

Attachment 1

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Summary of public comments and responses 2003 Ranges 43-48 prescribed burn at the former Fort Ord

Due to the prescribed burn expanding into a larger area, and increased smoke impacts to nearby communities that resulted from it, the Army, U.S. Environmental Protection Agency (EPA) and California Department of Toxic Substances Control (DTSC) received numerous inquiries, questions and comments regarding the prescribed burn, as well as observed extensive local newspaper coverage for several days. The Army, as the lead agency for this action, and EPA and DTSC as support agencies, felt a need to officially solicit public issues and concerns and respond to them. Three avenues were set up for anyone to submit comments on the prescribed burn: (1) via regular mail, (2) electronically through www.fortordcleanup.com and (3) oral or written comment at a public comment meeting on November 13, 2003.

Forty-seven (47) people voiced their comments at the November 13 meeting, as well as 10 submitted written comments on comment cards during that evening. The Army received 17 written comments and 34 e-mail comments. There were 22 letters to the editors of local newspapers on the topic of Fort Ord's prescribed burn during October and November of 2003. In all, 117 people commented on the Ranges 43-48 prescribed burn, concerning a range of issues such as the control of the fire, air quality-related impacts, communication with the public and the relocation program. A summary of community comments and responses is provided below.

Issues related to the overall program and decision-making:

Comment 1: Several people wanted explanations for why people experienced so much ash and smoke impacts, and how this occurred. Commentators suggested that someone should be held accountable. One requested a question-and-answer session with the decision makers. People wanted to know who was in charge of the burn and who Okayed proceeding with the prescribed burn that day. One said that real community members were not involved.

Response: The Army regrets that more people experienced the inconvenience of smoke and ash from the Ranges 43-48 burn than initially anticipated. The added impacts were mainly due to the fire jumping a primary containment line and burning an additional approximately 1,000 acres of land, and the resulting fire suppression efforts that cooled down the fire thus generating more smoke. This is explained in more detail in the Prescribed Burn After-Action Report.

The ranges of weather conditions under which the burn would occur (the "burn prescription") was coordinated among the Army, U.S. Environmental Protection Agency (EPA) and the State of California represented by Department of Toxic Substances Control (DTSC). The burn prescription and description of the way the prescribed burn would be conducted were documented in *Final Ranges 43-48 Prescribed Burn Plan, Former Fort Ord, Monterey, California* dated October 7, 2002 (Administrative Record # OE-0401K) and updated in *Ranges 43-48 Prescribed Burn Plan Addendum* dated August 18, 2003 (Administrative Record # OE-0401K.1). These reports are available in the Administrative Record. The overall approach for conducting the prescribed burn at Ranges 43-48, including the burn prescription, was described in a series of Community Bulletins, each mailed to more than 50,000 households in Monterey and Salinas areas during 2002 and 2003.

The Army believes it followed the previously agreed-upon steps for making the decision to burn on October 24, 2003. The Army's meteorologists monitored and forecasted the weather daily beginning

August 2003 to identify days that would potentially meet the burn prescription. On one occasion in 2003 the Army forecasted a potential day for a burn, mobilized equipment and personnel and announced relocation, and postponed the burn due to changes in weather forecast. Later the Army's meteorologists identified October 24-26 to potentially meet the burn prescription and the Army mobilized for the prescribed burn. The Army coordinated the mobilization activities with EPA, DTSC, California Air Resources Board (CARB) and Monterey Bay Unified Air Pollution Control District (MBUAPCD), as well as notified local community and the media for three days prior to the burn. In the morning of October 24, the Army's meteorologists determined the burn prescription was met, the Army determined other conditions required for conducting the burn -- including the availability of backup fire management resources -- are met, and the team proceeded with conducting the burn.

The decision to burn on October 24 is documented in the Prescribed Burn After-Action Report.

Comment 2: One asked for explanations about the timing of the escape and the timing of it being reported to the public.

Response: The prescribed burn on October 24, 2003 started at about 9:00 a.m.(Pacific Daylight Time). A spot fire occurred across a western primary containment line at about 9:30 a.m. and was suppressed. Shortly afterward two other spot fires started along the same control boundary and the fire team worked to suppress them. However the two spot fires grew larger and eventually merged together. After verifying the situation the Ord Military Community fire chief called it an escape at about 11:00 a.m., and took control of the operations.

The information about the spot fires was not reported to the public until after the escape was declared. This was because the fire crew needed to verify and confirm that there was, in fact, a breach in the containment line, prior to reporting it to the public. Fire Stop's burn management staff spent a considerable time waiting for good, verifiable information to come in from the front line of operation. Once there was enough information to determine an escape, the contingency plan was implemented to concentrate on controlling the fire. Information about the breach and escape was reported to the public only after it had been confirmed, to avoid unnecessary confusion.

Comment 3: Some felt that innocent people should not have to deal with the inconvenience of exposures to smoke and ash in order to protect people who trespass off-limit areas.

Response: The Army recognizes there are public concerns about the smoke impacts to the community, and has previously received and considered similar comments questioning the decision to protect trespassers from explosive hazards rather than the general public from exposure to smoke from the prescribed burning. The danger of unexploded ordnance is real. The Army, EPA and DTSC have considered this comment in evaluating alternatives to addressing the explosive risks, as documented in *Final Interim Action Ordnance and Explosives Remedial Investigation/Feasibility Study For Ranges 43-48, Range 30A, Site OE-16, Former Fort Ord, California*, dated March 7, 2002 (Administrative Record # OE-0332JJ).

Because of the presence of live, sensitively-fuzed unexploded ordnance items on the ground surface of these sites, their proximity to residences and schools, and the history of trespassing incidents, the Army, EPA and DTSC decided to conduct the Interim Action to remove unexploded ordnance, including the decision to use prescribed burning to clear vegetation. A 60-day public comment period was held before the decision was made in 2002. Please see *Record of Decision, Interim Action for Ordnance and Explosives at Ranges 43-48, Range 30A and Site OE-16, Former Fort Ord, California*, dated September 20, 2002 (Administrative Record # OE-0414).

Comment 4: Many people expressed their opposition to prescribed burning at Fort Ord, for reasons such as smoke exposure to people, concerns about the potential of fire going out of control, and the concern that burns and cleanup of the base would lead to more development of Fort Ord. Two indicated that prescribed burning is against air pollution law and National Environmental Policy Act.

Response: The prescribed burn at Ranges 43-48 was planned to include a number of measures to reduce smoke impacts to the public and to control the fire within its intended boundaries. These measures included (a) removing surface ordnance and combustible debris from the site prior to conducting the burn as much as possible; and selecting relatively dry fuel conditions to reduce smoke generation, (b) selecting a range of weather conditions that would allow the majority of smoke to rise to high altitudes and disperse there; notifying the community in advance; and offering voluntary temporary relocation to reduce smoke impacts, (c) preparing and pre-treating a system of fuel breaks that included primary, secondary and tertiary containment lines; having enough equipment and personnel onsite to manage the fire; and adjusting the ignition patterns to manage the fire, and (d) having contingency fire resources to respond in an event the fire travels in an unplanned manner.

The prescribed burn at Ranges 43-48 was intended to facilitate the cleanup of unexploded ordnance necessary to protect the public from the imminent threat posed by unexploded ordnance. Although proposed reuse was considered in the development and evaluation of alternatives to address the explosive hazards, it was not a significant input to the evaluation.

Consistency of the interim action with applicable environmental laws and regulations was evaluated and documented in *Record of Decision, Interim Action for Ordnance and Explosives at Ranges 43-48, Range 30A and Site OE-16, Former Fort Ord, California*, dated September 20, 2002.

Comment 5: Two people opposed burning as a method of removing or detonating unexploded ordnance.

Response: The prescribed burn at Ranges 43-48 was intended to facilitate the cleanup of unexploded ordnance by removing the vegetation and exposing the ground surface so that the ordnance cleanup workers could see the ground and work safely. The prescribed burning was not conducted as a method of removing or detonating unexploded ordnance, although some ordnance was expected to detonate during the fire. In fact, during the surface removal of Ranges 43-48 area shortly after the burn, more than 5,000 explosive ordnance items were found.

Comment 6: Some stated they fully support the need to clean up the former firing ranges to prevent the possibility of injury or death involving unexploded ordnance. They urged the Army to clean up the ranges as soon as possible. One countered if these areas are so dangerous with grenades etc., then why isn't the Army clearing other parts of the former Fort Ord?

Response: The Army has been investigating and cleaning up unexploded ordnance at Fort Ord since 1993. Investigation and cleanup priorities are formed based on the hazard of unexploded ordnance, accessibility and proximity of the sites to the public, and reuse priorities. The Army is committed to continuing the cleanup of unexploded ordnance at the former Fort Ord to mitigate its explosive hazards.

Comment 7: Several expressed their support of the prescribed burn for reasons such as the benefits to the habitat, local agencies' commitment to the Habitat Management Plan, wildland fuel management, reuse that the follow-on cleanup would enable, and mainly, for enabling the Army to address the hazards of unexploded ordnance for the safety of the public and the cleanup workers. Two recalled accidents involving unexploded ordnance, including one in which one was killed and another was seriously injured. Some said the additional areas that burned was a plus, since it would have saved the resources required to burn those acreage and the activities associated with those "events". One observed that it was obvious that

the burn was very effective in exposing the hazardous ordnance and making the cleanup possible. Another stated that the threat of unexploded ordnance is real, particularly to the residents of City of Seaside and the children.

Response: The Army agrees that prescribed burning has beneficial impacts to the habitat at the former Fort Ord, contributes to effective wildland fuel management, and facilitates reuse planned by the local community in addition to enabling the cleanup of unexploded ordnance to address explosive hazards. The Army also recognizes the impacts and inconveniences this action has caused and will cause to the community, such as road closures, short-term smoke exposures and voluntary temporary relocation, and will continue to explore ways to minimize these impacts.

Comment 8: Some commented that the chaparral vegetation would have burned anyway, so it is better to conduct controlled burns than have an uncontrolled wildfire. Some referred to the catastrophic wildfires in Southern California as harsh reminders that wildland fuel management is essential to protect our communities, and that prescribed fire is the most efficient and ecologically sound strategy for preventing such catastrophic wildfires. One countered if the threat of wildfire is such a large problem, what has the Army done for all these years?

Response: The Army agrees that prescribed burning has a beneficial impact in terms of wildland fuel management, since it prevents vegetation fuel loads from accumulating excessively. Excessive accumulation of vegetation fuel load is associated with uncontrolled wildfire. The Army also agrees that prescribed burning is an ecologically sound strategy in this rare plant community that requires periodic fires.

Issues related to the control of the fire:

Comment 9: How dangerous is it to light a fire with ordnance in the area? Explosions during a fire would have put the City of Seaside in danger. One noted hearing explosions over night, but another commented he did not hear any explosion.

Response: U.S. Army Corps of Engineers established a 1,701 ft exclusion zone surrounding the Ranges 43-48 prescribed burn area, based on a conservative calculation of a distance that a fragment might fly from a detonation of an ordnance item likely present in the area, and assuming that such a detonation occurs at the edge of the burn area. Only essential personnel were allowed to enter the exclusion zone. Although people conducting the prescribed burn were essential to the operations, they still had to stay away from the burn some distance. This is why the fire was managed from the air. Twenty-six houses in Fitch Park military housing area were affected by this exclusion zone and received a special notice about the burn.

Comment 10: Homes in Seaside were in danger. It was lucky that Seaside did not burn up. One commentator suggested there should have been guidelines for how close to residential areas a prescribed burn should be allowed.

Response: The area between the City of Seaside and the western boundary of the expanded fire had been cleared of vegetation and ordnance, and prevented the fire from further approaching the city boundary. Any burning embers that could have flown into this previously cut area were not expected to start a large fire. The fire remained 750 to 2,000 ft from the city boundary.

Comment 11: Some suggested perhaps Fire Stop did not have enough personnel and equipment to put out the fire, or there was not enough planning. One commentator wondered about the adequacy of

methods used to fight the escaped fire, and if the resources could have been better used if they assisted in the Southern California fires.

Response: The prescribed burn was planned to include equipment necessary to conduct and manage the fire, standby equipment, and backup fire suppression resources. Fire Stop brought 10 fire engines, 2 single-engine air tankers (SEATs), 4 water tenders, two bulldozers, 13 helicopters and more than 80 personnel. In addition, Ord Military Community Fire Department (currently Presidio of Monterey Fire Department) and local fire agencies provided backup support. The prescribed burn plan included procedures for handling spot fires. Despite their attempts to manage the spot fires, the fire escaped the primary control line. As soon as the escape was declared, ignition stopped and all resources were directed to controlling the fire.

Comment 12: Some questioned the decision to conduct a burn during a fire danger season. One person noted the day before the fire, National Weather Service had issued a Red Flag Warning of high fire danger for the majority of the state of California, and wondered if the Army wanted the fire to go out of control so they could burn off more land than they were to be allowed to burn.

Response: The prescribed burn was planned for the 490-acre Ranges 43-48 site, and containing the fire within this boundary was one of the project's top priorities. However, it was also important to minimize smoke impacts to the nearby communities. That's why the burn prescription for the Ranges 43-48 prescribed burn specifically called for relatively dry fuel conditions to reduce smoke generation and weather condition that would send the smoke to high altitudes and disperse there. Unfortunately, these parameters are also associated with fire weather conditions. The National Weather Service issues "Fire Weather Watch" and "Red Flag Warning" advisories for areas with higher wildfire potential. Typically fire agencies are on an alert status once a Red Flag Warning is issued for their areas. For October 24, a Red Flag Warning had been issued for parts of Monterey County except for the immediate coast where Fort Ord is located. Because of this, local fire agencies were on high alert status, and the Army obtained additional firefighting resources to be able to better respond to an event of an escape. The Army had also established a network of fuel breaks and pre-treated primary containment lines with water, foam and retardant to reduce the chance of an escape.

Comment 13: Some commended those involved in planning and preparation for the prescribed burn, which kept the fire from getting worse. One person commented that the fire was never totally out of control. It stayed inside the third containment line and no direct action was taken to suppress the fire from the ground. The commentator also noted that Seaside has a fire break along most of its eastern boundary. Some people commented they were glad that the fire was conducted safely, without any loss of lives or property. One characterized the experience as being represented by a diligent group of firefighters working many hours to get things under control, and many thanked those firefighters.

Response: Conducting the prescribed burn safely was one of the Army's top priorities as well. No injury, death or property damage was caused by the Ranges 43-48 fire. Although the fire burned more areas than planned, it stayed within the former Fort Ord's Impact Area boundary. The prescribed burn at Ranges 43-48 was planned to include a number of measures to control the fire within its intended boundaries, including: preparing and pre-treating a system of fuel breaks that included primary, secondary and tertiary containment lines; having enough equipment and personnel onsite to manage the fire; and having contingency fire resources to respond in an event the fire travels in an unplanned manner. The Army appreciates those firefighters who responded to the escape and helped ensure the fire remained under control.

Suggestions for future burns:

Comment 14: Many urged the Army to consider alternatives to burning, and suggested methods such as cutting vegetation, fencing the ordnance area while developing new technology, and using remote-controlled armored bulldozers to remove vegetation and dig out the explosives. One announced a meeting at Monterey Peninsula College to discuss alternatives to burning with an Oak Ridge National Laboratory expert on November 20. Another suggested an airborne magnetometer technology be considered, as well as an alternative to fund EPA and the State of California to take on the cleanup responsibility. One suggested that there should be sufficient time to explore alternatives since the Army would be busy cleaning up the 1,500 acres for three years, since it is three times the area intended for burn and cleanup.

Response: Many alternative methods of clearing vegetation to support the cleanup of unexploded ordnance were considered during the development of *Final Interim Action Ordinance and Explosives Remedial Investigation/Feasibility Study For Ranges 43-48, Range 30A, Site OE-16, Former Fort Ord, California*, dated March 7, 2002 (Administrative Record # OE-0332JJ). In this study, manual, mechanical and remotely-operated mechanical clearance methods, prescribed burning, animal grazing and herbicide application were evaluated, and prescribed burning was selected as the best alternative for clearing vegetation in Ranges 43-48, primarily because other methods would directly expose vegetation clearance workers to unexploded ordnance.

Comment 15: Suggestions were made for modifying the procedures for conducting prescribed burns in the future, including:

- The Army should learn from this burn, correct mistakes and move on with future burns.
- Conduct the burn at night, while most people are indoors (to minimize smoke exposure).
- The Army should educate the public about the devastating effects of large-scale wildfires that could be initiated by lightning, arsonists, vandalism, careless campers, and other miscellaneous causes; and of the benefits of a progressive controlled burn-program to avoid the uncontrollable situation of natural growing fuel that becomes more severe with each passing year.
- One suggested using the sea water for fire suppression, since the fresh water is a scarce commodity in this community.
- One suggested burning when the winds are blowing away from surrounding towns, with relocation.
- Some people suggested that the Army burn the entire area once. One suggested that the Army burn the entire area once, and then set up a five-year rotation for habitat maintenance and fire safety purposes.
- One suggested fewer, larger acreage burns to more rapidly move forward with the range cleanup.
- One suggested conducting several small (400-500 acre) burns per year in scattered areas, to facilitate faster completion of range cleanup. Gradually link the burned areas together; within a very few years those burned areas will provide good anchors for the remainder of the burns.
- One suggested conducting frequent small burns of a few acres that can easily be contained with the available personnel and equipment. Instead of waiting for just the right conditions, which will probably change during the burn anyway, do these small burns on a fairly routine schedule, every few weeks or so. Small fires will create less smoke no matter where it blows.
- One person suggested it might be more prudent to light the fire at the downwind firebreak, letting the fire burn slowly upwind creating a wide firebreak first. When the fire has burned far enough upwind, light a second fire at the upwind edge, which quickly increases in intensity and races downwind. This may result in a longer and smokier burn, but minimizes the risk of the burn going out of control.

Response: The Army appreciates these suggestions and will consider them in planning future prescribed burns. Some of the suggestions, such as smaller burn size, is already being discussed with regulatory agencies as a possibility. Some of the suggestions, such as conducting fewer, larger burns, are more difficult to consider because of existing, regulatory requirements such as the Habitat Management Plan limiting prescribed burns at the former Fort Ord to 800 acres per year or less.

Comment 16: One suggested spring or early summer may be a better time of year to set a fire, since it would be much easier to extinguish it.

Response: The Habitat Management Plan allows prescribed burns to occur at the former Fort Ord between July 1 and December 31 of each year, to protect sensitive species in the Central Maritime Chaparral habitat.

Comment 17: One suggested forming an independent panel to make the go/no-go decision of any future burns. The decision should not be left to organizations with a vested interest in timely completion of the project, i.e. the Army and the private contractor. The Army should use eminent atmospheric scientists such as those at Naval Postgraduate School, to advise on the dispersion of the smoke plume under conditions that actually exist on the scheduled day of the burn. Local fire authorities should be empowered to review the adequacy of the firebreaks and the fire suppression capabilities, again with an eye to actual burn conditions.

Response: The Army will seek an increased level of coordination with air quality, weather forecasting and local fire agencies in planning the next prescribed burn.

Comment 18: One person stated that there is a general forecast that predicts the general weather conditions of the area, but in the Fort Ord area and in the surrounding areas, the winds do different things (in terms of direction). The commentator asked that the panel (at the November 13 meeting) consider funding a \$2 million proposal from Naval Postgraduate School that would research the wind patterns by developing a meteorological monitoring network, and that would assist in decision-making for future burns at the former Fort Ord in the long-run.

Response: The environmental cleanup of the former Fort Ord is conducted as part of the Army's Base Realignment and Closure (BRAC) action, and its ability to fund research-and-development proposals are very limited.

Issues related to the weather conditions:

Comment 19: Some commented that the weather on October 24 was not suitable for a prescribed burn. Some stated that weathermen on TV said that the weather was not suitable for a burn. One commented that easterly wind would result in too many people in the path of the smoke before reaching the ocean, and it usually is accompanied by an inversion, which is not a condition favorable to high-level dispersion of smoke. One asked to include weather equipment in future planning. Another commentator disagreed with the quote in the Herald of an Army representative that October 24 was "absolutely the perfect day to do the burn." He noted at 6:30 a.m. in Carmel Hills, winds were blowing 20 to 25 miles per hour (mph), with gusts to 35 mph. Such winds imply at least moderate- to low-level turbulence, as gusts from aloft are brought down to the surface levels. Such gusts would fan any flames to much larger conflagrations.

Response: The actual weather data from October 24 indicated that the weather mostly followed the burn prescription and the morning forecast. The burn prescription and the relatively dry fuel conditions were selected to reduce smoke generation and to send the smoke to high altitudes and disperse there. The Prescribed Burn After-Action Report reported that the majority of smoke rose to high altitudes and moved out over Monterey Bay, but some residual smoke was noticeable at the ground level. The low-level smoke was primarily generated from the initial stages of the burn as well as during fire suppression and smoldering stages, when the fire was not hot enough to lift the smoke to high altitudes. Meteorological data from onsite weather monitoring stations during the Ranges 43-48 fire is included in the Prescribed Burn After-Action Report. The Army is evaluating whether the burn prescription should be changed.

Comment 20: Some felt that the weather conditions were just right for conducting a prescribed burn on that day, and the burn was conducted under the best of circumstances at the time.

Response: The Army believes the conditions necessary to conduct the Ranges 43-48 burn as planned existed in the morning of October 24.

Comment 21: Some commentators noted that we should recognize the reality that fire behavior and weather factors are extremely difficult to predict, and weather often changes.

Response: It is often difficult to reliably forecast weather more than a day in advance. In early 2003 the Army asked meteorologists at the Naval Postgraduate School to research the ability to predict weather, and the reliability of those forecasts made one, three and five days in advance. The study showed that until 24 hours in advance, forecasts made based only on meteorological models were not very reliable; however forecasters familiar with local weather patterns may be able to predict weather more reliably. October 24 was identified as potentially meeting the burn prescription five days in advance; the forecasts were refined as the day approached. However, as was the case in November 2002 and earlier in October 2003, the weather could change and a scheduled burn may need to be postponed one or more days. The Army also recognizes that fire behavior is not an exact science and it could change, therefore it is important to leave enough flexibility for those conducting the fire so that a range of options are available to them in conducting the fire.

Issues related to smoke and ashes:

Comment 22: The amount of smoke and ashes caught many people by surprise. The Army needs to promote the awareness of the consequences of the burn, and so people could be better prepared to deal with them, and avoid being exposed to hazardous chemicals. Some commented that the smoke and ashes were merely inconveniences, and something we should accept, because the benefits of burn and ordnance cleanup far outweigh the inconveniences we experience. Many noted or complained about ash falling on their parked cars and houses. One commented paint on someone's car had been "etched" by the toxic "snowflake" accumulated on the vehicle. One person noted a strange, salt-like substance on her car after the rain (after the burn).

Response: Two Community Bulletins were mailed each to more than 50,000 households in Monterey and Salinas areas in 2003, and other outreach activities were conducted, to raise awareness of the unexploded ordnance cleanup and associated prescribed burn at Fort Ord. Based on the experience of October 2003, the Army will re-evaluate its community outreach materials regarding the description of potential impacts people might experience during future prescribed burns.

The air monitoring program for the Ranges 43-48 prescribed burn included sampling and analysis of ambient air from various air monitoring locations in and around the former Fort Ord. In 2001 the Army, in consultation with EPA and DTSC, conducted an assessment of ordnance-related air emissions that may be associated with conducting a prescribed burn at Ranges 43-48, showing that the smoke from prescribed burns at Fort Ord would be no different from that from an ordinary vegetation burn. The study used conservative assumptions and concluded that air pollutant emissions from incidental detonations during a prescribed burn in Ranges 43-48 would be minor compared to emissions contributed directly by biomass burning, and contribute pollutant concentrations well below health-protective regulatory screening levels (Administrative Record # OE-0355). This conclusion was confirmed through the air monitoring that was conducted during the October 2003 prescribed burn; the monitoring results showed that munitions-related chemical compounds were not detected. The results of the air monitoring are presented in the air monitoring report.

Comment 23: Several commentators stated they or someone they knew experienced health problems during the fire, including eye irritation, nosebleed, dizziness, headache, cough, and difficulty breathing. Some reported being unable to stay home or leave home in order to minimize their exposure to smoke. One wondered if children should be allowed to stay outdoors on the day of the burn. Some felt that conducting the prescribed burn demonstrated disregard for the health and safety of the community.

Response: Many people who called the prescribed burn hotline during the Ranges 43-48 prescribed burn, as well as these and other commentators, expressed a variety of reactions to smoke and ash, ranging from not being bothered at all, to difficulty breathing during short-term exposure to an elevated concentration of smoke, to reports of continuing scratchy throat days after the fire was over. These community feedbacks emphasize the fact that effects of exposure to smoke from a prescribed burn vary greatly among individuals, and they are best mitigated by the individuals to meet their own, specific needs. According to the Monterey County Health Department, health effects from short-term exposure to smoke should generally be reversible and short term effects, and the risk of long-term health effects is very low (from the physicians' alert issued on October 24, 2003).

Comment 24: What is in the smoke, what are the health effects of exposure to smoke, and what are the long-term effects? One stated chemicals from the explosives are in the smoke. Another stated that, in addition to particulates there are many toxic gases that come off the burn, such as phosgene gas, redhazens (phonetic) gases, cyanide gases, all kinds of nitrites, nitrite gases, and perchlorate. What carcinogens are found in the smoke generated in the burns at Fort Ord that are not present in smoke from ordinary fires? How did the Army determine, before the fire was conducted, that the smoke will not be harmful to people? What is in the ash and what are the health effects of ash?

Response: The air monitoring program for the Ranges 43-48 prescribed burn included sampling and analysis of ambient air from various air monitoring locations in and around the former Fort Ord. In 2001 the Army, in consultation with EPA and DTSC, conducted an assessment of ordnance-related air emissions that may be associated with conducting a prescribed burn at Ranges 43-48, showing that the smoke from prescribed burns at Fort Ord would be no different from that from an ordinary vegetation burn. The study used conservative assumptions and concluded that air pollutant emissions from incidental detonations during a prescribed burn in Ranges 43-48 would be minor compared to emissions contributed directly by biomass burning, and contribute pollutant concentrations well below health-protective regulatory screening levels (Administrative Record # OE-0355). This conclusion was confirmed through air monitoring that was conducted during the October 2003 prescribed burn; the monitoring results showed that munitions-related chemical compounds were not detected. The results of the air monitoring are presented in the air monitoring report.

Comment 25: A person reported the Herald reporting "health officials advised that people evacuate the area as there was air pollution caused by the now out-of-control burn" on Friday.

Response: The Monterey County Health Department issued a physicians' alert in the morning of October 24, 2003, informing local physicians about the voluntary relocation program, altering them of potential health effects of smoke exposure and that they would likely be short-term effects, identifying potentially sensitive populations such as individuals with asthma, informing how one can reduce smoke exposure during the prescribed burn, and providing road closure information. On October 24 after the prescribed burn had begun, Monterey Bay Unified Air Pollution Control District issued a health advisory, advising people in areas affected by the smoke to be cautious and avoid unnecessary outdoor activities, encouraging people with respiratory and heart ailments, young children and older adults to limit their exposure to smoke by staying indoors or temporarily seeking areas with cleaner air, and informing that the smoke from the fire is expected to continue throughout the day. The Army is not aware of any advisory from local public health office to evacuate.

Comment 26: One commentator stated at the November 13 meeting that she was getting calls every day from people who had been in CHOMP (Community Hospital of the Monterey Peninsula), that the emergency room was filled with people at the CHOMP. Another commentator stated he accompanied an Air District inspector to "chase the worst conditions that the fire was generating," and that his observations at various areas surrounding the former Fort Ord, including the CHOMP, were different than the much worse conditions portrayed by the media. One person asked for a panel that would track the status of cancer, respiratory illness, skin rashes and other diseases for the past seven years to see if there's any correlation to the burns. Another commented there has never been a health study done on off-site impacts from Fort Ord.

Response: It is not possible to know how many of the hospital visits that occurred on October 24 were actually attributable to exposure to smoke from the Ranges 43-48 prescribed burn. On October 24, numerous complaints were received by the Army's prescribed burn hotline; these included 19 air quality-related complaints and 14 calls from people concerned for a relative, a friend or a pet.

Comment 27: One asked for a list of all weapons known to have been on Fort Ord grounds such as Explosives, Chemical, Biological, and Radioactive. Conduct soil sampling and analysis of all sites known to have been used for military training; testing shall include screening for all compounds used in the manufacture of Explosives, Chemical, Biological, and Radioactive materials known to have been on Fort Ord grounds. Conduct a study and evaluation of impacts or potential impacts on human health resulting from exposure to smoke emitted from the burning of Explosives, Chemical, Biological, and Radioactive materials. Another commentator stated he is not aware of any ordnance items that contain significant radioactive material.

Response: The types of ordnance known or expected to exist at Ranges 43-48 included 4.2-inch, 60mm, and 81mm mortars; 14.5mm subcaliber projectiles; 35mm subcaliber rockets; 90mm recoilless rifle rounds; 84mm high explosive antitank (HEAT) projectiles; 40mm high explosive (HE) grenades; 66mm light antitank weapon (LAW); small arms; practice anti-personnel mines; dragon guided missiles; practice claymore mines; and fragmentation hand grenades. There have been no evidence to suggest that radioactive, chemical or biological weapons were ever fired at the former Fort Ord.

Detonations of unexploded ordnance is not expected to cause significant impacts to soil based on results of *Final Basewide Remedial Investigation/Feasibility Study, Fort Ord, California*, October 1995 and on studies discussed in the *Final Ordnance Detonation Sampling and Analysis Plan, Former Fort Ord, Monterey, California*, dated October 24, 2000 (Administrative Record # OE-0234J). Although the studies mentioned above indicate there would be no significant impacts to soil from ordnance detonation, the Ordnance Detonation Sampling and Analysis Plan presents approaches to further evaluate potential soil contamination from ordnance detonations under Fort Ord site-specific conditions.

The air monitoring program for the Ranges 43-48 prescribed burn included sampling and analysis of ambient air from various air monitoring locations in and around the former Fort Ord. In 2001 the Army, in consultation with EPA and DTSC, conducted an assessment of ordnance-related air emissions that may be associated with conducting a prescribed burn at Ranges 43-48, showing that the smoke from prescribed burns at Fort Ord would be no different from that from an ordinary vegetation burn. The study used conservative assumptions and concluded that air pollutant emissions from incidental detonations during a prescribed burn in Ranges 43-48 would be minor compared to emissions contributed directly by biomass burning, and contribute pollutant concentrations well below health-protective regulatory screening levels. This conclusion was confirmed through air monitoring that was conducted during the October 2003 prescribed burn; the monitoring results showed that munitions-related chemical compounds were not detected. The results of the air monitoring are presented in the air monitoring report.

Comment 28: One suggested that Monterey Bay Unified Air Pollution Control District's preliminary report indicated the fire was unhealthy to anyone who lived in the area for at least four days. One asked about the availability of Monterey Bay Unified Air Pollution Control District report about the Fort Ord burn.

Response: The Army will review the preliminary report by Monterey Bay Unified Air Pollution Control District. The report is available by contacting the District at (831) 647-9411.

Comment 29: Several commented on the accessibility to health care. One felt that health care and medications should be made available to the impacted public for free. Another suggested a health forum, and another requested a health and stress program.

Response: It is anticipated that the effects of exposure to smoke from any prescribed burn will vary greatly among individuals, and they are best mitigated by the individuals to meet their own needs. The temporary voluntary relocation program was offered to any Monterey County resident who wished to be out of the area during the burn and provided an opportunity to avoid smoke exposure. The Army will review the components of the relocation program and seek ways to be more responsive to these suggestions.

Information about free or low-cost medical care for low-income individuals and families is available by contacting Monterey County Health Department.

The Army recognizes the impacts and inconveniences this action has caused and will cause to the community, such as road closures, short-term smoke exposures and voluntary temporary relocation, and will continue to explore ways to minimize these impacts.

Issues related to relocation:

Comment 30: One suggested there should be a consideration for people who are unable to leave the area for work-related or other reasons. Several people expressed their appreciation of and support for the relocation program. Some expressed they would relocate during the next burn. One commentator hoped that future burns by Bureau of Land Management (BLM) would include a relocation program.

Two commentators stated some people had difficulty finding the relocation office and they were provided the program information and assistance from Fort Ord Environmental Justice Network. One of them stated she was told that only 300 and 350 families would be relocated since there wasn't sufficient funds to accommodate more people.

Response: The temporary voluntary relocation program was offered to any Monterey County resident who wished to be out of the area during the burn and provided an opportunity to avoid smoke exposure. The Army will review the components of the relocation program and seek ways to be more responsive to these suggestions and to improve upon disseminating accurate information. The relocation program was included in the Interim Action Record of Decision to specifically address the potential contribution of air pollutants from unexploded ordnance in prescribed burns at the former Fort Ord.

Comment 31: There were comments of disapproval of those who took advantage of the relocation program even though they did not have any health concerns related to the burn.

Response: The Army will consider emphasizing that the relocation program is intended to provide temporary relief to those who have smoke exposure-related health concerns.

Issues related to communication:

Comment 32: Some commentators expressed feeling misinformed about what they should expect of the prescribed burn. One urged the Army to take significant steps to restore public trust before carrying out any future burns. Several reported difficulty getting up-to-date information from organizations such as the Red Cross, local fire and police agencies and nearby businesses, and suggested better informing them. One commented that the hotline was not updated frequently enough. Some commentators requested adequate advance notice to the public and better follow-up information as the burn is happening. Some reported that many people were unaware of the prescribed burn program or the November 13 public comment meeting. One suggested setting a "prescribed burn call registry" program, under which people who would be directly impacted by a burn would get calls from the Army's staff. One stated there was no real community involvement. Some indicated that enough information was available prior to the burn and felt well informed. One person commented that the website updates were useful.

Response: The Army acknowledges that the local communities experienced more smoke and ash than initially anticipated during the Ranges 43-48 prescribed burn, due mainly to the increased size of the area burned. The Army appreciates, and will consider these suggestions in reviewing its community outreach strategy for future burns.

Comment 33: The Army should post warning signs about the potential danger of unexploded ordnance, although this should not be necessary in housing areas.

Response: The Impact Area is known to contain numerous unexploded ordnance items, and is fenced. Warning signs are posted around the Impact Area as well as other areas known or suspected to contain unexploded ordnance. The need for posting warning signs is reviewed at least annually as part of the ordnance and explosives site security program. Community members who has specific recommendations that could improve ordnance site security at the former Fort Ord are encouraged to contact the Army's community relations office at (831) 393-1284.

Comment 34: One person suggested that local elected officials should be informed about public comments heard at the November 13 public comment meeting.

Response: The records of the November 13 public comment meeting are available for public review at the Administrative Record.

Comment 35: One person commented on a quote in the Herald's October 25, 2003 article of Fire Stop's public information officer, as saying "wildfires are difficult beasts." The commentator wondered this might be an admission that he and his crew didn't do their job of supervising a controlled burn.

Response: This comment is so noted.

Issues related to the impacts to plants and wildlife:

Comment 36: Is there any consideration for the welfare of the deer, bobcats, rabbits and other wild animals affected by the burn? One person commented that wildlife living in the area of the Fort Ord burn were severely and negatively impacted by the burn, due to loss of habitat, places for drinking water, and sources of food. She wanted to know what the impacts to the wildlife were. What has been done to protect them, what has been done to inform the residents of the Monterey area regarding wildlife that may be

escaping from the burn area, about wildlife that may be injured and how to assist them. She asked if the SPCA (Society for the Prevention of Cruelty to Animals) and local veterinarians have been notified about the potential wildlife impacts, or whether the Army's veterinarian was in attendance at the time of the burn. She wondered if there have been any attempts to monitor for or assist injured animals.

Response: Although the prescribed burn at Ranges 43-48 likely resulted in injury or death to some wildlife, the losses were likely no more detrimental to wildlife than from a natural fire or wildfire. Wildlife in chaparral communities have adapted to fire in many ways. Larger animals and birds will flee the burning areas because they are much more mobile than smaller animals. Small animals and reptiles will wither, escape the fire area using existing burrows or shelters, burrow themselves into the sand or perish. Studies of the effects of fires to wildlife have shown that although mortality does occur, the levels of loss are considered negligible compared to the long-term benefits to wildlife following a fire.

Planning for the prescribed burn at Ranges 43-48 included a procedure for reporting and responding to injured or endangered wildlife during the burn. There were no such reports received during the burn.

Comment 37: One person reported seeing dying birds while she was at a Gilroy hotel to which she had relocated.

Response: This comment is so noted.

Comment 38: One person commented that the area of Fort Ord burn was in a monarch butterfly fly zone, and requested that the area be restored to original or better condition. He also requested for a butterfly breeding facility.

Response: The Monarch butterfly may use areas of former Fort Ord periodically but they overwinter in groves of native Monterey pines and in Eucalyptus groves. Although there were a few Monterey pines located in the area of the escaped fire, the primary vegetation type in the burn area was maritime chaparral. Monarch butterflies are protected in Pacific Grove by a local ordinance but the only protected butterfly found on former Fort Ord is the endangered Smith's blue butterfly, which does not occur in the maritime chaparral habitats of the former Fort Ord that were burned.

Comment 39: Who will control the relocation of the field mice, ground squirrels, lizards, crows, fox, coyotes, mountain lions, deer and other critters that formerly resided in their rolling range? Who will control the surface runoff from the burned out habitat once the rainy season begins?

Response: Wildlife species impacted by the recent prescribed burn are adapted to periodic fire (see response above). Erosion is a natural process that occurs following disturbances such as a fire. Significant erosion is not expected to occur on the burned area just because it burned. The soils located in the burn area are very well drained because they are primarily comprised of loose sands. Based on past experiences at the former Fort Ord, erosion only becomes a problem where run-off from paved areas or road-cuts funnel storm water onto steep slopes. Erosion control measures will be implemented throughout the environmental cleanup project.

Comment 40: One commentator urged the Army to educate the public on the environmental benefits of a controlled burn, i.e. endangered plants that only reproduce or regrow best after a fire, such as Toro Manzanita. There could be devastation to some of those species if they were to be hand-cut. It also can give native species an edge over non-native species.

Response: Prescribed burning is a valuable land management tool that helps maintain healthy diversity of plants and wildlife in chaparral habitats. Fire also reduces the amount of vegetation that is available for a

larger fire that could threaten lives and property. Natural resource managers recognize that, to maintain the quality of habitat for plant and animal populations in the long-term, fire is necessary in chaparral environment. In fact, several rare plant species on the former Fort Ord require fire to remove the hard seed coat and enable the plant to germinate since some of the plants do not re-sprout from a burl or root structure. Fire-adapted chaparral plants cannot persist without occasional fires. Without burning, rare plant species die off while only a few dominate the landscape. Animal diversity also declines as the canopy becomes thick, overgrown, and too shaded to support the desirable edible plants. Without occasional fires to rejuvenate the chaparral, many rare plants are in danger of permanent extinction.

The Army appreciates, and will consider the suggestion in reviewing its community outreach strategy for future burns.

Issues related ordnance cleanup:

Comment 41: One commentator wondered how many lives are going to be lost and injuries suffered searching for unexploded ordnance after the fire. Certainly, not all of them will be found, and even if it were found, there are always going to be doubts whether the land will be safe for use. The commentator suggested halting the prescribed burns to end impacting the public health and the environment, and halting the cleanup of ordnance to save lives and injuries on the part of cleanup workers.

Response: The Army has been investigating and clearing unexploded ordnance at Fort Ord since 1993. During over 10 years of investigation, there have been no accident or injury involving unexploded ordnance on the project. Although workers encounter great risks in actively searching and handling unexploded ordnance, they manage the risks by their experience and training, and by following safety procedures.

The Army, in consultation with EPA and DTSC, plans each investigative work carefully to address explosive hazard effectively. However, it is not possible to guarantee all risks have been removed from any area. The Army will continue to work with the regulatory agencies and the public to find an effective and realistic cleanup approach for each area. The action being taken at Ranges 43-48 is intended to protect the public from the imminent threat posed by unexploded ordnance. Long-term management of explosive risks will be evaluated in the basewide Munitions Response Remedial Investigation/Feasibility Study after the Interim Action (currently ongoing cleanup) is completed.

Comment 42: A commentator suggested using people in retention centers to clean up the land to save millions of dollars and to keep them busy.

Response: The cleanup of unexploded ordnance is a very dangerous activity and as such, is required to be conducted by persons with specific military training. The Department of Defense has specific requirements for all persons involved in the cleanup of ordnance sites. As such, only those trained and certified can be used in the cleanup process.

Comment 43: One suggested establishing a military engineering program on the burned area where troops could learn techniques for removing unexploded ordnance. This is a skill that should be used in Iraq.

Response: The Department of Defense requires that all unexploded ordnance personnel working on DoD projects be graduates from one of the following schools or courses: U.S. Army Bomb Disposal School, Aberdeen Proving Grounds, MD; U.S. Naval Explosive Ordnance Disposal (EOD) School, Indian Head, MD; EOD Assistants Course, Redstone Arsenal, AL; EOD Assistance Course, Eglin Air Force Base, FL;

or a DoD Certified equivalent course. Unexploded ordnance personnel working in Iraq are also required to meet these requirements.

Comment 44: Two commentators stated homeless people were working for the Army cleaning up the ordnance, without training.

Response: Please see responses to comments above.

Other issues:

Comment 45: One person asked when one could file a claim for property damage. One suggested offering a special process for claims other than relocation, and establishing a multi-agency claims board to consider them. One person stated the Office of Staff Judge Advocate had not returned many of her calls.

Response: Individuals who seek reimbursement for an expense associated with the Ranges 43-48 prescribed burn should first contact the relocation office through the hotline at 1-800-852-9699 and discuss with a relocation counselor. After the November 13 meeting, the Office of the Staff Judge Advocate reviewed their call logs and procedures to ensure that all calls were returned within 24 hours.

Comment 46: One person stated he was considering a legal action because the prescribed burn heavily impacted Carmel area unexpectedly. Another commentator stated he urged the local Air District board to sue the Army again to prohibit the harm from any further burning unless alternatives are considered.

Response: Many alternative methods of clearing vegetation to support the cleanup of unexploded ordnance were considered during the development of *Final Interim Action Ordinance and Explosives Remedial Investigation/Feasibility Study For Ranges 43-48, Range 30A, Site OE-16, Former Fort Ord, California*, dated March 7, 2002. In this study, manual, mechanical and remotely-operated mechanical clearance methods, prescribed burning, animal grazing and herbicide application were evaluated, and prescribed burning was selected as the best alternative for clearing vegetation in Ranges 43-48, primarily because other methods would directly expose vegetation clearance workers to unexploded ordnance.

Comment 47: One person wondered what the effects to tourism dollars caused by the burn that occurred during the weekend were. Another stated 80% of businesses in Carmel had to close due to ash and smoke and tourists were leaving.

Response: This comment is so noted.

Comment 48: One person stated loud sounds of booming were heard a few days before the prescribed burn started, and the sky was strangely dark two to three days before the burn was announced, that made her feel like the burn had already started.

Response: This comment is so noted.

Comment 49: Several members of Fort Ord Environmental Justice Network commented that the base closure process was not being done right, with boarded-up houses and homelessness. They expressed their concerns about the lack of employment and job training opportunities, the need for improvements to the former base, the need for affordable housing, and the lack of good healthcare. They suggested funding for the environmental cleanup of the former Fort Ord should be used to clean up the base more efficiently and to show progress. There were comments that the organization was recently asked to pay rent for their office building, and one asked the panel (at the November 13 meeting) to look into this.

Response: The Army is aware of the economic impacts of the closure of Fort Ord, and has been conducting environmental investigation and cleanup activities at the base since it was listed for closure in 1991 in an effort to prepare Fort Ord lands for reuse as specified in Fort Ord Reuse Authority reuse plan. The Army and its contractors have contracts in place with local businesses and cleanup-related jobs are available to qualified persons with required training.

At the request of the Army, a representative of the Fort Ord Reuse Authority (FORA) attended the November 13 public meeting. He was in attendance to hear the comments and could formulate a response if appropriate, since the lease of this specific building is part of FORA's business operations. The Army documented this concern within the meeting transcript, which available to the public in the Administrative Record.

Comment 50: Some said they did not feel that their voices were being heard, and they were not included as a part of the process.

Response: The Army is committed to conducting the environmental cleanup of the former Fort Ord with meaningful public participation. The comments and suggestions that the Army received from the public regarding the Ranges 43-48 prescribed burn is documented in this summary after-action report, and will be considered in planning future prescribed burns at the former Ford Ord. The transcripts of the November 13 public comment meeting can be reviewed at the Administrative Record.