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PUBLIC HEALTH ASSESSMENT

EL TORO MARINE CORPS AIR STATION SANTA ANA, ORANGE COUNTY, CALIFORNIA

CONCLUSIONS

1. El Toro Marine Corps Air Station represents an indeterminate public health hazard because of the limited amount of on-station data available on environmental contamination and human exposures. At this time, exposure to carbon tetrachloride, chloroform, TCE, PCE, and nitrates-N detected in regional groundwater through incidental ingestion, dermal absorption, and/or inhalation of volatilized contaminants at current levels detected does not represent a public health hazard.
2. ATSDR has reviewed the RI/FS Work Plan at MCAS. Data from on-station surface soil, sediments, and surface water have not been collected yet; however, comprehensive sampling of the relevant media at each site is currently underway.
3. Groundwater treatment is currently being performed on station by MCAS. Orange County Water District is conducting off-station groundwater treatment to slow the rate of contaminant migration and to reduce the potential for adverse health effects in those people who come in contact with local groundwater.
4. Sampling data from existing groundwater monitoring wells and irrigation wells both on station and off station are not adequate to fully characterize the existing or potential future groundwater contamination.
5. Past on-station sampling of air and soil gas is not adequate to fully characterize the extent of contamination and to determine possible sources of continuing groundwater contamination.
6. Site 17 - Communication Station Landfill is within one-half mile of a family housing complex. Access to the landfill is not restricted. Children who play in the area may become trapped in exposed large appliances and suffocate.
7. Site 1 - Explosive Ordnance Disposal Range may contain unexploded ordnance that present a hazard for remedial workers or any persons who disturb buried explosive material.
8. Because identified exposures do not indicate that adverse health effects are probable and because of the lack of community health concerns, an evaluation of Health Outcome Data bases has not been performed at this time.
9. ATSDR will continue to evaluate sampling data and community concerns as they become available.

RECOMMENDATIONS

1. Perform comprehensive on-station sampling in order to characterize the extent of contamination and the potential for human exposure to contaminants in groundwater, surface water, soil, and sediment as stated in the RI/FS Work Plan. Additionally, sampling should include the following.
 - o Perform radiological surveys at Site 1 - Explosive Ordnance Disposal Range and on all landfill sites.
 - o Evaluate Site 1 - Explosive Ordnance Disposal Range for unexploded ordnance to prevent hazards to remedial workers or any persons who disturb buried material. Samples should also be analyzed for elemental phosphorus.
 - o Include methane gas in the soil gas analysis at Site 3 - Original Landfill. Sample ambient air conditions within confined areas of adjacent buildings and areas frequently occupied by people for methane gas.
2. Identify farm workers' sources of drinking water in the fields to determine if workers are drinking water from the irrigation wells. Inform workers and label irrigation well spigots (in Spanish and in English) that the water is not suitable for drinking.
3. Continue on-station and off-station monitoring of groundwater, and tracking of the groundwater contamination plume to determine changes in the VOC contaminated groundwater.
4. Because of past disposal practices, environmental media should be analyzed for the chemicals listed in EPA's Target Compound List and Target Analyte List.
5. Continue groundwater treatment techniques to retard the flow of contaminants toward the drinking water wells 8 miles northwest of the El Toro Marine Corps Air Station. Evaluate the efficiency of on-station groundwater treatment operations to ensure safety of the regional water supply so that downgradient residents are not exposed to contaminated groundwater.
6. Restrict access to Site 17 - Communications Landfill, to prohibit children from the neighboring family housing complex from using the area as a playground.
7. ATSDR's Health Activities Recommendation Panel (HARP) has determined that based on the evaluation of available data and on current site conditions at the El Toro Marine Corps Air Station, follow-up public health

actions are not being considered at this time. As more data become available, ATSDR will evaluate the data to determine if public health actions are indicated for the community near the site.

PUBLIC HEALTH ACTION PLAN

The public health action plan (PHAP) for El Toro Marine Corps Air Station contains a description of actions to be taken by ATSDR and other parties at and in the vicinity of the station. The purpose of the PHAP is to provide a plan of action for preventing or mitigating adverse human health effects resulting from exposure to hazardous substances in the environment.

A. Actions Planned

1. ATSDR will hold a public availability session to discuss the material presented in the public health assessment. Additional community concerns will be gathered as part of the public comment period. Each comment received during the public comment period will be included in the appendix of the final release of the public health assessment accompanied by a written response.
2. ATSDR will review plans and information on contaminated sites as they pertain to changes in future land use on MCAS.
3. ATSDR will provide an annual follow up to this PHAP, outlining the actions completed and those in progress. That report will be placed in repositories that contain copies of this public health assessment and will be provided to persons who request it.
4. ATSDR will reevaluate and expand this PHAP when needed. New environmental, toxicological, or health outcome data, or the results of implementing the above proposed actions may determine the need for additional actions at MCAS.

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