GRASSY MOUNTAIN MINE PROJECT

Noxious Weed Monitoring and Control Plan

Submitted to:

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March 2024

CALICO RESOURCES

REVISION LOG

DATE	AUTHOR / EDITOR	DESCRIPTION
March 2024	SLR International Corporation	Revisions to address agency comments as outlined in the DOGAMI comments matrix dated January 3, 2024.
April 2023	SLR International Corporation	Revisions to address open comments as outlined in the updated DOGAMI updated spreadsheet.
October 2022	SLR International Corporation	Revisions in response to Bureau of Land Management (BLM) review comments dated March 7, 2022, for the Grassy Mountain Mine Project Plan of Operations dated December 15, 2021.
June 2021	EM Strategies	Revisions in response to BLM review comments dated March 26, 2020, for the Grassy Mountain Mine Project Plan of Operations dated February 26, 2020.
October 2019	EM Strategies	Initial draft of the document.

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ACRONYMS

°F	degrees Fahrenheit
amsl	above mean sea level
BLM	Bureau of Land Management
Calico	Calico Resources USA Corp
CFR	Code of Federal Regulations
EDRR	Early Detection and Rapid Response
EMS	EMS
ft	foot/feet
GIS	Geographic Information Systems
HDR	HDR Engineering, Inc.
MFO	Malheur County Field Office
NEPA	National Environmental Policy Act
OAR	Oregon Administrative Rules
ODA	Oregon Department of Agriculture
ORS	Oregon Revised Statutes
Permit Area	Mine and Process Area and the Access Road Area
Plan	Noxious Weed Monitoring and Control Plan
Project	Grassy Mountain Mine Project
PUP	pesticide use proposal
TSF	Tailings Storage Facility
TWRSF	Temporary Waste Rock Storage Facility
WRCC	Western Regional Climate Center

1. INTRODUCTION

This Noxious Weed Monitoring and Control Plan (Plan) 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 Plan is to document baseline noxious weed conditions and develop a noxious weed management program for the Project. The short-term objective of this Plan is to facilitate compliance with 43 Code of Federal Regulations (CFR) 3809 regarding undue and unnecessary degradation of public lands; Chapter 603 of the Oregon Administrative Rules (OAR); and stipulations in National Environmental Policy Act (NEPA) decisions. The long-term objective of this Plan is to provide a systematic program for identifying, preventing, and treating noxious weeds with the goal of promoting sustainable and productive plant communities. Post-mining land use objectives include forage for livestock, forage and habitat for wildlife, dispersed recreation, and mineral exploration/development. Implementation of the Plan will manage the noxious weeds which pose a threat to the environmental and economic value to the Project.

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 (ft; 150 ft 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 ft 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 30 ft wide, which includes a 20 ft wide road travel width (10 ft on either side of the road centerline), 2 ft wide shoulders on each side of the road, minimum 1 ft wide ditches on each side of the road, and appropriate cut and fill. The Access Road Area totals approximately 876 acres.

2. REGULATORY FRAMEWORK

2.1 FEDERAL REGULATIONS

The Federal Noxious Weed Act of 1974 (7 United States Code [U.S.C.] 2801-2813) as amended by Sec. 15, Management of Undesirable Plants on Federal Lands 1990, requires that each federal agency: 1) designate a lead office and person trained in the management of undesirable plants; 2) establish and fund an undesirable plant management program; 3) complete and implement cooperative agreements with State agencies; and 4) establish integrated management systems to control undesirable plant species.

The BLM defines a noxious weed as "any plant designated by a federal, state or county government as injurious to public health, agriculture, recreation, wildlife or property," and "invasive plants include not only noxious weeds, but also other plants that are not native to this country or to the area where they are growing" (BLM 2011). The BLM has identified noxious weed management as a priority problem affecting public lands, and as such, has developed a policy relating to the management and coordination of noxious weed activities. This policy is set forth in *BLM Manual 9015 – Integrated Weed Management* and requires that all ground-disturbing projects and any projects that alter plant communities be assessed to determine the risks of introducing and spreading noxious weeds (BLM 1992). If the risk is moderate or higher, a weed management program needs to be established. Noxious weeds have been added as one of the critical elements of the human environment, and therefore need to be addressed in all NEPA-compliant documents.

2.2 STATE REGULATIONS

The Oregon Department of Agriculture (ODA) has responsibility for jurisdiction, management, and enforcement of the State of Oregon's noxious weed law. Oregon defines "noxious weeds" as those that represent "the greatest public menace" and are "a top priority for action by weed control programs" (Oregon Revised Statutes [ORS] 569-350). State noxious weed laws pertain to both private and public land. The ODA maintains and updates the list of Oregon noxious weeds (Appendix A; ODA 2018a) under OAR 603-052-1200. The Oregon noxious weeds listed in OAR 603-052-1200 are further divided into the following classifications: A; B; and T.

- A Listed Weed: a weed of known economic importance which occurs in the state in small enough infestations to make eradication or containment possible; or is not known to occur, but its presence in neighboring states make future occurrence in Oregon seem imminent. Recommended action: Infestations are subject to eradication or intensive control when and where found (ODA 2018a).

- B Listed Weed: a weed of economic importance which is regionally abundant, but which may have limited distribution in some counties. Recommended action: Limited to intensive control at the state, county or regional level as determined on a site specific, case-by-case basis. Where implementation of a fully integrated statewide management plan is not feasible, biological control (when available) shall be the primary control method (ODA 2018a).

- T Designated Weed: a designated group of weed species that are selected and will be the focus for prevention and control by the Noxious Weed Control Program. Action against these weeds will receive priority. T designated noxious weeds are determined by the Oregon State Weed Board

and directs ODA to develop and implement a statewide management plan. T designated noxious weeds are species selected from either the A or B list (ODA 2018a).

2.3 COUNTY REGULATIONS

The entire Malheur County is a weed control district known as the Malheur County Weed District. The weed district is governed by the Malheur County Court upon recommendations from the Malheur County Weed Advisory Board. Pursuant to ORS 570.575, Malheur County has prioritized control and/or eradication of these noxious weeds by A, B, and C classes, with Class A having the highest priority (Appendix B; Malheur County 2018).

- Class A Weed: a weed of known economic/environmental importance known to occur in the county in very small numbers to make eradication practicable, or not known to occur but its status in surrounding counties makes future occurrence seem imminent. Action: Infestations are subject to eradication or intensive control when and where found (Malheur County 2018).

- Class B Weed: a weed of known economic/environmental importance and of moderate to wide distribution and highly invasive, subject to intensive control or eradication where feasible at the county level. Action: Infestations are subject to control where found, with possible county assistance when funds are available. All Class B weeds are required to be controlled within 50 ft of all property lines, easements and rights-of-way, pursuant to ORS 570.525 (Malheur County 2018).

- Class C Weed: a weed of known economic/environmental importance and of general distribution that is subject to control or eradication as local conditions warrant. Action: Infestations are treated at landowner's discretion (Malheur County 2018).

3. PROJECT DESCRIPTION

3.1 PROJECT ACTIVITIES

Calico Resources USA Corp (Calico) plans to construct, operate, reclaim, and close an underground mining and precious metal milling operation. In general, the proposed mining and precious metal processing operations will consist of an underground mine and ore processing facilities, including a conventional Mill and Tailings Storage Facility (TSF) and a Temporary Waste Rock Storage Facility (TWRSF), as well as other support facilities. The Project will include the following major components:

- One underground mine;
- One TWRSF;
- One carbon-in-leach processing plant;
- One borrow pit area;
- One TSF;
- Run-of-mine ore stockpile;
- One reclaim pond;
- A water supply well field and pipeline, associated water delivery pipelines, and power;
- A power substation and distribution system, including the new Idaho Power powerline that will connect to the substation;
- One ventilation shaft;
- Access and haul roads;
- Ancillary facilities that include the following: haul, secondary, and exploration roads; truck workshop; warehouse; stormwater diversions; sediment control basins; reagent and fuel storage; storage and laydown yards; explosive magazines; fresh water storage; monitoring wells; meteorological station; an administration/security building; borrow areas; growth media stockpiles; a landfill; and solid and hazardous waste management facilities to manage wastes; and
- Reclamation and closure, including the potential development of an evaporation cell for the TSF.

3.2 PREVIOUS SURVEYS

Botanical surveys conducted in 2012, 2013, and 2015 by HDR Engineering, Inc. (HDR) (HDR 2012, 2014, 2015) and 2017 by EMS (EMS 2017) characterized vegetation within the Permit Area as a desert-rangeland type where sagebrush and grasses are the dominant species. The area has been extensively grazed for many years, and portions of the Permit Area appear to have been re-seeded at one time with a crested wheatgrass (*Agropyron cristatum*) dominated seed mix. Six plant communities were identified within the Permit Area: 1) Agricultural; 2) Bluebunch Wheatgrass/Cheatgrass/Annual; 3) Burned Yellow Rabbitbrush/Bluebunch Wheatgrass; 4) Crested Wheatgrass Seeding; 5) Wyoming Big Sagebrush/Bluebunch Wheatgrass; and 6) Wyoming Big Sagebrush/Crested Wheatgrass.

3.3 ENVIRONMENTAL SETTING

The Permit Area is in the Sourdough and Grassy Mountains at elevations ranging between 3,250 and 4,800 ft above mean sea level (amsl). According to the Western Regional Climate Center (WRCC), the average maximum temperature recorded at the Owyhee Dam, Oregon field station, located approximately five miles east of the Permit Area, is 93.6 degrees Fahrenheit (°F) in July, and the average

minimum temperature is 22.4°F in January. The average annual precipitation is 9.12 inches and tends to peak in May (WRCC 2016).

3.4 NOXIOUS AND INVASIVE WEED INVENTORY

Ten noxious weed species listed on Oregon's noxious weed list were observed within the Permit Area during the 2019 botanical survey (Siskiyou Biosurvey LLC 2019). These species are listed in Table 1 below and shown on Figure 3. Cheatgrass, a Malheur County listed noxious weed, was also observed in the Permit Area, but was not mapped.

Table 1: Status of Noxious Weed Species in the Permit Area

COMMON NAME	SCIENTIFIC NAME	MALHEUR COUNTY STATUS	OREGON STATUS
Cheatgrass	*Bromus tectorum*	C	n/a
Whitetop (hoary cress)	*Cardaria draba (Lepidium draba)*	B	B
Rush skeletonweed	*Chondrilla juncea*	A	B
Canada thistle	*Cirsium arvense*	B	B
Bull thistle	*Cirsium vulgare*	C	B
Field bindweed	*Convolvulus arvensis*	n/a	B
Kochia	*Kochia scoparia*	C	B
Scotch thistle	*Onopordum acanthium*	B	B
Ribbon grass	*Phalaris arundinacea*	n/a	B
Common reed	*Phragmities australis*	n/a	B
Medusahead	*Taeniatherum caput-medusae*	C	B

4. WEED MANAGEMENT STRATEGIES

Due to the presence of noxious weeds within the Permit Area and the amount of surface disturbance associated with the Project, the risk of introducing or spreading weed infestations is high, and a management program is required. The components of a noxious weed management program are prevention, treatment, and monitoring. Each component will be implemented until the final reclamation release for revegetation. Implementation of weed management techniques will be conducted in consultation with the ODA, the BLM, and/or the Malheur County Weed Inspector, as appropriate. The following sections help define how these major components will be implemented; however, site-specific methods will continue to be adapted that are appropriate to the situation, species and environment, and limitations of the Project.

4.1 PREVENTION

Prevention of new noxious weed infestations is the most cost-effective means of noxious weed control. Prevention, or more accurately, reduction of the potential for noxious weed establishment involves several approaches: weed management as an assigned duty; awareness and education; and implementation of cultural practices.

4.1.1 WEED MANAGEMENT AS AN ASSIGNED DUTY

The implementation of this Plan will be included in the assigned duties of Calico's Environmental Department staff. The staff will be responsible for regular monitoring of the Permit Area and developing the appropriate action for the eradication of new weed infestations. By implementing early detection followed by rapid response, the spread of noxious weeds is minimized, and eradication is achievable. In addition, the Environmental Department staff will be the repository for noxious weed observations and will be responsible for enforcement of all weed management strategies.

4.1.2 AWARENESS AND EDUCATION

Identification and eradication of the first noxious weed to establish in an area translates into major cost savings over treatment of large or multiple patches of weeds. The first weed can only be detected if mine personnel can identify the plant as a noxious weed. Not every employee is required to be able to identify noxious weeds; however, key mine personnel will have training in noxious weed identification on an as-needed basis. Noxious weed identification training will occur during late winter or early spring, and an annual refresher course will be conducted if needed. As noxious weeds are detected, these trained individuals will visit the infestations to reinforce the noxious weed identification training. Therefore, the purpose of the noxious weed training is for personnel to be able to identify common, local invasive plants, incorporate simple techniques to prevent new infestations or prevent the spread of noxious weeds, and monitor the progress of treated infestations.

The Malheur County Weed Advisory Board offers information on identifying weeds and how to prevent their spread: https://www.malheurco.org/weed-inspector/weeds/. In addition, the ODA provides the

Western US Invasive Plant EDRR [Early Detection and Rapid Response] Guide to Oregonians to aid in EDRR to noxious weed infestations:

https://www.oregon.gov/ODA/shared/Documents/Publications/Weeds/WesternUSInvasivePlantEDRRWeedIDGuide.pdf.

4.2 PROTECTIVE MANAGEMENT PRACTICES

Protective management practices are changes in land management practices from practices that create favorable conditions for weed establishment to practices that reduce the potential for weed establishment. They reduce the potential for weed invasion and increase the effectiveness of other weed prevention or control methods. One or more of these practices will be implemented if monitoring indicates that these measures are necessary:

- Interim seeding of long-term disturbance. Road berms, sediment basins, growth media stockpiles, and other sites that will have exposed soil for more than one growing season will be seeded with an interim seed mix using hydro-seeding or hydro-mulching. The interim seed mix will be certified pure live seed and weed free and include Sandberg bluegrass (*Poa secunda*) and bottlebrush squirreltail (*Elymus elymoides*), which are two aggressive native perennial grass species capable of competing with invasive annual plants. The establishment of native vegetation on these sites will reduce the potential for noxious weeds and other nonnative and invasive species to establish.
- Hydro-seed application. A hydro-seed application with tackifier will be applied, if feasible, between September 30 and December 31, and at a rate of 7 to 8 pounds per acre. The seed mix will consist of:
  - 44% bottlebrush squirreltail (*Elymus elymoides*)
  - 44% Sandberg's bluegrass (*Poa secunda*)
  - 7% sand dropseed (*Sporobolus cryptandrus*)
  - 2% western yarrow (*Achillea millefolium var. occidentalis*)
  - 3% silky lupine (*Lupinus sericeus*)

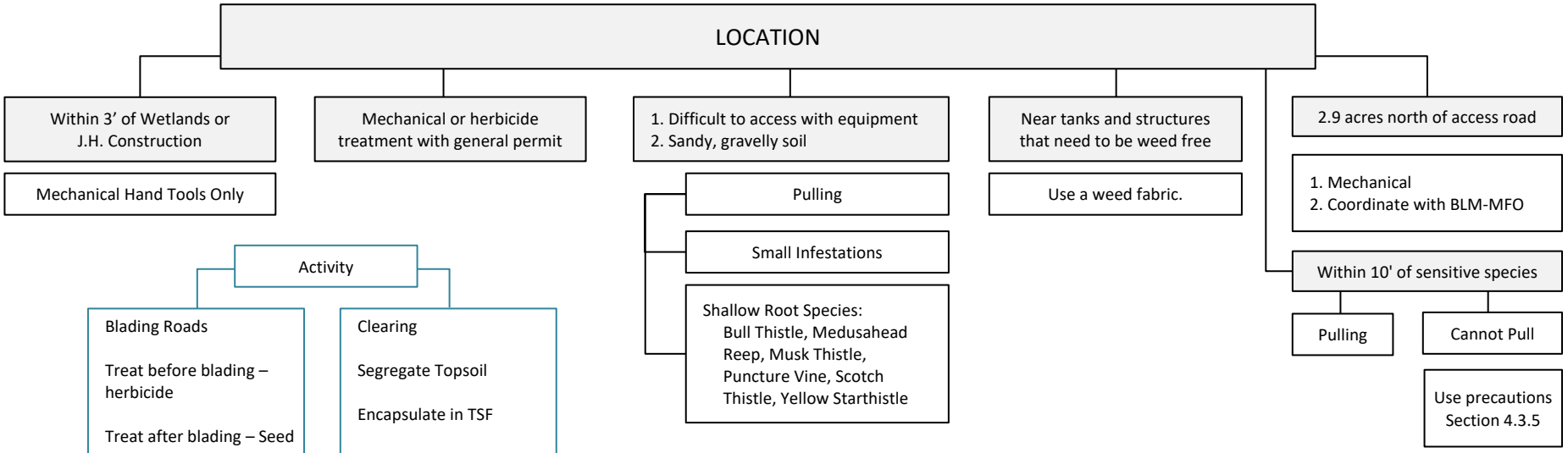
  For increased nutrient/moisture availability and erosion control, the seed mix will be applied concurrently with a biochar soil amendment. The biochar amendment can be applied with the seed mix in place of a tackifier, and it could significantly increase vegetation establishment rate and improve soil stability.
- Road monitoring. The road will be inspected bi-annually for seasonal fuel encroachment and to monitor the effectiveness of annual fuels reductions. To ensure that no vegetation is allowed to grow from the road's center line through the length of the shoulder, a total of 12 ft. An area 2 ft wide located adjacent to the far side of the ditch will also be monitored bi-annually in coordination with noxious weed surveys and actions taken to reduce noxious weeds.
- Road maintenance. Road maintenance activities such as blading can spread seeds or weed parts that can establish in new locations. If weeds are present in areas that require road maintenance, the Environmental staff will be responsible for treating infestations prior to conducting any blading or other maintenance activities and after any blading or other maintenance activities. As needed, road shoulders will be treated with herbicide (e.g., roadside spraying) or mechanical methods to maintain the no-vegetation criteria. Ditches located on either side of the access road

will be spot-treated annually with herbicide targeting noxious weed infestations to maintain native vegetation establishment and soil stability.

- Minimize disturbance to existing vegetation. Vehicles will be confined to existing roadways and not permitted to conduct cross-country travel, except in cases of emergency or for approved safety and maintenance activities (e.g., fence maintenance or noxious weed control), to reduce the potential for new weed establishment.
- Maintain desired plant communities. Resistance to weed establishment is greatly increased by maintaining vegetation communities with native and desirable species.
- Effective reclamation. Whenever feasible, earthwork and reclamation seeding will occur within the same year to allow the seeded species to establish before non-native, invasive species and noxious weeds can dominate the reclaimed surfaces. Using species in a seed mix that have been successful in previous reclamation efforts, and seed suited for site conditions, will also reduce the potential for noxious weed establishment by providing a dense perennial plant cover. Reclamation seed mixes will be certified pure live seed and weed free. Plantings may serve as an additional option or in conjunction with reclamation seeding and will be determined on an as needed basis. Noxious weeds will not be counted towards vegetative cover during evaluations of re-vegetation bond release.
- Certified weed-free materials. Seed and mulch used in reclamation and straw bales used for sediment control will be certified weed free per the North American Invasive Species Management Association Standards or similar.
- Apply seed to treated areas. Any location that has been treated for noxious weeds will be seeded with either the interim seed mix or reclamation seed mix during the fall after treatment. Leaving the area fallow after treatment increases the risk that either the same species or another species of noxious weed or non-native, invasive species will establish on the site.
- Avoid travel through infested areas. Ensure that personnel and contractors avoid, as much as possible, travel through areas which are identified as containing noxious weeds to prevent their spread to uncontaminated areas.
- Decontaminate vehicles. Personnel or contractors, who transport equipment on site, or those that must travel through identified noxious weed areas, are required to power wash vehicles and equipment to ensure that the spread of noxious weed seeds are minimized. Prior to mine site access, all contractors are required to check-in at the mine site administrative offices. Contractors will be expected to wash vehicles locally prior to accessing the site, or when this is not possible, on-site decontamination procedures will use high pressure water hoses to spray down all areas of the vehicle and equipment which have the potential to collect noxious weeds or noxious weed seeds. A vehicle wash bay facility will be located adjacent to the truck workshop and warehouse. The main areas on vehicles that will be decontaminated will include, but are not limited to, the equipment tracks, tires, undercarriage, axles, wheel wells, running boards, bumpers, and brush guard assemblies.
- Segregate topsoil. In areas that are to be cleared and where noxious weeds have been identified, Calico will ensure that the topsoil contaminated with noxious weeds will be cleared first and will be encapsulated in the TSF.
- Disposal. Noxious weeds that are mechanically removed will be disposed of in a location and manner acceptable to the ODA.

4.3 TREATMENT

Areas infested with noxious weeds will be treated to eliminate and prevent the spread of the infestation. The treatment methods used, and the timing of treatment will be determined on a species-specific basis to be most effective. Generally, treatment will occur prior to seed production. The general types of treatment methods that Calico has outlined as potentially useful for the Project are described in the following subsections. The diagram below outlines the selection criteria for specific treatment types and when each should be used.



Mechanical Treatment	Mechanical Treatment	Mechanical Treatment	Mechanical Treatment
Pulling: Small Infestations Annual/biennial plants Shallow roots Sandy/gravelly soil Difficult to access with chemical, motorized, or livestock Bull thistle, Medusahead rye, Musk thistle, Puncture vine, Scotch thistle, Yellowstar thistle	Mowing: Large, flat dry areas - 1st or 2nd growing season - Repeated mowing - Small infestations of bushy stemmed, biennial thistle, or tall biennial weeds, spread through tumbling	Interim seeding of long-term disturbance. - Roadbeds, sediment basin - Exposed soil for more than one growing season	Actual weeds: Dispose of in accordance with ODA.

Diagram 1: Noxious Weed Treatment Flow Chart

4.3.1 MECHANICAL TREATMENT

Mechanical eradication is a technique in which physical methods or equipment is used to damage or destroy the target plant (USFWS 2009; Donaldson 2013). Mechanical treatments include any form of physical destruction of the plant (e.g., pulling, mowing, cutting, and grazing). However, mechanical treatment may cause favorable conditions for some weeds' reproductive mechanisms and should therefore be considered carefully prior to initiation (USFWS 2009).

Pulling is most effective in controlling the spread of new infestations by neutralizing the weed prior to seed dispersal. This treatment works best for the following: small infestations; annual or biennial plants; shallow-rooted plant species that do not sprout from residual roots; plants that grow on sandy or gravelly soils; difficult areas to access that prevent the use of chemical, motorized equipment, or livestock; or small infestations that will reduce or eliminate seed production. Weed species that are good candidates for the pulling method include: bull thistle (*Cirsium vulgare*); medusahead rye (*Taeniatherum caput-medusae*); musk thistle (*Carduus nutans*); puncturevine (*Tribulus terrestris*); scotch thistle (*Onopordum acanthium*); and yellow starthistle (*Centaurea solstitialis*) (Donaldson 2013).

Mowing and cutting employ mechanical or hand tools to separate the plant from its roots. Mowing should not be conducted in a manner that removes sagebrush or other desirable native shrubs, perennial bunchgrass, and forbs. Mowing works best for large, relatively flat and dry areas with minimal safety concerns; largescale restoration sites where weeds need to be controlled during the first or second growing season; and areas where repeated mowing will weaken weed plants by depleting root and rhizome reserves. Cutting can be utilized for small infestations of fleshy-stemmed biennial thistles or for tall biennial weed species prior to seed dispersal, in combination with herbicide treatments, and for weed species that spread seeds through a "tumbling action" (i.e., diffuse knapweed [*Centaurea diffusa*]) (Donaldson 2013).

The use of grazing animals is sometimes considered a form of mechanical treatment, since the plants are generally physically damaged which minimizes growth. Horses, cattle, sheep, and goats can be used to selectively overgraze certain weed species. Overgrazing results in a weakened state whereby the efficacy of herbicide treatments is increased. However, noxious weeds vary greatly in their palatability to different types of livestock and implementation should be carefully weighed against the transfer of weed seed by the livestock, scale of the infestation, potential damage to desirable species, and livestock behavior response (Davison et al. 2006).

4.3.2 CHEMICAL TREATMENT

Chemical treatment involves using herbicides to efficiently and effectively suppress or kill noxious weeds and invasive species. Herbicides can be applied to the soil, added to the water column, or sprayed directly onto the foliage of the target plants (DiTomaso et al. 2013). Spot spray or spraying directly on the foliage of the target plants is preferred. Chemical treatment may be a necessary technique when treating a large noxious weed infestation as an effective way to reduce weed populations prior to secondary treatment. It may also be used to control invasive species that establish in disturbed areas and interfere with successful reclamation. This is also a common technique when complete eradication is the land management goal.

There are many types of herbicides; some are derived from plants (e.g., nicotine-based herbicides) or are manufactured synthetically (e.g., 2,4-D). Herbicides can be classified in terms of their mode of action and include growth regulators, amino acid inhibitors, grass meristem destroyers, cell membrane destroyers, root and shoot inhibitors, and amino acid derivatives which interfere with plant metabolism in a variety of ways (Donaldson 2013). The choice of which herbicide is best for a particular situation depends on the target weed species, the presence of other desirable plant species, soil texture, depth, distance to water, and environmental conditions (Bussan and Dyer 1999).

When using herbicides, considerations should be given to the safety of the environment and the individuals applying the herbicide, costs to apply, and the effectiveness of the material used. Any chemical weed control efforts on public lands will be coordinated and approved by the BLM Botanist and Weed Specialist. Herbicides will be applied on BLM-administered lands by Oregon State licensed public (county, ODA or federal employee) or licensed commercial applicators (ORS 634.106 - 634.146 Licensing and Certification). Not all herbicides and adjuvants have been approved for use on public lands; therefore, the choice of treatments on public lands may be limited. The BLM updates its list of approved herbicides and adjuvants annually; the 2019 approved herbicide list and the approved adjuvant list are included in Appendix D. As per BLM policy in H-9011 Chemical Pest Control Handbook, a pesticide use proposal (PUP) is required prior to pesticide application on BLM administered lands. The most current PUP may be requested from the BLM as needed. Before herbicide application is conducted, if the proposed chemical is not covered by a preexisting PUP, a licensed applicator will submit a PUP for approval to the BLM District's Weed lead who will route it through the approval channel. The licensed applicator will also submit a chemical handling, storage, and disposal plan to the Malheur Field Office Coordinator and copy the BLM's Vale District Weed lead for approval. After each treatment, the licensed applicator will submit a Pesticide Application Record(s) and Geographic Information Systems (GIS) data to the BLM District Weed lead.

4.3.2.1 Selective Site Sterilization

Federal mine safety standards require areas surrounding facilities such as fuel storage tanks and power transformers to remain free of vegetation (30 CFR 56.4130). In these areas, Calico will use a woven weed barrier fabric that would allow water to infiltrate down but discourage plant growth. The fabric will be top-dressed with native rock and small, coarse woody debris to further discourage plant growth and may provide some habitat for lizards.

4.3.2.2 Timing of Herbicide Application

Treating weeds annually will help control or eradicate existing infestations. Additional weed treatment will be performed on an as needed basis to supplement annual efforts. Weed treatments for infestations within the Permit Area and selected areas adjacent to the Permit Area will be conducted by a licensed pesticide applicator. This task will be directed and managed by Calico. Pre-emergents, such as imazapic, are used to control invasive annuals, (e.g., cheatgrass) in the fall typically before the first rain event. The selection, use, storage, and disposal of chemicals used as a function of this Plan will be conducted according to manufacturer's recommendations and applicable laws or regulations.

Any application of herbicide over, in, or within 3 ft of waters of the state (as defined in ORS 468B.005) would require compliance with the Pesticide General Permit (2300A). Waters of the state within the Permit Area include two wetlands totaling 0.2 acre and the J-H Canal (EMS 2018). Calico will avoid spraying

herbicides over, in, or within 3 ft of the two wetland features and J-H Canal. If weed eradication becomes necessary within 3 ft of the two wetland features or J-H Canal, Calico will utilize mechanical treatment techniques using hand tools.

4.3.3 BIOLOGICAL TREATMENT

While biological treatment involving the use of insects or livestock can be effective controlling some weed populations, none of the flora present in the project area have open field release potential. Biological treatment is not planned.

4.3.4 PROTECTION OF WILDLIFE HABITAT AREAS

It is important, when determining a treatment mechanism, to recognize potential environmental parameters that may require specific considerations. Some areas within the Permit Area may require special treatment because of the habitat requirements for some wildlife species. This may include proximity to waterways, migration habitats, grazing habitats, and other wildlife specific requirements. No off-road travel will be allowed except in cases of emergency or for approved safety and maintenance activities (e.g., fence maintenance or noxious weed control).

4.3.5 SENSITIVE PLANT SPECIES PROTECTION

Two BLM Sensitive and Oregon State Endangered plant species occur within the Permit Area: Mulford's milkvetch (*Astragalus mulfordiae*) and Cronquist's stickseed (*Hackelia cronquistii*) (EMS 2018). In total, the populations of these two species cover 2.9 acres in the northern portion of the access road and co-occur with several populations of noxious weeds. These sensitive species are in the same areas as noxious weeds; therefore, care must be taken to prevent potential damage to desirable species while weeds are being treated. Prior to treating noxious weeds, Calico will coordinate with BLM Malheur County Field Office (MFO) botany staff to determine a specific and appropriate treatment plan. To avoid damage to Mulford's milkvetch and Cronquist's stickseed populations during weed treatment, Environmental Department staff will use only mechanical methods of control such as mowing of weeds within the vicinity of sensitive plant populations. Weeds within 10 ft of sensitive plants will be controlled manually (such as by pulling). If the use of herbicides in these areas cannot be avoided, the following precautions must be taken (Fraedrich, no year given):

- If possible, chose an herbicide that directly targets the weed species present, or consider using a pre-emergent for new weed seedlings that will not harm sensitive species.
- Spray treatments will be avoided on days of excessive heat (greater than 90° F) or high winds speeds (greater than ten miles per hour), to limit volatilization and drift. Pesticide applicators should be sure of the target application area and rate of application.
- Pesticide applicators will be sure to adjust the droplet size of spraying herbicide to help prevent drift, and will avoid excessive spraying.

5. PROJECT-SPECIFIC WEED MANAGEMENT STRATEGIES

Ten noxious weed species requiring treatment by the State were identified in the Permit Area (see Table 1). Detailed information regarding the identification and treatment of the ten noxious weeds species listed in Table 1 is summarized in this section.

5.1 BULL THISTLE

Bull thistle occurs at one site within the Permit Area: a mine site located on private land (EMS 2018) (Figure 3). This species is a biennial forb native to Eurasia and can reach heights of 2 to 6 ft. Herbaceous rosettes form in the first year; flowering stems form the second year. The leaves have long sharp spines at the midrib and tips and are deeply lobed. The leaves are rough and wooly on the underside, and the stem may have spiny wings running down its length. Purple flowers are vase-shaped and solitary at the end of the branches. Flowers form from June to September.

Because there is only one small population of this species within the Permit Area, it should be possible to eradicate it from the site. Bull thistle only reproduces from seed, so prevention of seed set is key. Any manual or mechanical method of control that removes the top portion of the root will kill the plant. Mowing twice a year can reduce the population over time, or if mowing can only be done once, it should be done while the plant is flowering. A more effective manual method is hand-digging and cutting the roots out, about 2 inches below the soil surface. If necessary, chemical control can be effective if performed before the plants flower and can be especially effective when applied during the rosette stage. The Oregon Department of Agriculture recommends opensight herbicide (Milestone and Escort mix). May is the optimal time to treat bull thistle with this method.

5.2 CANADA THISTLE

Canada thistle occurs at five sites covering 0.1 acre within the Permit Area, mainly along access roads on lands managed by the BLM (EMS 2018) (Figure 3). Canada thistle is a perennial forb that has small purple flower heads found in clusters without spines. This species spreads by seed and an extensive root system.

Canada thistle is difficult to control once it is established on a site. One treatment or a combination of treatments may need to be used to control populations depending on the site. Mechanical methods of control such as mowing can be effective but need to be repeated every three to four weeks over several growing seasons or coupled with other more effective means of control such as herbicide application. Cultivating or tilling can spread Canada thistle by breaking up the roots into small pieces, which can sprout into new plants and will not be used. Herbicide treatment for Canada thistle is best performed before the plant flowers, and multiple applications may be necessary before treatment is successful (NDA 2010; DiTomaso et al. 2013). The United States Department of Agriculture identifies Milestone as an herbicide that can be used to manage Canada Thistle (USDA 2017) in wildlife management and natural areas. Spot treatment can be applied at lower rate in the fall after flowering but before dormancy and at a higher rate in the spring for pre-bud to early bud stages. Product labels should be consulted before use.

5.3 COMMON REED

One very small population of common reed was observed at a spring within the Permit Area (EMS 2018) (Figure 3). Common reed typically occurs in wetlands, ditches, and other areas with shallow water. This grass can reach heights of up to 12 ft, and spreads via creeping rhizomes and stolons and can form dense stands. The leaves are lance-shaped and eight to 16 inches long on hollow stems. Red or greenish plume like flowers occur on the end of the stems and can be quite showy (DiTomaso et al 2013).

Since common reed only occurs in one small site within the Permit Area and is dependent on perennially wet or moist areas, the chances of it spreading are minimal if control measures are executed in a timely manner. However, control of this species can be difficult. Manual treatment can be effective, but all the roots and pieces of root need to be removed, and this can be quite labor intensive. Mowing may reduce the vigor of a population, but needs to be repeated every year, and will not kill the roots. Herbicide application has been shown to be effective, but aquatic formulations must be used (ODA 2013).

Both native and non-native varieties of common reed may occur in the project area. Prior to initiating control activities, the variety of common reed will be verified to establish that it is a non-native variety.

5.4 FIELD BINDWEED

Field bindweed covers 2.1 acres of the Permit Area and is commonly found along the sides of access roads on both private and BLM lands (EMS 2018) (Figure 3). This species is a perennial herbaceous vine with an extensive root system. The funnel shaped flowers are typically one to 2 inches long and can be pink or white. Leaves are alternate, arrowhead-shaped and have pointed or blunt lobes at the base. Stems are perennial and deciduous, growing along the ground and twining around and through other plants, to around 6.5 ft in length.

Generally, mechanical control of this species is largely ineffective because plants can reproduce from roots, and the seeds remain viable in the soil for long periods of time. Herbicide treatment is the most effective but also must be repeated several times a year to reach the extensive root system (DiTomaso et at. 2013). Long-term control of field bindweed from herbicides requires the use of a systemic herbicide which kills the roots and root buds such as picloram or glyphosate (Zollinger and Lym 2000). Picloram can be effective at full bloom but has a long residual and is hard on other broadleaf plants. High rates of glyphosate (Roundup) may be effective. Timing of application is critical to effective treatment.

5.5 KOCHIA

Kochia was observed along access roads on private lands within the Permit Area covering 0.7 acres (EMS 2018) (Figure 3). This species is a fast growing annual with a deep taproot. The round, slender stems have many branches and typically turn bright red in the fall. The leaves are 0.5 to 2 inches long, and are alternate on the stem, flat, and lance-shaped with margins fringed with hairs. The flower heads are green and lack petals, occurring in inconspicuous spikes in the axils of upper leaves.

Mowing and removal by hand are very effective treatments for small infestations but can be labor intensive. Mowing can be effective if performed before flowering to prevent seed production. Kochia can be resistant to some herbicides; multiple applications may be necessary (DiTomaso et al. 2013). The best time to control kochia via herbicide use is before it emerges through a fall residual application (SDSU

2022). Proper herbicide choice and timing is critical for management of kochia; consulting with roadside applicators for advice is recommended to ensure effective control efforts.

5.6 MEDUSAHEAD

Medusahead is common throughout the Permit Area on BLM lands, occupying 327.4 acres (EMS 2018) (Figure 3). This species is a highly aggressive winter annual grass native to the Mediterranean region (DiTomaso et al. 2013). The leaf blades are usually 1/8-inch or less and roll when cut into a cross section. The inflorescence is a long awned spike nearly as wide as it is long. The mature awns are twisted and range from 1 to 4 inches long. Medusahead may be confused with other grasses such as foxtail barley (*Hordeum jubatum*) or squirreltail (*Elymus elymoides*); however, the mature seed head of medusahead does not break apart (NDA 2010).

The effectiveness of mowing as a treatment for medusahead has shown mixed results. Early-season mowing is ineffective and may harm native species, while late-season mowing will disperse the seeds to nearby areas and cause it to spread. In areas where a thick thatch has built up, removal by raking, or burning can help reduce the dominance of medusahead (DiTomaso et al. 2013). However, prescribed burning is contraindicated for degraded, low-elevation sagebrush habitat; Calico does not propose using prescribed burning to manage medusahead.

Mechanical controls (i.e., hand removal) may be used to address small infestations or for maintenance on sites already undergoing control operations. This should be done when medusahead plants are large enough to be distinguished from other grasses but before they seed (Kyser et al. 2014). Chemical treatment is the most used approach. Depending on the type of herbicide, medusahead can be treated pre-emergence in the fall, non-selectively treated during the late growing season, or postemergence in the spring (DiTomaso et al. 2013).

5.7 RIBBON GRASS

One very small population of ribbon grass was observed along the irrigation canal in the northern portion the Permit Area (EMS 2018) (Figure 3). Ribbon grass typically occurs in wetlands, ditches, damp pastures, and other perennially moist areas. Ribbon grass grows three to 6 ft tall with hollow stems up to 0.5 inch wide, with reddish coloring near the top. The leaf blades are flat, hairless, wide, and come off the stem at a 45-degree angle. Flower spikes are large and compact on stems high above the leaves in June and July.

This species is a very aggressive spreader and can be difficult to control. However, ribbon grass only occurs in one small site within the Permit Area and is dependent on perennially wet or moist areas; therefore, the chances of it spreading are minimal if control measures are executed in a timely manner.

Removal by hand or by digging is effective if all parts of the root are removed. Mowing can be effective if repeated five or more times per year. The best control can be achieved by combining mechanical control methods such as mowing with herbicide application. Additionally, mowing prior to or at the onset of flowering can eliminate seed set for that year. Herbicides must be rated for aquatic use and can be effective if repeated several times per year until control is achieved (Tu 2004; DiTomaso et al. 2013).

5.8 RUSH SKELETONWEED

Rush skeletonweed occupies 26.1 acres of the Permit Area, primarily along access roads on BLM lands (EMS 2018) (Figure 3). Rush skeletonweed is a perennial with many branched, wiry stems that range from one to 4 ft tall. The basal leaves resemble common dandelion and are hairless with deep, irregular teeth that point back toward the leaf base. The plant has milky juice and coarse, reddish downward-pointing hairs at the base of the single flowering stem. Flowers are yellow, like small dandelion heads, and grow on the sides or tips of stems. Roots are easily fragmented, and pieces as small as 0.5 to 1 inch can produce new plants.

Herbicide treatment can be effective if repeated at least twice a year, depending on the formula used (DiTomaso et al. 2013). Given the extent of rush skeletonweed, herbicide treatment is considered the most effective option. ODA recommends the use of milestone at 7 oz per acre spot spray or tordon at 1 quart in rosette. Herbicide label should be consulted regarding application. Mechanical methods of control such as mowing will not be used as they are typically only effective on young plants in newly infected areas. Mechanical damage to established plants results in root sprouting and regrowth.

5.9 SCOTCH THISTLE

Scotch thistle is common throughout the Permit Area, occupying 174.2 acres (EMS 2018) (Figure 3). This species can be an annual or perennial and grows up to 8 ft tall. The spiny leaves are gray green and woolly, reaching up to 2 ft long and 1 ft wide. The stems have ribbon-like, spiny wings. In mid-summer, 2-inch wide, dark pink to lavender, globe-shaped flower heads appear in groups of two or three at the end of the stems. This species reproduces by seed.

Small infestations of Scotch thistle can be controlled by digging/cutting the crown of the plant a few inches below the soil surface. Cutting in late bud to flowering stage will reduce seed production but may require repeated treatment because populations typically exhibit a wide range of developmental stages among individual plants. Plants should not be cut following seed set, as this increases chances for dispersal. Plants that are cut by hand should be bagged, removed from the site and destroyed if they are flowering.

Control via herbicide can also be effective. The best time to apply herbicides is from rosette to early bolt growth stages when Scotch thistle is actively growing. Several formulations of herbicide can be effective; for grassy areas, it is best to use a selective broadleaf herbicide to keep the competitive grasses intact (DiTomaso et al. 2013).

5.10 WHITETOP

Whitetop was observed at 24 sites covering 2.1 acres of the Permit Area along access roads on both private and BLM lands (EMS 2018) (Figure 3). Whitetop is an erect perennial reaching heights of 2 ft. Leaves are alternate on the stem, gray-green, and covered with short white hairs. This species reproduces both vegetatively and by seed. Flowers are small, white, and fragrant, and appear in loose inflorescences in spring to summer.

Early detection and removal of new infestations soon after discovery is the most effective management strategy (USDA 2014). Hand digging or grubbing where the entire root system is removed may be appropriate for small, isolated populations of plants for sensitive locations. However, chemical control is

more effective for larger areas. Sulfonyl urea herbicides are generally the preferred choice for treating whitetop. Spraying should be one in early spring or preferably in fall before winter dormancy. Monitoring and follow-up applications are recommended to obtain long-term control.

Mowing is not recommended as it can contribute to further spread but may be an appropriate strategy when combined with later well-timed herbicide application: mow whitetop early in the growth season at the flower bud state, allow spouts to resprout, then apply herbicide when plants again reach flower but stage. This method causes the plants to produce larger leaves and allows better access of herbicide (USDA 2014).

6. WEED MONITORING

Continued monitoring is an integral part of management and elimination of noxious weeds. The two main objectives of monitoring for noxious weeds are to identify new infestations and to evaluate the effectiveness of noxious weed treatments. Two types of weed surveys will be performed regularly at the Project. An informal survey will be carried out annually by Environmental Department staff. Specific areas of the Permit Area will be inspected such as roads, powerline corridor, berms, TWRSFs, process facilities, laydown yards, reclaimed areas, stormwater diversions, and growth media stockpiles, since these are often areas susceptible to weed establishment. The results of the annual surveys will be used to direct weed management efforts for the year and be the basis for updating the Plan.

Formal weed surveys will be performed on a biennial basis, until the final reclamation release of revegetation. The results of these surveys will be documented in a report, which will be provided to the BLM. Areas of noxious weed infestations noted during the annual and biennial surveys will be recorded with a GPS unit, and documented on area maps and with photographs. Notes regarding the size of the infestation, vigor of the plants, density of the plants, success of establishment of desired species seeded after treatment, and recommendations for follow-up treatment will be taken. This information provides a record of the noxious weed control that has been conducted and the effectiveness of the treatment program. This information will also document whether the cultural practice of post-treatment seeding, if implemented, is successful in reducing the potential of the reestablishment of noxious weeds. It is important to note, from year to year, if the infestation areas are increasing or decreasing in size and to track the phenology stages of the weed species. The monitoring frequency required for effective noxious weed management, for different areas within the Project, will vary, as will the treatment methodology.

Any new noxious weed infestations identified during weed monitoring efforts will also be reported to ODA using the Report and Identification Form provided online at: https://data.oda.state.or.us/fmi/webd/WebSubmissions?script=RedirectWebSubmissions&param=Invasive. The reports are filled out and submitted online.

Based on the monitoring of existing and identification of new noxious week infestations, a treatment plan will be developed. This plan will outline the treatment methods to be used, the order of operations, and the timing of treatment. Prior to treating noxious weeds, Calico will coordinate with BLM-MFO botany staff, and staff with FWS and ODA to determine a specific and appropriate treatment plan to maximize the potential to appropriately address infestations while protecting wildlife areas and sensitive plant species.

Calico will monitor the effectiveness of previous years' treatment methodologies to determine if alternate measures should be taken to reduce or eliminate existing infestations, reduce seed production, and prevent future infestations. Infestations treated previously or found after the growing season will be monitored in the spring to determine if the treatment has been effective and to include the sites in the biennial treatment plan, as necessary. Seeds of noxious weeds can remain viable in the soil for several years; therefore, treated areas will be monitored for a period of several years after eradication to ensure new plants do not establish. Success criteria have been developed as part of the *Reclamation Plan* (Appendix C, *Post-Closure Vegetation Success Criteria*). These criteria will also be used to evaluate success during operations. These criteria are based on the surrounding baseline plant conditions. Droughts would impact both treatment areas and baseline areas. Based on monitoring results and potential impacts, treatment methods may be varied during the project or during decommissioning and post-project reclamation phases.

7. CONCLUSIONS

Calico will utilize prevention and treatment techniques as described in the Plan and approved by the ODA and/or the BLM to reduce the risk of introduction or spread of noxious weeds in the Permit Area. If monitoring identifies additional noxious weed species, the treatments outlined above will be implemented as necessary. This Plan is considered preliminary and will be updated for suitability and adequacy as the Project progresses.

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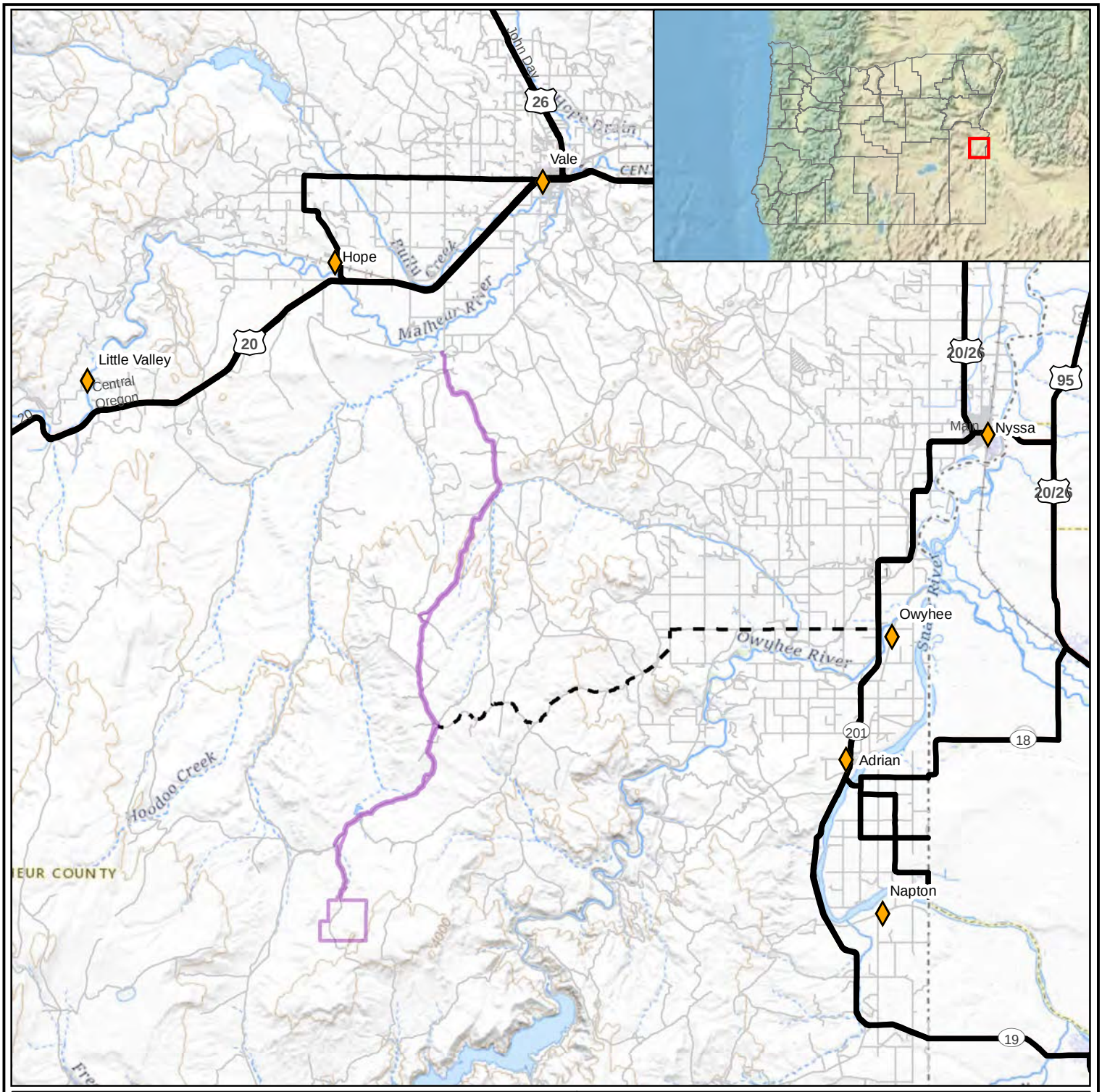
FIGURES



Legend

- PoO Boundary
- Emergency Access Road
- Roads

1 ":4 Miles

0 1 2 4Miles

Scale as shown when plotted at 8.5"x11".

N W E S

Notes:

1. Figure references 1983 UTM zone 11N datum.
2. Road and highway system were referenced from the Bureau of land Management.

Site/Report:

Calico Resources USA Corp.
Grassy Mountain Mine

Noxious Weed Monitoring and Control Plan

Figure:

Location Map

SLR / CALICO RESOURCES	Date: October, 2022		Figure: 1
	Project No: 108.02203.00001		
	By: MS	Chk'd: TM	

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1 ":10,500 '

0 2,625 5,250 10,500Feet

Scale as shown when plotted at 11"x17".

N W E S

117°25'0"W 117°20'0"W 117°15'0"W

43°50'0"N 43°45'0"N 43°40'0"N

Vines Ditch Jamieson Lateral Little Valley Hoodoo Creek 20 2500 3500

See Image on Right for Area in Orange at 1"=1,700' Scale

1 ":1,700 '

0 425 850 1,700Feet

Scale as shown when plotted at 11"x17".

N W E S

117°22'0"W 117°21'0"W

43°42'0"N 43°41'0"N 43°40'0"N

Mine Access Road (with Water Supply Line and Power Line in ROW)
Power Line Continues North

Legend

- PoO Boundary
- Fence Line
- Power Line
- Water Supply Line
- Production Well
- Monitoring Well
- MET Station
- Quarry
- Reclamation Borrow Areas
- Growth Media Stockpiles
- Yards, Laydown Areas, and Stockpiles
- Underground Mine
- Process Plant
- Infrastructure & Ancillary Facilities
- Power Supply
- Temporary Waste Rock Storage Facility
- Tailings Storage Facility
- Water Supply
- Roads
- Stormwater Diversion Channel
- Disturbed Area
- Existing 25ft Elevation Contour
- Existing 5ft Elevation Contour

Notes:

1. Figure references 1983 UTM zone 11N datum.
2. Topography and facility layout provided by others.

Site/Report:

Calico Resources USA Corp.
Grassy Mountain Mine

Noxious Weed Monitoring and Control Plan

Map:

Permit Area Map

SLR

CALICO RESOURCES

Date:	October, 2022	Map:
Project No:	108.02203.00001	2
By: MS	Chk'd: TM	

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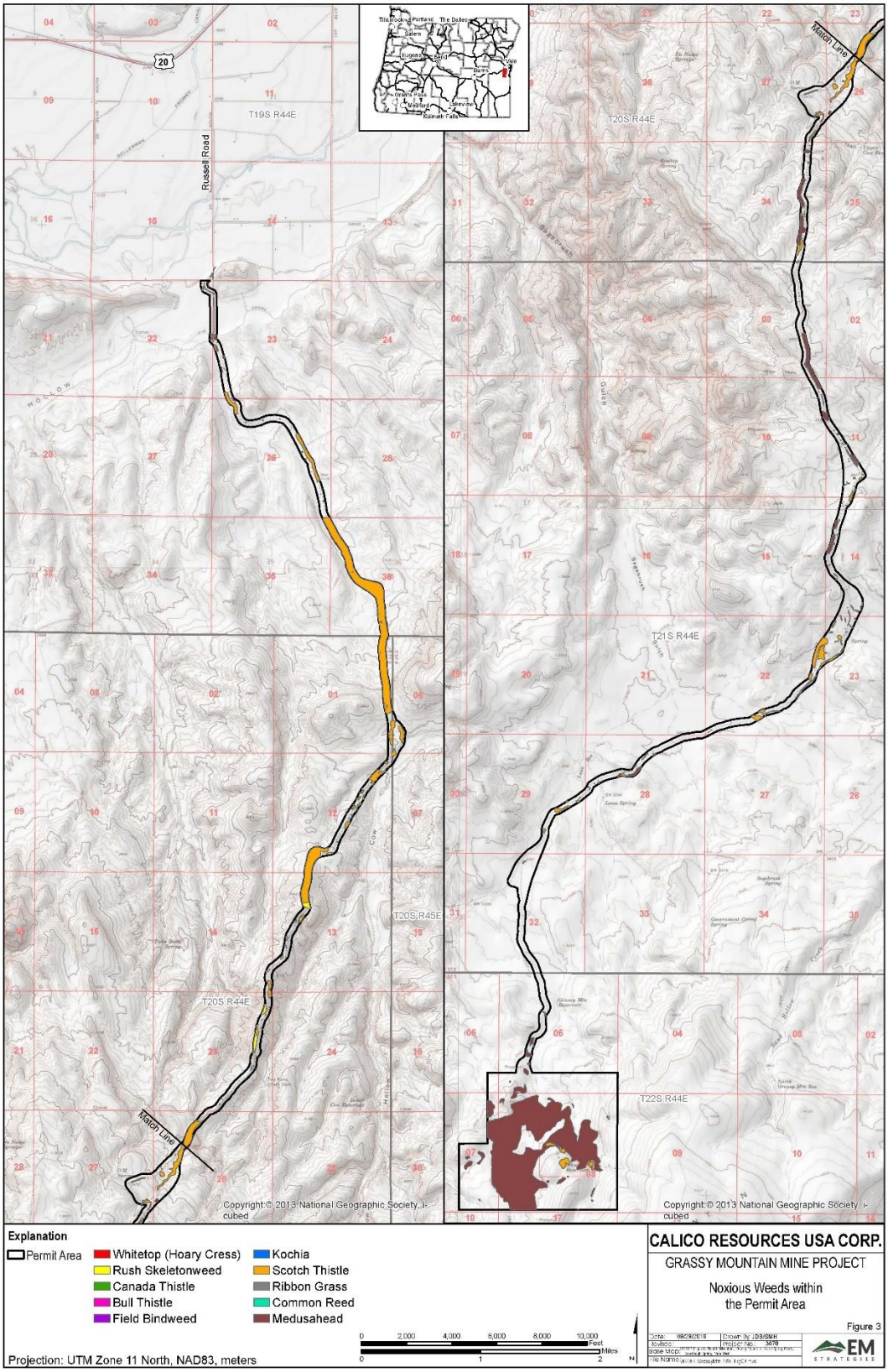

Figure 3: Noxious Weeds within the Permit Area

APPENDIX A

OREGON DEPARTMENT OF AGRICULTURE (ODA) OREGON NOXIOUS WEED POLICY AND CLASSIFICATION SYSTEM

OREGON
DEPARTMENT OF
AGRICULTURE

Noxious Weed Policy and Classification System 2022

Noxious Weed Control Program

Address: 635 Capitol Street NE, Salem, Oregon 97301

Phone: (503) 986-4621 **Fax:** (503) 986-4786

www.oregon.gov/ODA/programs/Weeds/Pages/AboutWeeds.aspx

Mission Statement

To protect Oregon's natural resources and agricultural economy from the invasion and proliferation of invasive noxious weeds.

Program Overview

The Oregon Department of Agriculture (ODA) Noxious Weed Control Program provides statewide leadership for coordination and management of state listed noxious weeds. The state program focuses on noxious weed control efforts by implementing early detection and rapid response projects for new invasive noxious weeds, implementing biological control, implementing statewide inventory and survey, assisting the public and cooperators through technology transfer and noxious weed education, maintaining noxious weed data and maps for priority listed noxious weeds, and assisting land managers and cooperators with integrated weed management projects. The Noxious Weed Control Program also supports the Oregon State Weed Board (OSWB) with administration of the OSWB Grant Program, developing statewide management objectives, developing weed risk assessments, and maintaining the state noxious weed list.

Tim Butler
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Table of Contents

Noxious Weed Control Policy and Classification System

Definition

"Noxious weed" means a terrestrial, aquatic or marine plant designated by the Oregon State Weed Board under ORS 569.615 as among those representing the greatest public menace and as a top priority for action by weed control programs.

Noxious weeds have become so thoroughly established and are spreading so rapidly on private, state, county, and federally owned lands, that they have been declared by ORS 569.350 to be a menace to public welfare. Steps leading to eradication, where possible, and intensive control are necessary. It is further recognized that the responsibility for eradication and intensive control rests not only on the private landowner and operator, but also on the county, state, and federal governments.

Weed Control Policy

Therefore, it shall be the policy of ODA to:

1. Assess non-native plants through risk assessment processes and make recommendations to the Oregon State Weed Board for potential listing.
2. Rate and classify weeds at the state level.
3. Prevent the establishment and spread of listed noxious weeds.
4. Encourage and implement the control or containment of infestations of listed noxious weed species and, if possible, eradicate them.
5. Develop and manage a biological weed control program.
6. Increase awareness of potential economic losses and other undesirable effects of existing and newly invading noxious weeds, and to act as a resource center for the dissemination of information.
7. Encourage and assist in the organization and operation of noxious weed control programs with government agencies and other weed management entities.
8. Develop partnerships with county weed control districts, universities, and other cooperators in the development of control methods.
9. Conduct statewide noxious weed surveys and weed control efficacy studies.

Weed Classification System

The purpose of this Classification System is to:

1. Act as the ODA's official guideline for prioritizing and implementing noxious weed control projects.
2. Assist the ODA in the distribution of available funds through the Oregon State Weed Board to assist county weed programs, cooperative weed management groups, private landowners, and other weed management entities.
3. Serve as a model for private and public sectors in developing noxious weed classification systems that aid in setting effective noxious weed control strategies.

Criteria for Determining Economic and Environmental Significance

Detrimental Effects

1. A plant species that causes or has the potential to cause severe negative impacts to Oregon's agricultural economy and natural resources.
2. A plant species that has the potential to or does endanger native flora and fauna by its encroachment into forest, range, aquatic and conservation areas.
3. A plant species that has the potential or does hamper the full utilization and enjoyment of recreational areas.
4. A plant species that is poisonous, injurious, or otherwise harmful to humans and/or animals.

Plant Reproduction

1. A plant that reproduces by seed capable of being dispersed over wide areas or that is long-lived, or produced in large numbers.
2. A plant species that reproduces and spreads by tubers, creeping roots, stolons, rhizomes, or other natural vegetative means.

Distribution

1. A weed of known economic importance which occurs in Oregon in small enough infestations to make eradication/containment possible; or not known to occur, but its presence in neighboring states makes future occurrence seem imminent.
2. A weed of economic or ecological importance and of limited distribution in Oregon.
3. A weed that has not infested the full extent of its potential habitat in Oregon.

Difficulty of Control

A plant species that is not easily controlled with current management practices such as chemical, cultural, biological, and physical methods.

Noxious Weed Control Classification Definitions

Noxious weeds, for the purpose of this system, shall be listed as either A or B, and may also be designated as T, which are priority targets for control, as directed by the Oregon State Weed Board.

- **A Listed Weed**:
  A weed of known economic importance which occurs in the state in small enough infestations to make eradication or containment possible; or is not known to occur, but its presence in neighboring states make future occurrence in Oregon seem imminent (Table I).
  Recommended action: Infestations are subject to eradication or intensive control when and where found.
- **B Listed Weed**:
  A weed of economic importance which is regionally abundant, but which may have limited distribution in some counties (Table II).
  Recommended action: Limited to intensive control at the state, county or regional level as determined on a site specific, case-by-case basis. Where implementation of a fully integrated statewide management plan is not feasible, biological control (when available) shall be the primary control method.
- **T-Designated Weed (T)**:
  A designated group of weed species selected from either the A or B list as a focus for prevention and control by the Noxious Weed Control Program. Action against these weeds will receive priority. T-designated noxious weeds are determined by the Oregon State Weed Board and directs ODA to develop and implement a statewide management plan.

Weed Biological Control

Oregon implements biological control, or “biocontrol” as part of its integrated pest management approach to managing noxious weeds. This is the practice of using host-specific natural enemies such as insects or pathogens to control noxious weeds. The Oregon Department of Agriculture Noxious Weed Program has adopted the International Code of Best Practices for biological control of weeds. Only safe, effective, and federally- approved natural enemies will be used for biocontrol.

Table I: A Listed Weeds

Common Name	Scientific Name
African rue (T)	*Peganum harmala*
Camelthorn	*Alhagi pseudalhagi*
Cape-ivy (T)*	*Delairea odorata*
Coltsfoot	*Tussilago farfara*
Common frogbit	*Hydrocharis morsus-ranae*
Cordgrass	
Common	*Spartina anglica*
Dense-flowered (T)	*Spartina densiflora*
Saltmeadow (T)	*Spartina patens*
Smooth (T)	*Spartina alterniflora*
Delta arrowhead (T)	*Sagittaria platyphyla*
European water chestnut	*Trapa natans*
Flowering rush (T)	*Butomus umbellatus*
Garden yellow loosestrife (T)	*Lysimachia vulgaris*
Giant hogweed (T)	*Heracleum mantegazzianum*
Goatgrass	
Barbed (T)	*Aegilops triuncialis*
Ovate	*Aegilops ovata*
Goatsrue (T)	*Galega officinalis*
Hawkweed	
King-devil*	*Hieracium piloselloides*
Mouse-ear (T)*	*Hieracium pilosella*
Orange (T)*	*Hieracium aurantiacum*
Yellow (T)	*Hieracium floribundum*
Hoary alyssum (T)	*Berteroa incana*
Hydrilla	*Hydrilla verticillata*
Japanese dodder	*Cuscuta japonica*
Kudzu (T)	*Pueraria lobata*
Matgrass (T)	*Nardus stricta*
Oblong spurge (T)	*Euphorbia oblongata*
Paterson's curse (T)	*Echium plantagineum*
Purple nutsedge	*Cyperus rotundus*
Ravennagrass (T)	*Saccharum ravennae*
Silverleaf nightshade	*Solanum elaeagnifolium*
Squarrose knapweed (T)	*Centaurea virgata*

(T) T-Designated Weed (See page 4)

(Continued) **Table I: A Listed Weeds**

Common Name	Scientific Name
Starthistle	
Iberian (T)	*Centaurea iberica*
Purple (T)	*Centaurea calcitrapa*
Syrian bean-caper	*Zygophyllum fabago*
Thistle	
Plumeless (T)	*Carduus acanthoides*
Smooth distaff	*Carthamus baeticus*
Taurian (T)	*Onopordum tauricum*
Turkish (T)	*Carduus cinereus*
Welted (curly plumeless) (T)	*Carduus crispus*
Woolly distaff (T)	*Carthamus lanatus*
Water soldiers	*Stratiotes aloides*
West Indian spongeplant	*Limnobium laevigatum*
White bryonia	*Bryonia alba*
Yellow floating heart (T)	*Nymphoides peltata*
Yellowtuft (T)	*Alyssum murale, A. corsicum*

(T) T-Designated Weed (See page 4)

Table II: B Listed Weeds

Common Name	Scientific Name
Armenian (Himalayan) blackberry	*Rubus armeniacus (R. procerus, R. discolor)*
Biddy-biddy	*Acaena novae-zelandiae*
Broom	
French*	*Genista monspessulana*
Portuguese (T)	*Cytisus striatus*
Scotch*	*Cytisus scoparius*
Spanish	*Spartium junceum*
Buffalobur	*Solanum rostratum*
Butterfly bush	*Buddleja davidii (B. variabilis)*
Common bugloss (T)	*Anchusa officinalis*
Common crupina*	*Crupina vulgaris*
Common reed	*Phragmities australis ssp. australis*
Common viper's bugloss	*Echium vulgare*
Creeping yellow cress	*Rorippa sylvestris*
Cutleaf teasel	*Dipsacus laciniatus*
Dodder	
Smoothseed alfalfa	*Cuscuta approximata*
Five-angled	*Cuscuta pentagona*
Bigseed	*Cuscuta indecora*
Dyer's woad	*Isatis tinctoria*
English hawthorn	*Crataegus monogyna*
Eurasian watermilfoil*	*Myriophyllum spicatum*
False brome	*Brachypodium sylvaticum*
Field bindweed*	*Convolvulus arvensis*
Garlic mustard (T)	*Alliaria petiolata*
Geranium	
Herb Robert	*Geranium robertianum*
Shiny leaf	*Geranium lucidum*
Giant reed (T)*	*Arundo donax*
Gorse* (T)	*Ulex europaeus*
Halogeton	*Halogeton glomeratus*
Houndstongue	*Cynoglossum officinale*

* Biocontrol (See page 4) (T) T-Designated Weed (See page 4)

(Continued) Table II: B Listed Weeds

Common Name	Scientific Name
Indigo bush	*Amorpha fruticosa*
Ivy	
Atlantic	*Hedera hibernica*
English	*Hedera helix*
Johnsongrass	*Sorghum halepense*
Jointed goatgrass	*Aegilops cylindrica*
Jubata grass	*Cortaderia jubata*
Knapweed	
Diffuse*	*Centaurea diffusa*
Meadow*	*Centaurea pratensis*
Russian*	*Acroptilon repens*
Spotted* (T)	*Centaurea stoebe (C. maculosa)*
Knotweed	
Bohemian*	*Fallopia x bohemica*
Giant*	*Fallopia sachalinensis (Polygonum)*
Himalayan	*Polygonum polystachyum*
Japanese*	*Fallopia japonica (Polygonum)*
Kochia	*Kochia scoparia*
Lesser celandine	*Ranunculus ficaria*
Meadow hawkweed (T)	*Pilosella caespitosum (Hieracium)*
Mediterranean sage*	*Salvia aethiopis*
Medusahead rye	*Taeniatherum caput-medusae*
Old man's beard	*Clematis vitalba*
Parrot feather	*Myriophyllum aquaticum*
Perennial peavine	*Lathyrus latifolius*
Perennial pepperweed (T)	*Lepidium latifolium*
Pheasant's eye	*Adonis aestivalis*
Pine echium	*Echium pininana*
Poison hemlock*	*Conium maculatum*
Policeman's helmet	*Impatiens glandulifera*
Primrose-willow	
Large-flower (T)	*Ludwigia grandiflora*
Water primrose (T)	*Ludwigia hexapetala*
Floating (T)	*Ludwigia peploides*

*Biocontrol (See page 4) (T) T-Designated Weed (See page 4)

(Continued) Table II: B Listed Weeds

Common Name	Scientific Name
Punctureveine*	*Tribulus terrestris*
Purple loosestrife*	*Lythrum salicaria*
Ragweed	*Ambrosia artemisiifolia*
Ribbongrass (T)	*Phalaris arundinacea var. Picta*
Rose	
Dog	*Rosa canina*
Sweetbriar	*Rosa rubiginosa*
Rush skeletonweed* (T)	*Chondrilla juncea*
Saltcedar* (T)	*Tamarix ramosissima*
Small broomrape	*Orabanche minor*
South American waterweed	*Egeria densa (Elodea)*
Spanish heath	*Erica lusitanica*
Spikeweed	*Hemizonia pungens*
Spiny cocklebur	*Xanthium spinosum*
Spurge laurel	*Daphne laureola*
Spurge	
Leafy* (T)	*Euphorbia esula*
Myrtle	*Euphorbia myrsinites*
St. Johnswort*	*Hypericum perforatum*
Sulfur cinquefoil	*Potentilla recta*
Swainsonpea	*Sphaerophysa salsula*
Tansy ragwort* (T)	*Senecio jacobaea (Jacobaea vulgaris)*
Thistle	
Bull*	*Cirsium vulgare*
Canada*	*Cirsium arvense*
Italian*	*Carduus pycnocephalus*
Milk*	*Silybum marianum*
Musk*	*Carduus nutans*
Scotch	*Onopordum acanthium*
Slender-flowered*	*Carduus tenuiflorus*
Toadflax	
Dalmatian* (T)	*Linaria dalmatica*
Yellow*	*Linaria vulgaris*
Tree of heaven	*Ailanthus altissima*

*Biocontrol (See page 4) (T) T-Designated Weed (See page 4)

(Continued) Table II: B Listed Weeds

Common Name	Scientific Name
Velvetleaf	*Abutilon theophrasti*
Ventenata grass	*Ventenata dubia*
Whitetop	
Hairy	*Lepidium pubescens*
Lens-podded	*Lepidium chalepensis*
Whitetop (hoary cress)*	*Lepidium draba*
Yellow archangel	*Lamiastrum galeobdolon*
Yellow flag iris	*Iris pseudacorus*
Yellow nutsedge	*Cyperus esculentus*
Yellow starthistle*	*Centaurea solstitialis*

*Biocontrol (See page 4) (T) T-Designated Weed (See page 4)

APPENDIX B

MALHEUR COUNTY NOXIOUS WEED CONTROL PUBLIC NOTICE

Public Notice
Malheur County Noxious Weed Control

WEED DISTRICT: The entire Malheur County is a weed control district known as the Malheur County Weed District. The weed district is governed by the Malheur County Court upon recommendations from the Malheur County Weed Advisory Board.

DESIGNATION OF NOXIOUS WEEDS: Pursuant to ORS 570.575 the following named plants are designated by the Malheur County Court to be injurious to public health, crops, livestock, land, or other property and are noxious.

It is the responsibility of private landowners the County, State and Federal governments to eradicate and control these weeds on their respective jurisdictions. Malheur County has prioritized control and/or eradication of these noxious weeds by "A" "B" & "C" classes, with Class A having the highest priority. Priorities may be adjusted by geographic areas at the recommendation of the Weed Advisory Board.

CLASS "A" WEED: A weed of known economic/environmental importance known to occur in the county in very small numbers to make eradication practicable, or not known to occur but its status in surrounding counties makes future occurrence seem imminent.

ACTION – infestations are subject to mandatory control/eradication where found with possible county assistance when funds are available.

COMMON NAME	*SCIENTIFIC NAME*
Austrian Peaweed	*Sphaerophysa salusula*
Common Crupina	*Crupina Vulgaris*
Big-Headed knapweed	*Centaurea macrocephala*
Buffalobur	*Solanum rostratum*
Camelthorn	*Alhagi pseudalhagi*
Dalmation toadflax	*Centaurea diffusa*
Dyers woad	*Isatis tinctoria*
Featherheaded knapweed	*Centaurea trichocephala*
Hydrilla	*Hydrilla venticillata*
Iberian starthistle	*Centaurea iberica*
Italian thistle	*Carduus pycnocephalus*
Jimsonweed	*Datera stramonium*
Johnsongrass	*Sorgum halepense*
Jointed goatgrass	*Aegilops cylindrical*

COMMON NAME	*SCIENTIFIC NAME*
Leafy spurge	*Euphorbia esula*
Meadow knapweed	*Centaurea pratensis*
Mediterranean sage	*Salvia aethiopis*
Milk thistle	*Silybum marianum*
Perennial pepperweed	*Lepidium latifolium*
Purple nutsedge	*Cyperus rotundus*
Purple starthistle	*Centaurea calcitrapa*
Rush skeletonweed	*Chondrilla juncea*
Short-fringe knapweed	*Centaurea nigrescens*
Silverleaf knightshade	*Solanum elaegnifolium*
Skeletonleaf bursage	*Ambrosia tomentosa*
Slender-flowered thistle	*Carduus tenuiflorus*
Smooth distaff thistle	*Carthamus baericus*
Spiny cocklebur	*Xanthium spinosum*
Spotted knapweed	*Centaurea maculosa*
Squarrose knapweed	*Centaurea virgata*
St. Johnswort (Klamath weed)	*Hypericum perforatum*
Sulfur cinquefoil	*Potentilla recta*
Wild proso millet	*Panicum miliaceum*
Tansy ragwort	*Senecio jacobaea*
Wooly distaff thistle	*Carthamus lanatus*
Yellow toadflax	*Linaria vulgaris*
Yellow starthistle	*Centaurea solstitialis*

* *Class "A" Weed only in that part of Malheur County south of the road leading from the junction of Malheur County line and McBride Creek Road, west to Leslie Gulch Road, to Lake Owyhee and the area south of the road leading from the Rinehart Ranch to the Crowley Road west to Highway 78, north to the Malheur County line.*

CLASS "B" WEED – A weed of known economic/environmental importance and of moderate to wide distribution and highly invasive, subject to intensive control or eradication where feasible at the county level.

ACTION – Infestations are subject to control where found, with possible county assistance when funds are available. All CLASS"B" weeds are required to be controlled within 50 feet of all property lines, easements and rights of way, pursuant to ORS 570.525

COMMON NAME	*SCIENTIFIC NAME*
Canada thistle	*Cirsium arvense*
Houndstongue	*Cynoglossum officinale*
Musk thistle	*Carduus nutans*
Perennial pepperweed	*Lepidium latifolium*
Purple loosestrife	*Lythrum salicaria*
Scotch thistle	*Onopordum acanthium*
Hoary cress (White Top)	*Lepidium spp.*
Russian knapweed	*Acroptilon repens*

** Owners or occupants having Russian knapweed are required to control a minimum 20% of their annual infestation per discreet parcel of land per year. This includes the 50 foot buffer plus additional amounts to total 20% of the infestation.

<u>CLASS "C" WEED</u> – A weed of known economic/environmental importance and of general distribution, that is subject to control or eradication as local conditions warrant.

ACTION – Infestations treated at landowners discretion.

COMMON NAME	***SCIENTIFIC NAME***
Bull thistle	*Cirsium vulgare*
Cheatgrass	*Bromus tectorum*
Dodder	*Cuscutta spp.*
Field bindweed	*Convolvulus arvensis*
Halogeton	*Halogeton glomeratus*
Kochia	*Kochia scoparia*
Medusahead rye	*Taeniatherum caput-medusae*
Poison hemlock	*Conium maculatum*
Puncturevine	*Tribulus terrestris*
Quackgrass	*Agropyron repens*
Common ragweed	*Ambrosia artimisiifolia*
Salt cedar	*Tamarix parviflora*
Sweet clover	*Melilotus officinalis*
Western horsetail	*Equisetum arvense*
Yellow nutsedge	*Cyperus esculentus*

APPENDIX C

OREGON PESTICIDES OF INTEREST AND CONCERN

US-EPA and Oregon Pesticides of Interest (POI) & Concern (POC) (2012-13)

Red = a POC[2]; ***Yellow*** = Higher Priority POI Under Review[1]**; Green** = Evaluated, not a POC;
White = Under Review or Not Evaluated; (example of registered product name)

2,4-D	Acetochlor	Alachlor	Aldicarb	Atrazine (*Aatrex*)
Azinphosmethyl *(Guthion)*	Benfluralin	Bentazon	Bifenthrin	Bromacil
Carbaryl (*Sevin*)	Carbofuran	Chlorothalonil	Chlorpyrifos (*Lorsban*)	Clopyralid
Copper pesticides	Cyfluthrin	Cypermethrin	Dacthal	DBCP
Deltamethrin	Diazanon	Dicamba	Dicofol	Dimethenamid
Diuron (*Karmex*)	Endosulfan	Esfenvalerate	Ethalfluralin	Ethoprop (*Mocap*)
Fenbutatin oxide	Fipronil	Flumetsulam	Glyphosate	Hexazinone
Imazamethabenz	Imazapyr	Imidacloprid	Isoxaflutole	Lambda-cyhalothrin
Lindane	Linuron	Malathion	Mesotrione	Metalaxyl
Metolachlor (*Parallel*)	Metribuzin (*Tricor*)	Metsulfuron methyl (*Ally*)	MSMA	Myclobutanil
Napropamide	Norflurazone	Oxyfluorfen	PCP	Pendimethalin
Permethrin	Phenoxy herbicides	Phosmet	Picloram	Prometon
Prometryn	Propargite	Propiconazole (*Propimax*)	Simazine (*Princep*)	Sulfometuron Methyl (*Oust*)
Tebuthiuron	Terbacil	Thiamethoxam	Tralkoxydim	Triadimeton
Triallate	Triclopyr	Trifluralin		

Pesticide of Interest (POI): potential to occur at concentrations approaching or exceeding an established human health or environmental benchmark or standard

Pesticide of Concern (POC): approaching or exceeding an established human health or environmental benchmark or standard. Usually based on monitoring

APPENDIX D

HERBICIDES FORMULATIONS APPROVED FOR USE ON LANDS THE BLM ADMINISTERS IN THE 17 WESTERN STATES

Updated April 4, 2019

Herbicides Formulations Approved for Use on Lands The BLM Administers in the 17 Western States

Update: April 4, 2019

Restrictions associated with exisitng Environmental Impact Statements and individual Environmental Assessments (EA) at the present time, may restrict the use of individual herbicide active ingredients allowed for a particular project within that state. Refer to current EAs prior to selecting the active ingredient(s) and subsequent formulation(s).

Refer to the complete label prior to considering the use of any herbicide formulation. Just because it has a Federal registration, it may not be registered in a particular State, for example California. Label changes can also impact the intended use through, such things as, creation or elimination of Special Local Need (SLN) or 24 (C) registrations, changes in application sites, rates and timing of application, county restrictions, etc.

ACTIVE INGREDIENT	TRADE NAME	MANUFACTURER	EPA REG. NUMBER
Aminopyralid	Milestone	Dow AgroSciences	62719-519
Aminopyralid + 2,4-D	ForeFront HL	Dow AgroSciences	62719-630
	GrazonNext HL	Dow AgroSciences	62719-628
Aminopyralid + Clopyralid	Sendero	Dow AgroSciences	62719-645
Aminopyralid + Metsulfuron methyl	Chaparral	Dow AgroSciences	62719-597
	Opensight	Dow AgroSciences	62719-597
Aminopyralid + Triclopyr	Capstone	Dow AgroSciences	62719-572
Bromacil	Alligare Bromacil 80	Alligare, LLC	81927-4
	Ceannard Bromacil 80DF	Ceannard, Inc.	58035-19
	Hyvar X	Bayer Environmental Science	432-1546
	Hyvar X	DuPont Crop Protection	352-287
	Hyvar X-L	Bayer Environmental Science	432-1548
	Hyvar X-L	DuPont Crop Protection	352-346
Bromacil + Diuron	Alligare Bromacil/Diuron 40/40	Alligare, LLC	81927-3
	Ceannard Diuron/Bromacil 80 DF	Ceannard, Inc.	58035-18
	DiBro 2+2	Nufarm Americas Inc.	228-227
	DiBro 4+2	Nufarm Americas Inc.	228-386
	DiBro 4+4	Nufarm Americas Inc.	228-235
	Krovar I DF	Bayer Environmental Science	432-1551
	Krovar I DF	DuPont Crop Protection	352-505
	Weed Blast 4G	SSI Maxim	34913-19
	Weed Blast Res. Weed Cont.	Loveland Products Inc.	34704-576

ACTIVE INGREDIENT	TRADE NAME	MANUFACTURER	EPA REG. NUMBER
Chlorsulfuron	Alligare Chlorsulfuron 75	Alligare, LLC	81927-43
	Chlorsulfuron E-Pro 75 WDG	Nufarm Americas Inc.	79676-72
	Nufarm Chlorsulf SPC 75 WDG Herbicide	Nufarm Americas Inc.	228-672
	Telar XP	Bayer Environmental Science	432-1561
	Telar XP	DuPont Crop Protection	352-654
Clopyralid	Alligare Clopyralid 3	Alligare, LLC	81927-14
	CleanSlate	Nufarm Americas Inc.	228-491
	Pyramid R&P	Albaugh, LLC (Albuagh, Inc/Agri Star)	42750-94
	Reclaim	Dow AgroSciences	62719-83
	Spur	Albaugh, LLC (Albuagh, Inc/Agri Star)	42750-89
	Stinger	Dow AgroSciences	62719-73
	Transline	Dow AgroSciences	62719-259
Clopyralid + 2, 4-D	Alligare Cody Herbicide	Alligare, LLC	81927-28
	Commando	Albaugh, LLC (Albuagh, Inc/Agri Star)	42750-92
	Curtail	Dow AgroSciences	62719-48
	Cutback	Nufarm Americas Inc.	71368-72
2, 4-D	2,4-D 4# Amine Weed Killer	UAP-Platte Chem. Co.	34704-120
	2,4-D Amine	Helena Agri-Enterprises, LLC (Helena Chemical Company)	5905-72
	2,4-D Amine 4	Albaugh, LLC (Albuagh, Inc/Agri Star)	42750-19
	2,4-D Amine 4	Helena Agri-Enterprises, LLC (Helena Chemical Company)	42750-19-5905
	2,4-D LV 4	Albaugh, LLC (Albuagh, Inc/Agri Star)	42750-15
	2,4-D LV 6 Ester	Nufarm Americas Inc.	228-95
	2,4-D LV4	Helena Agri-Enterprises, LLC (Helena Chemical Company)	5905-90
	2,4-D LV 6	Albaugh, LLC (Albuagh, Inc/Agri Star)	42750-20
	2,4-D LV6	Helena Agri-Enterprises, LLC (Helena Chemical Company)	42750-20-5905
	2,4-D LV6	Helena Agri-Enterprises, LLC (Helena Chemical Company)	5905-93
	Alliagre 2,4-D Amine	Alligare, LLC	81927-38
	Alligare 2,4-D LV 6	Alligare, LLC	81927-39
	Aqua-Kleen	Nufarm Americas Inc.	71368-4
	Aqua-Kleen	Nufarm Americas Inc.	228-378
	Barrage HF	Helena Agri-Enterprises, LLC (Helena Chemical Company)	5905-529
	Barrage LV Ester	Helena Agri-Enterprises, LLC (Helena Chemical Company)	5905-504
	Base Camp Amine 4	Wilbur-Ellis Co., LLC (Wilbur-Ellis Co.)	71368-1-2935
	Base Camp LV6	Wilbur-Ellis Co., LLC (Wilbur-Ellis Co.)	2935-553
	Broadrange 55	Wilbur-Ellis Co., LLC (Wilbur-Ellis Co.)	2217-813-2935

ACTIVE INGREDIENT	TRADE NAME	MANUFACTURER	EPA REG. NUMBER
2,4-D - continued	Clean Amine	Loveland Products Inc.	34704-120
	Clean Crop Amine 4	UAP-Platte Chem. Co.	34704-5 CA
	Clean Crop Low Vol 6 Ester	UAP-Platte Chem. Co.	34704-125
	Clean Crop LV-4 ES	UAP-Platte Chem. Co.	34704-124
	Cornbelt 4 lb. Amine	Van Diest Supply Co.	11773-2
	Cornbelt 4# LoVol Ester	Van Diest Supply Co.	11773-3
	Cornbelt 6# LoVol Ester	Van Diest Supply Co.	11773-4
	D-638	Albaugh, LLC (Albuagh, Inc/Agri Star)	42750-36
	Esteron 99C	Nufarm Americas Inc.	62719-9-71368
	Five Star	Albaugh, LLC (Albuagh, Inc/Agri Star)	42750-49
	Formula 40	Nufarm Americas Inc.	228-357
	Freelexx	Dow AgroSciences	62719-634
	HardBall	Helena Agri-Enterprises, LLC (Helena Chemical Company)	5905-549
	Hi-Dep	PBI Gordon Corp.	2217-703
	Low Vol 4 Ester Weed Killer	Loveland Products Inc.	34704-124
	Low Vol 6 Ester Weed Killer	Loveland Products Inc.	34704-125
	Opti-Amine	Helena Agri-Enterprises, LLC (Helena Chemical Company)	5905-501
	Platoon	Nufarm Americas Inc.	228-145
	Rugged	WinField-United (WinField Solutions, LLC)	1381-247
	Saber	Loveland Products Inc.	34704-803
	Salvo	Loveland Products Inc.	34704-609
	Salvo LV Ester	UAP-Platte Chem. Co.	34704-609
	Savage DS	Loveland Products Inc.	34704-606
	Savage DS	UAP-Platte Chem. Co.	34704-606
	Shredder 2,4-D LV4	WinField-United (WinField Solutions, LLC)	1381-102
	Shredder Amine 4	WinField-United (WinField Solutions, LLC)	1381-103
	Solution Water Soluble	Nufarm Americas Inc.	228-260
	Solve 2,4-D	Albaugh, LLC (Albuagh, Inc/Agri Star)	42750-22
	Unison	Helena Agri-Enterprises, LLC (Helena Chemical Company)	5905-542
	Weedar 64	Nufarm Americas Inc.	71368-1
	WEEDestroy AM-40	Nufarm Americas Inc.	228-145
	Weedone LV-4	Nufarm Americas Inc.	228-139-71368
	Weedone LV-4 Solventless	Nufarm Americas Inc.	71368-14
	Weedone LV-6	Nufarm Americas Inc.	71368-11
	Whiteout 2,4-D	Loveland Products, Inc.	34704-1032
Dicamba	Alligare Cruise Control	Alligare, LLC	42750-40-81927
	Alligare Dicamba 4 Herbicide	Alligare, LLC	81927-55
	Banvel	Arysta LifeScience N.A. Corp.	66330-276
	Clarity	BASF Corporation	7969-137
	Diablo	Nufarm Americas Inc.	228-379
	Dicamba DMA	Albaugh, LLC (Albuagh, Inc/Agri Star)	42750-40

ACTIVE INGREDIENT	TRADE NAME	MANUFACTURER	EPA REG. NUMBER
Dicamba - continued	Kam-Ba	Drexel Chemical Company	19713-624
	Rifle	Loveland Products Inc.	34704-861
	Sterling Blue	WinField-United (WinField Solutions, LLC)	7969-137-1381
	Topeka	Rotam North America, Inc.	83100-34-83979
	Vanquish	Syngenta	100-884
	Vanquish Herbicide	Nufarm Americas Inc.	228-397
	Vision	Helena Agri-Enterprises, LLC (Helena Chemical Company)	5905-576
Dicamba + 2, 4-D	Alligare Dicamba + 2,4-D DMA	Alligare, LLC	81927-42
	Brash	WinField-United (WinField Solutions, LLC)	1381-202
	Brush-Rhap	Helena Agri-Enterprises, LLC (Helena Chemical Company)	5905-568
	Cimarron MAX - Part B	Bayer Environmental Science	432-1555
	Cimarron MAX - Part B	DuPont Crop Protection	352-615
	KambaMaster	Nufarm Americas Inc.	71368-34
	Latigo	Helena Agri-Enterprises, LLC (Helena Chemical Company)	5905-564
	Outlaw	Helena Agri-Enterprises, LLC (Helena Chemical Company)	5905-574
	Range Star	Albaugh, LLC (Albuagh, Inc/Agri Star)	42750-55
	Rifle-D	Loveland Products Inc.	34704-869
	Veteran 720	Nufarm Americas Inc.	228-295
	Weedmaster	Nufarm Americas Inc.	71368-34
Dicamba + Diflufenzopyr	Distinct	BASF Corporation	7969-150
	Overdrive	BASF Corporation	7969-150
NOTE: In accordance with the Record of Decision for the *Vegetation Treatments Using Herbicides on Bureau of Land Management* Lands in 17 Western *States Programmatic Environmental Impact Statement (PEIS), the aerial application of this herbicide* is prohibited.			
Diquat	Alligare Diquat Herbicide	Alligare, LLC	81927-43
	Diquat E-AG 2L	Nufarm Americas Inc.	79676-75
	Diquat E-Pro 2L	Nufarm Americas Inc.	79676-75
	Diquat SPC 2L Herbicide	Nufarm Americas Inc.	228-675
	Nufarm Diquat 2L Herbicide	Nufarm Americas Inc.	228-675
	Reward	Syngenta Professional Products	100-1091
Diuron	Alligare Diuron 4L	Alligare, LLC	81927-44
	Alligare Diuron 80DF	Alligare, LLC	81927-12
	Ceannard Diuron 80DF	Ceannard, Inc.	58035-16
	Direx 4L	DuPont Crop Protection	352-678
	Direx 4L	Makhteshim Agan of N. A. (ADAMA)	66222-54
	Diuron 4L	Drexel Chemical Company	19713-36

ACTIVE INGREDIENT	TRADE NAME	MANUFACTURER	EPA REG. NUMBER
Diuron - continued	Diuron 4L	Loveland Products Inc.	34704-854
	Diuron 4L	Makhteshim Agan of N. A. (ADAMA)	66222-54
	Diuron 80	Drexel Chemical Company	19713-274
	Diuron 80 WDG	Loveland Products Inc.	34704-648
	Diuron 80DF	WinField-United (WinField Solutions, LLC)	9779-318
	Diuron 80WDG	UAP-Platte Chem. Co.	34704-648
	Karmex DF	DuPont Crop Protection	352-692
	Karmex DF	Makhteshim Agan of N. A. (ADAMA)	66222-51
	Karmex IWC	DuPont Crop Protection	352-692
	Karmex XP	DuPont Crop Protection	352-692
	Parrot 4L	Makhteshim Agan of N. A. (ADAMA)	66222-54
	Parrot DF	Makhteshim Agan of N. A. (ADAMA)	66222-51
Fluridone	Alligare Fluridone	Alligare, LLC	81927-45
	Avast!	SePRO	67690-30
	Fluridone 4L	Albaugh, LLC (Albuagh, Inc/Agri Star)	42750-280
	Sonar AS	SePRO	67690-4
	Sonar Precision Release	SePRO	67690-12
	Sonar Q	SePRO	67690-3
	Sonar SRP	SePRO	67690-3
Fluroxypyr	Alligare Flagstaff	Alligare, LLC	81927-61
	Alligare Fluroxypyr	Alligare, LLC	66330-385-81927
	Comet Selective	Nufarm Americas Inc.	71368-87
	Vista XRT	Dow AgroSciences	62719-586
Fluroxypyr + 2,4-D + Dicamba	E-2 Herbicide	Nufarm Americas Inc.	228-442
Fluroxypyr + Clopyralid	Truslate Selective Herbicide	Nufarm Americas Inc.	71368-86
Fluroxypyr + Picloram	Alligare Triumph XTR Herbicide	Alligare , LLC	81927-64
	Surmount	Dow AgroSciences	62719-480
	Trooper Pro	Nufarm Americas Inc.	228-599
Fluroxypyr + Triclopyr	Alligare Cleargraze Pasture Herbicide	Alligare, LLC	81927-65
	PastureGard	Dow AgroSciences	62719-637
Glyphosate	Accord Concentrate	Dow AgroSciences	62719-324
	Accord SP	Dow AgroSciences	62719-322
	Accord XRT	Dow AgroSciences	62719-517
	Accord XRT II	Dow AgroSciences	62719-556
	Alligare Dryphosate 75SG	Alligare, LLC	81927-60
	Alligare Glyphosate 4 PLUS	Alligare, LLC	81927-9
	Alligare Glyphosate 5.4	Alligare, LLC	81927-8
	Aqua Neat	Nufarm Americas Inc.	228-365

ACTIVE INGREDIENT	TRADE NAME	MANUFACTURER	EPA REG. NUMBER
Glyphosate - continued	Aqua Star	Albaugh, LLC (Albuagh, Inc/Agri Star)	42750-59
	Aquamaster	Monsanto	524-343
	AquaPro Aquatic Herbicide	SePRO Corporation	62719-324-67690
	Buccaneer	Tenkoz	55467-10
	Buccaneer Plus	Tenkoz	55467-9
	Credit Xtreme	Nufarm Americas Inc.	71368-81
	Foresters	Nufarm Americas Inc.	228-381
	Gly Star Gold	Albaugh, LLC (Albuagh, Inc/Agri Star)	42750-61
	Gly Star Original	Albaugh, LLC (Albuagh, Inc/Agri Star)	42750-60
	Gly Star Plus	Albaugh, LLC (Albuagh, Inc/Agri Star)	42750-61
	Gly Star Pro	Albaugh, LLC (Albuagh, Inc/Agri Star)	42750-61
	Gly-4	Universal Crop Protection Alliance	42750-60-72693
	Gly-4 Plus	Universal Crop Protection Alliance	72693-1
	Gly-4 Plus	Universal Crop Protection Alliance	42750-61-72693
	GlyphoMate 41	PBI/Gordon Corporation	2217-847
	Glypro	Dow AgroSciences	62719-324
	Glypro Plus	Dow AgroSciences	62719-322
	Honcho	Monsanto	524-445
	Honcho Plus	Monsanto	524-454
	Imitator Aquatic	Drexel Chemical Company	19713-623
	Imitator DA	Drexel Chemical Company	19713-586
	Imitator Plus	Drexel Chemical Company	19713-526
	KleenUp Pro	Loveland Products, Inc.	34704-890
	Mad Dog Plus	Loveland Products, Inc.	34704-890
	Makaze	Loveland Products, Inc.	34704-890
	Mirage	Loveland Products Inc.	34704-889
	Mirage Herbicide	UAP-Platte Chem. Co.	524-445-34704
	Mirage Plus	Loveland Products Inc.	34704-890
	Rattler	Helena Agri-Enterprises, LLC (Helena Chemical Company)	524-445-5905
	Razor	Nufarm Americas Inc.	228-366
	Razor Pro	Nufarm Americas Inc.	228-366
	Rodeo	Dow AgroSciences	62719-324
	Roundup Custom	Monsanto	524-343
	Roundup Original	Monsanto	524-445
	Roundup Original II	Monsanto	524-454
	Roundup Original II CA	Monsanto	524-475
	Roundup PROMAX	Monsanto	524-579
	Roundup PRO	Monsanto	524-475
	Roundup PRO Concentrate	Monsanto	524-529
	Roundup PRO Dry	Monsanto	524-505
	Showdown	Helena Agri-Enterprises, LLC (Helena Chemical Company)	71368-25-5905

ACTIVE INGREDIENT	TRADE NAME	MANUFACTURER	EPA REG. NUMBER
Glyphosate + 2, 4-D	Campaign	Monsanto	524-351
	Imitator + 2,4-D	Drexel Chemical Company	19713-635
	Landmaster BW	Albaugh, LLC (Albuagh, Inc/Agri Star)	42570-62
	Landmaster BW	Monsanto	524-351
Hexazinone	Pronone 10G	Pro-Serve	33560-21
	Pronone 25G	Pro-Serve	33560-45
	Pronone MG	Pro-Serve	33560-21
	Pronone Power Pellet	Pro-Serve	33560-41
	Velosa	Helena Agri-Enterprises, LLC (Helena Chemical Company)	5905-579
	Velpar DF	DuPont Crop Protection	352-581
	Velpar DF VU	Bayer Environmental Science	432-1576
	Velpar L	DuPont Crop Protection	352-392
	Velpar L VU	Bayer Environmental Science	432-1573
	Velpar ULW	DuPont Crop Protection	352-450
Hexazinone + Sulfometuron methyl	Oustar	Bayer Environmental Science	432-1553
	Oustar	DuPont Crop Protection	352-603
	Westar	Bayer Environmental Science	432-1558
	Westar	DuPont Crop Protection	352-626
NOTE: In accordance with the Record of Decision for the *Vegetation Treatments Using Herbicides on Bureau of Land Management* Lands in 17 Western *States Programmatic Environmental Impact Statement (PEIS), the aerial application of this herbicide* is prohibited.			
Imazapic	Alligare Panoramic 2SL	Alligare, LLC	66222-141-81927
	Nufarm Imazapic 2SL	Nufarm Americas Inc.	71368-99
	Open Range G	Wilbur-Ellis Co., LLC (Wilbur-Ellis Co.)	2935-557
	Plateau	BASF Corporation	241-365
Imazapyr	Alligare Ecomazapyr 2SL	Alligare, LLC	81927-22
	Alligare Imazapyr 4SL	Alligare, LLC	81927-24
	Alligare Rotary 2 SL	Alligare, LLC	
	Arsenal	BASF Corporation	241-346
	Arsenal Applicators Conc.	BASF Corporation	241-299
	Arsenal PowerLine	BASF Corporation	241-431
	Chopper	BASF Corporation	241-296
	EZ-JECT Copperhead Herbicide Shells	EZ-JECT, Inc.	83220-2
	Habitat	BASF Corporation	241-426
	Habitat Herbicide	SePRO	241-426-67690
	Polaris	Nufarm Americas Inc.	228-534
	Polaris AC	Nufarm Americas Inc.	241-299-228
	Polaris AC	Nufarm Americas Inc.	228-480
	Polaris AC Complete	Nufarm Americas Inc.	228-570

ACTIVE INGREDIENT	TRADE NAME	MANUFACTURER	EPA REG. NUMBER
Imazapyr - continued	Polaris AQ	Nufarm Americas Inc.	241-426-228
	Polaris Herbicide	Nufarm Americas Inc.	241-346-228
	Polaris RR	Nufarm Americas Inc.	241-273-228
	Polaris SP	Nufarm Americas Inc.	228-536
	Polaris SP	Nufarm Americas Inc.	241-296-228
	SSI Maxim Arsenal 0.5G	SSI Maxim Co., Inc.	34913-23
	SSI Maxim Arsenal 5.0 G	SSI Maxim Co., Inc.	34913-24
	Stalker	BASF Corporation	241-398
Imazapyr + Diuron	Alligare Mojave 70 EG	Alligare, LLC	81927-25
	Imazuron	Nufarm Americas Inc.	228-654
	Sahara DG	BASF Corporation	241-372
	SSI Maxim Topsite 2.5G	SSI Maxim Co., Inc.	34913-22
Imazapyr + Metsulfuron methyl	Lineage Clearstand	Bayer Environmental Science	432-1578
	Lineage Clearstand	DuPont Crop Protection	352-766
Imazapyr + Sulfometuron methyl +	Lineage HWC	Bayer Environmental Science	432-1577
Metsulfuron methyl	Lineage HWC	DuPont Crop Protection	352-765
	Lineage Prep	Bayer Environmental Science	432-1579
	Lineage Prep	DuPont Crop Protection	352-767
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Metsulfuron methyl	Alligare MSM 60	Alligare, LLC	81927-7
	AmTide MSM 60DF Herbicide	AmTide, LLC	83851-3
	Cimarron MAX - Part A	Bayer Environmental Science	432-1555
	Cimarron MAX - Part A	DuPont Crop Protection	352-615
	Escort XP	Bayer Environmental Science	432-1549
	Escort XP	DuPont Crop Protection	352-439
	Patriot	Nufarm Americas Inc.	228-391
	PureStand	Nufarm Americas Inc.	71368-38
	Rometsol	Rotam North America, Inc.	831000-2-83979
Metsulfuron methyl + Chlorsulfuron	Cimarron Plus	Bayer Environmental Science	432-1572
	Cimarron Plus	DuPont Crop Protection	352-670
	Cimarron X-tra	DuPont Crop Protection	352-669
Picloram	Alligare Picloram 22K	Alligare, LLC	81927-18
	Grazon PC	Dow AgroSciences	62719-181
	OutPost 22K	Dow AgroSciences	62719-6
	Tordon 22K	Dow AgroSciences	62719-6
	Tordon K	Dow AgroSciences	62719-17

ACTIVE INGREDIENT	TRADE NAME	MANUFACTURER	EPA REG. NUMBER
Picloram - continued	Triumph 22K	Albaugh, LLC (Albuagh, Inc/Agri Star)	42750-79
	Triumph K	Albaugh, LLC (Albuagh, Inc/Agri Star)	42750-81
	Trooper 22K	Nufarm Americas Inc.	228-535
Picloram + 2, 4-D	Alligare Picloram + D	Alligare, LLC	81927-16
	Graslan L	Dow AgroSciences	62719-655
	Grazon P+D	Dow AgroSciences	62719-182
	GunSlinger	Albaugh, LLC (Albuagh, Inc/Agri Star)	42750-80
	HiredHand P+D	Dow AgroSciences	62719-182
	Pathway	Dow AgroSciences	62719-31
	Tordon 101 Mixture	Dow AgroSciences	62719-5
	Tordon RTU	Dow AgroSciences	62719-31
	Trooper P + D	Nufarm Americas Inc.	228-530
Picloram + 2, 4-D + Dicamba	Trooper Extra	Nufarm Americas Inc.	228-586
Rimsulfuron	Alligare Laramie 25DF	Alligare, LLC	81927-57
	Hinge	Rotam Borth America, Inc.	83100-40-83979
	Matrix SG	Dupont Crop Protection	352-768
Sulfometuron methyl	Alligare SFM 75	Alligare, LLC	81927-26
	Oust XP	Bayer Environmenatl Science	432-1552
	Oust DF	DuPont Crop Protection	352-401
	Oust XP	DuPont Crop Protection	352-601
	Spyder	Nufarm Americas Inc.	228-408
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Sulfometuron methyl + Chlorsulfuron	Landmark XP	Bayer Environmental Science	432-1560
	Landmark XP	DuPont Crop Protection	352-645
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ACTIVE INGREDIENT	TRADE NAME	MANUFACTURER	EPA REG. NUMBER
Sulfometuron methyl + Metsulfuron methyl	Alligare SFM Extra	Alligare, LLC	81927-5
	Oust Extra	Bayer Environmental Science	432-1557
	Oust Extra	DuPont Crop Protection	352-622
	Spyder Extra Selective	Nufarm Americas Inc.	228-690
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Tebuthiuron	Alligare Tebuthiuron 20 P	Alligare, LLC	81927-41
	Alligare Tebuthiuron 80 WG	Alligare, LLC	81927-37
	Spike 20P	Dow AgroSciences	62719-121
	Spike 80DF	Dow AgroSciences	62719-107
	SpraKil S-5 Granules	SSI Maxim Co., Inc.	34913-10
Tebuthiuron + Diuron	SpraKil SK-13 Granular	SSI Maxim Co., Inc.	34913-15
	SpraKil SK-26 Granular	SSI Maxim Co., Inc.	34913-16
Triclopyr	Alligare Boulder 6.3	Alligare, LLC	81927-54
	Alligare Triclopry 4	Alligare, LLC	81927-11
	Alligare Triclopyr 3	Alligare, LLC	81927-13
	Element 3A	Dow AgroSciences	62719-37
	Element 4	Dow AgroSciences	62719-40
	Forestry Garlon XRT	Dow AgroSciences	62719-553
	Garlon 3A	Dow AgroSciences	62719-37
	Garlon 4	Dow AgroSciences	62719-40
	Garlon 4 Ultra	Dow AgroSciences	62719-527
	Pathfinder II	Dow AgroSciences	62719-176
	Relegate	Nufarm Americas Inc.	228-521
	Relegate RTU	Nufarm Americas Inc.	228-522
	Remedy	Dow AgroSciences	62719-70
	Remedy Ultra	Dow AgroSciences	62719-552
	Renovate 3	SePRO Corporation	62719-37-67690
	Renovate OTF	SePRO Corporation	67690-42
	Tahoe 3A	Nufarm Americas Inc.	228-520
	Tahoe 4E	Nufarm Americas Inc.	228-385
	Tahoe 4E Herbicide	Nufarm Americas Inc.	228-517
	Triclopyr RTU	Albaugh, LLC (Albuagh, Inc/Agri Star)	42750-173
	Trycera	Helena Agri-Enterprises, LLC (Helena Chemical Company)	5906-580
	Vastlan	Dow AgroSciences	62719-687

ACTIVE INGREDIENT	TRADE NAME	MANUFACTURER	EPA REG. NUMBER
Triclopyr + 2, 4-D	Alligare Everett	Alligare, LLC	81927-29
	Aquasweep	Nufarm Americas Inc.	228-316
	Candor	Nufarm Americas Inc.	228-565
	Crossbow	Dow AgroSciences	62719-260
Triclopyr + Clopyralid	Alligare Prescott Herbicide	Alligare, LLC	81927-30
	Brazen	Nufarm Americas Inc.	228-564
	Redeem R&P	Dow AgroSciences	62719-337