



FACT SHEET

Former Marine Corps Air Station El Toro Irvine, California

Selected Remedial Action, Operable Unit 2C — Anomaly Area 3

July 2011

Navy Proceeds with Remedial Action at AA 3

The purpose of this Fact Sheet is to update the community on the remedial action at the former Marine Corps Air Station (MCAS) El Toro, Operable Unit 2C – Anomaly Area 3 (AA 3). The Navy investigated AA 3, a former borrow area, which was backfilled primarily with construction debris, and concluded that remedial action was required to protect human health and the environment. The selected remedy for AA 3, as concurred upon by the regulatory agencies in the August 2010 Final Record of Decision (ROD), includes limited grading, waste consolidation, monitoring, and institutional controls (ICs). The contents of the landfill are not affecting groundwater quality beneath AA 3; therefore, no further action is required for groundwater as documented in the Final ROD.

SITE DESCRIPTION AND BACKGROUND

AA 3 covers approximately 5.14 acres in the northeastern portion of former MCAS El Toro near Pusan Way, adjacent to Agua Chinon Wash (Figures 1 and 2). AA 3 is located in an approximate 13-acre portion of Navy-owned property referred to as Carve-Out Area II-C. According to information in the Remedial Investigation/Feasibility Study (RI/FS) Report, AA 3 was used as a source of borrow material from approximately 1972 to 1998, after which some of the borrow pits and trenches were backfilled primarily with construction debris and later covered with soil at an average thickness of 4.5 feet, with isolated areas having soil cover of approximately 2 feet thick.

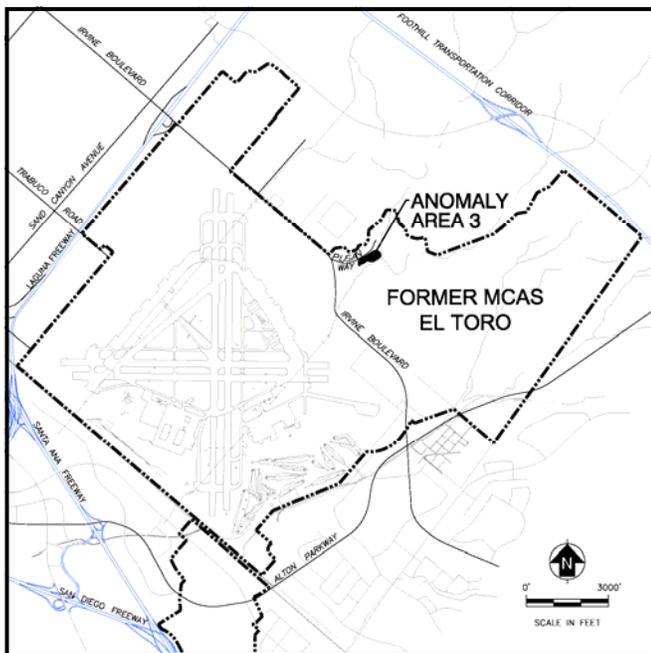


Figure 1. Site Vicinity Map

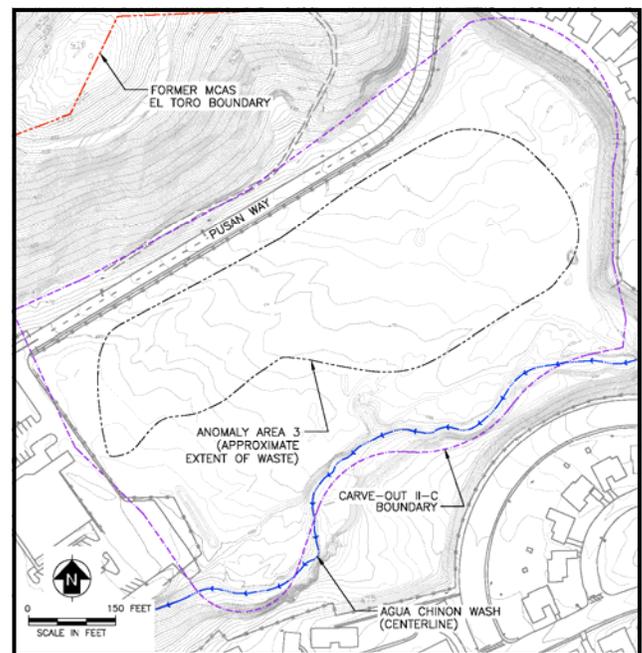


Figure 2. Map of Existing Site Conditions

REGULATORY AGENCIES AGREE ON FINAL REMEDY FOR AA 3

The U.S. Environmental Protection Agency (U.S. EPA), Department of Toxic Substances Control (DTSC), and the Regional Water Quality Control Board, Santa Ana Region (RWQCB) concurred that the selected remedy presented in the Final ROD is the most appropriate and effective remedy for the landfill at AA 3. The remedy includes limited grading, waste consolidation, monitoring, and ICs. No further action is required for groundwater at AA 3. Concurrence on the final remedy was based in part on the FS that was conducted to evaluate alternatives for site cleanup and on community input on the Proposed Plan received during the public comment period. The ROD documenting the final remedy was issued in August 2010.

REMEDIAL ACTION OBJECTIVES

The RI/FS Report identified the following remedial action (or cleanup) objectives for AA 3:

- ◆ Minimize direct contact with the landfill waste.
- ◆ Control run-on, run-off, and erosion; minimize infiltration and potential contaminant leaching to groundwater.
- ◆ Control any potential for migration of landfill gas (LFG) consistent with the Navy's agreement with the regulatory agencies, including the California Integrated Waste Management Board (now called California Department of Resource Recycling and Recovery [CalRecycle]).
- ◆ Minimize contact between surface water in Agua Chinon Wash and the landfill waste.

SELECTED REMEDY

The RI/FS Report developed and evaluated various cleanup alternatives to address the remedial action objectives at AA 3. A Proposed Plan was issued to the public that presented the preferred remedy for AA 3. Following a public review and comment period on the Proposed Plan, the Navy and U.S. EPA coselected Alternative 2, limited grading, monitoring, and ICs, as the final remedy, with concurrence from DTSC and RWQCB. The selected remedy for AA 3 includes the following:

- ◆ Limited grading of the existing cover to ensure it has a minimum thickness of 4 feet and waste consolidation to ensure a minimum buffer zone of 100 feet from the waste boundary to the Carve-Out Area II-C Boundary (Figure 3).
- ◆ Constructing a finger dike (an elevated soil ridge) and reinforcing it with riprap (large rocks and boulders) to prevent erosion of the cover and to control storm water in the vicinity of Agua Chinon Wash (Figure 3).
- ◆ ICs in the form of land use and activity restrictions to limit exposure of future users of the property to hazardous substances and to maintain the integrity of the remedy.
- ◆ A passive/active LFG venting and monitoring system, which could be activated as necessary to minimize or control potential LFG migration within the 100-foot buffer zone surrounding the landfill.
- ◆ Long-term environmental monitoring for approximately 30 years to ensure that waste materials (primarily construction debris) do not impact groundwater or release unacceptable levels of LFG beyond the 100-foot protective buffer zone surrounding the landfill.

Cleanup of groundwater at AA 3 is not required, but groundwater monitoring is included as a component of the selected remedy. During construction, temporary fencing, signs, and locks will be used to restrict access until the remedy is in place.

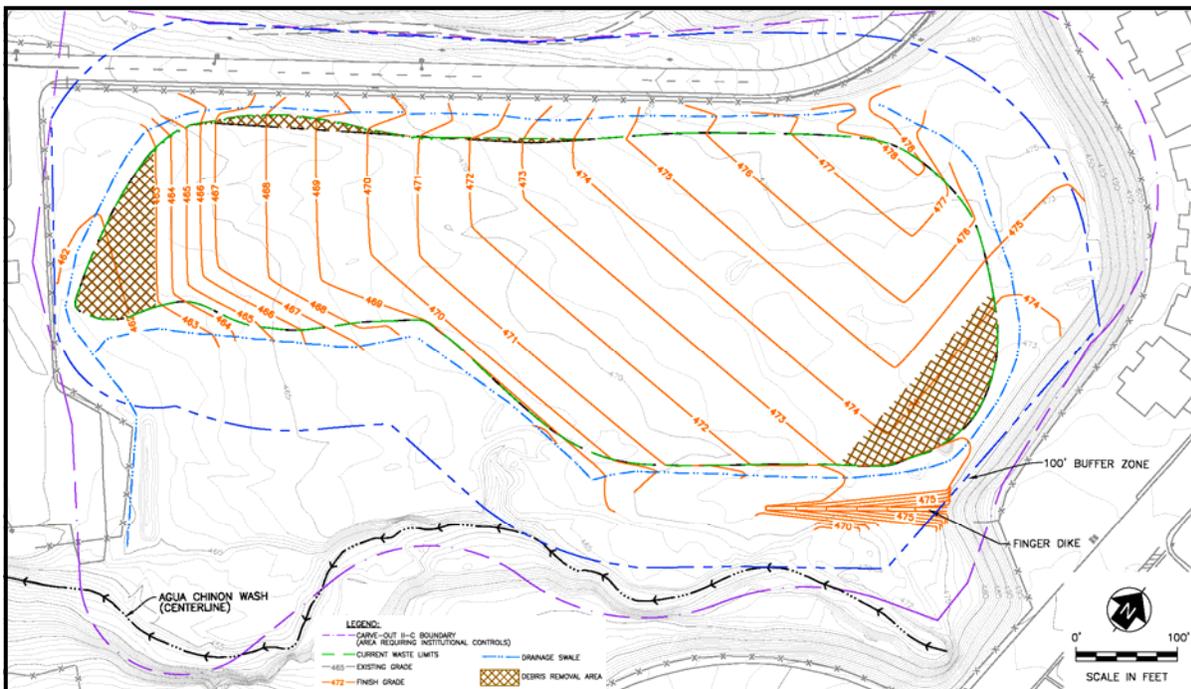


Figure 3. Site Grading and Waste Consolidation

REMEDIAL DESIGN/REMEDIAL ACTION WORK PLAN

A Remedial Design and Remedial Action Work Plan (RAWP) is being developed that details the methods and procedures for implementing the selected remedy at AA 3. U.S. EPA, DTSC, and RWQCB have reviewed the Remedial Design and RAWP; and these documents are anticipated to be completed with regulatory agency concurrence in July 2011.

LIMITED SITE GRADING AND WASTE CONSOLIDATION

Limited site grading and waste consolidation will involve removing the existing soil cover and stockpiling it on site for use as the final cover; relocating waste from debris removal areas to within the final waste footprint; placing and compacting the final soil cover; and constructing a finger dike and drainage swale (Figure 3 on page 2).

The final site topography after grading and waste consolidation will be generally consistent with the existing topography.

PASSIVE/ACTIVE LFG MONITORING AND CONTROL SYSTEM

The passive/active LFG monitoring and control system will consist of three components:

- ◆ LFG vents installed within the landfill waste.
- ◆ LFG collection trenches with vertical risers installed along the perimeter of the landfill, 25 feet outside the landfill boundary.
- ◆ Perimeter LFG probes installed at the midpoint of the 100-foot buffer zone, between the landfill boundary and the Carve-Out Area II-C Boundary.

The LFG vents will operate passively unless monitoring indicates that active LFG extraction is required. If active LFG extraction is required, surface piping and a portable treatment unit will be brought on site for use.

POST-CLOSURE MONITORING AND MAINTENANCE

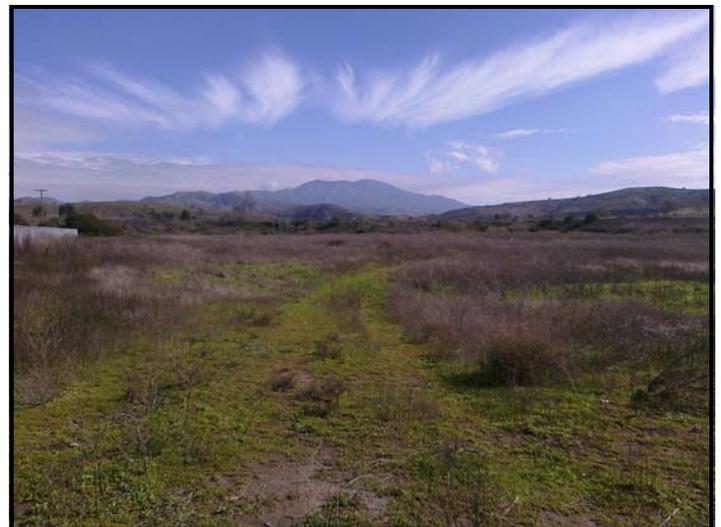
Post-closure monitoring and maintenance activities will begin following completion of the remedial action. A Long-Term Monitoring/Operation and Maintenance Plan will be prepared to describe the requirements for long-term maintenance and monitoring, including periodic inspections, site maintenance, and LFG and groundwater monitoring.

ICs will be implemented to protect the integrity of the landfill cover, protect LFG and groundwater monitoring equipment, and prevent direct contact with waste materials. The ICs will establish a review and approval process for construction activities within the Carve-Out Area II-C Boundary. Periodic reviews will be conducted every 5 years to evaluate monitoring requirements and verify that the remedy remains protective of human health and the environment.

PROJECT SCHEDULE

- ◆ Submit Final Remedial Design and RAWP: July 2011
- ◆ Begin Field Construction Activities: July 2011
- ◆ Finish Field Construction Activities: September 2011

Periodic updates on construction progress will be provided at the community-based Restoration Advisory Board meetings. Meetings are open to the public and are held quarterly, typically on the third Wednesday of the month at an Irvine City Hall



Existing Site Conditions

PROJECT CONTACTS

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For More Information:

Documents related to the selected remedy at AA 3, such as the Final ROD and Remedial Design/RAWP, are available at the following locations:

Heritage Park Regional Library
MCAS El Toro Information Repository
14361 Yale Avenue
Irvine, CA 92604
(949) 936-4040

MCAS El Toro Administrative Record File
BRAC Office Building 307
Former MCAS El Toro
(949) 859-6014

Internet Connection

For more information on environmental restoration activities at the former MCAS El Toro, visit the website at: www.bracpmo.navy.mil

Base Realignment and Closure
Attn: Mr. James T. Callian
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Former MCAS El Toro
7040 Trabuco Road
Irvine, CA 92618

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