

CALICO RESOURCES USA CORP.

GRASSY MOUNTAIN MINE PROJECT
MALHEUR COUNTY, OREGON

WILDLIFE MITIGATION PLAN

November 2019

Prepared for

Calico Resources USA Corp.
665 Anderson Street
Winnemucca, Nevada 89445

Prepared by:



Reno:
1650 Meadow Wood Lane
Reno, Nevada 89502
Phone: (775) 826-8822 | Fax: (775) 826-8857

Elko:
835 Railroad Street
Elko, Nevada 89801
Phone: (775) 753-9496 | Fax: (775) 826-8857

**CALICO RESOURCES USA CORP.
GRASSY MOUNTAIN MINE PROJECT
WILDLIFE MITIGATION PLAN**

TABLE OF CONTENTS

1	INTRODUCTION	1
1.1	Resource Study Area	1
2	HABITAT MITIGATION GOALS AND STANDARDS	4
3	HABITAT TYPING AND CHARACTERIZATION	5
3.1	Methods	5
3.2	Results	6
3.2.1	Developed-Road and Agricultural.....	7
3.2.2	Grassland-Exotic Annual Grassland	7
3.2.3	Grassland-Native Perennial Grassland	8
3.2.4	Shrub-steppe-Sagebrush Shrub-steppe.....	8
4	DESCRIPTION OF POTENTIAL DISTURBANCES	8
5	HABITAT MITIGATION AREA.....	9
6	AVOIDANCE AND MINIMIZATION MEASURES.....	10
6.1	Avoidance Measures	10
6.2	Minimization Measures.....	10
7	HABITAT MITIGATION ACTIONS AND SUCCESS CRITERIA	12
8	MONITORING	13
9	AMENDMENT	13
10	REFERENCES	14

LIST OF TABLES

Table 1.	ODFW Mitigation Goals and Implementation Standards by Habitat Category	4
Table 2.	Land Cover, Habitat Types, and Habitat Categories within the Permit Area.....	6
Table 3.	Temporary and Permanent Disturbance by Habitat Category and Subtype within the Permit Area	9
Table 4.	Habitat Mitigation Area by Habitat Category and Subtype.....	10

LIST OF FIGURES

Figure 1.	Location Map	2
Figure 2.	Permit Area Map.....	3

**CALICO RESOURCES USA CORP.
GRASSY MOUNTAIN MINE PROJECT
WILDLIFE MITIGATION PLAN**

1 INTRODUCTION

This draft Wildlife Mitigation Plan (WMP) has been prepared in support of the Grassy Mountain Mine Project (Project) located in Malheur County, Oregon, and has been included as part of the Consolidated Permit Application. The purpose of this WMP is to describe the impacts of the proposed Project on wildlife habitat and the proposed mitigation for those impacts as required by Oregon Administrative Rules (OAR) 635-415-0005 (18) and OAR 635-415-0020 (8). The habitat categorizations and mitigation strategies are preliminary and have not been reviewed by the Oregon Department of Fish and Wildlife (ODFW).

1.1 Resource Study Area

The Project is located 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). 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 approximately 30 feet wide, which includes a 20-foot wide road travel width (ten feet on either side of the road centerline), two-foot wide shoulders on each side of the road, minimum one-foot wide ditches on each side of the road, and appropriate cut and fill. The Access Road Area totals approximately 876 acres.

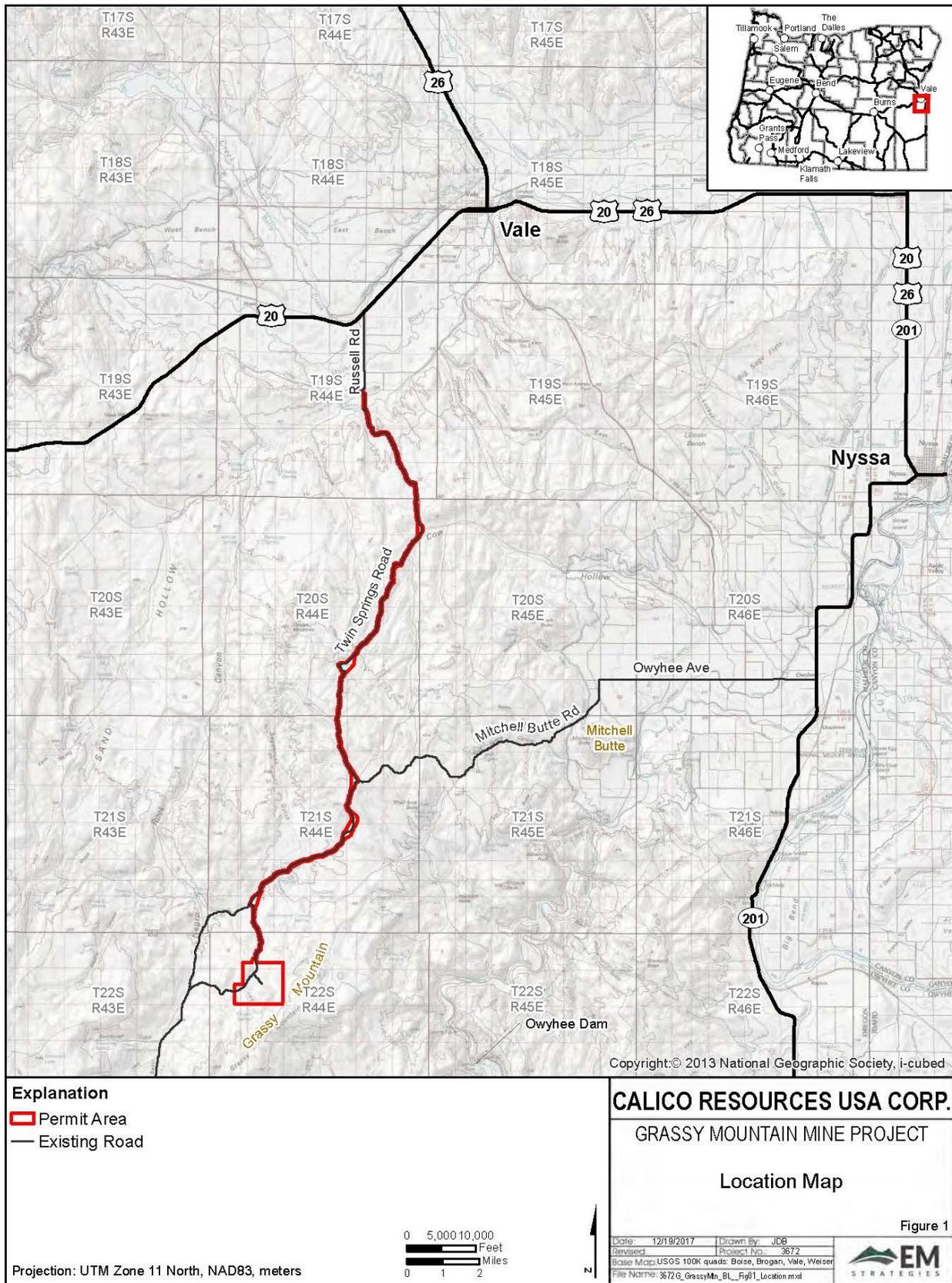


Figure 1. Location Map

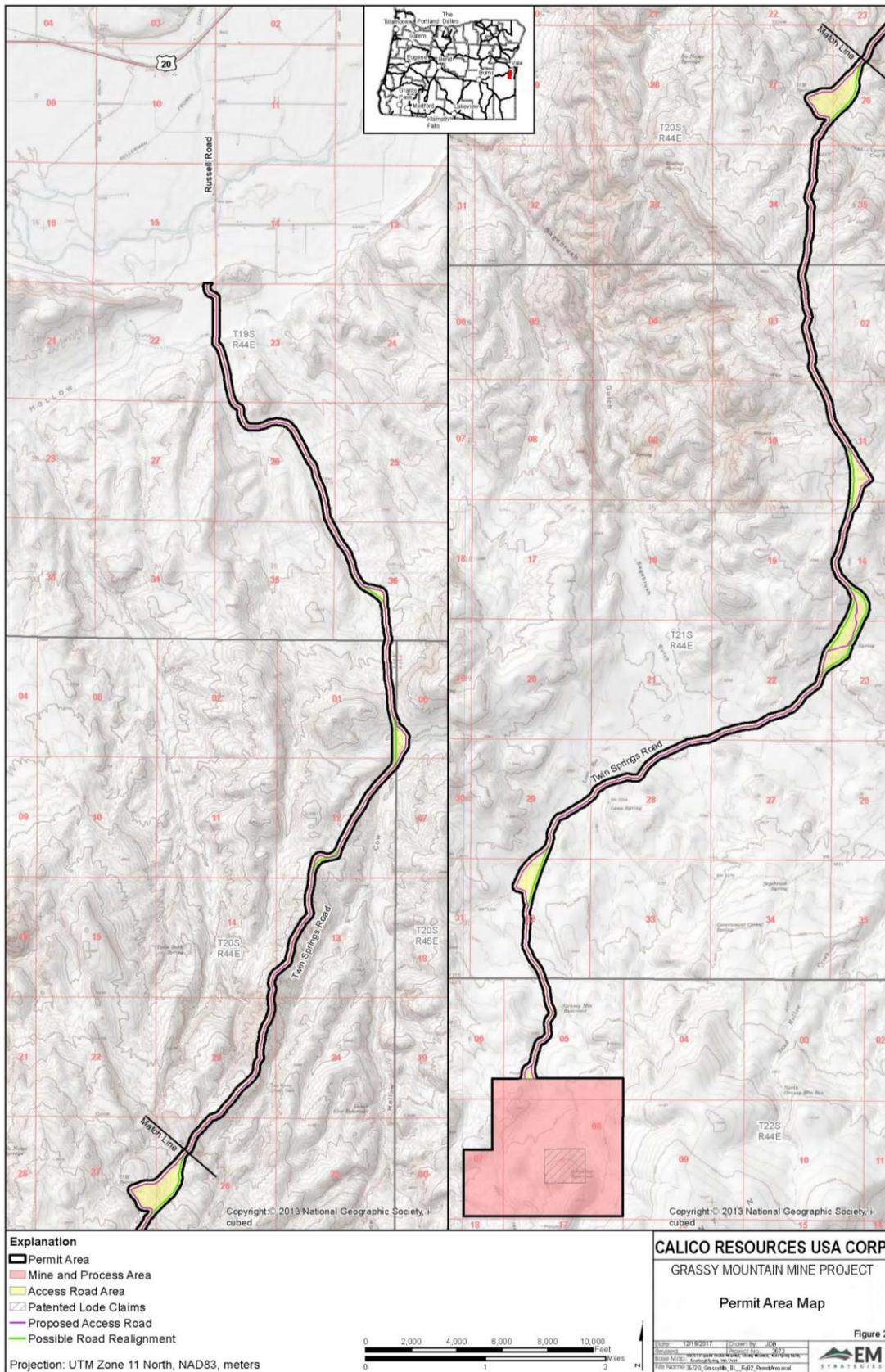


Figure 2. Permit Area Map

2 HABITAT MITIGATION GOALS AND STANDARDS

OAR 635-415-0025 defines six habitat categories and establishes mitigation goals and implementation standards for each category (Table 1).

Table 1. ODFW Mitigation Goals and Implementation Standards by Habitat Category

Habitat Category	Description	Mitigation Goal	Achieved by
1	Irreplaceable, essential habitat for a fish or wildlife species, population, or a unique assemblage of species and is limited on either a physiographic province or site-specific basis, depending on the individual species, population, or unique assemblage.	No loss of habitat quantity or quality	Avoidance of impacts through alternatives to the proposed development action.
2	Essential habitat for a fish or wildlife species, population, or unique assemblage of species and is limited either on a physiographic province or site-specific basis depending on the individual species, population or unique assemblage.	No net loss of habitat quantity or quality and to provide a net benefit of habitat quantity or quality	Avoidance of impacts through alternatives to the proposed development action; or mitigation of impacts, if unavoidable, through reliable in-kind, in-proximity habitat mitigation to achieve no net loss of either pre-development habitat quantity or quality. In addition, a net benefit of habitat quantity or quality must be provided.
3	Essential habitat for fish and wildlife, or important habitat for fish and wildlife that is limited either on a physiographic province or site-specific basis, depending on the individual species or population.	No net loss of habitat quantity or quality	Avoidance of impacts through alternatives to the proposed development action; or mitigation of impacts, if unavoidable, through reliable in-kind, in-proximity habitat mitigation to achieve no net loss in either pre-development habitat quantity or quality.
4	Important habitat for fish and wildlife species.	No net loss of habitat quantity or quality	Avoidance of impacts through alternatives to the proposed development action; or mitigation of impacts, if unavoidable, through reliable in-kind or out-of-kind, in-proximity or off-proximity habitat mitigation to achieve no net loss in either pre-development habitat quantity or quality.

Habitat Category	Description	Mitigation Goal	Achieved by
5	High potential to become either essential or important habitat.	Net benefit in habitat quantity and quality	Avoidance of impacts through alternatives to the proposed development action; or mitigation of impacts, if unavoidable, through actions that contribute to essential or important habitat.
6	Low potential to become essential or important habitat.	Minimize impacts	Actions that minimize direct habitat loss and avoid impacts to offsite habitat.

EM Strategies, Inc. (EMS) and Northwest Wildlife Consultants (NWC) completed habitat mapping and categorization of the site; avian use surveys; special status wildlife species surveys; and raptor nest surveys during the period of 2013-2014 (NWC 2014) and 2017-2018 (EMS 2018). Calico is committed to mitigate impacts to Category 3 and Category 4 grassland and shrub-steppe habitat that cannot be avoided or minimized with in-kind or out-of-kind habitat mitigation measures in proximity or off-proximity to the Permit Area with input from ODFW. Alternatively, Calico may purchase habitat credits from a mitigation bank identified by ODFW in accordance with OAR 635-415-0020 (7).

3 HABITAT TYPING AND CHARACTERIZATION

3.1 Methods

The habitat categories in the Permit Area were qualitatively categorized based on their importance to fish and wildlife, in accordance with the ODFW Fish and Wildlife Habitat Mitigation Policy. Habitat categorization was developed using a combination of the results of the terrestrial vegetation surveys of the Permit Area (EMS 2018a; HDR Engineering, Inc. [HDR] 2014; HDR 2015) and the United States Geological Survey (USGS) Northwest Regional Gap Analysis Project (NWGAP) land cover classifications (USGS 2011).

Initial habitat boundaries were delineated at a scale of one inch equals 5,000 feet in a digital geographic information system (GIS) using National Agriculture Industry Program (NAIP) one-meter resolution orthophoto quadrangle county mosaics (United States Department of Agriculture-Farm Service Agency (FSA) 2009; FSA 2010; FSA 2012), digital raster graphics of standard series USGS topographic maps, and the Natural Resources Conservation Service (NRCS) soil survey geographic database (NRCS 2017).

Biologists ground-verified and adjusted boundaries, further delineated habitat types, and developed detailed descriptions of each habitat type. These data were used to develop habitat categories based on vegetation type and wildlife species use. Habitat types were mapped according to current vegetation rather than according to the potential ecological climax for any given location.

Additional GIS layers, including ODFW Core Areas for greater sage-grouse (*Centrocercus urophasianus*) and lek location and known raptor nest shapefiles, were used to further refine the habitat category of a habitat type and area. ODFW has identified, throughout the range of the greater sage-grouse, Core Areas and Low Density use areas based on the locations of known leks (ODFW 2013). Core Area is considered by ODFW to be Category 1 habitat, irreplaceable, essential, and limited; none of this habitat exists within the Permit Area. Low Density Areas are considered by ODFW to be Category 2, essential and limited; a portion of the Permit Area is designated Low Density Area (ODFW 2013). This designation is a coarse filter based on lek locations; final habitat assessment depended on a site-specific determination of whether these areas either contain habitat upon which greater sage-grouse depend or contain signs of use by this species. Where neither applied, habitat categorization was based on vegetation characteristics or the presence of other sensitive species.

3.2 Results

Three general land cover types and five specific habitat types were found within the Permit Area; these are described below and summarized in Table 2.

Table 2. Land Cover, Habitat Types, and Habitat Categories within the Permit Area

General Land Cover Type	Habitat Type	Habitat Type Description	Category	Acres in Permit Area
Developed	Road	Compacted gravel or dirt roads devoid of vegetation and offering no value to wildlife.	6 – Low potential to become essential or important habitat	56
	Agricultural	Cultivated fields		11
Grassland	Exotic Annual Grassland	Dominated by exotic annuals, particularly cheatgrass and medusahead. Wildlife use predicated more on soil type and open landscape than on vegetation. Common breeder is horned lark. Also used by pronghorn, American badger, coyote, Merriam’s and Belding’s ground squirrels, and burrowing owl.	4 – Important habitat	228
	Perennial Grassland	Dominated by perennial bunchgrass. Shrubs, if present, are an inconspicuous component. Provides forage for Merriam’s and Belding’s ground squirrels, which in turn provide prey for ferruginous hawk, golden eagle, and other raptors, as well as American badger and coyote. Common breeding species include horned lark and western meadowlark. May support burrowing owl where soils are deep and sandy. Exotic annuals—especially cheatgrass—found between bunchgrasses. Due to	3 – Important and limited habitat	135

General Land Cover Type	Habitat Type	Habitat Type Description	Category	Acres in Permit Area
		low precipitation and cattle grazing, wildlife use limited primarily to spring.		
Shrub-steppe	Sagebrush Shrub-steppe	Dominated by >20% cover of mountain big sagebrush and/or yellow rabbitbrush. Offer high quality breeding habitat for shrub obligate species including loggerhead shrike, sage thrasher, Brewer's sparrow, sagebrush sparrow, black-throated sparrow. Also supports western meadowlark, lark sparrow, and mourning dove. In sandy or rocky soils, sagebrush lizard, desert horned lizard, Great Basin collared lizard, long-nosed leopard lizard, striped whipsnake, western rattlesnake, and other reptiles likely to be found. Exotic grasses, found beneath and between shrub layer throughout Permit Area.	3 – Important and limited habitat	1,332
Total Acres				1,762

3.2.1 Developed-Road and Agricultural

Approximately 56 acres of the Permit Area are developed in the form of compacted gravel or dirt roads relatively devoid of vegetation and offering little value to most wildlife. Roads are a potential source of the spread of noxious and invasive exotic grasses and weeds. They also constitute a potential source of fatality for birds, snakes, lizards, and mammals, though there is currently very little traffic on the roads within the Permit Area. Also, within this habitat type are cultivated agricultural fields at the north end of the Access Road Area (approximately ten acres). This habitat type is all characterized as Category 6 habitat, with low potential to become important or essential.

3.2.2 Grassland-Exotic Annual Grassland

Approximately 228 acres of the Permit Area is exotic annual grassland. This habitat type occurs in areas that are heavily grazed and is dominated by exotic annuals - particularly cheatgrass and medusahead. Native bunchgrasses are absent or a minor component. Heavy livestock grazing, and low and very seasonal precipitation result in low value to wildlife, as exotic annual grasslands provide little nutrition or cover. Wildlife use of this habitat is predicated more on soil type and open landscape than on vegetation. The most common breeding bird is horned lark. This habitat is also used by pronghorn, American badger, coyote, Merriam's and Belding's ground squirrels, and burrowing owl. During late winter and spring, an abundance of Merriam's ground squirrels (which is expected to vary among years, but which was quite high in spring 2014) likely provides good hunting for mammalian predators and raptors, including ferruginous hawk, golden eagle, northern harrier, and prairie falcon. Based on habitat type, condition, and use by wildlife, all the exotic annual grassland within the Permit Area is characterized as Category 4 - important habitat.

3.2.3 Grassland-Native Perennial Grassland

Approximately 135 acres of the Permit Area are perennial grassland. This habitat type is dominated by crested wheatgrass, an introduced species that was seeded in the area. Bluebunch wheatgrass and Sandberg bluegrass are the dominant native perennial grasses, which together comprise an average of 22 percent of the ground cover (EMS 2018b; HDR 2015). Shrubs (big sagebrush and yellow rabbitbrush), if present, are an inconspicuous component. This habitat provides forage and some cover for Merriam's and Belding's ground squirrels, which in turn provide prey for ferruginous hawk, golden eagle, and other raptors, as well as American badger and coyote. Common breeding species include horned lark and western meadowlark. This habitat likely provides important forage for pronghorn and may support burrowing owl denning and breeding where soils are deep and sandy. Exotic annuals—especially cheatgrass—are found between the bunchgrasses, where they tend to outcompete more nutritional forbs and limit this habitat's value to wildlife.

Based on the presence of a known greater-sage-grouse lek to the west of the area, ODFW has mapped approximately 31 acres of this habitat type as Category 2 (ODFW 2013). Ground verification yielded the conclusion, however, that this area contains neither habitat upon which greater sage-grouse depend nor evidence of greater sage-grouse use. Therefore, based on habitat type, condition, and use by wildlife, all the native perennial grassland within the Permit Area is characterized as Category 3 - essential, or important and limited habitat.

3.2.4 Shrub-steppe-Sagebrush Shrub-steppe

Approximately 1,332 acres of the Permit Area are sagebrush shrub-steppe. This habitat is dominated by less than 15 percent cover of mountain big sagebrush and yellow rabbitbrush (EMS 2018b; HDR 2015). This habitat type offers high-quality breeding habitat for shrub obligate species including loggerhead shrike, sage thrasher, Brewer's sparrow, sagebrush sparrow, and black-throated sparrow. Also breeding in this habitat are western meadowlark, lark sparrow, common nighthawk, and mourning dove. In sandy or rocky soils, sagebrush lizard, desert horned lizard, pygmy short-horned lizard, Great Basin collared lizard, long-nosed leopard lizard, western whiptail, striped whipsnake, western rattlesnake, and other reptiles are found.

Based on the presence of a known greater-sage-grouse lek to the west of the area, ODFW has mapped a portion (470 acres) of this habitat type as Category 2 (ODFW 2013). Ground verification yielded the conclusion, however, that this area contains neither habitat upon which greater sage-grouse depend nor evidence of greater sage-grouse use. Therefore, based on habitat type, condition, and use by wildlife, all the sagebrush shrub-steppe within the Permit Area is characterized as Category 3, essential, or important and limited.

4 DESCRIPTION OF POTENTIAL DISTURBANCES

Acres of disturbance within the Permit Area are the current estimate of the maximum affected area (the permanent [mine footprint] and temporary [construction] impacts) (Table 3). The actual areas of disturbance will be determined based on the final design layout of the Project.

The final design layout of the Project will be provided to ODFW, along with the associated permanent and temporary impact acreages prior to the beginning of construction.

Table 3. Temporary and Permanent Disturbance by Habitat Category and Subtype within the Permit Area

Habitat Category	Habitat Type	Permanently Disturbed (Acres)	Temporarily Disturbed (Acres)	Total Disturbed (Acres)
6	Road	3.5	0.1	3.6
	Agricultural	0.0	0.0	0.0
4	Exotic Annual Grassland	147.0	3.8	150.8
3	Perennial Grassland	25.3	1.2	26.5
3	Sagebrush Shrub-steppe	98.5	51.0	149.5
Total		274.3	56.1	330.4

The mine facility footprint (area covered by permanent facility components) occupies areas of 123.8 acres of Category 3 grassland and shrub-steppe vegetation, 147 acres of Category 4 grassland, and 3.5 acres of Category 6 habitat. In addition to the areas affected by the mine facility footprint, construction may temporarily affect 56.1 acres of Category 3, 4, and 6 habitats. After disturbance, the recovery of temporarily disturbed Category 3 and 4 grassland areas to a mature stage might take two to four years; recovery of shrub-steppe vegetation might take ten to 30 years to reach maximum height and vertical branching. During the period needed to achieve full recovery of these habitat subtypes, habitat quality is temporarily degraded until recovery is successful (temporal impact).

5 HABITAT MITIGATION AREA

The exact permanent and temporary disturbance areas cannot be determined until the final design layout of the Project is known. Before beginning construction, Calico shall provide to ODFW a map showing the final design configuration of the Project and an updated Table 3 showing the estimated areas of permanent impacts and temporary impacts on habitat (by category, habitat types and habitat subtypes). Calico will calculate the size of the habitat mitigation area (HMA), based on the final design configuration of the Project. Calico will implement the habitat enhancement actions described in this plan, after ODFW has approved the size of the HMA.

For the permanent impacts to Category 3 and Category 4 habitat, and to satisfy the ODFW “no net loss” goal, the HMA must include one acre for every acre of impact (a 1:1 ratio). To address the temporal loss of habitat quality during the recovery of Category 3 and Category 4 habitat temporarily disturbed during construction of the Project, the HMA must include 0.5 acre for every one acre of habitat affected (a 0.5:1 ratio). The total HMA is shown in Table 4 and will be updated once the final design configuration is complete.

Table 4. Habitat Mitigation Area by Habitat Category and Subtype

Habitat Category	1:1 Ratio	0.5:1 Ratio	Total
4	147.0	1.9	148.9
3	123.8	26.1	149.9
Total	270.8	28.0	298.8

For unavoidable permanent and temporary impacts of Category 4 habitat, Calico will use in-kind or out-of-kind habitat mitigation measures in-proximity or off-proximity to the Project to effectively offset impacts in consultation with ODFW and consistent with ODFW Habitat Mitigation Policy (OAR 635-415-0005). Calico will select an HMA in the same home range or physiographic province of the Project, and either lease or purchase the area to benefit similar or different habitat than those in the Permit Area. Alternatively, Calico may purchase habitat credits from a mitigation bank identified by ODFW in accordance with OAR 635-415-0020 (7).

6 AVOIDANCE AND MINIMIZATION MEASURES

The avoidance and minimization measures listed in this section may be modified in coordination with ODFW to match the measures proposed in the National Environmental Policy Act-compliant analysis. These measures are designed to avoid or reduce adverse impacts for special status wildlife and their habitat.

6.1 Avoidance Measures

The following adjustments to the Project layout have been made:

- Wetlands—Major components and related facilities have been specifically aligned to avoid (Category 2) wetlands.
- Roads—During construction and operation, vehicles and construction equipment will use existing roads to the maximum extent possible.
- Transmission line—Any proposed transmission line(s) will be constructed consistent with the recommendations of the Avian Power Line Interaction Committee guidelines for raptor protection on power lines (including minimum conductor spacing and the use of anti-perch guards) and will also be constructed and operated in a way that avoids impacts on any occupied or potentially suitable habitat.

6.2 Minimization Measures

Calico will work to minimize the impact of construction on the environment by employing the following methods to ensure compliance with federal, state, and local regulations and industry best practices:

- Seasonal Avoidance-construction activities will not occur within proximity of occupied raptor nests as follows:
 - Ferruginous hawk: ¼ mile (between March 15–August 15)

- Swainson's hawk: ¼ mile (between April 1–August 15)
 - Western burrowing owl: ¼ mile (between April 1–August 15)
 - Golden eagle: ½ mile (between January 1–July 15)
 - Bald eagle: ½ mile (between January 1–August 31)
- Environmental Training—A qualified biologist will develop and implement an environmental training course for site workers, which will require reporting any injured or dead wildlife on the site, adherence to site speed limits, trash control, and other subjects.
 - Vegetation Clearing—Tree or native vegetation clearing, if any, will occur between September 1 and March 1 to the greatest extent feasible to avoid impacts on wildlife. Any tree or native vegetation clearing outside of this period will be conducted only following a biological survey, performed no more than seven days prior to clearing of the area to be cleared to ensure that no birds or bats are roosting in the area to be cleared. If birds are discovered, no clearing will occur until the birds have left the nest for the season. If a bat roost is discovered, ODFW will be contacted for guidance.
 - Best management practices (BMPs)—The Applicant will develop an erosion and sediment control plan in accordance with the Project's 1200-Z Mining Operation Stormwater National Pollutant Discharge Elimination System (NPDES) Permit. The Applicant and its construction contractors will use BMPs to reduce potential impacts on areas immediately surrounding the construction site. Run-off detention facilities, vegetation filter strips or bioswales, and/or flow dissipation structures will be installed to control erosion and avoid contamination of discharged stormwater. Water will be sprayed in high-traffic areas to prevent fugitive dust from blowing off site. The Project Field Contact Representative and biological monitor will conduct periodic inspections of BMPs to ensure all measures are maintained and in compliance with the NPDES permit. Dust control measures will be deployed throughout the Project where construction is active.
 - Hazardous material containment—Any hazardous materials generated by construction will be collected and disposed of properly. Concrete trucks will be required to wash out in designated plastic lined collection pits to prevent runoff. Equipment maintenance and fueling will be performed over drip pans and equipment is inspected for leaks regularly. Waste oil and contaminated earth from minor spills or drips will be collected for disposal. Spills will be reported in accordance with the spill prevention measures outlined in the Emergency Response Plan and Stormwater Pollution Control Plan.
 - Restoration—Any disturbed ground will be prepared and sown with an appropriate native seed mix in accordance with the Noxious Weed Monitoring and Control Plan to ensure rapid growth and erosion prevention.
 - Noxious weeds – Weeds will be controlled using both mechanical and chemical methods in all surface-disturbed areas in accordance with the Noxious Weed Monitoring and Control Plan. All herbicide and pesticide mixing and applications will be conducted in

accordance with all federal, state, and local laws and regulations and the specific product's label. Herbicide and pesticide application will be directly applied to a localized spot and will not be applied by broadcasting techniques.

- Lighting during Operation and Construction—Motion detectors or timers and hoods that minimize skyward light will be installed on exterior lights.
- Traffic—All personnel will be required to adhere to a reduced speed limit of 35 miles per hour while driving in the Permit Area and will be required to adhere to posted speed limits on public roads. If there are no posted speed limits, the contractor will operate vehicles in a manner consistent with typical public traffic on public roads. Travel will be restricted to designated roads where possible; no off-road travel will be allowed except in the case of an emergency. In addition, all construction personnel will be instructed to observe caution when driving through the Permit Area and to maintain reasonable driving speeds so as not to harass or accidentally strike wildlife. Speed limits will be posted throughout the Project construction area.
- Housekeeping—Trenches or other small excavations will not be left open overnight but will be filled or covered in a way that prevents animals from entering. If trenches cannot be fully covered, a wildlife escape ramp, such as a 2-by-4, will be installed to ensure no wildlife are trapped in the excavation. No burning or burying of waste materials will occur at the Project site. The contractor will be responsible for the removal of all waste materials from the construction area. All contaminated soil and construction debris will be disposed of in approved landfills in accordance with appropriate environmental regulations. Garbage will be disposed of in appropriate covered waste bins. Contractor and Calico personnel will use good-housekeeping practices to remove any waste.

7 HABITAT MITIGATION ACTIONS AND SUCCESS CRITERIA

Calico will restrict uses of the HMA during the life of the Project that are inconsistent with the goal of no net loss to Category 3 and Category 4 habitat. Specific habitat quality maintenance actions that will preserve the HMA habitat at minimum Category 3 and Category 4 quality and quantity will include the following:

- Restricting development of buildings or other structures;
- Litter removal;
- Erosion control;
- Restricting livestock grazing practices to those that benefit wildlife;
- Inspecting for and then removing or chemically treating noxious weeds in the spring prior to the growing season to benefit vegetative structure and complexity for wildlife;
- Revegetating with native vegetation (by seeding) in bare ground areas created by weed control; and
- Preparing a wildfire response plan that considers the arid nature of the region and addresses risks on a seasonal basis.

The conservation of the HMA will be completed as compensation for unavoidable temporary and permanent disturbance of Category 3 and Category 4 grassland and shrub-steppe habitat. Mitigation of the permanent and temporal habitat impacts of the Project may be considered successful if Calico protects enough habitat within the HMA to meet the ODFW goal of no net loss of habitat in Category 3 and Category 4. Calico will protect the quantity and quality of habitat within the HMA for the life of the Project. The mitigation goals are successfully achieved when the HMA contains enough quantity of habitat to meet the mitigation area requirements calculated under Section 5. Calico may count habitat of higher value toward meeting the acreage requirements for Category 3 and Category 4 habitat. Calico may demonstrate enhancement of habitat quality based on evidence of indicators such as increased avian use by a diversity of species, more abundant seed production of desirable native bunchgrass, natural recruitment of sagebrush and successful weed control.

If Calico cannot demonstrate that the HMA is trending toward meeting the success criteria within five years after the date construction of the Project begins, ODFW may require Calico to provide additional mitigation. In addition to improving maintenance actions, if possible, some enhancement actions could include the following:

- Planting native grasses and shrubs;
- Removing old barbed wire fencing;
- Installing artificial burrowing owl nest burrows; and/or
- Installing wildlife watering guzzlers.

8 MONITORING

Calico will hire a qualified investigator (a botanist, wildlife biologist or vegetation specialist) to conduct an annual site visit of the HMA to ensure that the quality of the habitat is maintained at a Category 3 or higher. Monitoring for habitat maintenance actions will include describing if any development has occurred, recording signs and extent of livestock grazing, assessing for noxious weeds, describing if any wildfires occurred and any response measures, recording incidental wildlife observations, including special status plants and animals, and documenting habitat quality category/categories. Monitoring methods for enhancement actions, including success criteria, will be established if/when they are employed. All methods and results of monitoring will be reported to ODFW. In addition, as part of the wildfire response plan, on-site owners will notify Calico of any wildfire when it occurs.

9 AMENDMENT

This WMP may be amended periodically by agreement of Calico and the ODFW.

10 REFERENCES

- EM Strategies, Inc. (EMS). 2018a. Wildlife Resources Baseline Report. Calico Resources USA Corp. Grassy Mountain Mine Project, Malheur County, Oregon.
- _____. 2018b. Draft Terrestrial Vegetation Baseline Report, Grassy Mountain Mine Project. Prepared for Calico Resources USA Corporation.
- HDR Engineering, Inc. (HDR). 2014. Draft Vegetation Baseline Report, Grassy Mountain Exploration Project. Prepared for Calico Resources USA Corporation (Calico). May 2014.
- _____. 2015. Draft Terrestrial Vegetation Baseline Study Addendum #1. Grassy Mountain Exploration Project. Prepared for Calico Resources USA Corporation (Calico). July 2015.
- Northwest Wildlife Consultants, Inc. (NWC). 2014. Wildlife Resources Baseline Study. Grassy Mountain Exploration Project, Calico Resources USA Corporation. Prepared for HDR Engineering, Inc. and Calico Resources USA Corporation.
- Natural Resources Conservation Service (NRCS). 2017. Web Soil Survey. Soil Survey Staff, United States Department of Agriculture. Available online at: <http://websoilsurvey.nrcs.usda.gov/>.
- Oregon Department of Fish and Wildlife (ODFW). 2013. ODFW's data clearinghouse: ODFW sage-grouse core areas. Publish date August 24, 2011. Available online at: <http://nrimp.dfw.state.or.us/DataClearinghouse/default.aspx?p=202&XMLname=944.xml>
- United States Department of Agriculture-Farm Service Agency (FSA). 2009. National Agriculture Imagery Program (NAIP), Malheur County, Oregon compressed county mosaic, 1-meter resolution. Created and distributed by the USDA Aerial Photography Field Office. Salt Lake City, Utah.
- _____. 2010. National Agriculture Imagery Program (NAIP), Malheur County, Oregon compressed county mosaic, 1-meter resolution. Created and distributed by the USDA Aerial Photography Field Office. Salt Lake City, Utah.
- _____. 2012. National Agriculture Imagery Program (NAIP), Malheur County, Oregon compressed county mosaic, 1-meter resolution. Created and distributed by the USDA Aerial Photography Field Office. Salt Lake City, Utah.
- United States Geological Survey, Gap Analysis Program (GAP). May 2011. National Land Cover, Version 2. Available online at: <https://gapanalysis.usgs.gov/gaplandcover/data/>