



## COMMUNITY DEVELOPMENT

### HEARINGS OFFICER HEARING - LAND USE

6:00 PM, TUESDAY, NOVEMBER 12, 2024

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

(541) 388-6575 | [www.deschutes.org](http://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](http://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/87391385850>

Passcode: None

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: 1-346-248-7799. When prompted, enter the following Webinar ID: 873 9138 5850 and Passcode: None. Written comments can also be provided for the public comment section to [Nathaniel.Miller@Deschutes.org](mailto:Nathaniel.Miller@Deschutes.org) by 4:00pm on Monday, November 11, 2024. 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 property (279 Acres) from Agricultural (AG) and Surface Mining (SM) 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) & Surface Mining (SM) to Rural Residential (RR10).



Deschutes County encourages persons with disabilities to participate in all programs and activities. This event/location is accessible to people with disabilities. If you need accommodations to make participation possible, please call (541) 617-4747.

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## COMMUNITY DEVELOPMENT

### NOTICE OF PUBLIC HEARING

#### HEARING FORMAT

The Deschutes County Hearings Officer will conduct the public hearing described below by video and telephone. If participation by video and telephone is not possible, in-person testimony is available. Options for participating in the public hearing are detailed in the Public Hearing Participation section.

#### PROJECT DESCRIPTION

**FILE NUMBERS:** 247-24-000404-PA, 247-24-000405-ZC

**SUBJECT PROPERTY/  
OWNER:**

Mailing Name: BEND PARK & RECREATION DISTRICT  
Map and Taxlot: 1812230000200  
Account: 112113  
Situs Address: 60725 ARNOLD MARKET RD, BEND, OR 97701

**APPLICANT:** Bend Park & Recreation District (BPRD)

**PROPOSAL:** The applicant requests approval of a Comprehensive Plan Amendment to change the designation of the subject property (279 Acres) from Agricultural (AG) and Surface Mining (SM) 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) & Surface Mining (SM) to Rural Residential (RR10).

**LOCATION:** The subject properties have an assigned address of 60725 Arnold Market Road, Bend, OR 97701. They are identified on the County Assessor Tax Map 18-12-23, as Tax Lot 200.

**HEARING DATE:** Tuesday, November 12, 2024

**HEARING START:** 6:00 pm

**STAFF PLANNER:** Nathaniel Miller, AICP, Associate Planner  
Phone: 541-317-3164  
Email: [Nathaniel.Miller@deschutes.org](mailto:Nathaniel.Miller@deschutes.org)

**RECORD:** Record items can be viewed and downloaded from:  
<https://www.deschutes.org/cd/page/247-24-000404-pa-405-zc-bend-park-and-recreation-district-bprd-comprehensive-plan-amendment>

**TIME LIMITS**

The Deschutes County Planning Division has set the following time limits for testimony at the hearing:

- Applicant: 30 minutes
- Public Agencies: 10 minutes
- General Public: 3 minutes
- Applicant Rebuttal: 10 minutes

Please note, the above time limits can be modified or eliminated by the Hearings Officer at their discretion.

**STANDARDS AND 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 18.52, Surface Mining Zone (SM)
- Chapter 18.56, Surface Mining Impact Area Combining Zone (SMIA)
- Chapter 18.60, Rural Residential Zone (RR10)
- 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

### **PUBLIC HEARING PARTICIPATION**

- If you wish to provide testimony during the public hearing, please contact the staff planner by 4 pm on Monday, November 11, 2024. Testimony can be provided as described below.
- Members of the public may listen, view, and/or participate in this hearing 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/87391385850>
- 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 1-253-205-0468. When prompted, enter the following Webinar ID: 873 9138 5850.
- Written comments can also be submitted to the record. Please see the Document Submission section below for details regarding written submittals.
- If participation during the hearing by video and telephone is not possible, the public can provide testimony in person at 6 pm in the Barnes and Sawyer Rooms of the Deschutes Services Center, 1300 NW Wall Street, Bend.

All documents and evidence submitted by or on behalf of the applicant and applicable criteria are available for inspection at no cost at the Deschutes County Community Development Department (CDD) at 117 NW Lafayette Avenue. Seven (7) days prior to the public hearing, a copy of the staff report will be available for inspection at no cost at CDD and on the websites listed above. Copies of all documents, evidence and the staff report can be purchased at CDD for (25) cents a page.

**ALL INTERESTED PERSONS MAY APPEAR, BE HEARD, BE REPRESENTED BY COUNSEL, OR SEND WRITTEN SIGNED TESTIMONY. ANY PARTY TO THE APPLICATION IS ENTITLED TO A CONTINUANCE OF THE INITIAL EVIDENTIARY HEARING OR TO HAVE THE RECORD LEFT OPEN IN ACCORDANCE WITH SECTION 22.24.140 OF THE DESCHUTES COUNTY CODE.**

Failure to raise an issue in person at a hearing or in writing precludes appeal by that person to the Land Use Board of Appeals (LUBA), and that failure to provide statements or evidence sufficient to afford the decision maker an opportunity to respond to the issue precludes appeal to LUBA based on that issue.

Deschutes County encourages persons with disabilities to participate in all programs and activities. This event/location is accessible to people with disabilities. If you need accommodations to make participation possible, please contact the staff planner identified above.

## **DOCUMENT SUBMISSION**

Any person may submit written comments on a proposed land use action. Documents may be submitted to our office in person, U.S. mail, or email.

### **In Person**

We accept all printed documents.

### **U.S. Mail**

Deschutes County Community Development  
Planning Division, Nathaniel Miller  
P.O. Box 6005  
Bend, OR 97708-6005

### **Email**

Email submittals should be directed to [Nathaniel.Miller@deschutes.org](mailto:Nathaniel.Miller@deschutes.org).

### **Limitations**

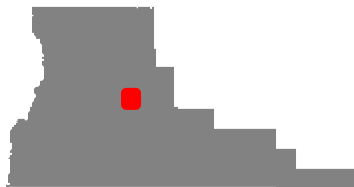
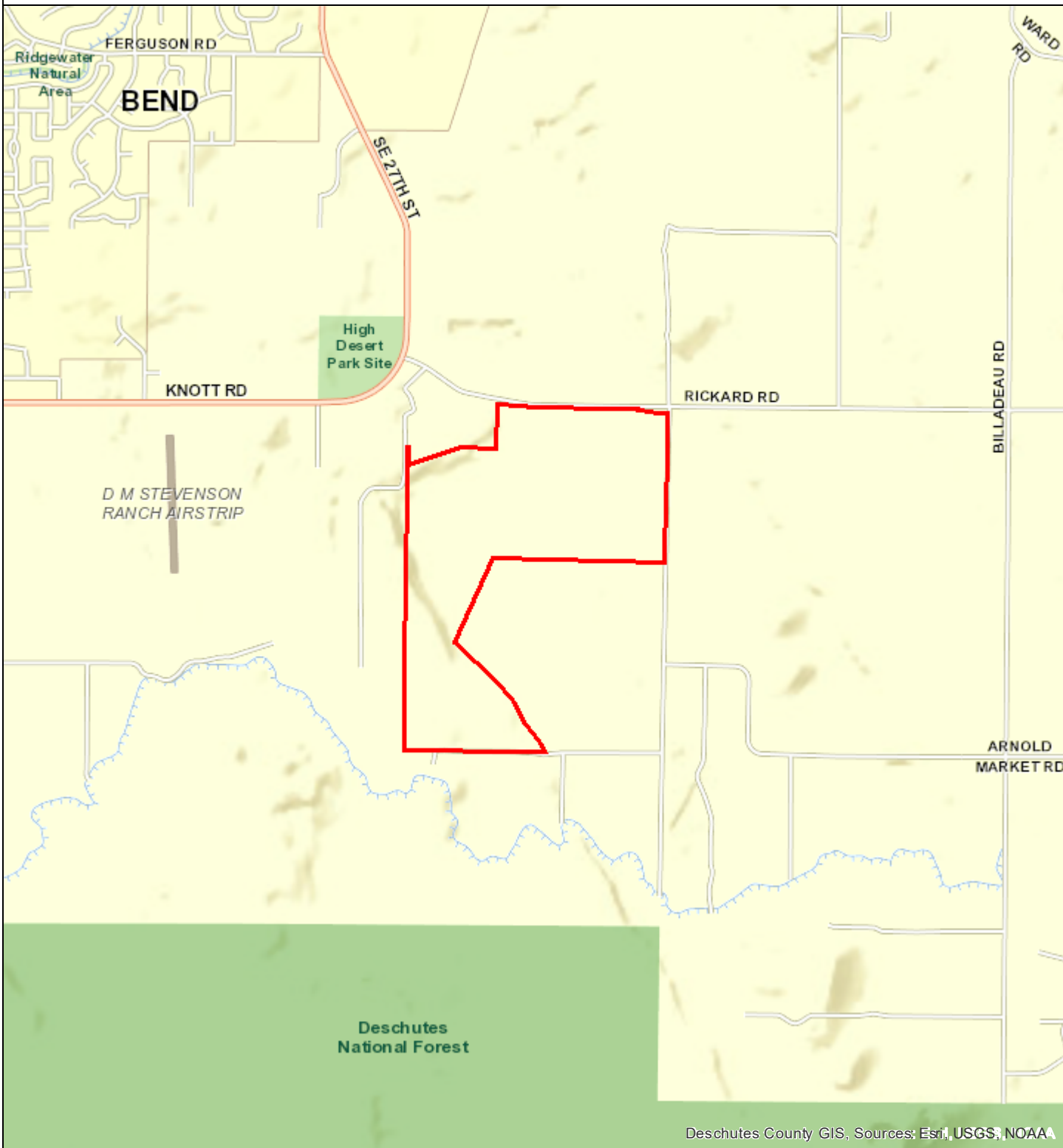
- Deschutes County does not take responsibility for retrieving information from a website link or a personal cloud storage service. It is the submitter's responsibility to provide the specific information they wish to enter into the record. We will print the email which includes the link(s), however, we will not retrieve any information on behalf of the submitter.
- Deschutes County makes an effort to scan all submittals as soon as possible. Recognizing staff availability and workload, there is often a delay between the submittal of a document to the record, and when it is scanned and uploaded to Accela Citizen Access (ACA) and Deschutes County Property Information (DIAL).
- To ensure your submission is entered into the correct land use record, please specify the land use file number(s).
- For the open record period after a public hearing, electronic submittals are valid **if received by the County's server** by the deadline established for the land use action.

**NOTICE TO MORTGAGEE, LIENHOLDER, VENDOR OR SELLER: ORS CHAPTER 215 REQUIRES THAT IF YOU RECEIVE THIS NOTICE, IT MUST PROMPTLY BE FORWARDED TO THE PURCHASER.**

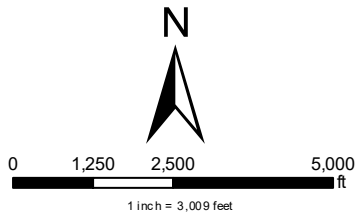
This Notice was mailed pursuant to Deschutes County Code Chapters 22.20 and 22.24.

# File: 247-24-000404-PA, 405-ZC

Situs Address: 60725 ARNOLD MARKET RD, BEND, OR 97701



Date: 7/2/2024



BOYD-REYNOLDS REVOCABLE TRUST	BOYD, PERRIN E TRUSTEE ET AL	21325 BACK ALLEY	BEND, OR 97702	NOPH 24-404-PA, 405-ZC
PATRICIA A ROGERS REVOCABLE TRUST	ROGERS, PATRICIA A TTEE	60500 ARNOLD MKT RD	BEND, OR 97702	NOPH 24-404-PA, 405-ZC
ADAMS, JAMES & MEGAN		21295 BACK ALLEY RD	BEND, OR 97702	NOPH 24-404-PA, 405-ZC
BEND PARK & RECREATION DISTRICT	C/O DON HORTON (A)	799 SW COLUMBIA ST	BEND, OR 97702	NOPH 24-404-PA, 405-ZC
JODY & JASON LINDEMANN JOINT TRUST	LINDEMANN, JASON & JODY TTEES	21365 BACK ALLEY RD	BEND, OR 97702	NOPH 24-404-PA, 405-ZC
KUNZ REV TRUST	KUNZ, ARLAND DEAN TTEE ETAL	21343 BACK ALLEY	BEND, OR 97702	NOPH 24-404-PA, 405-ZC
KENNETH C DIRK REVOCABLE TRUST ET AL	DIRK, KENNETH C & TONYA L TTEES	21333 BACK ALLEY RD	BEND, OR 97702	NOPH 24-404-PA, 405-ZC
BIANCHINA, PAUL & ROSE O		21403 BACK ALLEY RD	BEND, OR 97702	NOPH 24-404-PA, 405-ZC
HUNT, HAROLD L & BARBARA		21445 BACK ALLEY	BEND, OR 97702	NOPH 24-404-PA, 405-ZC
COCCO FAMILY REVOCABLE TRUST	COCCO, CHESTER R TTEE ET AL	60350 WINDSONG LN	BEND, OR 97702	NOPH 24-404-PA, 405-ZC





## COMMUNITY DEVELOPMENT

### STAFF REPORT

**FILE NUMBER:** 247-24-000404-PA, 247-24-000405-ZC

**SUBJECT PROPERTY/  
OWNER:**

Mailing Name: BEND PARK & RECREATION DISTRICT  
Map and Taxlot: 1812230000200  
Account: 112113  
Situs Address: 60725 ARNOLD MARKET RD, BEND, OR 97701

**APPLICANT:** Bend Park & Recreation District (BPRD)

**ATTORNEY:**

Tia M. 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 property (+/- 279 Acres) from Agricultural (AG) and Surface Mining (SM) 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) & Surface Mining (SM) to Rural Residential (RR10).

**STAFF CONTACT:**

Nathaniel Miller, AICP, Associate Planner  
Phone: 541-317-3164  
Email: [Nathaniel.Miller@deschutes.org](mailto:Nathaniel.Miller@deschutes.org)

**RECORD:**

Record items can be viewed and downloaded from:  
[www.buildingpermits.oregon.gov](http://www.buildingpermits.oregon.gov)

**WEBPAGE:**

<https://www.deschutes.org/cd/page/247-24-000404-pa-405-zc-bend-park-and-recreation-district-bprd-comprehensive-plan-amendment>

**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 18.52, Surface Mining Zone (SM)  
Chapter 18.56, Surface Mining Impact Area Combining Zone (SMIA)  
Chapter 18.60, Rural Residential Zone (RR10)  
Chapter 18.136, Amendments

Title 22, Deschutes County Development Procedures Ordinance

Deschutes County Comprehensive Plan  
Chapter 2, Resource Management  
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Appendix C, Transportation System Plan

Oregon Administrative Rules (OAR), Chapter 660  
Division 12, Transportation Planning  
Division 15, Statewide Planning Goals and Guidelines  
Division 23, Procedures and Requirements for Complying with Goal 5  
Division 33, Agricultural Land

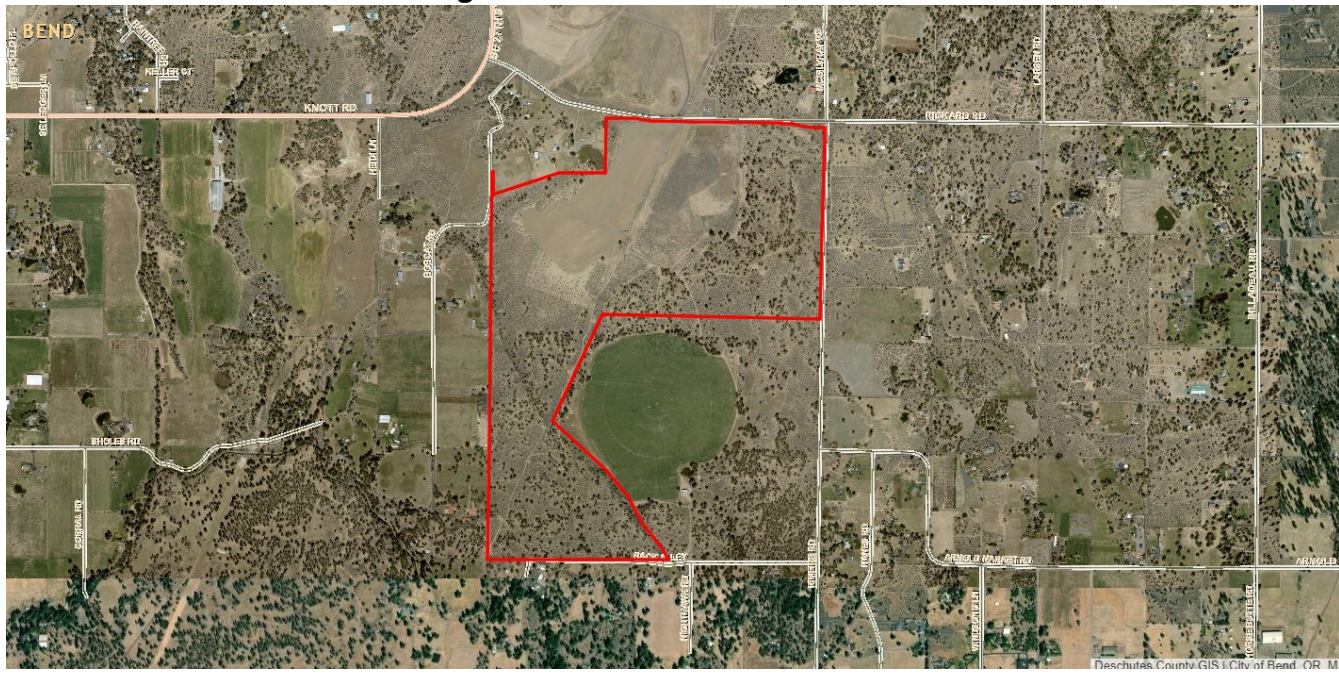
Oregon Revised Statutes (ORS)  
Chapter 215.010, Definitions  
Chapter 215.211, Agricultural Land, Detailed Soils Assessment

**II. BASIC FINDINGS**

**LOT OF RECORD:** The subject property is a legal lot of record pursuant to file nos. LR-06-38 and LR-06-39. The property was later reconfigured through property line adjustment file nos. LL-06-44 and 247-16-000599-LL.

**SITE DESCRIPTION:** The subject 279-acre property is Surface Mining Site No. 392. The mining operations occurred on the north side of the property and the remaining area is covered with native vegetation and a remnant dirt road network. According to staff calculations, approximately 105 acres are within the Surface Mine Zone with is located on the north side. Approximately 174 acres are located within the Exclusive Farm Use Zone to the south. The property is irregular in shape and fronts on Rickard Road to the north, Arnold Market Road to the east, Back Alley Road to the south, and Bobcat Road to the West. According to assessor records, no permanent structures are located on the site. The property decreases in elevation from the south to the north. Tax Lot 200 is depicted in **Image One** below.

Image One – 60725 Arnold Market Road



**PROPOSAL:** As noted above, the Applicant requests approval of a Comprehensive Plan Amendment to change the designation of the subject property (279 Acres) from Agricultural (AG) and Surface Mining (SM) 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) & Surface Mining (SM) to Rural Residential (RR10).

Submitted with the application is an Order 1 Soil Survey of the subject property, titled *Soil Assessment for 279.25-acre, Lot 200 Arnold Market 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 *Rose Pit 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 three soil types which include:

- 27A: Clovkamp loamy sand. The 27A soil type is defined as high-value farmland, regardless of irrigation.
- 155C: Wanoga sandy loam. The 155C soil type is not defined as high-value farmland, regardless of irrigation.
- 157C: Gosney-Rock Outcrop-Deskamp complex. The 157C soils complex is not defined as high-value farmland, regardless of irrigation.

The Applicant submitted a soil study (Applicant’s Exhibit 6), 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 66% Capability Class 7 and 8 nonirrigated soils.

The soils were primarily observed as ML (Fill) and very shallow and rock outcrop as GR Unit which are class 7 and 8 soils representing the 66%. The remaining soil was observed as Deskamp and Wanoga soils which are class 6 and represent 34% of the property. According to the soil study, the subject property is comprised of soils that do not qualify as Agricultural Land<sup>1</sup>.

Further discussion regarding soils is found in Section III below.

**SURROUNDING LAND USES:** Immediately surrounding properties to the north, west, south, and east are lots in various sizes and shapes within the EFU Zone. These surrounding properties are predominately developed with single-family dwellings. There do not appear to be any commercial farm uses in the surrounding area. Knott Landfill is located to the north of the property on the other side of Rickard Road and is within the SM Zone.

The adjacent properties are outlined below in further detail:

**North:** There is one lot immediately north of the subject property. Tax Lot 400 on Assessor's Map 18-12-23 (22.41 acres) is zoned EFU and is developed with a residential use. The properties across Rickard Road, to the north, are Tax Lots 500, 503, 502, and 701 on Assessor's Map 18-12-14. Tax Lots 500 and 503 (61.81 acres and 11.10 acres respectively) are owned by Deschutes County, zoned SM and EFU, and are part of the Knott Landfill facility. Tax Lot 502 (2.10 acres) is owned by Central Electric Coop, developed with a power sub-station is also zoned EFU. Tax Lot 701 (19.42 acres) is zoned EFU and developed with a residential use.

**East:** There are five properties across Arnold Market Road to the east all of which are zoned EFU. At the north is Tax Lot 300 on Assessor's Map 18-12-24 (17.74 acres) which is developed with a residential use. To the south is Tax Lot 400 on Assessor's Map 18-12-24 (19.03 acres) which is zoned EFU and developed with a residential use.

Tax Lot 1300 on Assessor's Map 18-12-24 (19.14 acres) is zoned EFU and is developed with a residential use. To the south is Tax Lot 600 on Assessor's Map 18-12-24 (19.20 acres) which is zoned EFU and is also developed with a residential use. Tax Lot 300 Assessor's Map 18-12-23 (173.71 acres) is the last property on the east side and it is adjacent. Tax Lot 300 is also under the ownership of Bend Park and Recreation District, and according to aerial imagery, is developed with a farm use.

**South:** Immediately south of the subject property across Back Alley Road are seven properties. Tax Lot 801 on Assessor's Map 18-12-26 (2.29 acres) is zoned EFU and developed with a residential use. Westward is Tax Lot 802 on Assessor's Map 18-12-26 (2.25 acres) which is zoned EFU and developed with a residential use. Tax Lot 104 on Assessor's Map 18-12-26 (5.5 acres) which is zoned EFU and also developed with a residential use. Tax Lot 100 on Assessor's Map 18-12-26 (5 acres) which is zoned EFU and developed with a residential use. Next is Tax Lot 600 on Assessor's Map 18-12-26

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<sup>1</sup> The phrase 'agricultural soils' is defined in OAR 660-033-0020.

(7.12 acres) which is zoned EFU and developed with a residential use. Tax Lot 700 on Assessor's Map 18-12-26 (2.69 acres) which is zoned EFU and also developed with a residential use. Lastly, Tax Lot 800 on Assessor's Map 18-12-26 (29.15 acres) is zoned EFU and developed with a residential use.

**West:** There are four properties which abut the subject property to the west. Starting at the south, Tax Lot 900 on Assessor's Map 18-12-23 (20.13 acres) is zoned EFU and developed with a residential use. Tax Lot 800 on Assessor's Map 18-12-23 (20 acres) is also zoned EFU and developed with a residential use. Northward is Tax Lot 600 on Assessor's Map 18-12-23 (20 acres) which is zoned EFU and developed with a residential use. Lastly, is Tax Lot 500 on Assessor's Map 18-12-23 (36.27 acres) which is zoned EFU and developed with a residential use.

For reference, staff notes that the City of Bend's UGB is approximately 0.2 miles to the closest point of the subject property at the northwest side.

#### **LAND USE HISTORY:**

- 247-23-000709-MC: A Modification of Conditions of a previous Site Plan Review (SP-92-98) to revise the surface mining reclamation requirements.
- 247-16-000599-LL: A property line adjustment with Tax Lot 300.
- PA-10-5, ZC-10-3: A plan amendment and zone change to convert the EFU and SM zoning on Tax Lot 200 and 300 to Multiple Use Agricultural (MUA10).
- LL-06-44: A property line adjustment (consolidation) with Tax Lot 100.
- LR-06-38, LR-06-39: A lot of record verification.
- PA-98-10, SP-98-65: A request to update the previous Site Plan Review (SP-92-98).
- SP-95-62: A request to update the previous Site Plan Review (SP-92-98).
- MC-93-9/V-93-12: A request to modify the previous Site Plan Review (SP-92-98).
- SP-92-98: Site Plan for the Surface Mine.

**PUBLIC AGENCY COMMENTS:** The Planning Division mailed notice on July 3, 2024, 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.

#### City of Bend Fire & Rescue, Jason H. Bolen

No comments from fire. Thanks!

Deschutes County Senior Transportation Planner, Tarik Rawlings

I have reviewed the application materials submitted on behalf of file no. 247-24-000404-PA, 405-ZC for a Plan Amendment from Agricultural (AG) and Surface Mining (SM) to Rural Residential Exception Area (RREA) and a corresponding Zone Change from Exclusive Farm Use (EFUTRB) and Surface Mining (SM) to Rural Residential (RR10) for property located at 60725 Arnold Market Road, Bend, OR 97701 and recognized on Assessor's Map 18-12-23 as Tax Lot 200.

The site itself is a surface mine that has an active permit from Department of Geologic and Mineral Industries (DOGAMI) though the trip generation associated with such a surface mine is essentially zero based on the historic lack of activity on the property.

I have reviewed Mr. Bessman's June 18, 2024, Traffic Impact Analysis and agree with its assumptions, methodology, and conclusions. Mr. Bessman utilizes a Transportation Research Board report related to Special-Use Truck Traffic trip generation and 2008 trip surveys for existing mine sites in the Central Oregon region to capture the highly variable operations typically associated with surface mining activities, as the ITE manual does not have a clear category for such uses. This follows similar methodology for similar past approvals involving Plan Amendment/Zone Change applications on SM-zoned properties. The overall analysis in Mr. Bessman's report appears to demonstrate that no significant effect, per OAR 660-012-0060 will occur as a result of the proposed Plan Amendment/Zone Change.

As evidenced in the submitted transportation report, the proposal appears to comply with the relevant provisions of the Transportation Planning Rule (TPR).

If the subject application is approved, future land divisions and/or development proposals involving the subject property will require additional transportation analysis per DCC 18.116.310.

Thanks for the opportunity to provide comment and please let me know if you have any questions.

Oregon Department of State Lands (DSL), Josh Goldsmith

Your Wetland Land Use Notification submission (WN2024-0465) has been removed from the Department's review queue for the following reason(s):

ENF287 - adjacent

The following agencies did not respond to the notice: US Fish and Wildlife Service, Oregon Department of Environmental Quality, Oregon Department of Fish and Wildlife, Oregon Department of Transportation, Oregon Department of Geology and Mineral Industries, City of Bend Planning Department, City of Bend Engineering, City of Bend Growth Management Department, Bend Public

Works Department, Arnold Irrigation District, Deschutes County Forester, Deschutes County Property Management, Deschutes County Assessor, Deschutes County Onsite Wastewater Division, Deschutes County Environmental Health, Deschutes County Road Department, and District 11 Watermaster.

**PUBLIC COMMENTS:** The Planning Division mailed notice of the application to all property owners within 750 feet of the subject property on July 3, 2024. 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 July 9, 2024. Staff received a number of comments in the record requesting information, with some commenters objecting to the proposal. The objections include:

Paul and Rose Bianchina, July 8, 2024

We received your notice of a request from Bend Parks and Rec for a zone change on the 279 acre property they recently purchased on Arnold Market Rd.

Supposedly, this property was being purchased by Bend Parks to be held in reserve for a future park. Yet the notice says that the Parks Dept. is seeking to first have the property designated as Rural Residential Exception Area – which I understand is basically a way to say the property has no real agricultural use. But what's concerning is that they are also requesting a ZONE CHANGE TO RURAL RESIDENTIAL (RR-10). According to the county's website, RR-10 is "one of the most common residential zones in Deschutes County and allows for residential development that maintains a rural character." Allowed uses under this zoning are "Single-family dwellings, ADU, agriculture, small-scale horse stables and limited home businesses."

This appears to be little more than a move by Bend Parks to set themselves up to sell or trade the property in the future. We wish to STRONGLY OBJECT to the zone change. This property is located along two small, rural roads – Rickard and Arnold Market – that are simply NOT DESIGNED to handle the huge increase in traffic that would result from this property being developed for residential use. We strongly urge you to deny the request.

Patrick Daniels, July 9, 2024

Curious what the rezoning request is for the property the City of Bend recently purchased at the corner of Arnold Market Rd and Rickard Rd by Knott Landfill. It looks like they want to rezone that as residential, is that correct? Are there any plans to improve the roads in the area as 27<sup>th</sup> street is already insufficient for the amount of traffic it currently has and that's without the 2 current developments on 27<sup>th</sup> having any permanent residents in the homes. The property was purchased to turn into a park, not residential which is why I'm asking as I live in the area and I'm greatly affected by this zoning change.



Paul Bianchina, July 11, 2024

We recently received a notification saying that Bend Parks is seeking rezoning of their recently acquired land on Rickard/Arnold Market, across from the landfill. I was under the impression that they wanted this to hold in reserve for a future park, and now they want to rezone it RR10. I would strongly urge the commission to not allow this zone change to occur.

Diane Kook, October 16, 2024

I am an owner in the Sundance Subdivision, which lies off of Arnold Market. Have read recently regarding the proposed zoning change to property purchased by the Bend Parks and Recreation Department on Rickard and Arnold Market. The information supplied from the BPRD was for this land to be held in reserve for a future park in this location. Now, they are requesting a change to RR10 and Residentail [sic] Exception Use. Please do not allow this zone change to move forward. The traffic at this location has increased greatly over the years that I have lived in Central Oregon, ( since 1972) and also since I moved into my home in the Sundance Subdivision ( 1985 ). So often proposed changes to zoning are granted without due thought on the infrastructure and its impacts as well as impacts for those who live in the immediate and close areas. A park is indeed needed in this location in the future, but more housing where exclusive farm use was permitted is not. We are losing our farm land and open land to more and more development and need more open spaces left for others to enjoy. Please deny this permit.

I have also emailed my concerns to the development and planner of BPRD.

Staff notes that the Applicant responded to the comments from Paul and Rose Bianchina and Patrick Daniels in an email on October 17, 2024. The email includes the following statement:

...  
Second, I would like to respond to the public comments submitted by Paul and Rose Bianchina and Patrick Daniels regarding the request for RR-10 zoning somehow being inconsistent with the Applicant’s stated purpose to develop the property with a public park pursuant to a master plan process. The application materials repeatedly refer to the application for the zone change to allow the Applicant to develop the property as a park in conjunction with the adjacent parcel owned by the Applicant which is remaining in EFU zoning (1812230000300). The subject property is zoned partially SM and partially EFU. The SM zone is a transitional zone and meant to be changed when the surface mining is complete as described in DCC 18.52.200. The property is predominantly nonagricultural soils, as demonstrated in the application materials, so agricultural zoning is not appropriate. The RR-10 zone was chosen as the most flexible zone to allow the park planning and development in conjunction with the adjacent EFU land to the east. The RR-10 zone specifically allows a “public park, playground, recreational facility” as a conditional use. DCC 18.60.030A. The rezone request is consistent with the Applicant’s stated plans to develop it as a park and the Applicant has no plans to sell or trade the property for residential use.



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

- Jim Powell on July 13, 2024
- Tom Stevenson on July 13, 2024
- Wanda Kunz on July 19, 2024
- Tom Stevenson on July 17, 2024
- Kevin Durk on July 26, 2024

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

**NOTICE REQUIREMENT:** On October 8, 2024, 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 13, 2024. Notice of the first evidentiary hearing was submitted to the Department of Land Conservation and Development on October 8, 2024.

**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 18.52, Surface Mining Zone**

Section 18.52.200 Termination Of The Surface Mining Zoning And Surrounding Surface Mining Impact Area Combining Zone

- A. *When a surface mining site has been fully or partially mined, and the operator demonstrates that a significant resource no longer exists on the site, and that the site has been reclaimed in accordance with the reclamation plan approved by DOGAMI or the reclamation provisions of DCC 18, the property shall be rezoned to the subsequent use zone identified in the surface mining element of the Comprehensive Plan.***

**FINDING:** The Burden of Proof states:

This standard requires that Site No. 392 be 1) fully or partially mined, 2) no longer contain a significant resource, and 3) reclaimed in accordance with the reclamation plan approved by DOGAMI. The first two prongs are addressed in the responses to OAR 660-023-0180, which sets out the standards for determining whether an aggregate resource is significant. In the 2010 Decision, the County found the applicant met the first two prongs of this test based on

the evidence in the public record from the pit operator that the mine was closed in 2005 because all the usable material had been removed and that there is not a significant resource of fill material remaining on site. See Decision of the Deschutes County Hearings Officer, PA-10-5; ZC-10-3, pg. 11. Furthermore, the Wallace Group Surface Mine Reclamation Evaluation, dated September 15, 2023 (Exhibit 8), which was submitted in support of the recent County Decision approving a modified Reclamation Plan for the subject property, 247-23-00079-MC, attached hereto as Exhibit 4 substantiates the evidence that the majority of the fill material has been removed and the site no longer contains a significant resource. The ESEE for site 392 is attached as Exhibit 9. The site was listed as significant for the presence of fill material (sand and gravel) and not for aggregate. Mining at the site ceased in 2005 and it has remained in a partial state of reclamation since that time. All DOGAMI files for Site 392 have been closed since 2011. (Exhibit 10).

The mining element of the Comprehensive Plan does not identify a subsequent use for Site No. 392 and subsequent uses are not identified in the ESEE analysis for Site No. 392 adopted by the County. The Hearings Officer in the 2010 Decision questioned the requirement that the original topsoil be retained and replaced as being an indication the subsequent use may be for agriculture. However the Wallace Group Report demonstrates the amount of fill and topsoil originally thought to be present was not accurate and was relied upon as the evidentiary basis to modify the reclamation requirement based on existing and accurate site conditions. The evidence submitted herein and in the Modification Decision establishes the soils for the entire site are predominantly Class 7 and 8 and were improperly classified under NCRS mapping in 1992 at the time the Site Plan decision and reclamation requirements were originally imposed. Because the property does not meet the definition of Agricultural land, the Applicant proposes rezoning the property to RR-10 to allow its use in conjunction with the adjoining property to be master planned as a public park.

Staff concurs with the applicant's analysis and finds that the proposal complies with the above criterion.

- B. *Concurrent with such rezoning, any surface mining impact area combining zone which surrounds the rezoned surface mining site shall be removed. Rezoning shall be subject to DCC 18.136 and all other applicable sections of DCC 18, the Comprehensive Plan and DCC Title 22, the Uniform Development Procedures Ordinance.***

**FINDING:** The Burden of Proof states:

The applicant proposes to remove the SMIA overlay zone associated with Site No. 392 concurrent with the rezone because protection for Goal 5 resources will no longer be necessary.

Staff concurs with the applicant's analysis, the applicable standards for rezoning are addressed herein.

**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 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 Burden of Proof states:

Per prior Hearings Officers decisions for plan amendments and zone changes on resource-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 introductory 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 Surface Mine and Agriculture to Rural Residential Exception Area. The proposed rezoning from SM and EFU-TRB to RR-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 statement and goals are not approval criteria for the proposed plan amendment and zone change.<sup>2</sup> 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:

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

*"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 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 present application is nevertheless consistent with the introductory statement because the requested change, as demonstrated herein, is consistent with State law and County plan provisions and zoning code provisions implementing the Statewide Planning Goals.

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 concurs 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 Burden of Proof states:

The applicant is proposing to change the zone classification from SM and EFU to RR-10. Approval of the application is consistent with the purpose of the RR-10 zoning district, which is stated in DCC 18.60.010 as follows:

**18.60.010 Purposes**

The purposes of the Rural Residential Zone are to provide rural residential living environments; to provide standards for rural land use and development consistent with desired rural character and the capability of the land and natural resources; to manage the extension of public services; to provide for public review of nonresidential uses; and to balance the public's interest in the management of community growth with the protection of individual property rights through review procedures and standards.

The subject property is not suited to full-time commercial farming as discussed in the findings above. The RR-10 zone will allow property owners to engage in recreational uses, hobby farming, and redevelop the property in conjunction with the adjacent lands under a park Master Plan. The low-density of development allowed by the RR-10 zone will conserve open spaces and protect natural and scenic resources. In the Landholdings 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.*

Staff requests the Hearings Officer make specific findings for this criterion.

**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:** The Burden of Proof states:

Necessary public facilities and services are available to serve the subject property. Transportation access to the property is available from Rickard Road to the north, Arnold Market Road to the east, Back Alley to the south and Bobcat Road to the west.

The Transportation Study prepared by Joe Bessman of Transight Consulting (Exhibit 12) submitted herewith establishes that considering the most intense residential scenario (clustered or planned units on 5-acre equivalent lots) the site would generate about 175 additional weekday daily trips, including about 29 more trips during the weekday p.m. peak hour. Comparatively, if the site were developed as a public park, the daily trips would be reduced, but a small increase in weekday p.m. peak hour trips could be generated. Again, with the current approval for a Surface Mining operation the type of trips would change, and passenger cars would have much less impact on the system than aggregate trucks. The study includes operational analysis of the SE 27<sup>th</sup> Street / SE Rickard Road intersection. Table 5 of the report, as set forth below, shows that within each of the scenarios the SE 27<sup>th</sup> Street / SE Rickard Road intersection performs acceptably per the adopted City of Bend Standards.

**Table 5. Intersection Operational Results Summary, Weekday PM Peak Hour**

Scenario	Jurisdiction/ Standard	LOS	v/c Ratio	Delay (s)	95 <sup>th</sup> % Queue (ft)	Acceptable?
Existing Zoning (Figure 5 Volumes)	City of Bend Peak Hour v/c Ratio <1.0	WB: LOS E	WB: 0.67	WB: 35.5 s	WB: 125 ft	✓
#1: Outright Uses		WB: LOS E	WB: 0.66	WB: 35.8 s	WB: 125 ft	✓
#2: Conditional Uses		WB: LOS E	WB: 0.71	WB: 40.3 s	WB: 125 ft	✓
#3: Park Use		WB: LOS E	WB: 0.67	WB: 36.5 s	WB: 125 ft	✓

The property receives police services from the Deschutes County Sheriff. It is in Rural Fire Protection District #2. 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.

Staff notes that only traffic considerations are addressed by the Applicant under this criterion. No improvements to existing road facilities were identified by Rawlings, Senior Transportation Planner.

Staff requests the Hearings Officer make specific findings for this criterion.

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

**FINDING:** The Burden of Proof states:

The RR-10 zoning is consistent with the specific goals and policies in the comprehensive plan discussed above. The RR-10 zoning allows rural uses consistent with the uses of many other properties in the area of the subject property. In addition, the RR-10 zoning provides a proper transition zone from the City, to rural zoning, to EFU zoning.

The zone change will not impose new impacts on the EFU-zoned land adjacent to or nearby the subject property because many of those properties are residential properties, hobby farms, already developed with dwellings, not engaged in commercial farm use, are idle, or are otherwise not suited for farm use due to soil conditions, topography, or ability to make a profit farming. The historic use of the property for surface mining created greater impacts to surrounding properties than the proposed RR-10 zoning would allow.

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, Mr. Gallagher, the nonproductive soils on the subject property make it not suitable for commercial farming or livestock grazing. The subject property is not land that historically has been or could be used in conjunction with the adjacent irrigated property for any viable agricultural use and any future development of the subject property would be subject to building setbacks.

Staff requests the Hearings Officer make specific findings for this criterion.

**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 Burden of Proof states:

1. Mistake: In 1979, Deschutes County adopted its first comprehensive plan and zoning ordinance that implemented the Statewide Land Use Planning Goals. The County's comprehensive plan map was prepared prior to the USDA/NRCS's publication of the "Soil Survey of Upper Deschutes River Area, Oregon." This study replaced a prior study that provided very general information about soils. This Soil Survey of the Upper Deschutes River Area is more comprehensive than the prior soils mapping publication but it continues to provide only general soils information rather than not an assessment of soils on each parcel in the study area.



When the County first implemented the Statewide Goals, it applied resource zoning using a broad brush. All undeveloped rural lands were assumed to be resource land. Then-existing developed rural lands not suited for resource use were granted exceptions to the Goals that protect resource lands. The County allowed landowners a brief period of time after adoption of PL-15 (1979) to petition the County to remove nonresource properties from resource zone protections but made no effort to determine whether lands might be nonresource lands that do not merit the imposition of stringent land use regulations that protect rural resources – typical farm and forest resources.

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.<sup>3,4</sup>

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.

Surface Mining Complete: The Wallace Group Report (Exhibit 8) and Amended Reclamation Plan (Exhibit 11) approved by the County in 2023 established mining on the property is complete and the remaining reclamation activities can be completed in conjunction with the site development and master plan for a public park.

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 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*

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<sup>3</sup> 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 Mr. Gallagher.

<sup>4</sup> Source: Agricultural Lands Program, Community Involvement Results, Community Development, Deschutes County. June 18, 2014

*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. Since the property was zoned, it has become evident that farm uses are not viable on the subject property. The economics of farming have worsened over the decades making it difficult for most Deschutes County property owners to make money farming good ground and impossible to earn a profit from attempting to farm Class 7 and 8 farm soils. In 2017, according to Table 4 of the 2017 US Census of Agriculture, Exhibit 13, only 16.03% of farm operators achieved a net profit from farming (238 of 1484 farm operations). In 2012, the percentage was 16.45% (211 of 1283 farm operations). In 2007, according to the 2012 US Census of Agriculture, that figure was 17% (239 of 1405 farm operations). Exhibit 14. The vast majority of farms in Deschutes County have soils that are superior to those found on the subject property. As farming on those superior soils is typically not profitable, it is reasonable to conclude that no reasonable farmer would purchase the subject property for the purpose of attempting to earn a profit in money from agricultural use of the land.

Population Changes; Encroaching development: The population of Deschutes County has, according to the US Census, increased by 336% between 1980 when the County's last zoned this property and 2021 from 62,142 persons to 209,266 persons. The supply of rural residential dwelling lots has been diminishing in the same time period. Encroaching development east of Bend's Urban Growth Boundary has brought both traffic and higher density residential uses and congestion to the area, and within a mile of the subject property.

The above analysis regarding the completion of surface mining, the farming economics, viability of farm uses, decline in farm operations, and changing population data and encroaching development demonstrates that a change in circumstances has occurred since the property was last zoned. In addition, Mr. Gallagher's soil assessment confirms that the subject property does not have agricultural soils.

Staff requests the Hearings Officer make specific findings for this criterion.

# Deschutes County Comprehensive Plan

## Chapter 1, Comprehensive Planning

### Section 1.3, Land Use Planning

***Goal 1, Maintain an open and public land use process in which decisions are based on the objective evaluation of facts.***

**FINDING:** The subject application is being evaluated based on an objective review of compliance with Statewide Planning Goals, Deschutes County Comprehensive Plan policies, and Oregon Administrative Rules. A public hearing will be held before a Hearings Officer on November 12, 2024, and members of the public can attend and testify at that hearing. Pursuant to DCC 22.28.030, the Board of County Commissioners will take final action on the application and may choose to either adopt the Hearings Officer findings or conduct their own hearing. This Comprehensive Plan Amendment and Zone Change application will be evaluated through an open process that allows for public input and follows Deschutes County’s Procedures Ordinance.

Staff finds that within each of the steps described above, there is an open and public process that is based on an objective evaluation of facts. This criterion will be met.

## Chapter 2, Resource Management

### Section 2.2 Agricultural Lands

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

**FINDING:** The Burden of Proof states:

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 as such and this goal does not apply. In the Landholdings decision (and the 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. Mr. Gallagher’s soils assessment demonstrates that the subject property consists predominantly (66%) of Class 7 and 8 non-agricultural soils.

According to Mr. Gallagher, these soils have severe limitations for agricultural use of the subject property. The soils found on the subject property 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 and Henkle 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 have water infrastructure for irrigation so the productivity is lower.

According to Mr. Gallagher the subject property is not suited for livestock 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 very stony to extremely stony surface which makes seeding impractical with conventional equipment. The mined and filled area has low available water holding capacity and from the barren cover on the surface and very compacted subsoil they also have low potential for forage production.

Wind erosion is a potential hazard and 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.

Based on the revised Order-1 map the annual productivity in a normal year is about 74 tons annual range production for the entire property. This is lower (50 tons) for an unfavorable year and higher (98 tons) for a favorable year. The animal use months (AUMs) for this property is about 163 (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 14 cow calf pairs for 12 months in a normal year and fewer 9 cow calf pairs in unfavorable year and more 18 in a favorable year. This is not at an economical cattle production scale because the productivity of the land is too poor and is not conducive to rangeland improvements.

Staff notes the subject property has no history of agricultural use. According to the application material there are 18.13 acres of waters rights but no irrigation infrastructure. The Applicant intends to transfer the water rights to Tax Lot 300. No comment was received from Arnold Irrigation District.

The subject property 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 property; rather, the Applicant requested a change under Policy 2.2.3 and has provided evidence to support rezoning the subject property to RR10.

**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 RR10. 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:

...

Deschutes County has allowed this approach in previous Deschutes County Board and Hearings Officer’s decisions as previously cited and summarized herein. 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 Goal 3 (Agricultural Lands) and Goal 4 (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 Wetherall 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 property is not agricultural land and does 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 2.3, Forests

**FINDING:** The subject property has a Comprehensive Plan designation of Surface Mine and Agriculture and is therefore not categorized as forest land. Staff therefore finds forest land policies do not apply.

Section 2.4 Goal 5 Overview Policies

**Goal 1 Protect Goal 5 Resources**

**FINDING:** As noted herein, the application materials demonstrate that the surface mine site concluded all mining activities. Individual resources within this section are addressed independently.

***Policy 2.4.4 Incorporate new information into the Goal 5 inventory as requested by an applicant or as County staff resources allow.***

**FINDING:** The Burden of proof states:

This application provides new information supporting rezoning of Site No. 392 and removal of Site No. 392 from the County’s Surface Mining Mineral and Aggregate Inventory (Comprehensive Plan Table 5.8.1). Mining of the subject property ceased in 2005, DOGAMI closed its file in 2011 and the County recently approved an Amended Reclamation Plan (Exhibit 11 to allow any remaining reclamation to be conducted in conjunction with the master planning and redevelopment of the site as a public park. (Exhibit 4). Furthermore, the Gallagher Report demonstrates the site does not contain a significant Goal 5 resource based on the quantity, quality, and location of the resource and was never subject to a DOGAMI approved reclamation plan.

Staff concurs with the applicant’s analysis.

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 2.6, Wildlife

**FINDING:** There are no Goal 5-listed wildlife species present on the subject property, based on the Goal 5 inventory nor threatened or endangered species. There is no identified wildlife habitat on the subject property.

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 Burden of Proof states:

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 for Open Space or Scenic Views/Sites<sup>5</sup>. Furthermore, no new development is proposed under the present application. These plan provisions are not applicable to consideration of the proposed zone change and plan amendment.

Staff concurs with the applicant’s analysis.

Section 2.10 Surface Mining

**Goal 1 Protect and utilize mineral and aggregate resources while minimizing adverse impacts of extraction, processing and transporting the resource.**

**Policy 2.10.1 Goal 5 mining inventories, ESEEs and programs are retained and not repealed.**

**Policy 2.10.2 Cooperate and coordinate mining regulations with the Oregon Department of Geology and Mineral Industries.**

**Policy 2.10.3 Balance protection of mineral and aggregate resources with conflicting resources and uses.**

**Policy 2.10.4 Review surface mining codes and revise as needed to consider especially mitigation factors, imported material and reclamation.**

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<sup>5</sup> SM site 392 is listed on the County’s Surface Mining Mineral and Aggregate inventory. The present application, together with the previously approved Amended Reclamation Plan, establishes the necessary basis for removal of the site from the inventory and rezoning for a subsequent use.



**Policy 2.10.5 Review surface mining site inventories as described in Section 2.4, including the associated Economic, Social, Environmental and Energy (ESEE) analyses.**

**Policy 2.10.6 Support efforts by private property owners and appropriate regulatory agencies to address reclamation of Goal 5 mine sites approved under 660-016 following mineral extraction.**

**FINDING:** The Burden of Proof states:

The present application asks the County to rezone Site No. 392 from SM to RR-10 because it no longer has a significant mineral resource and will be reclaimed in accordance with the Amended Reclamation Plan (Exhibit 11) approved by the County in 2023. The subject property should be rezoned for a subsequent use consistent with the surrounding uses as it is underutilized and ready for a subsequent use outside of the SM zone. The Applicant proposes the SMIA zone associated with Site No. 392 also be removed.

Staff concurs with this analysis but requests the Hearings Officer modify as they see fit. Staff notes that **Policy 2.10.4** is not addressed by the applicant in the Burden of Proof. However, no amendment is proposed to the provisions of the Surface Mining Zone or the Surface Mining Impact Area Combining Zone.

### **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:

The above part of the plan is not a plan policy and is not an applicable approval criterion but rather an explanation of how the County calculated expected growth. 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 surface mine lands which have been fully mined and reclaimed as well as farm lands with poor soils to a rural residential zoning designation. While this 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 uses and is near (within ½ mile) of the City limits of Bend.

Rezoning the subject property to RR-10 to facilitate its redevelopment with recreational uses, including a public park 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 non-productive lands of the subject property with existing rural and urban development and street systems, furthering the creation a buffer of RR-10 zoned land along the City's southeastern boundary where the quality of soils are poor and the land is not conducive for commercial agriculture.

Staff notes this policy references the soil quality, which staff has discussed above. Staff 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.<sup>6</sup> Further, no goal exception to Statewide Planning Goal 3 is required for the rezone application

<sup>6</sup> See PA-11-17/ZC-11-2, 247-16-000317-ZC/318-PA, and 247-18-000485-PA/486-ZC

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 Residential Exception Area (RREA) plan designation is the appropriate plan designation to apply to the subject property.<sup>7</sup>

<sup>7</sup> 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 3. Mobility and Connectivity: Promote a multimodal transportation system that moves people and goods between rural communities and Sisters, Redmond, Bend, La Pine, and other key destinations within the County as well as to the adjacent counties, Central Oregon, and the state.**

**FINDING:** This goal 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 the Transportation Planning Rule (TPR), also known as OAR 660-012, as described below in subsequent findings.

**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 Burden of Proof states:

The subject property 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 within a 3.5-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 adjacent properties. Staff notes that forest zoning is present on lands to the southwest and directly south of the subject property. The 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 property does not appear to qualify as forest land.

**Division 23 - Procedures and requirements for Complying with Goal 5**

OAR 660-023-0180, Mineral and Aggregate Resources

**(2) Local governments are not required to amend acknowledged inventories or plans with regard to mineral and aggregate resources except in response to an application for a post acknowledgement plan amendment (PAPA) or at periodic review as specified in section (9) of this rule. The requirements of this rule modify, supplement, or supersede the requirements of the standard Goal 5 process in OAR 660-023-0030 through 660-023-0050, as follows:**

...  
**(b) Local governments shall apply the criteria in section (3) or (4) of this rule, whichever is applicable, rather than OAR 660-023-0030(4), in determining whether an aggregate resource site is significant;**

**FINDING:** The Burden of Proof states:

Under OAR 660-023-010, the term “post acknowledgement plan amendment” (PAPA) encompasses actions taken in accordance with ORS 197.610 through 197.625, including amendments to an acknowledged comprehensive plan or land use regulation and the

adoption of any new plan or land use regulation. In the Stott (PA-98-12/ZC-98-6) and Kimble (PA-07-2/ZC-07-2) decisions, the Hearings Officer held that a plan amendment and zone change to “de-list” and rezone an inventoried surface mining site constitutes a PAPA, and therefore the provisions of OAR 660-023-0180 concerning mineral and aggregate resources apply to such an application to the extent they reasonably can be applied to a decision to remove a site from the County’s adopted inventory.

The proposed amendment constitutes a PAPA as outlined in the Stott and Kimball decisions. A determination of significance is required to de-list a Goal 5 aggregate resource. The thresholds for significance are addressed in the responses to OAR 660-023-0180(3) and (4), below.

Staff acknowledges the Applicant’s analysis and confirms that Sub (3) and (4) are addressed below.

**(3) An aggregate resource site shall be considered significant if adequate information regarding the quantity, quality, and location of the resource demonstrates that the site meets any one of the criteria in subsections (a) through (c) of this section, except as provided in subsection (d) of this section:**

**(a) A representative set of samples of aggregate material in the deposit on the site meets applicable Oregon Department of Transportation (ODOT) specifications for base rock for air degradation, abrasion, and soundness, and the estimated amount of material is more than 2,000,000 tons in the Willamette Valley, or more than 500,000 tons outside the Willamette Valley;**

**FINDING:** The Burden of Proof states:

The County’s Goal 5 inventory indicates that Site No. 392 contains the following:

#	Taxlot	Name	Type	Quantity*	Quality	Access/Location
392	181223-00-00300	Rose	Rock	10 M Est.	Mixed	
392	181223-00-00300	Rose	Dirt	7.5 M	Good	

\*Quantity in cub [sic] yards

The County’s Goal 5 mineral and aggregate inventory lists site 392 as a sand and gravel site and the findings in the ESEE establish the County did not find the aggregate resource on site worthy of protection. The ESEE further acknowledges the mining use is transitional and the site could be rezoned for other uses where the mining use is complete. The ESEE does not specify, and in fact is silent as to, a subsequent zoning designation. The DOGAMI files for the subject property have been closed since 2011.

Staff concurs with the applicant’s analysis.

- (b) The material meets local government standards establishing a lower threshold for significance than subsection (a) of this section; or**

**FINDING:** No lower threshold has been established by Deschutes County.

- (c) The aggregate site was on an inventory of significant aggregate sites in an acknowledged plan on September 1, 1996.**

**FINDING:** The Burden of Proof states:

Site No. 392 is included in the County's inventory for the sand and gravel resource not for aggregate. This criterion does not apply.

Staff concurs with the applicants' analysis.

- (d) Notwithstanding subsections (a) and (b) of this section, except for an expansion area of an existing site if the operator of the existing site on March 1, 1996, had an enforceable property interest in the expansion area on that date, an aggregate site is not significant if the criteria in either paragraphs (A) or (B) of this subsection apply:**

**(A) More than 35 percent of the proposed mining area consists of soil classified as Class I on Natural Resource and Conservation Service (NRCS) maps on June 11, 2004; or**

**(B) More than 35 percent of the proposed mining area consists of soil classified as Class II, or of a combination of Class II and Class I or Unique soil, on NRCS maps available on June 11, 2004, unless the average thickness of the aggregate layer within the mining area exceeds:**

**(i) 60 feet in Washington, Multnomah, Marion, Columbia, and Lane counties;**

**(ii) 25 feet in Polk, Yamhill, and Clackamas counties; or**

**(iii) 17 feet in Linn and Benton counties.**

**FINDING:** The Burden of Proof states:

The criterion does not apply. The subject property does not contain any Class I, Class II, or Unique soils as confirmed by the Wallace Group Report (Exhibit 8) and Amended Reclamation Plan (Exhibit 11), as well as the Site-Specific Soil Survey that was conducted by Certified Soil Scientist, Andy Gallagher and has been submitted to the Department of Land Conservation and Development (DLCD) in accordance with OAR 660-033-0045(6)(a) (Exhibit 6).

Staff concurs with the applicant's analysis.

**(4) Notwithstanding section (3) of this rule, a local government may also determine that an aggregate resource site on farmland is significant if subsections (a) and (b) of this section apply or if subsection (c) of this section applies:**

**FINDING:** The Burden of Proof states:

The criterion does not apply. Site No. 392 is not identified as agricultural lands on the acknowledged Deschutes County Comprehensive Plan map, and it has not been farmed or used in conjunction with any farming operation. The study conducted by Mr. Gallagher confirms the site is composed predominantly of Class 7 and 8 soils and therefore does not meet the definition of agricultural land. (Exhibit 6).

Staff concurs with the applicant’s analysis.

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

ORAR 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 defines “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.

ORAR 660-033-0020, Definitions

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

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

***(A) Lands classified by the U.S. Natural Resources Conservation Service (NRCS) as predominantly Class I-IV soils in Western Oregon and I-VI soils in Eastern Oregon<sup>8</sup>;***

**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:

ORS 215.211 grants a property owner the right to rely on more detailed information that provided by the NRCS Web Soil Survey of the NRCS to “assist the county to make a better

<sup>8</sup> 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.



determination of whether land qualifies as agricultural land.” Statewide Goal 3, discussed above, and OAR 660-033-0030(5) also allow the County to rely on the more detailed and accurate information by a higher order soil survey rather than information provided by the NRCS. The law requires that this survey use the NRCS soil classification system in conducting the survey, making it clear that the point of the survey is to provide better soil classification information than provided by the NRCS for use in making a proper decision whether land is or is not “Agricultural Land.” 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, as demonstrated by the site-specific soils assessment conducted by Mr. Gallagher, a certified soils scientist. State law, OAR 660-033-0030, allows the County to rely on for more accurate soils information, such as Mr. Gallagher's soil assessment. Mr. Gallagher found that approximately 66 percent of the soils on the subject property (approximately 183 acres) are 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, rock fragments on the soil surface, restrictive for livestock accessibility, and low available water holding capacity, 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 as 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:** As noted above, 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 has 18.13 acres of water rights. There is no evidence the property has been irrigated other than for dust control associated with the mine, it has no infrastructure for irrigation and the water right has not been perfected by being applied to the ground. The applicant intends to transfer the water right to Tax Lot 300 consistent with Arnold Irrigation District piping plans for the area. The Natural Resources Conservation Service (NRCS) map shown on the County's GIS mapping program identifies three soil complex units on the property:

- 27A Clovkamp loamy sand 0 to 3% slopes
- 155C Wanoga sandy loam 0 to 15% slopes
- 157C Wanoga-Fremkle-Rock outcrop complex 0 to 15% which is estimated to be 35 percent Wanoga, 30 percent Fremkle and 20 percent Rock Outcrop (Exhibit 5).

An Agricultural Soils Capability Assessment (Order 1 soil survey) conducted on the property by Mr. Gallagher determined that the property is not agricultural land. (Exhibit 6). Soils on this parcel are revised and reclassified based on high intensity soil mapping. The soils found here are remapped as predominantly Class 7 and 8 non-high value farmland soils including Gosney-Henkle -Rock Outcrop Complex classified as Capability Class 7 and 8 (41 percent) and Mined Land and Fill unit classified as Capability Class 7 (24 percent) based on the degree of stoniness in the surface layer and the coarse textured compacted sub-layers that are root restrictive and have low available water holding capacity. The combined percentage of Class 7 and 8 non-high value farmland soils is 66 percent (183 acres). There about 96 acres of soils (34%) that are Capability Class 6 non-irrigated and these include Deskamp and Wanoga with small inclusions of deeper Clovkamp loamy sand.

A review of the 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 loam sands with 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 and Henkle 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. NCRS does not provide any data productivity for non-irrigated crops on these soils.

The fact that the soils are low fertility unless made fertile through artificial means supports the applicant's position that the Class 7 and 8 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. Additionally, the soils on the property are shallow and very shallow further limiting any potential for commercially farming the property because the shallow soil depth limits the overall volume of soil available for plant roots and limits the size of the overall nutrient pool.

### **Unsuitability for Grazing:**

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

279.25-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 very stony to extremely stony surface which makes seeding impractical with conventional equipment. The Mined and Filled area has low available water holding capacity and from the barren cover on the surface and very compacted subsoil they also have low potential for forage production.

Wind erosion is a potential hazard and 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 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 is from Websoil survey for the Deskamp and Wanoga soils and that provided for the GR map unit is based the map unit is about 40 percent Gosney

or Henkle, 30 percent very shallow soils like Bakeoven and 25 percent rock outcrops and 5 percent deeper soil inclusions.

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

<b>Soil Map Unit</b>	<b>Total annual range production pounds per acre</b>		
	<b>Unfavorable Year</b>	<b>Normal Year</b>	<b>Favorable Year</b>
<b>36A Deskamp</b>	<b>700</b>	<b>900</b>	<b>1100</b>
<b>155C Wanoga</b>	<b>500</b>	<b>700</b>	<b>900</b>
<b>WD</b>	<b>600</b>	<b>800</b>	<b>1000</b>
<b>GR<sup>1</sup></b>	<b>315</b>	<b>441</b>	<b>567</b>
<b>MF</b>	<b>200</b>	<b>300</b>	<b>400</b>

1 Estimated based on weighted average of soils

Based on the revised Order-1 map the annual productivity in a normal year is about 74 tons annual range production for the entire property. This is lower (50 tons) for an unfavorable year and higher (98 tons) for a favorable year. The animal use months (AUMs) for this property is about 163 (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 14 cow calf pairs for 12 months in a normal year and fewer 9 cow calf pairs in unfavorable year and more 18 in a favorable year. This is not at an economical cattle production scale because the productivity of the land is too poor and is not conducive to rangeland improvements.

Range productivity long term is related to land management. Overgrazing can further reduce the productivity and resiliency of this site because it can cause a reduction in desirable grasses and where present cheatgrass will increase and granite prickly gilia increases and palatable grasses decline. Cheatgrass becomes dominate along with grey rabbitbrush on overgrazed sites. 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 climate in Central Oregon is cold and dry, with a very short growing season. According to the OSU Extension Service the growing season for Bend is only 80-90 days long. Exhibit 15. According to Mr. Gallagher, climatic conditions of this area make is 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 Wanoga and Deskamps soils and only those in areas where rock piles would not impeded irrigation infrastructure.

### **Existing and Future Availability of Water for Farm Irrigation Purposes**

The Site is located within the Arnold Irrigation District. According to the Deschutes County Website the lot has 18.13 acres of irrigated ground. There is no evidence the Site has ever been irrigated other than the application for dust control associated with the mine, it has no infrastructure for irrigation and the water right as not been perfected by being applied on the ground. The landowner's intention is to transfer this water right to the adjacent parcel Lot 300. Even if applied to the Site, this is only 18 acres out of a 279.25 acre parcel (six percent) and the Class 7 and 8 soils documented on the Site will remain Class 7 and 8 whether irrigated or not. Most of the Class 6 soil areas are interspersed with rock outcrops many of which stand 3 to 15 feet high on rolling terrain with short steep slopes and a long section of rimrock through the middle. The rough terrain conditions make conventional irrigation with central pivot, linears, travelling guns and even hand-moved pipe impractical. Such irrigation systems are expensive to purchase and install or have high labor demands and significant energy costs. Large amounts of surface rock would need to be dug, and moved to create fields of practical size and this would not be economical. Additionally, Arnold Irrigation District has already developed plans for piping of the main canal in this area. The District's policy is to include a stub out from the main pipeline for each water user. According to the District, they do not plan to construct an additional stub out for the Site separate from that for the adjacent TL 300.

The only potential agricultural use suited to this type of land is dryland grazing, and this use is impractical because of the size of the parcel and the low native productivity of the soils. 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 and an irresponsible use of scarce water resources.

### **Existing Land Use Patterns**

Adjacent to the east-southeast is a parcel owned by the applicant with a center pivot irrigated pasture currently being used for hay production. There is a thin forested buffer between that

hay ground and the subject parcel. The owner indicates the hay ground is being farmed at no cost to the farmer, in order to keep the water rights in use and for dust control. There is a solid waste landfill to the north of the parcel and rural residential parcels to the west. To the east across Arnold Market Road are rural residential five-acre parcels and several parcels up to 20 acres. The rezone to RR-10 would be in keeping with the surrounding land use.

The close proximity to the landfill, 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 size and location of the subject property make it unsuitable for raising livestock for any profit. 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 its location. In addition, the creation of dust which accompanies the harvesting of crops is a major concern on this property due to the close proximity of 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 36 acres of the Class 6 Wanoga soils. The lack of irrigation water limits crop production almost completely here. The Wanoga soils are delineated in many irregularly shaped and small areas that are separated by rocky and shallow soils and rock outcrops in the Order-1 soil map. The landscape is so cut up it is impractical to farm over most of the parcel. There are approximately 36 acres of Class 6 soils where the terrain and rocks do not restrict agriculture, but lack of irrigation does. The large Mined and Filled map unit is made up of soils that are very to extremely stony, very compacted and shallow to stones and boulders and are for the most part non-tillable.

### **Accepted Farming Practices:**

The only farming in the area is the adjacent irrigated hay production, which the owner indicates is conducted solely to retain the water rights and control dust. Other than the pivot irrigated field, the Site is surrounded by parcels that are not managed for farm use, nor is there any recent history of farm use. Based on this historic evidence, the re-zoning of this parcel is not likely to represent any significant increase in the potential for conflicts with accepted agricultural practices.

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 Burden of Proof states:

The nonagricultural land Gosney-Henkle-Rock outcrop is not interspersed with land that is agriculturally productive, because the delineations of Wanoga are surrounded by Gosney-Henkle-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 Wanoga soils cannot be used in farming in conjunction with the Gosney-Bakeoven-Rock outcrop soils. There is a center pivot pasture to the east-southeast of this parcel that is currently being used for hay production. The owner indicates it is being farmed for free to keep the water rights in use and for dust control. There is a thin forested buffer between that hay ground and the subject parcel. The historical mining of a portion of the subject parcel and the separation or nonuse of the remaining portion of the parcel from any adjacent and nearby farming establishes that it is neither useful nor productive to permit farming practices on those lands. Based on this historical evidence, it does not appear likely that the rezoning of this parcel would detract from the agricultural operation of the neighboring land. There is a solid waste landfill to the north of the parcel and rural residential parcels to the west. To the east across Arnold Market road are rural residential five acre parcels and several parcels up to 20 acres. The rezone to ten-acre parcels would be in keeping with the surrounding land use.

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 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 Burden of Proof states:

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 are 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. It is not a test which requires that 100% of soils on a subject property be Class 1-6.

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.

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 it has not been used in conjunction with any adjacent farm properties.

As shown by the soils assessment conducted by Mr. Gallagher, the predominant soil type found on the subject property is Class 7 and 8, nonagricultural land (66%). 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 6 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 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 varied soil capability, 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 property is 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 property 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 Burden of Proof states:

Attached as Exhibit 6 is a more detailed agricultural soil assessment related to the NRCS land capability classification system conducted by Andy Gallagher, a Certified Professional Soil Scientist authorized by the Department of Land Conservation and Development (DLCD).

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 three soil mapping units, 27A Clovkamp loamy sand 0 to 3% slopes, 155C Wanoga sandy loam 0 to 15% slopes, 157C Wanoga-Fremkle-Rock outcrop complex 0 to 15% which is estimated to be 35 percent Wanoga, 30 percent Fremkle and 20 percent Rock Outcrop. The more detailed Order-1 survey conducted by Mr. Gallagher included 232 samples from combined soil test pits, soil borings and surface observations of bedrock outcrops. 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	-%-
27A	--	Clovkamp	6	111	40	0	0
155C	--	Wanoga sandy loam	6	10	4	0	0

157C	--	Wanoga-Fremkle-Rock outcrop	6 (80%) 8 (20%)	158	56	0	0
--	GR	Gosney-Henkle-Outcrop	7 (%) 8 (%)	0	0	115	42
--	WD	Wanoga-Deskamp complex	6	0	0	96	34
--	MF	Mined and Filled Area	7	0	0	68	24
Total				279	100	279	100

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

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 279.25-acre tract currently zoned partly SM and partly EFU. Previously this area was mapped as Clovkamp loamy sand in the basin, Wanoga-Fremkle-Rock outcrop and Wanoga sandy loam were mapped in the surrounding wooded rangelands and hillsides. These collectively range from Land Capability Class 6 to Class 8 with a predominance of Class 6 high-value farmland.

In the revised Order-1 soil mapping soils were reclassified and remapped as predominantly Class 7 and 8, based on 232 samples from combined soil test pits, soil borings and surface observations of bedrock outcrops. Most of the area formerly mapped Clovkamp by NRCS was mined and then filled and graded so that most of it (68 acres, 24 percent of total parcel) is made-land that is Class 7 based on stoniness and low AWHC remapped as ML. There are 115 acres (42 percent of total parcel) of shallow and very to extremely stony, very shallow and rock outcrop that are remapped as GR unit. These two units of Class 7 and 8 land are 183 acres combined. The remaining acres 96 acres (34 percent of total parcel) are remapped as Class 6 and include mostly Deskamp and Wanoga soils. Based upon the findings of this Order-1 soil survey, the subject parcel is predominantly, 66 percent (183 acres), 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 clear 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.

With few exceptions the Wanoga soils exist in irregularly shaped pockets interspersed with short steep slopes, rocky, shallow soils creating severe limitations for any agricultural use either alone or in conjunction with other lands.

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. The applicant has submitted the soils assessment to DLCD for review of the soils assessment and will submit the certification as a condition of approval. 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 (LCC) 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 a mix of 157C (Gosney-Rock Outcrop-Deskamp complex), 27A (Cloukamp loamy sand) 155C (Wanoga sandy loam).

- (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 Burden of Proof states:

The applicant is seeking approval of a non-resource plan designation and zone on the basis that the subject property is not agricultural land. The recognition of the nonresource process to rezone lands which do not qualify as resource lands and therefore do not implicate the protections of the resource designations under the Statewide Planning Goals is well established under state law and local Deschutes County code provisions and land use decisions. Attached as Exhibit 16 is the County Comprehensive Plan Section 5.12 detailing the plan amendment, zone changes under the nonresource process which have occurred since 2011. In 2016, the County specifically adopted Ordinance 2016-005, Exhibit 17, which included Policy 2.2.3 recognizing the process and explicitly authorizing comprehensive plan and zoning map amendments, including nonresource lands, for EFU properties. The findings included in the Comprehensive Plan text at 3.3 specifically provide that “[a]s of 2010 any new

Rural Residential Exception Areas need to be justified through initiating a non-resource 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.”

**(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 May 24, 2024. 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 October 9, 2024, 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:

Attached as Exhibit 11 is a transportation impact analysis memorandum dated June 18, 2024 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 approximately 279-acre "Rose Pit" property from Surface Mining and Exclusive Farm Use to Rural Residential results in a small increase in the trip generation potential of the property. A slightly higher difference occurs in consideration of conditionally allowed uses (such as the use of the density bonus or provision of a future park). Conservatively, these analysis scenarios were also included within this review.
- The small increase in trips could impact the Rickard Road corridor or the SE 27th Street/Rickard Road intersection. An operational assessment was prepared to determine whether these locations operate adequately with the proposed rezone, using each of the potential trip generation scenarios.
- The assessment shows that even with the inclusion of conditional uses the Rickard Road segment and SE 27th Street/Rickard Road intersection will continue to operate acceptably. As the impacted facilities can continue to meet adopted performance standards, a significant impact does not occur with this rezone.
- Coordination of this rezone application with the City of Bend will be required by the Transportation Planning Rule.

Based on this review a significant affect does not occur with rezoning the subject properties from SM and EFU to RR-10 zoning.

Based on the traffic analysis and findings by Mr. Bessman, the application complies with the County transportation code requirements, transportation system plan and the TPR.

The proposed plan amendment would change the designation of the subject property from AG to RREA and change the zone from EFU to RR10. The Applicant is not proposing any land use development of the property at this time.

The Applicant submitted a traffic study, Exhibit 12, dated June 18, 2024, and prepared by Joe Bessman of Transight Consulting LLC. As noted in the agency comments section above, the County Transportation Planner, 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.

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.

### **Division 15, Statewide Planning Goals**

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

**FINDING:** The Statewide Planning Goals and the Applicant's responses from the Burden of Proof 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. Forest land is defined by OAR 660-005-0010 as lands suitable for commercial forest use protection under Goal 4, which are identified using NCRS soil survey maps to determine average annual wood fiber production figures. The NCRS maps for the subject property map it with soil mapping units 27A, 155C and 157 C. The NCRS Soils Survey for the upper Deschutes River lists all soils mapped by its survey that are suitable for wood crop production in Table 8 (Exhibit 18). None of the soils mapped on the subject property are listed in Table 8 as suitable for wood crop production.

**Goal 5, Natural Resources, Scenic and Historic Areas, and Open Spaces.** The subject property does not contain any inventoried Goal 5 resources.

**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. The planned regional park will serve the surrounding rural community and 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.



**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 within 1 mile from the city limits of Bend. If the property is developed with additional 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. If the property is developed with the regional park, as planned, it will provide recreational opportunities in close proximity to rural and urban residences, thereby conserving energy and vehicle miles traveled.

**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 RR-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, increased rural density, and traffic. 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. Further, issues related to a specific future development will be addressed at that time.

**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 property from Exclusive Farm Use to Rural Residential 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: Anthony Raguine, Principal Planner

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



## 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**  
**October 9, 2024**

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 279.25-acre, Lot 200 Arnold Market Road, Bend, Oregon'
  - (b) Person making request for soils assessment; Sara Anselment
  - (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; Taxlot 200 in Township 18S, Range 12E, Section 23.
  - (g) Present zoning designation; EFU Surface Mining
  - (h) Current land use; Reclaimed mine and habitat
  - (i) Parcel acreage; 279 acres; evaluated: 279 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 6 and Figure 2, page 14. NRCS identified soils are Clovkamp (capability class 6), Wanoga sandy loam (capability class 6), Wanoga-Fremkle-Rock outcrop (capability class 6 and class 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 1)
- (b) The date(s) of the field investigation; March 21 and 22 and April 11 and 12, 2024
- (c) The methods used for observations (backhoe, auger, shovel, etc.) and methods used for documentation (for slope, color, pH, etc.); Soil borings from pits and surface observations, slope gradients as measured by DEM and compared to ground measurements made with a clinometer, soils determined using Munsell color chart, GIS analysis as described on page 2.
- (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. 232 sample site observation locations are identified in Figures 6A and 6B on pages 19 and 20. Sample location coordinates are provided as an attachment to the document.
- (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 2)
  - (b) A description of the landforms and topography, confirming the relationship of landforms to soil mapping units; (Page 2)
  - (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 2)
  - (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 3-6)
  - (e) A tabulation of all previous and revised soil mapping units complete with their acreages and land capability classification. Table 1, page 6.
- (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 pages 10-11.
- (4) References: This section may list any manuals or publications utilized or referenced by the report. Provided on page 12.
- (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 13
- (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 14
- (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; Figures 6A and 6B, pages 19-20
- (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 16
- (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 17  
(g) Soil profile descriptions and site observation notes; Attached

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# Soil Assessment for 279.25-acre, Lot 200 Arnold Market Road, Bend, Oregon.

For: Bend Park and Recreation Department,  
799 SW Columbia Street,  
Bend, Oregon 97702.

May 24, 2024

By: Andy  
Gallagher  
CPSSc/SC  
03114

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

*Red Hill Soils*

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## SOIL ASSESSMENT REPORT

### 1. GENERAL INFORMATION

- A. TITLE: Soil Assessment for 279.25-acre, Lot 200, Arnold Market Road, Bend, Oregon.
- B. LANDOWNER: Bend Park and Recreation Department, 799 SW Columbia Street, Bend, Oregon 97702.
- C. SOIL SCIENTIST AND CERTIFICATION NUMBER: Andy Gallagher ARCPACS CPSSc/SC 03114
- D. COUNTY: Deschutes County, Oregon.
- E. LOCATION: Tax lot 200 Sec. 23, T.18S., R. 12E., W.M.
- F. PRESENT ZONING: Exclusive Farm Use on part and Surface Mining on part.
- G. CURRENT LAND USE: Reclaimed mine land and 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.<sup>1</sup> The NRCS soil map of this parcel (Figure 2) shows:

- 27A Clovkamp loamy sand 0 to 3% slopes
- 155C Wanoga sandy loam 0 to 15% slopes
- 157C Wanoga-Fremkle-Rock outcrop complex 0 to 15% which is estimated to be 35 percent Wanoga, 30 percent Fremkle and 20 percent Rock Outcrop.

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. Two hundred thirty-two soil test pits and observations of surface rock were made on the parcel to revise the soil map. Soil test pits and observations of rock outcrops average approximately one per acre.

<sup>1</sup> 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.



B. DATES OF FIELD INVESTIGATIONS: Field work was done on March 21 and 22 and April 11 and April 12, 2024.

C. FIELD METHODS: Methods used for observation included soil profile description from soil pits and surface observations to classify soils and design map units. 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. Boring's 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. Soil Sampling was conducted in multiple steps. The first step was sampling on a loose grid approximately one sample soil pit per five acres. These initial samples were mapped over two field days and used to determine if further sampling was warranted. During loose grid sampling, areas that were extremely stony or where there was bedrock exposed were mapped wherever these features intersected with transect lines.

After deciding that additional sampling was needed two more field days were devoted to filling in gaps of the initial mapping. More soil pits were dug where soil was accessible to the excavator. Where inaccessible because of rocky and steep terrain, soils were probed with a tile probe to test for depth to stones and in some cases soils were described from shallow hand dug pits as needed. Areas of bedrock outcrop were mapped as were areas of very shallow and soils that are shallow and very to extremely stony. A topographic map with a five-foot contour interval created and used to refine soil boundaries based on sampling data and other field notes and aerial photo images. The boundary between the fill and the natural soils was delineated based on aerial imagery and GPS locations of soil samples.

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. Soils in the Mined and Filled Area are mixed source coarse textured stony fill.

B. LANDFORMS AND TOPOGRAPHY: Gently rolling lava plains with low pressure ridge and collapsed lava tube features. There is a long linear rimrock feature on the west side that is basalt and very steep cliffs and very steep slopes. A large portion of the middle and north part of the parcel is a basin that has been mined and filled so the surface has altered and reshaped and its original form.

C. SITE HYDROLOGY: Soils observed are somewhat excessively drained with sandy soils over rock and there was no surface water observed on the parcel at the time of sampling.

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 mixed with ponderosa pine, big sagebrush, bitterbrush, rabbit brush and bunch grasses. There are three Ecological Groups represented here that include: Juniper Shrubby Pumice Flat, Juniper Shrubby Lava Blisters and Frigid Xeric Foothills. The site is in the zone where these three sites transition into one another. Vegetation in the basin is dominated by big sagebrush, rabbitbrush and bitterbrush, bunch grasses and cheat grass in disturbed areas. The vegetation is very sparse on the mined and filled area. Woodlands are dominated by western juniper and ponderosa pine with sage brush, bitter brush, rabbit brush and bunch grasses underneath.

## 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 predominantly Class 7 and 8 non-high value farmland soils including Gosney-Henkle -Rock Outcrop Complex classified as Capability Class 7 and 8 (41 percent) and Mined Land and Fill unit classified as Capability Class 7 (24 percent) based on the degree of stoniness in the surface layer and the coarse textured compacted sub-layers that are root restrictive and have low available water holding capacity. The combined percentage of Class 7 and 8 non-high value farmland soils is 66 percent (183 acres). There about 96 acres of soils (35%) that are Capability Class 6 non-irrigated and these include Deskamp and Wanoga with small inclusions of deeper Clovkamp loamy sand.

### **GR Gosney-Henkle-Rock Outcrop Complex**

Capability Class: 7 and 8 mapped as a complex

These soils are mapped together in a complex because both Gosney and Henkle components are Capability Class 7 and Bedrock out crops are Class 8 so it is not a practical matter to map them separately. Based on the field observations here the map unit is about 40 percent Gosney or Henkle, 30 percent very shallow soils like Bakeoven and 25 percent rock outcrops and 5 percent deeper soil inclusions.

On the landscape this map unit usually had a prominent rock outcrop anywhere from just at the surface to standing 10s of feet high and includes the  $\frac{3}{4}$  mile long rimrock. Immediately adjacent to the rock outcrop is very shallow Bakeoven soil and farther away from the rock outcrop is the very shallow and very stony to extremely stony Gosney and Henkle. On prominent elevational highs, the high position often had Gosney and Henkle and Bakeoven between the bedrock outcrops and these were often in a linear or curvilinear pattern. This unit tended to have more Juniper and stunted ponderosa pine than the moderately deep soil map unit.

They have lower productivity than NRCS map unit 38B and 157C because they do not contain a mappable area of moderately deep soils like Deskamp and Wanoga series

that were mapped separately as the Wanoga-Deskamp complex. The productivity reported in Table 2 for Gosney-Henkle-Rock Outcrop are 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.

### **Description of Components of GR map unit**

**Gosney loamy sand and extremely 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. The Gosney soils are not as dark in the surface layer as the Henkle. Henkle have a mollic epipedon and Gosney have an ochric epipedon. Some soils are mollic intergrades having darker surface but not thick enough to be a mollic epipedon.

**Henkle loamy sand and extremely stony sandy loam** (0 to 15 percent slopes)

**Description:** Henkle series are intermittently moist and are dry in all parts of the soil moisture control section for 90 to 110 consecutive days. The mean annual soil temperature is about 44 to 47 degrees F. Depth to hard basalt bedrock is 10 to 20 inches. The solum contains 50 to 80 percent volcanic glass and glass-coated aggregates. They are somewhat excessively drained soils on foothills and transitions to lava plains. These soils have rapid permeability. They formed in volcanic ash over hard basalt bedrock. The mean annual precipitation is 12 inches to 16 inches mostly as snow. These soils have a mollic epipedon which Gosney soils do not have. The epipedon color was variable from sample to sample some were mollic and others were ochric or mollic intergrades.

**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 Wanoga that are moderately deep (>20 inches to 40 inches). Many of the pedons are very to extremely stony and 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. This soil has 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. There is a long linear rimrock area on the western side of the parcel that runs about  $\frac{3}{4}$  of a mile.

**WD Wanoga-Deskamp Complex**

**Capability Class:** Both components of this map unit are capability class 6 and are mapped as a complex here because it is impractical to map them separately.

Based on the field observations here the map unit is about 40 percent Deskamp and 35 percent Wanoga and approximately 10 percent inclusion of deeper soils like Clovkamp and 10 percent stony soils like Fryrear, as well as 5 percent shallow soils like Gosney and Henkle.

On the landscape this map unit is usually in small to large clearings with fewer Juniper and Ponderosa pine and these tend to be in in lower lying micro-basins and basins between the more convex shallow and rock out crop units. Wanoga soils were more associated with Ponderosa pine on the higher bench and Deskamp more with the Juniper on the lower part of the parcel, but this is an area of transition between these moderately deep soils.

**Description of Components of WD map unit****Wanoga loamy sand and sandy loam**

**Description:** The Wanoga series consists of moderately deep, well drained soils on volcanic uplands. They formed in volcanic ash over bedrock. Wanoga soils are on volcanic uplands and plateaus. Elevations are 2800 to 5900 feet. Slopes are 0 to 65 percent. They formed in volcanic ash over bedrock. The climate is characterized by cold, wet winters and hot, dry summers. The mean annual precipitation is 12 to 20 inches. The mean annual temperature is 42 to 47 degrees F. The frost-free period is 20 to 90 days. These soils have colors of a mollic epipedon from 1 to 13 inches (A1, A2 horizons) and a Cambic B horizon below the mollic and above bedrock or in some cases duripan that is less than 40 inches deep. NRCS reports the epipedon has low organic matter despite dark colors in surface.

**Capability Class:** 6 non-irrigated

**Soil Variability:** There are small inclusions of deeper soils like Clovkamp and soils with more coarse fragments in the subsoil like Fryrear, both of which are also Class 6.

**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:** 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.

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

Previous Map Symbol	Revised Map Symbol	Soil Series Name	Nonirrigated Capability Class	Previous Map*		Revised Map	
				Ac	-%-	Ac	-%-
27A	--	Clovkamp	6	111	40	0	0
155C	--	Wanoga sandy loam	6	10	4	0	0
157C	--	Wanoga-Fremkle-Rock outcrop	6 (80%) 8 (20%)	158	56	0	0
--	GR	Gosney-Henkle-Outcrop	7 (%) 8 (%)	0	0	115	42
--	WD	Wanoga-Deskamp complex	6	0	0	96	34
--	MF	Mined and Filled Area	7	0	0	68	24
<b>Total</b>				<b>279</b>	<b>100</b>	<b>279</b>	<b>100</b>

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

**SUITABILITY FACTORS –OAR 660-033-0020**

**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 Deskamp 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 and Henkle less than 1.8 inches for the whole soil profile, and for the very shallow soils it is half this much. The Deskamp 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.

**Suitability for grazing**

This 279.25-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 very stony to extremely stony surface which makes seeding impractical with conventional equipment. The Mined and Filled area has low available water holding capacity and from the barren cover on the surface and very compacted subsoil they also have low potential for forage production.

Wind erosion is a potential hazard and 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 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 is from Websoil survey for the Deskamp and Wanoga soils and that provided for the GR map unit is based the map unit is about 40 percent Gosney or Henkle, 30 percent very shallow soils like Bakeoven and 25 percent rock outcrops and 5 percent deeper soil inclusions.

**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
<b>36A Deskamp</b>	<b>700</b>	<b>900</b>	<b>1100</b>
<b>155C Wanoga</b>	<b>500</b>	<b>700</b>	<b>900</b>
<b>WD</b>	<b>600</b>	<b>800</b>	<b>1000</b>
<b>GR<sup>1</sup></b>	<b>315</b>	<b>441</b>	<b>567</b>
<b>MF</b>	<b>200</b>	<b>300</b>	<b>400</b>

<sup>1</sup> Estimated based on weighted average of soils

Based on the revised Order-1 map the annual productivity in a normal year is about 74 tons annual range production for the entire property. This is lower (50 tons) for a unfavorable year and higher (98 tons) for a favorable year. The animal use months (AUMs) for this property is about 163 (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 14 cow calf pairs for 12 months in a normal year and fewer 9 cow calf pairs in unfavorable year and more 18 in a favorable year. This is not at an economical cattle production scale because the productivity of the land is too poor and is not conducive to rangeland improvements.

Range productivity long term is related to land management. Overgrazing can further reduce the productivity and resiliency of this site because it can cause a reduction in desirable grasses and where present cheatgrass will increase and granite prickly gilia increases and palatable grasses decline. Cheatgrass becomes dominate along with grey rabbitbrush on overgrazed sites. 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 Wanoga and Deskamp soils and only those in areas where rocks and rock piles would not impede irrigation infrastructure.

### **Existing and Future Availability of Water for Irrigation**

The Site is located within the Arnold Irrigation District. According to the Deschutes County Website the lot has 18.13 acres of irrigated ground. There is no evidence the Site has ever been irrigated as it has no infrastructure for irrigation and the water right as not been perfected by being applied on the ground. The landowner's intention is to transfer this water right to the adjacent parcel Lot 300. Even if applied to the Site, this is only 18 acres out of a 279.25 acre parcel (six percent) and the Class 7 and 8 soils documented on the Site will remain Class 7 and 8 whether irrigated or not. Most of the Class 6 soil areas are interspersed with rock outcrops many of which stand 3 to 15 feet high on rolling terrain with short steep slopes and a long section of rimrock through the middle. The rough terrain conditions make conventional irrigation with central pivot, linears, travelling guns and even hand-moved pipe impractical. Such irrigation systems are expensive to purchase and install or have high labor demands and significant energy costs. Large amounts of surface rock would need to be dug, and moved to create fields of practical size and this would not be economical. Additionally, Arnold Irrigation District has already developed plans for piping of the main canal in this area. The District's policy is to include a stub out from the main pipeline for each water user. According to the District, they do not plan to construct an additional stub out for the Site separate from that for the adjacent TL 300.

The only potential agricultural use suited to this type of land is dryland grazing, and this use is impractical because of the size of the parcel and the low native productivity of the soils.

### **Existing Land Use Patterns**

Adjacent to the east-southeast is a parcel with a center pivot irrigated pasture currently being used for hay production. There is a thin forested buffer between that hay ground and the subject parcel. The owner indicates the hay ground is being farmed at no cost to the farmer, in order to keep the water rights in use and for dust control. There is a solid waste landfill to the north of the parcel and rural residential parcels to the west. To the east across Arnold Market Road are rural residential five-acre parcels and several parcels up to 20 acres. The rezone to ten-acre parcels would be in keeping with the surrounding land use.

### **Technological and energy inputs required**

The very shallow and shallow soils and abundant rock outcrops limit practical agricultural crop production on all but about 36 acres of the Class 6 Wanoga soils. The lack of irrigation water limits crop production almost completely here. The Wanoga soils are delineated in many irregularly shaped and small areas that are separated by rocky and shallow soils and rock outcrops in the Order-1 soil map. The landscape is so cut up it is



impractical to farm over most of the parcel. There are approximately 36 acres of Class 6 soils where the terrain and rocks do not restrict agriculture, but lack of irrigation does. The large Mined and Filled map unit is made up of soils that are very to extremely stony, very compacted and shallow to stones and boulders and are for the most part non-tillable.

### **Accepted Farm Practices**

The only farming in the area is the adjacent irrigated hay production, which the owner indicates is conducted solely to retain the water rights and control dust. Other than the pivot irrigated field, the Site is surrounded by parcels that are not managed for farm use, nor is there any recent history of farm use. Based on this historic evidence, the re-zoning of this parcel is not likely to represent any significant increase in the potential for conflicts with accepted agricultural practices.

### **Locational test/Adjacent and Nearby Farming**

The nonagricultural land Gosney-Henkle-Rock outcrop is not interspersed with land that is agriculturally productive, because the delineations of Wanoga are surrounded by Gosney-Henkle-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 Wanoga soils cannot be used in farming in conjunction with the Gosney-Bakeoven-Rock outcrop soils. There is a center pivot pasture to the east-southeast of this parcel that is currently being used for hay production. The owner indicates it is being farmed for free to keep the water rights in use and for dust control. There is a thin forested buffer between that hay ground and the subject parcel. The historical mining of a portion of the subject parcel and the separation or nonuse of the remaining portion of the parcel from any adjacent and nearby farming establishes that it is neither useful nor productive to permit farming practices on those lands. Based on this historical evidence, it does not appear likely that the rezoning of this parcel would detract from the agricultural operation of the neighboring land. There is a solid waste landfill to the north of the parcel and rural residential parcels to the west. To the east across Arnold Market road are rural residential five acre parcels and several parcels up to 20 acres. The rezone to ten-acre parcels would be in keeping with the surrounding land use.

### **SUMMARY AND CONCLUSIONS:**

Soils were remapped in a high intensity (Order-1) soil survey 279.25-acre tract currently zoned partly SM and partly EFU. Previously this area was mapped as Clovkamp loamy sand in the basin, Wanoga-Fremkle-Rock outcrop and Wanoga sandy loam were mapped in the surrounding wooded rangelands and hillsides. These collectively range from Land Capability Class 6 to Class 8 with a predominance of Class 6 high-value farmland.

In the revised Order-1 soil mapping soils were reclassified and remapped as predominantly Class 7 and 8, based on 232 samples from combined soil test pits, soil borings and surface observations of bedrock outcrops. Most of the area formerly mapped Clovkamp by NRCS was mined and then filled and graded so that most of it

(68 acres, 24 percent of total parcel) is made-land that is Class 7 based on stoniness and low AWHC remapped as ML. There are 115 acres (42 percent of total parcel) of shallow and very to extremely stony, very shallow and rock outcrop that are remapped as GR unit. These two units of Class 7 and 8 land are 183 acres combined. The remaining acres 96 acres (34 percent of total parcel) are remapped as Class 6 and include mostly Deskamp and Wanoga soils. Based upon the findings of this Order-1 soil survey, the subject parcel is predominantly, 66 percent (183 acres), 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 clear 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.

With few exceptions the Wanoga soils exist in irregularly shaped 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 (1:150,000 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. Assessors Map
- e. Figure 5A and 5B. Revised Soil Map of the Project Site
- f. Figure 6A and 6B Locations of Soil Samples
- g. Soil Profile Notes and Site Observation Notes Attachment 1
- h. GPS coordinates Attachment 2
- i. Photos of sites Attachment 3

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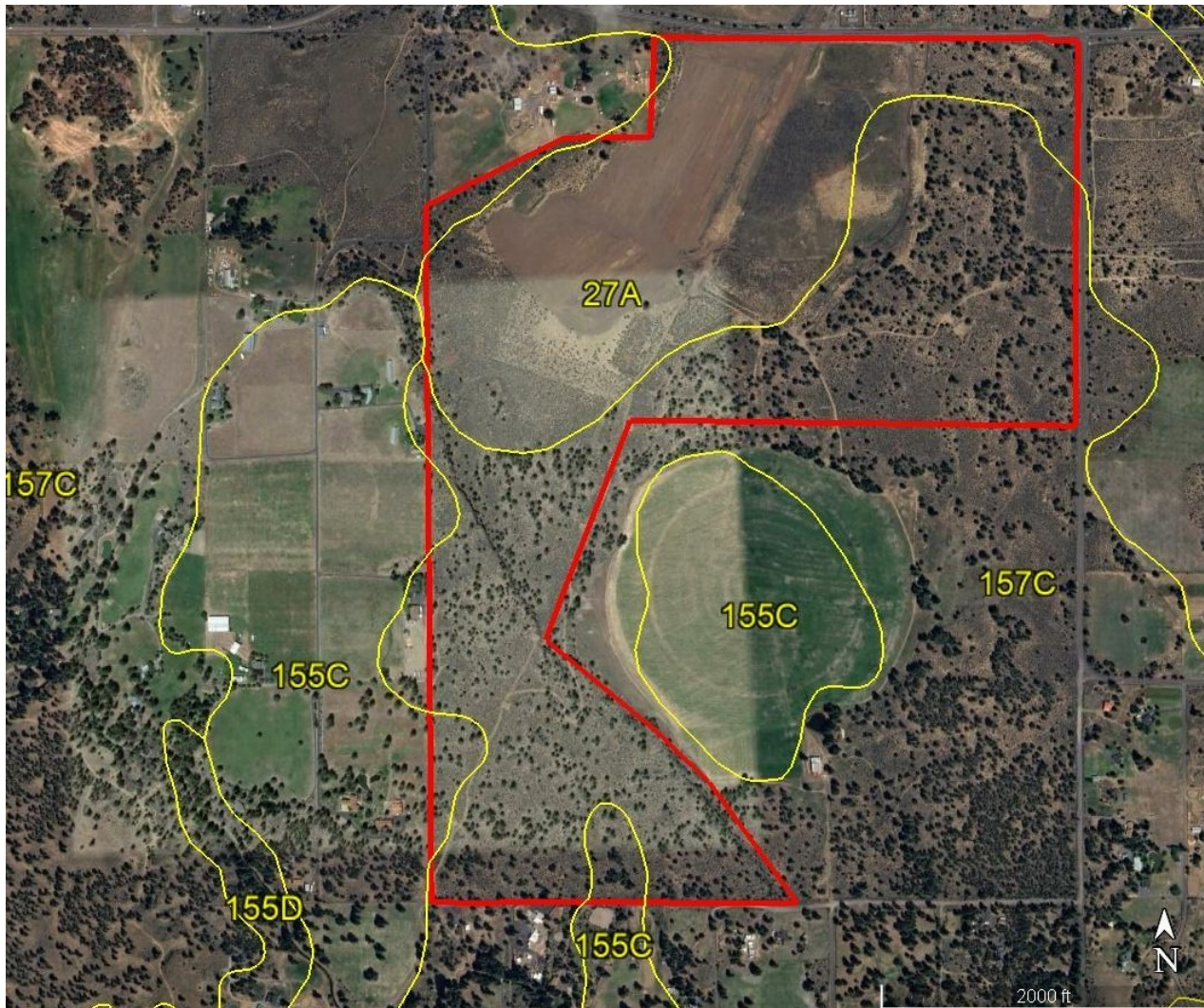
Date: May 24, 2024

**Figure 1. Vicinity Map (1:150,000 scale, parcel at blue balloon)**





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



**NRCS Soil Map Legend**

<b>SYMBOL</b>	<b>Map Unit Name</b>	<b>Capability Class (non-irrigated)</b>
27A	Clovkamp loamy sand	6
155C	Wanoga sandy loam	6
157C	Wanoga-Fremkle-Rock outcrop complex	6 (75%), 8 (20%) other (5%)



**Figure 3. Topographic map and soil condition map of the study area (Contour interval 5 ft).**







Figure 5A. Order-1 revised soil map (North Part)





Figure 5B. Order-1 revised soil map (South Part)



Figure 6A. Locations of Soil borings (North Part)

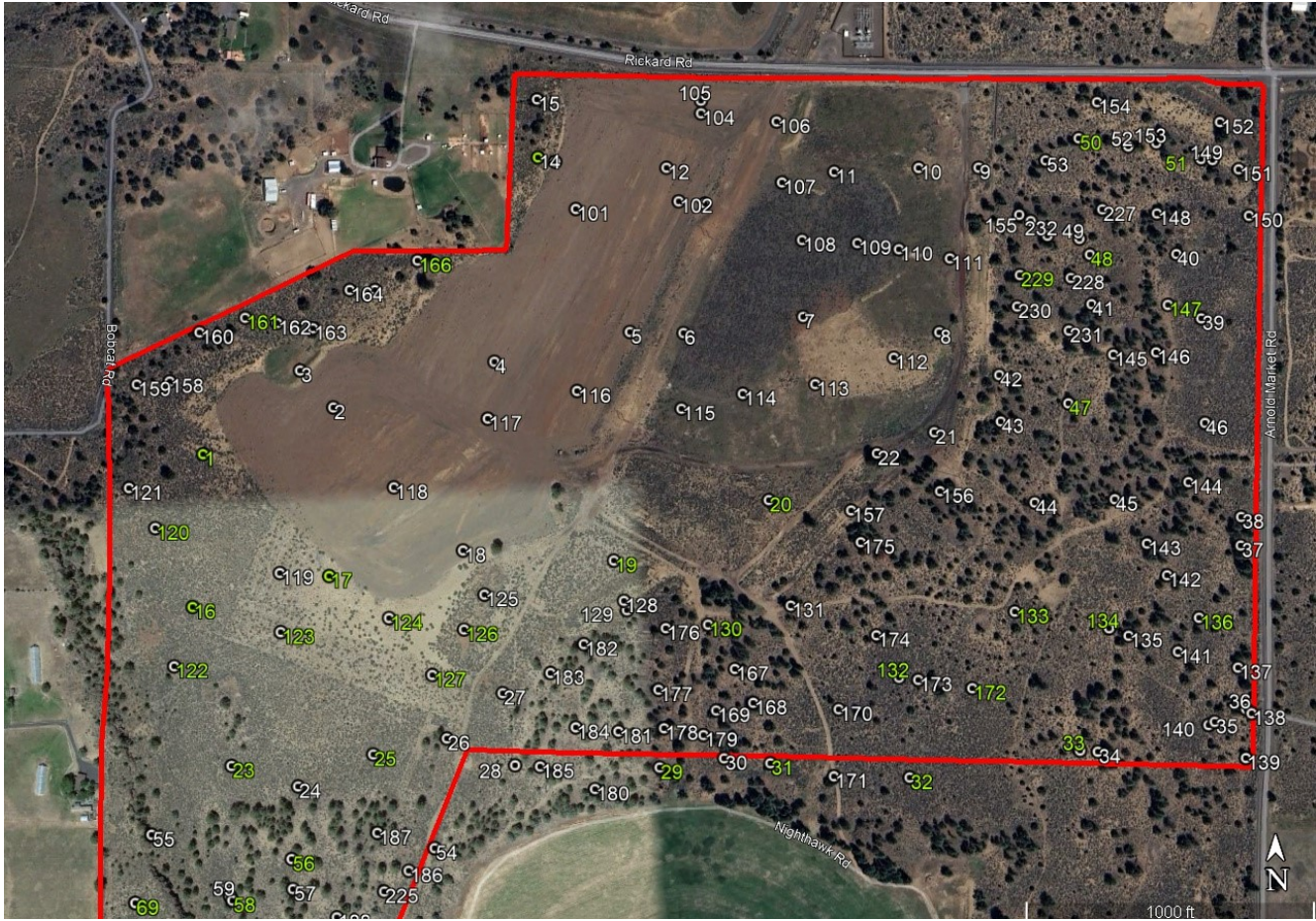




Figure 6B. Locations of Soil borings (South Part)



Soil Sample Name	Soil Horizon	Upper Depth (IN)	Lower Depth (IN)	Color	Coarse Fragments	Texture	Notes
1 Deskamp	A	0	24	10YR4-3/3		ashy loamy sand	
	C	24	30	10Yr4/3	CB	ashy loamy sand	
2 Fill	AC	0	4	10YR2/2	VGR	ashy loamy sand	
	C1	4	10	7.5YR4/4, 10YR3/3 10YR7/2	GR	loamy sand	massive, compacted
	C2	10	21	10YR2/2	VGR	loamy sand	compacted
	C3	21			VST	loamy sand	refusal
3 Steep sided sand pile, stockpiled top soil.							
4 Fill	AC	0	9	10YR2/2	VGR	ashy loamy sand	
	C1	9	17	10YR2/2	VGR	loamy sand	
	C2	17	22	10YR4/4	VGR	loamy sand	
	C3	22					refusal
5 Fill	AC	0	6	10YR3/3	VGR	ashy loamy sand	
	C	6	21	10YR2/2	VGR	loamy sand	
	C	21			too stony		refusal
6 Fill	AC	0	7	10YR3/3	XST	ashy loamy sand	
	C	7			Fragmental sand		refusal
7 Fill	AC	0	8	mixed colors	XST	ashy loamy sand	
	C1	8	20	reddish cinders	XST	cinders	
	C2	20			too stony		refusal
8 Fill	C1	0	12	mixed colors	XST	ashy sandy loam	asphalt chunks
	C2	12	20	mixed colors	XST	loamy sand	
	C3	20			too stony		refusal

Soil Sample Name	Soil Horizon	Upper Depth	Lower Depth	Color	Coarse Fragments	Texture	Notes
9 Fill	AC	0	12	10YR3/3	VST	ashy loamy sand	
	C1	12	24	10YR4/3	VST	loamy sand	very compacted
	C2	24					refusal
10 Rock outcrop	R				basalt		
11 Fill -Rock pile	C1	0	6		Fragmental		only rock on surface
	C2	6					refusal
12 Fill	AC	0	10	10YR3/2	ST	ashy loamy sand	
	C1	10	22	10YR2/2	ST	loamy sand	very compacted
	C2	22			too stony		refusal
13 Fill	AC	0	19	10YR3/2	VGR	ashy loamy sand	very compacted
	C	19			too rocky		refusal
14 Deskamp	A	0	9	10YR3/3		ashy loamy sand	
	Bw	9	22	10YR4/3		ashy sandy loam	
	C	22	36	10YR4/3		ashy loamy sand	
	R	36			basalt		
15 Rock outcrop					basalt		
16 Clovkamp	A	0	9	10YR3/3		ashy loamy sand	
	Bw	9	40	10YR4/3		ashy loamy sand	
17 Clovkamp	like #16						

Soil Sample Name	Soil Horizon	Upper Depth	Lower Depth	Color	Coarse Fragments	Texture	Notes
18 Fill	AC	0	6	10YR2/2	VGR	ashy loamy sand	
	C1	6	10	10YR3/2	XST	loamy sand	very compacted
	C2	10	18	10YR2/2	XST	loamy sand	very compacted
	C3	18				too stony	refusal
19 Clovkamp	like #16						
20 Fryrear	A	0	8	10YR3/3		ashy sandy loam	
	AB	8	12	10YR3/4		ashy sandy loam	
	Bw	12	20	10YR4/3	XST	ashy sandy loam	
	C	20				refusal	
21 Fill	C	0	4			Fragmental sand	refusal
		4					
22 Rock outcrop						basalt	3 ft tall
23 Wanoga	A1	0	8	10YR2/2		ashy loamy sand	
	A2	8	13	10YR3/3		ashy loamy sand	
	Bw	13	32	10YR4/3		ashy loamy sand	
	Bq	32				duripan	
24 Rock out crop						basalt	
25 Wanoga-Fryrear	A1	0	8	10YR3/2		ashy sandy loam	
	A2	8	24	10YR3/3		ashy sandy loam	
	Bw	24	31	10YR3/3	VCB	ashy sandy loam	
	2C	31				too rocky	refusal
26 Rock outcrop							
27 Rock outcrop						basalt	

Soil Sample Name	Soil Horizon	Upper Depth	Lower Depth	Color	Coarse Fragments	Texture	Notes
28 Bakeoven	A	0	10	10YR3/3		ashy loamy sand	
	R	10			basalt		
29 Wanoga	A1	0	7	10YR3/2		ashy sandy loam	
	A2	7	16	10YR3/3		ashy sandy loam	
	Bw	16	24	10YR4/3	CB	ashy sandy loam	
	2C	24			XST	too rocky	refusal
30 Rock outcrop					basalt		
31 Fryrear	A1	0	8	10YR3/2		ashy sandy loam	
	A2	8	20	10YR3/3	VST	ashy sandy loam	
	Bw	20	36	10YR4/3	XST	ashy sandy loam	
	2C	36			XST	too rocky	refusal
32 Fryrear	A1	0	8	10YR3/2		ashy sandy loam	
	A2	8	18	10YR3/3		ashy sandy loam	
	Bw	18	26	10YR4/3	VCB	ashy sandy loam	
	2C	26			XST	too rocky	refusal
33 Wanoga	A1	0	8	10YR3/2		ashy sandy loam	
	A2	8	18	10YR3/3		ashy sandy loam	
	Bw	18	26	10YR3/4	CB	ashy sandy loam	
	2C	26			XST	too rocky	refusal
34 Rock outcrop					basalt		
35 Rock outcrop					basalt		

Soil Sample Name	Soil Horizon	Upper Depth	Lower Depth	Color	Coarse Fragments	Texture	Notes
36 Gosney	A	0	8	10YR4/3		ashy loamy sand	
	Bw	8	13	10YR4/3	VST	ashy loamy sand	
	R	13		10YR4/3	basalt		
37 Bakeoven	A	0	7	10YR3/3	VGR	ashy loamy sand	
	R	7			basalt		
38 Gosney	A	0	8	10YR4/3		ashy loamy sand	next to rock outcrop
	Bw	8	13	10YR4/3	VST	ashy loamy sand	
	R	13		10YR4/3	basalt		
39 Rock outcrop					basalt		in partly cleared area with r
40 Rock outcrop					basalt		5 ft high
41 Gosney	A	0	8	10YR4/3	VST	ashy loamy sand	
	Bw	8	16	10YR4/3	VST	ashy loamy sand	
	R	16			basalt		
42 Gosney	A	0	9	10YR4/3	VCB	ashy loamy sand	next to boulder pile
	Bw	9	18	10YR4/4	VST	ashy loamy sand	
	R	18			basalt		
43 Gosney	A	0	7	10YR4/3	VST	ashy loamy sand	next to rock outcrop
	Bw	7	14	10YR4/4	VST	ashy loamy sand	
	R	14			basalt		
44 Rock pile					basalt		4 ft tall outcrop



Soil Sample Name	Soil Horizon	Upper Depth	Lower Depth	Color	Coarse Fragments	Texture	Notes
45 Fryrear	A	0	6	10YR4/3	XST	ashy loamy sand	
	AB	6	31	10YR4/3	XST	ashy loamy sand	
	C	31			XST		refusal
46 Bakeoven	A	0	4	10YR3/3	VGR	ashy loamy sand	
	R	4				basalt	
47 Deskamp-Fryrear	A	0	6	10YR3/2		ashy sandy loam	
	Bw	6	17	10YR3/3		ashy sandy loam	
	C	17	40	10YR4/3	VCB	ashy sandy loam	
48 Deskamp	A	0	9	10YR3/3		ashy sandy loam	
	Bw	9	22	10YR3/3		ashy sandy loam	
	C	22	34	10YR3/4		ashy sandy loam	
		34	40	10YR4/4	VCB	ashy sandy loam	
49 Bakeoven	A	0	6	10YR3/3	VGR	ashy loamy sand	
	R	6				basalt	
50 Deskamp	A1	0	7	10YR3/3		ashy sandy loam	
	A2	7	23	10YR3/3		ashy sandy loam	
	Bw	23	33	10YR3/4		ashy sandy loam	
	BC	33	40	10YR4/4	VCB	ashy sandy loam	
51 Deskamp	A1	0	9	10YR3/3		ashy sandy loam	
	A2	9	18	10YR3/3		ashy sandy loam	
	Bw	18	27	10YR3/4	GR	ashy sandy loam	
	BC	27	31	10YR4/4	CB	ashy sandy loam	
		31				too stony below	refusal
52 Bakeoven	A	0	8	10YR3/3	GR	ashy loamy sand	next to 4 ft tall outcrop
	R	8				basalt	

Soil Sample Name	Soil Horizon	Upper Depth	Lower Depth	Color	Coarse Fragments	Texture	Notes
53 Fill	AC	0	6	10YR3/3	Bouldery	ashy sandy loam	refusal
54 Gosney	A	0	8	10YR4/3	CB	ashy loamy sand	next to 6 ft tall outcrop
	C	8	14	10YR4/4	VST	ashy loamy sand	
	R	14				basalt	
55 Rock outcrop					basalt		Base of rimrock
56 Wanoga	A	0	9	10YR3/3		ashy loamy sand	
	Bw1	9	20	10YR4/3		ashy loamy sand	
	Bw2	20	40	10YR4/4		ashy loamy sand	
57 Henkle	A	0	7	10YR3/3	VCB	ashy sandy loam	
	Bw	7	15	10YR3/4		ashy sandy loam	
	R	15				basalt	
58 Wanoga	A	0	9	10YR3/3		ashy loamy sand	
	Bw1	9	27	10YR4/3		ashy loamy sand	
59 Henkle	A	0	8	10YR3/3	XST	ashy sandy loam	next to outcrop
	Bw	8	13	10YR3/4		ashy sandy loam	
	R	13				basalt	
60 Fryrear	A	0	9	10YR3/3	GR	ashy loamy sand	Bench below rimrock
	Bw1	9	27	10YR3/4	VST	ashy loamy sand	
61 Wanoga	A1	0	9	10YR3/2		ashy sandy loam	
	A2	9	18	10YR3/3		ashy sandy loam	
	Bw	18	40	10YR3/4		ashy sandy loam	
62 Rock outcrop					basalt		Rimrock

Soil Sample Name	Soil Horizon	Upper Depth	Lower Depth	Color	Coarse Fragments	Texture	Notes
63 Bakeoven	A	0	6	10YR3/3	GR	ashy loamy sand	next to rock outcrop
	R	6				basalt	
64 Wanoga	A1	0	9	10YR3/2	GR	ashy sandy loam	
	A2	9	17	10YR4/3	CB	ashy sandy loam	
	Bw	17	30	10YR4/4	ST	ashy sandy loam	
65 Henkle	A	0	6	10YR3/3	VCB	ashy sandy loam	Xstony surface and outcrops
	Bw	6	12	10YR3/4	XST	ashy sandy loam	
	R	12				basalt	
66 Wanoga	A1	0	9	10YR3/3		ashy sandy loam	refusal
	A2	9	24	10YR3/4		ashy sandy loam	
	Bw	24	35	10YR4/3	CB	ashy sandy loam	
	BC	35			XST	ashy sandy loam	
67 Henkle	A	0	8	10YR3/3		ashy sandy loam	
	Bw	8	19	10YR3/4	VCB	ashy sandy loam	
	R	19				basalt	
68 Wanoga	A1	0	10	10YR3/3		ashy sandy loam	
	A2	10	29	10YR3/4		ashy sandy loam	
	Bw	29	35	10YR4/3		ashy sandy loam	
69 Wanoga	A1	0	8	10YR3/3	GR	ashy sandy loam	shallow soils toward NW
	A2	8	24	10YR3/3	CB	ashy sandy loam	
	Bw	24	27	10YR4/3	CB	ashy sandy loam	
70 Wanoga	A1	0	8	10YR3/3		ashy sandy loam	
	A2	8	24	10YR3/3-4		ashy sandy loam	
	Bw	24	27	10YR4/3	ST	ashy sandy loam	

Soil Sample Name	Soil Horizon	Upper Depth	Lower Depth	Color	Coarse Fragments	Texture	Notes
71 Rock outcrop					basalt		top of rimrock
72 Henkle	A	0	8	10YR3/3	VST	ashy sandy loam	very stony surface
	A2	8	12	10YR3/4	XST	ashy sandy loam	
	R	12				basalt	
73 Fryrear	A1	0	7	10YR3/3	ST	ashy sandy loam	
	Bw	7	27	10YR4/3	XST	ashy sandy loam	
74 Bakeoven	A	0	8	10YR4/3	VST	ashy sandy loam	
	R	8					
75 Wanoga	A1	0	8	10YR3/3		ashy sandy loam	
	A2	8	20	10YR4/3		ashy sandy loam	
	Bw	20	36	10YR4/3	CB	ashy sandy loam	
76 Bakeoven	A	0	6	10YR3/3	XST	ashy sandy loam	near ledge
	R	6					
77 Rock outcrop					basalt		ledge
78 Bakeoven	A	0	8	10YR3/3	XST	ashy sandy loam	next to 7 ft tall outcrop
	R	8					
79 Henkle	A	0	9	10YR3/3	VST	ashy sandy loam	Next to tall bedrock stack
	A2	9	15	10YR3/4	XST	ashy sandy loam	
	R	15				basalt	
80 Wanoga	A1	0	8	10YR3/3	CB	ashy sandy loam	
	A2	8	15	10YR4/3	CB	ashy sandy loam	
	Bw	15	22	10YR4/3		ashy sandy loam	

Soil Sample Name	Soil Horizon	Upper Depth	Lower Depth	Color	Coarse Fragments	Texture	Notes
81 Fryrear	A1	0	9	10YR3/3		ashy sandy loam	
	A2	9	18	10YR3/4	VST	ashy sandy loam	
	Bw	18	28	10YR4/3	XST	ashy sandy loam	
82 Rock outcrop					basalt		large bedrock stack
83 Bakeoven	A	0	4	10YR3/3		ashy loamy sand	next to outcrop
	R				basalt		
84 Gosney	A	0	9	10YR3/4	XST	ashy sandy loam	
	Bw	9	14	10YR4/4	XST	ashy sandy loam	
	R	14			basalt		
85 Rock outcrop					basalt		rimrock
86 Rock outcrop					basalt		rimrock
87 Wanoga	A1	0	8	10YR3/3		ashy sandy loam	
	AB	8	16	10YR3/4		ashy sandy loam	
	Bw	16	28	10YR4/3	ST	ashy sandy loam	
	C	28	36	10YR4/4	ST	ashy sandy loam	
88 Fryrear	A1	0	9	10YR3/3		ashy sandy loam	
	Bw	9	21	10YR4/3	VST	ashy sandy loam	
	R	21				basalt	
89 Bakeoven	A	0	7	10YR3/4	GR	ashy sandy loam	next to outcrop
	R	7			basalt		
90 Henkle	A	0	7	10YR3/3	XST	ashy sandy loam	
	Bw	7	16	10YR4/4	XST	ashy sandy loam	
	R	16			basalt		

Soil Sample Name	Soil Horizon	Upper Depth	Lower Depth	Color	Coarse Fragments	Texture	Notes
91 Wanoga	A1	0	7	10YR3/3		ashy sandy loam	
	Bw	7	18	10YR4/3	ST	ashy sandy loam	
	C	18	23	10YR4/3	ST	ashy sandy loam	
	R	23			basalt		
92 Wanoga	A1	0	6	10YR4/3		ashy sandy loam	
	Bw	6	30	10YR4/3		ashy sandy loam	
	R	30			basalt		
93 Bakeoven	A	0	8	10YR3/3	GR	ashy loamy sand	
	R				basalt		
94 Henkle	A	0	8	10YR3/3	VGR	ashy sandy loam	
	Bw	8	13	10YR4/4	VST	ashy sandy loam	
	R	13			basalt		
95 Wanoga	A1	0	8	10YR3/3		ashy sandy loam	
	Bw	8	13	10YR4/3		ashy sandy loam	
	C	13	30	10YR4/4	ST	ashy sandy loam	
	R	30			basalt		
96 Bakeoven	A	0	10	10YR3/3	GR	ashy loamy sand	
	R	10			basalt		
97 Rock outcrop					basalt	very large outcrop High spot	
98 Gosney	A	0	8	10YR4/3	CB	ashy loamy sand	
	C	8	12	10YR4/3	ST	ashy loamy sand	
	R	12			basalt		
99 Rock Outcrop					basalt	Rimrock base	

Soil Sample Name	Soil Horizon	Upper Depth	Lower Depth	Color	Coarse Fragments	Texture	Notes
100 Deskamp	A	0	9	10YR3/3		ashy sandy loam	
	Bw	9	22	10YR4/3		ashy sandy loam	
	C	22	34	10YR4/4		ashy sandy loam	
101 Fill	AC	0	3	10YR2/2	GR	sand	pea gravel
	C1	3	7	red cinders		sand	v. compacted
	C2	7	17	10YR4/4	XGR	sand	v. compacted
	C	17			too stony		refusal
102 Fill	AC	0	3	10YR2/1	VGR	ashy sandy loam	pea gravel
	C1	3	12	10YR4/2, 4/6, 7.5YR 4/4 layers	GR	sandy loam	2-3 in layers compacted fill
	C2	12	20	10YR3/3, 4/4	XGR	sand	v. compacted
	C	20			XST	too stony	refusal
103 Fill	AC	0	6	10YR3/3	XST	ashy loamy sand	XST surface
	C1	6	12	10YR4/3	XST	sandy loam	v. compacted
	C2	12				too stony	refusal
104 Fill	AC	0	5	10YR3/3	XST	ashy loamy sand	
	C	5				too stony	refusal
105 Fill	AC	0	8	10YR3/3	VGR	sand	v. compacted
	C1	8	17	10YR3/3, 3/2	VST	sand	v.compacted
	C2	17				too stony	refusal
106 Fill	AC	0	3	10YR3/3	GR	ashy sandy loam	
	C1	3	14	10YR3/4	VGR	sandy loam	extremely compact.
	C2	14	27	10YR3/4	GR	sandy loam	compacted
	C3	27				too stony	refusal

Soil Sample Name	Soil Horizon	Upper Depth	Lower Depth	Color	Coarse Fragments	Texture	Notes
107 Fill	AC	0	6	10YR3/3	XST	ashy sandy loam	XST surface
	C1	6				too stony	refusal
108 Fill	AC	0	9	reddish cinders	XST	cinders	XST surface
	C1	9				too stony	refusal
109 Fill	AC	0	8	reddish cinders	XST	cinders	XST surface
	C1	8				too stony	refusal
110 Fill	AC	0	5	10YR3/3	XST	ashy loamy sand	XST surface
	C1	5				too stony	refusal
111 Fill	AC	0	2	10YR4/3	XST	ashy sandy loam	
	C1	2	14	10YR4/3	XST	sandy loam	v. compacted
	C2	14				too stony	refusal
112 Fill	AC	0	3	10YR3/3	VST	ashy sandy loam	
	C1	3	24	10YR3/4	VST	sandy loam	v. compacted
	C2	25				too stony	refusal
113 Fill	AC	0	2	7.5YR3/4	XST	ashy sandy loam	
	C1	2	18	10YR3/4	XST	sandy loam	v. compacted
	C2	18				too stony	refusal
114 Fill	AC	0	4	10YR3/3	XST	ashy sandy loam	
	C1	4	20	10YR3/4	XST	sandy loam	v. compacted
	C2	20				too stony	refusal
115 Fill	AC	0	8	10YR3/3	XST	ashy sandy loam	
	C1	8	26	10YR3/4	XST	sandy loam	v. compacted
	C2	26				too stony	refusal



Soil Sample Name	Soil Horizon	Upper Depth	Lower Depth	Color	Coarse Fragments	Texture	Notes
116 Fill	AC	0	9	10YR3/3-4		ashy sandy loam	
	C1	9	18	10YR3/2	VGR	sandy loam	v. compacted
	C2	18				too stony	refusal
117 Fill	AC	0	4	10YR3/3		ashy sandy loam	
	C1	4	17	10YR3/3	VGR	sandy loam, loamy sand	
	C2	17	20	10YR4/4	XST	sand	v. compacted
	C3	20				too stony	refusal
118 Fill	AC	0	6	10YR3/3	GR	ashy sandy loam	
	C1	6	17	10YR3/3	VGR	sandy loam, loamy s	v. compacted
	C2	17				too stony	refusal
119 Fill	AC	0	7	10YR3/3	GR	ashy sandy loam	
	C1	7	16	10YR4/3	GR	sandy loam, loamy sa	v. compacted
	C2	16	21	mixed	VGR	sandy loam	v. compacted
	C3	21				too stony	refusal
120 Clovkamp	A1	0	3	10YR3/3, 4/3		ashy sandy loam	
	A2	3	17	10YR4/3		ashy sandy loam	
	Bw	17	28	10YR4/4		ashy sandy loam	
	C1	28	34	10YR4/4, 5.4		ashy sandy loam	
	2C2	34	40			coarse pumice depos c.	sand to med gr size
121 Bakeoven	A	0	6	10YR3/3	VGR	ashy loamy sand	next to outcrops
	R	6				basalt	
122 Clovkamp	A1	0	7	10YR 4/3		ashy sandy loam	5% pumice gr
	Bw	7	29	10YR4/3		ashy sandy loam	10% gr
	C1	29	42	10YR4/4		ashy sandy loam	10% gr
	2C2	42	50	10YR4/4, 5.4	VST	ashy sandy loam	

Soil Sample Name	Soil Horizon	Upper Depth	Lower Depth	Color	Coarse Fragments	Texture	Notes
123 Deskamp	A1	0	9	10YR3/3		ashy sandy loam	5% pumice gr
	Bw1	9	24	10YR3/4		ashy sandy loam	10% gr
	Bw2	24	36	10YR4/4	CB	ashy sandy loam	10% gr
	2C	36				too stony	refusal
124 Clovkamp	A1	0	6	10YR3/3		ashy sandy loam	5% pumice gr
	Bw	6	26	10YR3/4	GR	ashy sandy loam	10% gr
	2BC	26	40	10YR4/3-4	CB	ashy sandy loam	10% gr
	2C	40			XST	too stony	refusal
125 Fill	AC	0	12		Fragmental		chunks concrete, asphalt
	C	12				too stony	refusal
126 Fill	AC	0	3	10YR4/3		ashy sandy loam	
	C1	3	7	10YR4/3	VGR	sandy loam, loamy s.v.	compacted
	C2	7	30	10YR4/3	XST	sandy loam	v. compacted
	C3	30				too stony	refusal
127 Clovkamp	A1	0	8	10YR3/3		ashy sandy loam	
	Bw	8	35	10YR4/3	GR	ashy sandy loam	pumice gravel
	C1	35	40	10YR6/4		coarse pumice deposit	
	2C2	40		10YR4/4	ST	ashy sandy loam	
128 Fill pile narrow ridge	C1	0	40	1 to 3 inch stratified layers of slightly compacted ashy sandy loam			
	C2	40	60	pumice ashy sandy loam			
129 Bakeoven	A	0	9	10YR3/4	GR	ashy loamy sand	next to outcrop
	R	9				basalt	
130 Deskamp	A1	0	8	10YR3/3	GR	ashy sandy loam	
	Bw	8	27	10YR4/3	GR	ashy sandy loam	
	2C1	27				too rocky	refusal

Soil Sample Name	Soil Horizon	Upper Depth	Lower Depth	Color	Coarse Fragments	Texture	Notes
131 Bakeoven	A	0	4	10YR3/3	VST	ashy loamy sand basalt	
	R	4					
132 Deskamp	A1	0	7	10YR 3/3	VCB	ashy sandy loam ashy sandy loam ashy sandy loam	
	Bw	7	29	10YR4/3			
	C1	29	36				
133 Deskamp	A1	0	8	10YR 3/3	VST	ashy sandy loam ashy sandy loam ashy sandy loam	
	Bw	8	23	10YR4/3			
	C1	23	39	10YR4/3			
134 Deskamp	A1	0	9	10YR 3/3	VST	ashy sandy loam ashy sandy loam ashy sandy loam	
	Bw	9	29	10YR4/3			
	C1	29	39	10YR4/3			
135 Rock outcrop							
136 Deskamp	A1	0	6	10YR 3/3		ashy sandy loam ashy sandy loam duripan	
	Bw	6	26	10YR4/3			
	Bqm	26					
137 Bakeoven	A	0	7	10YR3/3	VCB	ashy loamy sand basalt	next to rock outcrop in clump of trees
	R	7					
138 Gosney	A	0	8	10YR3/3	VGR	ashy loamy sand ashy loamy sand basalt	very shallow and rock adjacent
	Bw	8	19	10YR4/3	XST		
	R	19					
139 Bakeoven	A	0	7	10YR3/3	VCB	ashy loamy sand basalt	rock outcrops
	R	7					

Soil Sample Name	Soil Horizon	Upper Depth	Lower Depth	Color	Coarse Fragments	Texture	Notes
140 Gosney	A	0	8	10YR4/3	GR	ashy loamy sand	next to 3 ft tall outcrop
	Bw	8	19	10YR4/4	XST	ashy loamy sand	
	R	19				basalt	
141 Gosney	A	0	7	10YR4/3	XST	ashy loamy sand	XST surface and outcrops
	Bw	7	12	10YR4/4	XST	ashy loamy sand	
	R	12				basalt	
142 Bakeoven	A	0	9	10YR4/3	XST	ashy loamy sand	
	R	9				basalt	
143 Gosney	A	0	6	10YR4/3	VGR	ashy loamy sand	rock outcrops and very shall
	Bw	6	19	10YR4/3	XST	ashy loamy sand	
	R	19				basalt	
144 Gosney	A	0	9	10YR4/3	GR	ashy loamy sand	VST surface
	C	9	17	10YR4/4	VGR	ashy loamy sand	
	R	17				basalt	
145 Bakeoven	A	0	5	10YR4/3	VGR	ashy loamy sand	
	R	5				basalt	
146 Bakeoven	A	0	8	10YR3-4/3	GR	ashy loamy sand	
	R	8				basalt	
147 Deskamp	A1	0	9	10YR 3/3		ashy loamy sand	
	Bw1	9	20	10YR4/3		ashy loamy sand	
	2Bw2	20	24	10YR4/3	VST	ashy loamy sand	
148 Rock outcrop and Bakeoven	A	0	4	10YR3/3	ST	ashy sandy loam	
	R	4				basalt	

Soil Sample Name	Soil Horizon	Upper Depth	Lower Depth	Color	Coarse Fragments	Texture	Notes
149 Gosney	A	0	8	10YR3/3	ST	ashy loamy sand	
	BC	8	12	10YR3/4	VST	ashy loamy sand	
	R	12			basalt		
150 Bakeoven	A	0	5	10YR3/3		ashy loamy sand	rock outcrops
	C	5	10	10YR4/3	CB	ashy loamy sand	
	R	10			basalt		
151 Gosney	A	0	7	10YR3/3	VST	ashy loamy sand	rock outcrops
	Bw	7	18	10YR3/4	VST	ashy loamy sand	
	R	18			basalt		
152 Bakeoven	A	0	7	10YR3/3	XST	ashy loamy sand	rock outcrops
	R	7			basalt		
153 Gosney-Bakeoven	A	0	5	10YR4/3	VST	ashy loamy sand	XST surface
	Bw	5	11	10YR3/4	VST	ashy loamy sand	
	R	11			basalt		
154 Bakeoven	A	0	10	10YR3/3	XST	ashy loamy sand	XST surface
	R	10			basalt		
155 Bakeoven-rock outcrop	A	0	8	10YR3/3	XST	ashy loamy sand	linear outcrop East-West
	R	8			basalt		
156 Gosney	A	0	9	10YR4/3	ST	ashy loamy sand	on slight rise next to outcroj
	BC	9	12	10YR4/3	ST	ashy loamy sand	
	R	12			basalt		

Soil Sample Name	Soil Horizon	Upper Depth	Lower Depth	Color	Coarse Fragments	Texture	Notes
157 Bouldery Fill on Roadcut	AC	0	5	10YR3/3	BO	ashy loamy sand	
		5	12	10YR4/3	VBO	ashy loamy sand	
		12			too stony		refusal
158 Gosney	A	0	6	10YR4/3	ST	ashy loamy sand	Base of rocky slope, with outcrops and ledges
	BC	6	14	10YR4/3	ST	ashy loamy sand	
	R	14				basalt	
159 Gosney	A	0	7	10YR4/3	ST	ashy loamy sand	top of rimrock, unit runs to north fence boundary includes very shallow
	BC	7	16	10YR4/3	ST	ashy loamy sand	
	R	16				basalt	
160 Gosney	A	0	5	10YR4/3	XST	ashy loamy sand	XST surface 6 to 12 in deep
	BC	5	12	10YR4/4	ST	ashy loamy sand	
	R	12				basalt	
161 Deskamp	A1	0	9	10YR 3/3		ashy loamy sand	bowl shaped area on sideslc
	Bw1	9	19	10YR4/3		ashy loamy sand	
	2Bw2	19	29	10YR4/3	ST	ashy loamy sand	
	R	29				basalt	
162 Gosney	A	0	5	10YR4/3	VST	ashy loamy sand	VST surface outcrop too
	BC	5	12	10YR4/4	ST	ashy loamy sand	
	R	12				basalt	
163 Rocky outcrop					basalt		Rimrock stack
164 Gosney	A	0	7	10YR4/3	VST	ashy loamy sand	Also Bakeoven adjacent large sandpile to south
	BC	7	13	10YR4/4	ST	ashy loamy sand	
	R	13				basalt	

Soil Sample Name	Soil Horizon	Upper Depth	Lower Depth	Color	Coarse Fragments	Texture	Notes
165 Bakeoven	A	0	10	10YR3/3		ashy loamy sand	6 ft tall rock outcrop adjacent
	R	10				basalt	
166 Deskamp	A1	0	8	10YR 3/3		ashy loamy sand	
	Bw1	8	15	10YR4/3		ashy loamy sand	
	BC	15	36	10YR4/3		ashy loamy sand	
167 Gosney	A	0	9	10YR4/3		ashy loamy sand	VST surface
	BC	9	19	10YR4/4	ST	ashy loamy sand	
	R	19				basalt	
168 Rocky drainage		eroded to bedrock on surface					either eroded or dug channel, all rocks
169 Gosney	A	0	6	10YR4/3	VST	ashy loamy sand	VST surface rocky low ridge
	C	6	14	10YR4/4	VST	ashy loamy sand	
	R	14				basalt	
170 Bakeoven	A	0	5	10YR3/3	ST	ashy loamy sand	next to rock outcrop and rockpile
	R	5				basalt	
171 Bakeoven	A	0	9	10YR3/3	XST	ashy loamy sand	next to big juniper on bedrock mound
	R	9				basalt	
172 Deskamp	A1	0	8	10YR 3/3		ashy loamy sand	not rocky
	Bw1	8	21	10YR4/3		ashy loamy sand	
173 Gosney	A	0	6	10YR4/3	VST	ashy loamy sand	next to small outcrop
	Bw	6	19	10YR4/4	VST	ashy loamy sand	
	R	19				basalt	

Soil Sample Name	Soil Horizon	Upper Depth	Lower Depth	Color	Coarse Fragments	Texture	Notes
174 Bakeoven	A	0	8	10YR3/3	XST	ashy loamy sand	rock outcrops in small juniper and pine group
	R	8				basalt	
175 Gosney plus outcrop	A	0	8	10YR4/3	ST	ashy loamy sand	unit connects with trees 100 ft to south.
	Bw	8	17	10YR4/3	VST	ashy loamy sand	
	R					basalt	
176 Gosney	A	0	8	10YR4/3	ST	ashy loamy sand	Rise with rock outcrops and Bakeoven surrounding
	Bw	8	17	10YR4/3	VST	ashy loamy sand	
	R	17				basalt	
177 Gosney	A	0	8	10YR4/3	ST	ashy loamy sand	
	Bw	8	17	10YR4/3	VST	ashy loamy sand	
	R	17				basalt	
178 Gosney	A	0	8	10YR4/3	ST	ashy loamy sand	
	Bw	8	17	10YR4/3	VST	ashy loamy sand	
	R	17				basalt	
179 Gosney	A	0	8	10YR4/3	VST	ashy loamy sand	juniper and pine group
	Bw	8	15	10YR4/3	VST	ashy loamy sand	
	R	15				basalt	
180 Bakeoven	A	0	6	10YR3/3	XST	ashy loamy sand	lots of bare rock
	R	6				basalt	
181 Gosney	A	0	8	10YR4/3	VST	ashy loamy sand	rock outcrops connects to #180
	Bw	8	12	10YR4/3	VST	ashy loamy sand	
	R	12				basalt	



Soil Sample Name	Soil Horizon	Upper Depth	Lower Depth	Color	Coarse Fragments	Texture	Notes
182 Gosney	A	0	8	10YR4/3	GR	ashy loamy sand	Rock outcrop
	Bw	8	16	10YR4/3	ST	ashy loamy sand	
	R	16				basalt	
183 Bakeoven	A	0	10	10YR3/3	XST	ashy loamy sand	small outcrop, connects to #182
	R	10				basalt	
184 Gosney	A	0	7	10YR4/3	ST	ashy loamy sand	connects to #183
	Bw	7	12	10YR4/3	VST	ashy loamy sand	
	R	12				basalt	
185 Gosney-Bakeoven	A	0	7	10YR3/3	VST	ashy loamy sand	
	BC	7	10	10YR4/3	VST	ashy loamy sand	
	R	10				basalt	
186 Gosney	A	0	8	10YR4/3	ST	ashy loamy sand	connects to rock outcrop on powerline unit continues west to trees
	Bw	8	15	10YR4/3	VST	ashy loamy sand	
	R	15				basalt	
187 Henkle	A	0	10	10YR3/3	ST	ashy loamy sand	outcrop 5 ft tall adjacent
	Bw	10	17	10YR4/3	VST	ashy loamy sand	
	R	17				basalt	
188 Henkle	A	0	9	10YR3/3	VST	ashy sandy loam	near rock outcrop connects to 187
	AB	10	19	10YR3/3	XST	ashy sandy loam	
	R	19				basalt	
189 Wanoga	A	0	10	10YR3/3		ashy sandy loam	
	Bw	10	26	10YR3/3		ashy sandy loam	
	R	26				basalt	

Soil Sample Name	Soil Horizon	Upper Depth	Lower Depth	Color	Coarse Fragments	Texture	Notes
190 Gosney	A	0	8	10YR4/3	CB	ashy sandy loam	
	AB	8	14	10YR3/3	VST	ashy sandy loam	
	R	14				basalt	
191 Gosney	A	0	8	10YR4/3	GR	ashy sandy loam	high spot on a slight mound
	AB	8	12	10YR3/3	VST	ashy sandy loam	
	R	12				basalt	
192 Wanoga	A	0	10	10YR3/3		ashy sandy loam	
	Bw	10	24	10YR3/4		ashy sandy loam	
193 Gosney	A	0	8	10YR4/3	GR	ashy sandy loam	side hill of bedrock high
	AB	8	16	10YR4/4	VST	ashy sandy loam	
	R	16				basalt	
194 Wanoga	A	0	9	10YR3/3		ashy sandy loam	
	Bw	9	28	10YR4/3		ashy sandy loam	
195 Gosney	A	0	8	10YR4/3	ST	ashy sandy loam	sidehill, with outcrops
	AB	8	15	10YR4/4	VST	ashy sandy loam	
	R	15				basalt	
196 Bakeoven	A	0	8	10YR4/3	ST	ashy sandy loam	wraps around contour to #195.
	R	8				basalt	
197 Wanoga	A	0	9	10YR3/3		ashy sandy loam	top of bench, surrounded by sideslope that drops to lower bench
	Bw	9	16	10YR4/3		ashy sandy loam	
	C	16	26	10YR4/4		ashy sandy loam	
198 Wanoga	A	0	9	10YR3/3		ashy sandy loam	clearing in powerline swale
	Bw	9	20	10YR4/3		ashy sandy loam	
	BC	20	38	10YR4/3-4	GR	ashy sandy loam	

Soil Sample Name	Soil Horizon	Upper Depth	Lower Depth	Color	Coarse Fragments	Texture	Notes
199 Bakeoven	A	0	10	10YR4/3	ST	ashy sandy loam	rock outcrops on powerline easement
	R	10				basalt	
200 Wanoga	A	0	9	10YR3/3		ashy sandy loam	clearing, in swale between benches
	Bw	9	22	10YR4/3		ashy sandy loam	
	BC	22	28	10YR4/3-4		ashy sandy loam	
	R	28				basalt	
201 Gosney	A	0	7	10YR4/3	VST	ashy loamy sand	on high bench , next to large rock outcrop
	AB	7	18	10YR4/4	XST	ashy sandy loam	
	R	18				basalt	
202 Rock outcrop							connects to #201
203 Henkle/Bakeoven	A	0	7	10YR4/3	VST	ashy sandy loam	connects to #202 among rock outcrops
	AB	7	10	10YR4/4	VST	ashy sandy loam	
	R	10				basalt	
204 Henkle	A	0	9	10YR3/3	VST	ashy sandy loam	adjacent to 4 ft rock ledge VST surface
	AB	9	12	10YR3/3	VST	ashy sandy loam	
	R	12				basalt	
205 Wanoga	A	0	9	10YR3/3		ashy sandy loam	In swale between rimrock and high bench
	Bw	9	22	10YR4/3		ashy sandy loam	
	BC	22	30	10YR4/3-4		ashy sandy loam	
	C	30	36	10YR4/4		ashy sandy loam	
206 Wanoga	A	0	9	10YR3/3		ashy sandy loam	
	Bw	9	18	10YR4/3		ashy sandy loam	
	BC	18	28	10YR4/3-4		ashy sandy loam	
	2C	28	30	10YR4/4	VST	ashy sandy loam	

Soil Sample Name	Soil Horizon	Upper Depth	Lower Depth	Color	Coarse Fragments	Texture	Notes
207 Henkle	A	0	9	10YR3/3	ST	ashy sandy loam	rock outcrops and Bakeover are adjacent
	AB	9	12	10YR3/3	VST	ashy sandy loam	
	C	12	18	10YR4/4	XST	ashy loamy sand	
208 Henkle	A	0	13	10YR3/3	ST	ashy sandy loam	side hill with outcrops
	R	13				basalt	
209 Wanoga	A	0	8	10YR3/3		ashy sandy loam	
	Bw	8	18	10YR4/3		ashy sandy loam	
	BC	18	28	10YR4/3-4		ashy sandy loam	
	R	28				basalt	
210 Bakeoven	A	0	6	10YR3/3		ashy loamy sand	
	R	6				basalt	
211 Wanoga	A	0	8	10YR3/3		ashy sandy loam	in Clearing, bitterbrush, fescue, youg Junipers
	Bw	8	22	10YR4/3		ashy sandy loam	
	R	22	28			basalt	
212 Gosney	A	0	8	10YR4/3	ST	ashy loamy sand	delineation continues downslope to NW and upslope to east
	Bw	8	17	10YR4/4	VST	ashy loamy sand	
	R	17			basalt		
213 Rock outcrop						basalt	outcrop 4 ft tall
214 Rock ledge outcrop						basalt	ledge 10 ft high
215 Gosney	A	0	8	10YR4/3	ST	ashy loamy sand	in tree group with outcrops
	BC	8	13	10YR4/4	VST	ashy loamy sand	
	R	13			basalt		

Soil Sample Name	Soil Horizon	Upper Depth	Lower Depth	Color	Coarse Fragments	Texture	Notes
216 Gosney	A	0	8	10YR4/3	GR	ashy loamy sand	near outcrops on edge of clearing
	BC	8	11	10YR4/3	CB	ashy loamy sand	
	R	11				basalt	
217 Gosney	A	0	8	10YR4/3	VST	ashy loamy sand	VST surface on edge of clearing
	BC	8	16	10YR4/3	XST	ashy loamy sand	
	R	16				basalt	
218 Bakeoven	A	0	9	10YR3/3	VGR	ashy loamy sand	adjacent 7 ft tall outcrop
	R	9				basalt	
219 Rock outcrop					basalt		Rocky promontory connects to surrounding class 7 and 8
220 Bakeoven	A	0	10	10YR3/2	VCB	ashy loamy sand	connects to promontory in #219
	R	10				basalt	
221 Rock outcrop						basalt	
222 Bakeoven	A	0	9	10YR3/2	VST	ashy loamy sand	VST surface and bare rock connects to #221
	R	9				basalt	
223 Gosney	A	0	8	10YR4/3	VST	ashy loamy sand	
	BC	8	16	10YR4/3	XST	ashy loamy sand	
	R	16				basalt	
224 Gosney	A	0	9	10YR4/3	VST	ashy loamy sand	from field edge to powerline with outcrop
	BC	9	12	10YR4/3	XST	ashy loamy sand	
	R	12				basalt	

Soil Sample Name	Soil Horizon	Upper Depth	Lower Depth	Color	Coarse Fragments	Texture	Notes
225 Rock outcrop							5 ft tall outcrop crosses powerline to edge of pivot field
226 Bakeoven and outcrop	A	0	6	10YR4/3	ST	ashy loamy sand	outcrop and very shallow mixed
	R	6				basalt	
227 Gosney and outcrops	A	0	8	10YR3/3	VST	ashy loamy sand	On ridge, drops off to North and East, continues SE
	Bw	8	12	10YR4/3	XST	ashy loamy sand	
	R	12				basalt	
228 Gosney	A	0	9	10YR3/3	XST	ashy loamy sand	area of Bakeoven and outcrops surrounding pedon, Extend to N and E.
	Bw	9	15	10YR4/3	XST	ashy loamy sand	
	R	15				basalt	
229 Deskamp	A1	0	8	10YR 4/3		ashy loamy sand	
	Bw1	8	21	10YR4/4		ashy loamy sand	
	BW2	21	33	10YR4/4	GR	ashy loamy sand	
230 Gosney	A	0	8	10YR4/3	VST	ashy loamy sand	VST surface, unit extends into clearing, inclusion outcrops and Bakeoven
	Bw	8	15	10YR4/4	XST	ashy loamy sand	
	R	15				basalt	
231 Gosney	A	0	8	10YR3/4	VST	ashy loamy sand	VST flat
	BC	8	19	10YR4/3	XST	ashy loamy sand	
	R	19				basalt	
232 Gosney	A	0	9	10YR3/4	VST	ashy sandy loam	connects to #226
	BC	9	15	10YR4/3	XST	ashy sandy loam	
	R	15				basalt	

Sample	Latitude	Longitude
1	44.00421	-121.25787
2	44.00465	-121.25615
3	44.005	-121.25658
4	44.00508	-121.25402
5	44.00536	-121.25223
6	44.00535	-121.2152
7	44.0055	-121.24994
8	44.00535	-121.24814
9	44.00691	-121.24762
10	44.00169	-121.24841
11	44.00169	-121.24952
12	44.00692	-121.25174
13	44.00698	-121.25321
14	44.00702	-121.25344
15	44.00757	-121.25345
16	44.00276	-121.25801
17	44.00305	-121.25621
18	44.00329	-121.25444
19	44.00319	-121.25245
20	44.00376	-121.2504
21	44.0044	-121.24821
22	44.0042	-121.24897
23	44.00126	-121.25749
24	44.00106	-121.25662
25	44.00136	-121.25633
26	44.00151	-121.25466
27	44.00194	-121.25392
28	44.00126	-121.25376
29	44.00124	-121.25186
30	44.00132	-121.25101
31	44.00127	-121.2504
32	44.00114	-121.24858
33	44.00139	-121.24634
34	44.00138	-121.24611
35	44.00166	-121.24458
36	44.00178	-121.24417
37	44.00332	-121.24422
38	44.00359	-121.24421
39	44.00547	-121.24471
40	44.00608	-121.24503
41	44.00561	-121.24614
42	44.00494	-121.24736
43	44.0045	-121.24734
44	44.00037	-121.2469
45	44.00376	-121.24586

Sample	Latitude	Longitude
46	44.00448	-121.24467
47	44.00467	-121.24645
48	44.00608	-121.24616
49	44.00623	-121.2463
50	44.00719	-121.24629
51	44.00698	-121.2447
52	44.00711	-121.24564
53	44.00698	-121.24673
54	44.00005	-121.25482
55	44.00064	-121.2585
56	44.00038	-121.2567
57	44.0001	-121.25668
58	44.0000	-121.25747
59	44.00004	-121.2525
60	43.99911	-121.25679
61	43.99794	-121.25624
62	43.99799	-121.25655
63	43.99751	-121.25598
64	43.9966	-121.25551
65	43.99671	-121.25617
66	43.99692	-121.25754
67	43.99817	-121.25752
68	43.99948	-121.25809
69	43.00004	-121.25866
70	43.99905	-121.25882
71	43.99976	-121.25804
72	43.9984	-121.25881
73	43.99708	-121.25896
74	43.99606	-121.25882
75	43.99568	-121.25898
76	43.99504	-121.25841
77	43.99425	-121.25911
78	43.99383	-121.25894
79	43.99382	-121.25824
80	43.99368	-121.25707
81	43.99355	-121.25491
82	43.99393	-121.25552
83	43.99358	-121.25395
84	43.99354	-121.25263
85	43.9938	-121.25153
86	43.9953	-121.25308
87	43.99517	-121.25325
88	43.99583	-121.25522
89	43.99593	-121.2559
90	43.99647	-121.25689

Sample	Latitude	Longitude
91	43.99653	-121.25698
92	43.99523	-121.2578
93	43.99518	-121.25765
94	43.99529	-121.25572
95	43.99518	-121.25599
96	43.99491	-121.25498
97	43.99475	-121.25377
98	43.99453	-121.25288
99	43.99437	-121.25197
100	43.99374	-121.25095
101	44.00653	-121.25294
102	44.0066	-121.25158
103	44.00658	-121.25123
104	44.00744	-121.25128
105	44.00756	-121.25128
106	44.00736	-121.25028
107	44.00678	-121.25021
108	44.00623	-121.24995
109	44.0062	-121.24922
110	44.00614	-121.24867
111	44.00605	-121.248
112	44.00511	-121.24874
113	44.00486	-121.24978
114	44.00477	-121.25074
115	44.00463	-121.25155
116	44.0048	-121.25293
117	44.00454	-121.25411
118	44.00389	-121.25535
119	44.00308	-121.25686
120	44.00351	-121.2585
121	44.00389	-121.25884
122	44.0022	-121.25825
123	44.00252	-121.25685
124	44.00265	-121.25542
125	44.00287	-121.25416
126	44.00254	-121.25443
127	44.00211	-121.25485
128	44.00281	-121.25232
129	44.00272	-121.25228
130	44.00258	-121.25121
131	44.00276	-121.25012
132	44.00208	-121.24871
133	44.0027	-121.24718
134	44.00254	-121.24594
135	44.00247	-121.24569

Sample	Latitude	Longitude
136	44.00264	-121.24477
137	44.00217	-121.24427
138	44.00174	-121.2441
139	44.00132	-121.24418
140	44.00163	-121.24466
141	44.00232	-121.24505
142	44.00304	-121.24518
143	44.00334	-121.24544
144	44.00392	-121.24489
145	44.00513	-121.24586
146	44.00515	-121.2453
147	44.0056	-121.24514
148	44.00647	-121.24527
149	44.00697	-121.24455
150	44.00644	-121.24408
151	44.00688	-121.24421
152	44.00733	-121.24445
153	44.00714	-121.24527
154	44.00753	-121.24605
155	44.0064	-121.24694
156	44.00384	-121.24815
157	44.00366	-121.24932
158	44.0049	-121.2583
159	44.00487	-121.25872
160	44.00536	-121.25789
161	44.0055	-121.2573
162	44.00545	-121.25688
163	44.0054	-121.25641
164	44.00576	-121.25592
165	44.00576	-121.25559
166	44.00604	-121.25503
167	44.00216	-121.25086
168	44.00184	-121.25062
169	44.00177	-121.25111
170	44.00178	-121.2495
171	44.00115	-121.24957
172	44.00198	-121.24775
173	44.00206	-121.24846
174	44.00248	-121.249
175	44.00336	-121.2492
176	44.00255	-121.25177
177	44.00197	-121.25187
178	44.00161	-121.2518
179	44.00154	-121.25128
180	44.00104	-121.25271



Sample	Latitude	Longitude
181	44.00158	-121.2524
182	44.0024	-121.25285
183	44.00213	-121.25329
184	44.00162	-121.25296
185	44.00125	-121.25343
186	44.00027	-121.25516
187	44.00063	-121.25557
188	43.99984	-121.2561
189	43.99887	-121.25779
190	43.99923	-121.25824
191	43.99951	-121.25867
192	43.99805	-121.25829
193	43.99767	-121.25854
194	43.99746	-121.25825
195	43.99705	-121.25821
196	43.99666	-121.25847
197	43.99649	-121.25901
198	43.99581	-121.25825
199	43.99458	-121.2585
200	43.99448	-121.25781
201	43.9943	-121.25757
202	43.9944	-121.25698
203	43.99432	-121.2562
204	43.99374	-121.25595
205	43.99399	-121.25503
206	43.99416	-121.25399
207	43.99426	-121.25389
208	43.9943	-121.25267
209	43.99393	-121.25195
210	43.99383	-121.25239
211	43.99388	-121.25324
212	43.99425	-121.25461
213	43.99463	-121.25499
214	43.99468	-121.25539
215	43.99485	-121.25665
216	43.99504	-121.25715
217	43.99576	-121.25751
218	43.99617	-121.25733
219	43.99609	-121.25656
220	43.99563	-121.25666
221	43.99554	-121.25406
222	43.99616	-121.25466
223	43.99773	-121.25714
224	43.99902	-121.25561
225	44.00008	-121.25548

Sample	Latitude	Longitude
226	44.00646	-121.24709
227	44.00651	-121.24599
228	44.00586	-121.24641
229	44.00589	-121.24708
230	44.00559	-121.24712
231	44.00536	-121.24644
232	44.00626	-121.24672



# Oregon

Kate Brown, Governor

Department of Land Conservation and Development

635 Capitol Street NE, Suite 150

Salem, Oregon 97301-2540

RECEIVED

JUN 13 2024

Phone: 503-373-0050

Fax: 503-378-5518

DEPT. OF LAND CONSERVATION AND DEVELOPMENT

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: June 4th, 2024

### Property Information

Person who requested soils assessment: Sara Anselment

Mailing address: 799 SW Columbia St.

Email address: saraa@bendparkandrec.org Telephone number: 541-706-6118

Property owner (if different): Bend Park and Recreation District

Property address (if different): 60725 Arnold Market Road

County: Deschutes Township: 18 Range: 12 Section: 23

Tax lot(s): 00200 Parcel Acreage: ±279 acres Acres Evaluated: ±279 acres

Comprehensive Plan designation: Surface Mining and Agriculture Zone: Surface Mining and Exclusive Farm Use

Proposed land use action: Zone change to Rural Residential (RR-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](mailto: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

5/30/2024

Date

Property owner (if different)

5/30/2024

Date



# 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 Submittal Form

### Soils Professional Information

Soils professional\*: Andy Gallagher Certification number: 03114

### Property Information

Person who requested soils assessment: Sara Anselment

Mailing address: 799 SW Columbia St.

Email address: saraa@bendparkandrec.org Telephone number: 541-706-6118

Property owner (if different): Bend Park and Recreation District

Property address (if different): 60725 Arnold Market Road

County: Deschutes Township: 18 Range: 12 Section: 23

Tax lot(s): 00200 Parcel Acreage: ±279 acres Acres Evaluated: ±279 acres

Comprehensive Plan designation: Surface Mining and Agriculture Zone: Surface Mining and Exclusive Farm Use

Proposed land use action: Zone change to Rural Residential (RR-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*





owner	agent	inCareOf	address	cityStZip	type	cdd id	email
Bend Parks and Recreation Department			799 SW Columbia Street	Bend, OR 97702	SR	24-404-PA, 405-ZC	saraa@bendparksandrec.org
Tia Lewis	Schwabe	Tia Lewis	360 SW Bond Street, Suite 500	Bend, OR 97702	SR	24-404-PA, 405-ZC	TLewis@SCHWABE.com
Gregory Frank			Electronic		SR	24-404-PA, 405-ZC	gregportlandlaw@gmail.com
DEPT. OF LAND CONSERV. & DEVEL.			63055 North Highway 97, Building M	Bend, OR 97703	SR	24-404-PA, 405-ZC	angie.brewer@dlcd.oregon.gov