

Report to

December 2005



STAKEHOLDERS

2005 Year-in-Review

<http://www.edwards.af.mil/penvmng/index.html>

Volume 10 No. 12



From finding solutions to making discoveries, Environmental Management maps out some of the successful programs and projects that stood out in the past year.

Full coverage inside

From the Division Chief



Environmental Management finds solutions; not an easy endeavor. Finding solutions, actually finding the single best solution, is only possible after everyone fully understands the problem. The environmental programs at Edwards Air Force Base, including the important activities at the Air Force Research Laboratory and NASA Dryden, are mature, well managed and recognized by the public and the regulatory agencies as being the best in the United States Air Force, possibly in the Department of Defense. The only way an environmental program can be as successful as ours is through the collective positive efforts of everyone. The best solutions come from the employees who understand the problem. They are the ones with the insight and the drive to implement the solution. This year Environmental Management's daily interaction with base employees and local community members, especially through Environmental Support Zone

personnel, the weekend range rider activities, quarterly Restoration Advisory Board meetings, and our Earth Day and Air Show activities has allowed us to hear about and understand the environmental problems most important to our customers. As environmental consultants we have helped our customers craft appropriate solutions for their specific problems, and as program managers we have funded the solutions and assisted our customers in seeing their solution become a reality. Environmental Management is everyone's business, and today's Environmental Management is here to demystify the process, provide expert assistance in solving the base's problems, provide funding when it is legal to do so, and add lots of encouragement. This last year was a great environmental success, and with everyone's help next year will be even better.

Robert Wood

Report to Stakeholders is a publication of the Edwards AFB Environmental Management Division. Its purpose is to inform and educate the public, base workers and residents about continuing Environmental Management efforts at Edwards AFB. It currently has a circulation of 6,000, including about 2,000 subscribers.

Contents of the *Report to Stakeholders* are not necessarily the official view of, or endorsed by, the U.S. government, the Department of Defense, or the Department of the Air Force.

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Comments or questions should be directed to: Gary Hatch, 95 ABW/PAE, 5 E. Popson Ave., Bldg. 2650A, Edwards AFB, CA 93524-8060, (661) 277-1454. E-mail: gary.hatch@edwards.af.mil

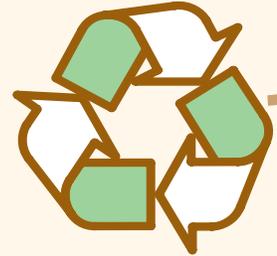
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Start Here

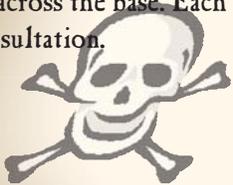


EDWARDS RECYCLES

Recycling at Edwards Air Force Base stretches not only to base housing, but also to the industrial complexes. Environmental Management (EM) works, in conjunction with the base landfill, to inform those living and working on base of what items are recyclable. From rubber tires to paper, EM ensures that guidelines are met. Recycling brochures and other information can be found by contacting the EM office or looking for them at a function like the Earth Day environmental fair or base Air Show.

ENVIRONMENTAL QUALITY

As its name suggests, the quality of the environment is most important to the Environmental Quality Branch, which is made up of air quality, pollution prevention, solid waste and hazardous waste. Environmental Quality also provides representatives in Environmental Support Zones spread across the base. Each zone has an environmental specialist onsite for consultation.



STORING HAZARDOUS WASTES ON BASE



The Hazardous Waste Support Facility (HWSF), previously known as the conforming storage facility, has been in operation since 1995. Its name was changed to better reflect its function as a support facility that only stores large amounts of hazardous wastes for up to one year under a state permit. There are accumulation points on base where low-yield hazardous wastes up to 55 gallons can be stored for 270 days. When the accumulation points reach their regulated limit, the hazardous wastes are transported to an accumulation site or to the HWSF. Unlike the HWSF, accumulation points and sites are shorter term storage areas for hazardous waste. Accumulation sites can hold any amount of hazardous waste for up to 90 days. If these collections areas are noncompliant with time or capacity limits, fines and penalties are imposed.

CONSERVATION

Environmental Management's Conservation Branch provides ways to help preserve the natural environment. It includes the Environmental Impact Analysis Process (EIAP), Cultural Resources and Natural Resources. Events standing out in 2005 include Cultural Resources' Range Riders Program. This program first began on a 90-day trial basis and has been successful ever since. Archaeologists discovered a meteorite on Buckhorn Flats. Predictive modeling helped the biologists find more populations of what was thought to be a rare plant, and when it rains at Edwards Air Force Base, you can believe the lakebeds will come alive ...



IT CAME FROM OUTER SPACE

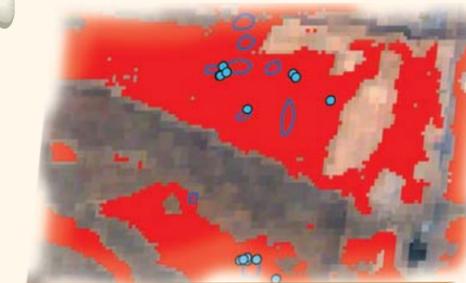
Base archaeologists discovered a meteorite while out in the field at Buckhorn Flats and since then, a piece of it has been researched at the University of California, Los Angeles. UCLA confirmed what the archaeologists found was indeed a meteorite. The next stop for the meteorite is the Smithsonian Institution in Washington, D.C.



RIDERS OF THE RANGE

Unique to Edwards Air Force Base, two range riders exist for the purpose of documenting any out-of-the-ordinary activity within close proximity of or on the base. The range riders are a part of Cultural Resources Management, which is made up of archaeologists. This program was fully implemented over two years ago, placing the two trained archaeologists out in the field to protect key archeological sites, find new sites and report unauthorized activity occurring on the perimeter of the base, or, within its boundaries, to the proper law enforcement agency.

Since the program's inception in 2003, range riders have recorded 31 sightings and encounters, 494 instances of damage to base boundary fences and gates, 154 new activities and have collected 24 artifacts.



PREDICTIVE MODELING

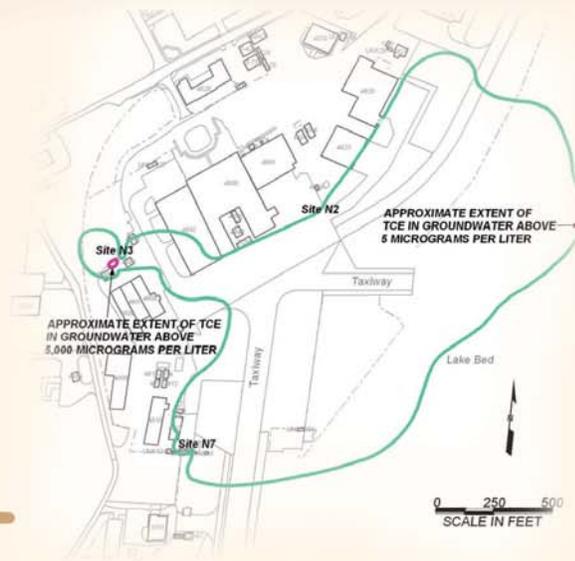
Natural Resources Management has been studying populations of the desert cymopterus, a native plant thought to be few in numbers. In collaboration with EM's Geographic Information Systems, and using what is called predictive modeling, Natural Resources Management workers have been able to find greater numbers of this sensitive species growing on and around the base. With the help of such technology, Edwards plans to expand its knowledge of other sensitive species on base, like the Mohave ground squirrel.



EDWARDS' LAKEBEDS COME ALIVE

In 2005, winter downpours on Edwards Air Force Base contributed to the dry lakebeds' water supply until mid-July. With the winter rains, the dry lakebeds on the base weren't so dry anymore and teemed with a variety of shrimp. Five different species of shrimp are found on the base's lakebeds: clam shrimp, tadpole shrimp and three different species of fairy shrimp.





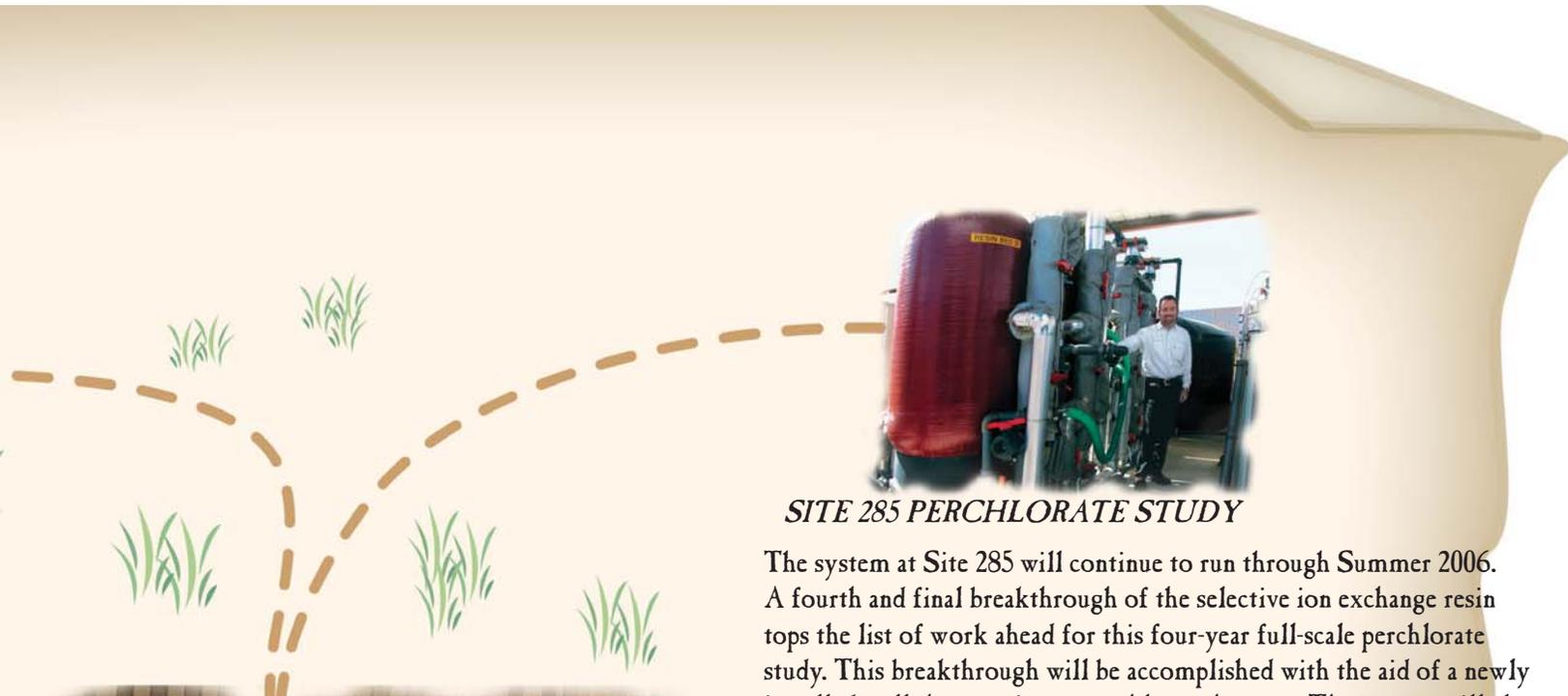
NASA DRYDEN'S OPERABLE UNIT 6 PROPOSED PLAN

Restoration offered a Proposed Plan for public review and comment on ways to clean up contamination located in the groundwater below NASA's Dryden Flight Research Center. The base cleanup program calls the area Operable Unit 6, or OU6. The public was given an opportunity to comment on three sites (Sites N1, N2 and N7). Alternate proposals for cleanup on these sites are: land use controls; groundwater monitoring, hydrologic control with land use controls; chemical oxidation with land use controls; source control and hydrologic control with groundwater monitoring and land use controls; and no action. Alternate four was preferred by the Air Force, NASA, the U.S. Environmental Protection Agency (EPA) and the state of California.



RESTORATION

With 471 sites to be cleaned up, Edwards Air Force Base's Environmental Restoration Program (ERP) has made steady progress in the 15 years it has been in existence. The ERP continued to study perchlorate at Site 285, located at North Base. At NASA Dryden, the ERP invited the public to comment on a proposed cleanup plan for contamination located in the groundwater below the research center. By 2014, all decisions on how to clean up sites remaining in the program are scheduled to be on record, and within the following year the treatment systems will be in place.



SITE 285 PERCHLORATE STUDY

The system at Site 285 will continue to run through Summer 2006. A fourth and final breakthrough of the selective ion exchange resin tops the list of work ahead for this four-year full-scale perchlorate study. This breakthrough will be accomplished with the aid of a newly installed well that taps into a perchlorate hotspot. The system will also continue its study of soil flushing to help remove perchlorate from contaminated soil above groundwater level. The study will also compare the practicality of using a throw-away, or toss, resin, which is disposed of when it reaches its capacity. The toss resin is cheaper to produce than the regenerable resin. The ERP also plans to conduct new studies that will help them know more about other practical solutions to perchlorate contamination including bioremediation and a system that uses membranes instead of resin beads for perchlorate removal.



RESTORATION ADVISORY BOARD CELEBRATED 10 YEARS

Edwards Air Force Base's Restoration Advisory Board (RAB) celebrated its 10th anniversary in the spring. The Edwards RAB was formed in 1994, replacing the Technical Review Committee (TRC). The RAB was established to provide public input on cleanup activities at Edwards. Its purpose is to provide two-way communication between the public and the officials responsible for cleanup on the base. Meetings are held quarterly.



VERY IMPORTANT PEOPLE

There are times when regulators and directors of agencies from the Department of Toxic Substances Control (DTSC) and the U.S. EPA, to the Chair of the California Integrated Waste Management Board make visits to the base. These visits are an integral part for EM, showing VIPs both present and future environmental capabilities.

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95 ABW/PAE
 RTS Subscription
 5 E. Popson Ave., Bldg. 2650A
 Edwards AFB, Calif., 93524-8060

RAB Members

BORON

Dara English (760) 762-6527 Home
 dara.english@Borax.com (760) 762-7867 Work

CALIFORNIA CITY

Bob Smith (760) 373-4317 Home
 bsmith@ccis.com

LANCASTER

Larry Hagenauer (661) 277-9133 Work
 Larry.Hagenauer@edwards.af.mil
 ALTERNATE: Frank Roberts (661) 723-6018 Work

MOJAVE

Victor Yaw (661) 824-2886 Home
 (661) 275-4296 Work

NORTH EDWARDS

Ruby Messersmith (760) 769-4357 Home
 messersmith@ccis.com

ROSAMOND

David Newman (661) 722-6433 Work
 dneuman@ispwest.com
 ALTERNATE: Leslie Uhazy (661) 256-8209 Home
 luhazy@avc.edu (661) 722-6417 Work

EDWARDS AFB

Housing

Amy Bouchard (661) 258-0190 Home
 noelamy@adelphia.net

Main Base Air Base Wing

David Schory (661) 277-4811 Work
 david.schory@edwards.af.mil

Main Base Test Wing

Vacant

NASA Dryden

William Brandweiner
 William.Brandweiner@dfrc.nasa.gov (661) 276-3339 Work

North Base

Vacant

South Base

Julie Newton (661) 275-0551 Work
 julie.newton@edwards.af.mil

**AF Research Lab/
 Propulsion Directorate**

Milton McKay (661) 275-5191 Work
 milton.mckay@edwards.af.mil

Published data and documents relating to the Environmental Restoration Program are available for public review in information repositories at four locations. The current information repositories are located in the cities of Boron, Lancaster and Rosamond, as well as Edwards AFB. They are updated when new documents are released.

If you have any questions about information in the repositories, please contact Gary Hatch, Environmental Public Affairs at (661) 277-1454 or through e-mail at gary.hatch@edwards.af.mil.



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Kern County Public Library Wanda Kirk Branch 3611 Rosamond Blvd. Rosamond, Calif. (661) 256-3236	Tue & Wed Noon - 8 p.m. Thurs-Sat 10 a.m. - 6 p.m.
Los Angeles County Public Library 601 W. Lancaster Blvd. Lancaster, Calif. (661) 948-5029	Mon-Wed 10 a.m. - 8 p.m. Thurs & Fri 10 a.m. - 5 p.m. Sat 11 a.m. - 5 p.m.
Col. Vernon P. Saxon, Jr. Aerospace Museum 26962 Twenty Mule Team Road Boron, Calif. (760) 762-6600	Mon-Sun 10 a.m. - 4 p.m.



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**EDITOR and
 WEB DESIGN**
 Miriam Horning

**WRITING and
 DESIGN SUPPORT**
 Paul Rogers
 Patti Kumazawa
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