS, LLC PLAN AMENDMENT/ZONE CHANGE

6:00 PM, TUESDAY, NOVEMBER 15, 2022

Barnes Sawyer Rooms - Deschutes Services Bldg - 1300 NW Wall St - Bend

(541) 388-6575 | www.deschutes.org

AGENDA

MEETING FORMAT

This meeting will be conducted electronically, by phone, in person, and using Zoom.

Members of the public may view the meeting in real time via the Public Meeting Portal at www.deschutes.org/meetings.

Members of the public may listen, view, and/or participate in this meeting using Zoom. Using Zoom is free of charge. To login to the electronic meeting online using your computer, copy this link:

<https://us02web.zoom.us/j/87546791230>

Using this option may require you to download the Zoom app to your device.

Members of the public can access the meeting via telephone, dial: 1-253-215-8782. When prompted, enter the following Webinar ID: 875 4679 1230. Written comments can also be provided for the public comment section to Nathaniel.Miller@deschutes.org by 4:00pm on November 14, 2022. They will be entered into the record.

PUBLIC HEARING

1. The applicant requests approval of a Comprehensive Plan Amendment to change the designation of the subject properties from Agricultural (AG) to Rural Residential Exception Area (RREA). The applicant also requests a corresponding Zone Change to rezone the subject property from Exclusive Farm Use - Tumalo/ Redmond/ Bend subzone (EFU-TRB) to Multiple Use Agricultural (MUA-10).



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COMMUNITY DEVELOPMENT

FINDINGS AND DECISION

FILE NUMBER: 247-22-000313-ZC, 247-22-000314-PA

SUBJECT PROPERTIES/

OWNER:

Mailing Name: TE AMO DESPACIO LLC ET AL
Map and Taxlot: 1712350001200
Account: 119020
Situs Address: 62385 HAMBY RD, BEND, OR 97701

Mailing Name: TE AMO DESPACIO LLC ET AL
Map and Taxlot: 1712350001201
Account: 119038
Situs Address: 21480 HWY 20, BEND, OR 97701

APPLICANTS: Te Amo Despacio, LLC and CTH Investments, LLC

ATTORNEY FOR APPLICANTS:

Tia Lewis
Schwabe, Williamson & Wyatt, P.C.
360 SW Bond Street, Suite 500
Bend, OR 97702

REQUEST: The applicant requests approval of a Comprehensive Plan Amendment to change the designation of the subject properties from Agricultural (AG) to Rural Residential Exception Area (RREA). The applicant also requests a corresponding Zone Change to rezone the subject property from Exclusive Farm Use – Tumalo/ Redmond/ Bend subzone (EFU-TRB) to Multiple Use Agricultural (MUA-10).

STAFF CONTACT: Nathaniel Miller, AICP, Associate Planner
Phone: 541-317-3164
Email: Nathaniel.Miller@deschutes.org

RECORD: Record items can be viewed and downloaded from:
www.buildingpermits.oregon.gov

WEBPAGE: <https://www.deschutes.org/cd/page/247-22-000313-zc-247-22-000314-pa-te-amo-despacio-llc-cth-investments-llc-properties>

I. APPLICABLE CRITERIA

- Title 18 of the Deschutes County Code, the County Zoning Ordinance:
 - Chapter 18.04, Title, Purpose, and Definitions
 - Chapter 18.16, Exclusive Farm Use Zones (EFU)
 - Chapter 18.32, Multiple Use Agricultural (MUA10).
 - Chapter 18.136, Amendments
- Title 22, Deschutes County Development Procedures Ordinance
- Deschutes County Comprehensive Plan
 - Chapter 2, Resource Management
 - Chapter 3, Rural Growth Management
 - Appendix C, Transportation System Plan
- Oregon Administrative Rules (OAR), Chapter 660
 - Division 12, Transportation Planning
 - Division 15, Statewide Planning Goals and Guidelines
 - Division 33, Agricultural Land
- Oregon Revised Statutes (ORS)
 - Chapter 215.010, Definitions
 - Chapter 215.211, Agricultural Land, Detailed Soils Assessment

II. BASIC FINDINGS

LOT OF RECORD: Tax lots 1200 and 1201 together constitute one legal lot of record pursuant to LR-92-84.

SITE DESCRIPTION: The subject property consists of two tax lots, which are together hereafter referred to as the "subject property." Tax Lot 1200 is 68.16 acres in size and Tax Lot 1201 is 25.21 acres in size. Tax Lot 1200 contains frontage on Neff Road to the north and Hamby Road to the east. Both Neff Road and Hamby Road are designated as a County-maintained Rural Arterial. Tax Lot 1201 fronts on Highway 20 to the south which is a state highway.

The grade of the subject property slopes up gently from the south to the north. The property is undeveloped and remains in its natural state. A review of aerial imagery indicates the property has remained in its current state at least since 1994. Vegetation on the subject property includes Juniper trees, sagebrush, rabbit brush and bunch grasses. Both tax lots are within the Central Oregon Irrigation District. However, according to Deschutes County records, neither tax lots have any water rights.

Tax Lot 1200 and Tax Lot 1201 are depicted in **Image One** below.

Image One – Subject Property (Tax Lot 1200 and Tax Lot 1201)



PROPOSAL: The Applicant requests approval of a Comprehensive Plan Map Amendment to change the designation of the subject property from Agricultural (AG) to Rural Residential Exception Area (RREA). The Applicant also requests approval of a corresponding Zoning Map Amendment to change the zoning of the subject property from Exclusive Farm Use (EFU) to Multiple Use Agricultural (MUA10). The Applicant asks that Deschutes County change the zoning and the plan designation because the subject property does not qualify as “agricultural land” under Oregon Revised Statutes (ORS) or Oregon Administrative Rules (OAR) definitions. Further, the Applicant argues that no exception to Statewide Planning Goal 3, Agricultural Land, is required because the subject property is not agricultural land.

Submitted with the application is an Order 1 Soil Survey of the subject property, titled *Soil Assessment for 94 Acres Hamby Road, Bend, Oregon* (hereafter referred to as the “soil study”) prepared by soil scientist Andy Gallagher, CPSSc/ SC 03114 of Red Hill Soils. The Applicant has also submitted a traffic analysis prepared by Transight Consulting, LLC, titled *Te Amo/ CTH Investments Rezone* (hereafter referred to as “traffic study”). Additionally, the Applicant has submitted an application form, a Burden of Proof statement, and other supplemental materials, all of which are included in the record for the subject applications.

SOILS: According to Natural Resources Conservation Service (NRCS) maps of the area, the subject property contains only one soil type, 58C – Gosney-Rock Outcrop-Deskamp complex. The 58C soils complex is not defined as high-value farmland, regardless of irrigation.

The Applicant submitted a soil study (Applicant’s Exhibit 5), which was prepared by a certified soils scientist and soil classifier. The purpose of this soil study was to inventory and assess the soils on

the subject property and to provide more detailed data on soil classifications and ratings than is contained in the NRCS soils maps. The soil study determined the subject property contains approximately 71 percent Land Capability Class 7 and 8 nonirrigated soils, which was primarily observed as shallow Gosney soils, shallow Bakeoven soils, and rock outcroppings. According to the soil study, the subject property is comprised of soils that do not qualify as Agricultural Land¹.

The NRCS soil map unit identified on the property is described below.

58C, Gosney-Rock Outcrop-Deskamp complex, 0 to 15 percent slopes: This soil type is comprised of 50 percent Gosney soil and similar inclusions, 25 percent rock outcrop, 20 percent Deskamp soil and similar inclusions, and 5 percent contrasting inclusions. Gosney soils are somewhat excessively drained with rapid permeability. The available water capacity is about 1 inch. Deskamp soils are somewhat excessively drained with rapid permeability. Available water capacity is about 3 inches. The major use for this soil type is livestock grazing. The Gosney soils have ratings of 7e when unirrigated, and 7e when irrigated. The rock outcrop has a rating of 8, with or without irrigation. The Deskamp soils have ratings of 6e when unirrigated, and 4e when irrigated. Approximately 3.7 percent of the subject properties is made up of this soil type, all located within the northern parcel.

Further discussion regarding soils is found in Section III below.

SURROUNDING LAND USES: The general area surrounding the subject property is defined by the City of Bend’s Urban Growth Boundary (UGB) to the west, and then a mix of residential and agricultural uses spreading out to the east. The subject property adjoins properties on three sides to the east, west and south which are zoned EFU. Abutting properties to the east and to the north are zoned MUA10. The west side of the subject property adjoins three parcels which are zoned UAR10.

The adjacent properties are outlined below in further detail:

North: There are six parcels immediately north of the subject property. Tax Lots 9800, 9700, 9600, and 9500 on Assessor’s Map 17-12-35AB are zoned Residential Standard Density (RS) and are within the City of Bend’s UGB. All of these parcels are developed with single-family dwellings and have established residential uses. These properties were platted as part of the Glacier Ridge Phase III subdivision and range in size from 0.16 acres to 0.22 acres. East of these properties, and within Deschutes County jurisdiction, is Tax Lot 1702 on Assessor’s Map 17-12-35. Tax Lot 1702 is undeveloped and zoned Urban Area Reserve (UAR10). The property is 10 acres in size and, according to aerial imagery, has no history of development activity other than the COID irrigation canal and the several dirt roads which traverse the property. To the northeast is Tax Lot 900 on Assessor’s Map 17-12-26. Tax Lot 900 is undeveloped and zoned Multiple Use Agriculture (MUA10). This property is 1.35 acres in size and, according to aerial imagery, has no history of development activity other than the COID irrigation canal and the several dirt roads which traverse the property.

¹ The phrase ‘agricultural soils’ is defined in OAR 660-033-0020.

East: There are eight parcels which abut the subject property to the east. Along Hamby Road to the north is Tax Lot 1204 on Assessor's Map 17-12-35 which is zoned Exclusive Farm Use (EFU) and is 0.94 acres in size. Tax Lot 1204 is developed with a single-family dwelling and accessory structure. To the south is Tax Lot 1203 on Assessor's Map 17-12-35 which is zoned EFU and is 0.92 acres in size. Tax Lot 1203 is developed with a single-family dwelling and has an established residential use. Tax Lot 1300 on Assessor's Map 17-12-35 is zoned EFU and is 28.01 acres in size. According to aerial imagery and county records, Tax Lot 1300 is developed with an accessory structure, has pastureland, and 17 acres of irrigation rights. This property is also currently receiving special tax assessment for farm use. Lot 1302 is within Tax Lot 1300 and is under the same ownership. This property has a single-family dwelling and established residential use. Tax Lot 1301 on Assessor's Map 17-12-35 is zoned EFU and is partially within the Landscape Management Combining Zone (LM). Tax Lot 1301 is 10 acres in size and developed with a single-family dwelling and accessory structure.

Continuing south, Tax Lot 1403 on Assessor's Map 17-12-35 is zoned EFU and is within the LM Zone. Tax Lot 1403 is 10 acres in size and undeveloped. Tax Lot 1402 on Assessor's Map 17-12-35 is zoned EFU and is within the LM Zone. Tax Lot 1402 is 4.97 acres in size and developed with a single-family dwelling and accessory structures. Tax Lot 1400 on Assessor's Map 17-12-35 is zoned MUA10 and is within the LM Zone. This property is 20.40 acres in size and, according to aerial imagery, has no history of development activity other than the COID irrigation canal and a dirt road which traverses the property. Tax Lot 1401 on Assessor's Map 17-12-35 is zoned EFU and is within the LM Zone. This property is 2.16 acres in size and, according to county records, was approved for a commercial dog kennel in 2018. Some electrical permitting was completed in 2019, however, no recent permitting of structures was identified.

South: Immediately south of the subject property are two parcels which abut Highway 20. Tax Lot 1205 on Assessor's Map 17-12-35 is zoned EFU and is within the LM Zone. This property is 2.78 acres in size and developed with a single-family dwelling and accessory structures. To the west is Tax Lot 1100 on Assessor's Map 17-12-35. Tax Lot 1100 is zoned EFU and is within the LM Zone. This property is 1.76 acres in size and developed with a single-family dwelling and accessory structures.

West: There are three parcels which abut the subject property to the west. Starting at the south, Tax Lot 900 on Assessor's Map 17-12-35 is zoned UAR10 and is within the LM Zone. This property is 10.40 acres in size, and is developed with a single-family dwelling and accessory structures. To the north of this parcel is Tax Lot 1202 on Assessor's Map 17-12-35. Tax Lot 1202 is zoned UAR10 and is 10 acres in size. According to aerial imagery, Tax Lot 1202 has no history of development activity. To the northeast is Tax Lot 1701 on Assessor's Map 17-12-35. Tax Lot 1701 is zoned UAR10 and is 9.54 acres in size. According to aerial imagery and Deschutes County records, Tax Lot 1701 is developed with a single-family dwelling and two accessory structures.

For reference, staff notes that the City of Bend's UGB abuts the subject property to the north. Tax Lot 1400 on Assessor's Map 17-12-35, which abuts the property to the east, and Tax Lots 1600 and 1601 on Assessor's Map 17-12-35 located across Highway 20, recently received approval a Comprehensive Plan Amendment and Zone Change.

PUBLIC AGENCY COMMENTS: The Planning Division mailed notice on April 27, 2022, to several public agencies and received the following comments:

Deschutes County Building Division, Randy Scheid

NOTICE: The Deschutes County Building Safety Divisions code mandates that Access, Egress, Setbacks, Fire & Life Safety, Fire Fighting Water Supplies, etc. must be specifically addressed during the appropriate plan review process with regard to any proposed structures and occupancies.

Accordingly, all Building Code required items will be addressed, when a specific structure, occupancy, and type of construction is proposed and submitted for plan review.

Oregon Department of Land Conservation and Development (DLCD), Hillary Foote

DLCD has reviewed a soil assessment related to an application by Matt Wellner for a zone change. Attached are the soil assessment, DLCD completeness review, and DLCD application form.

In accordance with OAR 660-033-0045(6)(a), the Department of Land Conservation and Development (DLCD) finds that this soils assessment is complete. DLCD has reviewed the soils assessment for completeness only and has not assessed whether the parcel is suitable for agriculture or qualifies as agricultural land as defined in OAR 660-033-0020(1) and 660-033-0030.

The county may make its own determination as to the accuracy and acceptability of the soils assessment.

Let me know if you have any questions.

The attachment sent with this correspondence is included in the Staff Report as **Attachment A**.

Deschutes County Senior Transportation Planner, Peter Russell, May 20, 2022, Comments

I have reviewed the transmittal materials for 247-22-000313-ZC/314-PA for two properties totaling approximately 94 acres to change the Comprehensive Plan designation from Agriculture to Rural Residential Exception Area (RREA) and the zoning from Exclusive Farm Use (EFU) to Multiple Use Agricultural (MUA-10). The properties lie in the Exclusive Farm Use (EFU), Airport Safety (AS), and Landscape Management (LM) zones at 62385 Hamby Rd. and 21480 Hwy 20, aka County Assessor’s Map 17-12-35, Tax Lot 1200, Tax Lot 1200 and 17-12-35, Tax Lot 1201, respectively. For reasons discussed below, staff finds more information is needed to address the Transportation Planning Rule (TPR).

Deschutes County Code (DCC) 18.116.310(4) requires a 20-year analysis for zone changes. The application has submitted what in essence is a trip generation memo from

Transight, the applicant's traffic engineer that is dated March 22, 2022. The memo does not have any operational analysis regarding performance of affected intersections. Staff therefore cannot determine compliance with the TPR at Oregon Administrative Rule (OAR) 660-012-0060 for significant effect. The applicant needs to provide operational analysis of the affected intersections pre-zone change and post-zone change. Staff does agree with the consultant that the difference in trip generation between EFU and MUA-10 is negligible. Historically, staff has used single-family home as its base case for reasonable worst-case scenario for uses in the EFU zone. The outright permitted uses are listed at DCC 18.16.020. The most recent edition of the Institute of Traffic Engineers (ITE) Trip Generation Manual lists Single Family Detached Home (Land Use 210) has having 9.43 weekday trips. Staff has also reviewed the outright permitted uses in the MUA-10 at DCC 18.32.020 as well as the outright permitted uses listed in Oregon Revised Statute (ORS) 215.213(1) and 215.283(1).

The northern property accesses Hamby Road, a public road maintained by Deschutes County, and functionally classified as an arterial. The applicant will need to either provide a copy of a driveway permit approved by Deschutes County or be required to obtain one as a condition of approval to comply with DCC 17.48.210(A).

The southern property accesses US 20, a State highway under the jurisdiction of the Oregon Department of Transportation (ODOT). Therefore the access permit requirements of DCC 17.48.210(A) do not apply.

Board Resolution 2013-020 sets a transportation system development charge (SDC) rate of \$4,757 per p.m. peak hour trip. As the plan amendment/zone change by itself does not generate any traffic, no SDCs apply at this time. SDCs will be assessed based on development of the property. When development occurs, the SDC is due prior to issuance of certificate of occupancy; if a certificate of occupancy is not applicable, then the SDC is due within 60 days of the land use decision becoming final.

THE PROVIDED SDC RATE IS ONLY VALID UNTIL JUNE 30, 2022. DESCHUTES COUNTY'S SDC RATE IS INDEXED AND RESETS EVERY JULY 1. WHEN PAYING AN SDC, THE ACTUAL AMOUNT DUE IS DETERMINED BY USING THE CURRENT SDC RATE AT THE DATE THE BUILDING PERMIT IS PULLED.

BEGINNING JULY 1, 2022, THE SDC RATE WILL INCREASE TO \$5,080 PER PEAK HOUR TRIP AND LAST UNTIL JUNE 30, 2023.

In response to Mr. Russell's comments above, the applicant made subsequent revisions to their traffic study. Updated traffic information was submitted on July 1, 2022.

Deschutes County Senior Transportation Planner, Peter Russell, September 26, 2022, Comments

I've reviewed the July 1, 2022, traffic memo by Transight for file 247-22-000313-ZC/314-PA to change the Comprehensive Plan designation from Agriculture to Rural Residential Exception

Area and the zoning from Exclusive Farm Use (EFU) to Multiple Use Agriculture (MUA-10) for approximately 94 acres at 62385 Hamby Road and 21480 US 20, aka 17-12-35, Tax Lot 1200 and 17-12-35 Tax Lot 1201. The additional traffic information, especially Tables 5, 6, and 7 have provided the requested information, which demonstrates compliance with the Transportation Planning Rule (TPR) and that the proposal will not have a significant adverse effect.

Oregon Department of State Lands (DSL), Daniel Evans

We have completed our review of the Wetland Land Use Notification that was prepared for Tia Lewis - Tia Lewis The WLUN form was submitted to the Department for review/response and given the file number WN2022-0407

The results and conclusions from that review are explained in the attached pdf documents. If the attached documents are illegible or difficult to open, you may contact the Department and request paper copies. Otherwise, please review the attachments carefully and direct any questions or comments to Jurisdiction Coordinator, Chris Stevenson at 503-986-5246 or chris.stevenson@dsl.oregon.gov. Thank you for your interest in the project.

Additional resources that may be helpful:

DSL Coordinator List

<https://www.oregon.gov/dsl/ww/pages/wwstaff.aspx>

R/F Fee Schedule

<https://www.oregon.gov/dsl/WW/Documents/RemovalFillFees.pdf>

Aquatic Resource Management Program

Oregon Department of State Lands

775 Summer St. NE, Ste. 100

Salem, OR 97301-1279

Fax: (503) 378-4844

<https://www.oregon.gov/dsl/Pages/index.aspx>

Staff notes that the Response included the following comments:

...

Wetland/ Waterway/ Other Water Features

[x] The National Wetlands Inventory shows wetland, waterway or other water features on the property

...

Closing Information

Additional Comments

Several waterways are present onsite. Based on a review of the available information, they appear to be irrigation canals. The application should contact Jurisdictional Coordinator Jessica Salgado to determine if the onsite drainages met the criteria for non-jurisdictional waters. She can be reached at (541) 388-6421.

This is a preliminary jurisdictional determination and is advisory only.

The following agencies did not respond to the notice: Bureau of Land Management, Oregon Department of Fish and Wildlife, Oregon Department of State Lands, Bend Fire Department, City of Bend Planning Department, Bend Park and Recreation Department, Bend/ La Pine School District, Bend Public Works Department, Oregon Deschutes County Forester, Deschutes County Property Management,, Deschutes County Assessor, Deschutes County Onsite Wastewater Division, Deschutes County Road Department, and District 11 Watermaster.

Staff received an inquiry from Donald Morehouse from the Oregon Department of Transportation (ODOT) on May 5, 2022. Staff responded to the inquiry. No additional comment was received.

PUBLIC COMMENTS: The Planning Division mailed notice of the application to all property owners within 750 feet of the subject property on April 27, 2022. The Applicant also complied with the posted notice requirements of Section 22.24.030(B) of Title 22. The Applicant submitted a Land Use Action Sign Affidavit indicating the Applicant posted notice of the land use action on April 21, 2022. Staff received a number of comments in the record requesting information, with some commenters objecting to the proposal. The objections include:

Noelle Long, May 5, 2022

I am a homeowner and neighbor to these proposed building lots. The letter I received in the mail regarding this proposal gave very little information and the website, even less.

I would like to know how to go about protesting this development. Do I need to gather signatures from my neighbors? Do you need a formal letter stating our displeasure and willingness to protest these changes?

We all love our quiet, dead-end neighborhood at the very edge of town. For most of us, that is why we purchased a home in this neighborhood. We do not want to see more tract homes piled on top of each other in our backyards.

Thank you in advance for any information you can provide.

Staff notes inquiries from a number of surrounding property owners requesting additional information about the proposal. These inquires include:

- Veronica Theroit on April 25, 2022
- Brian Davenport on April 30, 2022
- Tom and Cheryl Boyd on May 2, 2022

- Les Alford on May 3, 2022
- Keri Taylor on May 9, 2022
- Wendi Murphy on May 17, 2022
- Reese Thedford on May 19, 2022
- Va Nee L. Van Vleck on May 21, 2022

Staff responded to the inquiries. No further comment was received.

NOTICE REQUIREMENT: On October 7, 2022, the Planning Division mailed a Notice of Public Hearing to all property owners within 750 feet of the subject property and public agencies. A Notice of Public Hearing was published in the Bend Bulletin on Sunday, October 9, 2022. Notice of the first evidentiary hearing was submitted to the Department of Land Conservation and Development on October 7, 2022.

REVIEW PERIOD: According to Deschutes County Code 22.20.040(D), the review of the proposed quasi-judicial plan amendment and zone change application is not subject to the 150-day review period.

III. FINDINGS & CONCLUSIONS

Title 18 of the Deschutes County Code, County Zoning

Chapter 18.136, Amendments

Section 18.136.010, Amendments

DCC Title 18 may be amended as set forth in DCC 18.136. The procedures for text or legislative map changes shall be as set forth in DCC 22.12. A request by a property owner for a quasi-judicial map amendment shall be accomplished by filing an application on forms provided by the Planning Department and shall be subject to applicable procedures of DCC Title 22.

FINDING: The Applicant, also the property owner, has requested a quasi-judicial plan amendment and filed the applications for a plan amendment and zone change. The Applicant has filed the required Planning Division’s land use application forms for the proposal. The application will be reviewed utilizing the applicable procedures contained in Title 22 of the Deschutes County Code.

Section 18.136.020, Rezoning Standards

The applicant for a quasi-judicial rezoning must establish that the public interest is best served by rezoning the property. Factors to be demonstrated by the applicant are:

- A. That the change conforms with the Comprehensive Plan, and the change is consistent with the plan's introductory statement and goals.***

FINDING: The Applicant provided the following response in their submitted Burden of Proof statement:

Per prior Hearings Officers decisions for plan amendments and zone changes on EFU-zoned property, this paragraph establishes two requirements: (1) that the zone change conforms to the Comprehensive Plan; and (2) that the change is consistent with the plan’s introduction statement and goals. Both requirements are addressed below:

- 1. **Conformance with the Comprehensive Plan:** The applicant proposes a plan amendment to change the Comprehensive Plan designation of the subject property from Agriculture to Rural Residential Exception Area. The proposed rezoning from EFU-TRB to MUA-10 will need to be consistent with its proposed new plan designation.
- 2. **Consistency with the Plan’s Introductory Statement and Goals.** In previous decisions, the Hearings Officer found the introductory statements and goals are not approval criteria for the proposed plan amendment and zone change.² However, the Hearings Officer in the Landholdings decision found that depending on the language, some plan provisions may apply and found the following amended comprehensive plan goals and policies require consideration and that other provisions of the plan do not apply as stated below in the Landholdings decision:

"Comprehensive plan statements, goals and policies typically are not intended to, and do not, constitute mandatory approval criteria for quasi-judicial/and use permit applications. Save Our Skyline v. City of Bend, 48 Or LUBA 192 (2004). There, LUBA held:

'As intervenor correctly points out, local and statutory requirements that land use decisions be consistent with the comprehensive plan do not mean that all parts of the comprehensive plan necessarily are approval standards. [Citations omitted.] Local governments and this Board have frequently considered the text and context of cited parts of the comprehensive plan and concluded that the alleged comprehensive plan standard was not an applicable approval standard. [Citations omitted.] Even if the comprehensive plan includes provisions that can operate as approval standards, those standards are not necessarily relevant to all quasi-judicial land use permit applications. [Citation omitted.] Moreover, even if a plan provision is a relevant standard that must be considered, the plan provision might not constitute a separate mandatory approval criterion, in the sense that it must be separately satisfied, along with any other mandatory approval criteria, before the application can be approved. Instead, that plan provision, even if it constitutes a relevant standard, may represent a required consideration

² Powell/Ramsey decision (PA-14-2 / ZC-14-2) and Landholdings Decision (247-16-000317-ZC / 318-PA).

that must be balanced with other relevant considerations. [Citations omitted.]'

LUBA went on to hold in *Save Our Skyline* that it is appropriate to 'consider first whether the comprehensive plan itself expressly assigns particular role to some or all of the plan's goals and policies.' Section 23.08.020 of the county's comprehensive plan provides as follows:

The purpose of the Comprehensive Plan for Deschutes county is not to provide a site-specific identification of the appropriate land uses which may take place on a particular piece of land but rather it is to consider the significant factors which affect or are affected by development in the county and provide a general guide to the various decision which must be made to promote the greatest efficiency and equity possible, which managing the continuing growth and change of the area. Part of that process is identification of an appropriate land use plan, which is then interpreted to make decision about specific sites (most often in zoning and subdivision administration) but the plan must also consider the sociological, economic and environmental consequences of various actions and provide guidelines and policies for activities which may have effects beyond physical changes of the land (Emphases added.)

The Hearings Officer previously found that the above-underscored language strongly suggests the county's plan statements, goals and policies are not intended to establish approval standards for quasi-judicial/and use permit applications.

In *Bothman v. City of Eugene*, 51 Or LUBA 426 (2006), LUBA found it appropriate also to review the language of specific plan policies to determine whether and to what extent they may in fact establish decisional standards. The policies at issue in that case included those ranging from aspirational statements to planning directives to the city to policies with language providing 'guidance for decision-making' with respect to specific rezoning proposals. In *Bothman* LUBA concluded the planning commission erred in not considering in a zone change proceeding a plan policy requiring the city to '[r]ecognize the existing general office and commercial uses located * * * [in the geographic area including the subject property] and discourage future rezonings of these properties.' LUBA held that:

'* * * even where a plan provision might not constitute an independently applicable mandatory approval criterion, it may nonetheless represent a relevant and necessary consideration that must be reviewed and balanced with other relevant considerations, pursuant to ordinance provisions that require * * * consistency with applicable plan provision.' (Emphasis added.)

The county's comprehensive plan includes a large number of goals and policies. The applicant's burden of proof addresses goals for rural development, economy, transportation, public facilities, recreation, energy, natural hazards, destination resorts, open spaces, fish and wildlife, and forest lands. The Hearings Officer finds these goals are aspirational in nature and therefore are not intended to create decision standards for the proposed zone change."

Hearings Officer Karen Green adhered to these findings in the Powell/Ramsey decision (file nos. PA-14-2/ZC-14-2), and found the above-referenced introductory statements and goals are not approval criteria for the proposed plan amendment and zone change. This Hearings Officer also adheres to the above findings herein. Nevertheless, depending upon their language, some plan provisions may require "consideration" even if they are not applicable approval criteria. Save Our Skyline v. City of Bend, 48 Or LUBA 192, 209 (2004). I find that the following amended comprehensive plan goals and policies require such consideration, and that other provisions of the plan do not apply:"

The comprehensive plan goals and polices that the Landholdings Hearings Officer found to apply include the following . . .

The Applicant utilized this analysis, as well as analyses provided in prior Hearings Officers' decisions, to determine and respond to only the Comprehensive Plan Goals and policies that apply, which are listed in the Comprehensive Plan section of this staff report in further detail. Staff agrees with the Applicant's analysis and finds the above provision to be met based on Comprehensive Plan conformance as demonstrated in subsequent findings.

B. That the change in classification for the subject property is consistent with the purpose and intent of the proposed zone classification.

FINDING: The Applicant provided the following response in the submitted Burden of Proof statement:

The applicant is proposing to change the zone classification from EFU to MUA-10. Approval of the application is consistent with the purpose of the MUA-10 zoning district, which is stated in DCC 18.32.010 as follows:

"The purposes of the Multiple Use Agricultural Zone are to preserve the rural character of various areas of the County while permitting development consistent with that character and with the capacity of the natural resources of the area; to preserve and maintain agricultural lands not suited to full-time commercial farming for diversified or part-time agricultural uses; to conserve forest lands for forest uses; to conserve open spaces and protect natural and scenic resources; to maintain and improve the quality of the air, water and land resources of the County; to establish standards and procedures for the

use of those lands designated unsuitable for intense development by the Comprehensive Plan, and to provide for an orderly and efficient transition from rural to urban land use."

The subject property is not suited to full-time commercial farming as discussed in the findings above. The MUA-10 zone will allow property owners to engage in hobby farming. The low-density of development allowed by the MUA-10 zone will conserve open spaces and protect natural and scenic resources. In the Landholding's case, the Hearings Officer found:

I find that the proposed change in zoning classification from EFU is consistent with the purpose and intent of the MUA-10 zone. Specifically, the MUA-10 zone is intended to preserve the rural character of various areas of the County while permitting development consistent with that character and with the capacity of the natural resources of the area. Approval of the proposed rezone to MUA-10 would permit applications for low-density development, which will comprise a transition zone between EFU rural zoning, primarily to the east and City zoning to the west.

The maximum density of the approximately 94-acre property, if developed with a cluster development under Title 18, is 18 lots. This low density will preserve open space, allow owners to engage in hobby farming, if desired, and preserve natural and scenic resources and maintain or improve the quality of air, water, and land resources. The MUA-10 zoning provides a proper transition zone from City, to rural zoning, to EFU zoning.

Staff finds the Applicant has demonstrated the change in classification is consistent with the purpose and intent of the MUA10 Zone, but asks the Hearings Officer to amend or add to these findings as the Hearings Officer sees fit.

C. That changing the zoning will presently serve the public health, safety and welfare considering the following factors:

- 1. The availability and efficiency of providing necessary public services and facilities.**

FINDING: Although there are no plans to develop the properties in their current state, the above criterion specifically asks if the proposed zone exchange will *presently* serve public health, safety, and welfare. The Applicant provided the following response in the submitted Burden of Proof statement:

Necessary public facilities and services are available to serve the subject property, including electrical power from Pacific Power and well logs showing water services are available to serve the property (Exhibit 7).

Transportation access to the property is available from Neff Road, a rural arterial road to the north, Hamby Road, a rural arterial road to the east, and Highway 20, a state highway to the south. Additionally, access is available through the adjacent property to the west, from the

subbed local street connections of Northeast Manchester Avenue and Northeast Glacier Ridge Road, which are within the City Limits (Exhibit 3).

MUA- 10 zoning and a standard subdivision would allow the creation of up to 9 residential lots and a cluster development would allow up to 18 residential lots. If developed with a cluster development, the property could generate up to 170 daily trips, which according to the traffic report prepared by Transight Consulting is a slight decrease in trips on a weekday daily basis from what could be allowed under the existing zoning but a slight increase (+5) during the weekday PM peak hour. As demonstrated in the traffic report, the impact of these trips is negligible on the transportation system and the functional classification of all the adjacent roadways will not be affected with the proposed rezone. The existing road network is available to serve the use of the property if developed. Exhibit 9, p. 6.

The property receives police services from the Deschutes County Sheriff. It is in Rural Fire Protection District # 2 and the nearest fire station is adjacent to the northeast corner of the subject property. Neighboring properties contain residential uses, which have water service from a municipal source or wells, on-site sewage disposal systems, electrical service, telephone services, etc. There are no known deficiencies in public services or facilities that would negatively impact public health, safety, or welfare.

The northwest corner of the subject property abuts the UGB for the City of Bend. This close proximity to urban development will allow for efficient service provision. The application materials include a will-serve letter and well logs indicating electrical service and water service are available to the subject property.

There are no known deficiencies in public services or facilities that would negatively impact public health, safety, or welfare. Prior to development of the properties, the Applicant would be required to comply with the applicable requirements of the Deschutes County Code, including possible land use permit, building permit, and sewage disposal permit processes. Through these development review processes, assurance of adequate public services and facilities will be verified. Staff finds this provision is met.

2. *The impacts on surrounding land use will be consistent with the specific goals and policies contained within the Comprehensive Plan.*

FINDING: The Applicant provided the following response in the submitted Burden of Proof statement:

The MUA-10 zoning is consistent with the specific goals and policies in the comprehensive plan discussed above. The MUA-10 zoning is the same as the zoning of many other properties in the area north and south of the subject property. In addition, the MUA-10 zoning provides a proper transition zone from City, to rural zoning, to EFU zoning. The zone change will not impose new impacts on the EFU- zoned land to the east of the subject property because those properties are not engaged in commercial farm use, are idle, are small parcels, and most are developed with dwellings. The three EFU-zoned parcels to the

east which are currently receiving farm tax deferral will not suffer new impacts from the proposed zone change because they are hobby farms, are already developed with dwellings, and are not engaged in commercial farm use. As discussed below, the subject property is not agricultural land, is comprised of predominantly Class 7 and 8 soils, and as described by the soil scientist, Andy Gallagher, the subject property is impractical to farm due to the cut up landscape. It is not land that could be used in conjunction with the adjacent property and any future development of the subject property would be subject to building setbacks.

In addition to these comments, the Applicant provided specific findings for each relevant Comprehensive Plan goal and policy, which are addressed below. Staff finds the Applicant has demonstrated the impacts on surrounding land use will be consistent with the specific goals and policies contained within the Comprehensive Plan, but asks the Hearings Officer to amend or add to these findings as the Hearings Officer sees fit.

D. That there has been a change in circumstances since the property was last zoned, or a mistake was made in the zoning of the property in question.

FINDING: The Applicant proposes to rezone the property from EFU to MUA10 and re-designate the property from Agriculture to Rural Residential Exception Area. The Applicant provided the following response in the submitted Burden of Proof statement:

1. **Mistake:** The EFU zoning designation was likely based on the best soils data that was available to the County at the time it was originally zoned, during the late 1970's, when the comprehensive plan and map were first adopted and when agricultural zoning was applied to land with no history of farming.^{3,4}
2. **Change in Circumstances:** There has clearly been a change in circumstances since the property was last zoned in the 1970s:

Soils: New soils data provided in Mr. Gallagher's soils report shows the property does not have agricultural soils.

Farming Economics and Viability of Farm Uses: The economics of farming and the viability of commercial farm uses in Deschutes County have significantly changed. Making a profit in farming has become increasingly difficult, particularly on parcels that are relatively small for livestock grazing and that have inadequate soils or irrigation for raising crops such as the subject property. The reality of the difficulties agricultural producers face in Deschutes County is demonstrated below in the

³ Mr. Gallagher's soils analysis report for the subject property determined that the subject property was previously mapped by the USDA-SCS Soil Survey of the Deschutes County Area and compiled by NRCS into the Web Soil Survey. The property was previously mapped at 1:20,000 scale, which is generally too small a scale for detailed land use planning and decision making, according to Gallagher.

⁴ Source: Agricultural Lands Program', Community Involvement Results, Community Development, Deschutes County. June 18, 2014

stakeholder interview of the Deschutes County Farm Bureau in the County's 2014 Agricultural Lands Program, Community Involvement Results:

Today's economics make it extremely difficult for commercial farmers in Deschutes County to be profitable. Farmers have a difficult time being competitive because other regions (Columbia Basin, Willamette Valley) produce crops at higher yields, have greater access to transportation and consumer markets, and experience more favorable growing climates and soils. Ultimately, the global economy undermines agricultural opportunities in the county because commodities derived from outside the region can be produced at a lower cost. Water limitations also play a role. Junior water right holders are constrained as the summer progresses and they lose their rights to those with higher priority dates.

Decline in Farm Operations: The number of farm operations have steadily declined in Deschutes County between 2012 and 2017, with only a small fraction of farm operators achieving a net profit from farming in 2017. (Exhibit 8).

Encroaching development: Encroaching development east of Bend's Urban Growth Boundary has brought both traffic and higher density residential uses and congestion to the area.

The above analysis regarding farming economics, viability of farm uses, decline in farm operations, and encroaching development demonstrates that a change in circumstances has occurred since the property was last zoned. In addition, the Gallagher soil study confirms that the subject property does not have agricultural soils.

Considering the Applicant's above response, staff requests the Hearings Officer make specific findings on this issue.

Deschutes County Comprehensive Plan Chapter 2, Resource Management

Section 2.2 Agricultural Lands

Goal 1, Preserve and maintain agricultural lands and the agricultural industry.

FINDING: The Applicant provided the following response in the submitted Burden of Proof statement:

The applicant is pursuing a plan amendment and zone change on the basis that the subject property does not constitute "agricultural lands", and therefore, it is not necessary to preserve or maintain the subject lands are as such. In the Landholdings decision (and Powell/Ramsey decision) the Hearings Officer found that Goal 1 is an aspirational goal

and not an approval criterion.

As demonstrated in this application, the subject property does not constitute "agricultural land" and therefore, is not necessary to preserve and maintain the County's agricultural industry. The Gallagher soils report shows the subject property to consist predominantly (73%) of Class 7 and 8 non-agricultural soils (Gosney-Bakeoven-Rock Outcrop Complex).

According to Mr. Gallagher, these soils have severe limitations for agricultural use as well as low soil fertility, shallow and very shallow soils, abundant rock outcrops, low available water capacity, and major management limitations for livestock grazing. In addition, the minor amount of Deskamp soils (Class 3 irrigated and 6 nonirrigated) are in small isolated pockets and severely restricted by shallow rocky soils, irrigation ditches and property lines that they cannot be used in farming in conjunction with the non-productive Gosney-Bakeoven-Rock Outcrop Complex. The property is also physically remote from productive farmland as it is adjacent to the City of Bend's urban development to the west and rural residential development to the north and south. Mr. Gallagher concludes that the *"landscape is so cut up it is impractical to farm."*

Staff notes the subject property has no history of agricultural use. The subject property currently has no water rights with Central Oregon Irrigation District and does not appear to be in active farm use. Staff concurs that the submitted soil study demonstrates the subject property is predominantly Class 7 and Class 8 soils. Staff requests the Hearings Officer make specific findings on this topic.

Policy 2.2.2 Exclusive Farm Use sub-zones shall remain as described in the 1992 Farm Study and shown in the table below, unless adequate legal findings for amending the sub-zones are adopted or an individual parcel is rezoned as allowed by Policy 2.2.3.

FINDING: The Applicant did not ask to amend the subzone that applies to the subject properties; rather, the Applicant requested a change under Policy 2.2.3 and has provided evidence to support rezoning the subject properties as MUA10.

Policy 2.2.3 Allow comprehensive plan and zoning map amendments, including for those that qualify as non-resource land, for individual EFU parcels as allowed by State Statute, Oregon Administrative Rules and this Comprehensive Plan.

FINDING: The Applicant requested approval of a plan amendment and zone change to re-designate the property from Agricultural to Rural Residential Exception Area and rezone the property from EFU to MUA10. The Applicant did not seek an exception to Goal 3 – Agricultural Lands, but rather to demonstrate that the subject property does not meet the state definition of “Agricultural Land” as defined in Statewide Planning Goal 3 (OAR 660-033-0020).

The Applicant has provided the following response in the submitted Burden of Proof statement:

Deschutes County has allowed this approach in previous Hearings Officer's decisions including Porter Kelly Burns Landholdings (247-16-000317-ZC/318-PA), Department of State Lands (PA-11-7/ZC-11-2), Pagel (PA-08-1/ZC-08-1), and the Daniels Group (PA- 08-1, ZC-08-1). Additionally, the Land Use Board of Appeals (LUBA) allowed this approach in *Wetherell v. Douglas County*, 52 Or LUBA 677 (2006), where LUBA states, at pp. 678-679:

"As we explained in DLCD v. Klamath County, 16 Or LUBA 817, 820 (1988), there are two ways a county can justify a decision to allow nonresource use of land previously designated and zoned for farm use or forest uses. One is to take an exception to Goal3 (Agricultural Lands) and Goal4 (Forest Lands). The other is to adopt findings which demonstrate the land does not qualify either as forest lands or agricultural lands under the statewide planning goals. When a county pursues the latter option, it must demonstrate that despite the prior resource plan and zoning designation, neither Goal 3 or Goal 4 applies to the property. Caine v. Tillamook County, 25 Or LUBA 209, 218 (1993); DLCD v. Josephine County, 18 Or LUBA 798, 802 (1990)."

LUBA's decision in *Wetherell* was appealed to the Oregon Court of Appeals and the Oregon Supreme Court but neither court disturbed LUBA's ruling on this point. In fact, the Oregon Supreme Court changed the test for determining whether land is agricultural land to make it less stringent. *Wetherell v. Douglas County*, 342 Or 666, 160 P3d 614 (2007). In that case, the Supreme Court stated that:

"Under Goal 3, land must be preserved as agricultural land if it is suitable for "farm use" as defined in ORS 215.203(2)(a), which means, in part, "the current employment of land for the primary purpose of obtaining a profit in money" through specific farming-related endeavors." Wetherell, 342 Or at 677.

The *Wetherell* court held that when deciding whether land is agricultural land "a local government may not be precluded from considering the costs or expenses of engaging in those activities." *Wetherell*, 342 Or at 680. The facts presented in the subject application are sufficiently similar to those in the *Wetherell* decisions and in the above-mentioned Deschutes County plan amendment and zone change applications. The subject property is primarily composed of Class 7 and 8 nonagricultural soils making farm-related endeavors not profitable. This application complies with Policy 2.2.3.

Staff agrees that the facts presented by the Applicant in the Burden of Proof for the subject application are similar to those in the *Wetherell* decisions and in the aforementioned Deschutes County plan amendment and zone change applications. The applicant provided evidence in the record addressing whether the property qualifies as non-resource land. Therefore, the Applicant has the potential to prove the properties are not agricultural land and do not require an exception to Goal 3 under state law.

Policy 2.2.4 Develop comprehensive policy criteria and code to provide clarity on when and how EFU parcels can be converted to other designations.

FINDING: This plan policy provides direction to Deschutes County to develop new policies to provide clarity when EFU parcels can be converted to other designations. Staff concurs with the County’s previous determinations in plan amendment and zone change applications, and finds the proposal is consistent with this policy.

Goal 3, Ensure Exclusive Farm Use policies, classifications and codes are consistent with local and emerging agricultural conditions and markets.

Policy 2.2.13 Identify and retain accurately designated agricultural lands.

FINDING: This plan policy requires the County to identify and retain agricultural lands that are accurately designated. The Applicant proposes that the subject property was not accurately designated as demonstrated by the soil study and the Applicant’s Burden of Proof. Further, discussion on the soil analysis provided by the Applicant is detailed under the OAR Division 33 criteria below.

Section 2.5, Water Resources Policies

Goal 6, Coordinate land use and water policies.

Policy 2.5.24 Ensure water impacts are reviewed and, if necessary, addressed for significant land uses or developments.

FINDING: The Applicant has not proposed a specific development application at this time. Therefore, the Applicant is not required to address water impacts associated with development. Rather, the Applicant will be required to address this criterion during development of the subject property, which would be reviewed under any necessary land use process for the site (e.g. conditional use permit, tentative plat). This criterion does not apply to the subject application.

Section 2.7, Open Spaces, Scenic Views and Sites

Goal 1, Coordinate with property owners to ensure protection of significant open spaces and scenic view and sites.

Policy 2.7.3 Support efforts to identify and protect significant open spaces and visually important areas including those that provide a visual separation between communities such as the open spaces of Bend and Redmond or lands that are visually prominent.

Policy 2.7.5 Encourage new development to be sensitive to scenic views and sites.

FINDING: The Applicant provided the following response in the submitted Burden of Proof statement:

As the County Hearings Officer recently ruled in a similar file under Deschutes County File Nos. 247-21-001043-PA, 247-21-001044-ZC, these policies are fulfilled by the County’s Goal 5

program. The County protects scenic views and sites along major rivers and roadways by imposing Landscape Management (LM) Combining Zones to adjacent properties. There is no LM combining zone applicable to the subject property, nor is the subject property identified as a Goal 5 resource. Furthermore, no new development is proposed under the present application. There is no applicable statute or regulation that requires the property to be protected as open space or for scenic views, particularly given its location on the edge of urban development and a state highway. Nor is there any state law that prohibits redesignation and rezoning of a property in and of itself on this basis. In that similar case, the Hearings Officer found the above provisions of the plan to be inapplicable to consideration of the proposed zone change and plan amendment. The same is true in the present application.

Staff notes that the subject property is within the Landscape Management Combining Zone for Highway 20 which is designated as landscape management feature by the Comprehensive Plan. Staff finds that any future development within the LM Zone will be reviewed for compliance at that time.

Chapter 3, Rural Growth

Section 3.2, Rural Development

Growth Potential

As of 2010, the strong population growth of the last decade in Deschutes County was thought to have leveled off due to the economic recession. Besides flatter growth patterns, changes to State regulations opened up additional opportunities for new rural development. The following list identifies general categories for creating new residential lots, all of which are subject to specific State regulations.

- ***2009 legislation permits a new analysis of agricultural designated lands***
- ***Exceptions can be granted from the Statewide Planning Goals***
- ***Some farm lands with poor soils that are adjacent to rural residential uses can be rezoned as rural residential***

FINDING: This section of the Comprehensive Plan does not contain Goals or Policies, but does provide the guidance above. The Applicant provided the following response to this section in their Burden of Proof:

As shown above, the County’s Comprehensive Plan provisions anticipate the need for additional rural residential lots as the region continues to grow. This includes providing a mechanism to rezone farm lands with poor soils to a rural residential zoning designation. While the rezone application does not include the creation of new residential lots, the applicant has demonstrated the subject property is comprised of poor soils that are adjacent to rural residential MUA-10 zone uses to the north and south as well as urban residential zones within the City limits of Bend to the west.

Rezoning the subject property to MUA-10 is consistent with this criterion, as it will provide for an orderly and efficient transition from the Bend Urban Growth Boundary to rural and agricultural lands. Additionally, it will link the pocket of MUA-10 zoned land to the north with the MUA-10 zoned land to the south, furthering the creation a buffer of MUA-10 zoned land along the City’s eastern boundary where the quality of soils are poor and the land is not conducive for commercial agriculture.

Staff notes that the MUA10 Zone is a rural residential zone and as discussed in the Findings of Fact above, adjacent properties to the north, east and south are zoned MUA10. One of these MUA10 properties has received approval for a Comprehensive Plan Amendment and Zone Change to be included in the City of Bend UGB. This property is identified on Assessor’s Map 17-12-35 as Tax Lot 1400, and is located to the east of the subject property. Staff notes this policy also references the soil quality, which staff has discussed above. Staff is uncertain if this policy is met by the available information in the record and requests the Hearings Officer make specific findings on this topic.

Section 3.3, Rural Housing

Rural Residential Exception Areas

In Deschutes County most rural lands are designated for farms, forests or other resources and protected as described in the Resource Management chapter of this Plan. The majority of the land not recognized as resource lands or Unincorporated Community is designated Rural Residential Exception Area. The County had to follow a process under Statewide Goal 2 to explain why these lands did not warrant farm or forest zoning. The major determinant was that many of these lands were platted for residential use before Statewide Planning was adopted.

In 1979 the County assessed that there were over 17,000 undeveloped Rural Residential Exception Area parcels, enough to meet anticipated demand for new rural housing. As of 2010 any new Rural Residential Exception Areas need to be justified through initiating a nonresource plan amendment and zone change by demonstrating the property does not meet the definition of agricultural or forest land, or taking exceptions to farm, forest, public facilities and services and urbanization regulations, and follow guidelines set out in the OAR.

FINDING: The Applicant provided the following response to this provision in the Burden of Proof:

Prior Hearings Officer’s decisions have found that Section 3.3 is not a plan policy or directive.⁵ Further, no goal exception to Statewide Planning Goal 3 is required for the rezone application because the subject property does not qualify as farm or forest zoning or agricultural lands under the statewide planning goals. The County has interpreted the RREA plan designation as the proper “catchall” designation for non-resource land and therefore, the Rural

⁵ See PA-11-17/ZC-11-2, 247-16-000317-ZC/318-PA, and 247-18-000485-PA/486-ZC

Residential Exception Area (RREA) plan designation is the appropriate plan designation to apply to the subject property.⁶

Based on the above, staff agrees with the past Deschutes County Hearings Officer interpretations and finds that the above language is not a policy and does not require an exception to the applicable Statewide Planning Goal 3. The applicant provided evidence in the record addressing whether the property qualifies or does not qualify as agricultural or forest land. Staff finds the proposed RREA plan designation is the appropriate plan designation to apply to the subject property, but asks the Hearings Officer to make specific findings related to this language.

⁶ The Hearings Officer's decision for PA-11-17/ZC-11-2 concerning this language of Section 3.3 states:

*To the extent that the quoted language above represents a policy, it appears to be directed at a fundamentally different situation than the one presented in this application. The quoted language addresses conversions of "farm" or "forest" land to rural residential use. In those cases, the language indicates that some type of exception under state statute and DLCD rules will be required in order to support a change in Comprehensive Plan designation. See ORS 197.732 and OAR 660, Division 004. That is not what this application seeks to do. **The findings below explain that the applicant has been successful in demonstrating that the subject property is composed predominantly of nonagricultural soil types. Therefore, it is permissible to conclude that the property is not "farmland" as defined under state statute, DLCD rules, and that it is not correctly zoned for exclusive farm use.** As such, the application does not seek to convert "agricultural/and" to rural residential use. If the land is demonstrated to not be composed of agricultural soils, then there is no "exception" to be taken. There is no reason that the applicant should be made to demonstrate a reasons, developed or committed exception under state law because the subject property is not composed of the type of preferred land which the exceptions process was designed to protect. **For all these reasons, the Hearings Officer concludes that the applicant is not required to obtain an exception to Goal 3.***

*There is one additional related matter which warrants discussion in connection with this issue. It appears that part of Staff's hesitation and caution on the issue of whether an exception might be required is rooted in the title of the Comprehensive Plan designation that would ultimately apply to the subject property – which is "Rural Residential Exception Area." There appears to be seven countywide Comprehensive Plan designations as identified in the plan itself. These include "Agriculture, Airport Development, Destination Resort Combining Zone, Forest, Open Space and Conservation, Rural Residential Exception Area, and Surface Mining." Of the seven designations, only rural Residential Exception Area provides for associated zoning that will allow rural residential development. **As demonstrated by reference to the Pagel decision discussed above, there appears to be instances in which rural residential zoning has been applied without the underlying land necessarily being identified as an exception area.** This makes the title of the "Rural Residential Exception Area" designation confusing and in some cases inaccurate, because no exception is associated with the underlying land in question. However, it is understandable that since this designation is the only one that will allow rural residential development, that it has become a catchall designation for land types that are authorized for rural residential zoning. That is the case with the current proposal, and again, for the same reason set forth in the Hearings Officer Green's decision in Pagel, I cannot find a reason why the County would be prohibited from this practice. (emphasis added). I find that Deschutes County has interpreted the RREA plan designation as the property "catchall" designation for non-resource land. As a result, the Hearings Officer finds that the RREA plan designation is the appropriate plan designation for the subject property.*

Section 3.7, Transportation

**Appendix C – Transportation System Plan
ARTERIAL AND COLLECTOR ROAD PLAN**

...

Goal 4. Establish a transportation system, supportive of a geographically distributed and diversified economic base, while also providing a safe, efficient network for residential mobility and tourism.

...

Policy 4.4 Deschutes County shall consider roadway function, classification and capacity as criteria for plan map amendments and zone changes. This shall assure that proposed land uses do not exceed the planned capacity of the transportation system.

FINDING: This policy applies to the County and advises it to consider the roadway function, classification and capacity as criteria for plan amendments and zone changes. The County will comply with this direction by determining compliance with OAR 660-012, also known as the Transportation Planning Rule (TPR), as described below in subsequent findings.

OREGON ADMINISTRATIVE RULES CHAPTER 660, LAND CONSERVATION AND DEVELOPMENT DEPARTMENT

Division 6, Goal 4 – Forest Lands

OAR 660-006-0005, Definitions

- (7) “Forest lands” as defined in Goal 4 are those lands acknowledged as forest lands, or, in the case of a plan amendment, forest lands shall include:**
 - (a) Lands that are suitable for commercial forest uses, including adjacent or nearby lands which are necessary to permit forest operations or practices; and**
 - (b) Other forested lands that maintain soil, air, water and fish and wildlife resources.**

FINDING: The Applicant provided the following response to Goal 4 in their Burden of Proof:

The existing site and surrounding areas do not include any lands that are suited for forestry operations. Goal 4 says that forest lands “are those lands acknowledged as forest lands as of the date of adoption of this goal amendment.” The subject property does not include lands acknowledged as forest lands as of the date of adoption of Goal 4. Goal 4 also says that “where**a plan amendment involving forest lands is proposed, forest land shall include lands which are suitable for commercial forest uses including adjacent or nearby lands which are necessary to permit forest operations or practices and other forested lands that maintain soil, air, water and fish and wildlife resources.” This plan amendment does not involve any

forest land. The subject property does not contain any merchantable timber and is not located in a forested part of Deschutes County.

The subject property is not zoned for forest lands, nor are any of the properties in over a mile 5 mile radius. The subject property does not contain merchantable tree species and there is no evidence in the record that the property has been employed for forestry uses historically. The soil mapping unit on the subject property does not contain wood fiber production capabilities and the subject property does not qualify as forest land.

The subject property is not zoned for forest lands, nor are any of the properties within a 4-mile radius. The properties do not contain merchantable tree species and there is no evidence in the record that the properties have been employed for forestry uses historically. The property does not appear to qualify as forest land.

Division 33 - Agricultural Lands & Statewide Planning Goal 3 - Agricultural Lands;

OAR 660-015-0000(3)

To preserve and maintain agricultural lands.

Agricultural lands shall be preserved and maintained for farm use, consistent with existing and future needs for agricultural products, forest and open space and with the state's agricultural land use policy expressed in ORS 215.243 and 215.700.

FINDING: Goal 3 continues on to define "Agricultural Land," which is repeated in OAR 660-033-0020(1). Staff makes findings on this topic below and incorporates those findings herein by reference.

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 Oregon⁷;***

FINDING: The Applicant's basis for not requesting an exception to Goal 3 is based on the premise that the subject property is not defined as "Agricultural Land." In support, the Applicant offered the following response as included in the submitted Burden of Proof statement:

⁷ OAR 660-033-0020(5): "Eastern Oregon" means that portion of the state lying east of a line beginning at the intersection of the northern boundary of the State of Oregon and the western boundary of Wasco County, then south along the western boundaries of the Counties of Wasco, Jefferson, Deschutes and Klamath to the southern boundary of the State of Oregon.

The subject property is not properly classified as Agricultural Land and does not merit protection under Goal 3. The soils are predominately Class 7 and 8 soils as shown by the more detailed soils report prepared by soils scientist Andy Gallagher, which State law, OAR 660-033-0030, allows the County to rely on for more accurate soils information. Mr. Gallagher found that approximately 73% of the soils on the subject property (approximately 68.16 acres) is Land Capability Class 7 and 8 soils that have severe limitations for farm use. He also found the site to have low soil fertility, shallow and very shallow soils, abundant rock outcrops and rock fragments in the surface, irrigation ditches, low available water capacity, and limiting areas suitable for grazing and restricting livestock accessibility, all of which are considerations for the determination for suitability for farm use.

Because the subject property is comprised predominantly of Class 7 and 8 soils, the property does not meet the definition of "Agricultural Land" under OAR 660-033-020(1)(a)(A) listed above, that is having predominantly Class I-VI soils.

Staff has reviewed the soil study provided by Andy Gallagher, and agrees with the Applicant's representation of the data for the subject property. Staff finds, based on the submitted soil study and the above OAR definition, that the subject property is comprised predominantly of Class 7 and 8 soils and, therefore, does not constitute "Agricultural Lands" as defined in OAR 660-033-0020(1)(a)(A) above.

(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

FINDING: The Applicant's basis for not requesting an exception to Goal 3 is based on the proposal that the subject property is not defined as "Agricultural Land." The Applicant provided the following analysis of this determination in the Burden of Proof.

This part of the definition of "Agricultural Land" requires the County to consider whether the Class 7 and 8 soils found on the subject property are suitable for farm use despite their Class 7 and 8 soil classification. The Oregon Supreme Court has determined that the term "farm use" as used in this rule and Goal 3 means the current employment of land for the primary purpose of obtaining a profit in money through specific farming-related endeavors. The costs of engaging in farm use are relevant to determining whether farm activities are profitable and this is a factor in determining whether land is agricultural land. *Wetherell v. Douglas County*, 342 Or 666, 160 P3d 614 (2007).

The subject property does not have water rights, has not been farmed, or used in conjunction with any farming operation in the past. The Natural Resources Conservation Service (NRCS) map shown on the County's GIS mapping program identifies one soil complex unit on the property: 58C Gosney-Rock outcrop-Deskamp complex, 0 to 15 percent slopes, which is

estimated to be 50 percent Gosney, 25 percent Rock Outcrop and 20 percent Deskamp soils, and predominantly Capability Class 7 and higher.

58C is not a high value soil as defined by Deschutes County Code. As discussed in detail below, there is no irrigation on the property and an Agricultural Soils Capability Assessment (Order 1 soil survey) conducted on the property by soil scientist, Andy Gallagher, determined that the property is not agricultural land; that the class 6 non-irrigated soils exist in small pockets interspersed with rocky, shallow soils creating severe limitations for any agricultural use on the property or in conjunction with other neighboring lands (see Exhibit 5 for Mr. Gallagher's Soil Assessment Report).

A review of the seven considerations listed in the administrative rule, below, shows why the poor soils found on the subject property are not suitable for farm use that can be expected to be profitable:

Soil Fertility:

Mr. Gallagher made the following findings regarding soil fertility on the subject property:

Important soil properties affecting the soil fertility and productivity of the soils are very limiting to crop production on this parcel. The soils here are low fertility, being ashy sandy loams with a low cation exchange capacity (CEC) of 7.5 meq/100 gm and organic matter is very low for Gosney 0.75% and low for Deskamps 1.5%. These soils do not have a large capacity to store soil nutrients especially cations, and nitrogen fertilizers readily leach in sandy soils. The soil depth is further limiting because it limits the overall volume of soil available for plant roots and limits the size the overall soil nutrient pool. Additionally, the soil available water holding capacity is very low for Gosney less than 1.8 inches for the whole soil profile, and for the very shallow soils it is half this much. The Deskamps soils have only about 2 to 4 inches AWHC for the entire profile. The combination of low fertility and low AWHC translate into low productivity for crops. NRCS does not provide any productivity data for non-irrigated crops on these soils. This site does not however have water rights for irrigation so the productivity is lower.

The fact that the soils are low fertility unless made fertile through artificial means supports the applicant's position that the Class 7 soils and the entire property is not suitable for farm use. The costs to purchase and apply fertilizer and soil amendments and the costs to sample and test soils are a part of the reason why it is not profitable to farm the subject property.

Unsuitability for Grazing:

Mr. Gallagher also analyzed whether the parcel is suitable for grazing and found:

This 94-acre tract is not suited to grazing on a commercial scale. The soils here have major management limitations including ashy and sandy surface texture. The majority of the area has soils that are very shallow to shallow with many rock outcrops and rock

fragments in the surface. Wind erosion is a potential hazard is moderately high when applying range improvement practices. Because the soil is influenced by pumice ash, reestablishment of the native vegetation is very slow if the vegetation is removed or deteriorated. Pond development is limited by the soil depth. The restricted soil depth limits the choice of species for range seeding to drought-tolerant varieties. Further, range seeding with ground equipment is limited by the rock fragments on the surface. The areas of very shallow soils and rock outcrop limit the areas suitable for grazing and restrict livestock accessibility. [Emphasis added]

Total Range Production from NRCS Websoil survey and estimate based soil percentages in revised soil map units

Soil Map Unit	Total annual range production pounds per acre		
	Unfavorable year	Normal year	Favorable year
Dk	700	900	1100
GR¹	100	145	190

1 Estimated based on weighted average of soils

Total range production is the amount of vegetation that can be expected to grow annually in a well-managed area that is supporting the potential natural plant community. It includes all vegetation, whether or not it is palatable to grazing animals. It includes the current year's growth of leaves, twigs, and fruits of woody plants. It does not include the increase in stem diameter of trees and shrubs. It is expressed in pounds per acre of air-dry vegetation. In a normal year, growing conditions are about average. Yields are adjusted to a common percent of air-dry moisture content. The productivity provided for Dk map unit is from Websoil survey for the Deskamp soil and that provided for the GR map unit is based on 15 percent Bakeoven, very shallow soils, 15 percent Gosney, shallow and 70 percent rock outcrop.

Based on the revised Order-1 map the annual productivity is about 16 tons annual range production for the entire property. The animal use months (AUMs) for this property is 8.8 based on the revised soil map and a monthly value of 910 pounds forage per 1 AUM equivalent to pounds per cow calf pair. This model assumes the cow's take to be 25% of annual productivity in order to maintain site productivity and soil health (NRCS 2009). This limits the grazing to one cow calf pair for roughly 8 to 9 months annually. This is not an economical model for livestock production.

Inappropriate grazing causes a reduction in desirable grasses and where present cheatgrass will increase and granite prickly gilia increases and grasses decline. Cheatgrass becomes dominate along with grey rabbitbrush. Ground fire potential increases with increasing cheatgrass. Cutting of juniper leads to an increase in grey rabbitbrush and an increase in cheatgrass with or without grazing. Idaho fescue is eliminated from areas where trees are removed due to harsh microclimate and cheatgrass replaces it. The

addition of inappropriate grazing would lead to a decline in the other deep-rooted perennial bunchgrasses and an increase in annuals and granite prickly gilia. [Emphasis added]

Climatic Conditions

According to Mr. Gallagher, climatic conditions of this area make it difficult for production of most crops, as stated below:

The low annual precipitation, high summer temperature and evapotranspiration rates, and shortened frost-free growing season make this a difficult climate for production of most crops. Irrigation is needed on area farms to meet crop needs given only 8 to 10 inches precipitation that falls mainly between November and June, with a long summer drought. The soil temperature regime is mesic. The average annual air temperature is 46 degrees F with extreme temperatures ranging from -26 to 104 degrees F. The frost-free period is 50 to 90 days. The optimum period for plant growth is from late March through June. Freeze-free period (average) 140 days. (NRCS 2020) These harsh climatic conditions coupled with very low soil available water holding capacity limits the potential of irrigated crop production to the Deskamps soils. [Emphasis added]

Existing and Future Availability of Water for Farm Irrigation Purposes

The subject property is within the boundaries of the Central Oregon Irrigation District. No new irrigation water rights are expected to be available to the subject property in the foreseeable future. In order to obtain water rights, the applicant would need to convince another COID customer to remove water rights from their property and sell them to the applicant and obtain State and COID approval to apply the water rights to the subject property. In such a transaction, water rights would be taken off productive farm ground and applied to the nonagricultural soils found on the subject property. Such a transaction runs counter to the purpose of Goal 3 to maintain productive Agricultural Land in farm use.

Given the poor quality of these soils, it is highly unlikely that the Central Oregon Irrigation District would approve a transfer of water rights to this property. In addition, no person intending to make a profit in farming would go to the expense of purchasing water rights, mapping the water rights and establishing an irrigation system to irrigate the lands on the subject property.

Given the dry climate and poor soil quality, it is necessary to irrigate and fertilize the subject property in order to grow a crop which could be harvested and sold, such as alfalfa and grass hay. A farmer would need to spend significant sums of money to purchase water rights, purchase irrigation systems, maintain the systems, purchase fertilizer, purchase herbicides and pesticides, pay laborers to move and monitor irrigation equipment and tend to the crops and pastures, obtain electricity, pay irrigation district assessments and pay increased liability insurance premiums for the risks involved with farming operations.

Irrigating the soils found on the subject property as described by Mr. Gallagher, that have low fertility, low capacity to store nutrients, and very low available water holding capacity translates into low productivity for crops that would amount to no profit for the farm operator.

Existing Land Use Patterns

Existing land use patterns in the area are primarily non-agricultural related land uses including urban development to the west within the Bend City limits, County exception lands zoned MUA-10 which are developed with homes on mostly small properties to the north, south, and adjacent to east, with some hobby farm uses on partially irrigated farmland zoned EFU-TRB across Hamby Road to the east.

The nearby EFU-zoned properties across Hamby Road to the east which are receiving farm tax deferral include:

- Tax Lot 17-12-35-1300. This parcel is 28.01 acres in size and livestock grazing appears to be occurring on this property. It is a remainder parcel of a nonfarm partition. A nonfarm dwelling was approved on this property (file no. 247-CU95107-PL), and a nonfarm parcel (Tax Lot 1302) was carved out of Tax Lot 1300. Both parcels, the nonfarm dwelling parcel and the remainder farm parcel, remain under common ownership and a nonfarm dwelling has been constructed on the nonfarm parcel.
- Tax Lot 17-12-35-1301. This parcel is 10.0 acres in size and is partially irrigated. It is developed with a dwelling and outbuildings and appears to be used as a hobby farm.
- Tax Lot 17-12-35-1403. This parcel is 10.0 acres in size and is not irrigated. There are no structures located on this property. Despite the fact that this property is receiving farm tax deferral, there appears to be only minimal, if any, farm uses occurring on the property.

The close proximity to the City of Bend and residential areas limits the types of agricultural activities that could reasonably be conducted for profit on the subject property. The subject property would not be suitable for raising animals that are disturbed by noise. Additionally, the property owner would bear the burden of paying for harm that might be caused by livestock escape, in particular livestock and vehicle collisions. Any agricultural use that requires the application of pesticides and herbicides would be very difficult to conduct on the property given the numerous homes located in close proximity to the property. In addition, the creation of dust which accompanies the harvesting of crops is a major concern on this property due to the close proximity residential use.

Technological and Energy Inputs Required:

According to Mr. Gallagher:

*The very shallow and shallow soils and abundant rock outcrops limit practical agricultural crop production on all but about 12 of the 25 acres of Deskamps soils. The lack of irrigation water limits crop production almost completely here. The Deskamps soils are in many small delineations that are separated by rocky and shallow soils and rock outcrops and irrigation ditches. **The landscape is so cut up it is impractical to farm.** [Emphasis added]*

Accepted Farming Practices:

Farming lands comprised of soils that are predominately Class 7 and 8 is not an accepted farm practice in Central Oregon. Dryland grazing, the farm use that can be conducted on the poorest soils in the County, typically occurs on Class 6 non-irrigated soils that have a higher soils class if irrigated. The applicant would have to go above and beyond accepted farming practices to even attempt to farm the property for dryland grazing. Crops are typically grown on soils in soil class 3 and 4 that have irrigation, which this property has neither.

Staff agrees with the Applicant that many of the factors surrounding the subject property – such as the current residential land uses in the area, soil fertility, and amount of irrigation required - result in a relatively low possibility of farming on the subject property. Staff requests the Hearings Officer make specific findings on this issue.

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

FINDING: The Applicant offered the following response as included in the submitted Burden of Proof statement:

The subject property is not land necessary to permit farm practices to be undertaken on adjacent or nearby lands. The nearest properties to the subject property that are agriculturally zoned and engaged in farm use are located across Hamby Road to the east on tax lots 17-12-35-1300, 17-12-35-1301, and 17-12-35-1403 and an MUA-10 zoned parcel planned for urbanization and upon which ODOT is currently constructing a highway roundabout is located in between the subject property and these EFU parcels.

As discussed above, Tax 1300 is a partially irrigated farm parcel that is and engaged in livestock production, receiving farm tax deferral, and developed with a nonfarm dwelling (on a separate nonfarm parcel) and outbuildings. Tax Lot 1301 is a 10-acre hobby farm property, it is receiving farm tax deferral, and it is developed with a dwelling and outbuildings. Tax Lot 1403 is not irrigated, it is receiving farm tax deferral, and there are no structures on the property.

The farm operations on tax lots 1300, 1301, and 1403 operate independently and are not dependent upon the subject property to conduct their farm practices. This is evidenced by the fact that the farm operators of these three farm properties do not graze their livestock on the subject property, the subject property and each of the three farm properties are not fenced in a way that would allow livestock to be grazed on the subject property in conjunction with the other properties, and there are no water sources on the subject property suitable for livestock.

The Eastside Bend property located in between the subject property and tax lots 1300, 1301 and 1403 was rezoned to MUA10 in 2018. Farming operations on tax lots 1300, 1301, and 1403 have been able to continue to occur since the adjacent property was rezoned and therefore should likewise be able to continue if the subject property is rezoned to MUA-10. Further, the poor-quality soils and lack of irrigation on the subject property are not suited to agricultural production and make the subject property unsuitable for farm practices on the nearby agricultural land.

The above analysis shows that the subject property is not land "necessary to permit farm practices to be undertaken on any adjacent nearby lands."

Staff concurs with the Applicant's analysis and finds no feasible way that the subject property is necessary for the purposes of permitting farm practices on any nearby parcels discussed in the Findings of Fact section above, or the larger area more generally. This finding is based in part on poor soil quality, small size, and existing development on surrounding EFU properties. If the Hearings Officer disagrees with staff's assessment, staff requests the Hearings Officer make specific findings on this issue.

(b) Land in capability classes other than I-IV/I-VI that is adjacent to or intermingled with lands in capability classes I-IV/I-VI within a farm unit, shall be inventoried as agricultural lands even though this land may not be cropped or grazed;

FINDING: The Applicant provided the following response in the submitted Burden of Proof statement:

The subject property is not and has not been a part of a farm unit that includes other lands not currently owned by the applicant. The property has no history of farm use and contains soils that make it unsuitable for farm use and therefore, no basis to inventory the subject property as agricultural land.

Goal 3 applies a predominant soil type test to determine if a property is "agricultural land." If a majority of the soils is Class 1-6 in Central or Eastern Oregon, it must be classified "agricultural land." Case law indicates that the Class 1-6 soil test applies to a subject property proposed for a non-agricultural plan designation while the farm unit rule looks out beyond the boundaries of the subject property to consider how the subject property relates to lands in active farming in the area that was once a part of the area proposed for rezoning.

The farm unit rule is written to preserve large farming operations in a block. It does this by preventing property owners from dividing farmland into smaller properties that, alone, do not meet the definition of "agricultural land." The subject property is not formerly part of a larger area of land that is or was used for farming operations and was then divided to isolate poor soils so that land could be removed from EFU zoning. As demonstrated by the historic use patterns and soils reports, it does not have poor soils adjacent to or intermingled with good soils within a farm unit. The subject property is not in farm use and has not been in farm use of any kind. It has no history of commercial farm use and contains soils that make the property generally unsuitable for farm use as the term is defined by State law. It is not a part of a farm unit with other land, and is surrounded by equally unproductive land.

The subject property is predominately Class 7 and 8 soils and would not be considered a farm unit itself nor part of a larger farm unit based on the poor soils and the fact that none of the adjacent property is farmed.

As shown by the soils capability study conducted by Mr. Gallagher, the predominant soil type found on the subject property is Class 7 and 8, nonagricultural land (73%). The predominance test says that the subject property is not agricultural soil and the farm unit rule does not require that the Class 7 and 8 soils that comprise the majority of the subject property be classified as agricultural land due to the presence of a small amount of Class 3 irrigated and 6 nonirrigated soils on the subject property that are not employed in farm use and are not part of a farm unit. As a result, this rule does not require the Class 7 and 8 soils on the subject property to be classified agricultural land because a minority of the property contains soils rated Class 3 and 6.

The submitted soils analysis indicates the subject property contains land in capability classes other than I-VI that is adjacent to or intermingled with lands in capability classes I-VI. Given the soil capability and prior agricultural use of the subject property, staff requests the Hearings Officer make specific findings on this issue.

(c) "Agricultural Land" does not include land within acknowledged urban growth boundaries or land within acknowledged exception areas for Goal 3 or 4.

FINDING: The subject property is not within an acknowledged urban growth boundary or land within acknowledged exception areas for Goals 3 or 4.

OAR 660-033-0030, Identifying Agricultural Land

- (1) All land defined as "agricultural land" in OAR 660-033-0020(1) shall be inventoried as agricultural land.**
- (2) When a jurisdiction determines the predominant soil capability classification of a lot or parcel it need only look to the land within the lot or parcel being inventoried. However, whether land is "suitable for farm use" requires an inquiry into factors beyond the mere identification of scientific soil classifications. The factors are listed**

in the definition of agricultural land set forth at OAR 660-033-0020(1)(a)(B). This inquiry requires the consideration of conditions existing outside the lot or parcel being inventoried. Even if a lot or parcel is not predominantly Class I-IV soils or suitable for farm use, Goal 3 nonetheless defines as agricultural "lands in other classes which are necessary to permit farm practices to be undertaken on adjacent or nearby lands". A determination that a lot or parcel is not agricultural land requires findings supported by substantial evidence that addresses each of the factors set forth in 660-033-0020(1).

FINDING: The Applicant addressed the factors in OAR 660-033-0020(1) above. The properties are not "agricultural land," as referenced in OAR 660-033-0030(1) above, and contain barriers for farm use including poor quality soils and the development pattern of the surrounding area. The soil study produced by Mr. Gallagher focuses solely on the land within the subject property and the Applicant has provided responses indicating the subject property is not necessary to permit farm practices undertaken on adjacent and nearby lands. Staff requests the Hearings Officer make specific findings on this issue, in part based on the Applicant's responses to OAR 660-033-0020(1), above.

- (3) *Goal 3 attaches no significance to the ownership of a lot or parcel when determining whether it is agricultural land. Nearby or adjacent land, regardless of ownership, shall be examined to the extent that a lot or parcel is either "suitable for farm use" or "necessary to permit farm practices to be undertaken on adjacent or nearby lands" outside the lot or parcel.***

FINDING: The Applicant submitted evidence showing the subject property is not suitable for farm use and is not necessary to permit farm practices to be undertaken on adjacent or nearby lands. The ownership of the subject parcels is not used to determine whether the parcel is "agricultural land."

- (5)(a) *More detailed data on soil capability than is contained in the USDA Natural Resources Conservation Service (NRCS) soil maps and soil surveys may be used to define agricultural land. However, the more detailed soils data shall be related to the NRCS land capability classification system.***
- (b) *If a person concludes that more detailed soils information than that contained in the Web Soil Survey operated by the NRCS as of January 2, 2012, would assist a county to make a better determination of whether land qualifies as agricultural land, the person must request that the department arrange for an assessment of the capability of the land by a professional soil classifier who is chosen by the person, using the process described in OAR 660-033-0045.***

FINDING: The Applicant provided the following response in the submitted Burden of Proof statement:

Attached as Exhibit 5 is a more detailed agricultural soil assessment related to the NRCS land capability classification system conducted by Andy Gallagher, a Certified Professional Soil Scientist approved by the Department of Land Conservation and Development (DLCD).⁸

The soils assessment prepared by Mr. Gallagher provides more detailed soils information than contained on the Web Soil Survey operated by the NRCS, which provides general soils data at a scale generally too small for detailed land use planning and decision making. Mr. Gallagher’s soils assessment report provides a high intensity Order-1 soil survey and soils assessment – a detailed and accurate soils assessment on the subject property based on numerous soil samples – to determine if the subject property is “agricultural land” within the meaning of OAR 660-033-020. Mr. Gallagher’s Order-1 soil survey is included as evidence in the application to assist the County in making a better determination of whether the subject property qualifies as “agricultural land.”

As explained in Mr. Gallagher’s report, the NRCS soil map of the subject property shows one soil mapping unit, 58C Gosney-Rock outcrop-Deskamp complex, 0 to 15 percent slopes. The more detailed Order-1 survey conducted by Gallagher included 41 soil test pits and observations of surface rock on the subject property. The results of the previous and revised soils mapping units with land capacity class are provided in the Table 1 below from Mr. Gallagher’s report:

Table 1. PREVIOUS AND REVISED SOIL MAPPING UNITS WITH LAND CAPABILITY CLASS.

Previous Map Symbol	Revised Map Symbol	Soil Series Name	Capability Class	Previous Map*		Revised Map	
				Ac	-%-	Ac	-%-
36A	Dk	Deskamp loamy sand 0 to 3 percent slopes	3 irrigated 6 non-irrigated	0	0	25	26
58C	--	Gosney-Rock outcrop- Deskamp complex, 0 to 15 percent slopes	6, 7 and 8	94	100	0	0
--	GR	Gosney-Bakeoven- Rock Outcrop Complex	7 and 8	0	0	67	71
	ID	Irrigation Ditch	not rated	0	0	2	2.3
Total				94	100	94	100

*Soils that were previously mapped as components of a complex that are mapped as consociations in revised map.

⁸ Mr. Gallagher has submitted the soil assessment to DLCD pursuant to OAR 660-033-0045(6)(a) and the certification of completeness review will be submitted to the County as soon as received.

Based on the findings and analysis of the Order-1 soil survey and soil assessment, Mr. Gallagher made the following summary and conclusions in determining whether the subject property is agricultural land:

Soils were remapped in a high intensity (Order-1) soil survey on a 94 acre tract that is currently zoned EFU. Previously this area was mapped as Gosney-Rock outcrop-Deskamp Complexes, one that included soils that ranged from Land Capability Class 3 irrigated to Class 8.

*In the revised Order-1 soil mapping, the Deskamp soils (Class 3 irrigated and 6 nonirrigated) are mapped as a consociation and only make up 25 percent of the parcel. The shallow Gosney soils along with very shallow Bakeoven soils and rock outcrops are mapped as the Gosney-Bakeoven-Rock Outcrop Complex because all three components of the complex are Capability Class 7 or 8. This complex makes up 73 percent of the parcel. The irrigation ditches make of 2 percent of the area. **Based upon the findings of this Order-1 soil survey, the subject parcel is predominantly Class 7 and 8 soils and therefore is not "agricultural land" within the meaning of OAR 660-033-0020(1)(a)(A).***

The soil mapping and on-site studies also show the subject property is not agricultural land within the meaning of OAR 660-033-0020(1)(b) as it is not adjacent to or intermingled with land in capability classes 1-6 within a farm unit. There is no evidence the Capability Class 6 non- irrigated soils on the subject property have been farmed or utilized in conjunction with any farming operation in the past.

The Deskamp soils exist in pockets interspersed with short steep slopes, rocky, shallow soils creating severe limitations for any agricultural use either alone or in conjunction with other lands. [Emphasis added]

As previously discussed, the State’s agricultural land rules, OAR 660-033-0030, allow the county to rely on the more detailed soil capability analysis prepared by Mr. Gallagher. Based on the Order-1 soils report, the subject property is not “agricultural land.”

The soil study prepared by Mr. Gallagher provides more detailed soils information than contained in the NRCS Web Soil Survey. NRCS sources provide general soils data for large units of land. The soil study provides detailed and accurate information about individual parcels based on numerous soil samples taken from the subject property. The soil study is related to the NCRS Land Capability Classification (LLC) system that classifies soils class 1 through 8. An LCC rating is assigned to each soil type based on rules provided by the NRCS.

According to the NRCS Web Soil Survey tool, the subject property contains 100% 58C soil.

(c) This section and OAR 660-033-0045 apply to:

- (A) A change to the designation of land planned and zoned for exclusive farm use, forest use or mixed farm-forest use to a non-resource plan designation and zone on the basis that such land is not agricultural land; and**

FINDING: The Applicant requested approval of a non-resource plan designation on the basis that the subject property is not defined as agricultural land.

- (d) This section and OAR 660-033-0045 implement ORS 215.211, effective on October 1, 2011. After this date, only those soils assessments certified by the department under section (9) of this rule may be considered by local governments in land use proceedings described in subsection (c) of this section. However, a local government may consider soils assessments that have been completed and submitted prior to October 1, 2011.**

FINDING: The Applicant submitted a soil study dated March 15, 2022. The soils study was submitted following the ORS 215.211 effective date. Staff received acknowledgement from Hilary Foote, Farm/Forest Specialist with the DLCDC, on May 5, 2022, that the soil study is complete and consistent with DLCDC's reporting requirements. Staff finds this criterion to be met based on the submitted soil study, and confirmation of completeness and consistency from DLCDC.

- (e) This section and OAR 660-033-0045 authorize a person to obtain additional information for use in the determination of whether land qualifies as agricultural land, but do not otherwise affect the process by which a county determines whether land qualifies as agricultural land as defined by Goal 3 and OAR 660-033-0020.**

FINDING: The Applicant has provided a DLCDC certified soil study as well as NRCS soil data. Staff finds the Applicant has demonstrated compliance with this provision.

DIVISION 12, TRANSPORTATION PLANNING

OAR 660-012-0060 Plan and Land use Regulation Amendments

- (1) If an amendment to a functional plan, an acknowledged comprehensive plan, or a land use regulation (including a zoning map) would significantly affect an existing or planned transportation facility, then the local government must put in place measures as provided in section (2) of this rule, unless the amendment is allowed under section (3), (9) or (10) of this rule. A plan or land use regulation amendment significantly affects a transportation facility if it would:**
- (a) Change the functional classification of an existing or planned transportation facility (exclusive of correction of map errors in an adopted plan);**
 - (b) Change standards implementing a functional classification system; or**
 - (c) Result in any of the effects listed in paragraphs (A) through (C) of this subsection based on projected conditions measured at the end of the planning period identified in the adopted TSP. As part of evaluating projected**

conditions, the amount of traffic projected to be generated within the area of the amendment may be reduced if the amendment includes an enforceable, ongoing requirement that would demonstrably limit traffic generation, including, but not limited to, transportation demand management. This reduction may diminish or completely eliminate the significant effect of the amendment.

- (A) Types or levels of travel or access that are inconsistent with the functional classification of an existing or planned transportation facility;**
- (B) Degrade the performance of an existing or planned transportation facility such that it would not meet the performance standards identified in the TSP or comprehensive plan; or**
- (C) Degrade the performance of an existing or planned transportation facility that is otherwise projected to not meet the performance standards identified in the TSP or comprehensive plan.**

FINDING: This above language is applicable to the proposal because it involves an amendment to an acknowledged comprehensive plan. The Applicant provided the following response in the submitted Burden of Proof statement:

Attached as Exhibit 9 is a transportation impact analysis memorandum dated March 22, 2022 prepared by traffic engineer, Joe Bessman, PE. Mr. Bessman made the following key findings with regard to the proposed zone change and concluded that a significant affect does not occur with the proposed rezone:

- *Rezoning of the 93.37-acre property from EFU-TRB to MUA provides nearly identical potential impacts as the existing zoning, with the potential for a reduction in weekday daily trips and a +5 weekday p.m. peak hour trip increase within a “worst-case” trip generation scenario.*
- *The reduction in trips does not meet Deschutes County, ODOT, or City of Bend thresholds of significance at any nearby locations. None of the abutting streets would be impacted with more than two additional trips.*

Based on this review a significant affect does not occur with rezoning the subject properties from EFU to MUA zoning. With the range of outright allowable uses identified within ORS 215.213(1) and 215.283(1) as a “property right”, additional trip generation scenarios could be shown that are even more intense than those that are included herein, resulting in a trip reduction. Regardless of the scenario, the overall impact of the rezone is negligible on the transportation system and the rezone reflects the more appropriate use of the property given its unsuitability for farming.

Based on the traffic analysis and findings by Mr. Bessman, the application complies with the TPR.

The proposed plan amendment would change the designation of the subject properties from AG to RREA and change the zone from EFU to MUA10. The Applicant is not proposing any land use development of the properties at this time.

The Applicant submitted a traffic study, Exhibit 9, dated March 22, 2022, and prepared by Joe Bessman of Transight Consulting LLC. As noted in the agency comments section above, the County Transportation Planner identified deficiencies with the submitted traffic study and requested additional information. The Applicant then submitted a revised traffic study dated July 1 2022.

The revised traffic study was reviewed by the County Transportation Planner, who agreed with the report’s conclusions. Staff finds that the proposed plan amendment and zone change will be consistent with the identified function, capacity, and performance standards of the County’s transportation facilities in the area. The proposed zone change will not change the functional classification of any existing or planned transportation facility or change the standards implementing a functional classification system. Regarding the traffic study dated July 1, 2022, the County Transportation Planner provided the following comments in an email dated September 26, 2022:

I’ve reviewed the July 1, 2022, traffic memo by Transight for file 247-22-000313-ZC/314-PA to change the Comprehensive Plan designation from Agriculture to Rural Residential Exception Area and the zoning from Exclusive Farm Use (EFU) to Multiple Use Agriculture (MUA-10) for approximately 94 acres at 62385 Hamby Road and 21480 US 20, aka 17-12-35, Tax Lot 1200 and 17-12-35 Tax Lot 1201. The additional traffic information, especially Tables 5, 6, and 7 have provided the requested information, which demonstrates compliance with the Transportation Planning Rule (TPR) and that the proposal will not have a significant adverse effect.

Based on the County Senior Transportation Planner’s comments and the traffic study from Transight Consulting LLC, staff finds compliance with the Transportation Planning Rule has been effectively demonstrated. Staff asks the Hearings Officer to make specific findings related to these criteria.

The revised traffic study is included with the Staff Report as **Attachment B**.

DIVISION 15, STATEWIDE PLANNING GOALS AND GUIDELINES

 OAR 660-015, Division 15, Statewide Planning Goals and Guidelines

FINDING: The Statewide Planning Goals and the Applicant’s findings are outlined below:

Goal 1, Citizen Involvement. Deschutes County will provide notice of the application to the public through mailed notice to affected property owners and by requiring the applicant to post a "proposed land use action sign" on the subject property. Notice of the public hearings

held regarding this application will be placed in the Bend Bulletin. A minimum of two public hearings will be held to consider the application.

Goal 2, Land Use Planning. Goals, policies and processes related to zone change applications are included in the Deschutes County Comprehensive Plan and Titles 18 and 23 of the Deschutes County Code. The outcome of the application will be based on findings of fact and conclusions of law related to the applicable provisions of those laws as required by Goal 2.

Goal 3, Agricultural Lands. The applicant has shown that the subject property is not agricultural land because it is comprised predominantly of Class 7 and 8 soils that are not suitable for farm use. Therefore, the proposal is consistent with Goal 3.

Goal 4, Forest Lands. Goal 4 is not applicable because the subject property does not include any lands that are zoned for, or that support, forest uses.

Goal 5, Natural Resources, Scenic and Historic Areas, and Open Spaces. Deschutes County DIAL property information and Interactive Map show the subject property has “wetlands” that correspond with COID’s irrigation distribution system within the property including the developed canals and ditches. According to the Comprehensive Plan (Chapters 2, Resource Management and 5, Supplemental Sections), in 1992 Deschutes County Ordinance 92-045 adopted all wetlands identified on the U. S. Fish and Wildlife Service National Wetland Inventory (NWI) Maps as the Deschutes County wetland inventory. In addition, as described in the Comprehensive Plan, the NWI Map “shows an inventory of wetlands based on high-altitude aerial photos and limited field work. While the NWI can be useful for many resource management and planning purposes, its small scale, accuracy limitations, errors of omission that range up to 55 percent (existing wetlands not shown on NWI), age (1980s), and absence of property boundaries make it unsuitable for parcel-based decision making.”

The Comprehensive Plan has no specific protections for wetlands; protections are provided by ordinances that implement Goal 5 protections (for example, fill and removal zoning code regulations). In the case of irrigation districts performing work within wetlands, DCC 18.120.050(C) regarding fill and removal exceptions allows fill and removal activities as a use permitted outright as stated below:

C. Fill and removal activities conducted by an Irrigation District involving piping work in existing canals and ditches within wetlands are permitted outright.

Because the proposed plan amendment and zone change are not development, there is no impact to any Goal 5 resource. Any potential future development of a wetland – no matter what zone the wetland is in – will be subject to review by the County’s fill and removal regulations.

Goal 6, Air, Water, and Land Resources Quality. The approval of this application will not impact the quality of the air, water, and land resources of the County. Any future development of the property would be subject to local, state, and federal regulations that protect these resources.

Goal 7, Areas Subject to Natural Disasters and Hazards. According to the Deschutes County DIAL property information and Interactive Map the entire Deschutes County, including the subject property, is located in a Wildfire Hazard Area. The subject property is also located in Rural Fire Protection District #2. Rezoning the property to MUA-10 does not change the Wildfire Hazard Area designation. Any future development of the property would need to demonstrate compliance with any fire protection regulations and requirements of Deschutes County.

Goal 8, Recreational Needs. This goal is not applicable because no development is proposed and the property is not planned to meet the recreational needs of Deschutes County. Therefore, the proposed rezone will not impact the recreational needs of Deschutes County.

Goal 9, Economy of the State. This goal does not apply to this application because the subject property is not designated as Goal 9 economic development land. In addition, the approval of this application will not adversely affect economic activities of the state or area.

Goal 10, Housing. The County's comprehensive plan Goal 10 analysis anticipates that farm properties with poor soils, like the subject property, will be converted from EFU to MUA-10 or RR-10 zoning and that these lands will help meet the need for rural housing. Approval of this application, therefore, is consistent with Goal 10 as implemented by the acknowledged Deschutes County comprehensive plan.

Goal 11, Public Facilities and Services. The approval of this application will have no adverse impact on the provision of public facilities and services to the subject site. Pacific Power has confirmed that it has the capacity to serve the subject property and the proposal will not result in the extension of urban services to rural areas.

Goal 12, Transportation. This application complies with the Transportation System Planning Rule, OAR 660-012-0060, the rule that implements Goal 12. Compliance with that rule also demonstrates compliance with Goal 12.

Goal 13, Energy Conservation. The approval of this application does not impede energy conservation. The subject property is located adjacent to the city limits for the City of Bend. If the property is developed with residential dwellings in the future, providing homes in this location as opposed to more remote rural locations will conserve energy needed for residents to travel to work, shopping and other essential services provided in the City of Bend.

Goal 14, Urbanization. This goal is not applicable because the applicant's proposal does not involve property within an urban growth boundary and does not involve the urbanization of rural land. The MUA-10 zone is an acknowledged rural residential zoning district that limits the intensity and density of developments to rural levels. The compliance of this zone with Goal 14 was recently acknowledged when the County amended its comprehensive plan. The plan recognizes the fact that the MUA-10 and RR zones are the zones that will be applied to lands designated Rural Residential Exception Areas.

Goals 15 through 19. These goals do not apply to land in Central Oregon.

Staff generally accepts the Applicant's responses and finds compliance with the applicable Statewide Planning Goals has been effectively demonstrated. Staff makes note of public comments concerning potential loss of farmland, impacts to wildlife, and potential for increased housing density. While these comments detail concerns related to specific potential use patterns, staff finds the overall proposal appears to comply with the applicable Statewide Planning Goals for the purposes of this review.

IV. CONCLUSION & RECOMMENDATION

Staff requests the Hearings Officer determine if the Applicant has met the burden of proof necessary to justify changing the Plan Designation from Agriculture to Rural Residential Exception Area and Zoning of the subject properties from Exclusive Farm Use to Multiple Use Agricultural through effectively demonstrating compliance with the applicable criteria of DCC Title 18 (the Deschutes County Zoning Ordinance), the Deschutes County Comprehensive Plan, and applicable sections of OAR and ORS.

DESCHUTES COUNTY PLANNING DIVISION



Written by: Nathaniel Miller, AICP, Associate Planner



Reviewed by: Will Groves, Planning Manager

Attachment A: Soil Assessment, DLCD Completeness Review, and DLCD Application Form

Attachment B: Revised Traffic Study (July 1, 2022)



Soil Assessment Completeness Review

In accordance with OAR 660-033-0045(6)(a), the Department of Land Conservation and Development (DLCD) finds that this soils assessment is complete and consistent with reporting requirements for agricultural soils capability. The county may make its own determination as to the accuracy and acceptability of the soils assessment. DLCD has reviewed the soils assessment for completeness only and has not assessed whether the parcel qualifies as agricultural land as defined in OAR 660-033-0020(1) and 660-033-0030.

Hilary Foote
May 13, 2022

The department will consider soil assessments under OAR 660-033-0030 to be complete if they meet the following standards:

- (1) General information, to include:
 - (a) Title of the report: 'Soil Assessment for 94 Acres Hamby Road, Bend, Oregon'
 - (b) Person making request for soils assessment; Matt Wellner
 - (c) Names of soil scientist/classifier conducting the field work and preparer of the report, along with their certification numbers; Andy Gallagher, ARCPACS CPSSc/SC 03114
 - (d) Land use case file number (if available); Not stated
 - (e) County in which the assessment was conducted; Deschutes
 - (f) Location of the project site, including the township, range, section and tax lot numbers; Taxlots 1200 and 1201 in Township 17S, Range 12E, Section 35.
 - (g) Present zoning designation; EFU-TRB
 - (h) Current land use; Habitat
 - (i) Parcel acreage; 94 acres; evaluated: 94 acres evaluated.
 - (j) A description of the purpose of the assessment. Plan Amendment and Zone Change

Previous Mapping or Background: The soil scientist/classifier shall provide a copy of the applicable and most current National Cooperative Soil Survey map(s) provided by the Natural Resources Conservation Service (NRCS) on the Web Soil Survey, with the area of investigation outlined on the map(s). The scale of the map(s) shall be identified and a list of the map units under investigation shall be listed. The applicable interpretations and minor components (inclusions) for the map units for which the investigation is being

made shall also be provided. Table 1, page 5 and Figure 2, page 11. NRCS identified soils are Gosney-Rock outcrop-Deskamp complex, 0 to 15 percent slopes (capability class 6, 7 and 8).

(1) Methods Used by Soil Scientist/Classifier: The soil scientist/classifier shall describe the methodologies used for the preparation of the report and shall include the following:

- (a) The level of order of survey used in the field survey, scale and type of maps used for field investigations, number of sample locations and observation points all confirming or disagreeing with the NRCS mapping units. The survey shall be one or more level of order higher than the NRCS survey as described in the NRCS Soil Survey Manual, 1993. Note that an Order 1 survey is more detailed than an Order 2 or greater survey. Order 1 survey (page 2)
- (b) The date(s) of the field investigation; January 26 and 27, 2022
- (c) The methods used for observations (backhoe, auger, shovel, etc.) and methods used for documentation (for slope, color, pH, etc.); Soil borings from pits, slope gradients as measured by DEM, soils determined using Munsell color chart, as described on page 3.
- (d) The number and location of borings either shown on an aerial photograph base map of the parcel or provided in a table with latitude and longitude coordinates. In conducting Order 1 soil surveys, the scale of the base maps used for the survey needs to be large enough to enable the identification of polygons of soil map units as consociation map units. Soil map units identified as a complex, association, or undifferentiated group should be avoided as this defeats the purpose of an Order 1 survey. If, however, the soils are so intermingled that they cannot be mapped at a reasonable scale so as to identify consociation map unit polygons, then there should be sufficient sampling and documentation of the complex to demonstrate this soil component distribution. A percentage of each member of the complex will be used in determining area of extent and the reported percentages will be based on this sampling and its documentation, including soil profile descriptions, boring locations and, where useful, photographs. 146 sample site observation locations are identified in Figure 5 on page 12. Email dated May 12, 2022 from Andy Gallagher confirms the text on page 2 indicating there were 41 test pit locations is a typo and that 146 sites were sampled. Coordinates for boring and sample sites are provided are provided in Attachment 2.
- (e) Geomorphic and vegetation correlations supporting the interpretation of land capability classes of soils that differ from those in the official soil survey information; and Provided on page 3.
- (f) A notation of any limitations encountered during the field investigation, such as soil depth, drainage, slope or inaccessibility. No limitations were identified (page 3).

(2) Results, Findings, and Decisions: The soils report shall describe how the level of order of survey used in this investigation differs from that used by NRCS in the original soil survey. The soils report shall also include:

- (a) An overview of the geology or geologic setting, describing sources of parent material, bedrock and related factors; (Page 3)
- (b) A description of the landforms and topography, confirming the relationship of landforms to soil mapping units; (Page 3)
- (c) A description of on-site and adjacent hydrology, including surface and subsurface features, intermittent versus perennial, floodplain and floodways and other related information; (Page 3)
- (d) A description of the revised soil mapping units with their range of characteristics, explaining how and why they differ from NRCS soil mapping. The soils report shall include a summary of soil variability incorporating significance of preceding weather (above or below average), where known and crops and natural vegetation present; and (Pages 3-5)
- (e) A tabulation of all previous and revised soil mapping units complete with their acreages and land capability classification. Table 1, page 5.

(3) Summary or Conclusion: The soils report shall contain a section reiterating the purpose of the investigation, explaining the significance of the revised soil mapping and describing any other significant issues related to the report's purpose. Provided on page 8.

(4) References: This section may list any manuals or publications utilized or referenced by the report. Provided on page 9.

(5) Attachments: Other informational materials provided as attachments, such as maps, figures or appendices shall include the following and shall be printed on 8 ½ x 11" wherever possible:

- (a) Vicinity map at a scale of 1:48,000 or smaller showing the project location; Figure 1, page 10
- (b) The NRCS soils map generated from Web Soil Survey at a scale of 1:20,000 or larger outlining the project site; Figure 2, page 11
- (c) Site condition map (aerial photo) at a scale of 1:5,000 or larger outlining the project site and showing the location of site investigations (borings) and other relevant features; Figure 6, page 16
- (d) Topography map at a scale of 1:24,000 or larger outlining the project site; Figure 3, page 12
- (e) Assessor's map at a scale of 1:5,000 or larger outlining the project site; Figure 4, page 13
- (f) Revised soils map of the project site at a scale of 1:5,000 or larger; Figure 5A, page 14 and Figure 5B, page 15

(g) Soil profile descriptions and site observation notes; Attached

From: [Andy Gallagher](#)
To: [FOOTE Hilary * DLCD](#)
Subject: Re: Soil Assessment
Date: Thursday, May 12, 2022 3:43:22 PM

Hi Hilary

That is a mistake where it says 41. The number is 146 soil pits and observations. I will send you an edited version after you complete your review please let me know if there are other mistakes.

Thanks
 Andy

From: "FOOTE Hilary, DLCD" <Hilary.FOOTE@dlcd.oregon.gov>
To: "avg" <avg@peak.org>
Sent: Thursday, May 12, 2022 3:26:40 PM
Subject: RE: Soil Assessment

Andy –

I was reviewing the Wellner report today and wanted to confirm the number of boring and observation sites. The text on page 2 says there were forty-one soil test pits and observations but coordinates and observations are provided for 146 locations. Just want to confirm the text on page two has a typo?

Thanks!



Hilary Foote

Farm/Forest Specialist | Community Services Division
 Oregon Department of Land Conservation and Development
 635 Capitol Street NE, Suite 150 | Salem, OR 97301-2540
 Cell: 503-881-9249 hilary.foote@dlcd.oregon.gov | www.oregon.gov/LCD

From: Andy Gallagher <avg@peak.org>
Sent: Monday, April 18, 2022 1:12 PM
To: FOOTE Hilary * DLCD <Hilary.FOOTE@dlcd.oregon.gov>
Subject: Soil Assessment

Hi Hilary

I am resending this report for my client Matt Wellner, since there was a few weeks between the first time and when the forms and checks were sent.

Thanks

Soil Assessment for 94 Acres Hamby Road, Bend, Oregon

For: Te Amo Despacio, LLC and CTH Investments

March 15, 2022

By: Andy Gallagher
CPSSc/SC 03114

Andy Gallagher, Soil Scientist PO Box 2233 Corvallis, OR 97333

Red Hill Soils

541-745-7878 avg@redhillsoil.com

SOIL ASSESSMENT REPORT

1. GENERAL INFORMATION

- A. TITLE: Soil Assessment for 94-Acres Hamby Road, Bend, Oregon.
- B. LANDOWNER: Te Amo Despacio, LLC 2464 SW Glacier Place Suite 110, Redmond, Oregon and CTH Investments 14787 Millikin Way SW, Portland Oregon, 97003
- C. SOIL SCIENTIST AND CERTIFICATION NUMBER:
Andy Gallagher ARCPACS CPSSc/SC 03114
- D. COUNTY: Deschutes County, Oregon.
- E. LOCATION: Tax lots 1200 and 1201, Sec. 35, T. 17S., R. 12E., W.M.
- F. PRESENT ZONING: Exclusive Farm Use.
- G. CURRENT LAND USE: Natural Habitat

PURPOSE OF INVESTIGATION: This Order -1 soil survey and soil assessment is done to determine if the subject property is “agricultural land” within the meaning of OAR 660-033-0020.

2. PREVIOUS MAPPING / BACKGROUND

This property was previously mapped by the USDA-SCS Soil Survey of the Deschutes County Area and compiled by NRCS into the Web Soil Survey.¹ The NRCS soil map of this parcel (Figure 2) shows: 58C Gosney-Rock outcrop-Deskamp complex, 0 to 15 percent slopes, which is estimated to be 50 percent Gosney, 25 percent Rock Outcrop and 20 percent Deskamp soils, and predominantly Capability Class 7 and higher.

The Land Capability Class of these soils by soil series is shown in Table 1.

3. METHODS

- A. LEVEL ORDER OF SURVEY USED IN THIS FIELD SURVEY: This current soil investigation is a high intensity (Order-1) soil survey. It is used as a basis for making the soil classification and soil map for this parcel. **Forty-one soil test pits and observations of surface rock were made on** the parcel to revise

¹ This property was previously mapped at 1:20,000 scale, which is generally too small a scale for detailed land use planning and decision making.

the soil map. Soil test pits and observations of rock outcrops average better than one observation/boring per acre.

B. DATES OF FIELD INVESTIGATIONS: Field work was done on January 26 and 27, 2022.

C. FIELD METHODS: Methods used for observation included soil borings from soil pits to classify soils. Slope gradients were measured with digital elevation model and compared to observations on the ground with a clinometer. Soil colors were determined moist, using standard Munsell colors. Borings locations were recorded with a GPS receiver and compiled into a soil map following processing with GIS software. Percentages of revised soil map unit areas were calculated from the revised map using GIS software.

D. LIMITATIONS ENCOUNTERED: None.

4. RESULTS:

A. GEOLOGY OVERVIEW: The geology of the survey area consists of volcanic ash over hard basalt. Soils formed primarily in volcanic ash.

B. LANDFORMS AND TOPOGRAPHY: Gently rolling lava plains with low pressure ridge and collapsed lava tube features. There are some short very steep slopes, primarily on the north part of the tract. Small areas were altered by cutting and filling.

C. SITE HYDROLOGY: Soils observed are somewhat excessively drained. There are irrigation canals and smaller ditches on the parcel.

D. GEOMORPHIC AND VEGETATION CORRELATIONS, supporting the interpretation of land capability classes of soils that differ from those in the official soil survey information. The site has western Juniper, sagebrush, rabbit brush and bunch grasses. Ecological Group Juniper shrubby pumice flat and Juniper shrubby lava blisters.

E. DESCRIPTION OF REVISED SOIL MAP UNITS

Revised Soil Map Units

Soils on this parcel are revised and reclassified based on high intensity soil mapping. The soils found here are remapped as primarily (over 50%)Gosney-Rock Outcrop Complex Capability Class 7 and 8 with smaller isolated areas of Deskamp ashy sandy loam Class 3 irrigated and 6 non-irrigated. The canals are not rated for capability class, but for purposes of this assessment they are included with the acreage that is not suited to agriculture production.

GR Gosney-Rock Outcrop Complex

Capability Class: 7 and 8 mapped as a complex

These soils are mapped together in a complex because both components are Capability Class 7 or greater, and it was not practical to map them separately. These soils are estimated to be about 70 percent Rock Outcrop and 15 percent Gosney and 15 percent Bakeoven. They have lower productivity than NRCS map unit 38B because they do not contain a mappable area of Deskamp soils that were mapped separately. The productivity reported in Table 2 for Gosney-Rock Outcrop are far less than the 58C map unit to account for more shallow and very shallow soils in the revised GR map unit in the revised map unit.

Gosney loamy sand and stony loamy sand (0 to 15 percent slopes)

Description: Gosney series consists of shallow (10 to 20 inches) to hard basalt bedrock, somewhat excessively drained soils on lava plains. These soils have rapid permeability. They formed in volcanic ash over hard basalt bedrock.

Slopes are 0 to 15 percent. The mean annual precipitation is less than 12 inches, and the mean annual temperature is about 45 degrees F.

Capability Class: 7

Soil Variability: Depth to bedrock is from surface exposures of bedrock to 20 inches depth. There may be small inclusions of soils like Deskamp that are moderately deep (>20 inches to 40 inches). Many of the pedons are very stony. This unit includes very shallow soils <10 inches.

Bakeoven gravelly loamy sand 0-25 percent slopes

Description: this component of the complex is less than 10 inches to basalt.

Capability Class: 7

Soil Variability: Depth to bedrock is from 1 to 10 inches. These soils are very shallow and of similar parent material to Gosney. These soils have lower available water holding capacity and an estimated 40 percent lower productivity.

Rock Outcrop (0 to 25 percent slopes)

Description: This part of the map unit is areas where bedrock is at the surface.

Capability Class: 8

Soil Variability: In places, rocks are right at the surface and often times bedrock is standing several feet above the surface of the adjacent soils. In some areas (borings 39-41) there is rimrock, large boulders and other surface stone where suspected lava tubes collapsed.

Dk Deskamp loamy sand

Description: This map unit is mainly moderately deep, somewhat excessively drained soils with rapid permeability on lava plains. These soils formed in ash and have hard basalt at 20 to 40 inches. Slopes are 1 to 15 percent. The A and AB horizon are loamy sand. The 2B is loamy sand and gravelly loamy sand. The NRCS soil survey mapped Deskamp and Gosney in a complex described as 50% Deskamp and 35% Gosney. In this Dk unit I delineated the Deskamp component of the former complex and mapped it as a consociation based on more detailed soil sampling than the NRCS soil survey. This soil covers approximately 11 acres of the parcel and is broken up into several small delineations two of which are less than an acre. These small and isolated areas are impractical to farm. The largest delineation is 8.5 acres and has at least three areas of rock outcrop that were delineated within.

Capability Class: 3-irrigated and 6 non-irrigated

Soil Variability: There are small inclusions of rock outcrop and of deep to very deep soils that are sandy family and sandy skeletal family. Any rock outcrop I observed in the field was delineated separately from the Deskamp unit, but not all rock outcrops could be resolved at the sampling intensity, given the brushy conditions.

ID Irrigation Ditch

Description: These ditches are non-soil areas that consist of water and steep banks. When canals are dry they are hard rock bottom.

Capability Class: Not Rated

Table 1. PREVIOUS AND REVISED SOIL MAPPING UNITS WITH LAND CAPABILITY CLASS.

Previous Map Symbol	Revised Map Symbol	Soil Series Name	Capability Class	Previous Map*		Revised Map	
				Ac	-%-	Ac	-%-
36A	Dk	Deskamp loamy sand 0 to 3 percent slopes	3 irrigated 6 non-irrigated	0	0	25	26
58C	--	Gosney-Rock outcrop- Deskamp complex, 0 to 15 percent slopes	6, 7 and 8	94	100	0	0
--	GR	Gosney-Bakeoven- Rock Outcrop Complex	7 and 8	0	0	67	71
	ID	Irrigation Ditch	not rated	0	0	2	2.3
Total				94	100	94	100

*Soils that were previously mapped as components of a complex that are mapped as consociations in revised map.

Soil fertility

Important soil properties affecting the soil fertility and productivity of the soils are very limiting to crop production on this parcel. The soils here are low fertility, being ashy sandy loams with a low cation exchange capacity (CEC) of 7.5 meq/100 gm and organic matter is very low for Gosney 0.75% and low for Deskamps 1.5%. These soils do not have a large capacity to store soil nutrients especially cations, and nitrogen fertilizers readily leach in sandy soils. The soil depth is further limiting because it limits the overall volume of soil available for plant roots and limits the size the overall soil nutrient pool. Additionally, the soil available water holding capacity is very low for Gosney less than 1.8 inches for the whole soil profile, and for the very shallow soils it is half this much. The Deskamps soils have only about 2 to 4 inches AWHC for the entire profile. The combination of low fertility and low AWHC translate into low productivity for crops. NRCS does not provide any productivity data for non-irrigated crops on these soils. This site does not however have water rights for irrigation so the productivity is lower.

Suitability for grazing

This 94-acre tract is not suited to grazing on a commercial scale. The soils here have major management limitations including ashy and sandy surface texture. The majority of the area has soils that are very shallow to shallow with many rock outcrops and rock fragments in the surface. Wind erosion is a potential hazard is moderately high when applying range improvement practices. Because the soil is influenced by pumice ash, reestablishment of the native vegetation is very slow if the vegetation is removed or deteriorated. Pond development is limited by the soil depth. The restricted soil depth limits the choice of species for range seeding to drought-tolerant varieties. Further, range seeding with ground equipment is limited by the rock fragments on the surface. The areas of very shallow soils and rock outcrop limit the areas suitable for grazing and restrict livestock accessibility.

Total Range Production from NRCS Websoil survey and estimate based soil percentages in revised soil map units

Soil Map Unit	Total annual range production pounds per acre		
	Unfavorable year	Normal year	Favorable year
Dk	700	900	1100
GR¹	100	145	190

¹ Estimated based on weighted average of soils

Total range production is the amount of vegetation that can be expected to grow annually in a well-managed area that is supporting the potential natural plant community. It includes all vegetation, whether or not it is palatable to grazing animals. It includes the current year's growth of leaves, twigs, and fruits of woody plants. It does not include the increase in stem diameter of trees and shrubs. It is expressed in pounds per acre of air-dry vegetation. In a normal year, growing conditions are about

average. Yields are adjusted to a common percent of air-dry moisture content. The productivity provided for Dk map unit is from Websoil survey for the Deskamp soil and that provided for the GR map unit is based on 15 percent Bakeoven, very shallow soils, 15 percent Gosney, shallow and 70 percent rock outcrop.

Based on the revised Order-1 map the annual productivity is about 16 tons annual range production for the entire property. The animal use months (AUMs) for this property is 8.8 based on the revised soil map and a monthly value of 910 pounds forage per 1 AUM equivalent to pounds per cow calf pair. This model assumes the cow's take to be 25% of annual productivity in order to maintain site productivity and soil health (NRCS 2009). This limits the grazing to one cow calf pair for roughly 8 to 9 months annually. This is not an economical model for livestock production.

Inappropriate grazing causes a reduction in desirable grasses and where present cheatgrass will increase and granite prickly gilia increases and grasses decline. Cheatgrass becomes dominate along with grey rabbitbrush. Ground fire potential increases with increasing cheatgrass. Cutting of juniper leads to an increase in grey rabbitbrush and an increase in cheatgrass with or without grazing. Idaho fescue is eliminated from areas where trees are removed due to harsh microclimate and cheatgrass replaces it. The addition of inappropriate grazing would lead to a decline in the other deep-rooted perennial bunchgrasses and an increase in annuals and granite prickly gilia.

Climatic features

The low annual precipitation, high summer temperature and evapotranspiration rates, and shortened frost-free growing season make this a difficult climate for production of most crops. Irrigation is needed on area farms to meet crop needs given only 8 to 10 inches precipitation that falls mainly between November and June, with a long summer drought. The soil temperature regime is mesic. The average annual air temperature is 46 degrees F with extreme temperatures ranging from -26 to 104 degrees F. The frost-free period is 50 to 90 days. The optimum period for plant growth is from late March through June. Freeze-free period (average) 140 days. (NRCS 2020) These harsh climatic conditions coupled with very low soil available water holding capacity limits the potential of irrigated crop production to the Deskamps soils.

Technological and energy inputs required

The very shallow and shallow soils and abundant rock outcrops limit practical agricultural crop production on all but about 12 of the 25 acres of Deskamps soils. The lack of irrigation water limits crop production almost completely here. The Deskamps soils are in many small delineations that are separated by rocky and shallow soils and rock outcrops and irrigation ditches. The landscape is so cut up it is impractical to farm.

Locational test

The nonagricultural land Gosney-Bakeoven- Rock outcrop is not interspersed with land that is agriculturally productive, because the delineations of Deskamps that are surrounded by Gosney and Rock outcrop are in small isolated pockets and are severely restricted by short steep slopes, shallow rocky soils irrigation ditches and property lines, and lack of irrigation. The Deskamps soils cannot be used in farming in conjunction with the Gosney-Bakeoven-Rock outcrop and irrigation ditch units.

SUMMARY AND CONCLUSIONS:

Soils were remapped in a high intensity (Order-1) soil survey on a 94 acre tract that is currently zoned EFU. Previously this area was mapped as Gosney-Rock outcrop-Deskamp Complexes, one that included soils that ranged from Land Capability Class 3 irrigated to Class 8.

In the revised Order-1 soil mapping, the Deskamp soils (Class 3 irrigated and 6 nonirrigated) are mapped as a consociation and only make up 25 percent of the parcel. The shallow Gosney soils along with very shallow Bakeoven soils and rock outcrops are mapped as the Gosney-Bakeoven-Rock Outcrop Complex because all three components of the complex are Capability Class 7 or 8. This complex makes up 73 percent of the parcel. The irrigation ditches make of 2 percent of the area. Based upon the findings of this Order-1 soil survey, the subject parcel is predominantly Class 7 and 8 soils and therefore is not “agricultural land” within the meaning of OAR 660-033-0020(1)(a)(A).

The soil mapping and on-site studies also show the subject property is not agricultural land within the meaning of OAR 660-033-0020(1)(b) as it is not adjacent to or intermingled with land in capability classes 1-6 within a farm unit. There is no evidence that the Capability Class 6 non- irrigated soils on the subject property were farmed or utilized in conjunction with any farming operation in the past.

The Deskamp soils exist in pockets interspersed with short steep slopes, rocky, shallow soils creating severe limitations for any agricultural use either alone or in conjunction with other lands.

6. REFERENCES:

Soil Survey of Deschutes County Area\NRCS Websoilsurvey.

NRCS. 2009. Technical note Technical Note Range No. 3 Estimating initial stocking rates.

NRCS. 2020. Ecological site R010XA022OR Juniper Lava Blisters 8-10 PZ. Accessed 12-1-2020.

7. MAPS AND ATTACHMENTS:

- a. Figure 1. Vicinity Map (1:100,000 scale).
- b. Figure 2. Previous Soil Map (NRCS Websoilsurvey)
- c. Figure 3. Topographic Map and Site Condition Map (contour lines from Digital elevation model)
- d. Figure 4. AssessorsMap
- e. Figure 5A and 5B. Revised Soil Map of the Project Site
- f. Figure 6. Location of Soil Observations
- g. Soil Profile Notes and Site Observation Notes Attachment 1.
- h. GPS coordinates Attachment 2.

Figure 1. Vicinity Map (1:125,000 scale, parcel at blue balloon)

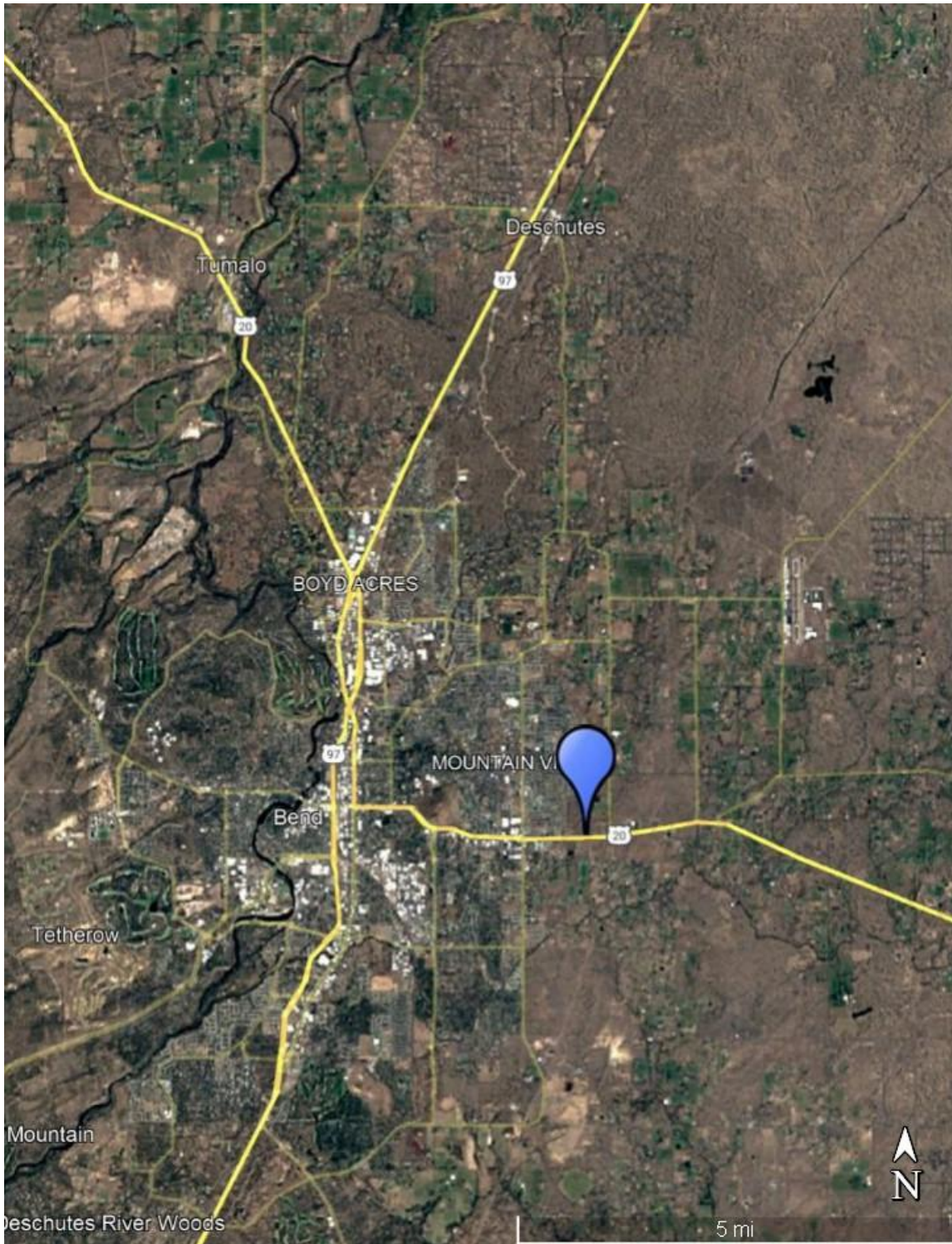


Figure 2. NRCS Soil Map Data Layer on aerial image.



NRCS Soil Map Legend

SYMBOL	Name	Capability Class
58C	Gosney, Rock Outcrop, Deskamp Complex	6, 7 and 8

Figure 3. Topographic map and soil condition map of the study area (Contour interval 10 ft).

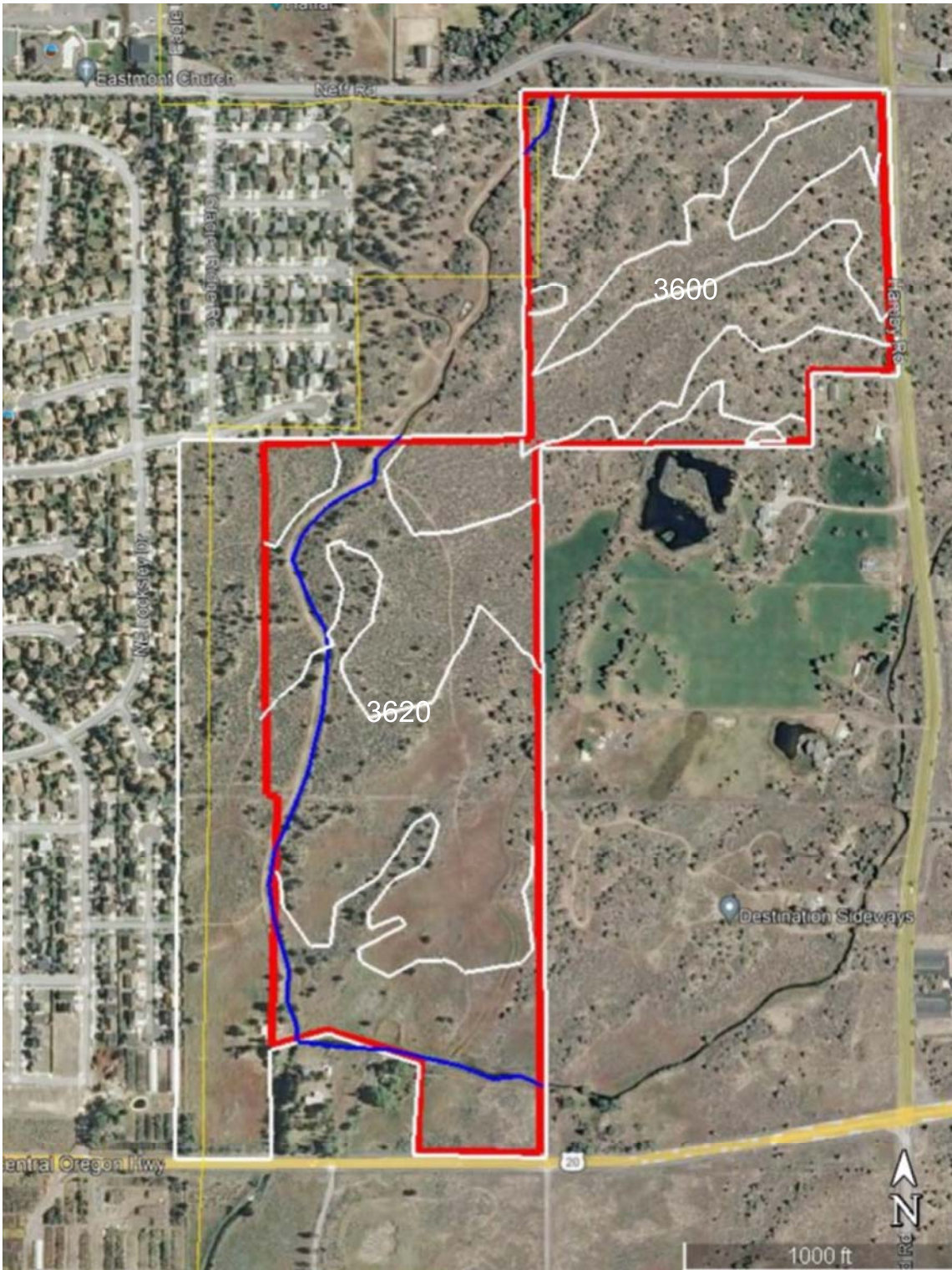


Figure 4. Assessor's map Lot 1000.

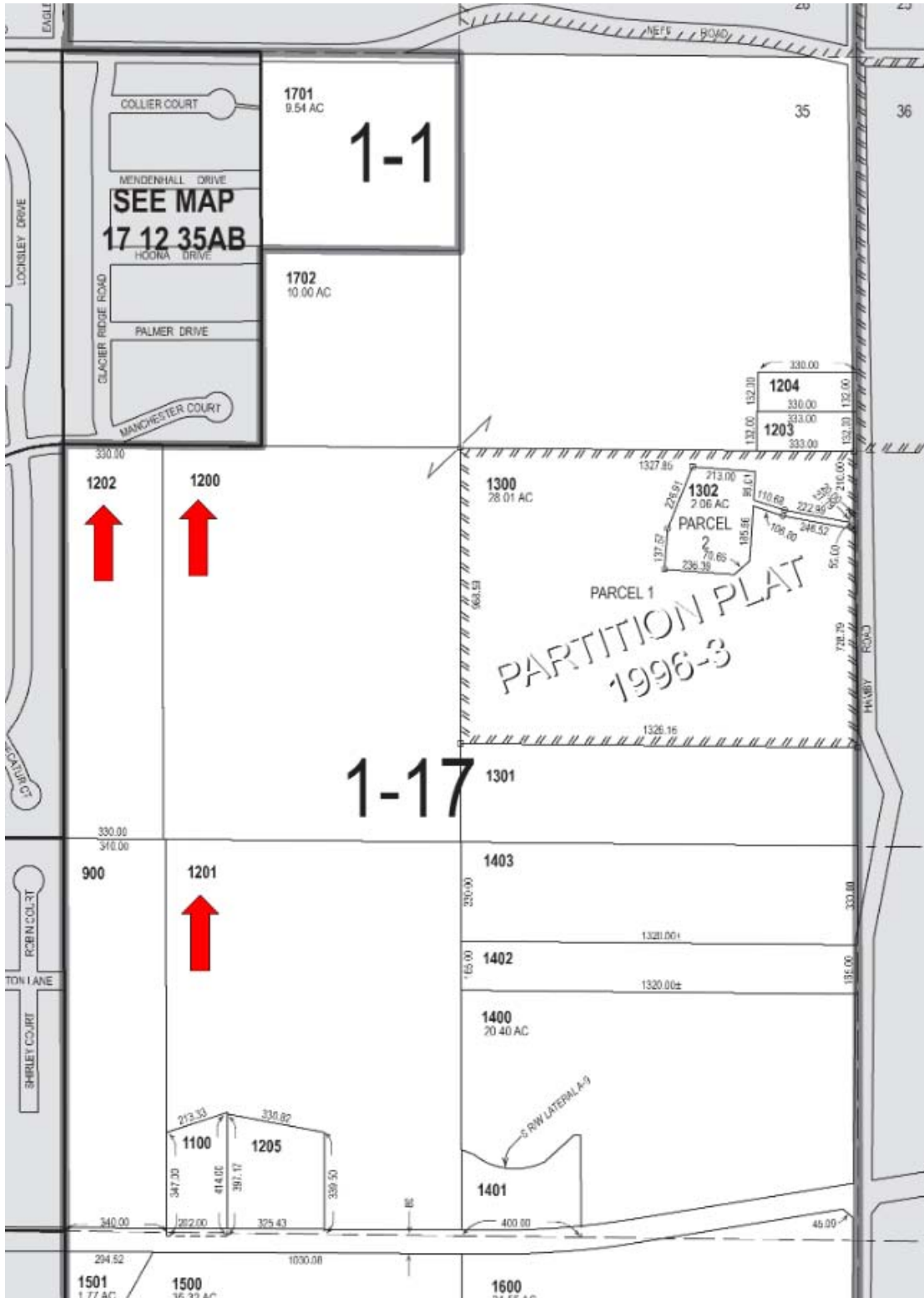


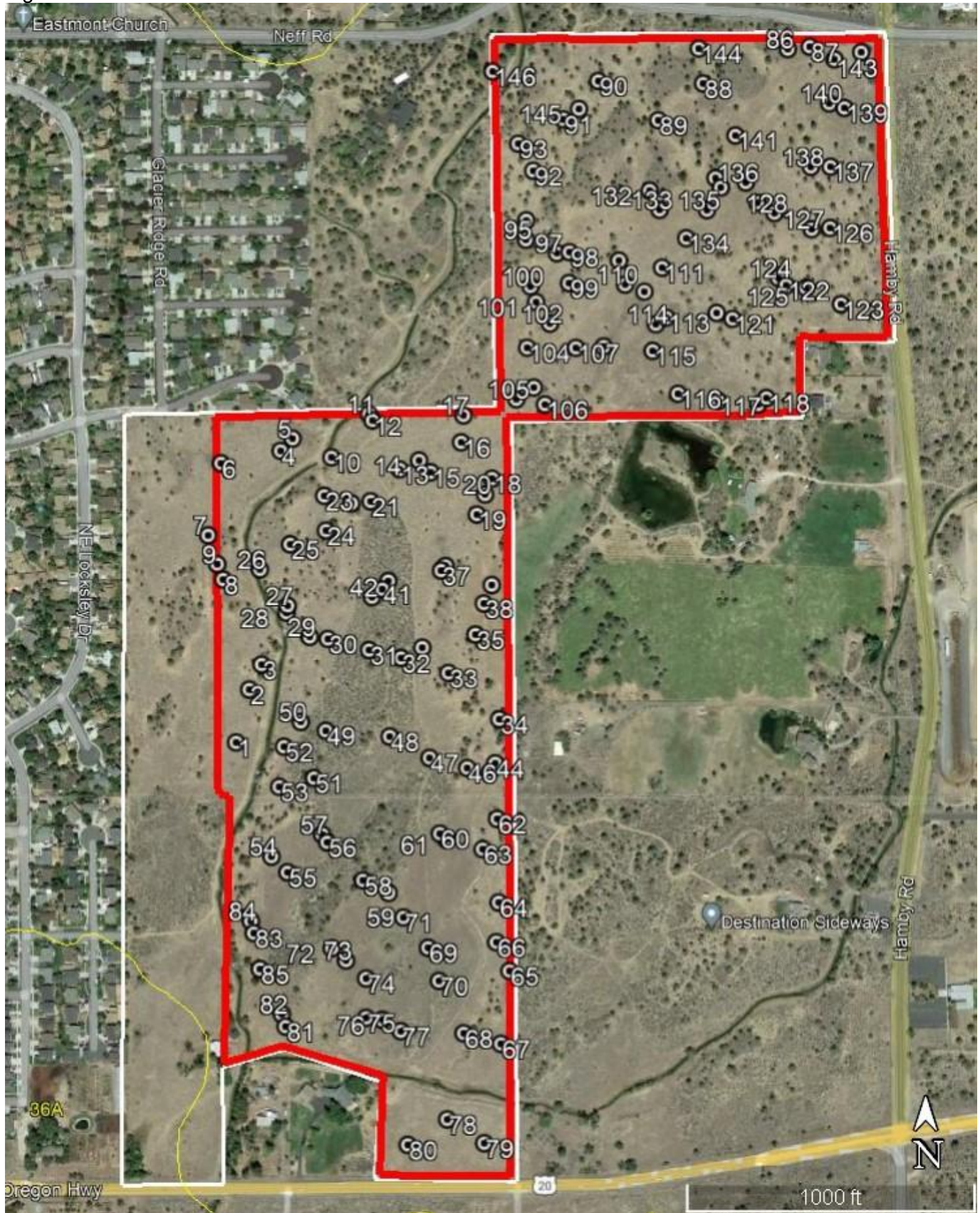
Figure 5A. Revised soil map and soil boring locations.



Figure 5B. Revised soil map.



Figure 6. Location of soil observations



Soil Sample	Soil Name	Soil Horizon	Upper Depth (IN)	Lower Depth (IN)	Color	Coarse Fragments	Texture	Notes
1	Deskamp	A	0	8			loamy sand	
		Bw1	8	18	10Yr4/3	CB	loamy sand	
		Bw2	18	24	10YR4/4	VCB	loamy sand	
		2R	24		10YR4/4	basalt		
2	Gosney	A	0	9	10YR3/3, 4	stony	sandy loam	
		Bw	9	16	10Yr4/3	VST	loam	
		2R	16			basalt		
3	Rock outcrop							basalt
4	Deskamp	A	0	9	10YR3/3		loamy sand	
		A2	9	15	10YR4/3	CB	loamy sand	
		Bw1	15	24	10YR4/4	VCB	loamy sand	
5	Rock outcrop							basalt
6	Deskamp	A	0	9	10YR3/2		loamy sand	
		A2	9	20	10YR3/3		loamy sand	
		Bw1	20	24	10YR4/4		loamy sand	
7	Rock outcrop							basalt
8	Rock outcrop							basalt
9	Gosney	A	0	9	10YR3/3	CB	Loamy sand	
		Bw	9	18	10Yr4/3	VCB	loamy sand	
		2R	18			basalt		
10	Rock outcrop							basalt
11	Rock outcrop							basalt
12	Deskamp	A	0	9	10YR3/2	ST	loamy sand	
		Bw	9	24	10YR4/3	ST	loamy sand	
		2R	24				basalt	
13	Rock outcrop							basalt
14	Gosney	A	0	10	10YR3/3		Loamy sand	
		2Bw	10	15	10Yr4/3	VCB	loamy sand	
		2R	15			basalt		
15	Rock outcrop							basalt
16	Rock outcrop							basalt

Soil Sample Name	Soil Horizon	Upper Depth (IN)	Lower Depth (IN)	Color	Coarse Fragments	Texture	Notes
17 Rock outcrop					basalt		
18 Bakeoven	A 2R	0 9	9		stony basalt	loamy sand	
19 Rock outcrop					basalt		
20 Deskamp	A Bw 2R	0 7 29	7 29	10YR3/3 10YR4/3		loamy sand loamy sand	
21 Deskamp	A Bw R	0 10 24	10 24	10YR3/3 10YR4/3	VCB basalt	loamy sand loamy sand	
22 Rock outcrop					basalt		
23 Deskamp	A Bw1 Bw2 2R	0 9 24 35	9 24 35	10YR3/3 10YR4/3 10YR4/4		loamy sand loamy sand loamy sand basalt	
24 Rock outcrop					basalt		
25 Bakeoven	A 2R	0 8	8	10YR3/3	CB basalt	Loamy sand	
26 Rock outcrop					basalt		
27 Rock outcrop					basalt		
28 Deskamp	A 2Bw 2R	0 10 28	10 28	10YR3/3 10YR4/3	VST basalt	loamy sand loamy sand loamy sand	
29 Rock outcrop					basalt		
30 Deskamp deep	A Bw1 Bw2	0 9 24	9 24 44	10YR3/3 10YR4/3 10YR4/3		loamy sand loamy sand loamy sand	
31 Rock outcrop					basalt		
32 Bakeoven	A	0	4				

Soil Sample	Soil Name	Soil Horizon	Upper Depth (IN)	Lower Depth (IN)	Color	Coarse Fragments	Texture	Notes
			4			basalt		
33	Gosney	A	0	10	10YR3/3	ST	loamy sand	
		R	10			basalt		
34	Bakeoven	A	0	3	10YR3/3		loamy sand	
		2R	3			basalt		
35	Rock outcrop					basalt		
36	Very Deep Loam	A	0	10	10YR3/2		loamy sand	
		Bw1	10	18	10YR4/3		loamy sand	
		Bw2	18	26	10YR4/3	CB	loamy sand	
		C	26	60	10YR4/4	CB	loamy sand	
37	Rock outcrop					basalt		
38	Deep Loamy Sai	A	0	10	10YR3/2		loamy sand	
		Bw1	10	18	10YR4/3		loamy sand	
		Bw2	18	26	10YR4/3	CB	loamy sand	
		C	26	48	10YR4/4	CB	loamy sand	
		2R	48			basalt		
39	Rock outcrop					basalt		
40	Rock outcrop					basalt		
41	Deep Loamy Sand		0	41	10YR3/2		loamy sand	
42	Rock outcrop					basalt		
43	Deskamp deep	A1	0	10	10YR3/3		loamy sand	
		Bw	10	23	10YR4/3		loamy sand	
		R	23			basalt		
44	Rock outcrop					basalt		
45	Deskamp	A	0	10	10YR4/3		loamy sand	
		Bw1	10	31	10YR4/3	CB	loamy sand	
		2R	31			R	loamy sand	
46	Rock outcrop					basalt		
47	Gosney	A	0	12	10YR3/3		Loamy sand	
		2R	12				basalt	

Soil Sample	Soil Name	Soil Horizon	Upper Depth (IN)	Lower Depth (IN)	Color	Coarse Fragments	Texture	Notes
48	Rock outcrop					basalt		
49	Bakeoven	A 2R	0 4	4	10YR3/3	ST basalt	Loamy sand	
50	Rock outcrop					basalt		
51	Rock outcrop					basalt		
52	Deskamp	A Bw 2R	0 10 38	10 38	10YR3/3 10YR4/3		loamy sand loamy sand loamy sand	
53	Bakeoven	A 2R	0 9	9	10YR3/3	basalt	Loamy sand	
54	Deskamp	A Bw1 2Bw2 2R	0 10 16 29	10 16 29	10YR3/3 10YR4/3 10YR4/3	VCB	loamy sand loamy sand basalt	
55	Rock outcrop					basalt		
56	Deskamp	A Bw 2R	0 10 40	10 40	10YR3/3 10YR4/3		loamy sand loamy sand basalt	
57	Rock outcrop						basalt	
58	Rock outcrop						basalt	
59	Deskamp deep	A1 Bw 2R	0 10 46	10 46	10YR3/3 10YR4/3	basalt	loamy sand loamy sand	
60	Deskamp deep	A1 Bw1 2Bw2	0 8 24	8 24 30	10YR3/3 10YR4/3	VCB	loamy sand loamy sand loamy sand	
61	Rock outcrop					basalt		
62	Rock outcrop					basalt		
63	Bakeoven	A 2R	0 6	6		basalt	loamy sand	

Soil Sample Name	Soil Horizon	Upper Depth (IN)	Lower Depth (IN)	Color	Coarse Fragments	Texture	Notes
64 Bakeoven	A 2R	0 3	3			loamy sand basalt	
65 Rock outcrop					basalt		
66 Deskamp	A Bw 2R	0 10 29	10 29	10YR3/3 10YR4/3		loamy sand loamy sand	
67 Gosney	A 2Bw 2R	0 10 19	10 19	10YR3/3 10YR4/3	VCB basalt	loamy sand loamy sand	
68 Gosney	A 2Bw 2R	0 9 18	9 18	10YR3/3 10YR4/3	VCB basalt	loamy sand loamy sand	
69 Rock outcrop					basalt		
70 Bakeoven	A 2R	0 3	3			loamy sand basalt	
71 Deskamp	A 2Bw 2R	0 10 22	10 22	10YR3/3 10YR4/3	VCB	loamy sand loamy sand	
72 Rock outcrop					basalt		
73 Deskamp	A 2Bw 2R	0 10 29	10 29	10YR3/3 10YR4/3	VST basalt	loamy sand loamy sand	
74 Rock outcrop					basalt		
75 Rock outcrop					basalt		
76 Deskamp deep	A 2Bw	0 10	10 41	10YR3/3 10YR4/3	VCB	loamy sand loamy sand	
77 Rock outcrop					basalt		
78 Rock outcrop					basalt		
79 Bakeoven	A 2R	0 3	3	10YR3/3		loamy sand basalt	

Soil Sample	Soil Name	Soil Horizon	Upper Depth (IN)	Lower Depth (IN)	Color	Coarse Fragments	Texture	Notes
80	Gosney	A	0	8	10YR3/3		loamy sand	
		Bw	8	19	10YR4/3	VCB	loamy sand	
		R	19			basalt		
81	Gosney	A	0	9	10YR3/3		loamy sand	
		2Bw	9	12	10YR4/3	VGR	loamy sand	
		2R	12			basalt		
82	Rock outcrop					basalt		
83	Deep soil inclusi	A	0	9	10YR3/3		loamy sand	
		Bw	9	40	10YR4/3		loamy sand	
		C	40	56	10YR4/4		loamy sand	
		2R	56			basalt		
84	Rock outcrop					basalt		
85	Rock outcrop					basalt		
86	Rock outcrop					basalt		
87	Deskamp	A	0	10	10YR3/3		loamy fine sand	
		Bw	10	18	10YR4/3		loamy sand	
		2C	18	30	10YR 4/4	VCB	loamy sand	
88	Rock outcrop					basalt		
89	Deep soil inclusi	A	0	10	10YR3/3		loamy sand	
		Bw1	10	30	10YR4/3		loamy sand	
		Bw2	30	48	10YR4/4		loamy sand	
		2C	48	60	10YR4/4	VGR	loamy sand	
90	Rock outcrop					basalt		
91	Deskamp	A	0	9	10YR3/3		loamy sand	
		Bw	9	36	10YR4/4	VST	loamy sand	
		R	36			basalt		
92	Deskamp	A	0	10	10YR3/3		loamy sand	
		2Bw	10	26	10YR4/3	VST	loamy sand	
		2R	26			basalt		
93	Rock outcrop					basalt		
94	No Data							

Soil Sample	Soil Name	Soil Horizon	Upper Depth (IN)	Lower Depth (IN)	Color	Coarse Fragments	Texture	Notes
95	Rock outcrop					basalt		
96	Deskamp	A	0	10	10YR3/3		loamy sand	
		2Bw	10	36	10YR4/3	CB	loamy sand	
		2R	36			basalt		
97	Rock outcrop					basalt		
98	Deskamp	A	0	10	10YR3/3		loamy sand	
		Bw	10	36	10YR4/3	ST	loamy sand	
		2R	36			basalt		
99	Rock outcrop					basalt		
100	Rock outcrop					basalt		
101	Rock outcrop					basalt		
102	Rock outcrop					basalt		
103	Rock outcrop					basalt		
104	Deskamp	A	0	18	10YR3/3		loamy sand	
		Bw	18	36	10YR4/3	GR	loamy sand	
		2R	36			basalt		
105	Deskamp	A	0	10	10YR3/3		loamy sand	
		Bw	10	34	10YR4/3	ST	loamy sand	
		2R	34			basalt		
106	Rock outcrop					basalt		
107	Deskamp	A	0	10	10YR3/3		loamy sand	
		Bw	10	30	10YR4/3		loamy sand	
		2BC	30	55	10YR4/4	VGR	loamy sand	
108	Rock outcrop					basalt		
109	Rock outcrop					basalt		
110	Deskamp	A	0	11	10YR3/3		loamy sand	
		Bw	11	19	10YR4/3	CB	loamy sand	
		2BC	19	23	10YR4/3	VCB	loamy sand	
		2R	23			basalt		

Soil Sample	Soil Name	Soil Horizon	Upper Depth (IN)	Lower Depth (IN)	Color	Coarse Fragments	Texture	Notes
111	Gosney	A1	0	10	10YR3/3		loamy sand	
		AB	10	18	10YR4/3		loamy sand	
		R	18			basalt		
112	Rock outcrop					basalt		
113	Rock outcrop					basalt		
114	Gosney	A	0	10	10YR4/4		loamy sand	
		Bw	10	15	10YR4/3		loamy sand	
		R	15			basalt		
115	Rock outcrop					basalt		on flat
116	Rock outcrop					basalt		18 ft ledge
117	Rock outcrop					basalt		humpy flat
118	Rock outcrop					basalt		some flat, some piles
119	Deskamp	A	0	10	10YR3/3		loamy sand	
		2Bw	10	36	10YR4/3	ST	loamy sand	
		2R	36			basalt		
120	Rock outcrop					basalt		hump
121	Deskamp deep inclusion	A	0	10	10YR3/3		loamy sand	
		2Bw	10	54	10YR4/3		loamy sand	
		2R	54			basalt		
122	Rock outcrop					basalt		low transitional area
123	Rock outcrop							
124	Deskamp deep inclusion	A	0	10	10YR3/3		loamy sand	
		Bw	10	48	10YR4/3		loamy sand	
125	Rock outcrop					basalt		
126	Rock outcrop					basalt		
127	Deskamp	A	0	10	10YR3/3		loamy sand	
		2Bw	10	26	10YR4/3	CB	loamy sand	
		2R	26			basalt		

Sample	Soil Name	Soil Horizon	Upper Depth (IN)	Lower Depth (IN)	Color	Coarse Fragments	Texture	Notes
128	Rock outcrop					basalt		low ridge
129	Rock outcrop					basalt		convex transition
130	Rock outcrop					basalt		
131	Gosney	A	0	10	10YR3/3		loamy sand	
		2Bw	10	17	10YR4/3	VST	loamy sand	
		2R	17			basalt		
132	Rock outcrop					basalt		15 to 20 ft ledge
133	Deskamp	A	0	10	10YR3/3		loamy sand	swale
		2Bw	10	30	10YR4/3	VST	loamy sand	
		2R	30			basalt		
134	Deskamp	A	0	10	10YR3/3		loamy sand	gentle transition to swale
		Bw1	10	19	10YR4/3		loamy sand	
		2BC	19	37		ST	loamy sand	
		R	37			basalt		
135	Rock outcrop					basalt		
136	Rock outcrop					basalt		rabbit brush and cheat grass
137	Rock outcrop					basalt		
138	Deskamp	A	0	10	10YR3/3		loamy sand	
		Bw	10	32	10YR4/3	VSCB	loamy sand	
		2R	32			basalt		
139	Rock outcrop					basalt		
140	Deskamp	A	0	10	10YR3/3		loamy sand	
		Bw	10	18	10YR4/3		loamy sand	
		2R	18	29	10YR4/3	ST	loamy sand	
141	Deskamp	A	0	10	10YR3/3		loamy sand	flat swale
		Bw1	10	24	10YR4/3		loamy sand	
		Bw2	24	36	10YR4/3	GR	loamy sand	
		R	36			basalt		
142	Rock outcrop							hump
143	Deskamp	A	0	10	10YR3/3		loamy sand	
		Bw1	10	24	10YR4/3		loamy sand	

Soil Sample	Soil Name	Soil Horizon	Upper Depth (IN)	Lower Depth (IN)	Color	Coarse Fragments	Texture	Notes
		Bw2	24	29	10YR4/3	CB	loamy sand	
		R	29			basalt		
144	Deskamp	A	0	10	10YR3/3		loamy sand	small swale, used probe to go 32 in
145	Rock outcrop						basalt	Bakeoven to west of point
146	Gosney	A	0	9	10YR3/3	ST	loamy sand	stony surface
			9	18	10YR4/3	ST	loamy sand	
			18			basalt		

Point	Latitude	Longitude
1	44.059063	-121.252182
2	44.059562	-121.252009
3	44.059798	-121.251846
4	44.06182	-121.251587
5	44.061935	-121.251432
6	44.061702	-121.252376
7	44.06102	-121.252544
8	44.060602	-121.252351
9	44.060747	-121.252426
10	44.061758	-121.250922
11	44.062167	-121.250424
12	44.062108	-121.250376
13	44.061645	-121.250017
14	44.06173	-121.249761
15	44.061618	-121.249609
16	44.061902	-121.249204
17	44.062157	-121.249172
18	44.061558	-121.248801
19	44.061217	-121.249004
20	44.061408	-121.248894
21	44.061342	-121.250402
22	44.061323	-121.250659
23	44.061394	-121.251017
24	44.061065	-121.250997
25	44.060935	-121.251469
26	44.060697	-121.251866
27	44.060353	-121.251502
28	44.060287	-121.251517
29	44.06006	-121.251212
30	44.06004	-121.250972
31	44.059935	-121.250429
32	44.05986	-121.250009
33	44.059719	-121.249391
34	44.059283	-121.248724
35	44.060082	-121.249034
36	44.06055	-121.248811
37	44.060687	-121.249481
38	44.060375	-121.248918
39	44.06073	-121.249422
40	44.060588	-121.250171
41	44.06051	-121.250252
42	44.060435	-121.250387
43	44.059958	-121.249732
44	44.058867	-121.248777
45	44.058775	-121.248854
46	44.058822	-121.249147

47	44.058917	-121.249639
48	44.059118	-121.250161
49	44.059173	-121.251001
50	44.059257	-121.251331
51	44.058727	-121.251161
52	44.059023	-121.251554
53	44.058645	-121.251619
54	44.057985	-121.251719
55	44.057837	-121.251509
56	44.05812	-121.250986
57	44.058193	-121.251051
58	44.057763	-121.250521
59	44.057643	-121.250179
60	44.058203	-121.249507
61	44.058147	-121.249422
62	44.058342	-121.248754
63	44.058057	-121.248946
64	44.057555	-121.248737
65	44.05691	-121.248596
66	44.05718	-121.248767
67	44.056223	-121.248711
68	44.056323	-121.249201
69	44.057127	-121.249664
70	44.056815	-121.249522
71	44.057412	-121.249986
72	44.057123	-121.250929
73	44.057007	-121.250742
74	44.056838	-121.250479
75	44.05647	-121.250482
76	44.05645	-121.250269
77	44.056343	-121.250027
78	44.055512	-121.249417
79	44.055288	-121.248932
80	44.055273	-121.249936
81	44.056388	-121.251541
82	44.056505	-121.251591
83	44.057265	-121.251954
84	44.057378	-121.251992
85	44.05693	-121.21879
86	44.065638	-121.244866
87	44.065644	-121.244571
88	44.065305	-121.246001
89	44.064957	-121.246592
90	44.065328	-121.247387
91	44.064965	-121.247851
92	44.064477	-121.248246
93	44.064733	-121.248446

94	44.0639	-121.248636
95	44.064569	-121.248409
96	44.064006	-121.247932
97	44.063697	-121.247932
98	44.063708	-121.247762
99	44.063413	-121.247772
100	44.063382	-121.248277
101	44.063233	-121.248207
102	44.063028	-121.248027
103	44.062422	-121.248241
104	44.0628	-121.248326
105	44.06231	-121.248472
106	44.06226	-121.248098
107	44.062798	-121.247684
108	44.06281	-121.247322
109	44.063628	-121.24711
110	44.063398	-121.247032
111	44.063558	-121.246544
112	44.06333	-121.246782
113	44.063082	-121.246497
114	44.06302	-121.246634
115	44.062768	-121.246679
116	44.06236	-121.246352
117	44.062292	-121.245826
118	44.06232	-121.245187
119	44.062258	-121.245299
120	44.063128	-121.245831
121	44.063072	-121.245619
122	44.063392	-121.244901
123	44.063212	-121.244184
124	44.06346	-121.245001
125	44.063367	-121.244642
126	44.063938	-121.244317
127	44.063925	-121.244562
128	44.064077	-121.245054
129	44.064178	-121.245274
130	44.064415	-121.245822
131	44.064325	-121.245752
132	44.06429	-121.246706
133	44.064112	-121.246564
134	44.06384	-121.246219
135	44.064108	-121.245939
136	44.064372	-121.245421
137	44.06452	-121.244307
138	44.064518	-121.244566
139	44.06508	-121.244119
140	44.065123	-121.244317

141	44.06482	-121.245556
142	44.065608	-121.243899
143	44.065543	-121.244247
144	44.065097	-121.246446
145	44.065063	-121.247642
146	44.065423	-121.248778



Oregon

Kate Brown, Governor

Department of Land Conservation and Development

DEPT OF

635 Capitol Street NE, Suite 150
Salem, Oregon 97301-2540

APR 4 2022

LAND CONSERVATION AND DEVELOPMENT

Phone: 503-373-0050

Fax: 503-378-5518

www.oregon.gov/LCD



Soils Assessment Submittal Form

Soils Professional Information

Soils professional*: Andy Gallagher

Certification number: 03114

Property Information

Person who requested soils assessment: Matt Wellner

Mailing address: 14787 SW Millikan Way, Beaverton, OR 97003

Email address: matt@crandallgroup.com

Telephone number: 503-970-5699

Property owner (if different): Te Amo Despacio, LLC / CTH Investments, LLC

Property address (if different): 62385 Hamby Road and 21480 Highway 20, Bend, OR 97701

County: Deschutes

Township: 17

Range: 12

Section: 35

Tax lot(s): 1200 and 1201

Parcel Acreage: 94

Acres Evaluated: 94

Comprehensive Plan designation: Agricultural

Zone: EFU-TRB

Proposed land use action: Change plan designation to Rural Residential Exception and zone to MUA-10

The soils professional must submit an electronic copy of the soils assessment together with this form to Hilary Foote, Farm and Forest Lands Specialist, at the above address. The person requesting the soils assessment or the property owner must submit a check for a non-refundable administrative fee of \$625 made out to the Department of Land Conservation and Development, to Hilary Foote, at the same address.

Soils assessments must be consistent with the Soils Assessment Report Requirements and will be checked for completeness and be subject to audits as described in OAR 660-033-0030(9). Some soils assessments will additionally be subject to review and field checks by a DLCD-contracted soils professional as described in OAR 660-033-0030(9). Property owners and soils professionals will be notified of any negative reviews or field checks. Soils assessments will not be released to local governments without submittal of a signed release form by the property owner and person who requested the soils assessment; however, when released, any negative reviews or field checks will accompany the soils assessments.

The department and the Land Conservation and Development Commission will not be held liable for non-performance or information that is contained in soils assessments, or for negative reviews, field checks or audits of soils assessments. For the protection of the department and commission, we ask that you read and sign the following authorization and disclaimer:

I hereby expressly give my consent, should I be notified by the department that the submitted soils assessment for my property is selected for a review and field check, to authorize timely

access to my property by a DLCD-contracted soils professional to perform a field check to corroborate the information provided in the submitted soils assessment. I understand that failure to authorize access to the property may result in a negative review.

I hereby waive my right to pursue a claim for relief or cause of action alleging injury from the content of soils assessments or from any negative reviews, field checks or audits conducted by the department and any and all soils professionals used by the department under OAR 660-033-0030(5) and (9). I hold these entities harmless and release them from liability for any injury or damage that may occur in conjunction with the submitted soils assessment.

In exchange for the department's review of this submittal under the soils assessment program, I expressly agree to forever waive and give up all claims, suits, actions, proceedings, losses, damages, liabilities, awards and costs of every kind and description, including any and all federal and state claims, reasonable attorney's fees, and expenses at trial (collectively "claims") which I have or may have a right to bring against any agency, department, the state, or their agents, officials or employees arising out of or related to my participation and performance in the soil assessment program, including but not limited to claims for mistake or negligence of the department, the state of Oregon, and their officers, employees and agents. I further agree that the provisions of this Liability Waiver and Release from Federal and State Claims shall be effective and binding upon my heirs, executors, administrators, successors, assigns, beneficiaries, or delegates and shall inure to the benefit of the department, the State of Oregon, and their officers, employees and agents.

Person who requested soils assessment

4/1/2022

Date

Property owner (if different)

4/1/2022

Date

In addition to agreeing to the above, I hereby certify that the attached soils assessment that I performed for the property identified on this form is soundly and scientifically based and meets the reporting requirements established by the department.

Soils professional

April, 2022

Date

* Must be from the posted list of qualified soils professionals at: <https://www.oregon.gov/lcd/FF/Pages/Soils-Assessment.aspx>



Oregon

Department of Land Conservation and Development

635 Capitol Street NE, Suite 150
Salem, Oregon 97301-2540

Kate Brown, Governor

Phone: 503-373-0050

Fax: 503-378-5518

www.oregon.gov/LCD



Soils Assessment Release Form

Soils Professional Information

Soils professional*: Andy Gallagher Certification number: 03114

Date of submittal of soils assessment to department: _____

Property Information

Person who requested soils assessment: Matt Wellner

Mailing address: 14787 SW Millikan Way, Beaverton, OR 97007

Email address: matt@crandallgroup.com Telephone number: 503-970-5699

Property owner (if different): Te Amo Despacio, LLC / CTH Investments, LLC

Property address (if different): 62385 Hamby Road and 21480 Highway 20, Bend, OR 97701

County: Deschutes Township: 17 Range: 12 Section: 35

Tax lot(s): 1200 and 1201 Parcel Acreage: 94 Acres Evaluated: 94

Comprehensive Plan designation: Agricultural Zone: EFU-TRB

Proposed land use action: Change plan designation to Rural Residential Exception and zone to MUA-10

If you would like the soils assessment for the subject property to be released to a County planning department for its consideration in a land use proceeding, please sign this form and send it to Hilary Foote at the above address, or email to: hilary.foote@state.or.us.

I hereby request that the Department of Land Conservation and Development release the soils assessment submitted to the department on the above date regarding the above-described property to the Deschutes County Planning Department, as well as any department notifications of deficiencies. I understand that any and all previous soils assessments applying to this property produced under this rule, as well as any department notifications of deficiencies in such soils assessments, will also be released to the local government.

Person who requested soils assessment

4/1/22

Date

Property owner (if different)

4/1/22

Date



Date:	July 1, 2022
To:	Tia Lewis, Schwabe Williamson & Wyatt
From:	Joe Bessman, PE
Project Reference No.:	1709
Project Name:	Te Amo/CTH Investments Rezone



The purpose of this memorandum is to address the Transportation Planning Rule requirements associated with rezoning two parcels located on the eastern edge of Bend from Exclusive Farm Use (EFU-TRB) to Multiple-Use Agricultural (MUA-10). The property addresses include 62385 Hamby Road (1712350001200) and 21480 Highway 20 (1712350001201). Figure 1 illustrates the location of the parcels.

The parcels comprise a total of 93.37 acres of land that is near the City of Bend’s current Urban Growth Boundary (UGB). Pending approval of the House Bill 4079 lands (Parkside Place), the property will be opposite City lands along its southern border and is contiguous with UGB lands near NE Manchester Court. There are no specific development plans for the property at this time. The purpose of the rezone is to better reflect potential uses for the property given the unsuitability of the land for farming.

Figure 2 illustrates the current zoning of the surrounding properties for context. This shows that properties that are located immediately west of these parcels (within the same ownership) are already zoned *Urban Area Reserve*, and properties to the north are MUA-10, as are properties south of US 20 and west of Hamby Road.

In order to rezone the subject property to MUA-10 the application will need to show compliance with the Transportation Planning Rule section on Plan and Land Use Regulation Amendments (OAR 660-12-0060). OAR 660-012-0060(1) and (2) establish a two-step process for evaluating an amendment’s impacts on transportation facilities. The first step in assessing an amendment’s potential transportation impact is to compare the trip generation potential of the property assuming a “reasonable worst-case” development scenario under the existing and proposed zoning. If the trip generation potential increases under the proposed zoning, additional operational analysis may be required to assess whether the rezone will “significantly affect” the transportation system. Conversely, if the trip generation under the proposed zoning is equal to or less than that under the existing zoning, no additional operational analysis is necessary to conclude that the proposal does not “significantly affect” the transportation system. A comparison between trip generation associated with the existing and proposed zoning scenarios is presented below.

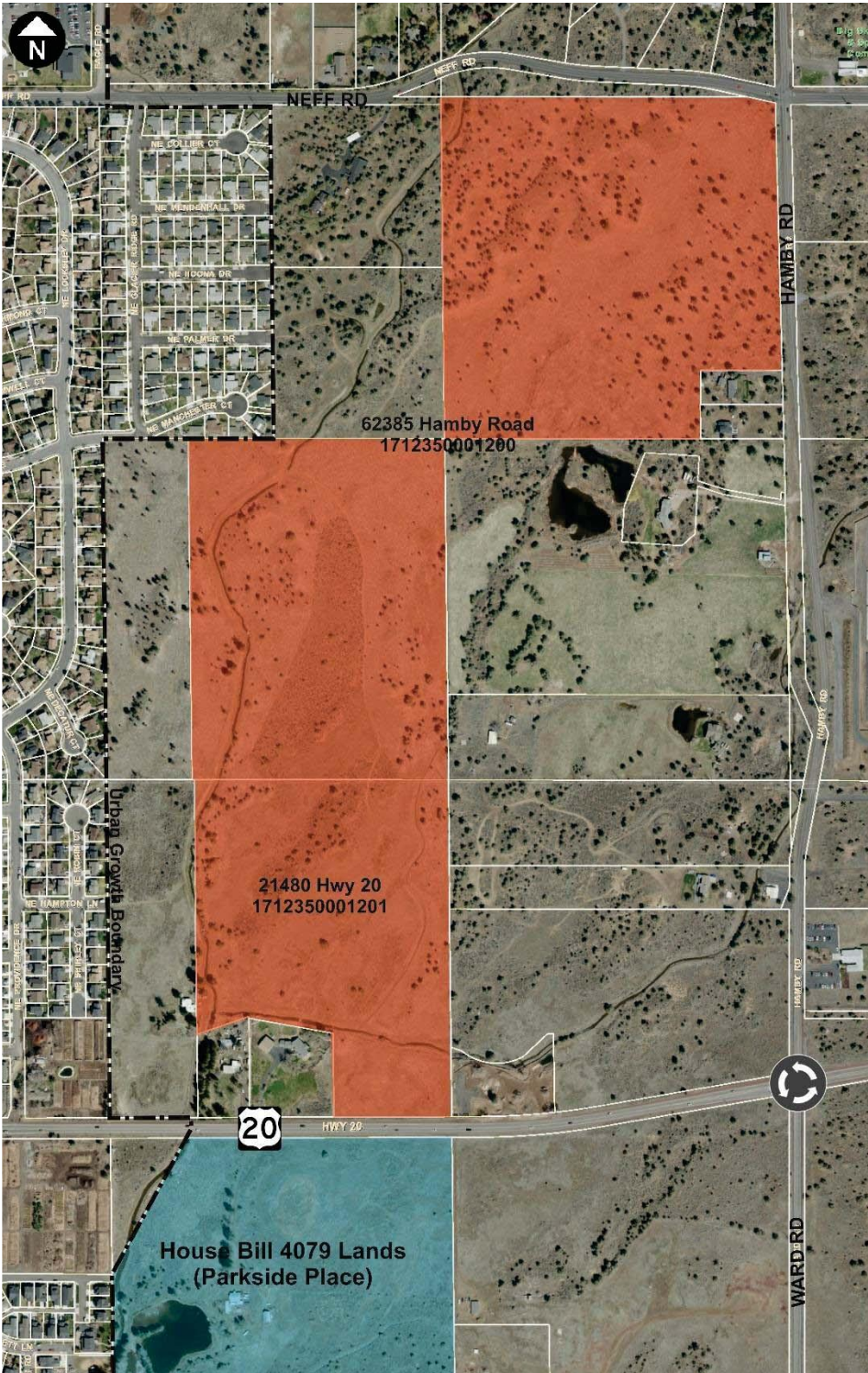


Figure 1. Location of Subject Parcels.

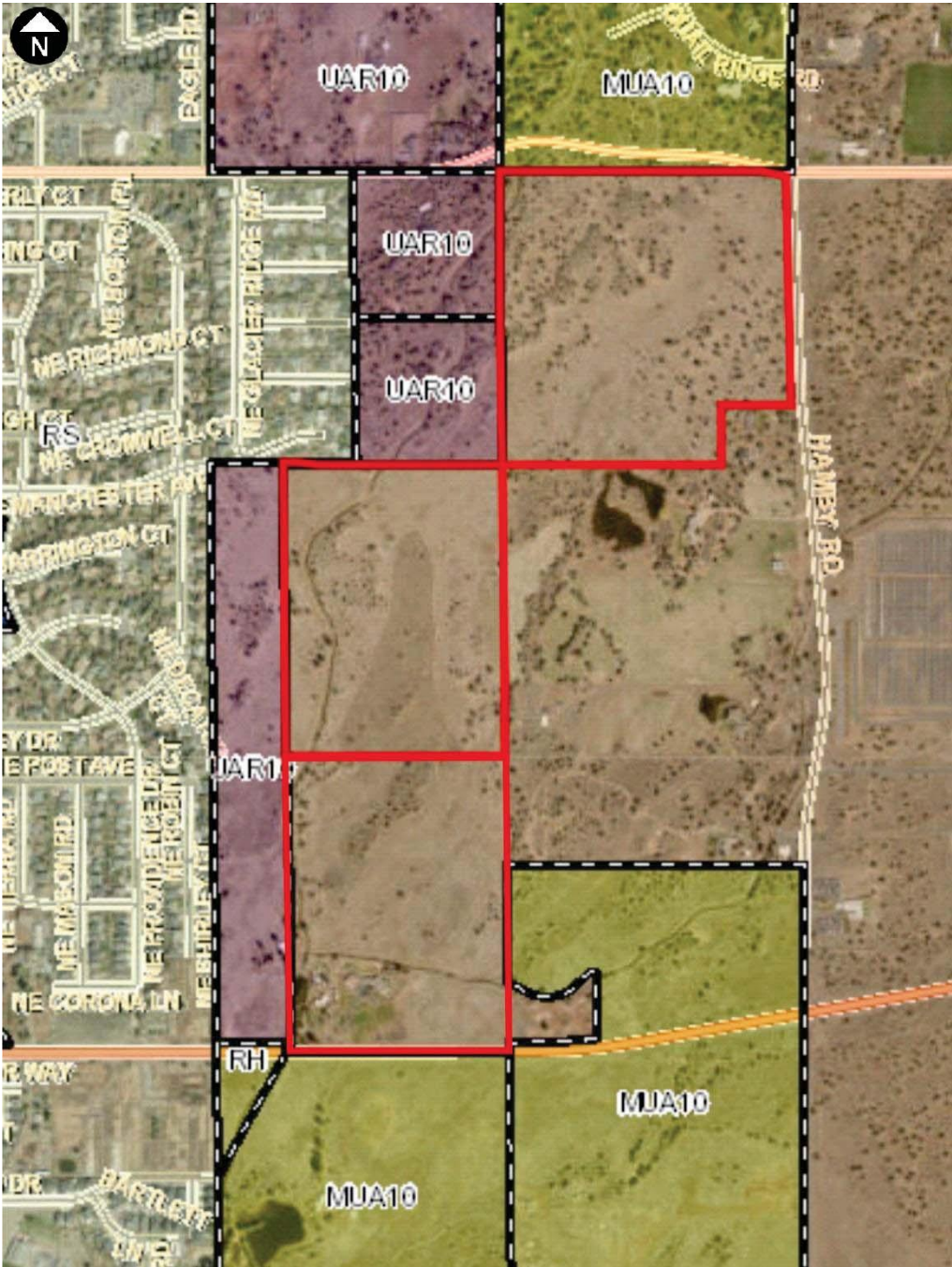


Figure 2. Surrounding zoning designations. Source: Deschutes County DIAL.

TRANSPORTATION PLANNING RULE ANALYSIS SCENARIOS

Existing EFU-TRB Zoning Scenario

Per Chapter 18.16 of the Deschutes County Code, the existing Exclusive Farm Use – Tumalo-Redmond-Bend (EFU-TRB) designation on subject property limits land uses to those associated with “preserving and maintaining agricultural lands.” There are several conditional uses associated with the EFU zoning but for the TPR analysis, only those uses permitted outright, as designated in Chapter 18.16.020 are typically considered, which includes the following:

- Farm uses and related buildings
- Operations for mineral exploration
- Fire service facilities providing rural fire protection services
- Geothermal exploration and production operations
- Utility facility service lines
- Propagation or harvesting of timber products

Of these uses a rural fire center is likely the most intense allowable use, particularly since the County discontinued allowance of marijuana production facilities (though hemp production remains permitted). Other allowable uses described as “Uses Permitted Subject to the Special Provisions and a Review Under DCC Chapter 18.124 where applicable” within the EFU zoning were also reviewed.

While these uses are not included by Deschutes County as outright allowable use, per findings from the Oregon Court of Appeals in the *Brentmar v. Jackson County*, 321 Or 481, 900 P2d 1030 (1995) decision, all of the uses within ORS 215.213(1) and 215.283(1) are outright allowable (not conditional) uses for Deschutes County. Effectively, within these decisions the Oregon Supreme determined that certain uses within an EFU zone were considered uses allowed as a “right” (those specifically outlined in ORS 215.213(1)(a) through (bb)) that are not subject to additional County restrictions as a conditional use. In *Lane County v. LCDC*, 325 Or 569, 942 P2d 278 (1997) the Supreme Court allowed LCDC to impose conditions on ORS 215.213(1) and (3) but reiterated that Counties may not. LCDC rules do not make any such uses conditional uses. This means that the following uses are allowed outright if LCDC’s conditions exist on the subject property, in addition to those identified by the County:

- Dog training classes (less than 10 dogs per class and 6 or fewer classes per day)
- Winery
- Cider Business
- Farm Brewery
- Farm Stand
- Church and cemeteries

The ITE manual does not have data specific to dog training classes. Review of other available online studies showed that trip generation for dog training classes were based on data for daycare facilities, as the per-student trip rate would be similar to the per-dog rate.¹

¹ Gibson Traffic Engineers’ *Stella & Floyd’s Traffic Impact Analysis*, December 2018.

Table 1. Outright Allowable EFU Trip Generation Comparison

Land Use	ITE Land Use Code/Surrogate	Weekday Daily Trips	Weekday PM Peak Hour Trip Rate
Winery, Farm Brewery or Cider Business <i>Rural Setting</i>	ITE 970 <i>Range: 1,500 to 7,000 SF</i> <i>Average: 3,000 SF</i>	45.96/KSF	7.31 PM Trips/KSF
Farm Stand	No Data	Est. 40 to 100 Trips	Est. 4-10 PM Trips
Church/ Cemetery	ITE 560 (<i>Average 32 KSF</i>) ITE 566 (<i>Average 59 Acres</i>)	7.60/KSF 6.02/Acre	0.49 PM Trips/KSF 0.46 PM Trips/Acre
Dog training classes	ITE 565 <i>(Up to 60 dogs/day)</i>	4.09/dog 245 Trips	0.79/dog <i>(up to 10 dogs)</i> 8 PM Trips

Table 1 shows that a winery (or other similar brewery/cider business), church, or dog training classes would generate the highest number of weekday p.m. peak hour trips, likely within the range of 8 to 20 total weekday p.m. peak hour trips for a given use. Dog training classes are allowed outright on any land zoned EFU as long as they are limited to 10 dogs per class and 6 classes per day, per DCC 18.16.025(K). One of these allowed uses could be applied to each of the two parcels.

Accordingly, there are a limited range of uses within County Code or allowed as outright uses within all EFU lands that could generate a higher number of trips than a traditional agricultural use, and these uses would generate about 10 to 20 weekday p.m. peak hour trips. Given the size of these parcels and two entirely separate taxlots, this overall site could easily accommodate two independent uses.

PROPOSED MUA-10 ZONING SCENARIO

Deschutes County Code describes the purpose of the *Multiple Use Agricultural* zone as follows:

The purpose of the Multiple Use Agricultural Zone are to preserve the rural character of various areas of the County while permitting development consistent with that character and with the capacity of the natural resources of the area; to preserve and maintain agricultural lands not suited to full-time commercial farming for diversified or part-time agricultural uses; to conserve forest lands for forest uses; to conserve open spaces and protect natural and scenic resources; to maintain and improve the quality of the air, water and land resources of the County; to establish standards and procedures for the use of those lands designated unsuitable for intense development by the Comprehensive Plan, and to provide for an orderly and efficient transition from rural to urban land use.

Allowable uses within the MUA zone include agricultural uses, a single-family dwelling or manufactured home, propagation or harvesting of a forest product, operations and maintenance of piping and irrigation systems operated by an Irrigation District, home occupation, or accessory dwelling units. Within the MUA zone individual lots are typically required to be 10-acres or larger, but within one-mile of an Urban Growth Boundary a five-acre minimum is allowed. With the allowable uses, development at this maximum allowable density of one home per five-acres with single-family homes provides the highest overall trip generation potential, and would allow up to 18 homes.

TRIP GENERATION COMPARISON

Table 2 presents a comparison of the trips that could be generated by the existing and proposed zoning per the assumptions outlined above. As shown in this table, the proposed amendment and rezoning associated with the properties results in less trips on a weekday daily basis, with a slight increase during the weekday p.m. peak hour.

Table 2. Trip Generation Comparison (ITE Trip Generation, 11th Edition)

Land Use	ITE Code	Size/Units	Daily Trips	Weekday PM Peak Hour		
				Total	In	Out
<i>Proposed MUA Zoning</i>						
Single Family Detached Housing	210	18 Homes	170 <i>(9.43/unit)</i>	17 <i>(0.94/unit)</i>	11 <i>(63%)</i>	6 <i>(37%)</i>
<i>Existing EFU-TRB Zoning</i>						
Dog training classes	565	60 dogs/day 10 dogs/class	245 <i>(4.09/dog)</i>	8 <i>(0.79/dog)</i>	4 <i>(50%)</i>	4 <i>(50%)</i>
Church	560	10 KSF	76 <i>(7.60/KSF)</i>	5 <i>(0.49/KSF)</i>	2 <i>(44%)</i>	3 <i>(66%)</i>
Total Trips			321	13	6	7
Trip Difference (Proposed Zoning Trip Potential – Existing Zoning Trip Potential)						
Increase in Trips			-151	+4	+5	-1

Deschutes County Code 18.116.310 provides the applicable requirements for traffic impact studies. This section of Code is not specific to the study requirements for a rezone application, which by default will still require compliance with the TPR. For projects zoned appropriately, DCC 18.116.310(C)(3)(b), only a Site Traffic Report (STR) is required if the development or change in use will cause the site to generate 50 to 200 daily trips and less than 20 weekday p.m. peak hour trips. The Deschutes County Engineer retains the right to expand this discretionary application as included within Section B and C.

TRIP DISTRIBUTION PATTERN

For impact assessment purposes, it was assumed that access to the two parcels is provided from the abutting streets, as shown in Figure 2. This distribution and assignment also accounts for the shared ownership of the adjacent parcels that would allow travel directly to the west.

Figure 2 illustrates the trip distribution pattern and trip assignment and also shows how the incremental change in trips is expected to impact the primary access routes.

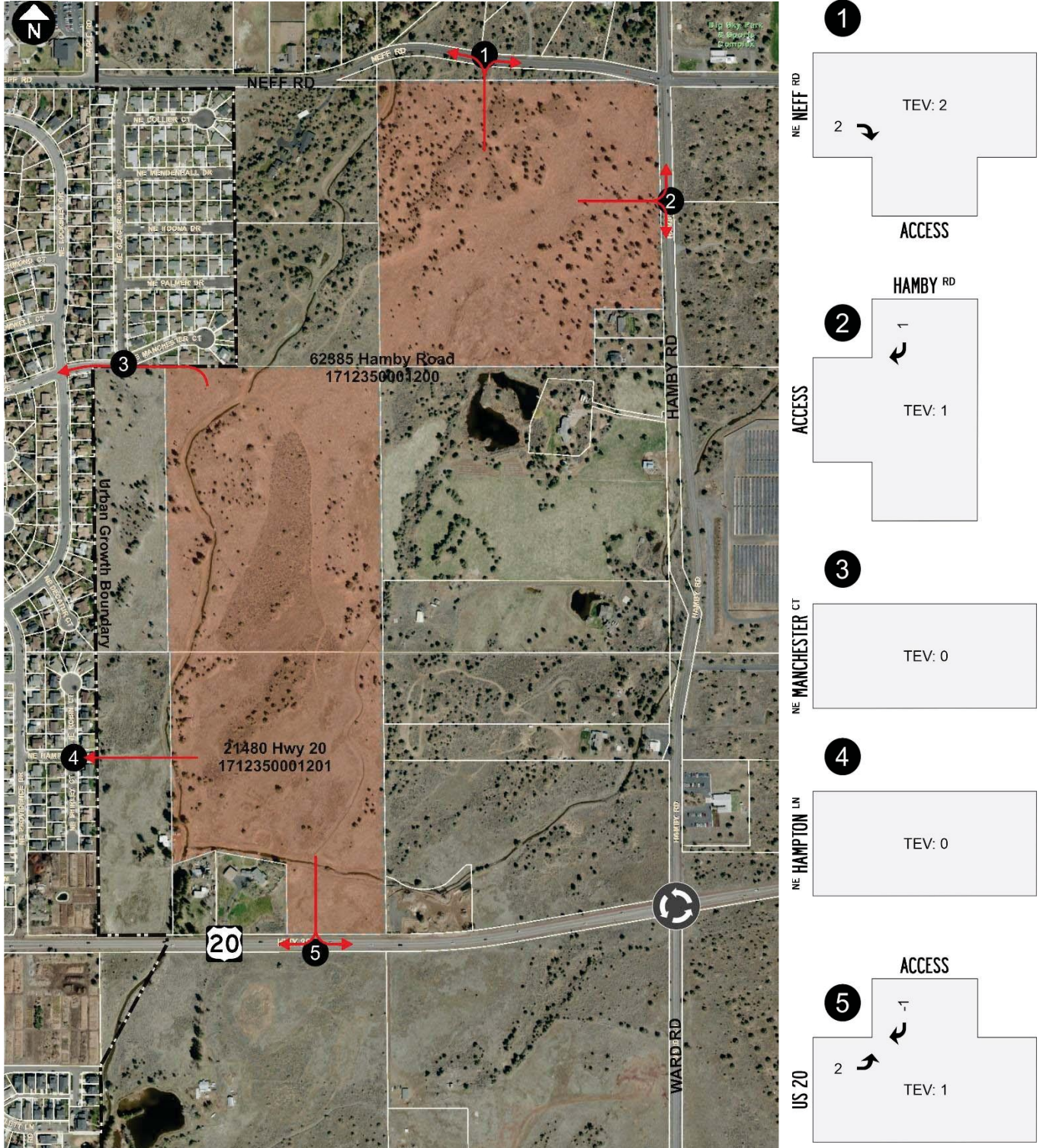


Figure 3. Assignment of Additional Weekday PM Peak Hour Trips.

STUDY AREA

Based on a review of Deschutes County Code requirements, study intersections are identified as locations that are impacted by 20 or more weekday p.m. peak hour trips. ODOT and the City of Bend considers projects as having a significant impact with 50 or more weekday p.m. peak hour trips at an intersection. As the rezone shows virtually no change in trip generation potential these thresholds are not met at any location.

In addition, with a reduction in weekday daily trips the rezone does not have the potential to change the functional classification or alter the performance of the surrounding streets. The surrounding roadways will retain their current designations, and with a potential reduction in weekday daily trips will perform the same or better than the current zoning.

OPERATIONAL ADEQUACY

The proposed comparative assessment of scenarios with and without the rezone shows that there is very little change in the trip generation potential of the site with the proposed rezone, and with uses allowed within farm zones the site could experience about a +4 peak hour trip increase, with an overall reduction in trips throughout the day. The level of change is minor, and does not meet Deschutes County's or the City of Bend's significance thresholds to require further analysis, as this difference in trips is less than typical day of the week volume fluctuations.

As requested by Deschutes County staff, further documentation of the operational adequacy was prepared to further review the ability of the surrounding transportation system to support development with the potential maximum trip generation scenario. The site could be provided access to several separate locations as shown in Figure 3, dispersing the +4 peak hour trips in several directions. For purposes of a "reasonably likely" scenario, the following was assumed:

- Any access to US 20 would be limited and/or restricted, instead relying primarily on internal connections to Hamby Road or west to Dalton Street. ODOT is initiating work on a corridor plan for the adjacent section of US 20.
- Extension of the local street system to the west to connect with any existing stubbed connections abutting the property will be required. As Hampton Lane connects across a parcel that is not part of this project it was assumed that only Glacier Ridge Road would be extended for purposes of this analysis. As this street connects into an established residential neighborhood it was assumed that this would provide only a secondary connection.
- Connections to Neff Road and Hamby Road are very likely, though would require coordination and approval from Deschutes County with a specific site plan application. For analysis purposes all traffic was assumed to rely on these connections.

As required by Deschutes County the operational analysis assessed conditions during the weekday p.m. peak hour, which is the hour between 4:00 and 6:00 p.m. with the highest volume of entering traffic. All City and County transportation planning, to include the City's Transportation System Plan, City transportation System Development Charge methodology, and ODOT design hour analysis, focus on the weekday evening commute period, as this reflects the highest overall travel period within the area. In addition, Deschutes County considers segment operations, and has adopted Level of Service thresholds for its roadways based on the posted speed based on the Highway Capacity Manual's simplified planning analysis.

Given the traffic volume anomalies that have occurred due to COVID, this analysis was compared with area traffic counts collected in October 2018, October 2019, and supplemented with late November 2021 counts for calibration purposes. The various sets of traffic counts each include historical trend information at the nearby US 20/27th Street intersection, as summarized in Table 3. As this reflects an intersection of two major nearby streets it is expected to be reflective of traffic volume variation along US 20, Neff Road, and Hamby Road.

Table 3. US 20/27th Street Peak Hour Traffic Count Comparison

Count Date	US 20 Volume (bidirectional)		27 th Street Volume (bidirectional)		Total Volume (Total Entering Vehicles)
	West of 27 th St	East of 27 th St	North of US 20	South of US 20	
April 18, 2018	1,796	1,599	1,939	1,892	3,613
October 15, 2019	1,870	1,558	2,059	1,868	3,774
November 30, 2021	1,742	1,449	2,044	1,919	3,576

These counts show that 2019 counts were higher than those in 2021, but between 2018 and 2021 the counts varied only by about 5 percent. Conversely, historical counts collected at Hamby Road/Neff Road showed that the older December 2018 counts were about 14% higher than those collected in October 2019 (both of which were collected when area schools were fully open). Table 4 provides a summary of the area traffic counts used to help inform area operations.

Table 4. Traffic Count Adjustments (Estimating 2022 Conditions)

Intersection	Count Date	Annual Factor ¹	COVID Adjustment	Seasonal Factor	Total Adjustment
NE Neff Road/ NE Hamby Road	December 20, 2018 October 15, 2019	1.08	1.0	1.0	1.08

¹ 2% Annual growth per Draft Deschutes County Transportation System Plan

Bold: Higher traffic count applied within the traffic analysis.

Seasonal variation was also reviewed within the area. ODOT has several permanent traffic count stations within and outside of Bend. Count station 09-005 is located along US 20 just east of the Powell Butte Highway. While this is the closest station, its location between Bend and Burns is not reflective of the urban edge and would not be appropriate to apply along Neff Road (but could be considered with US 20 access). Count Station 09-009 is located along US 97 near the Revere Avenue interchange but reflects more of the urban recreational trends of the area, which are much less pronounced within this more rural area. Consistent with the County plans, seasonal adjustments were not considered relevant, and as the higher counts within the area preceded COVID impacts further adjustments were not made. A summary of area traffic volumes based on the adjusted historical traffic counts is provided in Table 5.

Table 5. Segment Traffic Volume Forecasts Without Rezone

Intersection	Bidirectional Peak Hour Volume	Est. 2022 Traffic Volumes	Future 2040 Traffic Volume	Deschutes County LOS "D" or Better?
NE Neff Road	452 Est. 5,650 Daily	488 Est. 6,100 Daily	697 Est. 8,712 Daily	Yes (<13,900 ADT)
NE Hamby Road	311 Est. 3,888 Daily	336 Est. 4,200 Daily	480 Est. 6,000 Daily	Yes (<13,900 ADT)

¹ 2% Annual growth per Draft Deschutes County Transportation System Plan

² Daily volumes approximated based on a peak hour : daily ratio of 0.08.

Deschutes County’s Transportation System Plan and Development Code requires a Level of Service “D” or better for all of its roadway facilities. Based on a posted speed of 45 miles per hour, County roads with less than 13,900 vehicles per day meet this requirement². The projected traffic volumes on NE Neff Road and Hamby Road are well below this volume threshold and will easily comply with County requirements. As the rezone has the potential of reducing weekday daily trips this would not change the overall adequacy of any roads. Even with the maximum development scenario adding 170 weekday daily trips to the transportation system these two adjacent facilities would continue to operate acceptably.

Table 6. Segment Traffic Volume Forecasts Without Rezone

Intersection	Year 2040 Daily Volume Projection (See Table 5)	Added Rezone Trips	Year 2040 Daily Volume Projection with Rezone	Deschutes County LOS "D" or Better?
NE Neff Road	697 Est. 8,712 Daily	Up to +170 Trips	Est. 8,900 Trips	Yes (<13,900 ADT)
NE Hamby Road	480 Est. 6,000 Daily	Up to +170 Trips	Est 6,170 Trips	Yes (<13,900 ADT)

From an intersection operations perspective, assuming consolidated access to the property onto NE Neff Road and NE Hamby Road could see a combined total of 11 inbound and 6 outbound trips from the overall property. Operational analysis using the adjusted year 2040 volumes shows that the existing two-lane cross-section and stop-sign control would continue to meet County performance thresholds at either of these access intersections, operating at Level of Service “B” or better during the peak hours.

² Based on the planning assessment reported within the County’s draft Transportation System Plan.

Table 7. Site Access Operations Summary, Year 2040 With Rezone, Weekday PM Peak Hour

Intersection	Performance Standard	LOS	Delay	v/c Ratio	Acceptable?
Neff Road Site Access	LOS D or Better	LOS B	NB: 13.8 sec/veh	0.01	Yes
Hamby Road Site Access	LOS D or Better	LOS B	EB: 10.4 sec/veh	0.01	Yes

Accordingly, both of the primary roads abutting the property are expected to be adequate to support the proposed rezone.

TRANSPORTATION PLANNING RULE COMPLIANCE

OAR Section 660-012-0060 of the Transportation Planning Rule (TPR) sets forth the relative criteria for evaluating plan and land use regulation amendments. Table 8 summarizes the criteria in Section 660-012-0060 and the applicability to the proposed rezone application.

Table 8. Summary of Criteria in OAR 660-012-0060

Section	Criteria	Applicable?
1	Describes how to determine if a proposed land use action results in a significant impact.	Yes, see response below
2	Describes measures for complying with Criterion #1 where a significant impact is determined.	No
3	Describes measures for complying with Criteria #1 and #2 without assuring that the allowed land uses are consistent with the function, capacity and performance standards of the facility.	No
4	Determinations under Criteria #1, #2, and #3 are coordinated with other local agencies.	Yes (Application will require coordination with ODOT)
5	Indicates that the presence of a transportation facility shall not be the basis for an exception to allow development on rural lands.	No
6	Indicates that local agencies should credit developments that provide a reduction in trips.	No
7	Outlines requirements for a local street plan, access management plan, or future street plan.	No
8	Defines a mixed-use, pedestrian-friendly neighborhood.	No
9	Outlines requirements under which a local government may find that an amendment to a zoning map does not significantly affect an existing and planned transportation facility.	No
10	Outlines requirements under which a local government may amend a plan without applying performance standards related to motor vehicle traffic congestion, delay or travel time.	No
11	Outlines requirements under which a local government may approve an amendment with partial mitigation.	No

As noted in Table 8, there are eleven criteria that apply to Plan and Land Use Regulation Amendments. Of these, Criteria #1, #2, and #4 are applicable to the proposed land use action. These criteria are provided below in italics with responses shown in standard font.

OAR 660-012-0060 (1) Where an amendment to a functional plan, an acknowledged comprehensive plan, or a land use regulation (including a zoning map) would significantly affect an existing or planned transportation facility, the local government must put in place measures as provided in section (2) of this rule, unless the amendment is allowed under section (3), (9) or (10) of this rule, to assure that allowed land uses are consistent with the identified function, capacity,

and performance standards (e.g. level of service, volume-to-capacity ratio, etc.) of the facility. A plan or land use regulation amendment significantly affects a transportation facility if it would:

(a) Change the functional classification of an existing or planned transportation facility (exclusive of correction of map errors in an adopted plan);

(b) Change standards implementing a functional classification system; or

(c) As measured at the end of the planning period identified in the adopted transportation system plan:

(A) Allow land uses or levels of development that would result in types or levels of travel or access that are inconsistent with the functional classification of an existing or planned transportation facility;

Response: Based on the incremental traffic increase from EFU-TRB zoning to the proposed MUA-10 zoning (reduction in weekday daily trips and minor increase in weekday p.m. peak hour trips of two or fewer trips per facility), the functional classification of all the adjacent roadways will not be affected with the proposed zone change.

(B) Degrade the performance of an existing or planned transportation facility such that it would not meet the performance standard identified in the TSP or comprehensive plan; or

Response: The minor increase in weekday daily trips is less than daily volume fluctuations; this level of trips will not degrade or impact nearby transportation facilities. The reduced weekday daily trips will have no impact on the performance of surrounding roadways.

(C) Degrade the performance of an existing or planned transportation facility that is otherwise projected to not meet the performance standard identified in the TSP or comprehensive plan.

Response: The limited trip impacts are not considered significant and would have no quantifiable impact on surrounding roadways and intersections.

OAR 660-12-0060(4) Determinations under sections (1)–(3) of this rule shall be coordinated with affected transportation facility and service providers and other affected local governments.

Response: Deschutes County coordinates land use applications with affected agencies. It is understood that this land use application will be provided to ODOT and the City of Bend for their review and comment.

FINDINGS AND RECOMMENDATIONS

Key findings of this Transportation Planning Rule analysis include the following:

- Rezoning of the 93.37-acre property from EFU-TRB to MUA provides nearly identical potential impacts as the existing zoning, with the potential for a reduction in weekday daily trips and a +4 weekday p.m. peak hour trip increase within a “worst-case” trip generation scenario.

- The reduction in trips does not meet Deschutes County, ODOT, or City of Bend thresholds of significance at any nearby locations. None of the abutting streets would be impacted with more than two additional weekday p.m. peak hour trips, and there would be an overall reduction in weekday daily trips.
- Operational analysis shows that the abutting street segments continue to operate within the County's established Level of Service "D" threshold in 2040 with or without the rezone, and both accesses will function acceptably with a single-lane, stop-controlled design.

Based on this review a significant affect does not occur with rezoning the subject properties from EFU to MUA zoning. With the range of outright allowable uses identified within ORS 215.213(1) and 215.283(1) as a "property right", additional trip generation scenarios could be shown that are even more intense than those that are included herein, resulting in a trip reduction. Regardless of the scenario, the overall impact of the rezone is negligible on the transportation system and the rezone reflects the more appropriate use of the property given its unsuitability for farming.

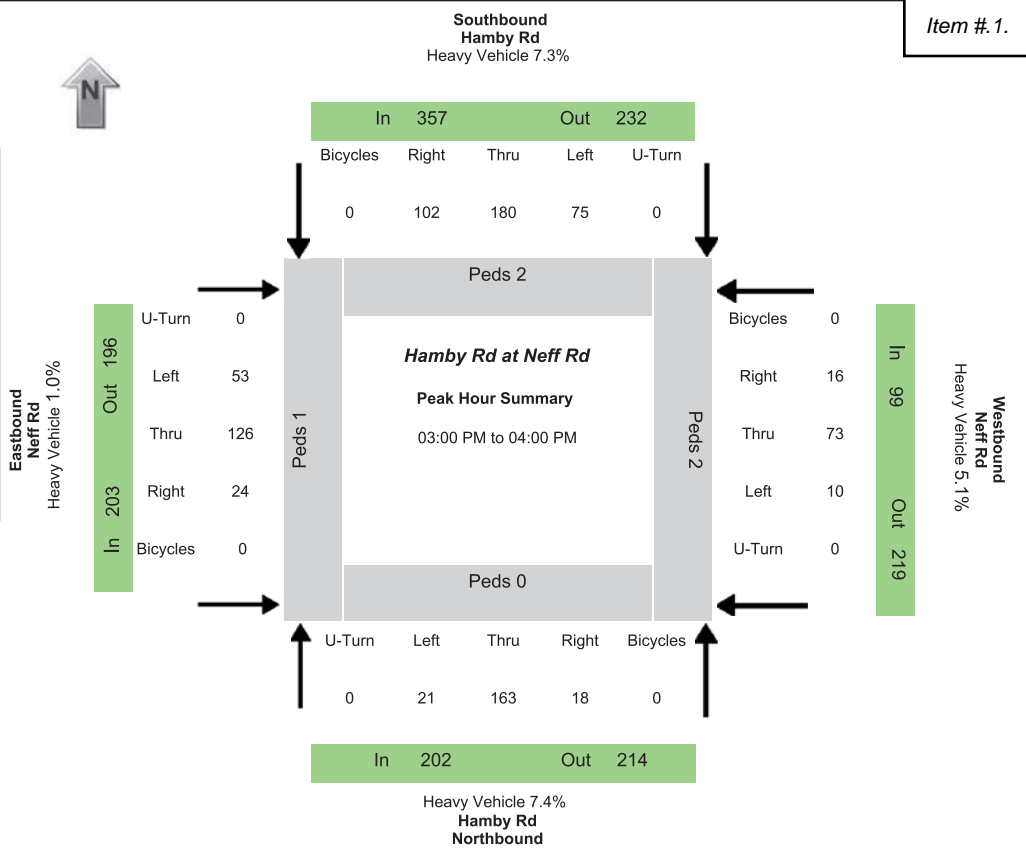
As Deschutes County (and the City of Bend) have discretion within a rezone analysis to require additional assessment of nearby infrastructure we request agency review and confirmation of these materials. please let us know if additional details addressing the City's Transportation Facilities Report or Deschutes County Site Traffic Report requirements are necessary. I can be reached if there are any questions on this analysis at (503) 997-4473 or via email at joe@transightconsulting.com.

Attachments:

- Historical Traffic Counts
- LOS Worksheets

Data Provided by K-D-N.com 503-594-4224

N/S street	Hamby Rd
E/W street	Neff Rd
City, State	Bend OR
Site Notes	
Location	44.065726 - -121.243621
Start Date	Thursday, June 07, 2018
Start Time	02:00:00 PM
Weather	
Study ID #	
Peak Hour Start	03:00:00 PM
Peak 15 Min Start	03:30:00 PM
PHF (15-Min Int)	0.83



Peak-Hour Volumes (PHV)																							
Northbound				Southbound				Eastbound				Westbound				Entering				Leaving			
Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	NB	SB	EB	WB	NB	SB	EB	WB
21	163	18	0	75	180	102	0	53	126	24	0	10	73	16	0	202	357	203	99	214	232	196	219
Percent Heavy Vehicles																							
0.0%	9.2%	0.0%	0.0%	6.7%	9.4%	3.9%	0.0%	1.9%	0.8%	0.0%	0.0%	0.0%	5.5%	6.3%	0.0%	7.4%	7.3%	1.0%	5.1%	7.9%	7.3%	4.1%	2.7%

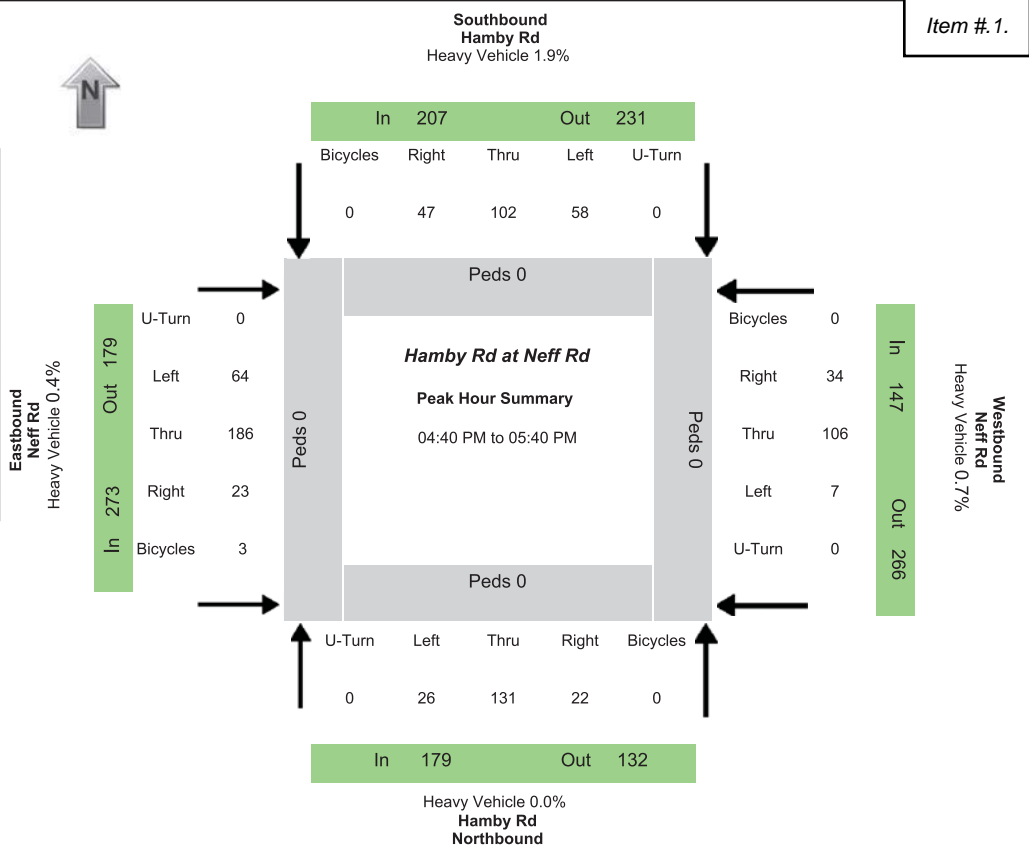
PHV - Bicycles																PHV - Pedestrians					
Northbound				Southbound				Eastbound				Westbound				Sum	in Crosswalk				Sum
Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn		NB	SB	EB	WB	
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	2	5

Time	Northbound Hamby Rd				Southbound Hamby Rd				Eastbound Neff Rd				Westbound Neff Rd				15 Min Sum	1 HR Sum	
	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn			
02:00:00 PM	3	14	0	0	1	5	4	0	3	4	0	0	0	3	2	0	0		
02:05:00 PM	3	8	0	1	4	2	2	0	6	4	0	0	1	4	3	0			
02:10:00 PM	0	17	1	0	0	5	0	0	7	6	3	0	0	4	2	0	122		
02:15:00 PM	2	21	0	0	2	4	1	0	8	11	3	0	0	5	3	0	143		
02:20:00 PM	1	16	0	0	1	5	1	0	18	7	2	0	0	3	2	0	161		
02:25:00 PM	0	12	1	0	3	6	3	0	6	3	1	0	0	8	1	0	160		
02:30:00 PM	3	12	1	0	1	13	1	0	3	11	1	0	0	9	1	0	156		
02:35:00 PM	6	18	2	0	5	13	2	0	10	14	1	0	1	22	3	0	197		
02:40:00 PM	2	9	2	0	1	6	1	0	3	10	1	0	0	8	2	0	198		
02:45:00 PM	2	10	1	0	0	5	2	0	6	5	1	0	1	13	0	0	188		
02:50:00 PM	2	3	4	0	1	9	2	0	4	11	2	0	0	8	3	0	140		
02:55:00 PM	2	3	1	0	1	6	2	0	4	5	0	0	1	3	0	0	123	603	
03:00:00 PM	1	16	0	0	2	14	8	0	3	8	2	0	2	7	2	0	142	629	
03:05:00 PM	2	7	1	0	0	17	10	0	8	6	2	0	1	5	0	0	152	650	
03:10:00 PM	2	18	2	0	2	13	5	0	7	12	2	0	1	9	2	0	199	680	
03:15:00 PM	0	14	2	0	10	16	4	0	6	6	1	0	0	6	0	0	199	685	
03:20:00 PM	3	19	0	0	6	19	7	0	8	10	3	0	0	8	1	0	224	713	
03:25:00 PM	0	21	0	0	9	9	8	0	11	11	1	0	1	10	2	0	232	752	
03:30:00 PM	1	13	0	0	4	10	11	0	4	15	4	0	1	6	4	0	240	769	
03:35:00 PM	3	10	2	0	9	24	22	0	0	13	5	0	1	6	0	0	251	767	
03:40:00 PM	3	16	1	0	11	23	17	0	4	9	3	0	0	4	0	0	259	813	
03:45:00 PM	1	19	4	0	8	21	5	0	0	5	0	0	0	6	3	0	258	839	
03:50:00 PM	3	4	3	0	9	5	3	0	1	13	0	0	1	2	0	0	207	834	
03:55:00 PM	2	6	3	0	5	9	2	0	1	18	1	0	2	4	2	0	171	861	

04:00:00 PM	2	9	6	0	5	7	4	0	2	12	1	0	1	8	4	0	160	857
04:05:00 PM	0	12	4	0	8	4	3	0	1	13	3	0	0	7	5	0	176	858
04:10:00 PM	1	11	1	0	5	16	3	0	3	14	1	0	2	6	1	0	185	847
04:15:00 PM	4	3	0	0	4	11	3	0	3	13	2	0	0	5	3	0	175	833
04:20:00 PM	2	10	0	0	4	11	0	0	2	8	1	0	1	8	4	0	166	800
04:25:00 PM	2	8	0	0	0	9	3	0	2	8	2	0	1	9	4	0	150	765
04:30:00 PM	2	8	1	0	5	7	1	0	4	13	2	0	1	5	4	0	152	745
04:35:00 PM	0	17	0	0	2	8	5	0	2	6	1	0	0	5	1	0	148	697
04:40:00 PM	2	12	0	0	5	10	8	0	2	8	0	0	0	13	2	0	162	668
04:45:00 PM	1	7	3	0	2	7	1	0	1	10	4	0	1	13	3	0	162	649
04:50:00 PM	5	14	6	0	5	12	0	0	0	16	2	0	0	7	2	0	184	674
04:55:00 PM	1	18	5	0	8	16	4	0	2	11	0	0	2	2	3	0	194	691
05:00:00 PM	0	12	7	0	11	8	2	0	2	14	1	0	1	11	2	0	212	701
05:05:00 PM	2	17	5	0	5	13	3	0	1	13	1	0	2	7	3	0	215	713
05:10:00 PM	4	27	6	0	4	7	0	0	2	20	2	0	2	13	1	0	231	737
05:15:00 PM	2	15	3	0	3	7	1	0	3	17	2	0	1	7	1	0	222	748
05:20:00 PM	1	13	3	0	1	8	0	0	5	18	3	0	9	12	5	0	228	775
05:25:00 PM	3	12	4	0	4	11	2	0	4	16	0	0	3	8	9	0	216	803
05:30:00 PM	4	11	2	0	2	9	0	0	4	11	0	0	2	6	3	0	208	804
05:35:00 PM	3	16	4	0	2	5	1	0	3	9	0	0	1	4	2	0	180	807
05:40:00 PM	2	8	2	0	6	8	1	0	3	12	0	0	1	6	7	0	160	801
05:45:00 PM	3	10	3	0	4	7	2	0	2	12	1	0	0	4	1	0	155	797
05:50:00 PM	1	17	0	0	2	5	4	0	2	14	2	0	0	9	2	0	163	786
05:55:00 PM	4	4	1	0	1	4	1	0	3	9	2	0	3	9	2	0	150	757

Data Provided by K-D-N.com 503-594-4224

N/S street	Hamby Rd
E/W street	Neff Rd
City, State	Bend OR
Site Notes	
Location	44.065768 - -121.243613
Start Date	Tuesday, October 15, 2019
Start Time	04:00:00 PM
Weather	
Study ID #	
Peak Hour Start	04:40:00 PM
Peak 15 Min Start	05:10:00 PM
PHF (15-Min Int)	0.83



Peak-Hour Volumes (PHV)																							
Northbound				Southbound				Eastbound				Westbound				Entering				Leaving			
Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	NB	SB	EB	WB	NB	SB	EB	WB
26	131	22	0	58	102	47	0	64	186	23	0	7	106	34	0	179	207	273	147	132	229	179	266
Percent Heavy Vehicles																							
0.0%	0.0%	0.0%	0.0%	1.7%	2.9%	0.0%	0.0%	0.0%	0.0%	4.3%	0.0%	0.0%	0.0%	2.9%	0.0%	0.0%	1.9%	0.4%	0.7%	3.0%	0.4%	0.0%	0.4%

PHV - Bicycles												PHV - Pedestrians									
Northbound				Southbound				Eastbound				Westbound				in Crosswalk					
Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Sum	NB	SB	EB	WB	Sum
0	0	0	0	0	0	0	0	2	1	0	0	0	0	0	0	3	0	0	0	0	0

Time	Northbound Hamby Rd				Southbound Hamby Rd				Eastbound Neff Rd				Westbound Neff Rd				15 Min Sum	1 HR Sum
	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn		
04:00:00 PM	2	12	0	0	2	6	3	0	4	6	2	0	1	11	2	0		
04:05:00 PM	1	11	0	0	4	6	1	0	3	14	2	0	1	9	1	0		
04:10:00 PM	3	9	0	0	6	7	4	0	6	13	2	0	0	7	1	0	162	
04:15:00 PM	3	10	1	0	9	13	4	0	2	16	2	0	0	6	0	0	177	
04:20:00 PM	4	9	1	0	3	9	1	0	5	12	2	0	0	11	2	0	183	
04:25:00 PM	2	14	0	0	8	4	3	0	3	8	1	0	0	7	2	0	177	
04:30:00 PM	2	4	1	0	4	7	2	0	2	11	0	0	0	7	0	0	151	
04:35:00 PM	3	15	0	0	3	7	1	0	2	14	2	0	0	5	4	0	148	
04:40:00 PM	5	9	0	0	1	6	2	0	7	13	1	0	0	6	2	0	148	
04:45:00 PM	0	14	2	0	8	3	1	0	3	12	1	0	0	13	2	0	167	
04:50:00 PM	0	8	1	0	3	8	3	0	3	11	0	0	0	13	1	0	162	
04:55:00 PM	4	7	2	0	5	12	3	0	5	14	2	0	1	18	2	0	185	672
05:00:00 PM	2	11	4	0	3	14	4	0	6	8	2	0	0	8	5	0	193	688
05:05:00 PM	2	10	4	0	5	6	2	0	5	13	0	0	1	3	3	0	196	689
05:10:00 PM	1	16	2	0	5	7	5	0	9	24	1	0	0	8	7	0	206	716
05:15:00 PM	2	14	1	0	10	11	11	0	5	15	1	0	1	10	7	0	227	738
05:20:00 PM	4	13	1	0	5	8	4	0	1	24	5	0	2	4	0	0	244	750
05:25:00 PM	3	10	1	0	4	9	4	0	5	20	4	0	0	8	3	0	230	769
05:30:00 PM	1	10	0	0	5	10	2	0	12	14	3	0	0	7	1	0	207	794
05:35:00 PM	2	9	4	0	4	8	6	0	3	18	3	0	2	8	1	0	204	806
05:40:00 PM	0	8	1	0	8	9	2	0	4	10	2	0	0	4	0	0	181	802
05:45:00 PM	1	7	2	0	4	6	3	0	2	12	2	0	3	5	1	0	164	791
05:50:00 PM	5	13	4	0	6	7	0	0	1	9	3	0	0	9	2	0	155	799
05:55:00 PM	3	7	1	0	6	6	2	0	1	10	1	0	0	13	1	0	158	775

HCM 6th TWSC
1: Access & Neff Road

Without Rezone Conditions
Weekday PM Peak Hour

Intersection						
Int Delay, s/veh	0.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	273	5	1	179	2	1
Future Vol, veh/h	273	5	1	179	2	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	83	83	83	83	83	83
Heavy Vehicles, %	1	1	1	1	1	1
Mvmt Flow	474	6	1	311	2	1

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	480	0	790
Stage 1	-	-	-	-	477
Stage 2	-	-	-	-	313
Critical Hdwy	-	-	4.11	-	6.41
Critical Hdwy Stg 1	-	-	-	-	5.41
Critical Hdwy Stg 2	-	-	-	-	5.41
Follow-up Hdwy	-	-	2.209	-	3.509
Pot Cap-1 Maneuver	-	-	1088	-	360
Stage 1	-	-	-	-	626
Stage 2	-	-	-	-	744
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1088	-	360
Mov Cap-2 Maneuver	-	-	-	-	360
Stage 1	-	-	-	-	626
Stage 2	-	-	-	-	743

Approach	EB	WB	NB
HCM Control Delay, s	0	0	13.8
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	414	-	-	1088	-
HCM Lane V/C Ratio	0.009	-	-	0.001	-
HCM Control Delay (s)	13.8	-	-	8.3	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

HCM 6th TWSC
3: Hamby Road & Access

Without Rezone Conditions
Weekday PM Peak Hour

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			L		T
Traffic Vol, veh/h	1	2	3	179	132	2
Future Vol, veh/h	1	2	3	179	132	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	83	83	83	83	83	83
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	2	4	311	229	2

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	549	230	231	0	-	0
Stage 1	230	-	-	-	-	-
Stage 2	319	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	497	809	1337	-	-	-
Stage 1	808	-	-	-	-	-
Stage 2	737	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	495	809	1337	-	-	-
Mov Cap-2 Maneuver	495	-	-	-	-	-
Stage 1	805	-	-	-	-	-
Stage 2	737	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.4	0.1	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1337	-	668	-	-
HCM Lane V/C Ratio	0.003	-	0.005	-	-
HCM Control Delay (s)	7.7	0	10.4	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

HCM 6th TWSC
1: Access & Neff Road

With Rezone Conditions
Weekday PM Peak Hour

Intersection

Int Delay, s/veh 0.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↔			↔	↔	
Traffic Vol, veh/h	273	5	1	179	2	1
Future Vol, veh/h	273	5	1	179	2	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	83	83	83	83	83	83
Heavy Vehicles, %	1	1	1	1	1	1
Mvmt Flow	474	6	1	311	2	1

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	480
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.11
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.209
Pot Cap-1 Maneuver	-	-	1088
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1088
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	13.8
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	414	-	-	1088	-
HCM Lane V/C Ratio	0.009	-	-	0.001	-
HCM Control Delay (s)	13.8	-	-	8.3	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

HCM 6th TWSC
3: Hamby Road & Access

With Rezone Conditions
Weekday PM Peak Hour

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			T		T
Traffic Vol, veh/h	1	2	3	179	132	2
Future Vol, veh/h	1	2	3	179	132	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	83	83	83	83	83	83
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	2	4	311	229	2

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	549	230	231	0	-	0
Stage 1	230	-	-	-	-	-
Stage 2	319	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	497	809	1337	-	-	-
Stage 1	808	-	-	-	-	-
Stage 2	737	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	495	809	1337	-	-	-
Mov Cap-2 Maneuver	495	-	-	-	-	-
Stage 1	805	-	-	-	-	-
Stage 2	737	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.4	0.1	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1337	-	668	-	-
HCM Lane V/C Ratio	0.003	-	0.005	-	-
HCM Control Delay (s)	7.7	0	10.4	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-



Soil Assessment Completeness Review

In accordance with OAR 660-033-0045(6)(a), the Department of Land Conservation and Development (DLCD) finds that this soils assessment is complete and consistent with reporting requirements for agricultural soils capability. The county may make its own determination as to the accuracy and acceptability of the soils assessment. DLCD has reviewed the soils assessment for completeness only and has not assessed whether the parcel qualifies as agricultural land as defined in OAR 660-033-0020(1) and 660-033-0030.

Hilary Foote

May 13, 2022

The department will consider soil assessments under OAR 660-033-0030 to be complete if they meet the following standards:

(1) General information, to include:

- (a) Title of the report: 'Soil Assessment for 94 Acres Hamby Road, Bend, Oregon'
- (b) Person making request for soils assessment; Matt Wellner
- (c) Names of soil scientist/classifier conducting the field work and preparer of the report, along with their certification numbers; Andy Gallagher, ARCPACS CPSSc/SC 03114
- (d) Land use case file number (if available); Not stated
- (e) County in which the assessment was conducted; Deschutes
- (f) Location of the project site, including the township, range, section and tax lot numbers; Taxlots 1200 and 1201 in Township 17S, Range 12E, Section 35.
- (g) Present zoning designation; EFU-TRB
- (h) Current land use; Habitat
- (i) Parcel acreage; 94 acres; evaluated: 94 acres evaluated.
- (j) A description of the purpose of the assessment. Plan Amendment and Zone Change

Previous Mapping or Background: The soil scientist/classifier shall provide a copy of the applicable and most current National Cooperative Soil Survey map(s) provided by the Natural Resources Conservation Service (NRCS) on the Web Soil Survey, with the area of investigation outlined on the map(s). The scale of the map(s) shall be identified and a list of the map units under investigation shall be listed. The applicable interpretations and minor components (inclusions) for the map units for which the investigation is being

made shall also be provided. Table 1, page 5 and Figure 2, page 11. NRCS identified soils are Gosney-Rock outcrop-Deskamp complex, 0 to 15 percent slopes (capability class 6, 7 and 8).

(1) Methods Used by Soil Scientist/Classifier: The soil scientist/classifier shall describe the methodologies used for the preparation of the report and shall include the following:

- (a) The level of order of survey used in the field survey, scale and type of maps used for field investigations, number of sample locations and observation points all confirming or disagreeing with the NRCS mapping units. The survey shall be one or more level of order higher than the NRCS survey as described in the NRCS Soil Survey Manual, 1993. Note that an Order 1 survey is more detailed than an Order 2 or greater survey. Order 1 survey (page 2)
- (b) The date(s) of the field investigation; January 26 and 27, 2022
- (c) The methods used for observations (backhoe, auger, shovel, etc.) and methods used for documentation (for slope, color, pH, etc.); Soil borings from pits, slope gradients as measured by DEM, soils determined using Munsell color chart, as described on page 3.
- (d) The number and location of borings either shown on an aerial photograph base map of the parcel or provided in a table with latitude and longitude coordinates. In conducting Order 1 soil surveys, the scale of the base maps used for the survey needs to be large enough to enable the identification of polygons of soil map units as consociation map units. Soil map units identified as a complex, association, or undifferentiated group should be avoided as this defeats the purpose of an Order 1 survey. If, however, the soils are so intermingled that they cannot be mapped at a reasonable scale so as to identify consociation map unit polygons, then there should be sufficient sampling and documentation of the complex to demonstrate this soil component distribution. A percentage of each member of the complex will be used in determining area of extent and the reported percentages will be based on this sampling and its documentation, including soil profile descriptions, boring locations and, where useful, photographs. 146 sample site observation locations are identified in Figure 5 on page 12. Email dated May 12, 2022 from Andy Gallagher confirms the text on page 2 indicating there were 41 test pit locations is a typo and that 146 sites were sampled. Coordinates for boring and sample sites are provided are provided in Attachment 2.
- (e) Geomorphic and vegetation correlations supporting the interpretation of land capability classes of soils that differ from those in the official soil survey information; and Provided on page 3.
- (f) A notation of any limitations encountered during the field investigation, such as soil depth, drainage, slope or inaccessibility. No limitations were identified (page 3).

(2) Results, Findings, and Decisions: The soils report shall describe how the level of order of survey used in this investigation differs from that used by NRCS in the original soil survey. The soils report shall also include:

- (a) An overview of the geology or geologic setting, describing sources of parent material, bedrock and related factors; (Page 3)
- (b) A description of the landforms and topography, confirming the relationship of landforms to soil mapping units; (Page 3)
- (c) A description of on-site and adjacent hydrology, including surface and subsurface features, intermittent versus perennial, floodplain and floodways and other related information; (Page 3)
- (d) A description of the revised soil mapping units with their range of characteristics, explaining how and why they differ from NRCS soil mapping. The soils report shall include a summary of soil variability incorporating significance of preceding weather (above or below average), where known and crops and natural vegetation present; and (Pages 3-5)
- (e) A tabulation of all previous and revised soil mapping units complete with their acreages and land capability classification. Table 1, page 5.

(3) Summary or Conclusion: The soils report shall contain a section reiterating the purpose of the investigation, explaining the significance of the revised soil mapping and describing any other significant issues related to the report's purpose. Provided on page 8.

(4) References: This section may list any manuals or publications utilized or referenced by the report. Provided on page 9.

(5) Attachments: Other informational materials provided as attachments, such as maps, figures or appendices shall include the following and shall be printed on 8 ½ x 11" wherever possible:

- (a) Vicinity map at a scale of 1:48,000 or smaller showing the project location; Figure 1, page 10
- (b) The NRCS soils map generated from Web Soil Survey at a scale of 1:20,000 or larger outlining the project site; Figure 2, page 11
- (c) Site condition map (aerial photo) at a scale of 1:5,000 or larger outlining the project site and showing the location of site investigations (borings) and other relevant features; Figure 6, page 16
- (d) Topography map at a scale of 1:24,000 or larger outlining the project site; Figure 3, page 12
- (e) Assessor's map at a scale of 1:5,000 or larger outlining the project site; Figure 4, page 13
- (f) Revised soils map of the project site at a scale of 1:5,000 or larger; Figure 5A, page 14 and Figure 5B, page 15

(g) Soil profile descriptions and site observation notes; Attached

From: [Andy Gallagher](#)
To: [FOOTE Hilary * DLCD](#)
Subject: Re: Soil Assessment
Date: Thursday, May 12, 2022 3:43:22 PM

Hi Hilary

That is a mistake where it says 41. The number is 146 soil pits and observations. I will send you an edited version after you complete your review please let me know if there are other mistakes.

Thanks
 Andy

From: "FOOTE Hilary, DLCD" <Hilary.FOOTE@dlcd.oregon.gov>
To: "avg" <avg@peak.org>
Sent: Thursday, May 12, 2022 3:26:40 PM
Subject: RE: Soil Assessment

Andy –

I was reviewing the Wellner report today and wanted to confirm the number of boring and observation sites. The text on page 2 says there were forty-one soil test pits and observations but coordinates and observations are provided for 146 locations. Just want to confirm the text on page two has a typo?

Thanks!



Hilary Foote

Farm/Forest Specialist | Community Services Division
 Oregon Department of Land Conservation and Development
 635 Capitol Street NE, Suite 150 | Salem, OR 97301-2540
 Cell: 503-881-9249 hilary.foote@dlcd.oregon.gov | www.oregon.gov/LCD

From: Andy Gallagher <avg@peak.org>
Sent: Monday, April 18, 2022 1:12 PM
To: FOOTE Hilary * DLCD <Hilary.FOOTE@dlcd.oregon.gov>
Subject: Soil Assessment

Hi Hilary

I am resending this report for my client Matt Wellner, since there was a few weeks between the first time and when the forms and checks were sent.

Thanks

Soil Assessment for 94 Acres Hamby Road, Bend, Oregon

For: Te Amo Despacio, LLC and CTH Investments

March 15, 2022

By: Andy Gallagher
CPSSc/SC 03114

Andy Gallagher, Soil Scientist PO Box 2233 Corvallis, OR 97333

Red Hill Soils

541-745-7878 avg@redhillsoil.com

SOIL ASSESSMENT REPORT

1. GENERAL INFORMATION

- A. TITLE: Soil Assessment for 94-Acres Hamby Road, Bend, Oregon.
- B. LANDOWNER: Te Amo Despacio, LLC 2464 SW Glacier Place Suite 110, Redmond, Oregon and CTH Investments 14787 Millikin Way SW, Portland Oregon, 97003
- C. SOIL SCIENTIST AND CERTIFICATION NUMBER:
Andy Gallagher ARCPACS CPSSc/SC 03114
- D. COUNTY: Deschutes County, Oregon.
- E. LOCATION: Tax lots 1200 and 1201, Sec. 35, T. 17S., R. 12E., W.M.
- F. PRESENT ZONING: Exclusive Farm Use.
- G. CURRENT LAND USE: Natural Habitat

PURPOSE OF INVESTIGATION: This Order -1 soil survey and soil assessment is done to determine if the subject property is “agricultural land” within the meaning of OAR 660-033-0020.

2. PREVIOUS MAPPING / BACKGROUND

This property was previously mapped by the USDA-SCS Soil Survey of the Deschutes County Area and compiled by NRCS into the Web Soil Survey.¹ The NRCS soil map of this parcel (Figure 2) shows: 58C Gosney-Rock outcrop-Deskamp complex, 0 to 15 percent slopes, which is estimated to be 50 percent Gosney, 25 percent Rock Outcrop and 20 percent Deskamp soils, and predominantly Capability Class 7 and higher.

The Land Capability Class of these soils by soil series is shown in Table 1.

3. METHODS

- A. LEVEL ORDER OF SURVEY USED IN THIS FIELD SURVEY: This current soil investigation is a high intensity (Order-1) soil survey. It is used as a basis for making the soil classification and soil map for this parcel. **Forty-one soil test pits and observations of surface rock were made on** the parcel to revise

¹ This property was previously mapped at 1:20,000 scale, which is generally too small a scale for detailed land use planning and decision making.

the soil map. Soil test pits and observations of rock outcrops average better than one observation/boring per acre.

B. DATES OF FIELD INVESTIGATIONS: Field work was done on January 26 and 27, 2022.

C. FIELD METHODS: Methods used for observation included soil borings from soil pits to classify soils. Slope gradients were measured with digital elevation model and compared to observations on the ground with a clinometer. Soil colors were determined moist, using standard Munsell colors. Borings locations were recorded with a GPS receiver and compiled into a soil map following processing with GIS software. Percentages of revised soil map unit areas were calculated from the revised map using GIS software.

D. LIMITATIONS ENCOUNTERED: None.

4. **RESULTS:**

A. GEOLOGY OVERVIEW: The geology of the survey area consists of volcanic ash over hard basalt. Soils formed primarily in volcanic ash.

B. LANDFORMS AND TOPOGRAPHY: Gently rolling lava plains with low pressure ridge and collapsed lava tube features. There are some short very steep slopes, primarily on the north part of the tract. Small areas were altered by cutting and filling.

C. SITE HYDROLOGY: Soils observed are somewhat excessively drained. There are irrigation canals and smaller ditches on the parcel.

D. GEOMORPHIC AND VEGETATION CORRELATIONS, supporting the interpretation of land capability classes of soils that differ from those in the official soil survey information. The site has western Juniper, sagebrush, rabbit brush and bunch grasses. Ecological Group Juniper shrubby pumice flat and Juniper shrubby lava blisters.

E. DESCRIPTION OF REVISED SOIL MAP UNITS

Revised Soil Map Units

Soils on this parcel are revised and reclassified based on high intensity soil mapping. The soils found here are remapped as primarily (over 50%) Gosney-Rock Outcrop Complex Capability Class 7 and 8 with smaller isolated areas of Deskamp ashy sandy loam Class 3 irrigated and 6 non-irrigated. The canals are not rated for capability class, but for purposes of this assessment they are included with the acreage that is not suited to agriculture production.

GR Gosney-Rock Outcrop Complex

Capability Class: 7 and 8 mapped as a complex

These soils are mapped together in a complex because both components are Capability Class 7 or greater, and it was not practical to map them separately. These soils are estimated to be about 70 percent Rock Outcrop and 15 percent Gosney and 15 percent Bakeoven. They have lower productivity than NRCS map unit 38B because they do not contain a mappable area of Deskamp soils that were mapped separately. The productivity reported in Table 2 for Gosney-Rock Outcrop are far less than the 58C map unit to account for more shallow and very shallow soils in the revised GR map unit in the revised map unit.

Gosney loamy sand and stony loamy sand (0 to 15 percent slopes)

Description: Gosney series consists of shallow (10 to 20 inches) to hard basalt bedrock, somewhat excessively drained soils on lava plains. These soils have rapid permeability. They formed in volcanic ash over hard basalt bedrock.

Slopes are 0 to 15 percent. The mean annual precipitation is less than 12 inches, and the mean annual temperature is about 45 degrees F.

Capability Class: 7

Soil Variability: Depth to bedrock is from surface exposures of bedrock to 20 inches depth. There may be small inclusions of soils like Deskamp that are moderately deep (>20 inches to 40 inches). Many of the pedons are very stony. This unit includes very shallow soils <10 inches.

Bakeoven gravelly loamy sand 0-25 percent slopes

Description: this component of the complex is less than 10 inches to basalt.

Capability Class: 7

Soil Variability: Depth to bedrock is from 1 to 10 inches. These soils are very shallow and of similar parent material to Gosney. These soils have lower available water holding capacity and an estimated 40 percent lower productivity.

Rock Outcrop (0 to 25 percent slopes)

Description: This part of the map unit is areas where bedrock is at the surface.

Capability Class: 8

Soil Variability: In places, rocks are right at the surface and often times bedrock is standing several feet above the surface of the adjacent soils. In some areas (borings 39-41) there is rimrock, large boulders and other surface stone where suspected lava tubes collapsed.

Dk Deskamp loamy sand

Description: This map unit is mainly moderately deep, somewhat excessively drained soils with rapid permeability on lava plains. These soils formed in ash and have hard basalt at 20 to 40 inches. Slopes are 1 to 15 percent. The A and AB horizon are loamy sand. The 2B is loamy sand and gravelly loamy sand. The NRCS soil survey mapped Deskamp and Gosney in a complex described as 50% Deskamp and 35% Gosney. In this Dk unit I delineated the Deskamp component of the former complex and mapped it as a consociation based on more detailed soil sampling than the NRCS soil survey. This soil covers approximately 11 acres of the parcel and is broken up into several small delineations two of which are less than an acre. These small and isolated areas are impractical to farm. The largest delineation is 8.5 acres and has at least three areas of rock outcrop that were delineated within.

Capability Class: 3-irrigated and 6 non-irrigated

Soil Variability: There are small inclusions of rock outcrop and of deep to very deep soils that are sandy family and sandy skeletal family. Any rock outcrop I observed in the field was delineated separately from the Deskamp unit, but not all rock outcrops could be resolved at the sampling intensity, given the brushy conditions.

ID Irrigation Ditch

Description: These ditches are non-soil areas that consist of water and steep banks. When canals are dry they are hard rock bottom.

Capability Class: Not Rated

Table 1. PREVIOUS AND REVISED SOIL MAPPING UNITS WITH LAND CAPABILITY CLASS.

Previous Map Symbol	Revised Map Symbol	Soil Series Name	Capability Class	Previous Map*		Revised Map	
				Ac	-%-	Ac	-%-
36A	Dk	Deskamp loamy sand 0 to 3 percent slopes	3 irrigated 6 non-irrigated	0	0	25	26
58C	--	Gosney-Rock outcrop- Deskamp complex, 0 to 15 percent slopes	6, 7 and 8	94	100	0	0
--	GR	Gosney-Bakeoven- Rock Outcrop Complex	7 and 8	0	0	67	71
	ID	Irrigation Ditch	not rated	0	0	2	2.3
Total				94	100	94	100

*Soils that were previously mapped as components of a complex that are mapped as consociations in revised map.

Soil fertility

Important soil properties affecting the soil fertility and productivity of the soils are very limiting to crop production on this parcel. The soils here are low fertility, being ashy sandy loams with a low cation exchange capacity (CEC) of 7.5 meq/100 gm and organic matter is very low for Gosney 0.75% and low for Deskamps 1.5%. These soils do not have a large capacity to store soil nutrients especially cations, and nitrogen fertilizers readily leach in sandy soils. The soil depth is further limiting because it limits the overall volume of soil available for plant roots and limits the size the overall soil nutrient pool. Additionally, the soil available water holding capacity is very low for Gosney less than 1.8 inches for the whole soil profile, and for the very shallow soils it is half this much. The Deskamps soils have only about 2 to 4 inches AWHC for the entire profile. The combination of low fertility and low AWHC translate into low productivity for crops. NRCS does not provide any productivity data for non-irrigated crops on these soils. This site does not however have water rights for irrigation so the productivity is lower.

Suitability for grazing

This 94-acre tract is not suited to grazing on a commercial scale. The soils here have major management limitations including ashy and sandy surface texture. The majority of the area has soils that are very shallow to shallow with many rock outcrops and rock fragments in the surface. Wind erosion is a potential hazard is moderately high when applying range improvement practices. Because the soil is influenced by pumice ash, reestablishment of the native vegetation is very slow if the vegetation is removed or deteriorated. Pond development is limited by the soil depth. The restricted soil depth limits the choice of species for range seeding to drought-tolerant varieties. Further, range seeding with ground equipment is limited by the rock fragments on the surface. The areas of very shallow soils and rock outcrop limit the areas suitable for grazing and restrict livestock accessibility.

Total Range Production from NRCS Websoil survey and estimate based soil percentages in revised soil map units

Soil Map Unit	Total annual range production pounds per acre		
	Unfavorable year	Normal year	Favorable year
Dk	700	900	1100
GR¹	100	145	190

¹ Estimated based on weighted average of soils

Total range production is the amount of vegetation that can be expected to grow annually in a well-managed area that is supporting the potential natural plant community. It includes all vegetation, whether or not it is palatable to grazing animals. It includes the current year's growth of leaves, twigs, and fruits of woody plants. It does not include the increase in stem diameter of trees and shrubs. It is expressed in pounds per acre of air-dry vegetation. In a normal year, growing conditions are about

average. Yields are adjusted to a common percent of air-dry moisture content. The productivity provided for Dk map unit is from Websoil survey for the Deskamp soil and that provided for the GR map unit is based on 15 percent Bakeoven, very shallow soils, 15 percent Gosney, shallow and 70 percent rock outcrop.

Based on the revised Order-1 map the annual productivity is about 16 tons annual range production for the entire property. The animal use months (AUMs) for this property is 8.8 based on the revised soil map and a monthly value of 910 pounds forage per 1 AUM equivalent to pounds per cow calf pair. This model assumes the cow's take to be 25% of annual productivity in order to maintain site productivity and soil health (NRCS 2009). This limits the grazing to one cow calf pair for roughly 8 to 9 months annually. This is not an economical model for livestock production.

Inappropriate grazing causes a reduction in desirable grasses and where present cheatgrass will increase and granite prickly gilia increases and grasses decline. Cheatgrass becomes dominate along with grey rabbitbrush. Ground fire potential increases with increasing cheatgrass. Cutting of juniper leads to an increase in grey rabbitbrush and an increase in cheatgrass with or without grazing. Idaho fescue is eliminated from areas where trees are removed due to harsh microclimate and cheatgrass replaces it. The addition of inappropriate grazing would lead to a decline in the other deep-rooted perennial bunchgrasses and an increase in annuals and granite prickly gilia.

Climatic features

The low annual precipitation, high summer temperature and evapotranspiration rates, and shortened frost-free growing season make this a difficult climate for production of most crops. Irrigation is needed on area farms to meet crop needs given only 8 to 10 inches precipitation that falls mainly between November and June, with a long summer drought. The soil temperature regime is mesic. The average annual air temperature is 46 degrees F with extreme temperatures ranging from -26 to 104 degrees F. The frost-free period is 50 to 90 days. The optimum period for plant growth is from late March through June. Freeze-free period (average) 140 days. (NRCS 2020) These harsh climatic conditions coupled with very low soil available water holding capacity limits the potential of irrigated crop production to the Deskamps soils.

Technological and energy inputs required

The very shallow and shallow soils and abundant rock outcrops limit practical agricultural crop production on all but about 12 of the 25 acres of Deskamps soils. The lack of irrigation water limits crop production almost completely here. The Deskamps soils are in many small delineations that are separated by rocky and shallow soils and rock outcrops and irrigation ditches. The landscape is so cut up it is impractical to farm.

Locational test

The nonagricultural land Gosney-Bakeoven- Rock outcrop is not interspersed with land that is agriculturally productive, because the delineations of Deskamps that are surrounded by Gosney and Rock outcrop are in small isolated pockets and are severely restricted by short steep slopes, shallow rocky soils irrigation ditches and property lines, and lack of irrigation. The Deskamps soils cannot be used in farming in conjunction with the Gosney-Bakeoven-Rock outcrop and irrigation ditch units.

SUMMARY AND CONCLUSIONS:

Soils were remapped in a high intensity (Order-1) soil survey on a 94 acre tract that is currently zoned EFU. Previously this area was mapped as Gosney-Rock outcrop-Deskamp Complexes, one that included soils that ranged from Land Capability Class 3 irrigated to Class 8.

In the revised Order-1 soil mapping, the Deskamp soils (Class 3 irrigated and 6 nonirrigated) are mapped as a consociation and only make up 25 percent of the parcel. The shallow Gosney soils along with very shallow Bakeoven soils and rock outcrops are mapped as the Gosney-Bakeoven-Rock Outcrop Complex because all three components of the complex are Capability Class 7 or 8. This complex makes up 73 percent of the parcel. The irrigation ditches make of 2 percent of the area. Based upon the findings of this Order-1 soil survey, the subject parcel is predominantly Class 7 and 8 soils and therefore is not “agricultural land” within the meaning of OAR 660-033-0020(1)(a)(A).

The soil mapping and on-site studies also show the subject property is not agricultural land within the meaning of OAR 660-033-0020(1)(b) as it is not adjacent to or intermingled with land in capability classes 1-6 within a farm unit. There is no evidence that the Capability Class 6 non- irrigated soils on the subject property were farmed or utilized in conjunction with any farming operation in the past.

The Deskamp soils exist in pockets interspersed with short steep slopes, rocky, shallow soils creating severe limitations for any agricultural use either alone or in conjunction with other lands.

6. REFERENCES:

Soil Survey of Deschutes County Area\NRCS Websoilsurvey.

NRCS. 2009. Technical note Technical Note Range No. 3 Estimating initial stocking rates.

NRCS. 2020. Ecological site R010XA022OR Juniper Lava Blisters 8-10 PZ. Accessed 12-1-2020.

7. MAPS AND ATTACHMENTS:

- a. Figure 1. Vicinity Map (1:100,000 scale).
- b. Figure 2. Previous Soil Map (NRCS Websoilsurvey)
- c. Figure 3. Topographic Map and Site Condition Map (contour lines from Digital elevation model)
- d. Figure 4. AssessorsMap
- e. Figure 5A and 5B. Revised Soil Map of the Project Site
- f. Figure 6. Location of Soil Observations
- g. Soil Profile Notes and Site Observation Notes Attachment 1.
- h. GPS coordinates Attachment 2.

Figure 1. Vicinity Map (1:125,000 scale, parcel at blue balloon)

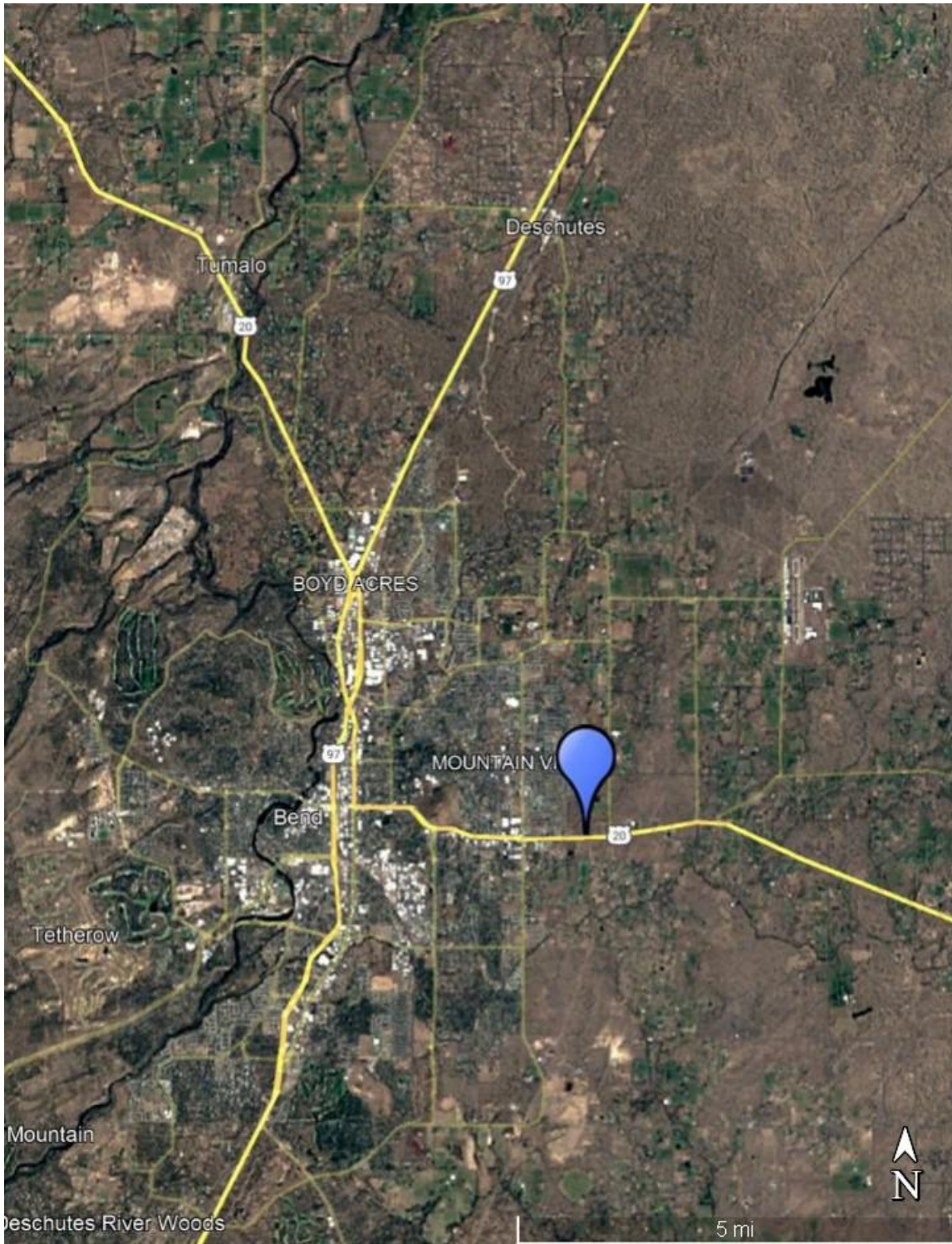


Figure 2. NRCS Soil Map Data Layer on aerial image.



NRCS Soil Map Legend

SYMBOL	Name	Capability Class
58C	Gosney, Rock Outcrop, Deskamp Complex	6, 7 and 8

Figure 3. Topographic map and soil condition map of the study area (Contour interval 10 ft).

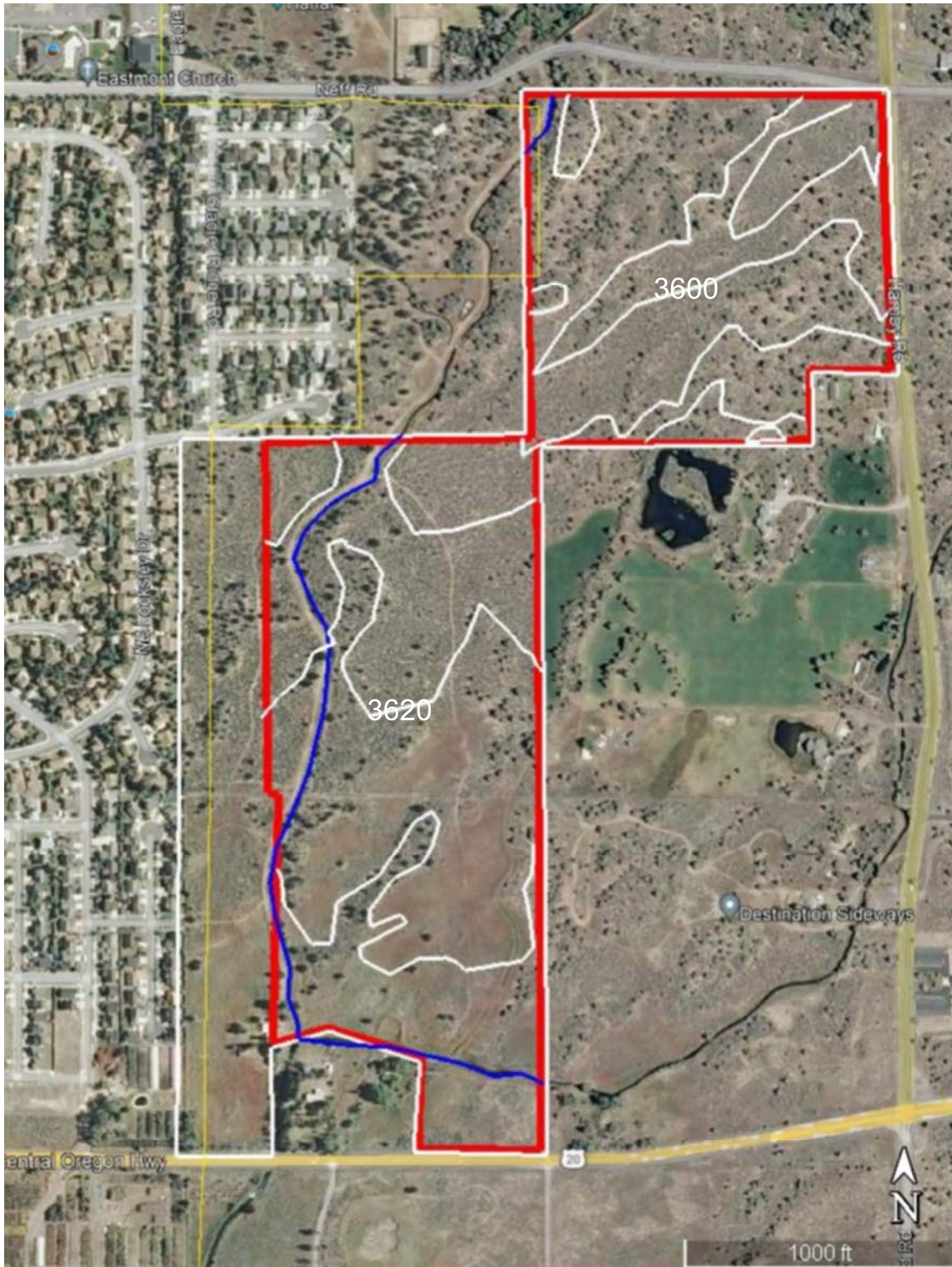


Figure 4. Assessor's map Lot 1000.

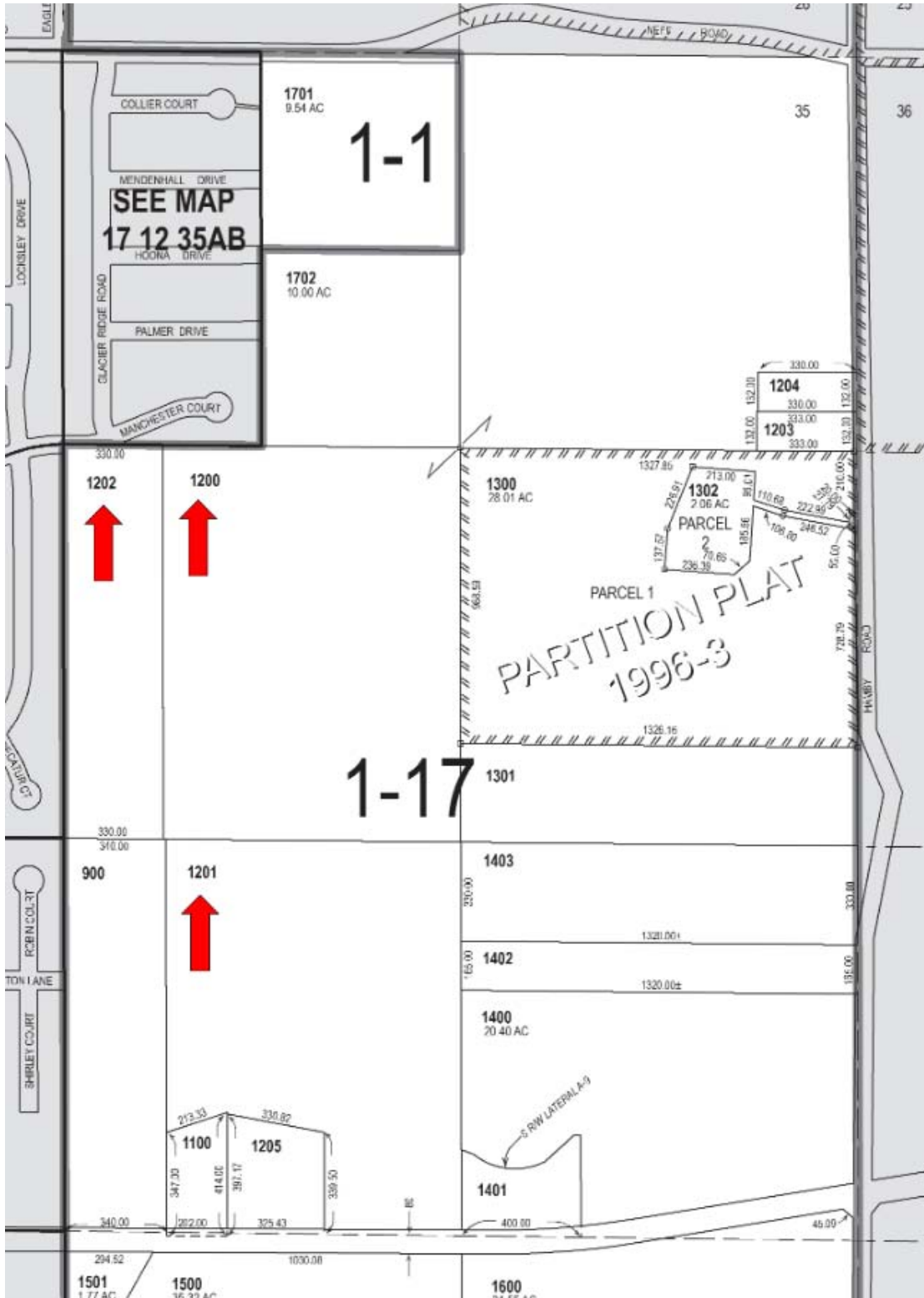


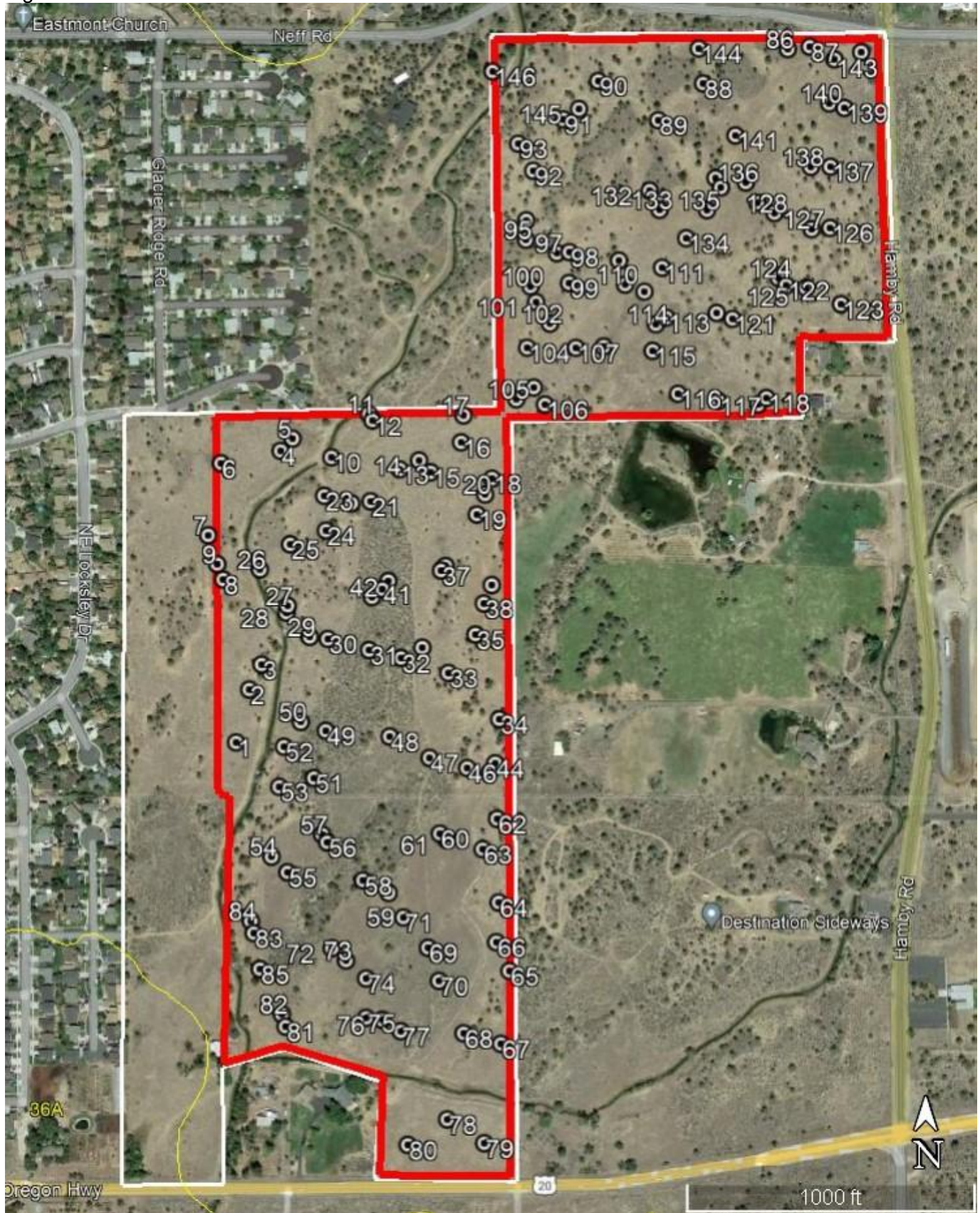
Figure 5A. Revised soil map and soil boring locations.



Figure 5B. Revised soil map.



Figure 6. Location of soil observations



Soil Sample	Soil Name	Soil Horizon	Upper Depth (IN)	Lower Depth (IN)	Color	Coarse Fragments	Texture	Notes
1	Deskamp	A	0	8			loamy sand	
		Bw1	8	18	10Yr4/3	CB	loamy sand	
		Bw2	18	24	10YR4/4	VCB	loamy sand	
		2R	24		10YR4/4	basalt		
2	Gosney	A	0	9	10YR3/3, 4	stonny	sandy loam	
		Bw	9	16	10Yr4/3	VST	loam	
		2R	16			basalt		
3	Rock outcrop							basalt
4	Deskamp	A	0	9	10YR3/3		loamy sand	
		A2	9	15	10YR4/3	CB	loamy sand	
		Bw1	15	24	10YR4/4	VCB	loamy sand	
5	Rock outcrop							basalt
6	Deskamp	A	0	9	10YR3/2		loamy sand	
		A2	9	20	10YR3/3		loamy sand	
		Bw1	20	24	10YR4/4		loamy sand	
7	Rock outcrop							basalt
8	Rock outcrop							basalt
9	Gosney	A	0	9	10YR3/3	CB	Loamy sand	
		Bw	9	18	10Yr4/3	VCB	loamy sand	
		2R	18			basalt		
10	Rock outcrop							basalt
11	Rock outcrop							basalt
12	Deskamp	A	0	9	10YR3/2	ST	loamy sand	
		Bw	9	24	10YR4/3	ST	loamy sand	
		2R	24				basalt	
13	Rock outcrop							basalt
14	Gosney	A	0	10	10YR3/3		Loamy sand	
		2Bw	10	15	10Yr4/3	VCB	loamy sand	
		2R	15			basalt		
15	Rock outcrop							basalt
16	Rock outcrop							basalt

Soil Sample	Soil Name	Soil Horizon	Upper Depth (IN)	Lower Depth (IN)	Color	Coarse Fragments	Texture	Notes
17	Rock outcrop					basalt		
18	Bakeoven	A 2R	0 9	9		stony basalt	loamy sand	
19	Rock outcrop					basalt		
20	Deskamp	A Bw 2R	0 7 29	7 29	10YR3/3 10YR4/3		loamy sand loamy sand	
21	Deskamp	A Bw R	0 10 24	10 24	10YR3/3 10YR4/3	VCB basalt	loamy sand loamy sand	
22	Rock outcrop					basalt		
23	Deskamp	A Bw1 Bw2 2R	0 9 24 35	9 24 35	10YR3/3 10YR4/3 10YR4/4		loamy sand loamy sand loamy sand basalt	
24	Rock outcrop					basalt		
25	Bakeoven	A 2R	0 8	8	10YR3/3	CB basalt	Loamy sand	
26	Rock outcrop					basalt		
27	Rock outcrop					basalt		
28	Deskamp	A 2Bw 2R	0 10 28	10 28	10YR3/3 10YR4/3	VST basalt	loamy sand loamy sand loamy sand	
29	Rock outcrop					basalt		
30	Deskamp deep	A Bw1 Bw2	0 9 24	9 24 44	10YR3/3 10YR4/3 10YR4/3		loamy sand loamy sand loamy sand	
31	Rock outcrop					basalt		
32	Bakeoven	A	0	4				

Soil Sample	Soil Name	Soil Horizon	Upper Depth (IN)	Lower Depth (IN)	Color	Coarse Fragments	Texture	Notes
			4			basalt		
33	Gosney	A	0	10	10YR3/3	ST	loamy sand	
		R	10			basalt		
34	Bakeoven	A	0	3	10YR3/3		loamy sand	
		2R	3			basalt		
35	Rock outcrop					basalt		
36	Very Deep Loam	A	0	10	10YR3/2		loamy sand	
		Bw1	10	18	10YR4/3		loamy sand	
		Bw2	18	26	10YR4/3	CB	loamy sand	
		C	26	60	10YR4/4	CB	loamy sand	
37	Rock outcrop					basalt		
38	Deep Loamy Sai	A	0	10	10YR3/2		loamy sand	
		Bw1	10	18	10YR4/3		loamy sand	
		Bw2	18	26	10YR4/3	CB	loamy sand	
		C	26	48	10YR4/4	CB	loamy sand	
		2R	48			basalt		
39	Rock outcrop					basalt		
40	Rock outcrop					basalt		
41	Deep Loamy Sand		0	41	10YR3/2		loamy sand	
42	Rock outcrop					basalt		
43	Deskamp deep	A1	0	10	10YR3/3		loamy sand	
		Bw	10	23	10YR4/3		loamy sand	
		R	23			basalt		
44	Rock outcrop					basalt		
45	Deskamp	A	0	10	10YR4/3		loamy sand	
		Bw1	10	31	10YR4/3	CB	loamy sand	
		2R	31			R	loamy sand	
46	Rock outcrop					basalt		
47	Gosney	A	0	12	10YR3/3		Loamy sand	
		2R	12				basalt	

Soil Sample	Soil Name	Soil Horizon	Upper Depth (IN)	Lower Depth (IN)	Color	Coarse Fragments	Texture	Notes
48	Rock outcrop					basalt		
49	Bakeoven	A 2R	0 4	4	10YR3/3	ST basalt	Loamy sand	
50	Rock outcrop					basalt		
51	Rock outcrop					basalt		
52	Deskamp	A Bw 2R	0 10 38	10 38	10YR3/3 10YR4/3		loamy sand loamy sand loamy sand	
53	Bakeoven	A 2R	0 9	9	10YR3/3	basalt	Loamy sand	
54	Deskamp	A Bw1 2Bw2 2R	0 10 16 29	10 16 29	10YR3/3 10YR4/3 10YR4/3	VCB	loamy sand loamy sand basalt	
55	Rock outcrop					basalt		
56	Deskamp	A Bw 2R	0 10 40	10 40	10YR3/3 10YR4/3		loamy sand loamy sand basalt	
57	Rock outcrop						basalt	
58	Rock outcrop						basalt	
59	Deskamp deep	A1 Bw 2R	0 10 46	10 46	10YR3/3 10YR4/3	basalt	loamy sand loamy sand	
60	Deskamp deep	A1 Bw1 2Bw2	0 8 24	8 24 30	10YR3/3 10YR4/3	VCB	loamy sand loamy sand loamy sand	
61	Rock outcrop					basalt		
62	Rock outcrop					basalt		
63	Bakeoven	A 2R	0 6	6		basalt	loamy sand	

Soil Sample	Soil Name	Soil Horizon	Upper Depth (IN)	Lower Depth (IN)	Color	Coarse Fragments	Texture	Notes
64	Bakeoven	A	0	3			loamy sand	
		2R	3			basalt		
65	Rock outcrop					basalt		
66	Deskamp	A	0	10	10YR3/3		loamy sand	
		Bw	10	29	10YR4/3		loamy sand	
		2R	29					
67	Gosney	A	0	10	10YR3/3		loamy sand	
		2Bw	10	19	10YR4/3	VCB	loamy sand	
		2R	19			basalt		
68	Gosney	A	0	9	10YR3/3		loamy sand	
		2Bw	9	18	10YR4/3	VCB	loamy sand	
		2R	18			basalt		
69	Rock outcrop					basalt		
70	Bakeoven	A	0	3			loamy sand	
		2R	3			basalt		
71	Deskamp	A	0	10	10YR3/3		loamy sand	
		2Bw	10	22	10YR4/3	VCB	loamy sand	
		2R	22					
72	Rock outcrop					basalt		
73	Deskamp	A	0	10	10YR3/3		loamy sand	
		2Bw	10	29	10YR4/3	VST	loamy sand	
		2R	29			basalt		
74	Rock outcrop					basalt		
75	Rock outcrop					basalt		
76	Deskamp deep	A	0	10	10YR3/3		loamy sand	
		2Bw	10	41	10YR4/3	VCB	loamy sand	
77	Rock outcrop					basalt		
78	Rock outcrop					basalt		
79	Bakeoven	A	0	3	10YR3/3		loamy sand	
		2R	3			basalt		

Soil Sample	Soil Name	Soil Horizon	Upper Depth (IN)	Lower Depth (IN)	Color	Coarse Fragments	Texture	Notes
80	Gosney	A	0	8	10YR3/3		loamy sand	
		Bw	8	19	10YR4/3	VCB	loamy sand	
		R	19			basalt		
81	Gosney	A	0	9	10YR3/3		loamy sand	
		2Bw	9	12	10YR4/3	VGR	loamy sand	
		2R	12			basalt		
82	Rock outcrop					basalt		
83	Deep soil inclusi	A	0	9	10YR3/3		loamy sand	
		Bw	9	40	10YR4/3		loamy sand	
		C	40	56	10YR4/4		loamy sand	
		2R	56			basalt		
84	Rock outcrop					basalt		
85	Rock outcrop					basalt		
86	Rock outcrop					basalt		
87	Deskamp	A	0	10	10YR3/3		loamy fine sand	
		Bw	10	18	10YR4/3		loamy sand	
		2C	18	30	10YR 4/4	VCB	loamy sand	
88	Rock outcrop					basalt		
89	Deep soil inclusi	A	0	10	10YR3/3		loamy sand	
		Bw1	10	30	10YR4/3		loamy sand	
		Bw2	30	48	10YR4/4		loamy sand	
		2C	48	60	10YR4/4	VGR	loamy sand	
90	Rock outcrop					basalt		
91	Deskamp	A	0	9	10YR3/3		loamy sand	
		Bw	9	36	10YR4/4	VST	loamy sand	
		R	36			basalt		
92	Deskamp	A	0	10	10YR3/3		loamy sand	
		2Bw	10	26	10YR4/3	VST	loamy sand	
		2R	26			basalt		
93	Rock outcrop					basalt		
94	No Data							

Soil Sample	Soil Name	Soil Horizon	Upper Depth (IN)	Lower Depth (IN)	Color	Coarse Fragments	Texture	Notes
95	Rock outcrop					basalt		
96	Deskamp	A	0	10	10YR3/3		loamy sand	
		2Bw	10	36	10YR4/3	CB	loamy sand	
		2R	36			basalt		
97	Rock outcrop					basalt		
98	Deskamp	A	0	10	10YR3/3		loamy sand	
		Bw	10	36	10YR4/3	ST	loamy sand	
		2R	36			basalt		
99	Rock outcrop					basalt		
100	Rock outcrop					basalt		
101	Rock outcrop					basalt		
102	Rock outcrop					basalt		
103	Rock outcrop					basalt		
104	Deskamp	A	0	18	10YR3/3		loamy sand	
		Bw	18	36	10YR4/3	GR	loamy sand	
		2R	36			basalt		
105	Deskamp	A	0	10	10YR3/3		loamy sand	
		Bw	10	34	10YR4/3	ST	loamy sand	
		2R	34			basalt		
106	Rock outcrop					basalt		
107	Deskamp	A	0	10	10YR3/3		loamy sand	
		Bw	10	30	10YR4/3		loamy sand	
		2BC	30	55	10YR4/4	VGR	loamy sand	
108	Rock outcrop					basalt		
109	Rock outcrop					basalt		
110	Deskamp	A	0	11	10YR3/3		loamy sand	
		Bw	11	19	10YR4/3	CB	loamy sand	
		2BC	19	23	10YR4/3	VCB	loamy sand	
		2R	23			basalt		

Soil Sample Name	Soil Horizon	Upper Depth (IN)	Lower Depth (IN)	Color	Coarse Fragments	Texture	Notes
111 Gosney	A1	0	10	10YR3/3		loamy sand	
	AB	10	18	10YR4/3		loamy sand	
	R	18			basalt		
112 Rock outcrop					basalt		
113 Rock outcrop					basalt		
114 Gosney	A	0	10	10YR4/4		loamy sand	
	Bw	10	15	10YR4/3		loamy sand	
	R	15			basalt		
115 Rock outcrop					basalt	on flat	
116 Rock outcrop					basalt	18 ft ledge	
117 Rock outcrop					basalt	humpy flat	
118 Rock outcrop					basalt	some flat, some piles	
119 Deskamp	A	0	10	10YR3/3		loamy sand	
	2Bw	10	36	10YR4/3	ST	loamy sand	
	2R	36			basalt		
120 Rock outcrop					basalt	hump	
121 Deskamp deep inclusion	A	0	10	10YR3/3		loamy sand	
	2Bw	10	54	10YR4/3		loamy sand	
	2R	54			basalt		
122 Rock outcrop					basalt	low transitional area	
123 Rock outcrop							
124 Deskamp deep inclusion	A	0	10	10YR3/3		loamy sand	
	Bw	10	48	10YR4/3		loamy sand	
125 Rock outcrop					basalt		
126 Rock outcrop					basalt		
127 Deskamp	A	0	10	10YR3/3		loamy sand	
	2Bw	10	26	10YR4/3	CB	loamy sand	
	2R	26			basalt		

Sample	Soil Name	Soil Horizon	Upper Depth (IN)	Lower Depth (IN)	Color	Coarse Fragments	Texture	Notes
128	Rock outcrop					basalt		low ridge
129	Rock outcrop					basalt		convex transition
130	Rock outcrop					basalt		
131	Gosney	A	0	10	10YR3/3		loamy sand	
		2Bw	10	17	10YR4/3	VST	loamy sand	
		2R	17			basalt		
132	Rock outcrop					basalt		15 to 20 ft ledge
133	Deskamp	A	0	10	10YR3/3		loamy sand	swale
		2Bw	10	30	10YR4/3	VST	loamy sand	
		2R	30			basalt		
134	Deskamp	A	0	10	10YR3/3		loamy sand	gentle transition to swale
		Bw1	10	19	10YR4/3		loamy sand	
		2BC	19	37		ST	loamy sand	
		R	37			basalt		
135	Rock outcrop					basalt		
136	Rock outcrop					basalt		rabbit brush and cheat grass
137	Rock outcrop					basalt		
138	Deskamp	A	0	10	10YR3/3		loamy sand	
		Bw	10	32	10YR4/3	VSCB	loamy sand	
		2R	32			basalt		
139	Rock outcrop					basalt		
140	Deskamp	A	0	10	10YR3/3		loamy sand	
		Bw	10	18	10YR4/3		loamy sand	
		2R	18	29	10YR4/3	ST	loamy sand	
141	Deskamp	A	0	10	10YR3/3		loamy sand	flat swale
		Bw1	10	24	10YR4/3		loamy sand	
		Bw2	24	36	10YR4/3	GR	loamy sand	
		R	36			basalt		
142	Rock outcrop							hump
143	Deskamp	A	0	10	10YR3/3		loamy sand	
		Bw1	10	24	10YR4/3		loamy sand	

Soil Sample	Soil Name	Soil Horizon	Upper Depth (IN)	Lower Depth (IN)	Color	Coarse Fragments	Texture	Notes
		Bw2	24	29	10YR4/3	CB	loamy sand	
		R	29			basalt		
144	Deskamp	A	0	10	10YR3/3		loamy sand	small swale, used probe to go 32 in
145	Rock outcrop						basalt	Bakeoven to west of point
146	Gosney	A	0	9	10YR3/3	ST	loamy sand	stony surface
			9	18	10YR4/3	ST	loamy sand	
			18			basalt		

Point	Latitude	Longitude
1	44.059063	-121.252182
2	44.059562	-121.252009
3	44.059798	-121.251846
4	44.06182	-121.251587
5	44.061935	-121.251432
6	44.061702	-121.252376
7	44.06102	-121.252544
8	44.060602	-121.252351
9	44.060747	-121.252426
10	44.061758	-121.250922
11	44.062167	-121.250424
12	44.062108	-121.250376
13	44.061645	-121.250017
14	44.06173	-121.249761
15	44.061618	-121.249609
16	44.061902	-121.249204
17	44.062157	-121.249172
18	44.061558	-121.248801
19	44.061217	-121.249004
20	44.061408	-121.248894
21	44.061342	-121.250402
22	44.061323	-121.250659
23	44.061394	-121.251017
24	44.061065	-121.250997
25	44.060935	-121.251469
26	44.060697	-121.251866
27	44.060353	-121.251502
28	44.060287	-121.251517
29	44.06006	-121.251212
30	44.06004	-121.250972
31	44.059935	-121.250429
32	44.05986	-121.250009
33	44.059719	-121.249391
34	44.059283	-121.248724
35	44.060082	-121.249034
36	44.06055	-121.248811
37	44.060687	-121.249481
38	44.060375	-121.248918
39	44.06073	-121.249422
40	44.060588	-121.250171
41	44.06051	-121.250252
42	44.060435	-121.250387
43	44.059958	-121.249732
44	44.058867	-121.248777
45	44.058775	-121.248854
46	44.058822	-121.249147

47	44.058917	-121.249639
48	44.059118	-121.250161
49	44.059173	-121.251001
50	44.059257	-121.251331
51	44.058727	-121.251161
52	44.059023	-121.251554
53	44.058645	-121.251619
54	44.057985	-121.251719
55	44.057837	-121.251509
56	44.05812	-121.250986
57	44.058193	-121.251051
58	44.057763	-121.250521
59	44.057643	-121.250179
60	44.058203	-121.249507
61	44.058147	-121.249422
62	44.058342	-121.248754
63	44.058057	-121.248946
64	44.057555	-121.248737
65	44.05691	-121.248596
66	44.05718	-121.248767
67	44.056223	-121.248711
68	44.056323	-121.249201
69	44.057127	-121.249664
70	44.056815	-121.249522
71	44.057412	-121.249986
72	44.057123	-121.250929
73	44.057007	-121.250742
74	44.056838	-121.250479
75	44.05647	-121.250482
76	44.05645	-121.250269
77	44.056343	-121.250027
78	44.055512	-121.249417
79	44.055288	-121.248932
80	44.055273	-121.249936
81	44.056388	-121.251541
82	44.056505	-121.251591
83	44.057265	-121.251954
84	44.057378	-121.251992
85	44.05693	-121.21879
86	44.065638	-121.244866
87	44.065644	-121.244571
88	44.065305	-121.246001
89	44.064957	-121.246592
90	44.065328	-121.247387
91	44.064965	-121.247851
92	44.064477	-121.248246
93	44.064733	-121.248446

94	44.0639	-121.248636
95	44.064569	-121.248409
96	44.064006	-121.247932
97	44.063697	-121.247932
98	44.063708	-121.247762
99	44.063413	-121.247772
100	44.063382	-121.248277
101	44.063233	-121.248207
102	44.063028	-121.248027
103	44.062422	-121.248241
104	44.0628	-121.248326
105	44.06231	-121.248472
106	44.06226	-121.248098
107	44.062798	-121.247684
108	44.06281	-121.247322
109	44.063628	-121.24711
110	44.063398	-121.247032
111	44.063558	-121.246544
112	44.06333	-121.246782
113	44.063082	-121.246497
114	44.06302	-121.246634
115	44.062768	-121.246679
116	44.06236	-121.246352
117	44.062292	-121.245826
118	44.06232	-121.245187
119	44.062258	-121.245299
120	44.063128	-121.245831
121	44.063072	-121.245619
122	44.063392	-121.244901
123	44.063212	-121.244184
124	44.06346	-121.245001
125	44.063367	-121.244642
126	44.063938	-121.244317
127	44.063925	-121.244562
128	44.064077	-121.245054
129	44.064178	-121.245274
130	44.064415	-121.245822
131	44.064325	-121.245752
132	44.06429	-121.246706
133	44.064112	-121.246564
134	44.06384	-121.246219
135	44.064108	-121.245939
136	44.064372	-121.245421
137	44.06452	-121.244307
138	44.064518	-121.244566
139	44.06508	-121.244119
140	44.065123	-121.244317

141	44.06482	-121.245556
142	44.065608	-121.243899
143	44.065543	-121.244247
144	44.065097	-121.246446
145	44.065063	-121.247642
146	44.065423	-121.248778



Oregon

Kate Brown, Governor

Department of Land Conservation and Development

DEPT OF

635 Capitol Street NE, Suite 150
Salem, Oregon 97301-2540

APR 4 2022

LAND CONSERVATION AND DEVELOPMENT

Phone: 503-373-0050

Fax: 503-378-5518

www.oregon.gov/LCD



Soils Assessment Submittal Form

Soils Professional Information

Soils professional*: Andy Gallagher

Certification number: 03114

Property Information

Person who requested soils assessment: Matt Wellner

Mailing address: 14787 SW Millikan Way, Beaverton, OR 97003

Email address: matt@crandallgroup.com

Telephone number: 503-970-5699

Property owner (if different): Te Amo Despacio, LLC / CTH Investments, LLC

Property address (if different): 62385 Hamby Road and 21480 Highway 20, Bend, OR 97701

County: Deschutes

Township: 17

Range: 12

Section: 35

Tax lot(s): 1200 and 1201

Parcel Acreage: 94

Acres Evaluated: 94

Comprehensive Plan designation: Agricultural

Zone: EFU-TRB

Proposed land use action: Change plan designation to Rural Residential Exception and zone to MUA-10

The soils professional must submit an electronic copy of the soils assessment together with this form to Hilary Foote, Farm and Forest Lands Specialist, at the above address. The person requesting the soils assessment or the property owner must submit a check for a non-refundable administrative fee of \$625 made out to the Department of Land Conservation and Development, to Hilary Foote, at the same address.

Soils assessments must be consistent with the Soils Assessment Report Requirements and will be checked for completeness and be subject to audits as described in OAR 660-033-0030(9). Some soils assessments will additionally be subject to review and field checks by a DLCD-contracted soils professional as described in OAR 660-033-0030(9). Property owners and soils professionals will be notified of any negative reviews or field checks. Soils assessments will not be released to local governments without submittal of a signed release form by the property owner and person who requested the soils assessment; however, when released, any negative reviews or field checks will accompany the soils assessments.

The department and the Land Conservation and Development Commission will not be held liable for non-performance or information that is contained in soils assessments, or for negative reviews, field checks or audits of soils assessments. For the protection of the department and commission, we ask that you read and sign the following authorization and disclaimer:

I hereby expressly give my consent, should I be notified by the department that the submitted soils assessment for my property is selected for a review and field check, to authorize timely

access to my property by a DLCD-contracted soils professional to perform a field check to corroborate the information provided in the submitted soils assessment. I understand that failure to authorize access to the property may result in a negative review.

I hereby waive my right to pursue a claim for relief or cause of action alleging injury from the content of soils assessments or from any negative reviews, field checks or audits conducted by the department and any and all soils professionals used by the department under OAR 660-033-0030(5) and (9). I hold these entities harmless and release them from liability for any injury or damage that may occur in conjunction with the submitted soils assessment.

In exchange for the department's review of this submittal under the soils assessment program, I expressly agree to forever waive and give up all claims, suits, actions, proceedings, losses, damages, liabilities, awards and costs of every kind and description, including any and all federal and state claims, reasonable attorney's fees, and expenses at trial (collectively "claims") which I have or may have a right to bring against any agency, department, the state, or their agents, officials or employees arising out of or related to my participation and performance in the soil assessment program, including but not limited to claims for mistake or negligence of the department, the state of Oregon, and their officers, employees and agents. I further agree that the provisions of this Liability Waiver and Release from Federal and State Claims shall be effective and binding upon my heirs, executors, administrators, successors, assigns, beneficiaries, or delegates and shall inure to the benefit of the department, the State of Oregon, and their officers, employees and agents.



Person who requested soils assessment

4/1/2022

Date

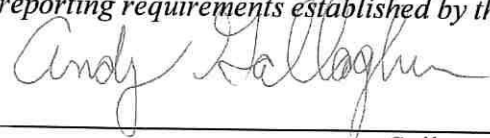


Property owner (if different)

4/1/2022

Date

In addition to agreeing to the above, I hereby certify that the attached soils assessment that I performed for the property identified on this form is soundly and scientifically based and meets the reporting requirements established by the department.



Soils professional

April, 2022

Date

* Must be from the posted list of qualified soils professionals at: <https://www.oregon.gov/lcd/FF/Pages/Soils-Assessment.aspx>



Oregon Department of Land Conservation and Development

Kate Brown, Governor

635 Capitol Street NE, Suite 150
Salem, Oregon 97301-2540

Phone: 503-373-0050
Fax: 503-378-5518
www.oregon.gov/LCD



Soils Assessment Release Form

Soils Professional Information

Soils professional*: Andy Gallagher Certification number: 03114

Date of submittal of soils assessment to department: _____

Property Information

Person who requested soils assessment: Matt Wellner

Mailing address: 14787 SW Millikan Way, Beaverton, OR 97007

Email address: matt@crandallgroup.com Telephone number: 503-970-5699

Property owner (if different): Te Amo Despacio, LLC / CTH Investments, LLC

Property address (if different): 62385 Hamby Road and 21480 Highway 20, Bend, OR 97701

County: Deschutes Township: 17 Range: 12 Section: 35

Tax lot(s): 1200 and 1201 Parcel Acreage: 94 Acres Evaluated: 94

Comprehensive Plan designation: Agricultural Zone: EFU-TRB

Proposed land use action: Change plan designation to Rural Residential Exception and zone to MUA-10

If you would like the soils assessment for the subject property to be released to a County planning department for its consideration in a land use proceeding, please sign this form and send it to Hilary Foote at the above address, or email to: hilary.foote@state.or.us.

I hereby request that the Department of Land Conservation and Development release the soils assessment submitted to the department on the above date regarding the above-described property to the Deschutes County Planning Department, as well as any department notifications of deficiencies. I understand that any and all previous soils assessments applying to this property produced under this rule, as well as any department notifications of deficiencies in such soils assessments, will also be released to the local government.

Person who requested soils assessment

4/1/22

Date

Property owner (if different)

4/1/22

Date



Date:	July 1, 2022
To:	Tia Lewis, Schwabe Williamson & Wyatt
From:	Joe Bessman, PE
Project Reference No.:	1709
Project Name:	Te Amo/CTH Investments Rezone



The purpose of this memorandum is to address the Transportation Planning Rule requirements associated with rezoning two parcels located on the eastern edge of Bend from Exclusive Farm Use (EFU-TRB) to Multiple-Use Agricultural (MUA-10). The property addresses include 62385 Hamby Road (1712350001200) and 21480 Highway 20 (1712350001201). Figure 1 illustrates the location of the parcels.

The parcels comprise a total of 93.37 acres of land that is near the City of Bend’s current Urban Growth Boundary (UGB). Pending approval of the House Bill 4079 lands (Parkside Place), the property will be opposite City lands along its southern border and is contiguous with UGB lands near NE Manchester Court. There are no specific development plans for the property at this time. The purpose of the rezone is to better reflect potential uses for the property given the unsuitability of the land for farming.

Figure 2 illustrates the current zoning of the surrounding properties for context. This shows that properties that are located immediately west of these parcels (within the same ownership) are already zoned *Urban Area Reserve*, and properties to the north are MUA-10, as are properties south of US 20 and west of Hamby Road.

In order to rezone the subject property to MUA-10 the application will need to show compliance with the Transportation Planning Rule section on Plan and Land Use Regulation Amendments (OAR 660-12-0060). OAR 660-012-0060(1) and (2) establish a two-step process for evaluating an amendment’s impacts on transportation facilities. The first step in assessing an amendment’s potential transportation impact is to compare the trip generation potential of the property assuming a “reasonable worst-case” development scenario under the existing and proposed zoning. If the trip generation potential increases under the proposed zoning, additional operational analysis may be required to assess whether the rezone will “significantly affect” the transportation system. Conversely, if the trip generation under the proposed zoning is equal to or less than that under the existing zoning, no additional operational analysis is necessary to conclude that the proposal does not “significantly affect” the transportation system. A comparison between trip generation associated with the existing and proposed zoning scenarios is presented below.

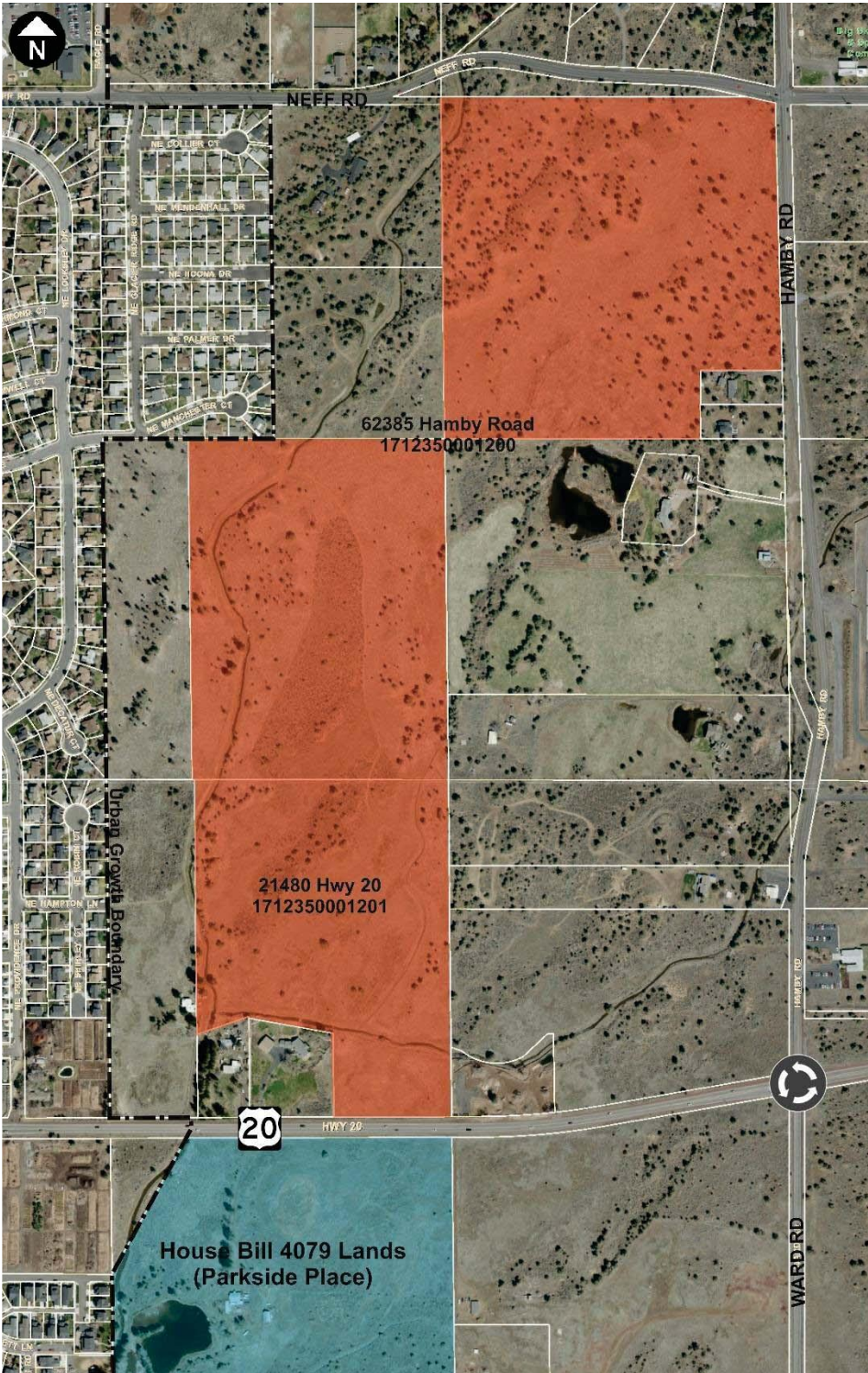


Figure 1. Location of Subject Parcels.

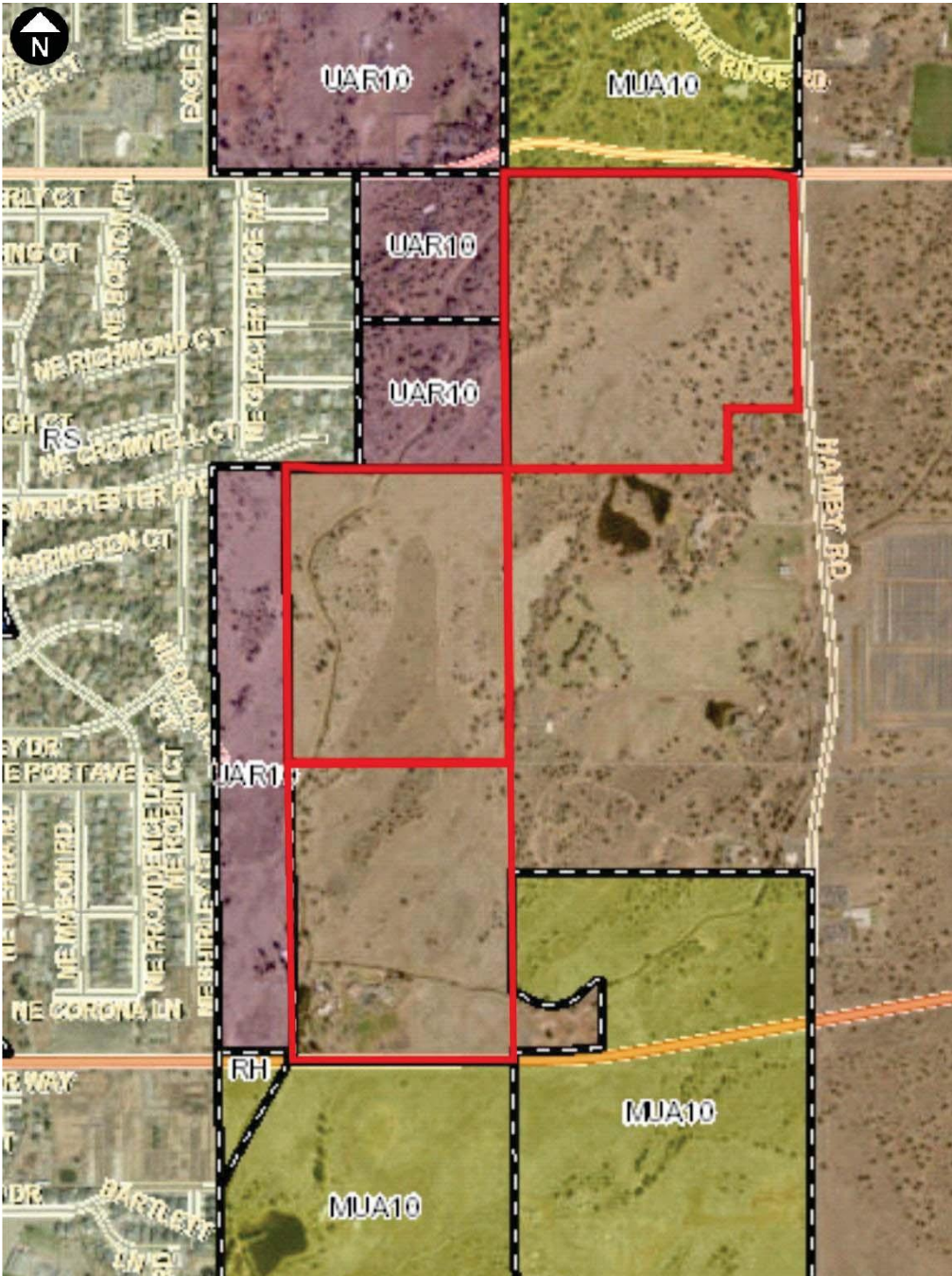


Figure 2. Surrounding zoning designations. Source: Deschutes County DIAL.

TRANSPORTATION PLANNING RULE ANALYSIS SCENARIOS

Existing EFU-TRB Zoning Scenario

Per Chapter 18.16 of the Deschutes County Code, the existing Exclusive Farm Use – Tumalo-Redmond-Bend (EFU-TRB) designation on subject property limits land uses to those associated with “preserving and maintaining agricultural lands.” There are several conditional uses associated with the EFU zoning but for the TPR analysis, only those uses permitted outright, as designated in Chapter 18.16.020 are typically considered, which includes the following:

- Farm uses and related buildings
- Operations for mineral exploration
- Fire service facilities providing rural fire protection services
- Geothermal exploration and production operations
- Utility facility service lines
- Propagation or harvesting of timber products

Of these uses a rural fire center is likely the most intense allowable use, particularly since the County discontinued allowance of marijuana production facilities (though hemp production remains permitted). Other allowable uses described as “Uses Permitted Subject to the Special Provisions and a Review Under DCC Chapter 18.124 where applicable” within the EFU zoning were also reviewed.

While these uses are not included by Deschutes County as outright allowable use, per findings from the Oregon Court of Appeals in the *Brentmar v. Jackson County*, 321 Or 481, 900 P2d 1030 (1995) decision, all of the uses within ORS 215.213(1) and 215.283(1) are outright allowable (not conditional) uses for Deschutes County. Effectively, within these decisions the Oregon Supreme determined that certain uses within an EFU zone were considered uses allowed as a “right” (those specifically outlined in ORS 215.213(1)(a) through (bb)) that are not subject to additional County restrictions as a conditional use. In *Lane County v. LCDC*, 325 Or 569, 942 P2d 278 (1997) the Supreme Court allowed LCDC to impose conditions on ORS 215.213(1) and (3) but reiterated that Counties may not. LCDC rules do not make any such uses conditional uses. This means that the following uses are allowed outright if LCDC’s conditions exist on the subject property, in addition to those identified by the County:

- Dog training classes (less than 10 dogs per class and 6 or fewer classes per day)
- Winery
- Cider Business
- Farm Brewery
- Farm Stand
- Church and cemeteries

The ITE manual does not have data specific to dog training classes. Review of other available online studies showed that trip generation for dog training classes were based on data for daycare facilities, as the per-student trip rate would be similar to the per-dog rate.¹

¹ Gibson Traffic Engineers’ *Stella & Floyd’s Traffic Impact Analysis*, December 2018.

Table 1. Outright Allowable EFU Trip Generation Comparison

Land Use	ITE Land Use Code/Surrogate	Weekday Daily Trips	Weekday PM Peak Hour Trip Rate
Winery, Farm Brewery or Cider Business <i>Rural Setting</i>	ITE 970 <i>Range: 1,500 to 7,000 SF</i> <i>Average: 3,000 SF</i>	45.96/KSF	7.31 PM Trips/KSF
Farm Stand	No Data	Est. 40 to 100 Trips	Est. 4-10 PM Trips
Church/ Cemetery	ITE 560 (<i>Average 32 KSF</i>) ITE 566 (<i>Average 59 Acres</i>)	7.60/KSF 6.02/Acre	0.49 PM Trips/KSF 0.46 PM Trips/Acre
Dog training classes	ITE 565 <i>(Up to 60 dogs/day)</i>	4.09/dog 245 Trips	0.79/dog <i>(up to 10 dogs)</i> 8 PM Trips

Table 1 shows that a winery (or other similar brewery/cider business), church, or dog training classes would generate the highest number of weekday p.m. peak hour trips, likely within the range of 8 to 20 total weekday p.m. peak hour trips for a given use. Dog training classes are allowed outright on any land zoned EFU as long as they are limited to 10 dogs per class and 6 classes per day, per DCC 18.16.025(K). One of these allowed uses could be applied to each of the two parcels.

Accordingly, there are a limited range of uses within County Code or allowed as outright uses within all EFU lands that could generate a higher number of trips than a traditional agricultural use, and these uses would generate about 10 to 20 weekday p.m. peak hour trips. Given the size of these parcels and two entirely separate taxlots, this overall site could easily accommodate two independent uses.

PROPOSED MUA-10 ZONING SCENARIO

Deschutes County Code describes the purpose of the *Multiple Use Agricultural* zone as follows:

The purpose of the Multiple Use Agricultural Zone are to preserve the rural character of various areas of the County while permitting development consistent with that character and with the capacity of the natural resources of the area; to preserve and maintain agricultural lands not suited to full-time commercial farming for diversified or part-time agricultural uses; to conserve forest lands for forest uses; to conserve open spaces and protect natural and scenic resources; to maintain and improve the quality of the air, water and land resources of the County; to establish standards and procedures for the use of those lands designated unsuitable for intense development by the Comprehensive Plan, and to provide for an orderly and efficient transition from rural to urban land use.

Allowable uses within the MUA zone include agricultural uses, a single-family dwelling or manufactured home, propagation or harvesting of a forest product, operations and maintenance of piping and irrigation systems operated by an Irrigation District, home occupation, or accessory dwelling units. Within the MUA zone individual lots are typically required to be 10-acres or larger, but within one-mile of an Urban Growth Boundary a five-acre minimum is allowed. With the allowable uses, development at this maximum allowable density of one home per five-acres with single-family homes provides the highest overall trip generation potential, and would allow up to 18 homes.

TRIP GENERATION COMPARISON

Table 2 presents a comparison of the trips that could be generated by the existing and proposed zoning per the assumptions outlined above. As shown in this table, the proposed amendment and rezoning associated with the properties results in less trips on a weekday daily basis, with a slight increase during the weekday p.m. peak hour.

Table 2. Trip Generation Comparison (ITE Trip Generation, 11th Edition)

Land Use	ITE Code	Size/Units	Daily Trips	Weekday PM Peak Hour		
				Total	In	Out
<i>Proposed MUA Zoning</i>						
Single Family Detached Housing	210	18 Homes	170 <i>(9.43/unit)</i>	17 <i>(0.94/unit)</i>	11 <i>(63%)</i>	6 <i>(37%)</i>
<i>Existing EFU-TRB Zoning</i>						
Dog training classes	565	60 dogs/day 10 dogs/class	245 <i>(4.09/dog)</i>	8 <i>(0.79/dog)</i>	4 <i>(50%)</i>	4 <i>(50%)</i>
Church	560	10 KSF	76 <i>(7.60/KSF)</i>	5 <i>(0.49/KSF)</i>	2 <i>(44%)</i>	3 <i>(66%)</i>
Total Trips			321	13	6	7
Trip Difference (Proposed Zoning Trip Potential – Existing Zoning Trip Potential)						
Increase in Trips			-151	+4	+5	-1

Deschutes County Code 18.116.310 provides the applicable requirements for traffic impact studies. This section of Code is not specific to the study requirements for a rezone application, which by default will still require compliance with the TPR. For projects zoned appropriately, DCC 18.116.310(C)(3)(b), only a Site Traffic Report (STR) is required if the development or change in use will cause the site to generate 50 to 200 daily trips and less than 20 weekday p.m. peak hour trips. The Deschutes County Engineer retains the right to expand this discretionary application as included within Section B and C.

TRIP DISTRIBUTION PATTERN

For impact assessment purposes, it was assumed that access to the two parcels is provided from the abutting streets, as shown in Figure 2. This distribution and assignment also accounts for the shared ownership of the adjacent parcels that would allow travel directly to the west.

Figure 2 illustrates the trip distribution pattern and trip assignment and also shows how the incremental change in trips is expected to impact the primary access routes.

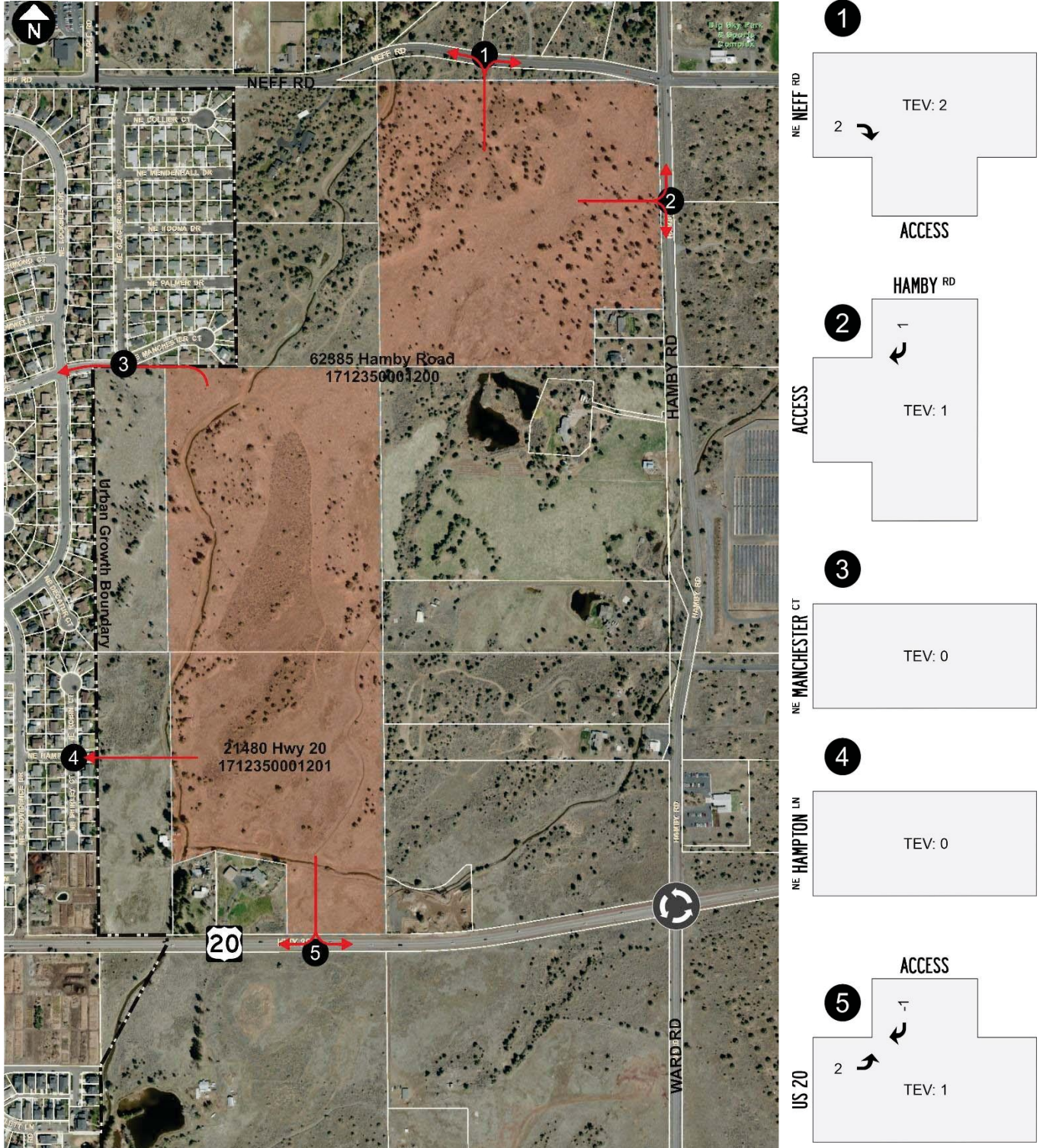


Figure 3. Assignment of Additional Weekday PM Peak Hour Trips.

STUDY AREA

Based on a review of Deschutes County Code requirements, study intersections are identified as locations that are impacted by 20 or more weekday p.m. peak hour trips. ODOT and the City of Bend considers projects as having a significant impact with 50 or more weekday p.m. peak hour trips at an intersection. As the rezone shows virtually no change in trip generation potential these thresholds are not met at any location.

In addition, with a reduction in weekday daily trips the rezone does not have the potential to change the functional classification or alter the performance of the surrounding streets. The surrounding roadways will retain their current designations, and with a potential reduction in weekday daily trips will perform the same or better than the current zoning.

OPERATIONAL ADEQUACY

The proposed comparative assessment of scenarios with and without the rezone shows that there is very little change in the trip generation potential of the site with the proposed rezone, and with uses allowed within farm zones the site could experience about a +4 peak hour trip increase, with an overall reduction in trips throughout the day. The level of change is minor, and does not meet Deschutes County's or the City of Bend's significance thresholds to require further analysis, as this difference in trips is less than typical day of the week volume fluctuations.

As requested by Deschutes County staff, further documentation of the operational adequacy was prepared to further review the ability of the surrounding transportation system to support development with the potential maximum trip generation scenario. The site could be provided access to several separate locations as shown in Figure 3, dispersing the +4 peak hour trips in several directions. For purposes of a "reasonably likely" scenario, the following was assumed:

- Any access to US 20 would be limited and/or restricted, instead relying primarily on internal connections to Hamby Road or west to Dalton Street. ODOT is initiating work on a corridor plan for the adjacent section of US 20.
- Extension of the local street system to the west to connect with any existing stubbed connections abutting the property will be required. As Hampton Lane connects across a parcel that is not part of this project it was assumed that only Glacier Ridge Road would be extended for purposes of this analysis. As this street connects into an established residential neighborhood it was assumed that this would provide only a secondary connection.
- Connections to Neff Road and Hamby Road are very likely, though would require coordination and approval from Deschutes County with a specific site plan application. For analysis purposes all traffic was assumed to rely on these connections.

As required by Deschutes County the operational analysis assessed conditions during the weekday p.m. peak hour, which is the hour between 4:00 and 6:00 p.m. with the highest volume of entering traffic. All City and County transportation planning, to include the City's Transportation System Plan, City transportation System Development Charge methodology, and ODOT design hour analysis, focus on the weekday evening commute period, as this reflects the highest overall travel period within the area. In addition, Deschutes County considers segment operations, and has adopted Level of Service thresholds for its roadways based on the posted speed based on the Highway Capacity Manual's simplified planning analysis.

Given the traffic volume anomalies that have occurred due to COVID, this analysis was compared with area traffic counts collected in October 2018, October 2019, and supplemented with late November 2021 counts for calibration purposes. The various sets of traffic counts each include historical trend information at the nearby US 20/27th Street intersection, as summarized in Table 3. As this reflects an intersection of two major nearby streets it is expected to be reflective of traffic volume variation along US 20, Neff Road, and Hamby Road.

Table 3. US 20/27th Street Peak Hour Traffic Count Comparison

Count Date	US 20 Volume (bidirectional)		27 th Street Volume (bidirectional)		Total Volume (Total Entering Vehicles)
	West of 27 th St	East of 27 th St	North of US 20	South of US 20	
April 18, 2018	1,796	1,599	1,939	1,892	3,613
October 15, 2019	1,870	1,558	2,059	1,868	3,774
November 30, 2021	1,742	1,449	2,044	1,919	3,576

These counts show that 2019 counts were higher than those in 2021, but between 2018 and 2021 the counts varied only by about 5 percent. Conversely, historical counts collected at Hamby Road/Neff Road showed that the older December 2018 counts were about 14% higher than those collected in October 2019 (both of which were collected when area schools were fully open). Table 4 provides a summary of the area traffic counts used to help inform area operations.

Table 4. Traffic Count Adjustments (Estimating 2022 Conditions)

Intersection	Count Date	Annual Factor ¹	COVID Adjustment	Seasonal Factor	Total Adjustment
NE Neff Road/ NE Hamby Road	December 20, 2018 October 15, 2019	1.08	1.0	1.0	1.08

¹ 2% Annual growth per Draft Deschutes County Transportation System Plan

Bold: Higher traffic count applied within the traffic analysis.

Seasonal variation was also reviewed within the area. ODOT has several permanent traffic count stations within and outside of Bend. Count station 09-005 is located along US 20 just east of the Powell Butte Highway. While this is the closest station, its location between Bend and Burns is not reflective of the urban edge and would not be appropriate to apply along Neff Road (but could be considered with US 20 access). Count Station 09-009 is located along US 97 near the Revere Avenue interchange but reflects more of the urban recreational trends of the area, which are much less pronounced within this more rural area. Consistent with the County plans, seasonal adjustments were not considered relevant, and as the higher counts within the area preceded COVID impacts further adjustments were not made. A summary of area traffic volumes based on the adjusted historical traffic counts is provided in Table 5.

Table 5. Segment Traffic Volume Forecasts Without Rezone

Intersection	Bidirectional Peak Hour Volume	Est. 2022 Traffic Volumes	Future 2040 Traffic Volume	Deschutes County LOS "D" or Better?
NE Neff Road	452 Est. 5,650 Daily	488 Est. 6,100 Daily	697 Est. 8,712 Daily	Yes (<13,900 ADT)
NE Hamby Road	311 Est. 3,888 Daily	336 Est. 4,200 Daily	480 Est. 6,000 Daily	Yes (<13,900 ADT)

¹ 2% Annual growth per Draft Deschutes County Transportation System Plan

² Daily volumes approximated based on a peak hour : daily ratio of 0.08.

Deschutes County’s Transportation System Plan and Development Code requires a Level of Service “D” or better for all of its roadway facilities. Based on a posted speed of 45 miles per hour, County roads with less than 13,900 vehicles per day meet this requirement². The projected traffic volumes on NE Neff Road and Hamby Road are well below this volume threshold and will easily comply with County requirements. As the rezone has the potential of reducing weekday daily trips this would not change the overall adequacy of any roads. Even with the maximum development scenario adding 170 weekday daily trips to the transportation system these two adjacent facilities would continue to operate acceptably.

Table 6. Segment Traffic Volume Forecasts Without Rezone

Intersection	Year 2040 Daily Volume Projection (See Table 5)	Added Rezone Trips	Year 2040 Daily Volume Projection with Rezone	Deschutes County LOS "D" or Better?
NE Neff Road	697 Est. 8,712 Daily	Up to +170 Trips	Est. 8,900 Trips	Yes (<13,900 ADT)
NE Hamby Road	480 Est. 6,000 Daily	Up to +170 Trips	Est 6,170 Trips	Yes (<13,900 ADT)

From an intersection operations perspective, assuming consolidated access to the property onto NE Neff Road and NE Hamby Road could see a combined total of 11 inbound and 6 outbound trips from the overall property. Operational analysis using the adjusted year 2040 volumes shows that the existing two-lane cross-section and stop-sign control would continue to meet County performance thresholds at either of these access intersections, operating at Level of Service “B” or better during the peak hours.

² Based on the planning assessment reported within the County’s draft Transportation System Plan.

Table 7. Site Access Operations Summary, Year 2040 With Rezone, Weekday PM Peak Hour

Intersection	Performance Standard	LOS	Delay	v/c Ratio	Acceptable?
Neff Road Site Access	LOS D or Better	LOS B	NB: 13.8 sec/veh	0.01	Yes
Hamby Road Site Access	LOS D or Better	LOS B	EB: 10.4 sec/veh	0.01	Yes

Accordingly, both of the primary roads abutting the property are expected to be adequate to support the proposed rezone.

TRANSPORTATION PLANNING RULE COMPLIANCE

OAR Section 660-012-0060 of the Transportation Planning Rule (TPR) sets forth the relative criteria for evaluating plan and land use regulation amendments. Table 8 summarizes the criteria in Section 660-012-0060 and the applicability to the proposed rezone application.

Table 8. Summary of Criteria in OAR 660-012-0060

Section	Criteria	Applicable?
1	Describes how to determine if a proposed land use action results in a significant impact.	Yes, see response below
2	Describes measures for complying with Criterion #1 where a significant impact is determined.	No
3	Describes measures for complying with Criteria #1 and #2 without assuring that the allowed land uses are consistent with the function, capacity and performance standards of the facility.	No
4	Determinations under Criteria #1, #2, and #3 are coordinated with other local agencies.	Yes (Application will require coordination with ODOT)
5	Indicates that the presence of a transportation facility shall not be the basis for an exception to allow development on rural lands.	No
6	Indicates that local agencies should credit developments that provide a reduction in trips.	No
7	Outlines requirements for a local street plan, access management plan, or future street plan.	No
8	Defines a mixed-use, pedestrian-friendly neighborhood.	No
9	Outlines requirements under which a local government may find that an amendment to a zoning map does not significantly affect an existing and planned transportation facility.	No
10	Outlines requirements under which a local government may amend a plan without applying performance standards related to motor vehicle traffic congestion, delay or travel time.	No
11	Outlines requirements under which a local government may approve an amendment with partial mitigation.	No

As noted in Table 8, there are eleven criteria that apply to Plan and Land Use Regulation Amendments. Of these, Criteria #1, #2, and #4 are applicable to the proposed land use action. These criteria are provided below in italics with responses shown in standard font.

OAR 660-012-0060 (1) Where an amendment to a functional plan, an acknowledged comprehensive plan, or a land use regulation (including a zoning map) would significantly affect an existing or planned transportation facility, the local government must put in place measures as provided in section (2) of this rule, unless the amendment is allowed under section (3), (9) or (10) of this rule, to assure that allowed land uses are consistent with the identified function, capacity,

and performance standards (e.g. level of service, volume-to-capacity ratio, etc.) of the facility. A plan or land use regulation amendment significantly affects a transportation facility if it would:

(a) Change the functional classification of an existing or planned transportation facility (exclusive of correction of map errors in an adopted plan);

(b) Change standards implementing a functional classification system; or

(c) As measured at the end of the planning period identified in the adopted transportation system plan:

(A) Allow land uses or levels of development that would result in types or levels of travel or access that are inconsistent with the functional classification of an existing or planned transportation facility;

Response: Based on the incremental traffic increase from EFU-TRB zoning to the proposed MUA-10 zoning (reduction in weekday daily trips and minor increase in weekday p.m. peak hour trips of two or fewer trips per facility), the functional classification of all the adjacent roadways will not be affected with the proposed zone change.

(B) Degrade the performance of an existing or planned transportation facility such that it would not meet the performance standard identified in the TSP or comprehensive plan; or

Response: The minor increase in weekday daily trips is less than daily volume fluctuations; this level of trips will not degrade or impact nearby transportation facilities. The reduced weekday daily trips will have no impact on the performance of surrounding roadways.

(C) Degrade the performance of an existing or planned transportation facility that is otherwise projected to not meet the performance standard identified in the TSP or comprehensive plan.

Response: The limited trip impacts are not considered significant and would have no quantifiable impact on surrounding roadways and intersections.

OAR 660-12-0060(4) Determinations under sections (1)–(3) of this rule shall be coordinated with affected transportation facility and service providers and other affected local governments.

Response: Deschutes County coordinates land use applications with affected agencies. It is understood that this land use application will be provided to ODOT and the City of Bend for their review and comment.

FINDINGS AND RECOMMENDATIONS

Key findings of this Transportation Planning Rule analysis include the following:

- Rezoning of the 93.37-acre property from EFU-TRB to MUA provides nearly identical potential impacts as the existing zoning, with the potential for a reduction in weekday daily trips and a +4 weekday p.m. peak hour trip increase within a “worst-case” trip generation scenario.

- The reduction in trips does not meet Deschutes County, ODOT, or City of Bend thresholds of significance at any nearby locations. None of the abutting streets would be impacted with more than two additional weekday p.m. peak hour trips, and there would be an overall reduction in weekday daily trips.
- Operational analysis shows that the abutting street segments continue to operate within the County's established Level of Service "D" threshold in 2040 with or without the rezone, and both accesses will function acceptably with a single-lane, stop-controlled design.

Based on this review a significant affect does not occur with rezoning the subject properties from EFU to MUA zoning. With the range of outright allowable uses identified within ORS 215.213(1) and 215.283(1) as a "property right", additional trip generation scenarios could be shown that are even more intense than those that are included herein, resulting in a trip reduction. Regardless of the scenario, the overall impact of the rezone is negligible on the transportation system and the rezone reflects the more appropriate use of the property given its unsuitability for farming.

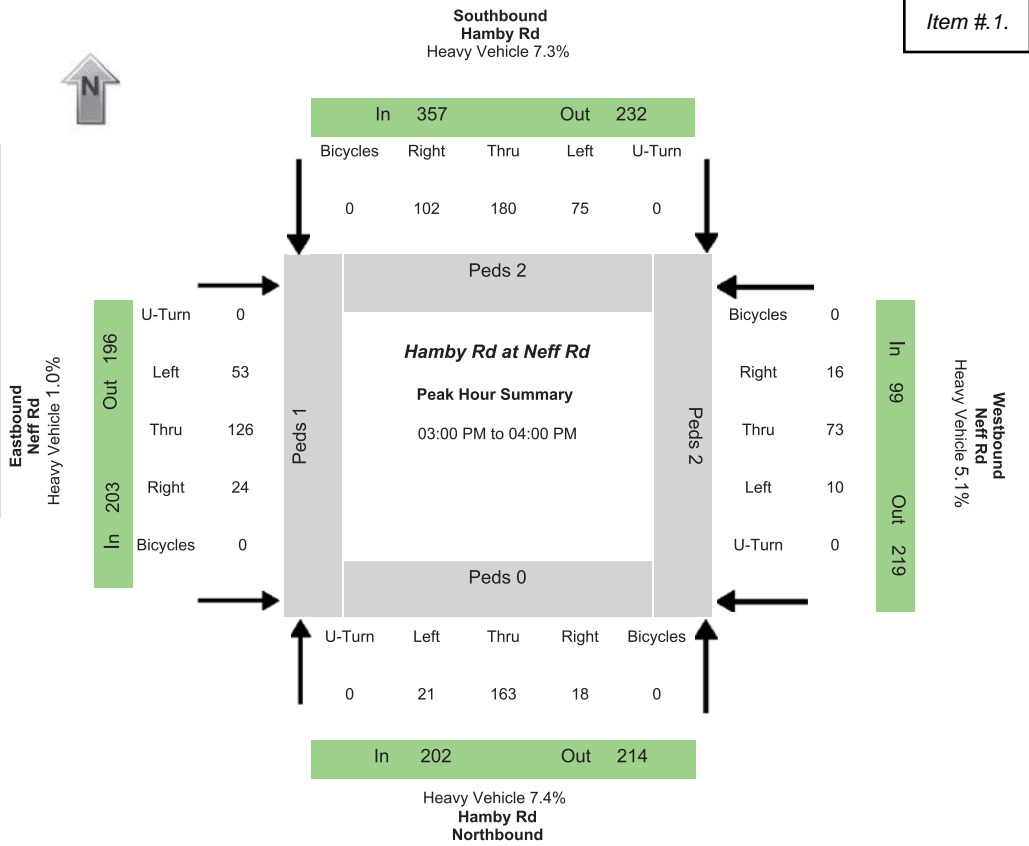
As Deschutes County (and the City of Bend) have discretion within a rezone analysis to require additional assessment of nearby infrastructure we request agency review and confirmation of these materials. please let us know if additional details addressing the City's Transportation Facilities Report or Deschutes County Site Traffic Report requirements are necessary. I can be reached if there are any questions on this analysis at (503) 997-4473 or via email at joe@transightconsulting.com.

Attachments:

- Historical Traffic Counts
- LOS Worksheets

Data Provided by K-D-N.com 503-594-4224

N/S street	Hamby Rd
E/W street	Neff Rd
City, State	Bend OR
Site Notes	
Location	44.065726 - -121.243621
Start Date	Thursday, June 07, 2018
Start Time	02:00:00 PM
Weather	
Study ID #	
Peak Hour Start	03:00:00 PM
Peak 15 Min Start	03:30:00 PM
PHF (15-Min Int)	0.83



Peak-Hour Volumes (PHV)																							
Northbound				Southbound				Eastbound				Westbound				Entering				Leaving			
Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	NB	SB	EB	WB	NB	SB	EB	WB
21	163	18	0	75	180	102	0	53	126	24	0	10	73	16	0	202	357	203	99	214	232	196	219
Percent Heavy Vehicles																							
0.0%	9.2%	0.0%	0.0%	6.7%	9.4%	3.9%	0.0%	1.9%	0.8%	0.0%	0.0%	0.0%	5.5%	6.3%	0.0%	7.4%	7.3%	1.0%	5.1%	7.9%	7.3%	4.1%	2.7%

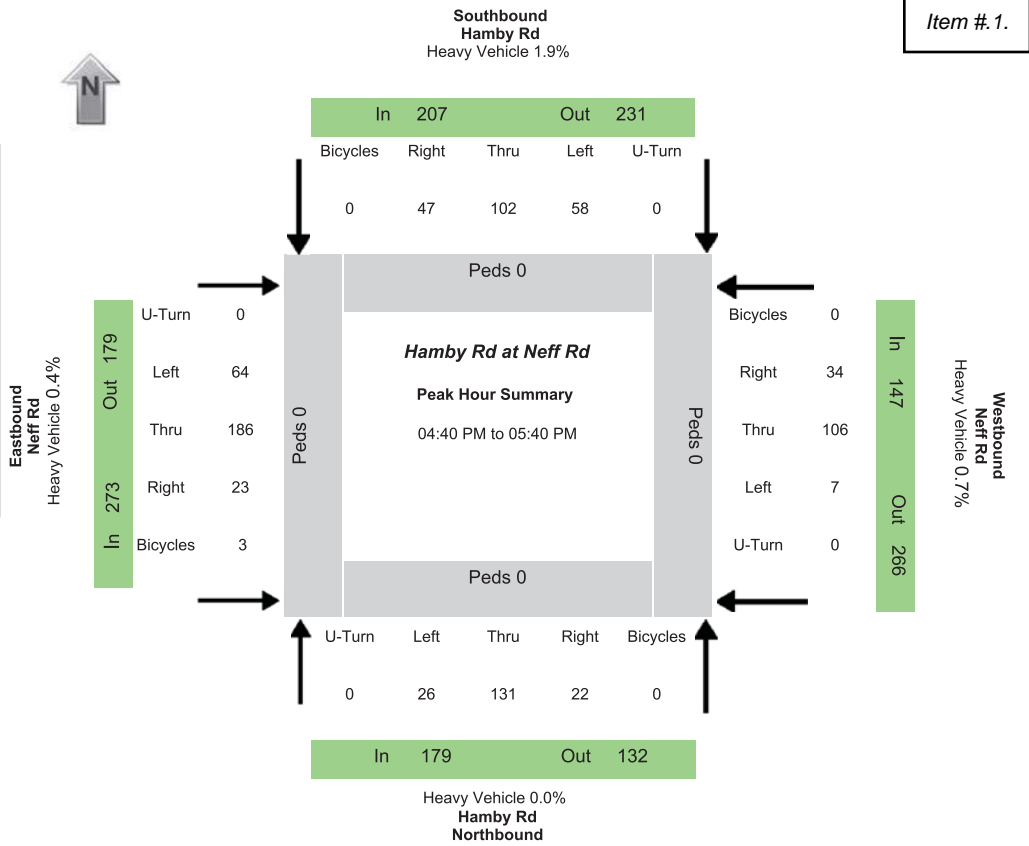
PHV- Bicycles																PHV - Pedestrians					
Northbound				Southbound				Eastbound				Westbound				Sum	in Crosswalk				Sum
Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn		NB	SB	EB	WB	
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	2	5

Time	Northbound Hamby Rd				Southbound Hamby Rd				Eastbound Neff Rd				Westbound Neff Rd				15 Min Sum	1 HR Sum	
	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn			
02:00:00 PM	3	14	0	0	1	5	4	0	3	4	0	0	0	3	2	0	0		
02:05:00 PM	3	8	0	1	4	2	2	0	6	4	0	0	1	4	3	0			
02:10:00 PM	0	17	1	0	0	5	0	0	7	6	3	0	0	4	2	0	122		
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02:25:00 PM	0	12	1	0	3	6	3	0	6	3	1	0	0	8	1	0	160		
02:30:00 PM	3	12	1	0	1	13	1	0	3	11	1	0	0	9	1	0	156		
02:35:00 PM	6	18	2	0	5	13	2	0	10	14	1	0	1	22	3	0	197		
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03:45:00 PM	1	19	4	0	8	21	5	0	0	5	0	0	0	6	3	0	258	839	
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03:55:00 PM	2	6	3	0	5	9	2	0	1	18	1	0	2	4	2	0	171	861	

0 PM	2	9	6	0	5	7	4	0	2	12	1	0	1	8	4	0	160	857
0 PM	0	12	4	0	8	4	3	0	1	13	3	0	0	7	5	0	176	858
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04:55:00 PM	1	18	5	0	8	16	4	0	2	11	0	0	2	2	3	0	194	691
05:00:00 PM	0	12	7	0	11	8	2	0	2	14	1	0	1	11	2	0	212	701
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05:20:00 PM	1	13	3	0	1	8	0	0	5	18	3	0	9	12	5	0	228	775
05:25:00 PM	3	12	4	0	4	11	2	0	4	16	0	0	3	8	9	0	216	803
05:30:00 PM	4	11	2	0	2	9	0	0	4	11	0	0	2	6	3	0	208	804
05:35:00 PM	3	16	4	0	2	5	1	0	3	9	0	0	1	4	2	0	180	807
05:40:00 PM	2	8	2	0	6	8	1	0	3	12	0	0	1	6	7	0	160	801
05:45:00 PM	3	10	3	0	4	7	2	0	2	12	1	0	0	4	1	0	155	797
05:50:00 PM	1	17	0	0	2	5	4	0	2	14	2	0	0	9	2	0	163	786
05:55:00 PM	4	4	1	0	1	4	1	0	3	9	2	0	3	9	2	0	150	757

Data Provided by K-D-N.com 503-594-4224

N/S street	Hamby Rd
E/W street	Neff Rd
City, State	Bend OR
Site Notes	
Location	44.065768 - -121.243613
Start Date	Tuesday, October 15, 2019
Start Time	04:00:00 PM
Weather	
Study ID #	
Peak Hour Start	04:40:00 PM
Peak 15 Min Start	05:10:00 PM
PHF (15-Min Int)	0.83



Peak-Hour Volumes (PHV)																							
Northbound				Southbound				Eastbound				Westbound				Entering				Leaving			
Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	NB	SB	EB	WB	NB	SB	EB	WB
26	131	22	0	58	102	47	0	64	186	23	0	7	106	34	0	179	207	273	147	132	229	179	266
Percent Heavy Vehicles																							
0.0%	0.0%	0.0%	0.0%	1.7%	2.9%	0.0%	0.0%	0.0%	0.0%	4.3%	0.0%	0.0%	0.0%	2.9%	0.0%	0.0%	1.9%	0.4%	0.7%	3.0%	0.4%	0.0%	0.4%

PHV - Bicycles												PHV - Pedestrians									
Northbound				Southbound				Eastbound				Westbound				in Crosswalk					
Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Sum	NB	SB	EB	WB	Sum
0	0	0	0	0	0	0	0	2	1	0	0	0	0	0	0	3	0	0	0	0	0

Time	Northbound Hamby Rd				Southbound Hamby Rd				Eastbound Neff Rd				Westbound Neff Rd				15 Min Sum	1 HR Sum
	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn		
04:00:00 PM	2	12	0	0	2	6	3	0	4	6	2	0	1	11	2	0		
04:05:00 PM	1	11	0	0	4	6	1	0	3	14	2	0	1	9	1	0		
04:10:00 PM	3	9	0	0	6	7	4	0	6	13	2	0	0	7	1	0	162	
04:15:00 PM	3	10	1	0	9	13	4	0	2	16	2	0	0	6	0	0	177	
04:20:00 PM	4	9	1	0	3	9	1	0	5	12	2	0	0	11	2	0	183	
04:25:00 PM	2	14	0	0	8	4	3	0	3	8	1	0	0	7	2	0	177	
04:30:00 PM	2	4	1	0	4	7	2	0	2	11	0	0	0	7	0	0	151	
04:35:00 PM	3	15	0	0	3	7	1	0	2	14	2	0	0	5	4	0	148	
04:40:00 PM	5	9	0	0	1	6	2	0	7	13	1	0	0	6	2	0	148	
04:45:00 PM	0	14	2	0	8	3	1	0	3	12	1	0	0	13	2	0	167	
04:50:00 PM	0	8	1	0	3	8	3	0	3	11	0	0	0	13	1	0	162	
04:55:00 PM	4	7	2	0	5	12	3	0	5	14	2	0	1	18	2	0	185	672
05:00:00 PM	2	11	4	0	3	14	4	0	6	8	2	0	0	8	5	0	193	688
05:05:00 PM	2	10	4	0	5	6	2	0	5	13	0	0	1	3	3	0	196	689
05:10:00 PM	1	16	2	0	5	7	5	0	9	24	1	0	0	8	7	0	206	716
05:15:00 PM	2	14	1	0	10	11	11	0	5	15	1	0	1	10	7	0	227	738
05:20:00 PM	4	13	1	0	5	8	4	0	1	24	5	0	2	4	0	0	244	750
05:25:00 PM	3	10	1	0	4	9	4	0	5	20	4	0	0	8	3	0	230	769
05:30:00 PM	1	10	0	0	5	10	2	0	12	14	3	0	0	7	1	0	207	794
05:35:00 PM	2	9	4	0	4	8	6	0	3	18	3	0	2	8	1	0	204	806
05:40:00 PM	0	8	1	0	8	9	2	0	4	10	2	0	0	4	0	0	181	802
05:45:00 PM	1	7	2	0	4	6	3	0	2	12	2	0	3	5	1	0	164	791
05:50:00 PM	5	13	4	0	6	7	0	0	1	9	3	0	0	9	2	0	155	799
05:55:00 PM	3	7	1	0	6	6	2	0	1	10	1	0	0	13	1	0	158	775

HCM 6th TWSC
1: Access & Neff Road

Without Rezone Conditions
Weekday PM Peak Hour

Intersection						
Int Delay, s/veh	0.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	273	5	1	179	2	1
Future Vol, veh/h	273	5	1	179	2	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	83	83	83	83	83	83
Heavy Vehicles, %	1	1	1	1	1	1
Mvmt Flow	474	6	1	311	2	1

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	480	0	790
Stage 1	-	-	-	-	477
Stage 2	-	-	-	-	313
Critical Hdwy	-	-	4.11	-	6.41
Critical Hdwy Stg 1	-	-	-	-	5.41
Critical Hdwy Stg 2	-	-	-	-	5.41
Follow-up Hdwy	-	-	2.209	-	3.509
Pot Cap-1 Maneuver	-	-	1088	-	360
Stage 1	-	-	-	-	626
Stage 2	-	-	-	-	744
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1088	-	360
Mov Cap-2 Maneuver	-	-	-	-	360
Stage 1	-	-	-	-	626
Stage 2	-	-	-	-	743

Approach	EB	WB	NB
HCM Control Delay, s	0	0	13.8
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	414	-	-	1088	-
HCM Lane V/C Ratio	0.009	-	-	0.001	-
HCM Control Delay (s)	13.8	-	-	8.3	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

HCM 6th TWSC
3: Hamby Road & Access

Without Rezone Conditions
Weekday PM Peak Hour

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			T		T
Traffic Vol, veh/h	1	2	3	179	132	2
Future Vol, veh/h	1	2	3	179	132	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	83	83	83	83	83	83
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	2	4	311	229	2

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	549	230	231	0	-	0
Stage 1	230	-	-	-	-	-
Stage 2	319	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	497	809	1337	-	-	-
Stage 1	808	-	-	-	-	-
Stage 2	737	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	495	809	1337	-	-	-
Mov Cap-2 Maneuver	495	-	-	-	-	-
Stage 1	805	-	-	-	-	-
Stage 2	737	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.4	0.1	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1337	-	668	-	-
HCM Lane V/C Ratio	0.003	-	0.005	-	-
HCM Control Delay (s)	7.7	0	10.4	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

HCM 6th TWSC
1: Access & Neff Road

With Rezone Conditions
Weekday PM Peak Hour

Intersection

Int Delay, s/veh 0.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	273	5	1	179	2	1
Future Vol, veh/h	273	5	1	179	2	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	83	83	83	83	83	83
Heavy Vehicles, %	1	1	1	1	1	1
Mvmt Flow	474	6	1	311	2	1

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	480
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.11
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.209
Pot Cap-1 Maneuver	-	-	1088
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1088
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	13.8
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	414	-	-	1088	-
HCM Lane V/C Ratio	0.009	-	-	0.001	-
HCM Control Delay (s)	13.8	-	-	8.3	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

HCM 6th TWSC
3: Hamby Road & Access

With Rezone Conditions
Weekday PM Peak Hour

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			L		R
Traffic Vol, veh/h	1	2	3	179	132	2
Future Vol, veh/h	1	2	3	179	132	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	83	83	83	83	83	83
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	2	4	311	229	2

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	549	230	231	0	-	0
Stage 1	230	-	-	-	-	-
Stage 2	319	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	497	809	1337	-	-	-
Stage 1	808	-	-	-	-	-
Stage 2	737	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	495	809	1337	-	-	-
Mov Cap-2 Maneuver	495	-	-	-	-	-
Stage 1	805	-	-	-	-	-
Stage 2	737	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.4	0.1	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1337	-	668	-	-
HCM Lane V/C Ratio	0.003	-	0.005	-	-
HCM Control Delay (s)	7.7	0	10.4	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

owner	inCareOf	address	cityStZip	type	cdd id
Te Amo Despacio LLC		2464 SW Glacier PL. #110	Redmond, OR 97756	SR	22-313-ZC, 22-314-PA
CTH Investments LLC		14787 SW Millikan Way	Beaverton, OR 97003	SR	22-313-ZC, 22-314-PA
Schwabe, Williamson & Wyatt, P.C.	Tia M. Lewis	360 SW Bond Street, Suite 500	Bend, OR 97702	SR	22-313-ZC, 22-314-PA