

Appendix I  
Fort Ord News



Fort Ord Environmental Cleanup

A report to the Monterey Bay Area Community

Fall/Winter 2004

## Surface Removal Has Been Completed Army Clears Munitions and Explosives Following Burn

In October 2003, the Army conducted a prescribed burn to clear vegetation on former weapons training ranges at the former Fort Ord known as Ranges 43-48. All of the area where vegetation was burned off is land where there are munitions and explosives of concern (MEC; see terminology box on page 3) remaining from when Fort Ord was a major Army training facility.

The Army has already begun removing the munitions and explosives of concern (MEC) from Ranges 43-48. The ranges are the highest priority for cleanup due to both the nature of the MEC on the ranges and their proximity to homes and schools.

The Army completes several steps of cleanup for MEC. First, the Army does what is known as "surface removal." That means removing all the MEC that can be found on the surface of the ground (top photo). Then the Army goes back and does subsurface removal. Using geophysical detection instruments, cleanup specialists identify "anomalies." An "anomaly" is some sort of subsurface metal detected by the instruments. It could just be metal scrap, or it could be munitions or explosives. These anomalies are investigated and all metal objects are



removed. If any of these items are MEC, they are then destroyed by detonation.

The Army has now completed the surface removal on Ranges 43-48. Removal teams found more than 4,500 MEC on the surface of the ground and detonate them. An additional 300 items were found during the removal of tanks, vehicles, and other metallic range targets.

Teams are now searching for MEC below the surface of the ground. Teams

have removed more than 1,000 MEC and more than 23,000 pounds of munitions debris from the subsurface. So far, teams have investigated an average of 5,000 anomalies per acre. Subsurface removal has been completed on more than 163 acres of the 500 acres at the site.

The Army has also completed removing tanks, armored personnel carriers and other metal items that once served as targets for weapons training. Cleanup workers first checked these targets to be sure no MEC were hidden inside. The targets were then placed into a tracked dump truck and hauled to an on-site processing area. The targets were cut with a large mechanical shear or a torch at the processing area. Then the target scrap was loaded into boxes for transport and recycling.

Now that these materials have been removed, the Army will go back in and map the site using digital geophysical survey instruments (bottom photo). The data from the survey instruments will be used to create color-coded digital maps. These maps will also show any remaining anomalies recorded by the survey instruments. All of these anomalies will be investigated.

## Observed in Locations Throughout the Former Fort Ord Tiger Salamander Declared Threatened Species

In August 2004 the U.S. Fish & Wildlife Service adopted a final rule listing the California tiger salamander as a threatened species under the federal Endangered Species Act. The Tiger Salamander can be found in locations throughout central California, including the California coastal area from San Francisco to Santa Barbara. There are a number of locations on the former Fort Ord where the Tiger Salamander has been observed.

The Tiger Salamander is a terrestrial salamander with a broad rounded snout. The salamander's back may have white or pale yellow spots or bars on a black background. Its underside varies from solid white or pale yellow to patterns of white or pale yellow and black. Males may be as large as eight inches in length. The females are smaller.

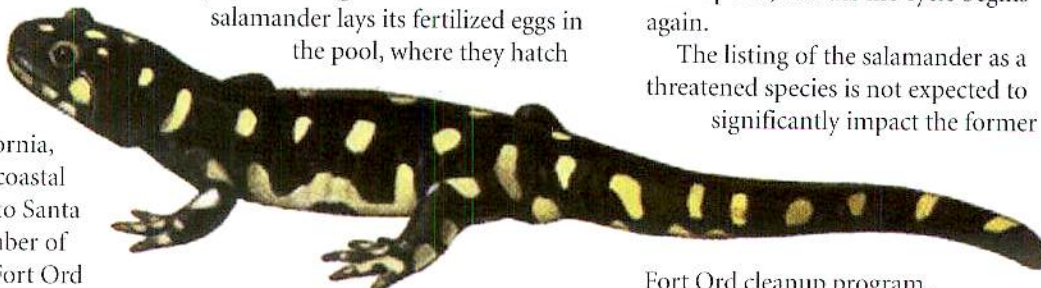
The Tiger Salamander lives near vernal pools, which are pools that have

water during the winter months and dry up during the summer. Vernal pools are an essential part of the life cycle of the Tiger Salamander. The salamander lays its fertilized eggs in the pool, where they hatch

and develop in larval form for several months. As the pools dry up, the larvae transform into terrestrial salamanders, and leave the area of the pool to find a burrow dug by a rodent, such as a ground squirrel. Once the salamander finds a burrow, it hibernates until the next rainy season. During the next rainy season, the salamander may continue to move around. California Tiger Salamanders can be found as far as two kilometers (1.2 miles) away from a vernal pool. Somewhere around 3-5 years of age,

the salamander reaches breeding maturity. It returns to the vernal pool where it finds a mate, and lays its eggs in the pond, and the life cycle begins again.

The listing of the salamander as a threatened species is not expected to significantly impact the former



Fort Ord cleanup program.

The tiger salamander was one of the species considered in a Habitat Management Plan that was signed in 1994. Under the Plan, the Army will be transferring 16,195 acres of the 27,827-acre former Fort Ord to be managed as a natural reserve, which should be more than adequate to ensure that salamanders and their habitat will continue to thrive on former Fort Ord. The Army has submitted a Biological Evaluation to the U.S. Fish & Wildlife Service in accordance with the Endangered Species Act.

### New Army Terminology

The Army has been standardizing the language it uses at all Army cleanup sites. As a result, some of the terminology that has been used at Fort Ord has changed. Here is a translation from the old to the new:

<i>Old Terminology</i>	<i>New Terminology</i>
Ordnance and Explosives (OE) Cleanup Program	Military Munitions Response Program (MMRP)
Ordnance and Explosives (OE)	Military Munitions (all ammunition products and components produced for and used by the armed forces)
Ordnance and Explosives (OE) sites	Munitions Response Sites (MRSs)
Ordnance and Explosives (OE) and Unexploded Ordnance (UXO)	Munitions and explosives of concern (MEC) (includes UXO but does not include small arms ammunition)
Ordnance and Explosives (OE) scrap	Munitions debris

## Cleanup Plans for the Remainder of the Year

### ***Army Isn't Planning Any Prescribed Burns for 2004 But You May Still See Smoke***

The Army is not planning any prescribed burns in 2004. The Army is focusing this year's program on removing the munitions and explosives of concern from the areas where vegetation was cleared by last year's prescribed burn. The Army is planning a prescribed burn for the area Munitions Response Site-16 in 2005, which is only 80 acres (a much smaller burn than in 2003).

However, Monterey Bay Area residents may still see some smoke in 2004. The Fort Ord Reuse Authority (FORA) is planning several small burns (totaling 147 acres) in the Parker Flats area of the former Fort Ord. These burns will serve two purposes: the burns are necessary to comply with requirements of the Fort Ord Habitat Management Plan designed to protect habitat reserves, and local fire-fighting

agencies will have an opportunity to train using new equipment they received recently to help them fight fires. For more information on the burns contact FORA at (831) 883-3672.

The Army continues discussions with fire management experts and local fire districts. The Army wants to ensure that future fires will not escape the established fire perimeter, as a prescribed burn did in 2003. Among the options being considered is conducting several smaller fires, possibly on subsequent days, rather than a single large burn. Also, there is discussion of igniting fires only when the weather conditions are already ideal, rather than predicted to be ideal. A key concern is the atmospheric "mixing level." If the mixing level is low, smoke is held close to the ground, where it can bother people. If the mixing level is

high, such as 1,500 feet above ground, then the smoke rises far above the ground and is dispersed at higher levels.

In 2003, meteorologists predicted that the mixing level would reach 1,500 feet by 10 a.m., but this condition did not actually happen until 12 noon. As this experience shows, it is unreasonable to expect that meteorologists can predict that certain weather conditions will occur at an exact time.

One of the problems with waiting until weather conditions are ideal is that it makes it hard to give adequate warning to residents who want to relocate out of the area during the fire. The Army wants to give adequate notice, without giving too many "false alarms." The Army is giving serious consideration to these issues and will proceed with a public involvement process before making changes in fire management policy at the former Fort Ord.

### ***Responding to Local Fire Fighting Agencies Fuel Break Work for Public Safety Will Continue This Year***

The Army has begun its annual program to maintain and expand fuel breaks around the "Impact Area." The Impact Area is the area where most of the former training ranges are located. The primary purpose for establishing fuel breaks is to reduce the threat of wildfire. This year's program calls for the cutting of vegetation from the fuel breaks.

The Army established many of the fuel breaks while Fort Ord was operating as a training facility. After 1994, when Fort Ord was closed, there was a period during which the fuel breaks were not maintained. In 2001, the Army started reestablishing the fuel break system by cutting vegetation and removing munitions and explosives of concern (MEC). The Army restored 47 miles of old roads, trails and fuel breaks in the Impact Area that had been regularly used during military

training activities. During this work the Army removed 217 MEC and 6,139 pounds of munitions debris.

Once the fuel break system was re-established, the Army began expanding and improving the fuel breaks. During 2002 and 2003 the Army's program included widening four existing fuel breaks, establishing a new 2-mile long fuel break in the eastern portion of the Impact Area, and cutting 248 acres of vegetation that had re-grown within existing fuel breaks. Widening the existing fuel breaks required not only vegetation removal, but also subsurface removal of munitions and explosives of concern on both sides of the existing fuel breaks. When the work was completed, the width of the fuel breaks that was safe for vehicles to travel on was expanded from 15 feet to 45 feet. During this work the Army removed 130 MEC and 40,818 pounds of munitions debris.

Local fire fighting agencies have recommended that the Army build a large enough fuel break around the entire Impact Area to provide a safe place from which firefighters could fight wildfires or contain prescribed burns. Currently, one of the challenges facing firefighters is that fires can detonate munitions and explosives that have not yet been cleaned up. Fighting a fire from a fuel break may be unsafe if fire fighters are in range of these detonations. For this reason, fires on the former Fort Ord are largely fought from the air using air tankers or helicopters.

In order to provide a safe place from which firefighters can work, the Army will need to remove MEC in an area several hundred feet inwards from the fuel break. The Army supports this plan, and is working towards making it happen. In some areas, this has already occurred.

## ***Environmental Documentation Has Been Completed*** **Army Anticipates 565 Acres of Property Transfers**

**W**hen Fort Ord was closed as a military training center, the Monterey Peninsula lost an estimated 5,000 jobs. One way that community leaders, and Congress, hoped to soften the blow was to develop the former Fort Ord property in ways that would bring jobs and other economic, educational and environmental benefits to the area.

The total area of the former Fort Ord is approximately 27,825 acres. Over 12,533 acres (excluding East Garrison) of this has been transferred for a variety of uses, including higher education (establishment of a California State University system campus and satellite facilities for the University of California, Santa Cruz), housing developments, and recreation and open space (including golf courses and Bureau of Land Management public lands).

Currently there are 330 additional acres (excluding East Garrison) of land pending transfer. The environmental documents that must be prepared prior to a property transfer have been completed and are shown on our web site at [www.FortOrdCleanup.com](http://www.FortOrdCleanup.com). The Army anticipates that these parcels will be transferred sometime in the next year.

For information on pending property transfers, including maps, go to [www.FortOrdCleanup.com](http://www.FortOrdCleanup.com) and select the "Property Transfer" tab. Maps are shown with information on the status of each parcel, and any of the maps can be downloaded.

Because of Fort Ord's historic use as a military training center, the property can be transferred only after the land is known to be safe for the intended reuse. Many of the areas that have not yet been transferred have munitions and explosives of concern on the ground or near the surface. There has also been some contamination of soil and groundwater. Many of the buildings have lead-based paint, asbestos, and other contaminants that have to be documented before property can be transferred. Several hundred million dollars have been spent to remove munitions and explosives of concern and clean up soil and groundwater.

The Army alone does not decide when land is safe for public use. Property on the former Fort Ord may not be transferred until the U.S. Environmental Protection Agency (EPA), the California Department of Toxic Substances Control (DTSC) and California Regional Water Quality Control Board (RWQCB) agree that

environmental, health and safety issues have been addressed. These agencies may also require that constraints be placed on future uses. For example, some land might be suitable for industrial or commercial use, but not be suitable for residential use. Once the agencies are in agreement that land is ready for transfer, the Army must prepare a transfer document known as a Finding of Suitability to Transfer (FOST). This document describes the environmental suitability of these parcels for transfer.

The Army coordinates transfers of property with the Fort Ord Reuse Authority (FORA). FORA is made up of representatives of several local municipalities and organizations, some of which have received former Fort Ord land. The Army does not decide how the land will be used in the future. These decisions are made by FORA, which was set up in 1994 by the California State Legislature. In 1997, FORA approved an overall plan, called the Base Reuse Plan, and the environmental documents needed to support that plan. This plan was developed after an extensive public process, during which the public had numerous opportunities to provide comments.

### **Guided Bus Tours of Fort Ord**



Army gives guided bus tours at June 2004 Open House. Pictured attendees visited an area where military munitions had been cleared at Military Munitions Range 22.

## Near CSUMB Housing Study of Gases in Landfill Area Reveal Normal Levels

The landfill is located to the west of the CSUMB Fredrick Park student housing. Landfill gas is generated in almost all landfills whenever there are organic materials (such as vegetation or household garbage) in the landfill. The Army received test results showing that landfill gas was present in the soil outside the landfill's fenceline in the direction of the student housing. The Army subsequently installed a system for capturing and treating these gases before they reach the fenceline.



Recently the Army conducted extensive tests of air quality near the landfill (pictured). The Army con-

ducted a number of measurements "upwind" of the landfill so air quality unaffected by the landfill could be compared with the air quality downwind of the landfill. The Army found that air quality upwind and downwind of the landfill are essentially the same. In addition, the readings overall are consistent with average readings throughout populated areas of California. In other words, whatever chemicals are in the air at the former Fort Ord are in the normal range, and are not the result of landfill gas.

## Areas Where Munitions and Explosives of Concern Were Suspected Track 1 Proposed Plan Available for Public Comment

The Army recently completed an analysis of 24 munitions response sites and concluded that 21 of those sites should be classified as "Track 1." Track 1 sites are areas where munitions and explosives of concern were suspected to have been used, but upon further investigation, the Army demonstrated these sites are safe because: (1) there is no evidence to indicate that suspected training occurred at the site; (2) the site was used for training, but did not involve the use of explosive devices or (3) the site was used for training, but sampling investigations identified evidence of limited training involving military munitions. For example, the training only involved the use of practice or pyrotechnic items that are not designed to cause injury. It is not expected that a

live item is present at any of these sites. In the unlikely event that a live item is found, it is not expected that the item would function through casual contact.

Once land is officially categorized as "Track 1" land, it can be considered for

transfer for other uses. Decisions about which sites are Track 1 must be based on the "strong weight of evidence." The decisions are made jointly by the Army, U.S. Environmental Protection Agency and the California Department of Toxic Substances Control.

The Army recently announced its recommendation that no further munitions response action is needed at the 21 sites identified in the Track 1 Proposed Plan. The public has an opportunity to comment on these conclusions before a final decision is made by the agencies. The public comment meeting was held in the ballroom at Stilwell Community Center in the Ord Military Community on September 29. Comments on the proposed plan are accepted through November 15, 2004.

### Cleanup Scorecard

From 1994 through August 1, 2004, here is what's been cleaned up at Fort Ord:

- 10.2 million anomalies investigated
- 6,854 high explosive munitions and explosive items removed
- 702,277 pounds of munitions debris removed

### Need a Speaker for Your Group?

Fort Ord Environmental Cleanup staff are available as speakers for service clubs and other community organizations. We can give you an overview, or address specific topics such as landfill or groundwater cleanup, or the ordnance safety program. We also welcome school groups. If you have the students and a bus, we'll customize a science tour of our projects. Call the Community Relations Office at (831) 393-1284.



## **Soil Vapor Extraction System Indoor Air Quality Studies Conducted at Preston Park**

**I**n 2003 the Army found indications of carbon tetrachloride in the soil near the surface in the areas of Lexington Court and Ready Court. This raised concerns that carbon tetrachloride could be moving from the soil into houses in the area, where it could be breathed by humans.

Recent tests showed that the concentrations of volatile organic compounds, including carbon tetrachloride, are the same in indoor and outdoor air in the Preston Park area as in other locations away from the carbon tetrachloride groundwater plume. In other words, subsurface vapors associated with the carbon tetrachloride groundwater plume are not impacting air quality at the former Fort Ord.

While tests did show that carbon tetrachloride was present in the soil vapor, the highest concentrations were at the deepest levels tested (about 85 feet below the ground surface). Carbon

tetrachloride soil vapor concentrations in shallow soil were already low enough that they did not pose immediate danger to residents of Lexington or Ready Courts. Using U.S. Environmental Protection Agency risk assessment criteria, the concentrations of carbon tetrachloride in soil would not pose a significant health risk even if residents were exposed to them for 30 years.

Higher concentrations at greater depth did, however, pose a threat to water quality in the underlying groundwater (this groundwater is not a source of drinking water). To address this threat, the Army constructed a soil vapor extraction system, which includes five extraction wells that were drilled to an 85-foot depth. These wells are connected by a pipeline to a vacuum/blower that sucks the soil vapor out of the ground and then pushes it through a carbon treatment facility.

The Army operated the soil vapor

extraction system (pictured above being installed) for ten weeks from April 6 to June 14, 2004. The soil vapor extraction system successfully reduced the carbon tetrachloride levels from 180 parts per billion to 5 parts per billion (measured at the inlet to the treatment plant). The system was turned off after concentrations dropped to significantly low levels that no longer posed a threat to groundwater quality, and it was believed that additional operation of the extraction system would not remove a significant amount of additional carbon tetrachloride. The Army monitored to see if the carbon tetrachloride levels built up again over time, or if the treatment successfully removed the vapors permanently. Based on the results of the evaluation, the Army restarted the soil vapor extraction system on September 9, 2004 and anticipates it will operate for approximately one more month.

## **From the Agency for Toxic Substances and Disease Registry Health Evaluation Will Soon Be Made Public**

**T**he Agency for Toxic Substances and Disease Registry (ATSDR), part of the U.S. Centers for Disease Control, will issue a health evaluation on last year's prescribed burn in the near future. ATSDR conducts independent evaluations of the health risks associated with events, and provides this information to communities.

ATSDR will issue press releases and fact sheets discussing its conclusions. The Fort Ord Cleanup Program website at [www.FortOrdCleanup.com](http://www.FortOrdCleanup.com) will provide a link to the ATSDR health evaluation as soon as it is issued.

The health evaluation is based on measurements of the constituents in smoke during the prescribed burn that

occurred in October 2003. Some community members were concerned that incidental detonation of military munitions during a fire would put toxics in the air. However, analysis of air samples showed no measurable amounts of chemicals associated with military munitions during the 2003 fire.

# CALENDAR—What's Happening Next

## 2004

### NOVEMBER

Small Community Group Meetings

### DECEMBER

No Community Group Meetings Scheduled

## 2005

### JANUARY

#### January 5 (Wednesday)

Community Involvement Workshop, 6:30 p.m. meeting begins

Location: Stilwell Community Center

Topics:

- *Status Report on Groundwater Cleanup*

#### January 6 (Thursday)

Technical Review Committee, 10:00 a.m. – 12:00 p.m.

Location: Stilwell Community Center

Topics:

- *Status Report on Groundwater Cleanup*

### FEBRUARY

#### February 19 (Saturday)

Guided Bus Tours of Cleanup Sites, 12:00 p.m. – 2:00 p.m.

Location/Departure: Sites 2/12 Groundwater Treatment Plant

### MARCH

Small Community Group Meetings

### APRIL

#### April 13 (Wednesday)

Community Involvement Workshop, 6:30 p.m. meeting begins

Location: Stilwell Community Center

Topics:

- *Landfill Cleanup Activities Update*

#### April 14 (Thursday)

Technical Review Committee, 10:00 a.m. – 12:00 p.m.

Location: Stilwell Community Center

Topics:

- *Landfill Cleanup Activities Update*

### MAY

Small Community Group Meetings

### JUNE

#### June 11 (Saturday)

Guided Bus Tours of Cleanup Sites and Open House,  
12:00 p.m. – 2:00 p.m.

Location/Departure: Sites 2/12 Groundwater Treatment Plant

## JULY

#### July 13 (Wednesday)

Community Involvement Workshop, 6:30 p.m. meeting begins. Location: Stilwell Community Center.

Topics:

- *Groundwater Cleanup Update*

#### July 14 (Thursday)

Technical Review Committee, 10:00 a.m. – 12:00 p.m.

Location: Stilwell Community Center

Topics:

- *Groundwater Cleanup Update*

## AUGUST

*August* (dates to be announced)

Cleanup Information Booth at the Monterey County Fair

## SEPTEMBER

*September* (date to be confirmed)

California State University Monterey Bay (CSUMB)

Welcome Fair Information Booth, 12:00 p.m. – 2:00 p.m.

Location: CSUMB Main Quad

*September* (date to be confirmed)

Bureau of Land Management (BLM) Public Lands Day,

10:00 a.m. – 2:00 p.m.

Location: Fort Ord Public Lands

## OCTOBER

#### October 12 (Wednesday)

Community Involvement Workshop, 6:30 p.m. meeting begins. Location: Stilwell Community Center.

Topics:

- *Site Security Program Update*

#### October 13 (Thursday)

Technical Review Committee, 10:00 a.m. – 12:00 p.m.

Location: Stilwell Community Center

Topics:

- *Site Security Program Update*

## NOVEMBER

Small Community Group Meetings

## DECEMBER

No Community Group Meetings Scheduled

### SMART Team Meetings

Information on SMART Team meetings can be found on the Fort Ord Environmental Cleanup website at [www.fortordcleanup.com](http://www.fortordcleanup.com)





## BRAC Cleanup Team New Members Welcomed

As the agency responsible for the cleanup at the former Fort Ord, the Army has teamed with the U.S. Environmental Protection Agency (EPA), the California Department of Toxic Substances Control (DTSC), and the California Regional Water Quality Control Board (CRWQCB) to form the BRAC (Base Realignment and Closure) Cleanup Team (BCT). The members of this group have the authority, responsibility and accountability to oversee the plans and activities for the cleanup.

Since the last newsletter, two of the members on the BCT have changed. Roman Racca is now the representative from the DTSC, and Claire Trombadore is the new representative from the EPA, supported by Martin Hausladen, another EPA project manager.

## Don't Go in There! Your Life Could Be in Danger!

Some areas of the former Fort Ord contain dangerous military munitions and explosives from when soldiers trained there. People who come in contact with these items risk serious injury or death. Areas known to contain these dangerous items are surrounded by

fences and posted with danger signs.

The U.S. Army asks for your help. If you see a trespasser in a posted danger area on the former Fort Ord, please call the Presidio of Monterey Police at (831) 242-7851 or 242-7852. Your call is confidential.

## Have a question?

For more information about the topics presented in this newsletter or to ask a question or express a concern about the environmental cleanup of the former Fort Ord call (831) 393-1284 or visit our website at [www.fortordcleanup.com](http://www.fortordcleanup.com).

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### Fort Ord Environmental Cleanup

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