# CALICO RESOURCES USA CORP. GRASSY MOUNTAIN MINE PROJECT MALHEUR COUNTY, OREGON

# LAND USE BASELINE REPORT

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## LIST OF ABBREVIATIONS AND ACRONYMS

BLM DLCD	Bureau of Land Management Department of Land Conservation and Development
DOGAMI	Department of Geology and Mineral Industries
EFU	Exclusive Farm Use
ERU	Exclusive Range Use
FLPMA	Federal Land Policy and Management Act of 1976
HDR	HDR Engineering, Inc.
MCC	Malheur County Code
MRA	Malheur Resource Area
OAR	Oregon Administrative Rule
OPDR	Oregon Partnership for Disaster Resilience
ORS	Oregon Revised Statutes
Project	Grassy Mountain Mine Project
SEORMP	Southeastern Oregon Resource Management Plan and Record of Decision

#### CALICO RESOURCES USA CORP. GRASSY MOUNTAIN MINE PROJECT LAND USE BASELINE REPORT

# **1 INTRODUCTION**

The purpose and objective of this baseline report is to identify existing land use and land use designations for the permit area (Oregon Administrative Rule [OAR] 632-037-0055 (1)(1)). The baseline study information will be used to obtain the local land use permits from Malheur County pursuant to Oregon Revised Statutes (ORS) 517.971, and Oregon Department of Geology and Mineral Industries (DOGAMI) Division 37 permit. If future changes to the mine plan occur, additional information and permits will be obtained using the methodologies described in this report. This baseline report will also be used to support a National Environmental Policy Act evaluation for future mine site activities and will be included in the Consolidated Permit Application submitted to DOGAMI.

Oregon's statewide land use planning program is governed by statute, administrative rules administered by the Oregon Department of Land Conservation and Development (DLCD), and city and county codes. Land use planning and zoning is intended to accomplish a number of statewide "goals." The goals set forth Oregon's policies of land use and resource protection. Malheur County has adopted a comprehensive plan which governs the land on which the Grassy Mountain Mine Project (Project) will be located. That plan has been approved by DLCD and is designed to carry out the statutory policies and goals.

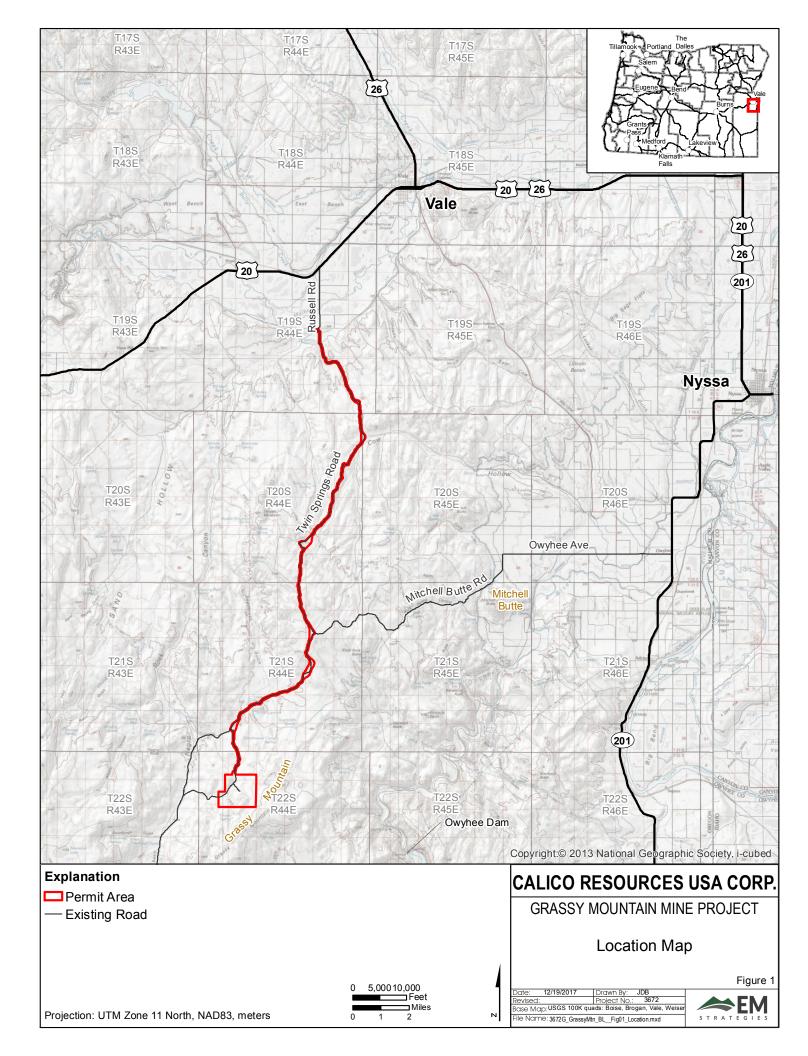
A large portion of the text and data used in this report has been taken from the July 2015 *Land Use Baseline Study* prepared for the Project by HDR Engineering, Inc. (HDR). Additional or updated information has been added where necessary to accommodate the current permit area. The additional/updated information includes: 1) expansion/description of the permit area; 2) updates to land use descriptions to accommodate the revised study area; and 3) Contacts and Preparers. A figure has also been included to show the land use designations in the study area.

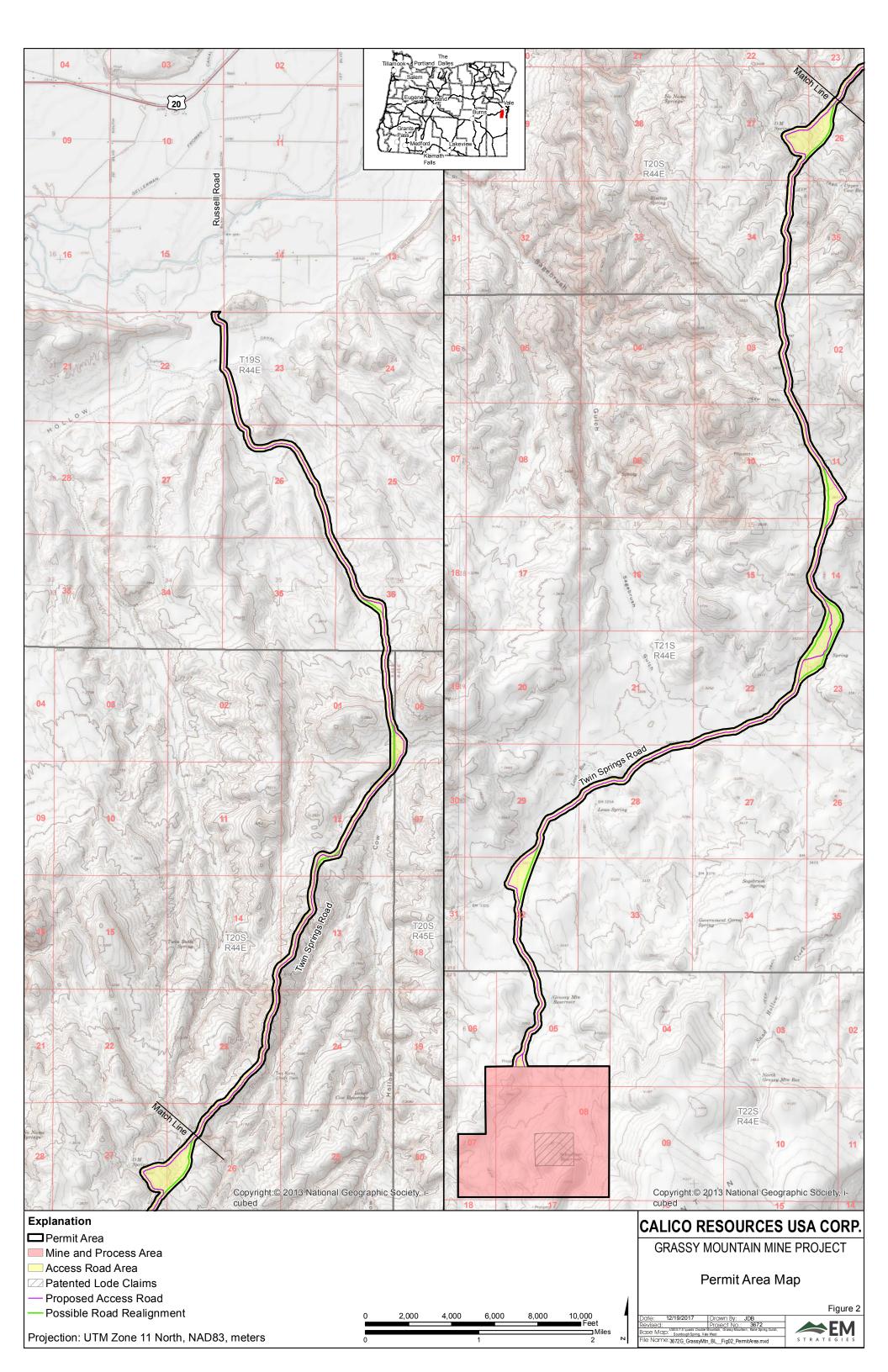
# 2 **RESOURCE STUDY AREA**

The Project is located in Malheur County, Oregon, approximately 22 miles south-southwest of Vale (Figure 1), and consists of two areas: the Mine and Process Area and the Access Road Area (Permit Area) (Figure 2).

The Mine and Process Area is located on three patented lode mining claims and unpatented lode mining claims that cover an estimated 886 acres. These patented and unpatented lode mining claims are part of a larger land position that includes 419 unpatented lode mining claims and nine mill site claims on lands administered by the Bureau of Land Management (BLM) (Figure 2). All proposed mining would occur on the patented claims, with some mine facilities on unpatented claims. The Mine and Process Area is in all or portions of Sections 5 through 8, Township 22 South, Range 44 East (T22S, R44E) (Willamette Meridian).

The Access Road Area is located on public land administered by the BLM, and private land controlled by others (Figure 2). A portion of the Access Road Area is a Malheur County Road named Twin Springs Road. The Access Road Area extends north from the Mine and Process Area to Russell Road, a paved Malheur County Road. The Access Road Area is in portions of Section 5, T22S, R44E, Sections 3, 10, 11, 14, 15, 21 through 23, 28, 29, and 32, T21S, R44E, Sections 1, 12 through 14, 23, 26, 27, and 34, T20S, R44E, Sections 6 and 7, T20S, R45E, and Sections 22,





23, 26, 35, and 36, T19S, R44E (Willamette Meridian). The width of the Access Road Area is 300 feet (150 feet on either side of the access road centerline) to accommodate possible minor widening or re-routing, and a potential powerline adjacent to the access road. There are several areas shown that are significantly wider than 300 feet on the Permit Area Map (Figure 2), which are areas where the final alignment has not yet been determined. The final engineering of the road will be consistent throughout, and within the Permit Area. The Access Road Area also includes a buffer on either side of the proposed road width for the collection of environmental baseline data. The road corridor will be 40 feet wide, which includes a 24-foot wide road travel width (12 feet on either side of the road centerline), four-foot wide shoulders on each side of the road, and appropriate cut and fill. The Access Road Area totals approximately 876 acres.

The Land Use Study Area (Study Area) includes a 1,000-foot buffer around the Permit Area (Figure 3).

# **3 REGULATORY FRAMEWORK**

# 3.1 <u>Federal</u>

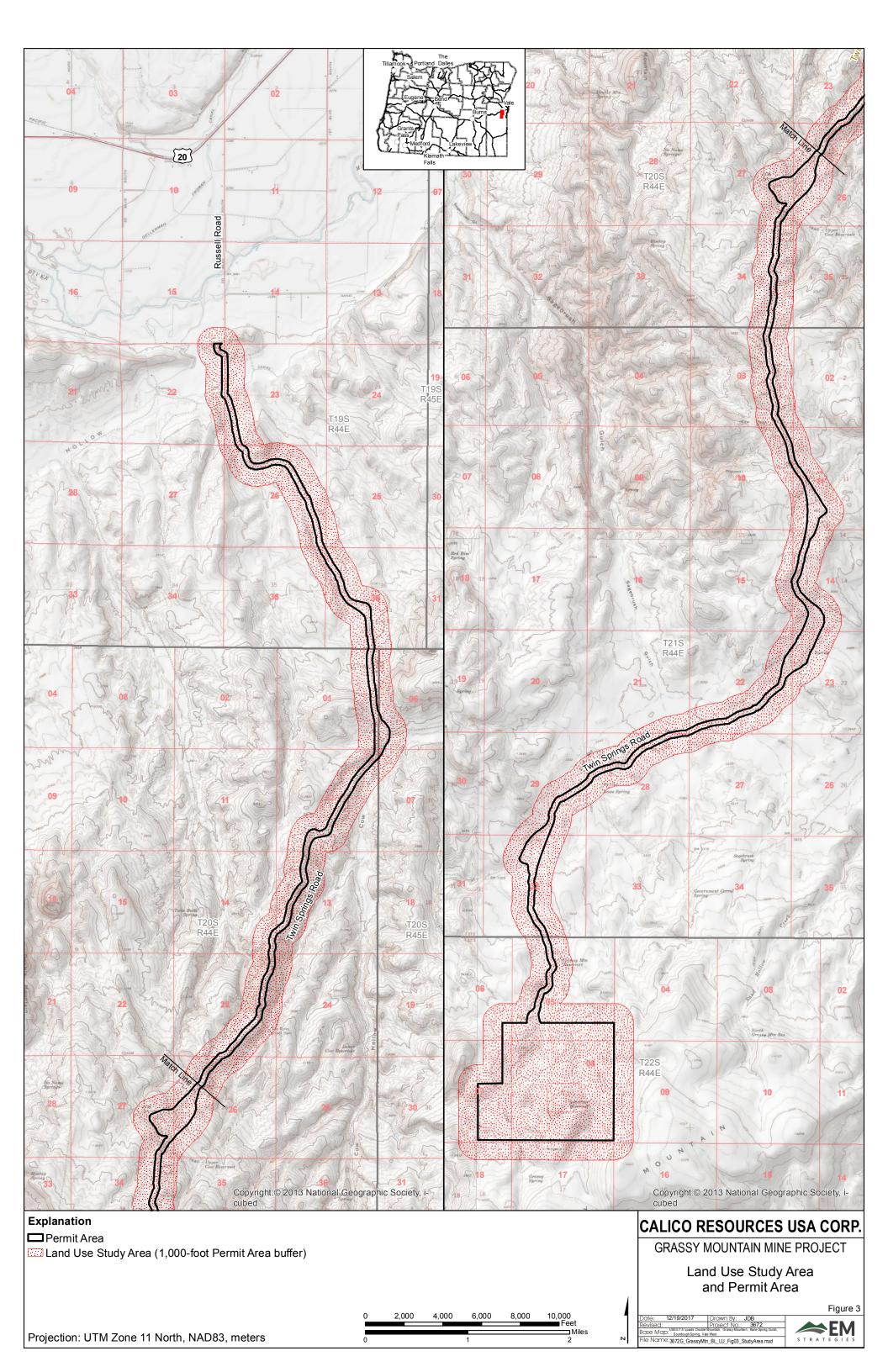
#### 3.1.1 Bureau of Land Management Southeastern Oregon Resource Management Plan

The BLM's 2002 Southeastern Oregon Resource Management Plan and Record of Decision (SEORMP) provides the Vale District with a comprehensive framework for managing 4.5 million acres of public land administered as the Malheur Resource Area (MRA) and Jordan Resource Area. The SEORMP addresses land in Malheur, Grant, and Harney Counties in a larger 6.5 million-acre planning area that contains private land and land managed by the State of Oregon. The purpose of the SEORMP is to ensure that public land is managed for multiple use and sustained yield in accordance with the Federal Land Policy and Management Act of 1976 (FLPMA). The Study Area is located in the MRA.

The SEORMP contains objectives for BLM-administered land in and surrounding the Study Area. The energy and mineral resource objectives are as follows:

- Objective 1: Provide opportunities for exploration and development of leasable energy and mineral resources while protecting other sensitive resources.
- Objective 2: Provide opportunities for exploration and development of locatable mineral resources while protecting other sensitive resources (BLM 2002).

To ensure consistency in site-specific planning and management activities, the SEORMP is coordinated with resource management plans for the Three Rivers Resource Area (Burns District) and Baker Resource Area (Vale District) in Oregon, the Owyhee Resource Area (Lower Snake River District) in Idaho, and the Winnemucca District, Nevada. There are agreements and ongoing coordination for managing various activities, including livestock grazing, areas of critical environmental concern, wilderness study areas, wild and scenic river study areas, and fire suppression.



# 3.1.2 General Mining Law, Federal Land Policy and Management Act, Mining and Mineral Policy Act of 1970, and BLM Mineral Policy

The General Mining Law of 1872 gives the public the basic right to locate and develop mining claims on federally-owned land. Public land under BLM jurisdiction is managed "...on the basis of multiple use and sustained yield unless otherwise specified by law" (Sec. 102(a)(7), FLPMA). Section 102(a)(12) of FLPMA states that "the public lands be managed in a manner which recognizes the Nation's need for domestic sources of minerals, food, timber, and fiber from the public lands, including implementation of the Mining and Minerals Policy Act of 1970 (84 Stat. 1876, 30 U.S.C. 21a) as it pertains to the public lands." The Mining and Minerals Policy Act declares that it is the continuing policy of the federal government to foster and encourage private enterprise in the development of domestic mineral resources. BLM's 1984 Mineral Policy states that public lands will remain open and available for mineral exploration and development unless withdrawal or other administrative action is clearly justified in the national interest. Section 102 of FLPMA also states that public land will be managed in a manner that will protect the quality of scientific, scenic, historical, ecological, environmental, air and atmospheric, water and archaeological values.

#### 3.2 <u>State of Oregon</u>

The present land use in the Study Area is grazing. ORS 215.203 defines grazing as farm use. ORS 215.203 establishes that land can be zoned Exclusive Farm Use (EFU) by Malheur County.

The Study Area is located on land the County has identified as *Farm Use* in its comprehensive plan and zoned EFU pursuant to its zoning ordinance, consistent with state regulation. EFU property is designated to implement statewide Planning Goal 3, which is to "preserve and maintain land for farm use, and with the state's agricultural land use policies expressed in ORS 215.243 and 215.203(2)(a)" (OAR 660-015- 000(3)).

#### **3.2.1 Farmland Protection Policy**

The Farmland Protection Policy (ORS 215.243) was adopted by the Oregon state legislature in 1973. It calls for the "preservation of a maximum amount of the limited supply of agricultural land." This policy provides the framework through which jurisdictions conduct land use permitting for farmland and other agricultural land.

The Farmland Protection Policy defines the state's agricultural land use policy. ORS 215.243 states that "Exclusive farm use zoning as provided by law, substantially limits alternatives to the use of rural land and, with the importance of rural lands to the public, justifies incentives and privileges offered to encourage owners of rural lands to hold such lands in exclusive farm use zones."

The DLCD oversees the Oregon Farmland Protection Program. The primary goals of the program are to:

- Inventory agricultural land;
- Designate land for agricultural use in the comprehensive plan;
- Adopt policies to preserve agricultural land; and
- Zone land for EFU.

Oregon's Farmland Protection Program places major emphasis on maintaining commercial agriculture. EFU zoning limits development that could conflict with farming practices and keeps farmland from being divided into parcels too small for commercial agriculture.

#### 3.2.2 Mining in Exclusive Range Use Zone, Land Use Permit

Provisions for mining and processing on agricultural land are contained in ORS 215.283(2), subject to the requirements in ORS 215.296. ORS 215.283(2) sets out non-farm uses in Exclusive Range Use (ERU) zones and allows the following with approval of the governing body or its designee in any area zoned for exclusive farm use. For the proposed Project, the subject non-farm uses that require approval include:

- Mining, crushing or stockpiling of aggregate and other mineral and other subsurface resources subject to ORS 215.298 (ORS 215.283[2][b][B])
- Processing of other mineral resources and other subsurface resources (ORS 215.283[2][b][D])

ORS 215.296 establishes the standards for approval of certain uses in EFU zones. The non-farm use cannot significantly change or significantly increase the cost of accepted farm or forest practices on surrounding lands devoted to farm or forest use (ORS 215.296[A]).

ORS 215.298 provides further detail on permitting for mining uses on ERU-zoned land. ORS 215.298 states that "...a land use permit is required for mining more than 1,000 cubic yards of material or excavation preparatory to mining of a surface area of more than one acre. A county may set standards for a lower volume or smaller surface area than that set forth in this subsection." The county code provides additional criteria to be considered by the county in determining if the Project will be compatible with surrounding agricultural practices (Malheur County Code [MCC] 6-3A and 6-6-7, 6-6-8-4, 6-5-2).

#### 3.2.3 Oregon Department of Environmental Quality Chemical Mining

OAR Division 43 addresses the "...control of waste and chemicals relative to design, construction, operation, and closure of mining operations which use cyanide or other toxic chemicals to extract metals or metal-bearing minerals from the ore and which produce wastes or wastewaters containing toxic materials." The purpose of Division 43 is to prevent water pollution and protect the quality of the environment and public health in Oregon. Division 43 requires application of all available and reasonable methods for controlling wastes and chemicals associated with mining.

OAR Division 43 requires that "...a person proposing to construct a new chemical mining operation, commencing to operate an existing non-permitted operation, or proposing to substantially modify or expand an existing operation shall first apply for, and receive, a permit from the Department [of Environmental Quality]. The permit may be a National Pollutant Discharge Elimination System permit if there is a point-source discharge to surface waters or a water pollution control facility permit if there is no discharge" (OAR 340-0043-0020[1]). In order to receive a permit, a project must be shown to be in compliance with statewide planning goals and compatibility with local land use plans (OAR 340-0043-0020[3]).

#### **3.2.4** Oregon Department of Geology and Mineral Industries

OAR Division 37 addresses the consolidated permitting of mining operations. DOGAMI must issue an operating permit for the proposed project. This permit would allow for the mining and processing of metal-bearing ores and provide for reclamation (OAR 632-0037-0010[20]).

Division 37 requires applicants to compile baseline information about proposed project sites. This baseline study provides information about land use, consistent with OAR 632-0037-0055. Division 37 also requires subsequent land use permitting pursuant to OAR 340 and consistent with DOGAMI's state agency coordination agreement.

#### 3.3 <u>Malheur County</u>

Malheur County has two primary mechanisms for land use management in the County: a comprehensive land use plan and a zoning ordinance that is part of the MCC. The Malheur County Planning Department administers state and county land use regulations and acts as staff for the County planning commission to ensure that the County complies with state land use statutes.

#### 3.3.1 Malheur County Comprehensive Plan

Malheur County adopted a comprehensive plan in 1982 and has continued to process plan amendments as needed. While much of the statistical information in the 1982 plan is out of date, plan policies of the original plan or amendments are applicable to the Permit Area. The plan includes direction on future land use in the Permit Area.

#### 3.3.1.1 <u>Malheur County Comprehensive Plan Policies</u>

The following Malheur County Comprehensive Plan goals and policies are applicable to the Project:

Land Use Policy 7: All planning decisions will take into account the comments of the affected property owners and the plans of local, state or federal agencies that might have an effect on, or be affected by, the decision.

Land Use Policy 12: Affected local, state and federal agencies will be notified of all proposed plan changes.

Agricultural Lands Policy 1: Public and private land classified by the U.S. Soil Conservation Service as being in Capability Classes I through VI, as well as any other lands determined to be suitable for farm use, are considered to be agricultural lands.

Agricultural Lands Policy 4: Urban growth boundaries, exclusive farm use zoning, and farm use assessment will be the major tools used to protect agricultural lands.

Agricultural Lands Policy 15: The zoning ordinance will establish Exclusive Farm Use (EFU), Exclusive Farm/Forest Use (EFFU), and Exclusive Range Use (ERU) zones to protect agricultural lands, and it will include provisions limiting development of those lands (Malheur County 1985).

#### 3.3.1.2 Malheur County Comprehensive Plan Land Use Element

In addition to land use-specific policies, the comprehensive plan contains a Land Use Element for unincorporated areas of Malheur County. The Land Use Element establishes land use categories and related maps and describes how the comprehensive plan land use designations help define the zoning designations. The county's zoning ordinance, is the County's primary mechanism for implementing the comprehensive plan. The land use element uses the designations *Farm Use* and *Range Use* for the Permit Area. These correspond with the EFU and ERU zoning designations, respectively (Figure 4).

#### **3.3.2** Malheur County Zoning Ordinance

The Malheur County zoning ordinance establishes standards that specify the location and use of buildings, structures and land for agricultural, recreational, educational, residential, commercial and industrial purposes on land administered by Malheur County. The ordinance is also used to implement the policies established in the Malheur County comprehensive plan. Where the comprehensive plan is intended to guide long-term planning in the county, the zoning ordinance is used to manage land development and land use permitting in areas subject to county regulation. The County maintains zoning maps consistent with the zone designations described in the ordinance.

# 4 STUDY METHODOLOGY

## 4.1 <u>Literature Review</u>

The majority of the baseline characterization in this report has been taken from the July 2015 HDR report. Additional or updated information has been added where necessary to accommodate for the revision in the Permit Area and Study Area. References and/or data sources used for this report are included in Section 6, Bibliography.

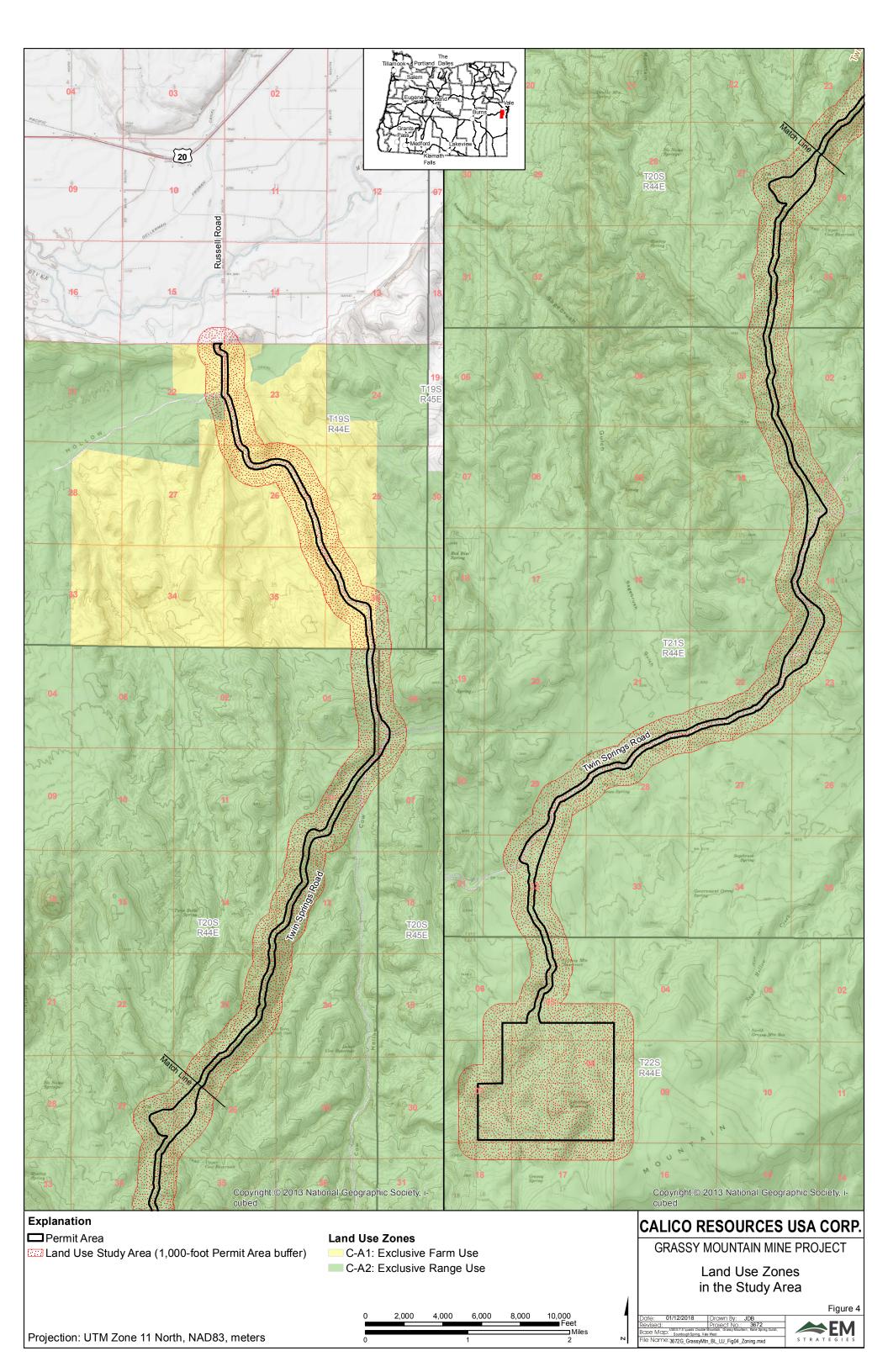
# 5 **BASELINE CHARACTERIZATION**

#### 5.1 Existing Allowable Land Uses

#### 5.1.1 Federal

Seventy-one percent of the land in Malheur County is federal land that is administered by the BLM (Oregon Partnership for Disaster Resilience [OPDR] 2014). The SEORMP indicates that the Study Area does not include any BLM-administered land that the BLM has identified for disposal. The SEORMP shows that the Study Area supports the Oregon-Idaho Graben, which is an area that the United States Geological Survey identifies as most likely to contain large gold deposits. A BLM-identified transportation and utility corridor passes along the southern limit of the Study Area. There is one recreation area near the Project, a primitive campground at Twin Springs. Dispersed recreation is allowed throughout the Study Area.

The SEORMP indicates that the mining and processing proposed as part of the Project would be an allowable use of BLM-administered land.



## 5.1.2 Local

The Study Area is zoned ERU and EFU. The county's land use zone maps reflect these designations (*C-A1: EFU*, and *C-A2: ERU*) (Figure 4). ORS 215.283 and 215.296 define the allowable uses on ERU-designated land; allowable uses are reiterated in the MCC. In some cases, the allowable uses are conditional and must receive a conditional use authorization from the County within which the ERU land is located. Land in and near the Study Area is currently used for grazing and dispersed recreation and supports an existing road network that provides local access. Grazing is a farm use and is allowed by right in the Study Area. The state and local statutes do not address dispersed recreation (the county code addresses developed recreation facilities such as parks and playgrounds). Most of the land is administered by the BLM, so dispersed recreation is managed in accordance with BLM policies.

## 5.2 <u>Potential Land Use Issues</u>

## 5.2.1 Federal

The BLM has not yet identified any potential issues with the SEORMP or other specific requirements for implementing the portions of the Project that are on BLM-administered land and subject to BLM authorization.

Mining and accessory infrastructure proposed as part of the Project is an allowed use of BLM-administered land in and near the Study Area if the Project can be developed in a manner that protects other sensitive resources, per the SEORMP energy and mineral resource objectives.

A review of the resource information and SEORMP indicates that the Study Area does not support any areas of critical environmental concern, wild and scenic rivers, wilderness study areas, sage grouse lek sites, or riparian conservation areas. Information in the SEORMP indicates that portions of the Permit Area are in or near areas that are open to mining but subject to operational timing limitations. Factors that would affect the operational timing limitations include proximity to occurrences of special status plants, pronghorn winter range, mule deer winter range, and bighorn sheep habitat. Surveys of the Permit Area and a two-mile radius did not locate any threatened or endangered species.

The proponent will work with the BLM to identify and mitigate potential land use conflicts on BLM-administered land as part of the Project approval process. The BLM will review potential land use conflicts and make decisions regarding Project-related allowable use of BLM-administered land.

# 5.2.2 State of Oregon and Malheur County

#### 5.2.2.1 Potential Conflicts with ERU Designation

Mining operations proposed as part of the Project are permitted conditional uses of ERU-designated land under ORS 215.283 and ORS 215.296. The proponent must demonstrate that the Project does not significantly change or significantly increase the cost of accepted farm or forest practices on surrounding lands devoted to farm or forest use (ORS 215.296[A]). Malheur

County will review the Project and proposal and, if all conditions and criteria are met, issue authorization for using ERU land for mining.

#### 5.2.2.2 Potential Conflicts with Other State Rules

OAR 632 Division 37 requires the Project proponent to receive an operating permit from DOGAMI to establish the mine and related processing facilities. A baseline study is one of several studies that the proponent must complete as part of its application for an operating permit. As it reviews the proposed Project, DOGAMI will identify potential issues, and the proponent would work with DOGAMI and other state agencies to address such issues, such as ensuring the proposed uses are compatible with surrounding land uses and develop and implement mitigation for potential conflicts, if necessary.

DOGAMI can only issue a permit if the proposed Project also receives local approval. In the case of this Project, the local approval involves upgrades to county-maintained roads. By working closely with the state and Malheur County, the proponent will develop an operating and reclamation plan that avoids or minimizes land use conflicts at the time of mine operation and in the years following closure.

#### 5.2.2.3 <u>Potential Conflicts with Local Policies and Regulations</u>

The most substantial potential for conflict with local land use policies and regulation is related to how the proposed Project would affect ongoing grazing use that is a by-right use of ERU-zoned land upon which the Project is located. All potential Project conflicts with ERU use would be addressed through the Project's permitting processes.

As it considers the proposed Project, the County will apply guidance in the Comprehensive Plan (relate Project findings to County policy and ordinances), and evaluate whether the proposed Project would not interfere with current ranching practices, and that it complies with the County code.

#### 5.3 <u>Mitigation Opportunities</u>

The Malheur County Multi-Jurisdictional Natural Hazard Mitigation Plan (OPDR 2014) does not contain any action items (mitigation measures) that apply specifically to land use for grazing or mining.

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