

## RANGE RESIDUE REMOVAL AND RECYCLING PROJECT AT MCAS YUMA

**M**arine Corps Air Station (MCAS) Yuma was awarded the Secretary of the Navy's Environmental Quality Award for a Non-Industrial Installation for fiscal year 2001. This achievement was due in part to the successful removal and recycling of range waste at five sites on two bombing ranges located within the Yuma Training Range Complex (YTRC) by MCAS Yuma and SWDIV contractor, Foster Wheeler Environmental Corporation (Foster Wheeler).

### PROJECT OVERVIEW

The two bombing ranges are the Barry M. Goldwater Air Force Range in Arizona and the Chocolate Mountain Aerial Bombing and Gunnery Range in California. These ranges comprise more than 1,900 square miles of land. The bombing ranges have



Demilitarization of full-scale inert practice bombs at MCAS Yuma bombing range.

been used as aerial gunnery and bombing training areas since World War II. Large amounts of inert ordnance, range residue, and some unexploded ordnance (UXO) were present on both ranges.

Range residue material consisted of full-scale

inert (FSI) practice bombs, bomb fins, other practice bombs, other ordnance and explosive (OE)-related materials, target scrap, tires, and general rubbish. MCAS range-maintenance personnel stockpiled the inert ordnance and range residue at five designated sites within the YTRC. The stockpiles maintained the potential to contain ammunition, explosives, or other dangerous articles (AEDA) or propellants, energetics, or pyrotechnics (PEP). All stockpiles required inspection for these dangerous materials prior to processing.

In accordance with standards established in the Defense Demilitarization Manual, handling and disposing of range residue provided a "cradle-to-grave" accounting of the material. The Foster Wheeler team consisted of UXO inspectors and processing technicians, with health and safety personnel and quality assurance/quality control (QA/QC) personnel providing oversight. Documentation and certification were maintained by using weight, security seal, and chain-of-custody certificates; settlement reports; and control sheets detailing all loads of range residue processed and recycled.

### REMOVAL AND RECYCLING STEPS

The first project objective was to perform an initial inspection and characterization of the range residue and segregate it into stockpiles. The characterization was accomplished by the UXO technicians to determine if the range residue contained any hazardous or radioactive constituents. FSI practice bombs were segregated from the rest of the range residue, as was material that could have con-

tained PEP or AEDA. MCAS Yuma station personnel performed the actions necessary to remove, transport, and dispose of all hazardous wastes.

The second project objective was to process and demilitarize the range residue, reinspect, and certify the processed material as non-AEDA or non-PEP-contaminated prior to shipment, and recycle the materials through authorized recycling facilities. The reinspection and certification of the range residue were integral phases to the recycling process.

The recyclable range debris was sorted by material type into six different recycling streams that included heavy and light-gauge steel, aluminum, cast iron, prepared steel, and tires. The sorted materials were transported to seven different recycling facilities for processing. Inert concrete fill found in the FSI practice bombs was left on site. Nonrecyclable, nonhazardous debris was disposed of in a Class III Landfill.

### PROJECT RESULTS

Over 12,500 work hours were spent on the project without accident or incident. A total of 2,786,286 pounds of range material were removed for recycling and disposal. The project established precedent for future range residue removal and was an important factor in MCAS Yuma receiving the Secretary of the Navy's Environmental Quality Award for a Non-Industrial Installation for fiscal year 2001.

For further information, please call Mike Cornell (SWDIV) at (619) 532-4208 or email at [Corne1MJ@efds.w.navy.mil](mailto:Corne1MJ@efds.w.navy.mil) or Lance Humphrey (Foster Wheeler) at (619) 471-3519 or email at [Lhumphrey@FWENC.com](mailto:Lhumphrey@FWENC.com).

## SWDIV CONTINUES COMMUNITY OUTREACH

**A**s part of its continuing community outreach activities, SWDIV sponsored an information booth at the 2002 Coronado Flower Show, April 13 and 14, 2002. This is the second consecutive year that the Navy has presented information at the annual flower show on Installation

Restoration Program activities at Naval Air Station (NAS) North Island and Naval Amphibious Base (NAB) Coronado.

Navy representatives spoke with members of the

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S U C C E S S S T O R I E S

TREASURE ISLAND REMEDIAL EFFORTS MAINTAIN AN EXEMPLARY SAFETY RECORD

SWDIV, along with contractor Shaw Environmental and Infrastructure (Shaw E & I, formerly IT Corporation), is developing and implementing remedial actions at Naval Station Treasure Island (NAVSTA TI), San Francisco, California. These actions are being implemented with an exemplary safety record. As of April 30, 2002, Shaw E & I personnel have worked more than 140,000 man hours with no Occupational Safety and Health Administration (OSHA) recordable accidents. Activities have included the construction of two full-scale in situ petroleum treatment systems in Level "B" personal protective equipment (including supplied-air respirators, and chemical-resistant clothing and boots) and the excavation of petroleum contamination at several sites.

Petroleum-contaminated soil was excavated in April and May 2002 at Building 227. A 1,000-gallon leaking underground storage tank (UST) was previously removed from outside the building in 1992. Shaw E & I excavated approximately 800 cubic yards of contaminated soil. A limited-access drill rig was used to collect soil borings from the building's interior. Because contaminated soil bordered the edge of the building, the contractor developed a contingency for bracing of the building, should the building exhibit signs of structural distress. An optical surveyor's level was used to monitor the building for movement during excavation. No movement was detected, and significant bracing and shoring costs were avoided.

In late spring 2002, Shaw E & I constructed two full scale in situ soil vapor extraction (SVE) systems at Sites 14/22 and Site 25, as part of the NAVSTA TI petroleum remediation program. Full-scale extraction well installation and construction activities were performed in Level "B" PPE due to the presence of volatile TPH components, including cumene (an aviation fuel additive) and benzene.

Current NAVSTA TI excavation work includes remedial activities at Site 06, the former fire

two USTs and an associated oil-water separator. Workers trained and designated as "competent personnel" have completed confined space entries during UST and oil-water separator removal activities at the site.

To illustrate the Navy's commitment to worker health and safety, SWDIV hosted a "Safety Stand-down" at the NAVSTA TI Shaw E & I field compound on April 25, 2002. The Resident Officer in Charge of Construction (ROICC) presented the Navy's "Zero-Injury" command goal and outlined contractor expectations. In addition, Shaw E & I personnel reiterated three fundamental principles of their health and safety program: 1) training; 2) communication; and 3) consistency of application. The stand-down served as an example of the Navy and contractor's partnership approach to safety.

For more information on petroleum site cleanup efforts at NAVSTA TI, please call Ellen Casados (SWDIV) at (619) 532-0968 or Doug Nelson (Shaw E & I) at (415) 277-6982. For additional information on Shaw E & I's health and safety program, please call Fred Mlakar (Shaw E & I) at (949) 660-5413.



Addition of oxygen release compound to an excavation to enhance microbial degradation of residual petroleum at Naval Station Treasure Island.

fighting training school. Work includes excavating petroleum-impacted soil and the removal of

and safety program, please call Fred Mlakar (Shaw E & I) at (949) 660-5413.

MARINE CORPS AND NAVY CELEBRATE CONVEYANCE OF FORMER MCAS TUSTIN PROPERTY

The Marine Corps and Navy celebrated the final property conveyance of former Marine Corps Air Station (MCAS) Tustin during a ceremony on May 14, 2002. Speakers at the ceremony, which was held at former MCAS Tustin, included: Mayor Jeffrey M. Thomas, City of Tustin; Mr. Jim Palmer, Orange County Rescue Mission; and the Honorable H.T. Johnson, Assistant Secretary of the Navy.

The City of Tustin, identified as the Local Redevelopment Authority, is receiving the majority of the Former MCAS Tustin property. The city's reuse plan designates redevelopment of the land for

commercial, recreational, and residential uses. The Orange County Rescue Mission is also a recipient of property, which it will use to provide support services for the homeless. The Mission has already begun work to convert two barracks buildings into classrooms, housing, and other facilities to support a Village of Hope for the homeless. Local community organizations are committed to historic preservation of the station's signature landmarks: the massive hangars that housed blimps used during World War II.

MCAS Tustin was commissioned in 1942 during World War II to support Naval lighter-than-air



Mayor Jeffery M. Thomas, City of Tustin, and the Honorable H.T. Johnson, Assistant Secretary of the Navy, exchange the key to MCAS Tustin.

anti-submarine patrols until 1949. It was reactivated in 1951 to support the Korean conflict and subsequently became a major center for Naval helicopter aviation for the Pacific Coast. The station was officially closed in July 1999. To achieve

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S U C C E S S S T O R I E S

NAVY REACHS OUT TO THE BAYVIEW HUNTERS POINT COMMUNITY

In Spring 2002, the Hunters Point Shipyard (HPS) team conducted a variety of community outreach events, and succeeded in involving a diverse group of Bayview Hunters Point residents in the environmental cleanup process at HPS.

**INFORMATIONAL MEETING ON CONTRACTING**

On May 15, 2002, the Navy hosted an informational meeting on community-based contracting. Charles DePew (Navy Senior Contracting Officer) gave the community an in-depth presentation on how to access information on job opportunities through different Navy contracting vehicles. Mr. DePew gave a step-by-step demonstration on how to navigate the Navy Contracting website in order to find out what kind of services are needed by the Navy in the Bay Area. Mr. DePew stressed to the community that plenty of contracting opportunities exist on a variety of Navy bases in the Bay Area, besides HPS, such as Treasure Island and Alameda Point. The Navy also invited its current contractors to the meeting to present information on their work for the Navy and distribute sub-contracting information, as well as talk to community members about job opportunities within their companies.

Information exchanged between the Bayview HPS community members, the Navy, small business groups, and contractors will be used to build upon and develop new relationships between all parties. It will also improve communication of contracting opportunities to those who are interested in upcoming work at different closing Navy bases in the Bay Area.

**ENVIRONMENTAL CLEANUP PROGRAM INFORMATION FAIR**

On April 27, 2002, the Navy hosted an environmental cleanup program information fair for the Bayview HPS community. This fair gave interested community members an opportunity to meet with Navy personnel, one on one, to ask questions and voice concerns regarding the shipyard cleanup. More than 100 community members attended the workshop and received general information on the shipyard cleanup, as well as Navy contracting information. A variety of community groups also participated in the information fair, including the BayviewOperaHouse Environmental Education Program (BEEP), One Stop Services, South East Career/Employment Center, and Youth Opportunities for San Francisco (YO San Francisco).



Pat Brooks (Navy Remedial Project Manager for Hunters Point Shipyard, Parcels C and D) provides a brief overview of Parcels C and D to a group of interested community members at the April 27, 2002 Environmental Cleanup Program Information Fair.

Supervisor Sophie Maxwell from District 7 spoke at the information fair and in her speech she thanked the Navy for its recent outreach efforts to the Bayview HPS community. The Navy plans to hold informational fairs periodically to update the community on cleanup activities at the shipyard, and to provide a forum to address community concerns.

**PRESENTATIONS ON ENVIRONMENTAL REMEDIATION AND ECONOMIC REUSE**

In the past 5 months, the Navy has met with more than 20 community organizations to present current environmental remediation and economic reuse goals. These meetings have given the Navy an opportunity to gain community group feedback on HPS issues.

The Navy has taken a variety of steps to create effective outreach to the community by giving such groups opportunities to participate in the cleanup and receive updates on the Navy's work at HPS. Whenever possible, the Navy strives to directly contract with local Bayview HPS businesses.

For more information on community outreach activities, please contact Charles DePew (SWDIV) at (619) 532- 0764 or e-mail depewcw@efdswnavfac.navy.mil; or David DeMars (SWDIV) at (619) 532-0912, or e-mail demarsdb@efdswnavfac.navy.mil; or Michael Wanta (Tetra Tech EM Inc.) at (415) 543-4880, or e-mail at mike.wanta@ttemi.com.

**SOME OF THE GROUPS WITH WHICH THE NAVY HAS MET TO GAIN FEEDBACK ON HPS ISSUES INCLUDE:**

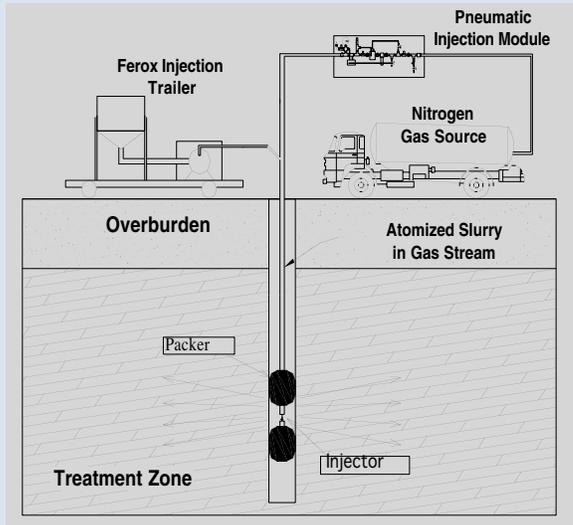
- African American Democratic Club
- African American Truckers
- ARC Ecology
- Bayview Hunters Point Business Resource Center
- Bayview Hunters Point Center for Arts and Technology (BAYCAT)
- Bayview Hunters Point Project Area Committee (PAC)
- BayviewOperaHouse Environmental Education Program (BEEP)
- Bayview Hunters Point Merchants Association
- Black American Political Association of California (BAPAC)
- Black Leadership Forum
- Communities for a Better Environment (CBE)
- Community First Coalition
- Hispanic Chamber of Commerce
- Hunters Point-Bayview Community Advocates
- Office of Samoan Affairs
- One Stop Services, South East Career/Employment Center
- PAC Environmental Committee
- South East Community Center
- San Francisco Human Rights Commission
- San Francisco Small Business Development Center
- Southeast Neighborhood Jobs Initiative Roundtable
- True Hope for God and Christ
- Young Community Developers (YCD)

## ZERO-VALENT IRON INJECTION TECHNOLOGY TO BE DEMONSTRATED AT HUNTERS POINT SHIPYARD

The Navy is gearing up for an innovative technology field demonstration designed to reduce concentrations of chlorinated volatile organic compounds (VOC) in groundwater at Hunters

and vinyl chloride. The Navy has chosen contaminated groundwater locations in the Parcel C area of HPS to evaluate the effectiveness of the Ferox<sup>SM</sup> zero-valent iron injection technology.

barriers treat only the dissolved phase of contamination that migrates with the groundwater. Another important advantage of this technology is that ZVI is one of the most innocuous and safe reactants currently being injected to chemically treat contaminants in situ; as a result, the use of ZVI will not adversely affect water quality.



Ferox<sup>SM</sup> – Pneumatic Atomization Injection of High Reactivity Zero-Valent Iron Powder

Point Shipyard (HPS) on San Francisco Bay. Soils and shallow groundwater at HPS are contaminated with chlorinated VOCs such as trichloroethene, tetrachloroethene, dichloroethene,

The Ferox<sup>SM</sup> injection technology is an in situ subsurface remediation process for the treatment of VOCs. The treatment process involves injection and dispersion of reactive zero-valent iron (ZVI) powder into the targeted groundwater contamination zone. The Ferox<sup>SM</sup> technology is unique among treatment technologies in that it uses pneumatic fracturing of the subsurface combined with subsequent liquid atomized injection of ZVI. This innovative ZVI delivery approach is designed to maximize the contact between the ZVI powder and the contaminants.

In situ reduction of VOCs using ZVI technology has been previously studied in the form of permeable reactive barriers. One advantage the Ferox<sup>SM</sup> approach may offer is that the process is capable of treating contaminants bound to the soil, including those in the contaminant source area, while reactive

In addition to evaluating the effectiveness of the Ferox<sup>SM</sup> technology by gathering cost and performance data, the Navy hopes to gain acceptance from the regulators for use of this technology in treating contaminated groundwater. Ultimately, the results of the technology demonstration will be used to determine whether the Ferox<sup>SM</sup> injection technology will be included as an applicable technology at HPS and other Navy sites.

The Ferox<sup>SM</sup> injection technology demonstration is scheduled to begin in the late summer of 2002, following pre injection sampling. Post injection groundwater sampling is projected for fall 2002, with a draft report on the findings of the demonstration to be submitted in winter 2002-2003.

For more information, please call Pat Brooks (SWDIV) at (619) 532-0930.

## REMOVAL ACTION UNDER WAY AT FORMER NAS ALAMEDA

A time-critical removal action (TCRA) is currently under way at the former Naval Air Station (NAS) Alameda, Alameda Point, California. By implementing the TCRA, the Navy will mitigate potential risks of exposure to near surface soil within a U. S. Coast Guard housing area, known as Installation Restoration (IR) Site 25.

IR Site 25 comprises approximately 42 acres, including a 31-acre Coast Guard housing area (the initial TCRA area) and an 11-acre Estuary Park site (the extended TCRA area). The TCRA on the initial site has been completed, and TCRA activities have now been expanded to the Estuary Park. U.S. Coast Guard employees and their families are currently occupying 21 multiple-unit housing structures within the initial TCRA boundary under lease from the Navy. The extended TCRA area encompasses the entire Estuary Park site. This extended area includes a recreational park, the Coast Guard Housing Office, and the Coast Guard Housing Maintenance Office.

NAS Alameda was originally a peninsula and was detached from the mainland in 1902 when a channel linking San Leandro Bay to San Francisco Bay was cut. Dredge materials from San Francisco Bay, Seaplane Lagoon, and Oakland Inner Harbor were used to fill in natural tidelands, marshlands, and sloughs which created the majority of the land where the former NAS Alameda and IR Site 25 are located. During the course of environmental investigations at the former NAS Alameda and IR Site 25, chemical analyses revealed the presence of polynuclear aromatic hydrocarbons (PAH) in soil. The source of the PAHs is believed to be the fill material used to create additional land for Alameda Island. These PAHs are believed to have originated from industrial activities in adjacent areas and are ubiquitous in the fill material.

The TCRA at the initial site required cooperation with the housing residents and adjacent communities, the U.S. Coast Guard, and the regulatory agencies. The Navy and its contractor, Foster Wheeler Environ-



Excavation activities behind housing area at IR Site 25, NAS Alameda.

mental Corporation (Foster Wheeler), encountered significant challenges when using heavy earth-moving equipment for excavation in an occupied housing area populated with children. The Navy has conducted a number of community meetings to inform the residents and other interested parties of forthcoming activities and progress of the TCRA. The Navy

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## P O L I C Y I N I T I A T I V E S

### SUPPLEMENTAL GUIDANCE FOR EMERGENCY PLANNING AND COMMUNITY RIGHT-TO-KNOW ACT (EPCRA)

Executive Order 13148, "Greening the Government Through Leadership in Environmental Management", requires all federal agencies to comply with the requirements of the Emergency Planning and Community Right-to-Know Act (EPCRA). Executive Order 13148 requires the federal government to demonstrate environmental leadership by integrating environmental accountability into each agency's daily decision-making and long-term planning processes and management systems.

The Chief of Naval Operations (CNO) issued supplemental guidance for EPCRA compliance and has mandated that all Navy activities use the Toxic Release Inventory Data Delivery System (TRI-DDS) to apply the toxic release inventory requirements to their munitions activities. Designated under EPCRA as the Toxic Chemical Release Inventory, the TRI-DDS contains information regarding the fate of over 600 TRI chemicals manufactured, processed, or otherwise used at covered facilities.

The supplemental guidance on EPCRA compliance and updated policy on the application of EPCRA requirements to military operations is available from the CNO point of contact for EPCRA, Tammy Schirf, the Pollution Prevention Program Manager for the Pollution Prevention Branch of the CNO Environmental Protection, Safety and Occupational Health Division. For more information contact Tammy Schirf at (703) 602-4497 or schirf.tammy@hq.navy.mil.

### SITE ASSESSMENT AND MITIGATION (SAM) AND INDUSTRY TECHNICAL WORK GROUP FORUM: SITE CONCEPTUAL MODEL TRAINING

Participants from the California Regional Water Quality Control Board (RWQCB), the U.S. Environmental Protection Agency (EPA), the California Department of Toxic Substances Control (DTSC), the County of San Diego, private industry, and the Navy attended the Site Assessment and Mitigation (SAM) and Industry Technical Work Group, presented on April 25, 2002, in San Diego, California. The topic of the work group forum was the Site Conceptual Model (SCM), an alternative to conventional site assessments and an important step in achieving accelerated site cleanup.

An SCM is defined by American Society for Testing and Materials (ASTM) as a summary

of information that is known about a site. The SCM is addressed in the ASTM "Standard Guide for Accelerated Site Characterization for Confirmed or Suspected Petroleum Releases". The guide provides a framework to streamline and accelerate the site characterization process or supplement incomplete characterization data. The accelerated site characterization approach differs from the traditional approach for site assessments. For example, the accelerated site characterization approach encourages a flexible work plan rather than a rigid and prescribed plan. The use of innovative technologies is standard practice in the accelerated site characterization approach and the site characterization is pushed for completion

in one phase as opposed to multiple mobilizations.

The SCM is an important component of accelerated site cleanup as it allows for on-site interpretation and iteration of field data in order to understand site conditions as the site characterization proceeds. The 2000 State Water Resources Control Board (SWRCB) guidance requires reporting of SCM at methyl tertiary-butyl ether (MTBE) release sites. The available site information is compiled into simple graphs to develop an understanding of the site conditions. The SCM is an iterative process; the investigation model is refined as new data becomes available, until the SCM no longer significantly affects the remedy decision.

### MESSAGE FROM THE COMMANDING OFFICER — CAPTAIN GARY ENGLE

Commanding Officers and Assistant Chiefs of Staff, our last Executive Steering Committee gave us the chance to think in strategic terms about the future course of our region. We highlighted then — and I want to highlight again — the importance I place on operating and leading our region with clearly defined objectives in mind. All of you are aware by now of my philosophy and vision for NSW: understanding the realities of constrained budgets and the need to recapitalize our operating forces, we will do everything in our power to provide acceptable services at the most economical cost. To that end, and in preparation for the next Executive Steering Committee, I wanted to make sure that we begin to focus on my top five priorities for the region's future. Our emphasis as a team will be focused on these and I would like for

each of us to align ourselves behind these objectives. They will drive our decisions.

#### FORCE PROTECTION

We will provide the highest practical level of force protection to our people and bases, consistent with specific threats to our region's installations and higher authority direction. This is a basic requirement that we will execute professionally. Assistant Chief of Staff (ACOS) for Force Protection and Security is the principal expert and policy driver for all matters dealing with force protection. I recognize that each Commanding Officer has responsibility for his/her base's security. However, I insist on common standards of professionalism and execution of the mission at all times. The terrorist threat can be diverted from our facilities to the extent that we pres-

ent the model of professional watchstanders, well equipped and trained to do their mission.

#### ME2 PRODUCTS & SERVICES

NRSW will provide the most effective products and services to our fleet and other customers, but we will do this efficiently. To attain this goal, we will focus specific attention on the following:

- We will capture in the near term (3 to 6 months) all efficiencies gained to date by comparing old organizational billet structures against the most efficient organization possible.
- We will strive to complete commercial activities (CA) and/or functional assessments (FA) as rapidly as possible.
- We will proceed with the full implementation of

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**A N N O U N C E M E N T S**

**FREE EDUCATION OPPORTUNITIES AVAILABLE**

Take advantage of these free training opportunities offered by the Civil Engineer Corps Officers School (CECOS). Information on the CECOS course schedule and enrollment are available on the web at <https://www.cecos.navy.mil/>. To enroll in any class, submit a CECOS Quota Request Form to the CECOS Registrar via fax at (805) 982-2918. You can obtain the Quota Request Form, as well as confirmation of receipt, by contacting the Registrar at (805) 982-8295 or by fax at (805) 982-2918. You should register at least 3 weeks in advance to allow for adequate planning and to prevent cancellation of the course.

**COMPLIANCE**

**Air Quality Management**

13-15 August 2002 San Diego, California

**Hazardous Waste Annual Refresher**

26 July 2002 San Diego, California

12 August 2002 Southwest Region

12 September 2002 Southwest Region

13 September 2002 Port Hueneme, California

16 June 2003 Port Hueneme, California

7 August 2003 San Diego, California

8 August 2003 San Diego, California

**Hazardous Waste Generators/Handlers**

22-25 July 2002 San Diego, California

9-11 September 2002 San Diego, California

**ENVIRONMENTAL MANAGEMENT**

**Advanced Environmental Law**

5-8 August 2002 Port Hueneme, California

**Basic Environmental Law**

17-19 September 2002 San Diego, California

**Health and Environmental Risk Communication**

6-8 August 2002 San Diego, California

5-7 August 2003 San Diego, California

**POLLUTION PREVENTION**

**Emergency Planning and Community Right-To-Know (EPCRA) and Toxic Release Inventory (TRI) Reporting**

11-13 February 2003 San Diego, California

**RESTORATION**

**Ecological Risk Assessment**

10-12 September 2002 San Diego, California

9-11 September 2003 San Diego, California

**Environmental Background Analysis**

25-26 February 2003 San Diego, California

**HAZWOPER for Uncontrolled Hazardous**

**Waste Site Workers**

29 July-2 August 2002 San Diego, California

11-15 August 2003 San Diego, California

**HAZWOPER for Uncontrolled Hazardous**

**Waste Site Workers Refresher**

5 August 2002 San Diego, California

6 August 2002 San Diego, California

16 June 2003 Port Hueneme, California

7 August 2003 San Diego, California

8 August 2003 San Diego, California

**Human Health Risk Assessment**

8-10 April 2003 San Diego, California

**Remedy Selection and Closure**

13-14 November 2002 San Diego, California

**INTERSTATE  
TECHNOLOGY  
AND REGULATORY  
COUNCIL (ITRC)  
TRAINING**

The Interstate Technology and Regulatory Council (ITRC), in conjunction with the U.S. EPA's Technology Innovation Office, offers a wide variety of training events via the Internet on innovative environmental methods and technologies. The trainings are targeted at members of the environmental community, including regulators, responsible parties, consultants, and stakeholders. Training topics include natural attenuation, in situ chemical oxidation, in situ bioremediation, unexploded ordnance, phytotechnologies, diffusion samplers, and more.

The ITRC Technical and Regulatory Guidance Documents that form the basis of training materials are available for download from the ITRC website at <http://www.itrcweb.org>. The comprehensive 2002 ITRC Internet Training Schedule is available on the website - course registration typically opens 4 to 6 weeks in advance. Contact Mary Yelken at [myelken@westgov.org](mailto:myelken@westgov.org) or 402-325-9615 for additional information.

**MESSAGE FROM THE COMMANDING OFFICER**

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Most Efficient Organizations (MEOs) and we will require precise and accurate data against which to measure performance.

- Public Private Venture (PPV) projects and outsourcing will be critical to our success.
- We will incorporate Activity Based Costing (ABC) into our Resource Management decisions so that we can have the best possible data on exact costs for the services and products we provide.
- We will match product and services we provide to funding realities so that we arrive at decisions that will ensure our ability to adequately support the fleet.

**BASE APPEARANCE**

NRSW, in every installation, will maintain the highest standards for base appearance. The goal always will be to insist that our tenants, sailors and civilian employees understand their specific responsibilities for base appearance. NRSW leaders will:

- Monitor the daily cleaning and maintenance of grounds and buildings.
- Demolish, wherever feasible, unsightly structures that detract from the appearance of our bases and add to our costs.
- Insist on zero growth in footprint. That is, we will not use old, abandoned buildings and structures that have been replaced by new ones.
- Focus on finding ways to make sure that the hallmarks of Navy service, pride and professionalism, show in everything we do.

**21ST CENTURY WORKFORCE**

We will insist on maintaining a command climate that emphasizes the importance we place on leadership — beginning at the lowest levels. We will foster an atmosphere that is conducive to individual professional growth for both sailors and civilian employees by:

- Creating clean, neat and attractive places to work.
- Insisting on fair treatment for all. Every sailor and employee will be treated with dignity and respect and the same treatment will be expected from all.

**COMPLETE REGIONALIZATION**

NRSW will complete the "regionalization" process, including the consolidation of functions that will result in cost savings. We are committed to finishing this process to insure that our Navy gets value for money spent in everything that we do. The ultimate goal is to have a highly motivated work force with meaningful, productive, professionally rewarding work to do. We will not waste resources on redundant personnel structures or functions.

**Captain Gary Engle**

Commander, NAVFACENGCOS SWDIV

**ALAMEDA REMOVAL ACTION**

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also responded to community concerns to minimize any impact or inconvenience the TCRA operations might cause to the housing residents.

To minimize impact on the daily lives of the local residents, the housing area was divided into small subareas, and construction work was approached in a systematic way by timing, sizing, and sequencing the scope of the activities. The basic approach in the housing area was that each specific work area would be excavated and then backfilled with clean imported soil within the same day.

Soil was removed to 2 feet below ground surface, placed into trucks, and transported to a temporary stockpile to later be transported off site for disposal at an approved landfill. The imported backfill and topsoil were analyzed for arsenic, polychlorinated biphenyls (PCB), and PAHs before being placed in the excavation. The backfilled areas were covered with topsoil and sod following backfill and compaction. The excavation, backfilling, and sod placement in the initial TCRA area was completed in April 2002. Approximately 51,000 tons of contaminated soil was removed.

In March 2002, the Navy finalized characterization of the extended TCRA area (Estuary Park) and determined that removal of the upper 2 feet of soil in this area was also necessary. The Navy delineated the boundaries of the extended TCRA area and authorized Foster Wheeler to proceed with the excavation work. The TCRA of this area will generate approximately 56,000 tons of contaminated soil.

The extended TCRA project area is not occupied by housing structures. As a result, the entire excavation area has been fenced, and large excavators have been mobilized to increase the rate of soil removal. In preparation for excavation, Foster Wheeler has removed the park recreational facilities, trees, and a jogging path. The excavation of contaminated soil in the extended TCRA area is expected to be completed by July 2002. At completion, selected facilities in Estuary Park will be restored, including the baseball and soccer fields, sand volleyball court, a 3,200-foot-long jogging path, playgrounds, and an irrigation system. Completion of the entire TCRA project is scheduled for September 2002.

For information, please call Rick Weissenborn (SWDIV) at (619) 532-0952 or e-mail at [WessenbornRC@efdswnavfac.navy.mil](mailto:WessenbornRC@efdswnavfac.navy.mil).

## NAF EL CENTRO RECEIVES CHIEF OF NAVAL OPERATIONS ENVIRONMENTAL AND NATURAL RESOURCES AWARDS

For the third consecutive year, Naval Air Facility (NAF) El Centro was honored with the Chief of Naval Operations Environmental and Natural Resources Award. The award recognizes installations that demonstrate exemplary efforts to protect human health and the environment by cleaning up identified sites in a timely, cost-efficient, and responsive manner.

The NAF El Centro team has set a goal to remediate all environmental sites by fiscal year 2007. This goal is 7 years ahead of the goal set by the Department of the Navy. To date, 16 of 19 cleanup sites have been closed, requiring no further action. The station has saved more



Award presentation for Chief of Naval Operations Environmental and Natural Resources Award. From left to right: Scott Donovan, (Bechtel National, Inc.), Isaac Hirbawi (Department of Toxic Substances Control), James Hoyle (SWDIV Remedial Project Manager), Rear Admiral (Sel.) Reilly, Jr., Fred Rivera (NAF El Centro), and Lt. Commander Lewis (NAF El Centro)

than \$7 million using innovative and emerging treatment technologies. In addition, the NAF El Centro cleanup team's meticulous document preparation has saved \$100,000 in document revision costs.

For more information, please call Jim Hoyle (SWDIV) at (619) 532-3868 or Scott Donovan (Bechtel National, Inc.) at (619) 744-3019.

**COMMUNITY OUTREACH**

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public and passed out fact sheets about NAS North Island and NAB Coronado environmental restoration activities. A sign-up sheet was provided for parties interested in learning more about the Restoration Advisory Board (RAB), and a computer at the booth allowed visitors to explore the web sites for the NAS North Island/NAB Coronado RAB: <http://www.cnrswnavy.mil/RAB> and <http://www.efdswnavfac.navy.mil/Environmental/EnvHome.htm>.

For more information, please contact Bill Collins (SWDIV) at (619) 556-9901.

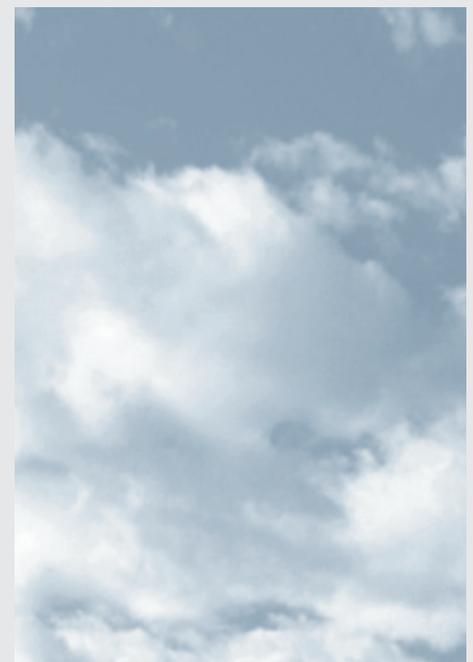
**MCAS TUSTIN**

Continued from page 2

this property conveyance goal, SWDIV, along with state and federal regulatory agencies and subcontractors, worked diligently to accelerate environmental restoration of the former station.

The vision for the future of former MCAS Tustin, articulated in the City of Tustin's reuse plan is: "A plan that translates community values into the most important qualities and characteristics of the future uses and overall design; seeking to create results that are special, worthy of the site's present and historical importance to the City of Tustin and the region."

For more information, please contact Jerry Dunaway (SWDIV) at (619) 532-0975 or e-mail at [dunawayjt@efdswnavfac.navy.mil](mailto:dunawayjt@efdswnavfac.navy.mil).



## UPCOMING EVENTS



### SOCIETY FOR ENVIRONMENTAL GEOCHEMISTRY AND HEALTH FIFTH INTERNATIONAL CONFERENCE ON ARSENIC EXPOSURE AND HEALTH EFFECTS

14 to 18 July 2002, San Diego, California

The Fifth International Conference on Arsenic Exposure and Health Effects will cover the latest aspects of exposure and health effects. Topics will include exposure and health effects, dose-response relationships, toxicokinetics, abatement and control strategies, bioavailability, and more. This conference will be of interest to scientists, regulators, industry representatives, and policy makers.

For more information, please visit <http://www.cudenver.edu/as2002>, phone at (303) 556-4520, or e-mail at <mailto:as2002@carbon.cudenver.edu>.

### 7TH ANNUAL JOINT SERVICES POLLUTION PREVENTION AND HAZARDOUS WASTE MANAGEMENT CONFERENCE AND EXHIBITION 19 to 22 August 2002, San Antonio, California

The 7th Annual Joint Services Pollution Prevention and Hazardous Waste Management Conference and Exhibition provides an open forum for exchanging ideas, success stories, case histories, and technologies related to pollution prevention and hazardous waste management. The conference will also include the Geospatial Technologies Symposium.

For registration visit, <http://www.environment.ndia.org/>, call (888) 288-3598, or e-mail at <mailto:p2cadd@laser-registration.com>.

### NATIONAL SAFETY COUNCIL 90TH ANNUAL CONGRESS AND EXPO 4 to 11 October 2002, San Diego, California

The National Safety Council Congress and Expo is the largest annual event for safety, health, and the environment. This year's program includes more than 200 education sessions and 800 exhibiting companies with the latest products and services from the U.S. and around the world. Highlights also include invited speakers, including President Vicente Fox of Mexico; John Henshaw, Assistant Secretary of Labor for Occupational Safety and Health; and David D. Lauriski, Assistant Secretary of Labor for Mine Safety and Health.

For registration information, visit <http://www.congress.nsc.org/>.

### WORLD ENERGY ENGINEERING CONGRESS 9 to 11 October 2002, Atlanta, Georgia

Sponsored by the Association of Energy Engineers, the World Energy Engineering Congress will present new developments within the energy marketplace. The congress will consist of a three-day conference and technology expo, as well as a full lineup of seminars on topics of special interest, including the latest developments in combined heat and power (CHP) technologies, geothermal heat pumps, and renewable energy technologies. The conference will address integrated solutions to a secure and affordable power supply, as well as effective management of both energy and overall operating costs.

For more information and registration, please visit <http://www.energycongress.com/>.

### ANNUAL CONFERENCE ON CONTAMINATED SOILS, SEDIMENTS, AND WATER

21 to 24 October 2002, Amherst, Massachusetts

The Annual Conference on Contaminated Soils, Sediments and Water attracts 700 to 800 attendees annually and includes a wide variety of representation from state and federal agencies, industry, military, the environmental engineering and consulting community, and academia. Expediting and economizing cleanups, this conference's theme, will be supported by the development of a strong and diverse technical program in concert with a variety of educational opportunities. Live equipment demonstrations will augment the exhibition, and case studies will be presented in the platform sessions. Focused workshops will provide attendees with practical application information.

For conference information and registration visit <http://www.unmasssoils.com/> or contact Denise Leonard at (413) 545-1239 or e-mail at [info@UMassSoils.com](mailto:info@UMassSoils.com).

### GROUND WATER EXPO

9 to 11 December 2002, Las Vegas, Nevada

The National Ground Water Association is sponsoring the 2002 Ground Water Expo. Attendees will have the opportunity to check out new equipment on the exhibition floor, participate in educational opportunities, and hear lectures from experts in the industry. The expo will also include action demonstration sessions and a new technology with TIPS: hands-on Technical Interactive Presentations.

Register online at <http://www.ngwa.org/>, or call (800) 551-7379.

#### EDITORIAL INFORMATION

The CFS Group, a department of Tetra Tech EM Inc., edits Synergy in cooperation with SWDIV. The editors invite articles on environmental solutions for sustainability, including technology innovations, lessons learned, success stories, community relations, and conferences and training events.

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