

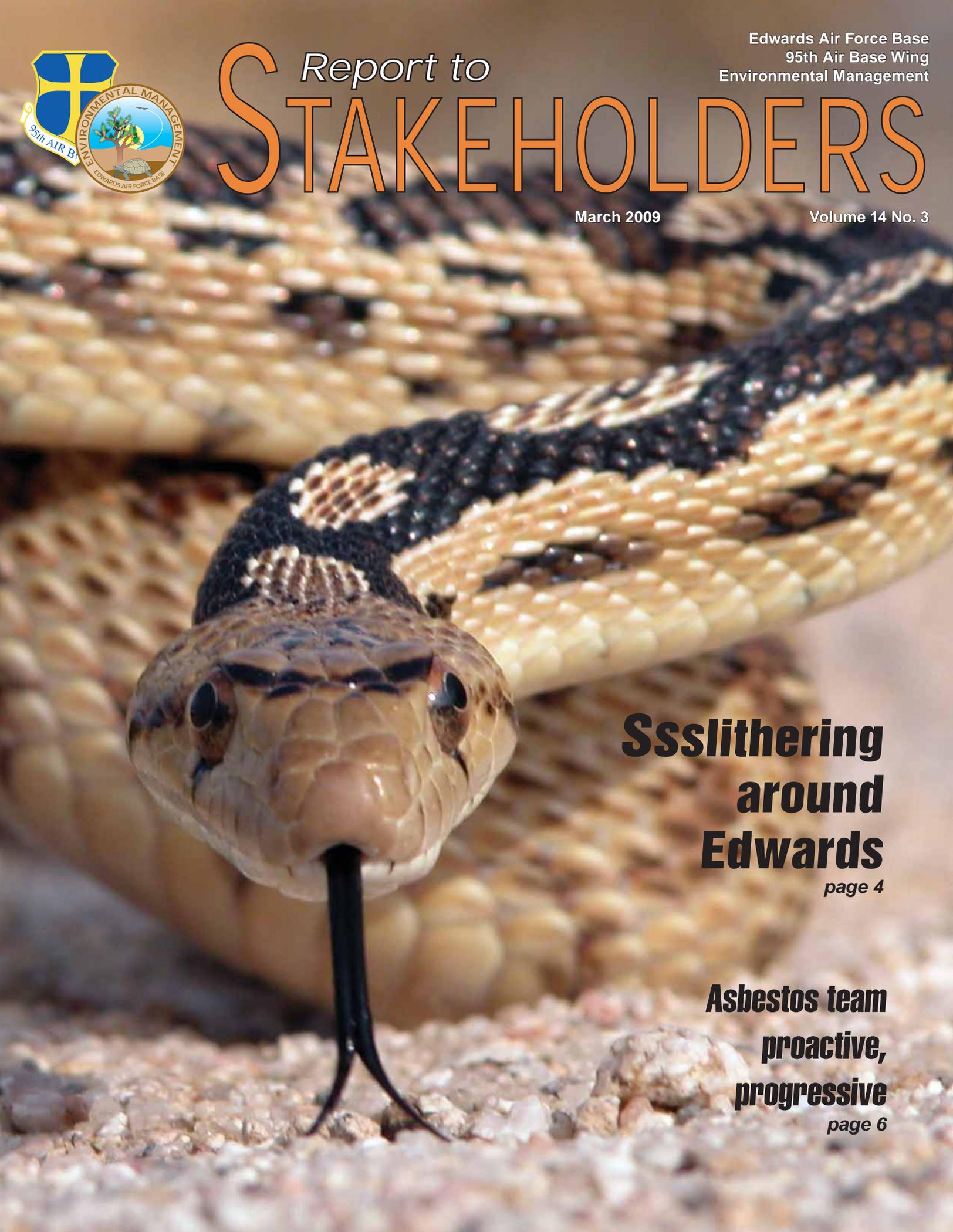


Edwards Air Force Base  
95th Air Base Wing  
Environmental Management

# Report to STAKEHOLDERS

March 2009

Volume 14 No. 3

A close-up photograph of a snake's head, likely a rattlesnake, with its tongue flicking out. The snake has a patterned body with black and tan bands. The background is a blurred, sandy or gravelly surface.

## **Ssslithering around Edwards**

*page 4*

## **Asbestos team proactive, progressive**

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# Report to STAKEHOLDERS

*Report to Stakeholders* is a publication of Edwards Air Force Base, 95th Air Base Wing, Environmental Management. Its purpose is to inform and educate the public, base workers and residents about continuing environmental and safety efforts on base. 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.

All photos are property of the Air Force.

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**Tuesday, April 21**  
**10 a.m. - 2 p.m.**  
**Center of Excellence**  
next to Desert High School

# EARTH DAY 09

Reducing our Dependency on Natural Resources  
While Still Maintaining our Current Lifestyle

**Scheduled Events & Displays**

- Sustainability Workshops for Adults and Children
- Sustainability Play for Children
- Renewable Energy Demonstrations
- Air Quality Demonstrations
- Liquid Nitrogen Ice Cream
- Live Snakes and Desert Tortoises
- Environmental Buzz Game and Prizes
- Created Treasures Craft Making
- Archaeology Display
- Minerals and Geology
- Hybrid Cars
- Eddie the Edwards Tortoise
- A-PET with Adoptable Animals
- Exotic Feline Compound

For all environmental concerns, please call the Environmental Management Customer Service Desk at (661) 277-1401.

### What's on the cover?



**GREAT IMITATOR** — A Great Basin gopher snake assumes the striking position as a base biologist pulls in close for a photo. The snake is often mistaken for a rattlesnake because it can inflate its body, flatten its head and make its tail produce a rattling sound in loose soil or dry vegetation. See article on pages 4 and 5.

# Composting: good for garden, good for environment, landfill

**W**ith composting, one man's trash literally becomes another man's treasure. At Edwards, experts keep organic waste out of the landfill by recycling it into compost for landscaping. This process has saved an estimated 67,370 cubic yards of landfill space, since January 2000.

Composting is the decomposition of plant remains and other once-living materials. The decomposition creates an earthy, dark, crumbly material that is great for enriching soil. According to the U.S. Environmental Protection Agency (EPA), composting is the best way to recycle yard and kitchen waste. A proper and environmentally safe compost pile or system can suppress plant diseases and pests, reduce or eliminate the need for chemical fertilizers and promote higher producing crops.

Organic waste composting began at Edwards in 1996 as a way to reduce the volume of waste entering the landfill, according to Mike Ferola, head landfill operations contractor at Edwards. At that time, the base composting facility began processing green and brown waste generated by military family housing members and landscape contractors.

Brown waste includes dry and dead plant material such as straw, brown weeds, autumn leaves, wood chips and sawdust. Brown waste often needs to be moistened before being put into a compost system. Green waste is fresh — and often green — plant material such as green weeds and leaves from the garden, kitchen fruit and vegetable scraps, fresh horse manure, coffee grounds and tea bags.

Brown and green waste create a balance that is the most nutritional mix and gets the best results. This mix also helps with the ventilation and amount of moisture used in the pile.

Brown waste tends to be bulky and promotes good exposure to air, while green waste is typically high in moisture content.

"Mixing the two waste streams makes for a highly effective compost mix," Ferola



**PROCESS** — The Ag-Bag process, located at the base landfill, consists of combining green and brown waste with mulch in a 200-foot long plastic bag and pumping air through it for six to eight weeks to create compost for use at Edwards.

said. "The composting facility mixes green and brown waste with mulch — which is a mixture of chopped up wood from trees and tree limbs."

"The mulch is generated by grinding the trees brought to the composting area by the landscaping contractors and the tree trimmers," Ferola added.

This material is then composted using the Ag-Bag process.

The Ag-Bag process consists of combining the two waste streams and mulch into a 200-foot long plastic bag. When full, air is pumped through the bag for roughly eight weeks. This provides the perfect environment for bacteria to break down the green waste. The mixture must reach 131 degrees for three consecutive days.

Producing high temperatures within the Ag-Bag destroys diseases and other harmful components that natural decomposition does not destroy. Following the air treatment, the bag is opened and the product is passed through a screener that separates the fine, rich compost from the larger wood mulch.

"Before the compost is approved for use, the processed product is tested by Environmental Management (EM) staff,"

Ferola said. "This step ensures that the composted material is free from any harmful contaminants such as metals and bacteria."

The compost samples collected and tested by EM staff are reported to county and state regulators, so users of the composting material can be certain the product is environmentally safe.

When all of these steps are complete, the end product is available to base residents and landscape contractors free of charge.

"A stockpile for base residents is kept behind the housing office (at the U-Fix-It store) in a block bunker," Ferola said. "Large quantities can be scheduled for pickup directly from the composting area at the base landfill."

Once housing residents add compost to their landscaped areas they can continue the process by adding more organic waste to the compost as long as it's the right kind. According to the EPA, it is important not to add meats, bones, poultry, fish, fatty food waste, whole eggs and other dairy products, human and pet feces, harmful

# Ssslithering around Edwards

As spring and hotter temperatures arrive at Edwards, various species of belly crawlers emerge from their winter homes in search of a warm meal. These warm meals are often small rodents, insects, bird eggs and sometimes, even other snake species.

Snakes are one of nature's ways of controlling rodent populations, according to base biologists. The snakes most often seen on base are the California kingsnake, the red coachwhip, the Great Basin gopher snake and the Mojave "green" rattlesnake. The nine remaining species

include the desert night snake, long-nosed snake, lyre snake, Mojave Desert sidewinder, Mojave glossy snake, rosy boa, spotted leaf-nosed snake, western patch-nosed snake and the western shovel-nosed snake.

Many of the snakes on base are active during the day, but may hide under shady areas or become active at night to keep from overheating in the summer sun. The rattlesnakes are most active at night, when it is cooler.

Base biologists recommend that people observe the wild snakes from afar and refrain from handling them. Snakes can give a painful bite, even though most of the snakes on base are considered harmless to humans. If a person is bitten, it is important to note what kind of snake it was or what it looked like. If the bite was from a rattlesnake, call 911, refrain from eating or drinking, remain still and as calm as possible and remove anything that could prevent blood flow in the area. Also, do not cut the wound to try to drain the venom. With nonrattlesnake bites, wash the wound with soap and water — not chemicals — to prevent infection.

If an injured snake is found or for general questions about snakes, please contact the Environmental Management office at (661) 277-1401.

## GREAT BASIN GOPHER SNAKE "GOPHIE"

**Identification** — This snake is commonly yellowish, with large brown-black blotches along its back and smaller markings on its sides. It can range from 2.5 to 7 feet long.

- Most active during the day, this burrowing, climbing and swimming constrictor kills its prey by suffocating it.
- Imitates rattlesnake behavior by flattening its head, hissing loudly, coiling its body and shaking its tail to make a rattling sound.

## RED COACHWHIP "RED RACER"

**Identification** — This light brown to reddish fast snake has pink, brown or black bands across its neck and can be 3 to 8.5 feet long. The slender snake got its name because of the braided, whip-like appearance of the scales on its tail.



- It captures prey in the loops of its body or with its jaws, but does not constrict it.
- It hunts with its large head held above the ground and is a good climber.
- The snake is often found on roads as it races across to eat road kill or to bask on warm days.





### CALIFORNIA KINGSSNAKE "THE KING"

**Identification** — This snake features a rounded, blunt head and alternating bands of black or brown, and white or light yellow. It can be from 2.5 to 7 feet long. However, it is unusual to see one of these longer than 4 feet.

- Active during cooler day weather and warmer dawn, dusk and night weather, it is normally not aggressive, but vibrates its tail, hisses and rolls into a ball, if disturbed.
- It is a popular snake in the pet trade because it adapts well to captivity.
- The snake is immune to rattlesnake venom and eats other snakes in addition to small rodents and mammals.

## Did you know?

- Snakes can be found on every continent except Antarctica, according to *Kingsnake.com*.
- California ground squirrels are immune to rattlesnake venom and therefore, face up to any snake they feel threatened by, according to *CaliforniaHerps.com*.
- Pit vipers have the ability to sense the heat of potential threats or prey, using their facial pits, and strike their target in total darkness, according to base biologists.
- One way to tell whether a snake is a day hunter versus a night hunter is to look at the eyes. Night hunters generally have elliptical, cat-like pupils to let more light in and day hunters have round pupils, according to base biologists.

GOPHER SNAKE

### MOJAVE GREEN RATTLESNAKE "RATTLE-ME-THIS"

**Identification** — This venomous pit viper has elliptical pupils, a triangular head on its 2- to 4.25-foot-long thick body and a rattle at the end of the tail. Its color ranges from greenish gray to brown and the back features irregular diamonds.

- The snake shakes its tail quickly, making a rattling or buzzing sound if it feels threatened.
- Gives birth to live young instead of laying eggs.
- Males engage in combat for the right to breed.



### MOJAVE DESERT SIDEWINDER "SIDE STEP"

**Identification** — This venomous pit viper sports horn-like scales above elliptical eyes, a triangular head and a heavy 1.5- to 2.75-foot body. Its color ranges from pale cream to pink to match the soil around it.

- To hunt, hide from predators or threats, or regulate its body temperature, the snake often hides beneath the surface of loose sand, keeping just the top of its head showing.
- The snake is able to keep much of its body off the ground while moving, reducing contact with warmer surfaces in the desert. This ability allows it to move quickly and leave unique tracks that look like disconnected "s" figures.





**COVERED** — Plastic barriers were set up inside of the housing units where removal of asbestos occurred. Negative air machines, pictured at center, and decontamination showers for the workers, pictured at upper right corner, were part of the protective measures used to ensure asbestos fibers remained within the containment zone.

## Active asbestos team works to protect residents and employees

**C**hrysotile and amphibole are natural mineral products used by people for centuries. You can't taste them or smell them. They protect users from heat and fire. They help building materials like paint, joint compound, concrete, roofing and floor tiles last longer. They were commonly used in insulation. Most buildings built in the 20th Century contain some, maybe even your workplace or home. Never heard of them? You may know them by their more common name — asbestos.

"Asbestos made things work better and enhanced strength of anything it was added to," said Michele LaComb, asbestos and demolition project manager for the Edwards Air Force Base 95th Air Base Wing Civil Engineer and Transportation Directorate.

LaComb has 27 years experience working with asbestos for the government. She has been at Edwards since 1995. "In the building industry, they looked at it as a good thing," she said.

"Whatever it's added to lasts much longer than without asbestos, but we know now it is bad stuff."

"Asbestos is dangerous because it consists of very small fibers. So small, it is considered an air pollutant," LaComb said. "Inhaled into the lungs, these fibers can cause disease and death, sometimes years later. One exposure can be enough."

Asbestos is the most hazardous when it is in a form that is friable, which means easily crushed or pulverized. When asbestos-containing material is crushed the asbestos fibers are easily airborne and inhaled.

To protect workers and residents from exposure, Edwards has had an active asbestos program since the late 1980s. A team of government and contractor professionals from different base organizations including Civil Engineering (CE), bioenvironmental engineering and Environmental Management (EM) work together to protect workers and residents and ensure compli-

ance with all government and Air Force regulations regarding asbestos.

“History shows we’ve been proactive and progressive here at Edwards,” said Carmela Gonzalez, base asbestos coordinator at EM.

LaComb said that the most dangerous high priority asbestos in occupied base buildings has been removed. Now the Air Force strategy is to find and clean up asbestos present in any building before construction or demolition projects cause it to be released into the air. Asbestos-containing materials that are not friable and that are in good condition do not pose a threat to building occupants.

Most buildings have been tested for asbestos. LaComb has 28 file cabinet drawers full of information on all base facilities. When a work order comes into CE, she is one of the first people to review it. She looks at her files and determines if the project could disturb asbestos. “If a work order comes in and we don’t have enough information to determine if it’s safe, we take samples to rule it out or to determine exact locations and materials that contain it,” she said. “Just because the three other walls in a room tested negative, the fourth could still have it. Just about anything that isn’t wood, glass, plastic or unpainted metal could have asbestos.”

One big project currently underway is the demolition of old housing units. More than 300 houses built in the 1950s and 1960s are being demolished – another 200 are already demolished. These houses all contained some asbestos — most in an exterior color coating over stucco.

“Asbestos in finish coats such as paint or color coat is typically rare, but it’s all over the place at Edwards” said Ron Czarnecki, an asbestos inspector from EM. “The asbestos helped the material hold together in the extreme heat and cold conditions we have here.” Czarnecki’s job is to ensure contractors cleaning up the asbestos comply with all environmental regulations. “The rules developed by the U.S. Environmental Protection Agency for care of asbestos in schools is the industry standard for asbestos inspections,” he said. “The EPA has also established regulations to protect the environment.”

In whatever form, removing crumbling asbestos requires special care to ensure it is contained while professional removal contractors complete their work. When large amounts are being removed, facilities are wrapped in plastic. Negative air machines with high efficiency particulate air (HEPA) filters make sure no unfiltered air from the inside of the facility escapes to the outside. Air samples are taken at the work area perimeter surrounding the sites during demolition. As they are also taken in buildings and associated

asbestos containments when work is done to confirm the asbestos is gone or has not migrated from the asbestos work area. The base bioenvironmental engineering office reviews the air sample findings. “We also conduct our own air sampling when the project is close to areas where we have children, like the schools or parks,” said Jeanette Van Norden, an environmental health technician at bioenvironmental engineering.

Removal professionals wear safety gear including suits, boots, gloves and respirators equipped with HEPA filters. They shower after leaving the containment area to minimize asbestos fibers being spread to the outside or taken home. Van Norden said bioenvironmental engineering staff is responsible for ensuring worker health regarding asbestos. They ensure all Occupational, Safety and Health Administration rules are followed. “It’s more than making sure the professionals are wearing their gear,” she said. “Bio engineers conduct annual shop surveys in many work areas to ensure base workers are safe.”

After asbestos-containing materials are removed they are wrapped in plastic. On large jobs, they are put into large trash bins that can hold 40 cubic yards of material. These trash bins are then hauled to a special landfill for disposal.

Czarnecki said the recent housing demolition project has meant a lot of asbestos-containing material is being shipped off base. “It’s cheaper to remove the entire wall than try to just get the paint or color coat,” he said.

Environmental Management hazardous waste staff has tracked more than 4 million pounds of asbestos waste leaving the base in 2008. In January 2009, nearly 2 million pounds of waste was sent to state-certified asbestos landfills.

The base’s responsibility doesn’t end at the base boundary. “Annually we perform audit-assessment inspections on two or three disposal facilities,” said Sharon Soliz, an EM hazardous waste technician. “These audits give us a chance to look through their permits, see the site and how they are operating.”

Every day, common projects like dealing with a roof leak open the possibility for exposing people to asbestos. For that reason, LaComb briefs base facility managers each month on how to identify asbestos.

These briefings are for all building managers — even those with a newer building. LaComb said that people expect older buildings to have some kind of asbestos in it, but many people don’t think about newer ones containing the material.

“You can still buy products in the stores today that contain asbestos,” LaComb said. “Keeping people mindful and aware of the hazards is all part of the asbestos team’s job.”

RTS

## COMPOST

### From page 3

weeds or treated wood.

According to the EPA, natural composting — or biological decomposition — began with the first plants on earth and has been going on ever since.

Composting at home can reduce the amount of waste thrown away. A great variety

of things can be composted at home, saving them from a one-way trip to the landfill, and turning them into a valuable soil amendment for home use. For more information about composting, contact Milton Riley at (661) 277-2431 or the base landfill at (661) 277-3867.

U-Fix-It store hours of operation are from 8 a.m. to 5 p.m., Wednesday through Sunday.

RTS

**RESULT**  
Piles of compost are made after the Ag-Bag process is complete and the material has gone through a sifter.



## Where to Find More INFORMATION



Published data and documents relating to Environmental Management are available for public review in information repositories at three locations.

The current information repositories are located in the cities of Lancaster and Rosamond, as well as Edwards Air Force Base. They are updated when new documents are released.

For questions about information in the repositories, you may contact Gary Hatch, Environmental Public Affairs at (661) 277-1454 or by e-mail at [95abw.pae@edwards.af.mil](mailto:95abw.pae@edwards.af.mil). Here is a list of our current information repositories:

### Edwards Air Force Base Library

5 W. Yeager Blvd.  
Building 2665  
Edwards AFB, Calif.  
(661) 275-2665  
Hours of operation: Mon-Thu 9:30 a.m. – 7 p.m.  
Fri 9:30 a.m. – 6 p.m.  
Sat-Sun 10:30 a.m. – 6 p.m.

### Kern County Public Library

**Wanda Kirk Branch**  
3611 Rosamond Blvd.  
Rosamond, Calif.  
(661) 256-3236  
Hours of operation: Tue-Wed 12 p.m. – 8 p.m.  
Thu-Sat 10 a.m. – 6 p.m.

### Los Angeles County Public Library

601 W. Lancaster Blvd.  
Lancaster, Calif.  
(661) 948-5029  
Hours of operation: Mon-Wed 10 a.m. – 8 p.m.  
Thu-Fri 10 a.m. – 5 p.m.  
Sat 11 a.m. – 5 p.m.

For general information about Edwards and an electronic version of the latest issue of Report to Stakeholders or other documents of public interest, please visit the following link:

<http://www.edwards.af.mil/library/environment/index.asp>.

## Restoration Advisory Board (RAB) Information

The RAB is made up of appointed representatives from communities in and around Edwards Air Force Base, regulators from federal and state agencies and base officials. The board's purpose is to provide a forum for two-way communication among base restoration officials, regulators and representatives regarding the cleanup of contamination from past military activities.

The board meets quarterly, rotating meeting locations in communities surrounding the base. The public is welcome to attend. If you have any questions or concerns about the cleanup activities going on at Edwards, you

may contact your community's RAB member or Gary Hatch, Environmental Public Affairs, at (661) 277-1454.

### Next Quarterly Meeting

Date: May 21, 2009  
Time: 5:30 p.m.  
Location: North Edwards  
Venue is to be determined

## RAB Members

### OFF-BASE COMMUNITIES

#### Boron

Vacant

#### California City

Bob Smith (760) 373-4317 Home  
[bsmith@ccis.com](mailto:bsmith@ccis.com)

#### Lancaster

Peter Zorba (661) 723-6234 Work  
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#### Mojave

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#### North Edwards

Ruby Messersmith (760) 769-4357 Home  
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#### Rosamond

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[newmanispwest@yahoo.com](mailto:newmanispwest@yahoo.com)  
ALTERNATE: Leslie Uhazy (661) 256-8209 Home  
[luhazy@avc.edu](mailto:luhazy@avc.edu) (661) 722-6417 Work

### ON-BASE COMMUNITIES

#### Housing

Vacant

#### Main Base Air Base Wing

Carolyn Coe (661) 277-6678 Work  
[ccoe@trivest.com](mailto:ccoe@trivest.com)

#### Main Base Test Wing

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#### NASA Dryden

Gemma Fregoso (661) 276-2817 Work  
[Gemma.Fregoso-1@nasa.gov](mailto:Gemma.Fregoso-1@nasa.gov)

#### North Base

Vacant

#### South Base

Brenda Weems-Hunter (661) 275-0456 Work  
[brenda.weems-hunter.ctr@us.af.mil](mailto:brenda.weems-hunter.ctr@us.af.mil)

#### AF Research Laboratory and Propulsion

##### Directorate

Milton McKay (661) 275-5191 Work  
[milton.mckay@us.af.mil](mailto:milton.mckay@us.af.mil)

## Remedial Project Managers

### California Department of Toxic Substances

#### Control

Kevin Depies (916) 255-3688 Work  
[KDepies@dtsc.ca.gov](mailto:KDepies@dtsc.ca.gov)

### Lahontan Regional Water Quality Control

#### Board

Jehiel Cass (760) 241-2434 Work  
[jcass@waterboard.ca.gov](mailto:jcass@waterboard.ca.gov)

### U.S. Environmental Protection Agency

James Ricks (415) 972-3023 Work  
[ricks.james@epa.gov](mailto:ricks.james@epa.gov)

Joseph Healy (415) 972-3269 Work  
[healy.joseph@epa.gov](mailto:healy.joseph@epa.gov)

### Edwards AFB

Ai Duong (661) 277-1474 Work  
[ai.duong@edwards.af.mil](mailto:ai.duong@edwards.af.mil)

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