

**FY05 Secretary of Defense Environmental Award Nomination
Environmental Award Category
Environmental Restoration – Installation/Civil Works Facility**

**Former Marine Corps Air Station (MCAS) El Toro
Irvine, California**

Environmental Restoration Supports \$649.5 Million Sale of Former MCAS El Toro



Introduction—During the past two years at the former MCAS El Toro, an extensively detailed Environmental Baseline Survey (EBS), Finding of Suitability to Transfer (FOST), and Finding of Suitability to Lease (FOSL) for Carve-out Areas covering 3,719 of the station’s 4,712 total acres were completed. Simultaneously, comprehensive environmental restoration efforts focused on the most stringent cleanup criteria - residential use. A total of 956 Locations of Concern (LOCs), consisting of 24 Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)/Installation Restoration Program (IRP) sites and 932 Resource Conservation & Recovery Act (RCRA) Compliance Program and petroleum sites; comprise the environmental program. Thus far, 858 LOCs attained no further

action status and have been closed out, 78 of those during the past two years. Only 19 of the closed out LOCs required advanced cleanup. A key reason for the ongoing success is the strong working relationships and partnerships the El Toro team has established with regulatory agencies on the Base Realignment and Closure (BRAC) Cleanup Team (BCT). Additionally, the El Toro team has reached out to other regulatory agencies and local entities and established new partnerships to gain valuable insight to further enhance cleanup and restoration.

The synergy of these comprehensive efforts supported the unprecedented public sale of the former MCAS El Toro, a National Priorities List (NPL) site, for \$649.5 million to Lennar in 2005. As Congressman Christopher Cox said, *“This is more than the combined total of every previous land sale in the history of the entire base closure program.”* The work accomplished at the former MCAS El Toro established a new property conveyance standard and model for the entire Department of Defense (DoD). The historic sale was predicated on the passage of a voter initiative in Orange County, California in 2002 when the proposed land use was changed from a commercial airport to a mixture of recreational, educational and commercial land uses. The Navy decided to publicly sell the property and a new strategy for expeditious property conveyance was developed to satisfy the station’s environmental restoration vision statement: *“Expedite restoration and reuse of MCAS El Toro.”*

Background—In 1942, former MCAS El Toro was established on 2,319 acres in Orange County, California, as a pilot training facility. The facility was commissioned in 1943 to support aviation activities and operating forces of the U.S. Marine Corps. In 1950, development of master jet air station began to support Fleet Marine Forces, Pacific, and the station was expanded, eventually covering 4,712 acres. In 1993, DoD listed MCAS El Toro for closure under the BRAC process. The station was operationally closed in 1999.



The U.S. Environmental Protection Agency (U.S. EPA) placed MCAS El Toro on the NPL in 1990 due to the discovery of a groundwater plume containing volatile organic compounds (VOCs) that were attributed to on-station operations. The plume extends underground past the station boundary for approximately three miles and is beneath residential neighborhoods in Irvine. As an NPL site, a Federal Facilities Agreement (FFA) was developed by the El Toro BCT to guide the management and coordination between the Navy and the regulatory agencies to achieve common cleanup goals. The BCT is a working group composed of representatives from the Navy's El Toro team, U.S. EPA, Cal-EPA Department of Toxic Substances Control (DTSC), and the California Regional Water Quality Control Board (RWQCB) that represent signatory agencies to the legally enforceable FFA. Under the leadership of the MCAS El Toro BRAC Environmental Coordinator (BEC), the BCT meets on a monthly basis and communicates regularly via conference calls to exchange information to come to a consensus on the best technical approaches that comply with applicable, relevant, and appropriate regulations (environmental laws, regulations, and policy requirements).

Program Management—Substantial credit for the success of environmental program at former MCAS El Toro is due to the close integration of the engineering, scientific, legal, real estate, and management functions within the El Toro team. At the forefront are the BEC and a team of Remedial Project Managers (RPMs) who manage a variety of highly technical projects using traditional technologies that have evolved over years and technologies considered to be state-of-the-art.

Cleanup Program Progress—At the former MCAS

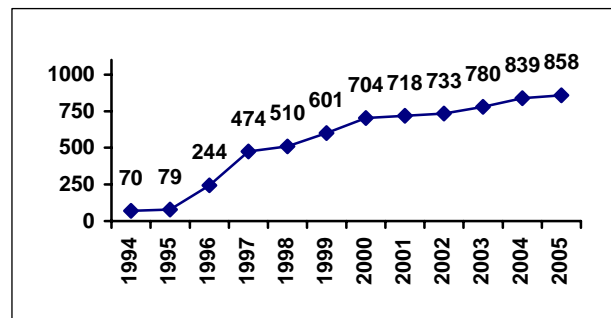
El Toro there are a total of 956 LOCs -24 IRP sites and 932 RCRA Compliance Program and petroleum sites comprise the environmental program. Thus far, 858 LOCs (90 percent) have been closed out, 78 of those during the past two years.

IRP Sites-Since the inception of the program, 24 IRP sites have undergone the CERCLA process and Records of Decision (RODs) have been signed for 17 sites, 13 of them for no further action (NFA). At IRP Site 11, Transformer Storage Area, site restoration activities for removal and disposal of PCB-contaminated soil were completed in July 2005. At IRP Site 24, VOC Source Area (soil component), an NFA proposed plan for soil was issued for public comment in July 2005.

Compliance Program Sites-These sites are tracked using a specialized data base developed by Ms. Lynn Hornecker:

- Underground storage tanks – 408 total, 373 closed out
- Aboveground storage tanks – 39 total, 36 closed out
- Oil/water separators – 56 total, 55 closed out
- Aerial photograph features/anomalies – 124 total, 114 closed out
- Solid waste management units and temporary accumulation areas – 157 total, 127 closed out
- Miscellaneous areas – 24, 16 closed out
- PCB transformer sites, 124 total, all closed out.

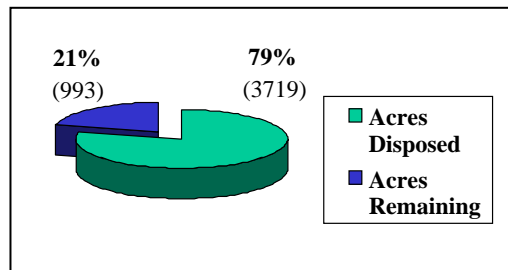
No Further Action Site Closures (cumulative)



Underground storage tank removal.

The station-wide groundwater monitoring program uses nearly 250 monitoring well ports on- and off-station. In FY04 and FY05, four quarterly rounds of monitoring were completed. Wells no longer needed are being removed from transferred property and removal of up to 50 wells is underway.

Property Transfer Accomplishments—The EBS covered 3,719 acres and the property proposed for transfer in FOST #1 supported the public sale to Lennar of four parcels comprised of 2,798 acres of the former MCAS El Toro. The remaining 921 acres are “carve-out” areas and are addressed in the FOSL. A carve-out is located within the area of transferred property, but it is not yet suitable for transfer. The El Toro team has worked to minimize the number and size of carve-outs. During the EBS process, additional soil and groundwater sampling and analysis were conducted. Evaluation of the data was presented to the regulatory agencies for review and concurrence. This resulted in a significant reduction of carve-out areas. In summer 2005, FOST #2 was finalized and 8 acres of carve-out area are being processed for transfer to Lennar.



Finalization and signing of FOSTs by the Navy is dependent upon DTSC’s corresponding approval of a RCRA Corrective Action Complete Determination and Facility Boundary Modification that officially recognizes all hazardous waste contamination has been remediated. The El Toro team integrated the state’s RCRA requirements into the CERCLA clean up program, which allowed the team to demonstrate to the State that acreage included in each FOST had been cleaned up to the extent required by California law. During FY04 and FY05, DTSC approved the RCRA Corrective Actions Complete Determinations and concurred with FOSTs #1 and #2.

Partnership/Teamwork Bolsters Environmental Restoration Progress—For the former MCAS El Toro, program success relied on establishing collaborative partnerships with other regulatory agencies, local entities, and the community that enhance the overall environmental restoration program. Key achievements from FY04 and FY05 include:

VOC Plume Cleanup—The Navy forged a partnership with Irvide Ranch Water District to clean up the three-mile long VOC groundwater plume that extends from the former station into Irvine; and to support the long-planned Irvine Desalter Project to develop a stable water supply for the region. Remedial designs for the extraction wells, pipelines, and treatment systems were finalized in FY05 and construction is underway. All systems are scheduled to be “on-line” in July 2006.



2005 Integrated Project Award

On April 25, 2005, the Navy and IRWD received the **2005 Integrated Project Award** from the Santa Ana Watershed Coalition for VOC plume cleanup and the Irvine Desalter Project.



Site 1 EOD Range and Surrounding Habitat

Mitigation and Protection of Endangered Species

The El Toro team's partnership with the USFWS provided opportunities to preserve habitat for the California gnatcatcher and create new habitat at two inactive landfill sites (IRP Sites 2 and 17). In FY05, the El Toro team and its contractors finalized the remedial design and began construction of landfill caps and monitoring systems. Approximately 47 acres at the two sites will be restored with coastal sage scrub, half on the landfills and the other half in adjacent areas. An additional 42 acres will be restored with coastal sage scrub to serve as mitigation for other DON obligations.

Reuse Forum Meetings—In FY05, the El Toro team began holding quarterly Reuse Forum sessions with Lennar and Great Park representatives to enhance two-way information flow regarding environmental restoration and redevelopment progress. Additionally, the El Toro team streamlined the Project Review Evaluation Form process that developers follow to obtain Navy and regulatory agency approval to redevelop FOSL areas.

Innovative Technical Achievements:

Design-build Process Yields Cost Savings—The El Toro team, led by Mr. Karnig Ohannessian, successfully adapted the design-build process for the groundwater component at IRP Site 24. The processes were applied for extraction and conveyance of VOC-contaminated groundwater resulting in documented acquisition savings in design (\$204,000 or 41 percent), construction (\$2.7 million or 46 percent) and first year operation (\$43,000 or 39 percent). Cumulative savings of \$3 million or 46 percent of the \$6.5 million were realized. The design-build process enabled the work to proceed on a faster schedule, eased regulatory approval and oversight concerns, ensured more effective conformance with legal agreements, and provided greater efficiency and more services to the Navy than expected. The El Toro team advocated the process with presentations at the Navy-Marine Corps Installation Restoration Conference in Port Hueneme, California and the National Defense Industry Association Conference in February and April 2004, respectively.



*Shallow Groundwater Unit Cleanup -
Site 24 Horizontal Boring*

Monitored Natural Attenuation Evaluation Sets New Standard—A pre-design evaluation was conducted at IRP Site 16, Fire Fighter Training Area, to evaluate the effectiveness of implementing monitored natural attenuation (MNA) with institutional controls at the site and to collect data for use in the long-term remedial action. Soil and groundwater are contaminated with TCE. Implementation of the remedy will begin in 2006. The pre-design technical memorandum received strong praise from Herb Levine, U.S. EPA Region IX leading groundwater and hydrogeology expert, *“The documents set a new benchmark and will be used as a model for future instances involving the MNA remedy.”*

Community Relations and Interaction:

Restoration Advisory Board—The MCAS El Toro RAB held its 77th meeting in September 2005. The RAB advises the Navy of community concerns and provides input to project planning.. MCAS El Toro RAB Co-Chairs (Navy and Community) attended the second national RAB Training Workshop hosted by the Chief of Naval Operations July 23-25, 2004 in Salt Lake City, Utah. The Workshop provided RAB Co-Chairs the opportunity to share their experiences with other co-chairs and apply what they learned to the El Toro RAB. Ms. Marcia Rudolph, former MCAS El Toro RAB Community Co-Chair and current RAB Subcommittee Chair, offered insights on the importance of the El Toro RAB, *“A dedicated effort by the Navy and Marine Corps is required, similar dedication is needed from the regulators. Efforts of RAB meeting participants and community members as community stewards, along with the expertise they bring to the table are most important to replicate the successes at El Toro because the cleanup effort is a long-term commitment.”*

Community Relations Plan: The MCAS El Toro Community Relations Plan (CRP) was updated incorporating the most recent assessment of community issues, concerns, and informational needs about the ongoing environmental restoration program. Interviews were conducted with RAB members and interested local community members. Community input resulted in adding a section to the CRP that covered the radiological assessments conducted. The CRP lays the groundwork for ongoing community relations efforts emphasizing information dissemination and two-way communication between the Navy, its regulatory agency cleanup partners, and the local community.

Community relations activities performed to obtain input and keep the community informed include bimonthly RAB meetings, public meetings to present proposed cleanup plans for specific sites, fact sheets and proposed plans, and disseminating information to the local media. Three remedial action fact sheets and a proposed plan were mailed out to the community during the summer of 2005. The latest of several RAB site tours was conducted in April 2005. These tours provide an excellent opportunity for community members to become educated on the rationale of the cleanup process and the approaches being taken.

Opportunities for Small and Small Disadvantaged Businesses—The El Toro team made substantial efforts to transition from large, cost-plus environmental remediation contracts to small and disadvantaged businesses and to fixed-price contracts. The team analyzed the historical contracting mechanisms, the maturity and type of remaining projects (which affects the level of uncertainty and the need for cost-plus work), the capabilities of the team, and the value of the remaining cost to complete. The team concluded that it was unnecessary to use cost-plus contracts except in a few instances where the scope was too uncertain. Ways were identified to reallocate the work to small business firms with work types and quantities that were within their capabilities and experience. The team realized the benefits of shifting work to small businesses, and fixed-price performance-based contracts, and then prepared a transition plan. By the second year of transition, execution changed from approximately 80 percent cost-plus and 20 percent fixed-price to approximately 35 percent cost-plus and 65 percent fixed-price. Small business utilization rose from 15 percent to approximately 55 percent for the period. The team is now solidly behind fixed-price and performance-based contracting with more than 45 percent going to small business firms.