

**APPENDIX B**

**QB Memoranda**

## PROGRAM MEMORANDUM

Date: January 23, 2009 (draft) ESCA-Wide-QB-1  
To: Mr. William Collins, U.S. Army  
From: Phil Lebednik, Senior Qualified Biologist, LFR Inc.  
Subject: Site Activity Coordination Procedure

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This procedure will be followed whenever a new field activity begins or when a field activity is initiated in a new area.

1. In advance of an activity, the Construction Manager (CM) will contact the Senior Qualified Biologist (SQB) to notify him regarding the type of activity, location of work effort, section in the relevant Work Plan and the current start date.
2. The SQB will obtain copies of the Work Plan section, the applicable Definable Features of Work Checklist and applicable Natural Resources Impact Mitigation Checklist (Mitigation Checklist).
3. The SQB will notify the BRAC Biologist regarding the coordination meeting date, location and work activity. Mr. Collins will be invited to attend if he desires.
4. A coordination meeting will be held at the site, typically at the beginning of the first field day and in advance of any work in the area.
5. The SQB will ask the CM and field supervisors to describe the work activities.
6. The SQB will compare the discussion with the relevant sections of the Work Plan (including relevant responses to comments) and Mitigation Checklist.
7. If all activities are deemed by the SQB as being consistent with the documents, he will give his approval for the work to proceed.
8. If there are any discrepancies, the attendees will work to resolve them to the satisfaction of the SQB.
9. If the SQB is unable to confirm consistency or otherwise unable to approve start of work, he will contact the BRAC Biologist for assistance.
10. If the BRAC Biologist does not attend the coordination meeting, the SQB will contact him the day of the meeting or the next day to provide a summary of the results of the meeting.

11. The SQC will communicate the relevant information regarding approved activities to the other QBs and will establish a schedule for monitoring of the activity for the duration of the work effort.
12. The CM will immediately notify the SQB if there is any proposed change to the work activity once it has begun.
13. The proposed change to the work activity will not be implemented until approval is received from the SQB.

I conclude that the above described site activity coordination procedure satisfies the requirements of the HMP and relevant Biological Opinions for those activities with the goal of minimizing impacts to rare, threatened, and endangered species on the ESCA RP MRAs.

## PROGRAM MEMORANDUM

Date: January 29, 2009 ESCA-Wide-QB-1, rev. 1  
To: Mr. William Collins, U.S. Army  
From: Phil Lebednik, Senior Qualified Biologist, LFR Inc.  
Subject: Site Activity Coordination Procedure

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This procedure will be followed whenever a new field activity begins or when a field activity is initiated in a new area.

1. In advance of an activity, the ESCA RP Team Field Operations Manager (OM) will contact the ESCA RP Team Senior Qualified Biologist (SQB) to notify him regarding the type of activity, location of work effort, section in the relevant Work Plan and the current start date.
2. The SQB will obtain copies of the Work Plan section, the applicable Definable Features of Work Checklist and applicable Natural Resources Impact Mitigation Checklist (Mitigation Checklist).
3. The SQB will notify the BRAC Biologist regarding the coordination meeting date, location and work activity. Mr. Collins will be invited to attend if he desires.
4. A coordination meeting will be held at the site, typically at the beginning of the first field day and in advance of any work in the area. The SQB and OM (or if either is unable to attend, their designated representative) will attend this meeting.
5. The SQB will ask the OM and field supervisors to describe the work activities.
6. The SQB will compare the discussion with the relevant sections of the Work Plan (including relevant responses to comments) and Mitigation Checklist.
7. If all activities are deemed by the SQB as being consistent with the documents, he will give his approval for the work to proceed.
8. If there are any discrepancies, the attendees will work to resolve them to the satisfaction of the SQB.
9. If the SQB is unable to confirm consistency or otherwise unable to approve start of work, he will contact the BRAC Biologist for assistance.
10. If the BRAC Biologist does not attend the coordination meeting, the SQB will contact him the day of the meeting or the next day to provide a summary of the results of the meeting.

11. The SQB will communicate the relevant information regarding approved activities to the other QBs and will establish a schedule for monitoring of the activity for the duration of the work effort.
12. The OM will immediately notify the SQB if there is any proposed change to the work activity once it has begun.
13. The proposed change to the work activity will not be implemented until approval is received from the SQB.

I conclude that the above described site activity coordination procedure satisfies the requirements of the HMP and relevant Biological Opinions for those activities with the goal of minimizing impacts to rare, threatened, and endangered species on the ESCA RP MRAs.

*ESCA-Wide QB Memo 2 Rattlesnake Handling (in Development)*

## PROGRAM MEMORANDUM

Date: March 5, 2009 County North MRA-QB-1  
To: Mr. William Collins, U.S. Army  
From: Phil Lebednik Senior Qualified Biologist, LFR Inc.  
Subject: County North MRA - Signage Installation

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FORA requested that the ESCA Program install signage at trailheads along a portion of InterGarrison Road. This activity would have ESCA personnel conducting field work in the County North MRA. The County North MRA does not contain any habitat parcels.

The relatively minor work effort involves installation of several posts by digging postholes and backfilling after post installation. All vehicles will remain on existing roads/trails.

Per requirement of the Biological Opinions and the HMP, all field personnel and their supervisors must receive training regarding environmental issues. This requirement has been implemented in the ESCA Program through the Environmental Awareness Training (EAT) modules that are prepared for each MRA. Upon review, I determined that the Parker Flats MRA EAT can serve as an interim training module and for this activity in the Development North MRA. Therefore, I authorized Mike to conduct the activity with personnel who had received the Parker Flats EAT training.

The substance of the discussions and my authorization are documented in my Daily Log Book No. 32 (October 29, 2008).

I conclude that the above described activity coordination measures satisfy the requirements of the HMP and relevant Biological Opinions for those activities with the goal of minimizing impacts to rare, threatened, and endangered species on the County North MRA.

## PROGRAM MEMORANDUM

Date: March 5, 2009 CSUMB MRA-QB-1  
To: Mr. William Collins, U.S. Army  
From: Phil Lebednik - ESCA RP Team Senior Qualified Biologist, LFR Inc.  
Subject: CSUMB MRA - Signage Installation

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FORA requested that the ESCA Program install signage at trailheads along a portion of InterGarrison Road. This activity would have ESCA personnel conducting field work in the CSUMB MRA. The CSUMB MRA does not contain any habitat parcels.

The relatively minor work effort involves installation of several posts by digging postholes and backfilling after post installation. All vehicles will remain on existing roads/trails.

Per requirement of the Biological Opinions and the HMP, all field personnel and their supervisors must receive training regarding environmental issues. This requirement has been implemented in the ESCA Program through the Environmental Awareness Training (EAT) modules that are prepared for each MRA. Upon review, I determined that the Parker Flats MRA EAT can serve as an interim training module and for this activity in the CSUMB MRA. Therefore, I authorized Mike to conduct the activity with personnel who had received the Parker Flats EAT training.

The substance of the discussions and my authorization are documented in my Daily Log Book No. 32 (October 29, 2008).

I conclude that the above described activity coordination measures satisfy the requirements of the HMP and relevant Biological Opinions for those activities with the goal of minimizing impacts to rare, threatened, and endangered species on the CSUMB MRA.



## PROGRAM MEMORANDUM

Date: March 5, 2009 CSUMB MRA-QB-2  
To: Mr. William Collins, U.S. Army  
From: Phil Lebednik - ESCA RP Team Senior Qualified Biologist, LFR Inc.  
Subject: CSUMB MRA - RQA Soil Stockpile Evaluation

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This memorandum documents an evaluation performed by me together with Pablo Martos on December 2-3, 2008.

As part of the requirements associated with the RQA Pilot Test activity, the ESCA RP team proposes to perform a 6-12 inch surface soil lift in an area in the eastern portion of the MRA and to stockpile the removed soil in an area in the western portion of the MRA. There are no habitat parcels within this MRA.

Both the lift and soil stockpile areas are outside the 1 km CTS zone where conservation measures are required by the CTS BO. The 2 km radius, where the US Army requests that we implement the conservation measures, does not extend into the lift or the soil stockpile areas.

The RQA Pilot Areas are located in development parcels and not within the 2 km CTS zones and therefore the work is consistent with the CTS BO (USFWS, 2005).

Mike Doherty has agreed to stake the 2 km CTS line so that workers will know the area that is off limits for the soil stockpile. The CSUMB Environmental Awareness Training module will include a map showing the location of the line and workers will be informed that the line will be staked, designating where CTS could be encountered.

I conclude that the above described evaluation satisfies the requirements of the HMP and relevant Biological Opinions for the activities with the goal of minimizing impacts to rare, threatened, and endangered species on the CSUMB MRA.

## PROGRAM MEMORANDUM

Date: January 30, 2009 CSUMB MRA-QB-3  
To: Mr. William Collins, U.S. Army  
From: Phil Lebednik – ESCA Remediation Program (RP) Team - Senior Qualified Biologist, - LFR Inc.  
Subject: CSUMB MRA - Laydown (soil stockpile) Area: Mitigation of Potential Monterey Spineflower Population Impacts

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The DRAFT Residential Quality Assurance Pilot Study Soil Management Field Implementation Plan (ESCA, 2008) describes field activities to be performed as part of the Residential Quality Assurance (RQA) task within the CSUMB MRA. Two associated field activities are removal of surface soil and stockpiling of the removed soil in a “laydown” area east of the RQA soil removal activity. CSUMB QB Memo 2 addressed issues associated with California tiger salamander (CTS) in both the removal and stockpile areas.

There are no habitat reserve parcels within the CSUMB MRA and therefore habitat or special status species mitigation measures are not required per the HMP (1997).

The map included as Figure F-3 in the Flora and Fauna Baseline Study of Fort Ord (USACE, 1992) indicates the potential for Monterey spineflower (*Chorizanthe pungens* var. *pungens*) populations to be present at various locations within the CSUMB MRA and some of these mapped areas overlap with the laydown area footprint. This species is an annual and populations can only be identified reliably during the flowering season in April-May. Stockpiling of soil in the laydown area could smother any underlying Monterey spineflower seed bank. If the seed bank were able to survive covering by overlying soil, it could be disturbed or dispersed when the soil is eventually removed from the area.

The Biological Opinion on the Closure and Reuse of Fort Ord, Monterey County (USFWS, 2002) cited a source indicating that the information presented in the 1992 report may, in some areas, substantially overestimate populations of this species (*i.e.*, the species was not detected in many of these areas during recent surveys). Even though mitigation measures are not required for this species in the CSUMB MRA and notwithstanding the uncertainty identified by USFWS regarding the 1992 results, the ESCA Qualified Biologists (QBs) performed an evaluation to determine if potential impacts in the soil laydown could be avoided.

On December 30, 2008 QB Pablo Martos, who conducted the 2008 ESCA field surveys for Monterey spineflower in the habitat parcels of the IAR and Parker Flats MRAs, visited the CSUMB laydown area with Michael Doherty, ESCA RP Team Field Operations Manager. Mr. Martos determined, based on habitat characteristics where the species was observed during the IAR and Parker Flats surveys, that a few relatively small areas on the eastern side of the laydown footprint were potential habitat for Monterey spineflower. The remainder of the footprint area was occupied by dense grass

FORA ESCA Remediation Program Team

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## PROGRAM MEMORANDUM

Date: September 9, 2008 Parker Flats MRA-QB-1  
To: Mr. William Collins, U.S. Army  
From: Phil Lebednik Senior Qualified Biologist, LFR Inc.  
Subject: Parker Flats MRA - Preliminary Site Activity Coordination with Biological Requirements

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Program personnel will be conducting preliminary activities in the Parker Flats MRA to assist in planning and preparation for MEC clearance activities. The following preliminary activities will be conducted:

1. Baseline vegetation monitoring conducted by Program biologists.
2. Reconnaissance walking visits primarily along trails by various Program personnel to assist in planning future work.
3. Physical surveys by professional surveyors to locate and stake various areas.

These activities are unlikely to result in deleterious impacts on the biota in the MRA, and the Program Qualified Biologists will not require that personnel involved in these activities receive Parker Flats Environmental Awareness Training. However, Parker Flats Environmental Awareness Training is required for all field personnel and their supervisors who will be engaged in subsequent field activities, including vegetation clearance and subsurface MEC removal, prior to their initiating work in the MRA.

To facilitate compliance with conservation measures and other requirements associated with the habitat area in Parker Flats MRA, the boundary of the habitat area shall be marked with stakes that are painted blue (the "blue line") so that Qualified Biologists and particularly field construction personnel will know when they are within the habitat area. The Environmental Awareness Training module for Parker Flats will include discussion of the need for certain measures to be taken within the blue line area. As the field work proceeds, there will be a need to monitor and maintain the blue line stakes whenever field work is being conducted within or near the habitat area, as the stakes may be displaced inadvertently by the work crews or lost by vandalism.

When subsurface work is scheduled for the habitat area but prior to initiation of field work, Qualified Biologists will provide the MEC clearance teams with maps showing the approximate locations of Monterey spineflower populations in the habitat area of the Parker Flats MRA based on the spring 2008 survey. This species is an annual and at the time of the MEC clearance activities no plants may be present in these areas; however, the seeds will be present in the soil. As the MEC clearance work proceeds, if a UXO team determines that subsurface clearance is necessary in or near any of these areas, a QB shall be immediately notified and the exact location of the population will be marked

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with flags by the QB prior to soil disturbance in the area. The QB will then coordinate with the UXO team to minimize disturbance to the marked area and where digging is required, to supervise removal of surface soil so that this soil can be returned to the surface layer after the subsurface investigation is completed. The exact locations of soil disturbance and surface soil replacement in Monterey spineflower locations shall be recorded by GPS and incorporated into the GIS database.

Additional mitigation measures for the ESCA Parker Flats MRA MEC clearance activities will be described in forthcoming memoranda.

I conclude that the above described preliminary site activity coordination measures satisfy the requirements of the HMP and relevant Biological Opinions for those activities with the goal of minimizing impacts to rare, threatened, and endangered species on the Parker Flats MRA habitat areas.

populations and not likely to support Monterey spineflower populations. Following this field investigation, the potential habitat areas have been marked in the field. These marked areas will be avoided by the field crews to the extent feasible. A comment regarding this avoidance measure will be incorporated into the relevant Natural Resource Impact Mitigation Checklist.

I conclude that the above described avoidance measures provide additional protection to Monterey spineflower beyond the requirements of the HMP and relevant Biological Opinions for those activities with the goal of minimizing impacts to rare, threatened, and endangered species on the CSUMB MRA.

### **References**

- ESCA 2008. DRAFT Residential Quality Assurance Pilot Study Soil Management Field Implementation Plan. Seaside and California State University of Monterey Bay Munitions Response Areas. Former Fort Ord, Monterey County, California. November 25.
- HMP 1997. Installation-Wide Multispecies Habitat Management Plan for Former Fort Ord, CA, U.S. Army Corps of Engineers, Sacramento District. April.
- USACE 1992. Flora and Fauna Baseline Study of Fort Ord, California. U.S. Army Corps of Engineers Sacramento District. Sacramento, CA. December.
- USFWS 2002. Biological Opinion on the Closure and Reuse of Fort Ord, Monterey County, California, as it affects Monterey Spineflower Critical Habitat (1-8-01-F-70R), United States Fish and Wildlife Service, October 22.

## PROGRAM MEMORANDUM

Date: 06-Mar-09 Parker Flats Phase II MRA-QB-2  
To: Mr. William Collins, U.S. Army  
From: Phil Lebednik – ESCA RP Team Senior Qualified Biologist, LFR Inc.  
Subject: Parker Flats Phase II Munitions Response Area - CTS Mitigation Measures

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California tiger salamander (CTS) habitat occurs in the Parker Flats Phase II Munitions Response Area (MRA). The 0.5 km radius (from nearest aquatic feature, *i.e.*, known or potential breeding site) crosses the far eastern portion of the MRA and the 1 and 2 km lines also extend across the MRA farther west. Work is scheduled during the current wet season and therefore certain mitigation measures may need to be implemented.

The following mitigation measures described in the CTS Biological Opinion (BO) (USFWS 2005) were determined to be potentially relevant to activities being conducted in the Parker Flats Phase II MRA and in need of advance evaluation:

- 1) T&C (Terms and Conditions) 1c - certain mitigation measures are required if more than ten percent of the upland habitat within the 0.5 km radius is to be excavated.
- 2) T&C 1d - monitoring, silt fencing or covering of excavations that are 0.05 acre or larger and greater than 6 inches depth within the 1 km radius
- 3) T&C 6 - handling of CTS encountered during MEC clearance work

Evaluations of these activities are presented below.

### **Excavation Within the 0.5 km Radius**

The ESCA Remediation Program (RP) Parker Flats work plan indicates that the extent of excavations, if any, are unknown until UXO technicians perform detection work. However, MEC subsurface clearance will be limited to existing trails, trail buffers and other accessible areas. Discussion with ESCA RP Team personnel indicated that any subsurface work is likely to be “mag and dig,” *i.e.*, shallow excavation to locate a detected target, and that based on prior information of the area and experience in similar areas of former Fort Ord, MEC occurrence may be infrequent.

The BO indicates certain mitigation requirements when excavations exceed certain parameters as cited above. According to Bill Collins (pers. com. 2009) the term “excavation” in the BO is intended to apply to large-scale soil removal, and not to spatially limited “mag and dig” operations; therefore, subsurface clearance activities in Parker Flats Phase II MRA should not trigger T&C 1c.

As an additional measure, I performed an evaluation to determine the maximum area that may be subject to soil disturbance as a result of mag and dig operations within the 0.5 km radius within the Parker Flats Phase II MRA. A maximum reasonable estimate of the area disturbed would assume that subsurface removal would be required across all of the features where subsurface clearance detection is to be carried out. I requested that Program personnel perform a calculation of the maximum reasonable estimate and a calculation of what percentage this area is of the total area encompassed by the 0.5 km radius. In response to this request, Mr. Mike Doherty prepared the attached memorandum (ESCA RP Team, 2009). The area of a 0.5 km diameter circle is 194 ac (acre) and ten percent of this area is 19.4 ac. The maximum reasonable estimate presented in Mr. Doherty's memorandum indicates that subsurface excavation would not reach or exceed the ten percent value. Therefore, even if mag and dig operations were considered to be "excavation" per the BO, T&C 1c mitigation measures do not need to be implemented in the Parker Flats Phase II MRA.

### **Excavation Within the 1 km Radius**

As described above, Program personnel indicated that any subsurface work is likely to be "mag and dig," *i.e.*, shallow excavation to locate a detected target, and that based on prior information of the area and experience in similar areas of former Fort Ord, MEC occurrence may be infrequent in the Parker Flats MRA. It was the strong consensus of the ESCA RP Team UXO staff that, given the shape of the areas where detection work is to be performed, it was not anticipated that any single subsurface investigation would approach 0.05 acre in size. Therefore, it was determined that T&C 1d mitigation measures would not need to be implemented in the Parker Flats Phase II MRA even if mag and dig operations were considered to be "excavation" per the BO. However, it was agreed that if during the UXO work it became evident that there is need for a large subsurface removal, the Qualified Biologists (QB) would be notified immediately, prior to such removal taking place.

### **CTS Encounters and Handling**

Encounters with CTS are possible when MEC field activities are being conducted during the wet season and within the radii as far out as the 2 km radius (pers. com. Bill Collins, U.S. Army). The ESCA RP Team QB have been approved by USFWS to perform CTS rescue activities when needed.

The BO requires that field personnel and supervisors receive information on CTS biology and the requirement to immediately contact a QB if a possible CTS is encountered. This information was incorporated into the Environmental Awareness Training (EAT) module for the Parker Flats MRA as prepared and implemented by the ESCA RP Team QBs. All ESCA RP Team field personnel and their supervisors have/will receive EAT training prior to working in the field.

To further reduce the risk of CTS take, ESCA RP Team personnel agreed to the following mitigation measures that are in addition to those listed in the BO:

- all field work will be performed during normal daytime work hours and thus avoid the nocturnal period when CTS are most active
- mechanized equipment, including personnel transport vehicles, will operate on existing roads and trails except when overland work is required for MEC detection and removal
- the 2 km CTS radius will be surveyed and staked in the field so that all workers will know when they are within possible CTS habitat

I conclude that the above evaluations and mitigation measures satisfy the requirements of the HMP and the 2005 Biological Opinion for MEC clearance activities with the goal of minimizing take of CTS within the Parker Flats MRA.

## References

ESCA RP Team, 2009. Potential excavations within 500-m CTS boundary in Parker Flats. Internal Team Communication, Doherty, M., January 28, 2009

USFWS 2005. Cleanup and Reuse of Former Fort Ord, Monterey County, California as it affects California Tiger Salamander and Critical Habitat for Costa Contra Goldfields (1-8-04-F-25R), United States Fish and Wildlife Service. March 14.



**MEMORANDUM**

**Date:** January 28, 2009

**To:** Phil Lebednik- ESCA RP Team Senior Qualified Biologist - LFR

**From:** Mike Doherty- ESCA RP Team Field Operations Manager - LFR

**Cc:** Kristie Reimer-FORA ESCA RP Team Program Manager

**Subject:** Potential excavations within 500-m CTS boundary in Parker Flats

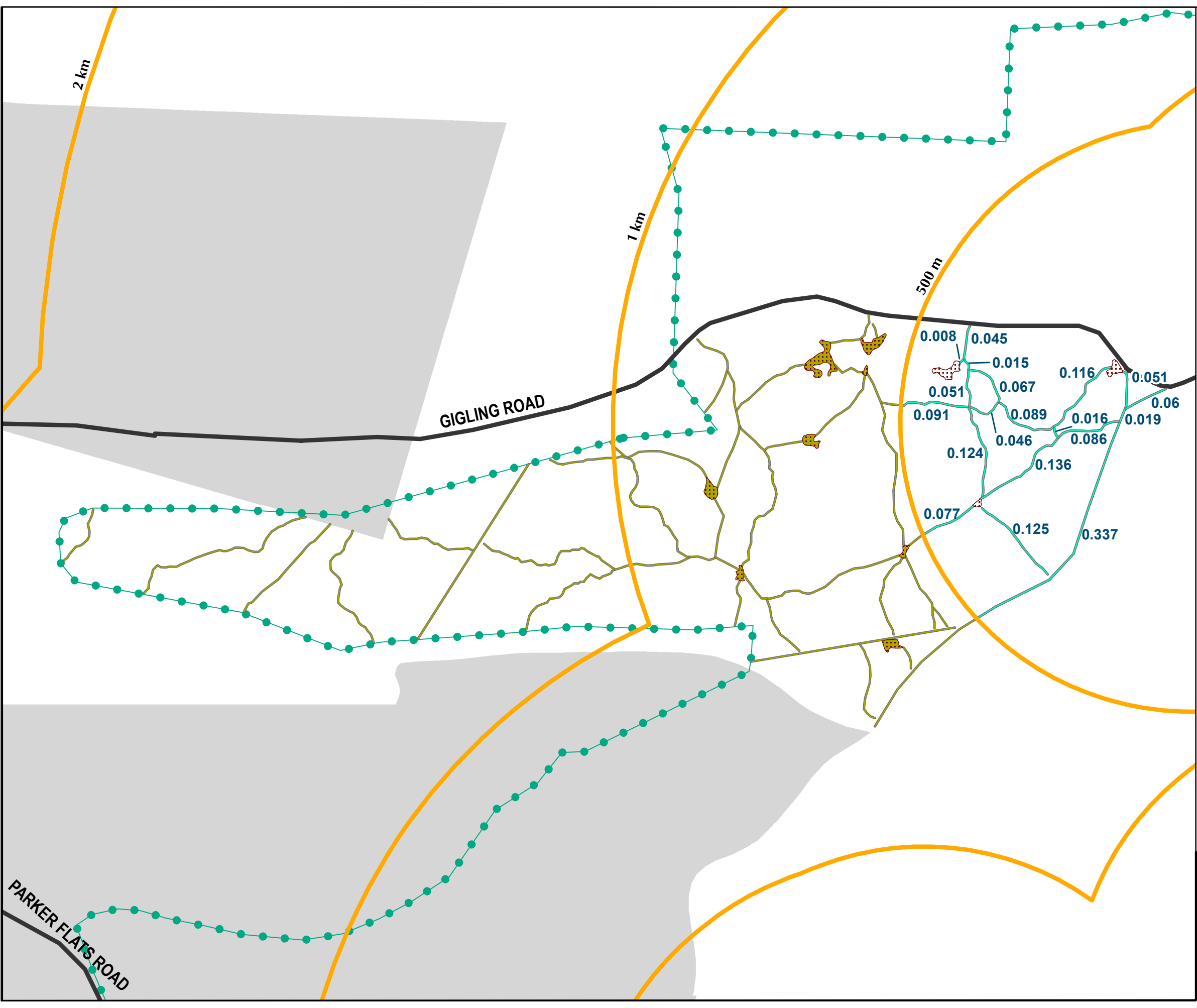
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Per your request, I have evaluated the acreages that potentially could be affected by subsurface investigation activities within the 500-m California Tiger Salamander (CTS) buffer in the Parker Flats MRA. The ESCA RP work to be performed in the Parker Flats MRA will affect only that portion of the MRA referred to as the "Parker Flats Phase II area." There is only one CTS 500-m buffer that extends into the Phase II portion of the Parker Flats MRA which lies within the Habitat Reserve Area. Within this area, subsurface detection activities will be limited to the trail convergence areas, trails and roadways. Resulting subsurface investigation activities are expected to be accomplished by relatively shallow hand-tool excavations, often referred to as "mag and dig."









The reasonable maximum estimate of acreage affected by ESCA RP activities in the Phase II area assumes that 100 % of the area to be subjected to subsurface detection will require subsurface investigation. The reasonable maximum estimate calculation was performed using the ESCA RP GIS database and resulted in calculations for each trail, convergence area and roadway segment within the 500-m buffer are shown on Figure 1.

The reasonable maximum estimate of acreage was calculated to be approximately 1.86 acres. The total acreage within a 500-m buffer is approximately 194 acres. Therefore, the reasonable maximum estimate of acreage equals approximately 1 % of the total acreage within the 500-m buffer.

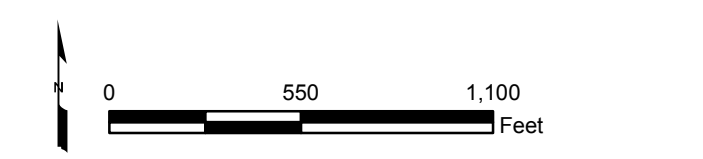
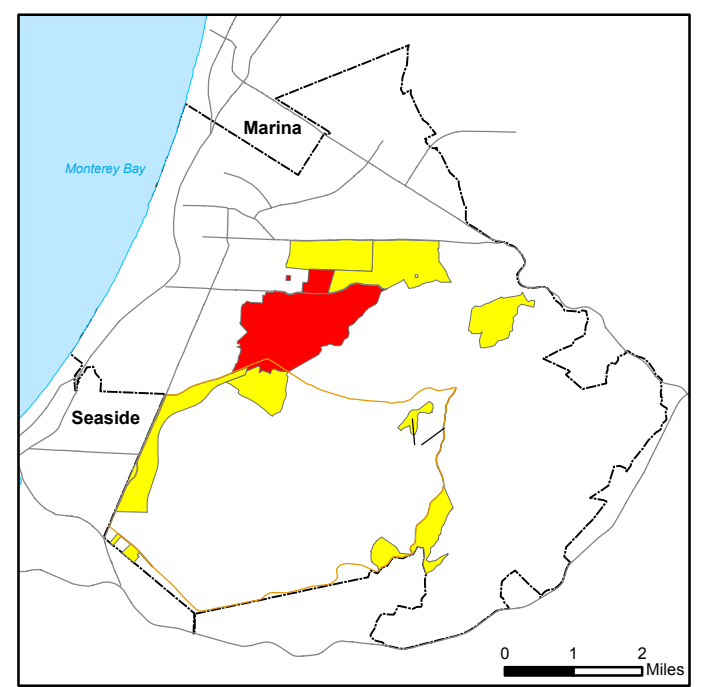
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### Legend

-  Parker Flats MRA
-  Major Road
-  Trail Segment Buffer Area (in acres) within 500 m California Tiger Salamander Buffer (total of 1.56 AC)
-  Trail Convergence Areas within 500 m California Tiger Salamander Buffer (total of 0.3 AC)
-  Borderland Interface
-  Phase I Remedial Investigation Area
-  Other Trail Segment Buffers
-  Other Trail Convergence Areas

Source: Aerial Photo 2003



**Trail Buffer and Trail Convergence Area Acreage within CTS 500-m Boundary**

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Monterey County, California

Figure 1

## PROGRAM MEMORANDUM

Date: December 19, 2007 Seaside MRA-QB-1  
To: Mr. William Collins, U.S. Army  
From: Phil Lebednik, LFR  
Subject: Seaside MRA - Impact Minimization Measures for Vehicle Barrier Installation  
Along Seaside MRA Borderland Boundary

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Per the HMP, a vehicle barrier is required to be installed along the Seaside MRA Borderland Boundary. The purpose of the vehicle barrier is to prevent unauthorized vehicles from operating in and having impacts on the adjacent habitat reserve. Additionally, the barrier is required to have gates that would allow for access of fire suppression vehicles in the event of a fire in the habitat reserve.

On December 6, 2007, I discussed this installation with Ms. Kristie Reimer, Program Manager for the ESCA Remediation Program and the following mitigation measures were adopted in order to avoid and/or minimize impacts to the adjacent habitat reserve:

- to avoid encroachment of the barrier into the habitat reserve, the correct location of the fence will be staked in the field by professional land surveyor based on the recorded boundary survey.
- as additional mitigation, the fence line will be located approximately 3 ft inside the actual borderland boundary, within the development parcels
- to minimize soil disturbance, most of the supports will be steel posts pounded into the soil
- posthole digging will be limited to several locations where extra support is required for the gate supports for fire suppression access: this amount of soil disturbance will be *de minimus* and is unlikely to contribute substantially to erosion of soil or weed recruitment into the habitat reserve
- the fence will be inspected periodically for integrity and signs of erosion and weed recruitment and remedial measures will be implemented if needed

I consider that the above mitigation measures satisfy the goal of minimizing impacts on the Seaside MRA and adjacent habitat parcels. On December 7, 2007, I met with Mr. Bill Collins of the U.S. Army and he concurred with my opinion.

## PROGRAM MEMORANDUM

Date: December 27, 2007 Seaside MRA-QB-2  
To: Mr. William Collins, U.S. Army  
From: Phil Lebednik and John Grattan, Qualified Biologists, LFR  
Subject: Seaside MRA - Impact Minimization Measures for Explosives Demolition Area

In support of the MEC cleanup activities to be conducted in the Seaside MRA, plans were developed to establish an area where recovered MEC can be demolished safely.

On December 20, 2007, John Grattan and I met with Mr. Bruce Moe of Weston Solutions to evaluate impact minimization measures associated with the demolition area and activities. We drove to the proposed area with Mr. Moe and performed a walking reconnaissance. The area is located about 700 ft south of Watkins Gate Road in SEA-1. The pit location is about 450 ft west of the adjacent habitat reserve boundary, on the west side of the existing dirt road. The proposed pit is situated within a 200 ft radius safe zone (*i.e.*, 400 by 400 ft square) which coincides with the maximum likely projectile distance. The safety zone is generally flat. This site was chosen because it is located away from public areas and is in a location where gross topography creates a depression with higher ground surrounding the demolition area, providing additional margin of safety from projectiles. Also, the area is easily accessible by existing roads.

Demolition activity involves driving one or more pickup trucks with MEC and supplies down the dirt road. A pit will be dug in the soil probably using hand tools and the MEC will be placed into the hole. The pit will then be covered with plywood and numerous sandbags. Following detonation, the pit will be cleared and backfilled to pre-disturbance elevation prior to the end of the work day. The likelihood of the detonation producing a fire is considered very low; however, fire responders will be present during the detonation to detect and extinguish any fires that may be generated.

The vegetation of the demolition safety zone and adjacent land had been comprised of grasses which were control-burned by the local fire department within the past 1-2 months, and only burned remnants of vegetation remain. There was no sign of sensitive habitat, such as wetland vegetation, in this low-lying area. Sensitive maritime chaparral vegetation occurs at and eastward of the adjacent habitat boundary, about 450 ft east of the demolition pit.

Regarding federal listed species, the demolition safety zone is north of (*i.e.*, outside of) a 1 km radius from a known or potential breeding site of the California tiger salamander (CTS), but south of (*i.e.*, within) a 2 km radius of the same breeding site. Open excavations in this area require mitigation measures during the wet season. These measures are discussed below.

We have concluded that the site location and condition is highly suitable for this activity. The following site characteristics will minimize environmental impacts:

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- the site is located adjacent to an existing road to minimize impacts on habitat by vehicles
- the site is located in a depression to minimize effects of projectiles on habitat
- prior site vegetation is grassland which recovers quickly from disturbance
- site vegetation was control-burned for another purpose so demolition disturbance of vegetation will be minimal

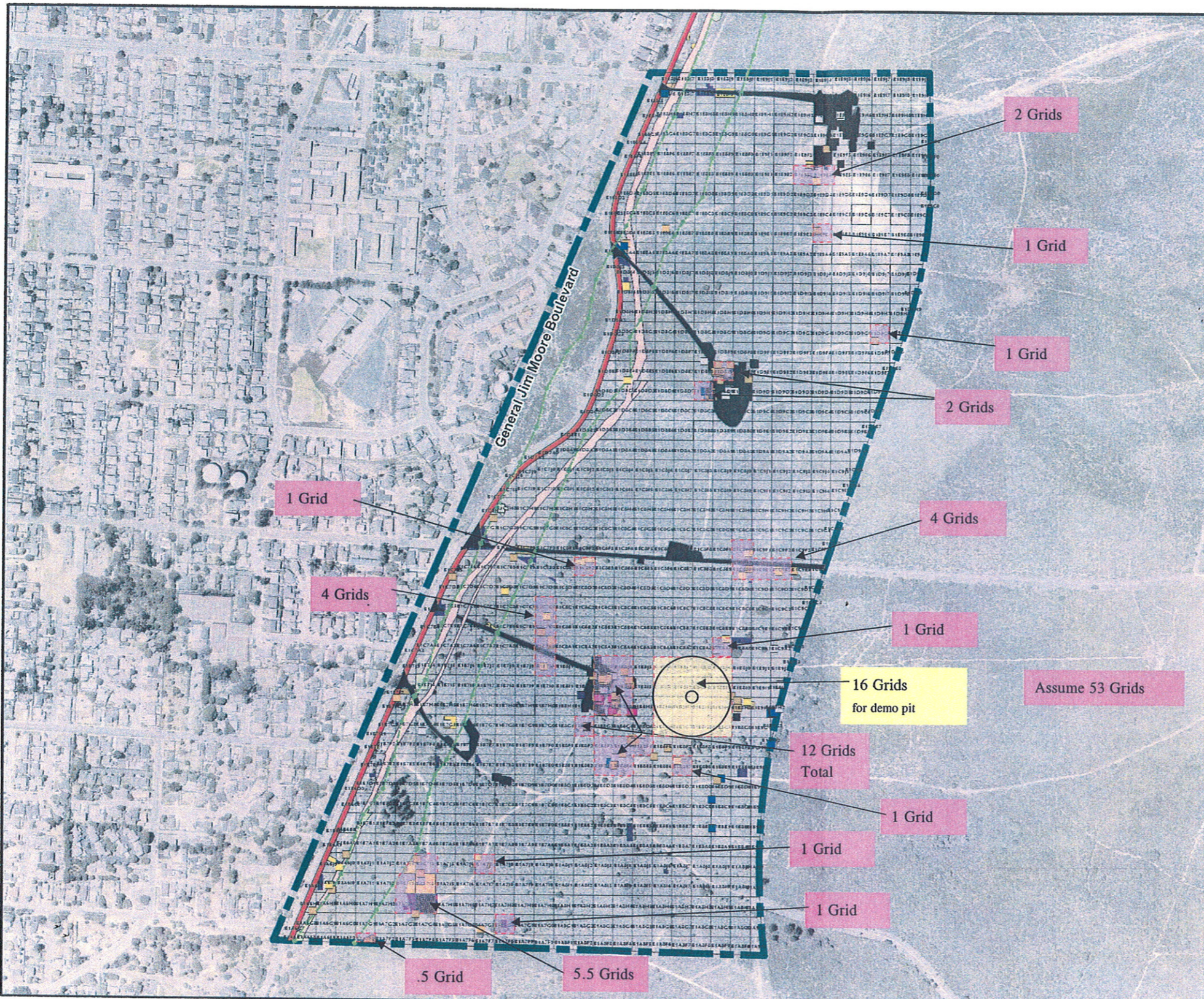
We agreed with Mr. Moe on a number of mitigation measures for the demolition activities as follows:

- to avoid encroachment into the habitat reserve, no vehicles will be driven east of the existing road
- to minimize soil disturbance, the demolition pit will be dug by hand if feasible
- to minimize disturbance of the area, vehicles will remain on the dirt road, or, if a vehicle is needed to deliver materials to the pit, it will take the shortest path to the pit and return by the same path
- the demolition pit will be excavated and backfilled on the same day so that no open excavation will be left overnight
- if a pit needs to remain open overnight in the wet season, the person in charge (PIC) shall immediately notify the Qualified Biologist who will perform an inspection of the pit the following morning for trapped CTS prior to any other site activities

We conclude that the above described site conditions and demolition mitigation measures satisfy the goal of minimizing impacts on the Seaside MRA and adjacent habitat parcels.



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**Legend**

- 100-ft Grid System
- Seaside 1 MRS
- Limits of Grading with 50 foot Offset for General Jim Moore Boulevard and Eucalyptus Road

**SCA Explanation**

- Existing Site Fence
- Original Fence Line
- Asphalt/Concrete
- Field Latrine/Range Structure/Culvert
- Berm/Retaining Wall
- Scrape Area
- Debris Pile
  - Garbage
  - Scrap Metal
  - Sand Bags
- Backhoe Excavation
  - Backhoe Excavation (reason not defined)
  - Buried Cable/Wire
  - Burial Pit
  - Grounding Rod
  - Wood
  - Range Marker
- Heavy Equipment Excavation
  - Flag Poles/Utility Poles
  - Concrete Bunker
  - Target Box/Fighting Position
  - Tie Down
  - Wooden Stairs
- Weather Station
- High Transmission Tower
- Tree with metal object
- Miscellaneous Feature
  - Survey Marker
  - Banding Material
  - Target Vehicle
  - Extreme Terrain
  - Stairs
  - Not Defined



**LFR**  
**WESTON**  
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 Engineers, Inc.

Special Case Areas  
 MRS-15 SEA 1  
 FORA ESCA RP  
 Monterey County, California

**DRAFT** Map A-1



## PROGRAM MEMORANDUM

Date: January 25, 2008 **Seaside MRA-QB-3**  
To: Mr. William Collins, U.S. Army  
From: John Grattan, Phil Lebednik and Mitch Siemens, Qualified Biologists, LFR Inc.  
Subject: Silt Fence Installation and Inspection

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Silt fence installation may be performed for two purposes:

- 1) rainfall sheet flow erosion prevention where substantial erosion has occurred or has a high potential to occur
- 2) California tiger salamander (CTS) and other small animal exclusion

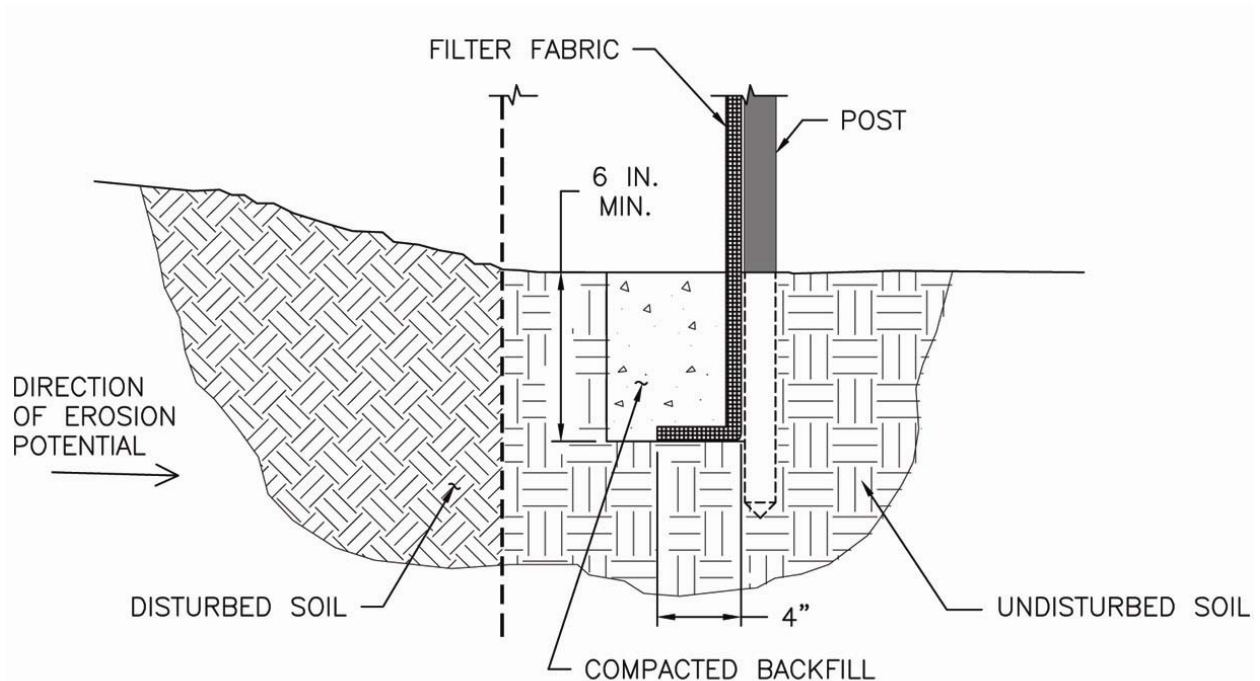
CTS exclusion from excavated areas within CTS habitat as described in USFWS (2005) (Term and Condition 1d and 1e) may be implemented as an alternative to excavation inspections.

The initial efficacy of silt fences for both of these purposes is dependent on proper installation. Subsequent efficacy is dependent on inspection and maintenance. The purpose of this memorandum is to specify proper installation and recommended inspection of silt fences.

### **Silt Fence Installation Specification**

Silt fences should be constructed as follows (see Figure 1):

- For erosion control, locate the silt fence downslope of the disturbed soil area
- For CTS/animal exclusion, surround the excavated area with the silt fence
- Dig a ditch a minimum of 6 inches deep and 4 inches wide along the planned path of fencing
- Install fence posts along bottom of trench (or along outside edge of trench)
- Lay fence fabric material (bottom flap) horizontally along the bottom of the trench and vertically up along the stakes, resulting in a “J” or “L” shape in cross-section - the bottom leg of fabric should point toward the disturbed soil side or away from the excavation for CTS exclusion
- Make a tight overlapping seam (*i.e.*, no gap between overlapping fabric and minimum overlap = one interval between posts) where fence fabric ends meet (CTS exclusion fence)
- Backfill the trench and compact backfill soil so that soil completely fills the trench



**Figure 1. Cross Section View of Silt Fence Installation.**

### Silt Fence Inspection

Silt fence construction should be inspected by the construction foreman during and/or on completion of construction. New silt fences erected to exclude CTS should be inspected by a Qualified Biologist after construction. Existing silt fences should be inspected periodically and maintained as needed. Inspections (performed by a Qualified Biologist for CTS exclusion fences) should be performed at the beginning of the wet season and approximately monthly thereafter for the remainder of the wet season and/or during or after major rain events if needed.

Inspection items include:

- 1) all stakes in upright orientation
- 2) fabric upright and attached to stakes
- 3) fabric intact (no holes or tears)
- 4) lower edge of fabric buried with no gaps between fabric and soil surface
- 5) no substantial eroded soil on downslope side of fence (erosion prevention fence)
- 6) no gaps above ground in fabric seams
- 7) no gaps above ground where vertical ends of fabric overlap (CTS exclusion fence)



If any of the above inspection items reveal deficiencies, corrective maintenance should be performed.

We conclude that the measures described in this memorandum for exclusion of CTS satisfy the requirements of the Biological Opinion (USFWS 2005). We also conclude that the measures for prevention of erosion by rainfall from soil surfaces disturbed by project activities satisfies the requirements of the HMP (1997) with the goal of minimizing impacts to rare, threatened, and endangered species in the Seaside MRA.

### **Literature Cited**

HMP 1997. Installation-wide multispecies habitat management plan for former Fort Ord, California. U.S. Army Corps of Engineers. April.

USFWS 2005. Cleanup and reuse of former Fort Ord, Monterey County, California, as it affects California Tiger Salamander and critical habitat for Contra Costa goldfields (1-8-04-F-25R). March 14.