

# 2025 ANNUAL BIOLOGICAL MONITORING SUMMARY REPORT

**FORMER FORT ORD**  
**Monterey County, California**

**Contract No. W9123824D0002**

Prepared for:

**U.S. Department of the Army**  
Fort Ord Base realignment and Closure  
4463 Gigling Road, Room 101  
Seaside, CA 93955-7302



Prepared by:



On behalf of:

*Ahtna*  
Global, LLC

March 2026

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## ACRONYMS AND ABBREVIATIONS

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Ahtna	Ahtna Global, LLC
Army	U.S. Department of the Army
BLL	Black legless Lizard
BLM	Bureau of Land Management
BMP	Best Management Practices
BRAC	Base Realignment and Closure
CDFW	California Department of Fish and Wildlife
CIPC	California Invasive Plant Council
CRLF	California Red-Legged Frog
CTS	California Tiger Salamander
DGM	Digital Geophysical Mapping
ESA	Endangered Species Act
HA	Historical Area
Harris	Harris Environmental Group Inc.
HMP	Habitat Management Plan
MEC	Munitions and Explosives of Concern
MOUT	Military Operations on Urban Training site
MRS	Munitions Response Site
PBO	Programmatic Biological Opinion
USACE	United States Army Corps of Engineers
USFWS	United States Fish and Wildlife Service
UXO	Unexploded Ordnance
UXOQCS	Unexploded Ordnance Quality Control Specialist
WPT	Southwestern Pond Turtle

# 1 Introduction

This report was prepared by Harris Environmental Group Inc. (Harris) as a subcontractor to Ahtna Global LLC. (Ahtna) for the United States Department of the Army, Fort Ord Base Realignment and Closure (BRAC) under a contract with USACE number W9123824D0002. This report contains results of the 2025 biological monitoring activities which are required as part of the Installation-Wide Multispecies Habitat Management Plan (HMP) for Former Fort Ord, California (U.S. Army Corps of Engineers [USACE], 1997). The U.S. Department of the Army's (Army's) decision to close and dispose of the Fort Ord military base was considered a major federal action that could affect listed species under the Endangered Species Act (ESA). The U.S. Fish and Wildlife Service (USFWS) issued a Biological Opinion (USFWS, 1993) on the disposal and reuse of former Fort Ord requiring that the HMP be developed and implemented to reduce the incidental take of listed species and loss of habitat that supports these species. The HMP was prepared to assess impacts on vegetation and wildlife resources and provide mitigation for their loss associated with the disposal and reuse of the former Fort Ord (USACE, 1997).

## 1.1 Background

The HMP (USACE, 1997) establishes guidelines for the conservation and management of species and habitats on former Fort Ord lands by identifying lands that are available for development, lands that have some restrictions with development, and habitat reserve areas. The intent of the plan is to establish large, contiguous habitat conservation areas and corridors to compensate for future development in other areas of the former base. The HMP identifies what type of activities can occur on each parcel at the former Fort Ord. The HMP sets the standards to assure the long-term viability of the former Fort Ord's biological resources in the context of base reuse, so that no further mitigation should be necessary for impacts to species and habitats considered in the HMP. The HMP has been approved by the USFWS and the California Department of Fish and Wildlife (CDFW); the HMP, deed restrictions, and Memoranda of Agreement between the Army and various land recipients provide the legal mechanism to assure HMP implementation. The HMP is a legally binding document, and all recipients of former Fort Ord lands are required to abide by its management requirements and procedures. In addition to the HMP, multiple Biological Opinions have been issued by the USFWS over the years as a result of consultation with the Army. In 2015, the USFWS issued a Programmatic Biological Opinion (USFWS, 2015) that superseded the previous Biological Opinions. Then, on June 7, 2017, the USFWS issued a reinitiated Programmatic Biological Opinion that supersedes the 2015 Programmatic Biological Opinion (USFWS, 2017). In 2018 the Army requested reinitiating formal consultation with USFWS due to the results of a field evaluation which recommended no prescribed burning occur in several units (Army, 2018). USFWS concurred with Army's recommendation in a follow up letter that constitutes as an amendment to 2017 PBO (Army, 2018 and USFWS, 2019, respectively). The Programmatic Biological Opinion contains additional conservation measures and recommendations relating to environmental remediation at former Fort Ord cleanup sites.

Sensitive habitat types identified in the HMP (USACE, 1997) and the Programmatic Biological Opinion (USFWS, 2017) are:

- Central maritime chaparral (maritime chaparral)
- Wetlands and vernal ponds
- Other habitats where listed species are known or suspected to occur (including coastal scrub, coast live oak woodlands, and grasslands with a significant native component of grasses or forbs).

Special-status species listed in the HMP (USACE, 1997) and/or the Programmatic Biological Opinion (USFWS, 2017) are:

- Sand gilia (*Gilia tenuiflora* ssp. *arenaria*) – Federally Endangered, State Threatened
- Monterey spineflower (*Chorizanthe pungens* var. *pungens*) – Federally Threatened
- Robust spineflower (*C. robusta* var. *robusta*) – Federally Endangered
- Seaside bird’s-beak (*Cordylanthus rigidus* ssp. *littoralis*) – State Endangered
- Hooker’s manzanita (*Arctostaphylos hookeri* ssp. *hookeri*)
- Sandmat manzanita (*A. pumila*)
- Monterey manzanita (*A. montereyensis*)
- Monterey ceanothus (*Ceanothus rigidus*)
- Eastwood’s goldenbush (*Ericameria fasciculata*)
- Yadon’s piperia (*Piperia yadonii*) – Federally Endangered
- Coast wallflower (*Erysimum ammophilum*)
- Contra Costa goldfields (*Lasthenia conjugens*) – Federally Endangered
- California black legless lizard (*Anniella pulchra nigra*; BLL) – State Species of Special Concern
- California tiger salamander (*Ambystoma californiense*; CTS) – Federally Threatened, State Threatened
- California red-legged frog (*Rana draytonii*; CRLF) – Federally Threatened, State Species of Special Concern
- California linderiella (*Linderiella occidentalis*)
- Western snowy plover (*Charadrius alexandrinus nivosus*) – Federally Threatened
- Monterey ornate shrew (*Sorex ornatus salarius*) – State Species of Special Concern

Additional special-status species not listed in the HMP (USACE, 1997) or the Programmatic Biological Opinion (USFWS, 2017) are:

- Monterey dusky-footed wood rat (*Neotoma fuscipes Luciana*) – State Species of Special Concern
- Southwestern pond turtle (*Actinemys pallida*) – Federally Proposed Threatened, State Species of Special Concern

Sand gilia, Monterey spineflower, Seaside bird’s-beak, and coast wallflower are annual herb species that may occur within maritime chaparral, coastal scrub, grasslands, dune scrub, or disturbed areas. Robust spineflower is an annual herb that also occurs within these habitat types; however, the only documented occurrence on former Fort Ord, within dune scrub habitat, has not since been observed and may be erroneous. The Contra Costa goldfield is an annual herb associated with vernal ponds and is known to occur at four locations on former Fort Ord. Hooker’s manzanita, sandmat manzanita, Monterey manzanita, Monterey ceanothus, and Eastwood’s goldenbush are perennial shrub species that typically occur in maritime chaparral, but individuals can also be found mixed with oak woodland or coastal scrub habitats. Yadon’s piperia is a perennial herb that is typically found in maritime chaparral and Monterey pine forest habitats.

The BLL is a rare variety of the California legless lizard (*A. pulchra*) that inhabits areas with sandy soils on the former Fort Ord. The Monterey ornate shrew is a rare variety of the ornate shrew (*S. ornatus*) found in riparian forest and oak woodland habitats. The western snowy plover is a rare avian species found along coastal strand areas. The CTS, CRLF, and California linderella are typically found in vernal or seasonal ponds on the former Fort Ord. The CTS may also be found aestivating in small mammal burrows or under logs in upland areas within 2.2 kilometers of vernal ponds.

While the Monterey dusky-footed woodrat and southwestern pond turtle are not species included in the HMP or PBO, both are present on Fort Ord. They are listed as either a State Species of Special Concern by CDFW, or Federally Proposed as Threatened under the ESA, respectively. Therefore, conservation measures were included in the HCLs for these species for avoidance and minimization.

The HMP (USACE, 1997) and Programmatic Biological Opinion (USFWS, 2017) also outline avoidance and mitigation measures that are necessary if the Army's cleanup activities could significantly impact protected species or habitats. These cleanup activities include munitions remediation, soil remediation, groundwater remediation, and other related environmental cleanup operations within former Fort Ord lands designated as Habitat Reserve.

## 1.2 Report Content

This report includes a summary of the munitions and explosives of concern (MEC) removal activities conducted by Ahtna in 2025; the results of biological monitoring performed by Ahtna in 2025; a description of the mitigations and avoidance measures, biological trainings, HMP species encounters, habitat and species protection measures required by the HMP (USACE, 1997) and the Programmatic Biological Opinion (USFWS, 2017); and other environmental protection measures implemented during project activities.

The overarching purposes for work activities were to (1) prepare for a prescribed burn in BLM Area B Unit A by reestablishing containment line fuel breaks and equipment set up; and (2) vegetation cutting in Unit 17 to facilitate MEC removal and digital geophysical mapping (DGM). Prescribed burning is the preferred method of vegetation removal in maritime chaparral areas. However, in areas where prescribed burns cannot be conducted safely due to difficult terrain, proximity to urban areas, or potential presence of large MEC, vegetation cutting will have to be conducted using mechanical and/or manual methods. Unit 17 was deemed too risky to burn due to a combination of topography, wind, and fire behavior, so mechanical/manual cutting was determined to be the preferred method of vegetation clearance (Army, 2018). USFWS approved the plan to cut Unit 17 instead of burn (USFWS, 2019).

Work was conducted by Ahtna in 2025 at the following sites:

### BLM Area B Unit A (Figure 1)

- Fuel break reestablishment along Lion's Revenge Rd, Watkins Gate Rd, West Machine Gun Flats Rd, Hennekens Ranch Rd, Gigling Rd, Addington Rd, 8<sup>th</sup> Avenue, 8<sup>th</sup> Avenue Extension, Parker Flat Rd, Parker Flats Cut Off Rd, Eucalyptus Rd, Barloy Canyon Rd, Inter-Garrison Rd, West Camp St, Riso Ridge Rd, Chinook Rd, Broadway Rd, Felix Road and Blue Line Rd. Fuel break reestablishment commenced on June 2<sup>nd</sup>, 2025 and was completed on October 1<sup>st</sup>, 2025.
- Removal of damaged dip tanks at two locations: Wildcat Ridge Rd and behind the BLM work center in Unit 22; damaged dip tanks were removed on August 5<sup>th</sup> 2025.

- Placement of dip tanks at four locations: Barloy Canyon Rd, Wildcat Ridge Rd, off Watkins Gate Rd next to the Cal-Am water tower and behind the BLM work center in Unit 22. Dip tanks were placed on August 6<sup>th</sup> and August 7<sup>th</sup>, 2025.
- Placement of water tanks at three locations: Barloy Canyon Rd, off Watkins Gate Rd next to the Cal-Am water tower and behind the BLM work center in Unit 22. Water tanks were placed on August 20<sup>th</sup>, August 27<sup>th</sup> and August 28<sup>th</sup>, 2025.

### **Munitions Response Site (MRS)-BLM Unit 17 (Figure 2)**

- Work grids along Impossible Canyon Rd and Wildcat Ridge Rd. Activities conducted in these grids included mechanical and manual vegetation cutting, technology-aided surface MEC removal, erosion control monitoring, and biological monitoring. Vegetation cutting started on August 5<sup>th</sup>, 2025 and fully completed on January 8<sup>th</sup>, 2026. Surface MEC removal commenced on October 15<sup>th</sup> and is ongoing.
- Work grids in the “Mesa”, east of the Military Operations on Urban Training (MOUT) site. Activities conducted in these grids included mechanical and manual vegetation cutting, technology-aided surface MEC removal, erosion control monitoring and biological monitoring. Vegetation cutting in the “Mesa” area started on September 10<sup>th</sup>, 2025 and fully completed on October 30<sup>th</sup>, 2025. Surface MEC removal did not commence in the “Mesa” in 2025.

## **2 Munitions Remedial Activities in BLM Area B Unit A**

During 2025 BLM Area B Unit A prescribed burn preparation was conducted in support of MEC remedial action activities (Figure 1). These activities included:

- Fuel break reestablishment including mechanical vegetation mastication, manual vegetation clearing, pruning of oak trees and Toro manzanita, chipping of cut vegetation and stockpiling mulch;
- Removal of old dip tanks, and placement and filling of new water tanks;
- Vehicles and equipment used to support these activities including John Deere masticator, CAT skid steers, dump truck, trucks with hauling trailer, brush chipper, chainsaws, loppers, and weed whackers; water buffalo trailer and telehandler forklift

Table 1 identifies the approximate acreage within BLM Area B Unit A affected by the work activities in 2025.

### **2.1 HMP Species and Habitats Mitigation and Avoidance**

Mitigation measures to reduce impacts to protected species and sensitive habitats during burn prep and MEC remedial actions are described in the HMP (USACE, 1997) and the Programmatic Biological Opinion (USFWS, 2017). Mitigation and protection measures that were implemented to avoid or reduce impacts to HMP species and habitats during fuel break reestablishment for BLM Area B Unit A are summarized below.

### **2.1.1 Minimization Disturbance Associated with Vegetation and MEC Removal**

Disturbances were limited to those required for the abovementioned activities. As required by the HMP, existing roads were used. Exceptions were made where it was necessary to traverse the sites using tracked vehicles in order to remove vegetation in containment lines. Access routes, staging areas, stockpiles, and other appurtenant facilities were sited to avoid impacts to HMP plant and wildlife species, vernal ponds and wetland areas, and potential erosion issues.

### **2.1.2 Conduct Environmental Awareness Training Program**

New Ahtna employees and subcontract workers received training on former Fort Ord natural resource protection prior to starting work. Training was conducted by the Ahtna Senior Biologist. Natural resource training was provided to 60 new employees and subcontract workers in 2025.

Training includes the following topics:

- Identification of sensitive HMP-protected habitats and HMP species specific to the work area. Habitats covered in the training include maritime chaparral, vernal ponds, and wetlands. Species covered include CTS, CRLF, WPT, California linderiella, BLL, Monterey ornate shrew, Monterey dusky-footed woodrat, sand gilia, Monterey spineflower, Seaside bird's-beak, Yadon's piperia, Contra Costa goldfields, coast wallflower, Monterey manzanita, sandmat manzanita, Hooker's manzanita, Eastwood's goldenbush, and Monterey ceanothus. Additional HMP species occurring within the dune habitats on the former Fort Ord were not included in the training because work has been completed in these areas and these species were not impacted by BLM Area B Unit A work.
- Specific guidance for CTS, CRLF and WPT protection, including the ability to recognize the species, the protocol for reporting all encounters to the Senior or BRAC biologists (who are permitted by USFWS to handle and relocate CTS), placing escape ramps or covering open trenches, and checking equipment and excavations for CTS, CRLF and WPT during migration seasons.
- Instructions for minimizing all work impacts and work footprints, and for avoidance of areas flagged for sensitive species or habitats wherever marked in the field.
- Instructions for restricting vehicle movement and parking to roads, staging areas, designated access routes, and other designated work areas wherever possible.
- How to reduce soil disturbances in sensitive habitat, particularly areas containing seed bank or live individuals of HMP-listed plant species and vernal ponds.
- How to reduce erosion problems and spread of invasive species.

In addition to the training program, Habitat Checklists (HCLs) were prepared prior to each definable feature of work activity by the Senior Biologist, outlining specific avoidance and minimization measures to be implemented during work activities. The HCLs were reviewed and approved by the BRAC Biologist and the Unexploded Ordnance Quality Control Specialist (UXOQCS). The avoidance and minimization measures were communicated to the project supervisors and field personnel in preparatory meetings prior to work initiation (see Attachment A for all HCLs implemented for each definable feature of work conducted in 2025).

### **2.1.3 Avoid Disturbance of HMP Plant Populations**

Populations of HMP annual plants were identified during previous baseline and/or follow-up surveys within and adjacent to BLM Area B Unit A containment lines (See HCL 1. BLM Area B Unit A Containment Lines Figure 1). Areas supporting populations of HMP annual plants are to be avoided from the time of assumed germination (February 1) to seed-set (assumed May 31 for Monterey spineflower and sand gilia; as observed by the Senior Biologist in approximately August/September for Yadon's piperia). While vegetation cutting was necessary within population areas, no equipment or personnel were permitted within these areas during this period, and the populations were flagged off and a map of the locations was provided to all project supervisors and field personnel.

Grids with HMP annual plant populations were hand cut only, the masticator was not allowed to cut in these areas. The Ahtna Senior Biologist monitored the populations to ensure that work was not conducted in these grids until the time of seed-set for the majority of the individuals.

Populations of seaside bird's beak occur along Barloy Canyon Rd north of Eucalyptus Rd within the secondary/tertiary containment line (See HCL 1. BLM Area B Unit A Figure 2). Coordination between BRAC, BLM and Ahtna occurred to delay cutting these areas until a majority of the plants were going to seed. The area was cut on September 30<sup>th</sup> and October 1<sup>st</sup> 2025, after the Ahtna Senior Biologist confirmed at least 90% of plants had gone to seed.

Additionally, Toro manzanitas (an HMP species) that were retained from previous prescribed burn preparation activities or MEC removal operations were flagged and again retained during 2025 BLM Area B Unit A prescribed burn prep fuel break reestablishment to the greatest extent feasible.

### **2.1.4 Minimize Impacts to California Linderiella, California Tiger Salamander, California Red-Legged Frog and Southwestern Pond Turtle**

To minimize impacts to these species, project supervisors and field personnel were trained during the Environmental Awareness Training Program to identify CTS, CRLF and WPT, and they were informed of the potential for these species (as well as California linderiella) to occur within the project site and the established protocol if any individuals were encountered.

During containment line reestablishment, masticators were not permitted within 50 feet of vernal ponds. Small equipment, such as a skid steer or other manual equipment (i.e. chainsaws, handsaws, trimmers, loppers etc.) were used to remove vegetation within 50ft of vernal ponds as necessary. Boundaries of vernal ponds that overlapped with containment lines were flagged (pink and black striped flagging) for avoidance by the masticator. Additionally, other wetland areas across Fort Ord, such as low depressions or mima mounds, that are not the standard vernal ponds but still support rare and sensitive wetland species were avoided to the greatest extent possible. Mima mounds in particular are susceptible to erosion from heavy equipment, so hand cutting (weed whacking/loppers) was used in these areas where feasible. See HCL 1. See BLM Area B Unit A Containment Lines Figure 1 for other wetland locations within fuel breaks.

The Ahtna Senior Biologist also monitored the removal of old and damaged dip tanks on Wildcat Ridge Rd in Unit 17 and behind the BLM work center in Unit 22. One Monterey ensatina (*Ensatina eschscholtzii*) and several sierran treefrogs (*Pseudacris sierra*) were found during dip tank removal and relocated out of harm's way.

No CTS, CRLF, WPT or California linderiella were encountered by Ahtna during BLM Area B Unit A prescribed burn preparation activities in 2025.

### **2.1.5 Minimize Impacts to Black Legless Lizard**

To minimize impacts to BLL, project supervisors and field personnel were trained during the Employee Environmental Awareness Training Program to identify BLL, and they were informed of the potential for this species to occur within the project site and the established protocol if any individuals were encountered. Additionally, the Senior Biologist monitored ground disturbance closely in the event a BLL was uncovered. No BLL were encountered by Ahtna during BLM Area B Unit A prescribed burn preparation activities in 2025.

## **2.2 Additional Environmental Concerns**

In addition to the mitigation and protection measures described above to avoid or reduce impacts to HMP species and habitats, the following environmental protection measures were implemented by Ahtna during BLM Area B Unit A prescribed burn preparation activities in 2025.

### **2.2.1 Invasive Weed Control**

Several invasive plant species are known to occur on the former Fort Ord, including iceplant (*Carpobrotus* sp.), French broom (*Genista monspessulana*), jubata (pampas) grass (*Cortaderia jubata*), and Klamathweed (*Hypericum perforatum*). These species spread rapidly and can severely degrade native habitats if measures are not taken to control their spread. The Army has reviewed the California Invasive Plant Council's (CIPC's) *Preventing the Spread of Invasive Plants: Best Management Practices for Land Managers* (CPIC, 2011) and has identified appropriate Best Management Practices (BMPs) that can be implemented during cleanup activities. Specifically, BMPs that are employed to the greatest extent practicable include: ensuring all vehicles and equipment that come from outside of the former Fort Ord work areas are clean and weed free, including those of subcontractors, before they are allowed to enter the site; finding weed-free sources for straw, fill, and road base materials that are imported from off-site; using on-site sources for mulch, fill, and road base materials that come only from areas without invasive plant infestations; planning any off-road haul routes to avoid invasive plant populations; and cleaning boots, equipment, and vehicles that have been used in high infestation areas prior to moving to sites where invasive species populations are low or have not been identified. Additionally, each new work area is evaluated for the presence of invasive species, and the appropriate avoidance and minimization measures are identified prior to work initiation.

Known populations of Klamathweed occur in several locations along the BLM Area B Unit A containment lines and these areas were flagged off and avoided by the masticator (see HCL 1. BLM Area B Unit A Figure 3). During vegetation removal within areas infested with Klamathweed, the crew cleaned boots and equipment daily before leaving the area to reduce spread of invasive species. Skid steers and other vehicles that worked within these Klamathweed areas were washed on-site prior to leaving the area.

### 3 Munitions Remedial Activities MRS-BLM Unit 17

During 2025 MEC remedial action activities were conducted in the former Fort Ord MRS-BLM Unit 17 (Figure 2). Activities conducted in MRS-BLM Unit 17 in 2025 included:

- Mechanical mastication of vegetation, manual vegetation clearing, pruning of oaks and Toro manzanita, chipping of cut vegetation, broadcasting mulch and stockpiling mulch;
- Technology-aided surface MEC removal;
- Installation of Instrument Verification Strip (IVS);
- Demolition of live or suspected live MEC items; and
- Vehicles and equipment used to support these activities including John Deere masticator, CAT skid steers, dump truck, trucks with hauling trailer, tracked brush chipper, chainsaws, loppers, and weed whackers; water buffalo trailer and telehandler forklift.

Table 1 identifies the approximate acreage within MRS-BLM Unit 17 affected by the work activities in 2025.

#### 3.1 HMP Species and Habitats Mitigation and Avoidance

Mitigation measures to reduce impacts to protected species and sensitive habitats during burn prep and MEC remedial actions are described in the HMP (USACE, 1997) and the Programmatic Biological Opinion (USFWS, 2017). Mitigation and protection measures that were implemented to avoid or reduce impacts to HMP species and habitats in MRS-BLM Unit 17 are summarized below.

##### 3.1.1 Minimization Disturbance Associated with Vegetation and MEC Removal

Disturbances were limited to those required for the abovementioned activities. As required by the HMP, existing roads were used. Exceptions were made where it was necessary to traverse the sites using tracked vehicles in order to remove vegetation in work grids, conduct technology-aided surface MEC removal and to conduct IVS installation. Access routes, staging areas, stockpiles, and other appurtenant facilities were sited to avoid impacts to HMP plant and wildlife species, vernal ponds and wetland areas, and potential erosion issues.

##### 3.1.2 Conduct Environmental Awareness Training Program

New Ahtna employees and subcontract workers received training on former Fort Ord natural resource protection prior to starting work. Training was conducted by the Senior Biologist. Natural resource training was provided to 60 new employees and subcontract workers in 2025.

Training includes the following topics:

- Identification of sensitive HMP-protected habitats and HMP species specific to the work area. Habitats covered in the training include maritime chaparral, vernal ponds, and wetlands. Species covered include CTS, CRLF, WPT, California linderiella, BLL, Monterey ornate shrew, Monterey dusky-footed woodrat, sand gilia, Monterey spineflower, Seaside bird's-beak, Yadon's piperia, Contra Costa goldfields, coast wallflower, Monterey manzanita, sandmat manzanita, Hooker's manzanita, Eastwood's goldenbush, and Monterey ceanothus. Additional HMP species occurring within the dune habitats on the former Fort Ord were not included in the training because work

has been completed in these areas and these species were not impacted by MRS-BLM Unit 17 2025 work.

- Specific guidance for CTS, CRLF and WPT protection, including the ability to recognize the species, the protocol for reporting all encounters to the Senior or BRAC biologists (who are permitted by USFWS to handle and relocate CTS), placing escape ramps or covering open trenches, and checking equipment and excavations for CTS, CRLF and WPT during migration seasons.
- Instructions for minimizing all work impacts and work footprints, and for avoidance of areas flagged for sensitive species or habitats wherever marked in the field.
- Instructions for restricting vehicle movement and parking to roads, staging areas, designated access routes, and other designated work areas wherever possible.
- How to reduce soil disturbances in sensitive habitat, particularly areas containing seed bank or live individuals of HMP-listed plant species and vernal ponds.
- How to reduce erosion problems and spread of invasive species.

In addition to the training program, HCLs were prepared prior to each definable feature of work activity by the Senior Biologist, outlining specific avoidance and minimization measures to be implemented during work activities. The HCLs were reviewed and approved by the BRAC Biologist and the UXOQCS. The avoidance and minimization measures were communicated to the project supervisors and field personnel in preparatory meetings prior to work initiation (see Attachment A for all HCLs implemented for each definable feature of work conducted in 2025).

### **3.1.3 Avoid Disturbance of HMP Plant Populations**

Populations of HMP annual plants were identified during previous baseline and/or follow-up surveys within and adjacent to MRS-BLM Unit 17 (See HCL 2 Unit 17 Vegetation Clearing Figure 1). Areas supporting populations of HMP annual plants are to be avoided from the time of assumed germination (February 1) to seed-set (assumed May 31 for Monterey spineflower and sand gilia; as observed by the Senior Biologist in approximately August/September for Yadon's piperia). While vegetation cutting and MEC removal were necessary within population areas, no equipment or personnel were permitted within these areas during this period, and the populations were flagged off and a map of the locations was provided to all project supervisors and field personnel. Work grids with HMP annual plant populations were hand cut only, the masticator was not allowed to cut in these areas. The Ahtna Senior Biologist monitored the populations to ensure that work was conducted in accordance with the HMP and appropriate avoidance measures. No subsurface MEC removal was conducted within Monterey spineflower, sand gilia, seaside bird's beak or Yadon's piperia population areas in 2025.

HMP grids that overlap with MEC work grids in MRS-BLM Unit 17 were hand cut only (see HCL 2. Unit 17 Vegetation Removal Figure 1). These areas were also avoided by the chipping operation, so no mulch was broadcast over HMP grids. The Ahtna Senior Biologist worked closely with field crews to avoid unnecessary impacts to HMP grids in MRS-BLM Unit 17. Additionally, areas of dense oak woodland were avoided by the masticator, as these areas were hand cut only.

Mature Toro manzanitas (an HMP species) in MRS-BLM Unit 17 work grids that provide an important seed source were preserved to the greatest extent feasible. The masticator operator received additional training from the Ahtna Senior Biologist in Toro manzanita identification and to determine the extent of Toro manzanita retention. Toro manzanita retention was based on size of individuals and field conditions such as access and safety as the masticator worked through the grids. The Ahtna Senior Biologist checked in with the masticator operator frequently to assess Toro manzanitas that were retained and ensure continued proper Toro manzanita identification.

#### **3.1.4 Minimize Impacts to California Linderiella, California Tiger Salamander, California Red-Legged Frog and Southwestern Pond Turtle**

To minimize impacts to these species, project supervisors and field personnel were trained during the Environmental Awareness Training Program to identify CTS, CRLF and WPT, and they were informed of the potential for these species (as well as California linderiella) to occur within the project site and the established protocol if any individuals were encountered.

Vernal ponds 14 and 75 are within MRS-BLM Unit 17, with pond 75 being the only pond within planned MEC work grids (see HCL 2. Unit 17 Vegetation Removal Figure 1). However, no work was conducted by Ahtna within vernal ponds in MRS-BLM Unit 17 in 2025. Additionally, a silt fence was installed around a mulch stockpile (see section 3.2.2 below) at Historical Area (HA) 37 to exclude CTS and other wildlife from entering this area. The silt fence is monitored weekly to ensure integrity and effectiveness. A mulch stockpile was also established at HA 34 but was 100% used up for erosion control purpose in Unit 17; therefore, no silt fence was installed around this pile (see section 3.2.2 below).

No CTS, CRLF, WPT or California linderiella were encountered by Ahtna during MRS-BLM Unit 17 munitions remediation activities in 2025.

#### **3.1.5 Minimize Impacts to Black Legless Lizard**

To minimize impacts to BLL, project supervisors and field personnel were trained during the Employee Environmental Awareness Training Program to identify BLL, and they were informed of the potential for this species to occur within the project site and the established protocol if any individuals were encountered. Additionally, the Ahtna Senior Biologist monitored ground disturbance closely in the event a BLL was uncovered. No BLL were encountered during work activities by Ahtna during MRS-BLM Unit 17 munitions remediation activities in 2025.

### **3.2 Additional Environmental Concerns**

In addition to the mitigation and protection measures described above to avoid or reduce impacts to HMP species and habitats, the following environmental protection measures were implemented by Ahtna during MRS-BLM Unit 17 munitions remediation activities in 2025.

#### **3.2.1 Invasive Weed Control**

Several invasive plant species are known to occur on the former Fort Ord, including iceplant (*Carpobrotus* sp.), French broom (*Genista monspessulana*), jubata (pampas) grass (*Cortaderia jubata*), and Klamathweed (*Hypericum perforatum*). These species spread rapidly and can severely degrade native habitats if measures are not taken to control their spread. Ahtna has reviewed the CIPC's *Preventing the Spread of Invasive Plants: Best Management Practices for Land Managers* (CIPC, 2011) and has identified appropriate BMPs that can be implemented during cleanup activities. Specifically, BMPs that are employed to the greatest extent practicable include: ensuring all vehicles and equipment

that come from outside of the former Fort Ord work areas are clean and weed free, including those of subcontractors, before they are allowed to enter the site; finding weed-free sources for straw, fill, and road base materials that are imported from off-site; using on-site sources for mulch, fill, and road base materials that come only from areas without invasive plant infestations; planning any off-road haul routes to avoid invasive plant populations; and cleaning boots, equipment, and vehicles that have been used in high infestation areas prior to moving to sites where invasive species populations are low or have not been identified. Additionally, each new work area is evaluated for the presence of invasive species, and the appropriate avoidance and minimization measures are identified prior to work initiation.

One significant population of jubata (pampas grass) was observed in MRS-BLM Unit 17. This population was not within the 2025 planned work grids, therefore site-specific avoidance and minimization measures were not necessary during the work in 2025, and applicable BMPs identified above were implemented.

### **3.2.2 Erosion Control**

To reduce erosion concerns on bare mineral soils, normal vehicle access was restricted to existing roads and established access routes. Tracked vehicles were used to conduct vegetation removal and IVS installation. Ahtna monitored MRS-BLM Unit 17 work sites continuously for potential erosion problems.

Mulch produced from MRS-BLM Unit 17 manual cutting was either broadcast on site to mitigate potential erosion concerns or stockpiled at HA 37 and HA 34 at designated locations approved by the Senior Biologist and BRAC Biologist. The mulch stockpile at HA 37 is to be used for future erosion control measures to minimize sedimentation of Pond 10. This mulch stockpile has silt fence installed around it to prevent CTS from accessing the pile. The silt fence is monitored weekly to ensure integrity and effectiveness.

The mulch stockpile at HA 34 was fully used in November 2025, before any major rain events of the season, as erosion control mulch and placed on the access route from the MOUT site to the “Mesa” location in MRS-BLM Unit 17. The access route was steep and unvegetated due to continued usage by the tracked masticator, tracked vegetation chipper, skid steer, UTVs and foot traffic from the manual vegetation removal crew. Mulch was applied to this access route using a skid steer and hand rake. The area was monitored post mulch application to ensure soil integrity under the mulch. No new rills or erosion was observed post mulch placement after rain events. Future erosion control in MRS-BLM Unit 17 is anticipated to be conducted in 2026.

## 4 REFERENCES

Army, 2018. Army letter to U.S. Fish and Wildlife Service requests re-initiation of formal consultation to address changes to effects of Army cleanup action described in the Reinitiation of Formal Consultation for Cleanup and Property Transfer Actions Conducted at the Form Fort Ord, Monterey County California (Original Consultation #8-8-09-F-17m 81440-2009-F-0334, June 2017). May. (BW-2747A.1)

California Invasive Plant Council (CIPC). 2011. Preventing the Spread of Invasive Plants: Best Management Practices for Land Managers.

U.S. Army Corps of Engineers (USACE), 1997. Installation-Wide Multispecies Habitat Management Plan for Former Fort Ord. April. (AR# BW-1787)

U.S. Fish and Wildlife Service (USFWS), 1993. Biological and Conference Opinion for the Disposal and Reuse of Fort Ord, Monterey County, California (1-8-93-F-14). October. (AR# OE-0045)

USFWS, 2015. Programmatic Biological Opinion for Cleanup and Property Transfer Actions Conducted at the Former Fort Ord, Monterey County, California (8-8-09-F-74). May. (AR# BW-2747)

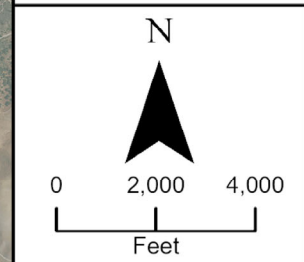
USFWS, 2017. Reinitiation of Formal Consultation for Cleanup and Property Transfer Actions Conducted at the Former Fort Ord, Monterey County, California (Original Consultation 8-8 09-F-74, 81440-2009-F-0334). June. (AR# BW-2747A)

USFWS, 2019. Changes to Vegetation Clearance Activities Under the Programmatic Biological Opinion for Cleanup and Property Transfer Actions Conducted at the Former Fort Ord, Monterey County, California (2017-F-0094). (BW-2747A.2)

## *Figures*

# BLM Area B Unit A Burn Preparation Work Areas

- BLM Area B Unit A
- Fuel Break Reestablishment
- Impact Area MRA
- Former Fort Ord Boundary
- Water Tank Locations



Imagery: 2022 Orthophotography

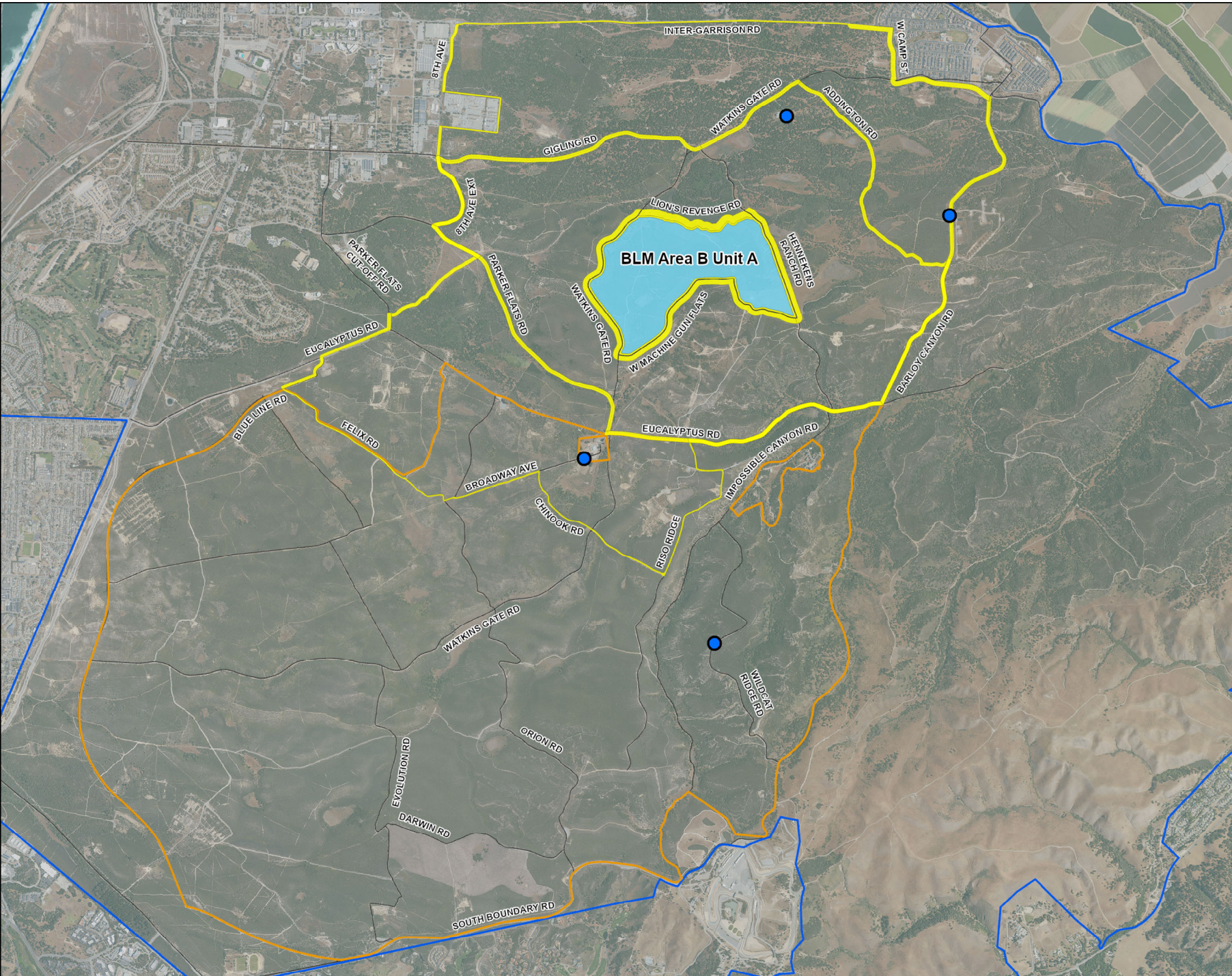
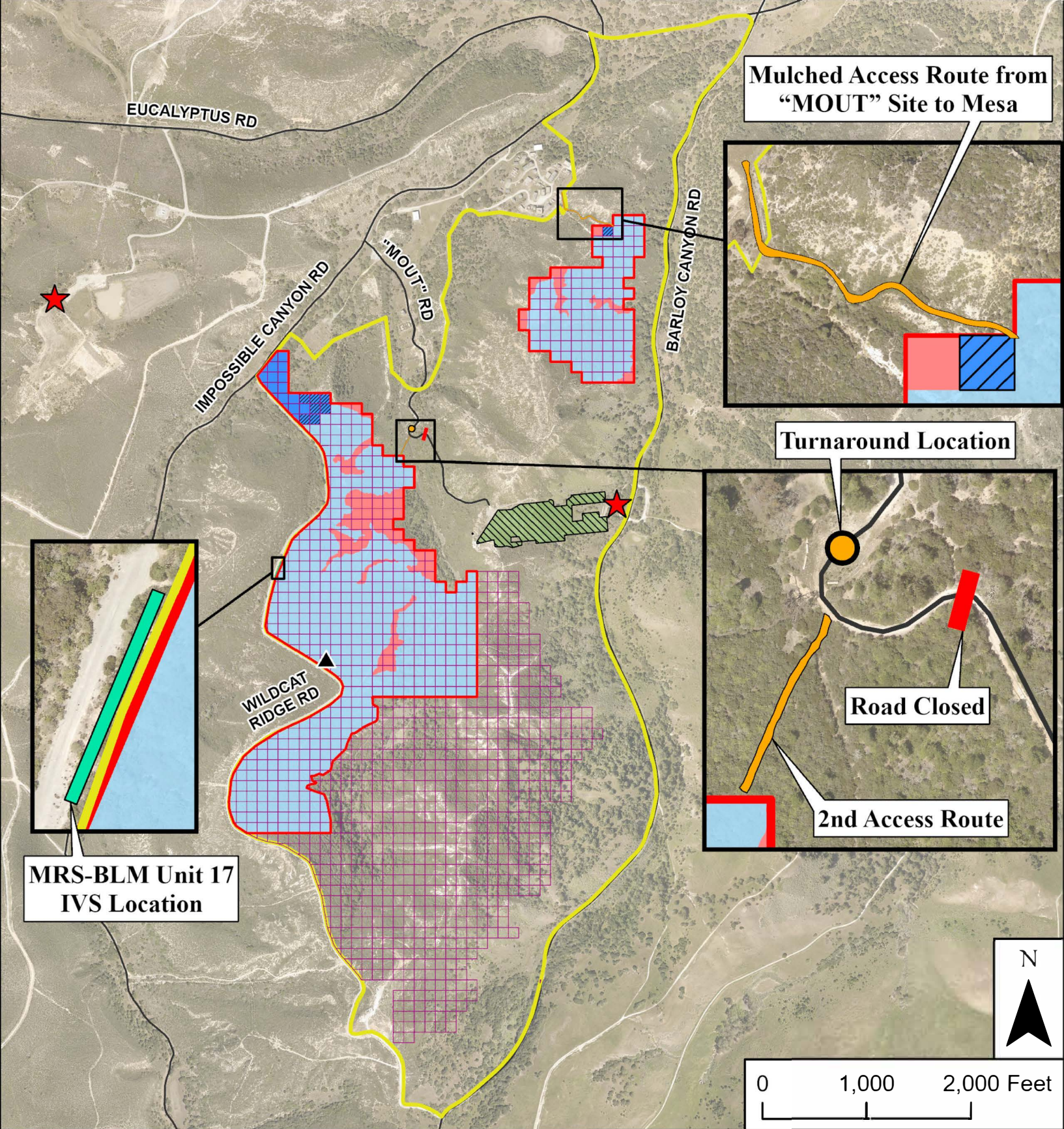


Figure 1



MRS-BLM Unit 17  
IVS Location

Mulched Access Route from  
"MOUT" Site to Mesa

Turnaround Location

Road Closed

2nd Access Route



## MRS-BLM Unit 17 Work Areas

- MRS-BLM Unit 17 Boundary
- 2025 Work Area
- Vegetation Cutting (Masticator)
- Vegetation Cutting (Hand Cut Only)
- Inaccessible Areas
- MRS-BLM Unit 17 Work Grids
- HMP Annuals Grids
- Access Routes
- IVS Location
- HA 34
- Mulch Stockpile Locations
- "MOUT" Road Turnaround Location
- Blow in Place (BIP) Location

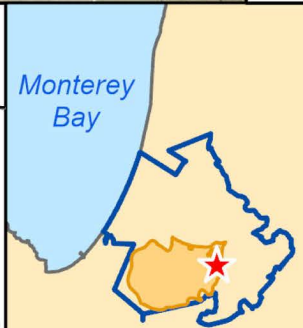


Figure 2

Imagery: 2022 Orthophotography

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## ***Tables***

**Table 1. 2025 Work Area Activity Acreages**

<b>Work Activities</b>			
<b>Mechanical Vegetation Mastication</b>	<b>Manual Vegetation Removal</b>	<b>Surface MEC Removal</b>	<b>Instrument Verification Strip (IVS)</b>
<b><i>BLM Area B Unit A Containment Lines</i></b>			
100.6	178.1	N/A	N/A
<b><i>MRS-BLM Unit 17</i></b>			
114.8	4.93	31.1	0.03

## ***Attachment A***

# ***Habitat Checklists (HCLs) for Work Completed in 2025***

1. BLM Area B Unit A Containment Lines
2. Unit 17 Mechanical and Manual Vegetation Removal
3. Unit 17 Munitions Response Activities – Technology-Aided Surface MEC Clearance
4. Unit 17 Munitions Response Activities – Instrument Verification Strip (IVS) Construction and Digital Geophysical Mapping (DGM) Survey

**HCL 1**

**BLM Area B Unit A Containment Lines**

## SITE HABITAT CHECKLIST

The following are requirements to minimize biological disturbances to protected species and habitat.

Please notify Shawn Wagoner, Harris Environmental Group, Inc, Ahtna Senior Biologist (925-487-7335), *before* proceeding if work tasks or work boundaries change, additional vegetation removal is necessary, vegetation cutting methods change, or any other conditions change. Field Supervisors must receive a copy of this checklist.

<b>SITE:</b>	BLM Area B, Unit A Containment Lines	<b>DATE:</b>	5/30/2025
<b>WORK TO BE CONDUCTED:</b>	Mechanical and manual vegetation removal within the primary, secondary and tertiary containment lines.		

<b>1. LAND USE:</b>	<input checked="" type="checkbox"/> <b>Habitat Reserve</b>	<input type="checkbox"/> <b>Development Area</b>	<input type="checkbox"/> <b>Other (specify):</b>
<b>2. LANDOWNER:</b>	<input checked="" type="checkbox"/> <b>Army</b>	<b>Location:</b>	
	<input checked="" type="checkbox"/> <b>BLM</b>	<b>Location:</b>	
	<input checked="" type="checkbox"/> <b>Other:</b>	<b>Location:</b>	Monterey County, City of Seaside and CSUMB

<b>3. ENDANGERED, THREATENED, RARE, OR HMP-LISTED SPECIES</b>	<input checked="" type="checkbox"/> <b>Yes</b> <input type="checkbox"/> <b>No</b> <input checked="" type="checkbox"/> <b>Flagged/Marked</b>
<b>Species:</b>	California tiger salamander (CTS), Black legless lizard (BLL), Western pond turtle (WPT), Monterey dusky-footed woodrat, Yadon’s piperia, Monterey spineflower, sand gilia and seaside bird’s beak
<b>Location:</b>	See attached map for known locations of HMP annual plants
<b>Grid Numbers:</b>	NA

<b>Restrictions:</b>	<p><b>All Areas</b></p> <ul style="list-style-type: none"> <li>➤ CTS encounters must be reported immediately to the Ahtna Senior Biologist and BRAC Biologist. Contact Shawn Wagoner (925-487-7335) or Thor Anderson (831-901-9394), or Bart Kowalski (832-595-5595) to document, handle or relocate CTS if encountered.</li> <li>➤ Staged equipment or stored materials should be stored away from ponds. Vehicles staged overnight in containment lines should be inspected before use.</li> <li>➤ Woodrat nests within the containment lines will be deconstructed under supervision of the Senior Biologist. Dismantling shall be conducted manually using rakes or other appropriate equipment to allow animals to escape harm. If a litter of young is found or suspected, nest material shall be replaced, and the nest left alone for 2-3 weeks before a recheck by the Senior Biologist to verify that young are capable of independent survival before proceeding with nest dismantling. Wood from the dismantled nests shall be removed from the containment lines.</li> <li>➤ Report all encounters of BLL and follow the BLL encounter protocol.</li> <li>➤ Western pond turtles encountered must be avoided and reported immediately to the Ahtna Senior Biologist and BRAC Biologist.</li> <li>➤ No vegetation removal shall occur from approximately February 1 to May 31 due to the presence of Monterey spineflower and sand gilia.</li> <li>➤ Staged equipment or stored materials will not be placed in areas of known Monterey spineflower, sand gilia, seaside bird’s beak or Yadon’s piperia. Staging of equipment and stockpile areas (i.e. chipped vegetation) shall be evaluated and approved by the BRAC Biologist and the Senior Biologist prior to use.</li> </ul>
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Form E-1

<b>4. VERNAL POOLS/PONDS PRESENT</b>		<input checked="" type="checkbox"/> <b>Yes</b>	<input type="checkbox"/> <b>No</b>	<input checked="" type="checkbox"/> <b>Flagged/Marked</b>
<b>Location:</b>	Unit A: Pond 41 and Pond 44. Surrounding ponds 11, 39, 56, 59, 60, 101EE, 101EW, 101W			
<b>Grid Numbers:</b>				
<b>Work Can Proceed in Pools/Ponds:</b>		<input type="checkbox"/> <b>Yes</b>	<input checked="" type="checkbox"/> <b>No</b>	
<b>Restrictions:</b>				
<ul style="list-style-type: none"> <li>➤ No work should be occurring within the interior of unit A, where ponds 41 and 44 are located.</li> <li>➤ Masticators shall not be permitted within 50 feet of vernal ponds. Small equipment, such as a skid steer or other manual equipment (i.e. chainsaws, handsaws, trimmers, loppers etc.) may be used to remove vegetation within vernal pools if necessary.</li> <li>➤ If the 50ft buffer of a vernal pool overlaps with a containment line, that overlap shall be staked and flagged (pink and black striped flagging) for avoidance in coordination with the Senior Biologist prior to vegetation removal within the area. Vernal ponds 11, 35, 56, 101EE and 101EW have 50 ft buffers that overlap with a containment line. See Figure 1. Natural Resources Map for ponds and 50ft pond buffers.</li> </ul>				

<b>5. VEGETATION REMOVAL</b>	
<input type="checkbox"/> <b>No Removal Needed</b>	<b>Location:</b>
<input checked="" type="checkbox"/> <b>Manual Removal Needed</b>	<b>Location:</b> Areas of dense oak woodland, areas with dense seaside bird's beak populations along Barloy Canyon Rd, within 50 feet of vernal ponds, and areas inaccessible to mechanical cutting.
<input checked="" type="checkbox"/> <b>Mechanical Removal Needed</b>	<b>Location:</b>
<input checked="" type="checkbox"/> <b>Wood Chip Piles Needed</b>	<b>Location: Range 37</b>
<input checked="" type="checkbox"/> <b>Wood Chips Used for Erosion Needed</b>	<b>Location: Range 37</b>
<b>Vegetation Removal Restrictions:</b>	
<ul style="list-style-type: none"> <li>➤ Masticators shall not be used in areas of dense oak woodland, within 50 feet of the vernal ponds, within other wetland area, or within HMP grids. Small equipment, such as a skid steer mower or manual equipment shall be used in areas where masticators are not permitted or are unable to access. See Figure 1. Natural Resources Map for ponds and 50ft pond buffers.</li> <li>➤ Boundaries of HMP grids within containment lines shall be staked and flagged (pink and black striped flagging) prior to vegetation cutting in the area to indicate areas that should be avoided to the greatest extent feasible by masticators. Hand cutting or skid steer mowing are the preferred methods of vegetation removal within HMP grids.</li> <li>➤ Areas of Yadon's piperia will be flagged off with pink/black flagging tape for a small exclusion 10 ft buffer to avoid tracking of heavy equipment within these areas. Hand cutting will be permitted in the buffers to remove vegetation. One small area of Yadon's piperia has been documented for avoidance (see Figure 1. Natural Resources Map).</li> <li>➤ In areas of seaside bird's beak along Barloy Cyn Road, only manual cutting will be permitted to minimize the impacts from mechanical equipment on known plant populations. Hand crews working within the seaside bird's beak patches shall avoid the plants as best as possible and cut no lower than 6 inches. The Senior Biologist will delineate these areas with pink/black flagging tape before crews begin work on this section of Barloy Cyn Road. The crews will also be instructed on the identification of seaside bird's beak to help avoid this species during manual cutting. See Figure 2. Seaside Bird's Beak Locations on Barloy Canyon Road.</li> <li>➤ Wetland areas, such as low depressions or mima mounds, across Fort Ord that are not the standard vernal pools but still support rare and sensitive wetland species shall be avoided to the greatest extent possible. Mima mounds in particular are susceptible to erosion from heavy equipment, so hand cutting (weed whacking) shall be used in these areas where feasible. If heavier machines must be used, only skid steers shall be operate in these areas and will minimize the number of turns to reduce erosion. See Figure 1. Natural Resources Map.</li> <li>➤ Coast live oak trees greater than 4" in diameter at breast height (DBH) in the secondary and tertiary containment lines shall not be removed. Removal of coast live oak trees smaller than 4" in diameter shall be minimized to the greatest extent feasible. Coast live oak trees may be limbed up to 8 feet to allow access beneath the trees. No branches larger than 4" shall be</li> </ul>	

## Form E-1

cut from coast live oak trees. Branches shall be cut all the way up to the next branch.

- Coast live oak trees in the primary containment line that are greater than 4" DBH may be removed per direction of burn boss and the Unit A SSWP.
- If nesting birds are discovered during vegetation removal, the Senior Biologist will be immediately notified and the nest will be avoided until eggs have hatched and chicks have fledged. A 50ft buffer will be created with pink/black flagging tape to ensure the nest is not disturbed.
- Standing Toro manzanita that were limbed and retained during 2017 MEC activities shall remain retained during 2025 MEC activities to the greatest extent feasible.
- Vegetation crews and operators shall receive additional training from the Senior Biologist in Toro manzanita identification and shall cut around the large, previously retained individuals that have been flagged. If necessary, the retained Toro manzanitas may be limbed up to 8 feet to allow access beneath the individuals for future surface clearance.
- Chipped material will be used for erosion control where feasible and in coordination with BRAC and the Senior Biologist.
- Piling of cut vegetation in areas known to support Monterey spineflower, sand gilia, seaside bird's beak or Yadon's piperia (see Natural Resources Map Figure 1) shall be reduced to the greatest extent feasible. Piling of vegetation material shall avoid established HMP grids, which will be flagged and staked prior to vegetation removal.

### 6. WOOD CHIP PILE INSPECTION:

- Stockpiles will be located at Range 37 (see Figure 1. Natural Resources Map) in coordination with the BRAC Biologist and Senior Biologist. The stockpile area at Range 37 shall not be in the way of munitions sorting or other activities. Stockpiles will be inspected on a regular basis to monitor heat levels to avoid risks for combustion. Where feasible, stockpiles will be assembled into smaller piles versus one large pile.
- Stockpiles at Range 37 will be bounded by silt fencing to exclude CTS from entering these areas. This will be directed by and coordinated with BRAC, the Senior Biologist and Ahtna. The Senior Biologist will maintain and monitor silt fencing around stockpiles.

### 7. EROSION CONCERNS:

- Heavy equipment should minimize topsoil disturbance as much as possible, avoid making hard turns, and enter and exit the site from a limited number of routes. Equipment operators should minimize driving parallel to the slope to the greatest extent feasible to prevent creating rills.

### 8. SITE ACCESS:

- Vehicle access should be limited to existing roads only as shown on Figure 1. Natural Resources Map.
- Equipment and vehicles transported from site to site must be along existing roads only.
- Equipment traffic to access stockpiled vegetation shall be minimized to the greatest extent feasible.
- Access routes will be located within existing roads, pre-existing paved, graded, or disturbed areas; areas known to be unoccupied by HMP annual species (based on previous surveys); areas without vernal pools; and shall avoid going parallel to steep slopes to prevent erosion.

### 9. INVASIVE SPECIES:

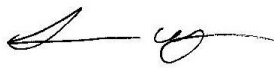
- All equipment coming from off-site must be pressure-washed prior to entering habitat reserve areas to reduce the potential for spread of invasive plant species.
- Masticators shall not be used within the areas known to be infested with Klamath weed (see Figure 4. Klamath Weed Locations).

➤ Areas of known locations of Klamath weed will be flagged off with pink/black flagging tape and the Senior Biologist will show these areas to vegetation crews prior to work (see Figure 3. Klamath Weed Locations). During vegetation removal within areas infested with Klamath weed the crew shall clean boots and equipment daily before leaving the area to reduce spread of invasive species. Soil and plant material shall be removed using boot brushes or other types of brushes. Decon of hand tools and boots shall be completed within the work area. Any caked-on soils or material that cannot be removed using brushes shall be washed off with water – washing can be completed at the Joe Lloyd Way Compound; however, if washing of vehicles or equipment is necessary, it must be completed on-site prior to leaving the area.

**10. ADDITIONAL SITE CONCERNS:**

➤ Only mechanical vegetation cutting equipment and gas powered hand tools may be refueled in the field. All refueling of heavy equipment will be conducted on the approved roads. Spill control materials such as absorbent pads, noncombustible granular absorbent material, and polyethylene sheeting, will be immediately available to all refueling crews. Ahtna Project Managers and the Senior Biologist will check that vehicles and equipment have the appropriate spill control materials onsite. No refueling shall occur within 400 feet of the vernal ponds.

**This checklist has been read, approved, and signed by the following:**

<b>Ahtna Senior Biologist:</b>		<b>Date:</b> <u>5/30/2025</u>
<b>Ahtna CQCS or UXOQCS:</b>	<i>Bruce McClain</i>	<b>Date:</b> <u>5/30/2025</u>
<b>BRAC Biologist:</b>	<i>Bart Kowalski</i>	<b>Date:</b> <u>5/30/2025</u>



Seaside Bird's Beak  
Barloy Canyon Road

BLM Area B Unit A  
Secondary/Tertiary  
Containment Line  
2025

- Secondary/Tertiary Containment Line
- Seaside Bird's Beak (Hand Cut Only)

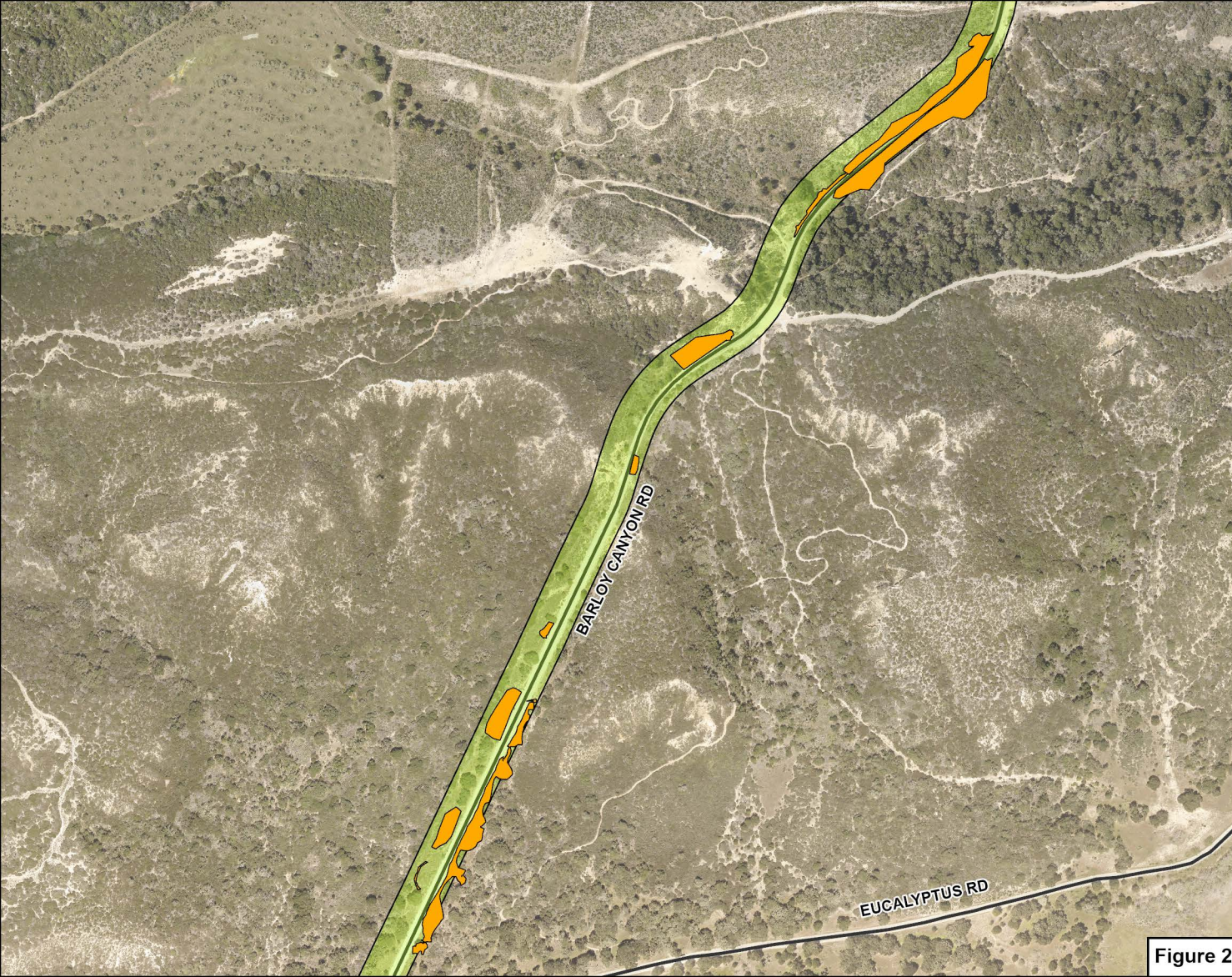
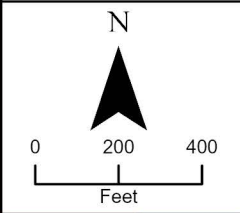
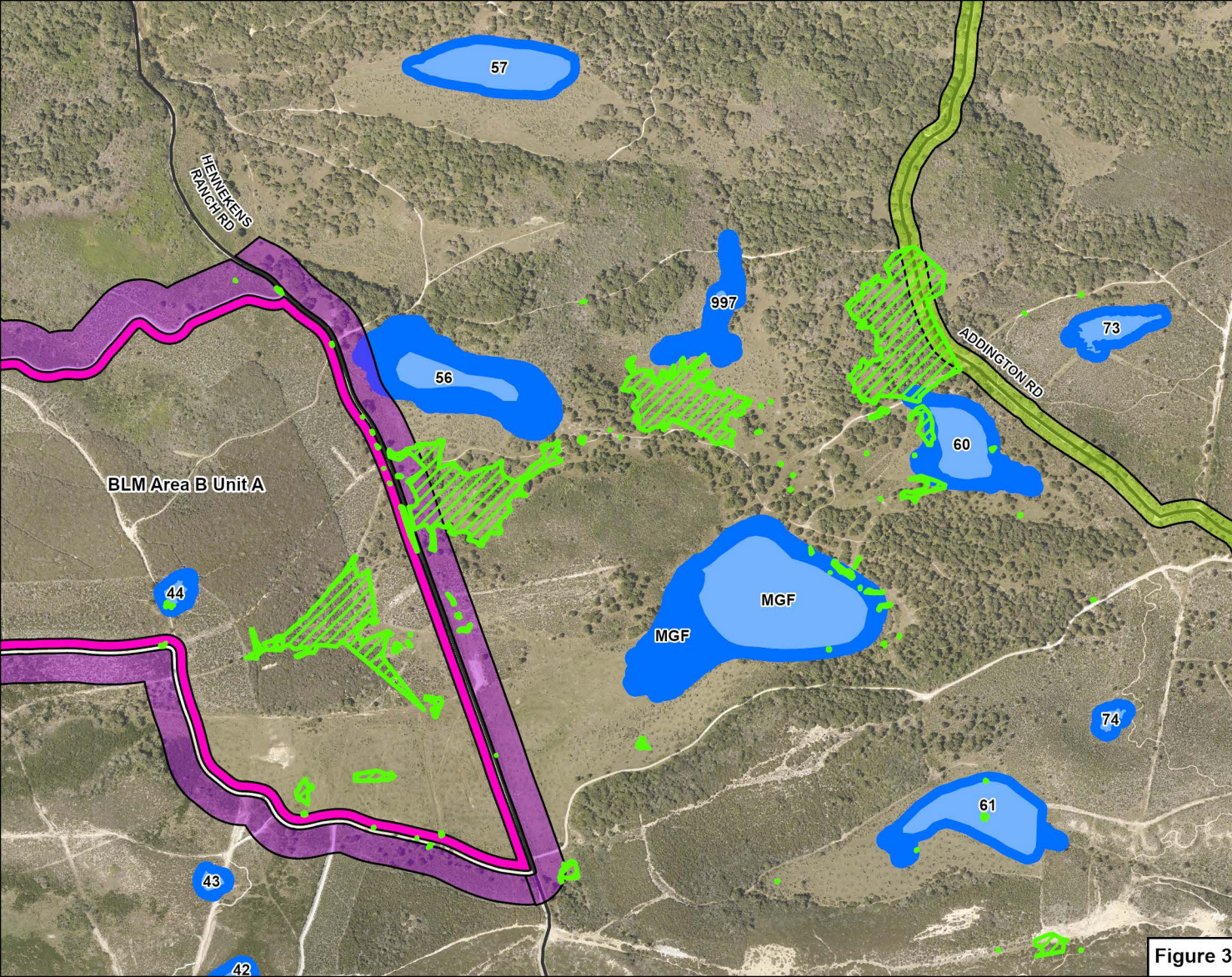

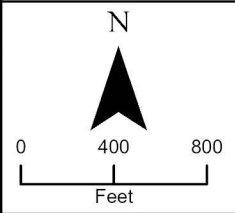


Figure 2 Imagery: 2022 Orthophotography  
Map by: Filipp Kashirtsev

**Klamath Weed  
Locations Within  
BLM Area B Unit A  
Containment Lines  
2025**



-  Primary Containment Line
-  Secondary Containment Line
-  Tertiary Containment Line
-  Adjacent/Additional Mastication
-  Klamath Weed
-  Ponds
-  Maximum Pond Extent 50ft Buffer



**Figure 3**

Imagery: 2022 Orthophotography  
Map by: Filipp Kashitsev

**HCL 2**

**Unit 17 Mechanical and Manual Vegetation Removal**

## SITE HABITAT CHECKLIST

The following are requirements to minimize biological disturbances to protected species and habitat.

Please notify Shawn Wagoner, Harris Environmental Group, Inc, Ahtna Senior Biologist (925-487-7335), before proceeding if work tasks or work boundaries change, additional vegetation removal is necessary, vegetation cutting methods change, or any other conditions change. Field Supervisors must receive a copy of this checklist.

<b>SITE:</b>	Unit 17	<b>DATE:</b>	7/31/2025
<b>WORK TO BE CONDUCTED:</b>	Mechanical and manual vegetation removal within Unit 17.		

<b>1. LAND USE:</b>	<input checked="" type="checkbox"/> <b>Habitat Reserve</b>	<input type="checkbox"/> <b>Development Area</b>	<input type="checkbox"/> <b>Other (specify):</b>
<b>2. LANDOWNER:</b>	<input checked="" type="checkbox"/> <b>Army</b>	<b>Location:</b>	
	<input type="checkbox"/> <b>BLM</b>	<b>Location:</b>	
	<input type="checkbox"/> <b>Other:</b>	<b>Location:</b>	

<b>3. ENDANGERED, THREATENED, RARE, OR HMP-LISTED SPECIES</b>	<input checked="" type="checkbox"/> <b>Yes</b> <input type="checkbox"/> <b>No</b> <input checked="" type="checkbox"/> <b>Flagged/Marked</b>
<b>Species:</b>	California tiger salamander (CTS), California red-legged frog (CRLF), black legless lizard (BLL), Western pond turtle (WPT), Monterey dusky-footed woodrat, Yaden's piperia, Monterey spineflower, sand gilia, seaside bird's beak, and Habitat Management Plan (HMP) shrubs
<b>Location:</b>	See attached map for known locations of HMP annual plants and grids
<b>Grid Numbers:</b>	NA

<b>Restrictions:</b>	<p><b>All Areas</b></p> <ul style="list-style-type: none"> <li>➤ CTS and CRLF encounters must be reported immediately to the Ahtna Senior Biologist and BRAC Biologist. Contact Shawn Wagoner (925-487-7335) or Thor Anderson (831-901-9394), or Bart Kowalski (832-595-5595) to document, handle or relocate CTS or CRLF if encountered. Only USFWS approved biologists can handle CTS and CRLF.</li> <li>➤ Staged equipment or stored materials should be stored 100ft away from ponds. Vehicles staged overnight should be inspected before use. If substantial rainfall (greater than 0.5 inch of rain in a 24-hour period) occurs, work activities that are in or adjacent to upland or breeding habitat must cease until the Service-approved biologist has searched the work area for dispersing salamanders. Work activities may resume once the Service-approved biologist has determined that California tiger salamanders that are likely to be killed or injured by work activities are no longer present in the work area.</li> <li>➤ Woodrat nests within Unit 17 shall be avoided by heavy equipment and hand cutting at the greatest extent feasibly. If dismantling of a nest is required, it shall be conducted by the Ahtna Senior Biologist using manual equipment to allow animals to escape harm.</li> <li>➤ Report all encounters of BLL and follow the BLL encounter protocol.</li> <li>➤ Western pond turtles encountered must be avoided and reported immediately to the Ahtna Senior Biologist and BRAC Biologist.</li> </ul>
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- If nesting birds are discovered during vegetation removal, the Senior Biologist will be immediately notified and the nest will be avoided until eggs have hatched and chicks have fledged. A 50ft buffer will be created with pink/black flagging tape to ensure the nest is not disturbed.
- No vegetation removal shall occur from approximately February 1 to May 31 due to the presence of Monterey spineflower and sand gilia.
- Staged equipment or stored materials will not be placed in areas of known Monterey spineflower, sand gilia, seaside bird's beak or Yadon's piperia. Staging of equipment and stockpile areas (i.e. chipped vegetation) shall be evaluated and approved by the BRAC Biologist and the Senior Biologist prior to use.

<b>4. VERNAL POOLS/PONDS PRESENT</b>		<input checked="" type="checkbox"/> <b>Yes</b>	<input type="checkbox"/> <b>No</b>	<input checked="" type="checkbox"/> <b>Flagged/Marked</b>
<b>Location:</b>	Unit 17: Ponds 14 & 75			
<b>Grid Numbers:</b>	TBD			
<b>Work Can Proceed in Pools/Ponds:</b>		<input checked="" type="checkbox"/> <b>Yes</b>	<input type="checkbox"/> <b>No</b>	
<b>Restrictions:</b>				
➤ No work should occur within Pond 75 unless the pool is dry, as determined by the Ahtna Senior Biologist.				
➤ Masticators shall not be permitted within 50 feet of Pond 75. Manual equipment (i.e. chainsaws, handsaws, trimmers, loppers etc.) may be used to remove vegetation within Pond 75 and its 50ft buffer if necessary.				
➤ Pond 14 is outside the planned MEC remedial action area and will not be impacted.				

<b>5. VEGETATION REMOVAL</b>	
<input type="checkbox"/> <b>No Removal Needed</b>	<b>Location: NA</b>
<input checked="" type="checkbox"/> <b>Manual Removal Needed</b>	<b>Location: Areas of dense oak woodland, within 50 feet of vernal ponds, and areas inaccessible to mechanical cutting.</b>
<input checked="" type="checkbox"/> <b>Mechanical Removal Needed</b>	<b>Location: Areas of open oak woodland and chaparral</b>
<input checked="" type="checkbox"/> <b>Wood Chip Piles Needed</b>	<b>Location: Range 34, 37 or another suitable location</b>
<input checked="" type="checkbox"/> <b>Wood Chips Used for Erosion Needed</b>	<b>Location: Range 34, 37 or another suitable location</b>
<b>Vegetation Removal Restrictions:</b>	
➤ Masticators shall not be used in areas of dense oak woodland, within 50 feet of the vernal ponds, or within HMP grids. Manual equipment shall be used in areas where masticators are not permitted or are unable to access. See Figure 1 Natural Resources Map for HMP grids, ponds and 50ft pond buffers.	
➤ Boundaries of HMP grids within and near cut areas shall be flagged (pink and black striped flagging) prior to vegetation cutting to indicate areas that should be avoided to the greatest extent feasible by masticators. Hand cutting is the preferred methods of vegetation removal within HMP grids if. See Figure 1. Natural Resources Map for HMP grids that overlap with work grids.	
➤ Areas of Yadon's piperia that are found during work in Unit 17 will be flagged off with pink/black flagging tape for a small 5 ft exclusion buffer to avoid tracking of heavy equipment within these areas. Hand cutting will be permitted in the buffers to remove vegetation. Historical locations of Yadon's piperia are presented in Figure 1. Natural Resources Map.	
➤ Wetland areas, such as Pond 75, shall only be cut manually to reduce impacts to vernal pool function	

and topography. See Figure 1. Natural Resources Map.

- Coast live oak trees greater than 4" in diameter at breast height (DBH) shall not be removed. Removal of coast live oak trees smaller than 4" in diameter shall be minimized to the greatest extent feasible. Coast live oak trees may be limbed up to **6 feet** to allow safe access for instrument aided surface MEC removal beneath the trees. No branches larger than 4" shall be cut from coast live oak trees. Branches shall be cut all the way up to the next branch.
- Mature, tree sized Toro manzanitas that provide an important seed source for the species shall be preserved to the greatest extent feasible. The Ahtna Senior Biologist will coordinate with the masticator operator to determine extent of Toro manzanita retention. This will likely be based on field conditions such as access and safety, and as the masticator works through the grids. Masticator operators shall receive additional training from the Ahtna Senior Biologist in Toro manzanita identification.
- Toro manzanitas that are retained shall be limbed up to **6 feet** only to allow safe access for instrument aided surface MEC removal beneath the shrubs.
- Manually cut material shall be managed in the following ways at the greatest extent possible:
  - Chipped and broadcast on site as erosion control where feasible and appropriate. Chipped material will not be broadcast into grids with known presence of Monterey spineflower, sand gilia, seaside bird's beak or Yadon's piperia (Fig 1.);
  - Hauled off site via tracked equipment with a grappler to a designated location to be chipped into a truck, then stockpiled at Range 34, Range 37 or another suitable location;
  - Placed in accessible areas on site and the masticator shall masticate the vegetation until small enough to avoid creating thick mats.
- Piling of cut vegetation in areas known to support Monterey spineflower, sand gilia, seaside bird's beak or Yadon's piperia shall be reduced to the greatest extent feasible. Piling of vegetation material shall avoid established HMP grids, which will be flagged prior to vegetation removal (see Figure 1 Natural Resources Map).

#### **6. WOOD CHIP PILE INSPECTION:**

- Stockpiles will be located at Range 34, Range 37 (see Figure 1 Natural Resources Map) or another suitable location in coordination with the BRAC and Ahtna Senior Biologist. Stockpiles will be inspected on a regular basis to monitor heat levels to avoid risks for combustion. Where feasible, stockpiles will be assembled into smaller piles versus one large pile.
- If stockpiles at Range 34 and 37 remain into the wet season they will be bounded by silt fencing to exclude CTS from entering these areas. This will be directed by and coordinated with BRAC, the Senior Biologist and Ahtna. The Ahtna Senior Biologist will maintain and monitor silt fencing around stockpiles.

#### **7. EROSION CONCERNS:**

- Heavy equipment should minimize topsoil disturbance as much as possible, avoid making hard turns, and enter and exit the site from a limited number of routes. Equipment operators should minimize driving parallel to the slope to the greatest extent feasible to prevent creating rills.
- The masticator shall not extend its boom to the maximum length up steep slopes to avoid risk of destabilizing said slopes. This will also preserve habitat and seed bank.

- During the project Ahtna's Senior Biologist will monitor the presence and extent of existing and newly formed rills, gullies, and changes in drainage patterns.
- Erosion control actions will be implemented and documented by Ahtna's Senior Biologist. Erosion control measures can include the installation of jute netting, coir logs or straw wattles, silt fencing, woodchips from vegetation cutting, and other measures as needed.
- Erosion control materials containing plastic monofilament netting or other similar materials which may entrap CTS or other wildlife shall not be used
- If erosion control materials must temporarily be stored at work sites near breeding pools, the materials shall be elevated on pallets, and to enclose mulch piles with silt fences to exclude animals.
- Ahtna's Senior Biologist will monitor rainfall events and windy periods for erosion concerns and document the rainfall and/or wind induced erosion concerns and erosion control actions completed.

**8. SITE ACCESS:**

- Vehicle and equipment access routes to the site should be limited to existing roads (i.e Impossible Canyon Rd, Wildcat Ridge Rd, Barloy Canyon Rd for access to HA 34, or through the MOUT), pre-existing paved, graded or disturbed areas only as shown on Figure 1 Natural Resources Map. No access is allowed past the turnout on the MOUT road leading to the backside of Range 34.
- Equipment traffic to access stockpiled vegetation within Unit 17 shall be minimized to the greatest extent feasible.
- Unit 17 access (i.e. accessing the interior of Unit 17 for veg cutting, surface clearance and DGM) will be within areas known to be unoccupied by HMP annual species (based on previous surveys); areas without vernal pools; and shall avoid going parallel to steep slopes to prevent erosion.

**9. INVASIVE SPECIES:**

- All equipment coming from off-site must be pressure-washed prior to entering habitat reserve areas to reduce the potential for spread of invasive plant species.
- Masticators shall not be used within the areas known to be infested with Klamath weed. No areas of Klamath weed are known within Unit 17 at this time.
- If areas of Klamath weed are discovered, they will be flagged off with pink/black flagging tape. During vegetation removal within areas infested with Klamath weed, crews shall clean (by washing) boots and equipment daily before leaving the area to reduce spread of invasive species.

**10. ADDITIONAL SITE CONCERNS:**

- Only mechanical vegetation cutting equipment and gas powered hand tools may be refueled in the field. All refueling of vehicles and heavy equipment will be conducted on the approved roads. Spill control materials such as absorbent pads, noncombustible granular absorbent material, and polyethylene sheeting, will be immediately available to all refueling crews. Ahtna's Site Project Manager, and Senior Biologist will check that vehicles and equipment have the appropriate spill control materials onsite. No refueling shall occur within 400 feet of the vernal ponds.

This checklist has been read, approved, and signed by the following:

Ahtna Senior Biologist:  Date: 7/31/2025

Ahtna CQCS or UXOQCS: Bruce McClain Date: 7/31/2025

BRAC Biologist: Bart Kowalski Date: 7/31/2025

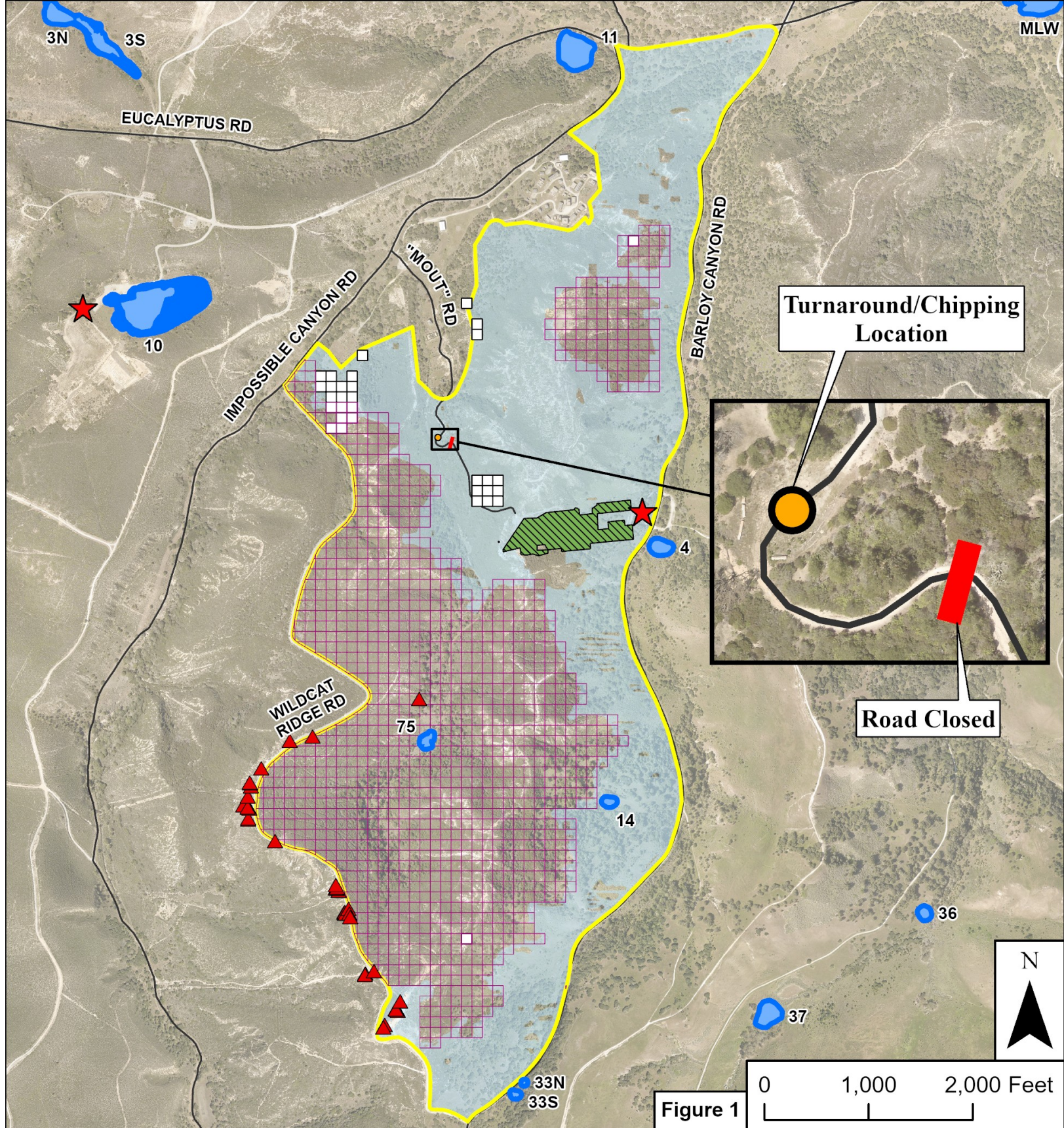


Figure 1

## Natural Resources Unit 17 2025

- Unit 17 Boundary
- Full and Partial Work Grids
- HMP Annuals Grids
- Ponds
- Max Pond Extent 50ft Buffer
- Eucalyptus Fire Area
- HA 34
- Historic Piperia Locations
- Mulch Stockpile Locations
- "MOUT" Road Turnaround/  
Chipping Location
- "MOUT" Road Closure



Imagery: 2022 Orthophotography  
Map by: Filipp Kashirtsev

**HCL 3**

**Unit 17 Munitions Response Activities – Technology-Aided Surface MEC Clearance**

## SITE HABITAT CHECKLIST

The following are requirements to minimize biological disturbances to protected species and habitat.

Please notify Shawn Wagoner, Harris Environmental Group, Inc, Ahtna Senior Biologist (925-487-7335), before proceeding if work tasks or work boundaries change, additional vegetation removal is necessary, vegetation cutting methods change, or any other conditions change. Field Supervisors must receive a copy of this checklist.

<b>SITE:</b>	Unit 17	<b>DATE:</b>	9/25/2025
<b>WORK TO BE CONDUCTED:</b>	Unit 17 Munitions Response Activities - Technology-Aided Surface MEC Clearance		

<b>1. LAND USE:</b>	<input checked="" type="checkbox"/> <b>Habitat Reserve</b>	<input type="checkbox"/> <b>Development Area</b>	<input type="checkbox"/> <b>Other (specify):</b>
<b>2. LANDOWNER:</b>	<input checked="" type="checkbox"/> <b>Army</b>	<b>Location:</b>	Unit 17
	<input type="checkbox"/> <b>BLM</b>	<b>Location:</b>	
	<input type="checkbox"/> <b>Other:</b>	<b>Location:</b>	

<b>3. ENDANGERED, THREATENED, RARE, OR HMP-LISTED SPECIES</b>	<input checked="" type="checkbox"/> <b>Yes</b> <input type="checkbox"/> <b>No</b> <input checked="" type="checkbox"/> <b>Flagged/Marked</b>
<b>Species:</b>	California tiger salamander (CTS), California red-legged frog (CRLF), black legless lizard (BLL), Western pond turtle (WPT), Monterey dusky-footed woodrat, Yaden's piperia, Monterey spineflower, sand gilia, seaside bird's beak, and Habitat Management Plan (HMP) shrubs
<b>Location:</b>	See attached map for known locations of HMP annual plants and grids
<b>Grid Numbers:</b>	NA

<b>Restrictions:</b>	
<b>All Areas</b>	
➤	CTS and CRLF encounters must be reported immediately to the Ahtna Senior Biologist and BRAC Biologist. Contact Shawn Wagoner (925-487-7335), Thor Anderson (831-901-9394), or Bart Kowalski (832-595-5595) to document, handle or relocate CTS or CRLF if encountered. Only USFWS approved biologists can handle CTS and CRLF.
➤	Staged equipment or stored materials should be stored 100ft away from ponds. Vehicles staged overnight should be inspected before use.
➤	If substantial rainfall (greater than 0.5 inch of rain in a 24-hour period) occurs, work activities that are in or adjacent to upland or breeding habitat must cease until the Service-approved biologist has searched the work area for dispersing salamanders. Work activities may resume once the Service-approved biologist has determined that CTS that are likely to be impacted by work activities are no longer present in the work area.
➤	No work shall occur in areas known to support Monterey spineflower and/or sand gilia from approximately February 1 to May 31. See Figure 1 Natural Resources Map.
➤	Woodrat nests within Unit 17 removal shall be deconstructed and relocated by the Senior Biologist.
➤	Report all encounters of BLL and follow the BLL encounter protocol.

Form E-1

- WPT encountered must be avoided and reported immediately to the Ahtna Senior Biologist and BRAC Biologist.
- If nesting birds are discovered during munitions response activities, the Ahtna Senior Biologist will be immediately notified and the nest will be avoided until eggs have hatched and chicks have fledged. A 50ft buffer will be created with pink/black flagging tape to ensure the nest is not disturbed.
- Staged equipment or stored materials will not be placed in areas of known Monterey spineflower, sand gilia, seaside bird's beak or Yadon's piperia (see Figure 1 Natural Resources Map). Staging of equipment shall be evaluated and approved by the Ahtna Senior Biologist prior to use.

<b>4. VERNAL POOLS/PONDS PRESENT</b>		<input checked="" type="checkbox"/> <b>Yes</b>	<input type="checkbox"/> <b>No</b>	<input checked="" type="checkbox"/> <b>Flagged/Marked</b>
<b>Location:</b>	Unit 17: Ponds 14 & 75			
<b>Grid Numbers:</b>	B3D9B3, B3D9B4, B3D9C4, B3D9A3			
<b>Work Can Proceed in Pools/Ponds:</b>		<input checked="" type="checkbox"/> <b>Yes</b>	<input type="checkbox"/> <b>No</b>	
<b>Restrictions:</b>				
➤ No work should occur within Pond 75 unless the pool is dry, as determined by the Ahtna Senior Biologist.				
➤ Pond 14 is outside the planned MEC remedial action area and will not be impacted.				

<b>5. VEGETATION REMOVAL</b>	
<input checked="" type="checkbox"/> <b>No Removal Needed</b>	<b>Location:</b> Unit 17
<input type="checkbox"/> <b>Manual Removal Needed</b>	<b>Location:</b>
<input type="checkbox"/> <b>Mechanical Removal Needed</b>	<b>Location:</b>
<input type="checkbox"/> <b>Wood Chip Piles Needed</b>	<b>Location:</b>
<input type="checkbox"/> <b>Wood Chips Used for Erosion Needed</b>	<b>Location:</b>
<b>Vegetation Removal Restrictions:</b>	
➤ Vegetation cutting is being conducted under a separate definable feature of work and is not anticipated during surface MEC removal. If a situation arises where vegetation is needed to be removed during surface MEC removal activities, the Ahtna Senior Biologist will be notified immediately.	
➤ If areas of Yadon's piperia are found during work in Unit 17 they will be flagged off with pink/black flagging tape for a small 5 ft exclusion buffer to avoid tracking of heavy equipment within these areas.	
➤ Coast live oak trees that were retained during manual vegetation cutting shall be preserved to the greatest extent feasible. If further limbing of oak trees is required during surface MEC removal to allow for access to the ground surface, the Ahtna Senior Biologist will be notified prior to any cutting.	
➤ Mature, tree sized Toro manzanitas that provide an important seed source for the species that were retained during vegetation removal shall be preserved to the greatest extent feasible. If further limbing of Toro manzanita is required during surface MEC removal to allow for access to the ground surface, the Ahtna Senior Biologist will be notified prior to any cutting.	

**6. EROSION CONCERNS:**

- If heavy equipment is needed for any reason during surface MEC removal, disturbance to topsoil shall be minimized to the greatest extent possible by avoiding hard turns, and entering and exiting the site from a limited number of routes. Equipment operators should minimize driving parallel to the slope to the greatest extent feasible to prevent creating rills.
- During surface MEC removal Ahtna's Senior Biologist will monitor the presence and extent of existing and newly formed rills, gullies, and changes in drainage patterns.
- Erosion control actions will be implemented and documented by Ahtna's Senior Biologist. Erosion control measures can include the installation of jute netting, coir logs or straw wattles, silt fencing, woodchips from vegetation cutting, and other measures as needed.
- Erosion control materials containing plastic monofilament netting or other similar materials which may entrap CTS or other wildlife shall not be used.
- If erosion control materials must temporarily be stored at work sites near breeding pools, the materials shall be elevated on pallets, and mulch piles will be enclosed with silt fencing to exclude wildlife.
- Ahtna's Senior Biologist will monitor rainfall events and windy periods for erosion concerns and document the rainfall and/or wind induced erosion concerns and erosion control actions completed.

**7. SITE ACCESS:**

- Vehicle and equipment access routes to the site should be limited to existing roads (i.e. Impossible Canyon Rd, Wildcat Ridge Rd, Barloy Canyon Rd, or through the MOUT). No access is allowed past the turnout on the MOUT road leading to the backside of Range 34. See Figure 1 Natural Resources Map.
- Unit 17 access for surface MEC removal will be within areas known to be unoccupied by HMP annual species (based on previous surveys); areas without vernal pools; and shall avoid going parallel to steep slopes to prevent erosion.


**8. INVASIVE SPECIES:**

- All equipment coming from off-site must be pressure-washed prior to entering habitat reserve areas to reduce the potential for spread of invasive plant species.
- If areas of Klamath weed and/or Jubata grass are discovered, they will be flagged off with pink/black flagging tape. During surface MEC removal within areas infested with Klamath weed and/or Jubata grass, crews shall clean (by washing) boots and equipment daily before leaving the area to reduce spread of invasive species.

**9. ADDITIONAL SITE CONCERNS:**

- All refueling of vehicles and equipment will be conducted off site. Spill control materials such as absorbent pads, noncombustible granular absorbent material, and polyethylene sheeting, will be immediately available to all refueling crews. Ahtna's Site Project Manager, and Senior Biologist will check that vehicles and equipment have the appropriate spill control materials onsite. No refueling shall occur within 400 feet of the vernal ponds.

This checklist has been read, approved, and signed by the following:

Ahtna Senior Biologist:  Date: 9/25/2025

Ahtna CQCS or UXOQCS: Bruce McClain Date: 9/25/2025

BRAC Biologist: \_\_\_\_\_ Date: \_\_\_\_\_

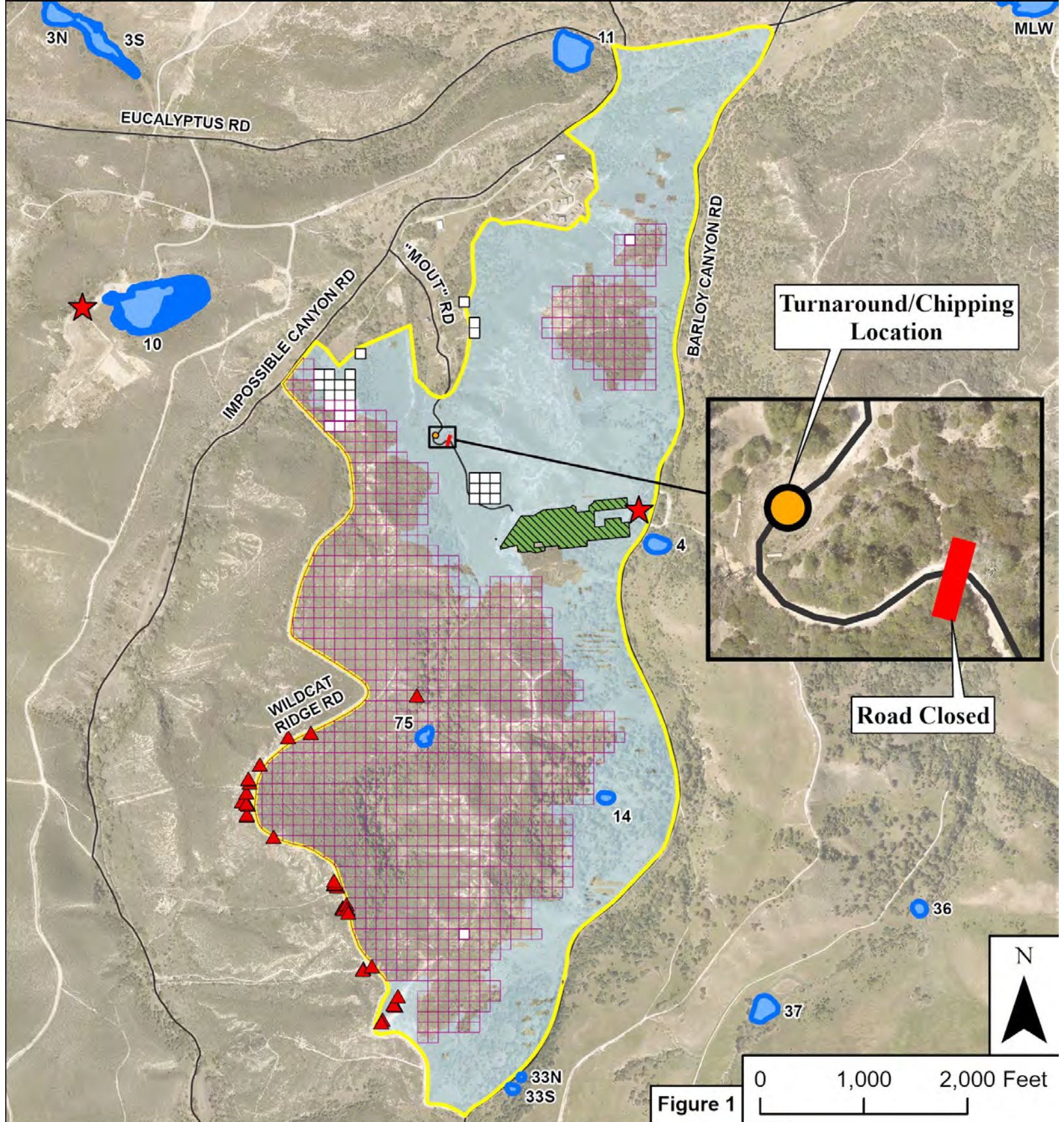
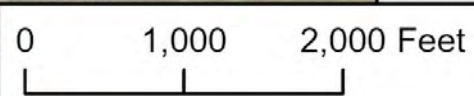


Figure 1



### Natural Resources Unit 17 2025

- Unit 17 Boundary
- Full and Partial Work Grids
- HMP Annuals Grids
- Ponds
- Max Pond Extent 50ft Buffer
- Eucalyptus Fire Area
- HA 34
- Historic Piperia Locations
- Mulch Stockpile Locations
- "MOUT" Road Turnaround/  
Chipping Location
- "MOUT" Road Closure



Imagery: 2022 Orthophotography  
Map by: Filipp Kashitsev

**HCL 4**

**Unit 17 Munitions Response Activities – Instrument Verification Strip (IVS) Construction and Digital Geophysical Mapping (DGM) Survey**

## SITE HABITAT CHECKLIST

The following are requirements to minimize biological disturbances to protected species and habitat.

Please notify Shawn Wagoner, Harris Environmental Group, Inc, Ahtna Senior Biologist (925-487-7335), before proceeding if work tasks or work boundaries change, additional vegetation removal is necessary, vegetation cutting methods change, or any other conditions change. Field Supervisors must receive a copy of this checklist.

<b>SITE:</b>	Unit 17	<b>DATE:</b>	12/3/2025
<b>WORK TO BE CONDUCTED:</b>	Unit 17 Munitions Response Activities - Instrument Verification Strip (IVS) Construction and Digital Geophysical Mapping (DGM) Survey		

<b>1. LAND USE:</b>	<input checked="" type="checkbox"/> <b>Habitat Reserve</b>	<input type="checkbox"/> <b>Development Area</b>	<input type="checkbox"/> <b>Other (specify):</b>
<b>2. LANDOWNER:</b>	<input checked="" type="checkbox"/> <b>Army</b>	<b>Location:</b>	Unit 17
	<input type="checkbox"/> <b>BLM</b>	<b>Location:</b>	
	<input type="checkbox"/> <b>Other:</b>	<b>Location:</b>	

<b>3. ENDANGERED, THREATENED, RARE, OR HMP-LISTED SPECIES</b>	<input checked="" type="checkbox"/> <b>Yes</b> <input type="checkbox"/> <b>No</b> <input checked="" type="checkbox"/> <b>Flagged/Marked</b>
<b>Species:</b>	California tiger salamander (CTS), California red-legged frog (CRLF), black legless lizard (BLL), Western pond turtle (WPT), Monterey dusky-footed woodrat, Yaden's piperia, Monterey spineflower, sand gilia, seaside bird's beak, and Habitat Management Plan (HMP) shrubs
<b>Location:</b>	See attached map for known locations of HMP annual plants and grids
<b>Grid Numbers:</b>	NA

<b>Restrictions:</b>	
<b>All Areas</b>	
➤	CTS and CRLF encounters must be reported immediately to the Ahtna Senior Biologist and BRAC Biologist. Contact USFWS approved Biologists Shawn Wagoner (925-487-7335), Thor Anderson (831-901-9394), or Bart Kowalski (832-595-5595) to document, handle or relocate CTS or CRLF if encountered. Only USFWS approved biologists can handle CTS and CRLF.
➤	If substantial rainfall (greater than 0.5 inch of rain in a 24-hour period) occurs, work activities that are in or adjacent to upland or breeding habitat must cease until the Service-approved biologist has searched the work area for dispersing salamanders. Work activities may resume once the Service-approved biologist has determined that CTS that are likely to be impacted by work activities are no longer present in the work area.
➤	If IVS excavations or trenches greater than 6 inches deep and within 1.24 miles of a known or potential breeding pool remain open overnight, ramps and/or boards will be provided to allow CTS to escape or to provide them cover. Inspections and conservation measures for IVS excavations and trenches will be performed by the Senior Biologist each morning before work begins.
➤	Staged equipment or stored materials should be stored 100ft away from ponds. Vehicles staged overnight should be inspected before use.
➤	No work shall occur in areas known to support Monterey spineflower and/or sand gilia from approximately February 1 to May 31. See Figure 1 Natural Resources Map.

- Woodrat nests within Unit 17 DGM survey areas shall not be removed unless absolutely necessary. If removal is necessary the Senior Biologist will be notified immediately for support.
- Report all encounters of BLL and follow the BLL encounter protocol.
- WPT encountered must be avoided and reported immediately to the Ahtna Senior Biologist and BRAC Biologist.
- If nesting birds are discovered during munitions response activities, the Ahtna Senior Biologist will be immediately notified and the nest will be avoided until eggs have hatched and chicks have fledged. A 50ft buffer will be created with pink/black flagging tape to ensure the nest is not disturbed.
- The IVS will not be constructed in in areas of known Monterey spineflower, sand gilia, seaside bird’s beak or Yadon’s piperia (see Figure 1 Natural Resources Map). Placement of the IVS shall be evaluated and approved by the Ahtna Senior Biologist prior to construction.
- Staged equipment or stored materials will not be placed in areas of known Monterey spineflower, sand gilia, seaside bird’s beak or Yadon’s piperia (see Figure 1 Natural Resources Map). Staging of equipment shall be evaluated and approved by the Ahtna Senior Biologist prior to use.

<b>4. VERNAL POOLS/PONDS PRESENT</b>	<input checked="" type="checkbox"/> <b>Yes</b>	<input type="checkbox"/> <b>No</b>	<input checked="" type="checkbox"/> <b>Flagged/Marked</b>
<b>Location:</b>	Unit 17: Ponds 14 & 75		
<b>Grid Numbers:</b>	B3D9B3, B3D9B4, B3D9C4, B3D9A3		
<b>Work Can Proceed in Pools/Ponds:</b>	<input checked="" type="checkbox"/> <b>Yes</b>	<input type="checkbox"/> <b>No</b>	
<b>Restrictions:</b>			
➤ No work should occur within Pond 75 unless the pool is dry, as determined by the Ahtna Senior Biologist. Only person-portable DGM can be utilized within vernal pool boundaries.			
➤ Vernal pool basin boundaries will be flagged off with pink/black flagging tape for clear visibility of where heavy equipment cannot enter.			
➤ Pond 14 is outside the planned MEC remedial action area and will not be impacted.			

<b>5. VEGETATION REMOVAL</b>	
<input checked="" type="checkbox"/> <b>No Removal Needed</b>	<b>Location:</b> Unit 17
<input type="checkbox"/> <b>Manual Removal Needed</b>	<b>Location:</b>
<input type="checkbox"/> <b>Mechanical Removal Needed</b>	<b>Location:</b>
<input type="checkbox"/> <b>Wood Chip Piles Needed</b>	<b>Location:</b>
<input type="checkbox"/> <b>Wood Chips Used for Erosion Needed</b>	<b>Location:</b>

**Vegetation Removal Restrictions:**

- Vegetation cutting is being conducted under a separate definable feature of work and is not anticipated during IVS construction or DGM surveys. If a situation arises where vegetation is needed to be removed during IVS construction or DGM surveys, the Ahtna Senior Biologist will be notified immediately.
- If areas of Yadon's piperia are found during work in Unit 17 they will be flagged off with pink/black flagging tape for a small 5 ft exclusion buffer to avoid tracking of heavy equipment within these areas.
- Coast live oak trees that were retained during manual vegetation cutting shall be preserved to the greatest extent feasible. If further limbing of oak trees is required during IVS construction or DGM surveys, the Ahtna Senior Biologist will be notified prior to any cutting.
- Mature, tree sized Toro manzanitas that provide an important seed source for the species that were retained during vegetation removal shall be preserved to the greatest extent feasible. If further limbing of Toro manzanita is required during IVS construction or DGM surveys, the Ahtna Senior Biologist will be notified prior to any cutting.

**6. EROSION CONCERNS:**

- While operating equipment during DGM surveys, disturbance to topsoil shall be minimized to the greatest extent possible by avoiding hard turns, and entering and exiting the site from a limited number of routes. Equipment operators should minimize driving parallel to the slope to the greatest extent feasible to prevent creating rills.
- During DGM surveys, Ahtna's Senior Biologist will monitor the presence and extent of existing and newly formed rills, gullies, and changes in drainage patterns.
- Erosion control actions will be implemented and documented by Ahtna's Senior Biologist. Erosion control measures can include the installation of jute netting, coir logs or straw wattles, silt fencing, woodchips from vegetation cutting, and other measures as needed.
- Erosion control materials containing plastic monofilament netting or other similar materials which may entrap CTS or other wildlife shall not be used.
- If erosion control materials must temporarily be stored at work sites near breeding pools, the materials shall be elevated on pallets, and mulch piles will be enclosed with silt fencing to exclude wildlife.
- Ahtna's Senior Biologist will monitor rainfall events and windy periods for erosion concerns and document the rainfall and/or wind induced erosion concerns and erosion control actions completed.

**7. SITE ACCESS:**

- Vehicle and equipment access routes to the site should be limited to existing roads (i.e. Impossible Canyon Rd, Wildcat Ridge Rd, Barloy Canyon Rd, or through the MOUT). No access is allowed past the turnout on the MOUT road leading to the backside of Range 34. See Figure 1 Natural Resources Map.
- Unit 17 access for DGM surveys will be within areas known to be unoccupied by HMP annual species (based on previous surveys); areas without vernal pools; and shall avoid going parallel to steep slopes to prevent erosion.

➤ Fuel break sections of Wildcat Ridge Rd with historical Yadon's piperia records should not be used for traversing to and from work areas. The boundary will be flagged off with pink and black tape.

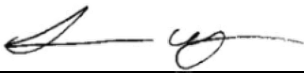
**8. INVASIVE SPECIES:**

- All equipment coming from off-site must be pressure-washed prior to entering habitat reserve areas to reduce the potential for spread of invasive plant species.
- The IVS will not be constructed in areas of Klamath weed and/or Jubata grass. If Klamath weed and/or Jubata grass are discovered, they will be flagged off with pink/black flagging tape. During DGM surveys within areas infested with Klamath weed and/or Jubata grass, crews shall clean (by washing) boots and equipment daily before leaving the area to reduce spread of invasive species.

**9. ADDITIONAL SITE CONCERNS:**

- All refueling of vehicles and equipment will be conducted off site. Spill control materials such as absorbent pads, noncombustible granular absorbent material, and polyethylene sheeting, will be immediately available to all refueling crews. Ahtna's Site Project Manager, and Senior Biologist will check that vehicles and equipment have the appropriate spill control materials onsite. No refueling shall occur within 400 feet of the vernal ponds.

This checklist has been read, approved, and signed by the following:

Ahtna Senior Biologist:  Date: 12/4/2025

Ahtna QC Geophysicist: Bruce McClain Date: 12/4/2025

BRAC Biologist: Bart Kowalski Date: 12/3/2025

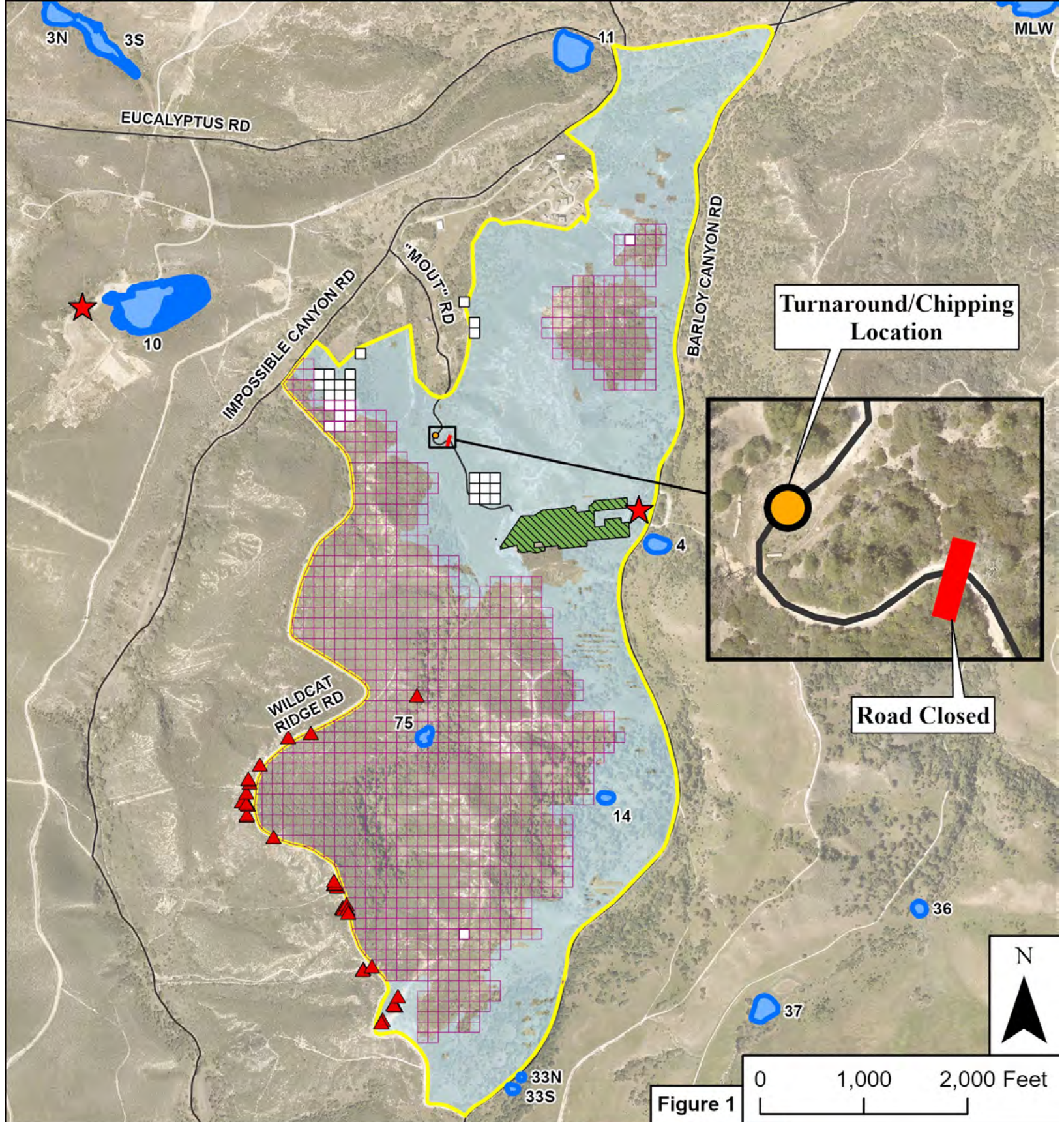


Figure 1

### Natural Resources Unit 17 2025

- Unit 17 Boundary
- Full and Partial Work Grids
- HMP Annuals Grids
- Ponds
- Max Pond Extent 50ft Buffer
- Eucalyptus Fire Area
- HA 34
- ▲ Historic Piperia Locations
- ★ Mulch Stockpile Locations
- "MOUT" Road Turnaround/  
Chipping Location
- / "MOUT" Road Closure



Imagery: 2022 Orthophotography  
Map by: Filipp Kashitsev