



Edwards Air Force Base
95th Air Base Wing
Environmental Management

Report to STAKEHOLDERS

April 2009

Volume 14 No. 4

Nesting season at Edwards

page 4

Edwards community urged to increase water conservation efforts

page 6



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.

Any comments or questions can be directed to: Gary Hatch, 95 ABW/PAE, 5 E. Popson Ave., Bldg. 2650A, Edwards AFB, CA 93524-8060, (661) 277-1454.

E-mail: 95abw.pae@edwards.af.mil

Web site: www.edwards.af.mil/library/environment/index.asp



**Commander,
95th Air Base Wing**
Col. Jerry L. Gandy

**Director,
Environmental Management**
Robert Wood

**Division Chief,
Environmental Restoration**
Ai Duong

**Division Chief,
Environmental Conservation**
Robert Shirley

**Division Chief,
Environmental Quality**
Herb Roraback

STAKEHOLDERS STAFF

EDITOR
Miriam Horning

WRITING and DESIGN SUPPORT

Heidi Gesirtech
Vanessa Green
Patti Kumazawa
Wendelyn Leon
Leilani Richardson
Paul Rogers

in this issue

Restoration Advisory Board (RAB) February meeting highlights	2
Universal waste to scrap metal in a pinch	3
Nesting season at Edwards	4
Edwards community urged to increase water conservation efforts	6
Information	8

Restoration Advisory Board (RAB) Meeting HIGHLIGHTS

The following report highlights the Feb. 19 Restoration Advisory Board (RAB) meeting in Rosamond, Calif.

Proposed cleanup approach for Operable Unit 1 Main Base Flightline — Paul Schiff, the Operable Unit 1 program manager, reported on a plan for cleanup in the area. Schiff said the proposed cleanup effort will use soil vapor extraction for soil treatment and *in situ* treatment approaches for groundwater cleanup. Groundwater approaches may consist of *in situ* bioremediation, which uses microorganisms to break down contaminants, or *in situ* chemical oxidation, which uses a chemical oxidant to directly break down the contaminants, or a combination of both approaches. The site contains a mix of contaminants made up of solvents and jet fuels.

Schiff explained that the cleanup will prevent contaminated groundwater from migrating into the Lancaster groundwater subbasin. The proposed cleanup plan will also include land-use controls — such as digging restrictions — that will prevent people from contacting contaminated soil and groundwater.

The next quarterly RAB meeting is scheduled for May 21 at 5:30 p.m. in North Edwards, Calif. The venue will be determined at a later time. For more information about the board, you may refer to the back page of this newsletter under RAB information.



What's on the cover?

PROTECTED — A burrowing owl poses for the camera. The burrowing owl is one of the many species at Edwards protected under the Migratory Bird Treaty Act of 1918. See article on page 4.

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

From universal waste to scrap metal in a pinch

A steel aerosol container can be transformed from hazardous waste to recyclable in less than 20 seconds when it is punctured and its contents safely captured.

That is exactly what happens at a universal waste recycling facility like the Consolidation, Recycling and Universal Waste (CRUW) facility at Edwards Air Force Base.

When aerosol cans are no longer needed, whether empty or not, base residents and workers should turn them into the CRUW facility.

The aerosol cans that are not punctured are sent to a permitted universal waste recycler in California called Filter Recycling Services, according to Cat McDonald, a hazardous waste scientist with Environmental Management.

The California Department of Toxic Substances Control recommends sending aerosol cans to a universal waste recycling facility. This ensures the cans are safely punctured, the contents properly captured and the steel recycled. Generally, four aerosol cans equal one pound of recycled steel.

The principle behind aerosol can manufacturing and packaging has not changed much since the 1920s. The metal can contains two fluids that are sealed inside — one a liquid at room temperature and the other a compressed gas.

What happens to your spent aerosol cans?

The CRUW facility on base uses *Aerosolv*, a treatment process approved by the Environmental Protection Agency, that helps greatly reduce the cost of disposing of aerosol cans. The process is commonly used by many organizations on a daily basis.

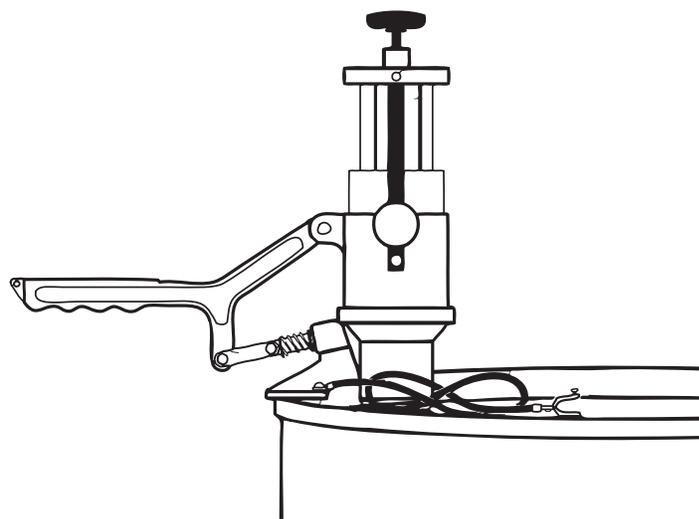
The aerosol can is put into the holster located on a large drum and is tightened in place. With a quick and easy press on the puncturing lever, a sharp pin pierces the top part of the can — near the spray nozzle — allowing the material inside to collect in the drum.

A filter is also used in the puncturing process and is located on the drum across from the puncturing mechanism. The filter has two purposes: the first, to capture any liquids from escaping into the air, and the second, to eliminate any gaseous hydrocarbons and odors. The filter traps any volatile organic compounds (VOCs) from exiting the drum. Once the contents have been completely emptied into the drum, the can may be recycled.

According to the EPA, VOCs are emitted as gases from certain solids or liquids. Volatile organic compounds include a variety of chemicals, some of which may have short- and long-term adverse health effects. Volatile organic compounds are emitted from a wide array of products.

According to the *Aerosolv*® Web site, the aerosol puncturing process can punch a hole in any size aerosol can.

The process eliminates spills and escaping gases and leaves the can with no jagged edges — ready for recycling with other scrap metal.



PUNCTURE — This puncturer drains aerosol gases and liquids safely so that the can material may be reused as scrap metal.

Why do aerosol cans need special disposal?

Aerosol cans are used in a wide variety of industries. Some aerosol products — paints, solvents and pesticides — are hazardous if not disposed of properly.

Partially full aerosol cans are tossed out often for a number of reasons. The can might be thrown away because the spray mechanism is damaged or clogged and no longer works; the propellant has been exhausted; or the owner decides that he or she no longer wants or needs the product anymore.

“The idea of puncturing any steel aerosol can is to collect any residue that may still be inside,” said Julian Gumayagay, environmental operations manager at Edwards. “Some of the materials contained in these cans are hazardous waste, and can be a threat to people and the environment, if released.”

All aerosol cans are considered hazardous waste, but not necessarily because of the primary product they contain.

Spent aerosol cans would be considered empty and therefore exempt from hazardous and universal waste management requirements, were it not for the fact that the propellant compressed gas, trapped in the empty can, is reactive to heat and still presents significant danger while in storage and transport.

According to the EPA’s Office of Solid Waste, if a steel aerosol can does not contain a major amount of liquid, such as a can that has been punctured and drained, it would meet the definition of scrap metal and can be recycled.

For more information on how to recycle or turn in old and unwanted aerosol cans, you may contact the Edwards CRUW facility at (661) 277-3681.

Nesting season at Edwards

Even though it is a few months into the nesting season it may not be too late to find ways to keep birds from placing unwanted nests in areas heavily frequented by people.

Nesting season on base — which falls between February and July — can be a time for some residents and workers to begin setting up bird baths and feeders, pulling out a pair of binoculars and sitting back to enjoy the birds. Sometimes, though, where these birds decide to set up their nests and raise their young can become a nuisance.

“It’s important to educate base residents and employees about how to share

the environment with the birds because Edwards Air Force Base is home to more than 200 species of birds, most of which are protected under the *Migratory Bird Treaty Act*,” said Mark Bratton, biologist at Environmental Management.

Base biologists recommend taking preventive measures before and during nesting season to keep birds from nesting in unwanted areas of houses, facilities and schools because once a protected bird has set up a nest with eggs in it, it is illegal to move it.

The *Migratory Bird Treaty Act of 1918* was enacted to prevent the taking, collecting, harming or moving of migratory birds, their feathers, eggs, parts and active nests — a nest with eggs or young in it.

In the early 1900s, migratory birds were hunted for their feathers, eggs, parts and nests. These items were used in fashion accessories, artifacts and even as food. Some birds were actually becoming extinct because of these activities, according to Mark Hagan, natural resource manager at Environmental

Management. “So in 1918, the *Migratory Bird Treaty Act* was signed to protect these birds,” Hagan said.

“Some people still collect feathers for accessories, like earrings or window hangings,” said Misty Hailstone, a biologist at Environmental Management. “Some people collect eggs to feed to their pets, shoot the birds and knock down nests for sport, keep the birds as pets or to sell as pets, and some people just destroy nests to get the birds to leave.”

These are all violations of the act if the nests destroyed have eggs or young. Violators could incur fines or imprisonment and sometimes both. Fines can be up to \$15,000 and imprisonment can be up to six months.

Base biologists encourage residents and workers to take preventive measures to discourage birds from nesting. Birds often nest in large trees, uncovered attic vents and partially to completely secluded flat surfaces that are high up, like eaves, shelves and ledges and in garages.

People should check for migratory birds, nests or eggs in any openings or

READY TO FLEDGE — *The baby ravens, below, are shown sitting near a nest their parents placed in a Joshua tree on base. This kind of nesting is common. Common ravens, often seen rummaging through trash or clearing road kill, are protected under the Migratory Bird Treaty Act of 1918, making it illegal to take, move, harm or collect them, or any of their parts, including nests, eggs and feathers.*



potential nesting areas. If there is no evidence of bird activity, they can: remove or alter flat surfaces; enclose eaves and attic holes with mesh wire; fill other holes; and prune vegetation. If there is evidence of bird nesting going on, they should leave active nests, eggs and birds undisturbed.

“Until the baby birds fledge or a biologist determines the eggs are no longer viable, the nest should remain untouched,” Hailstone said.

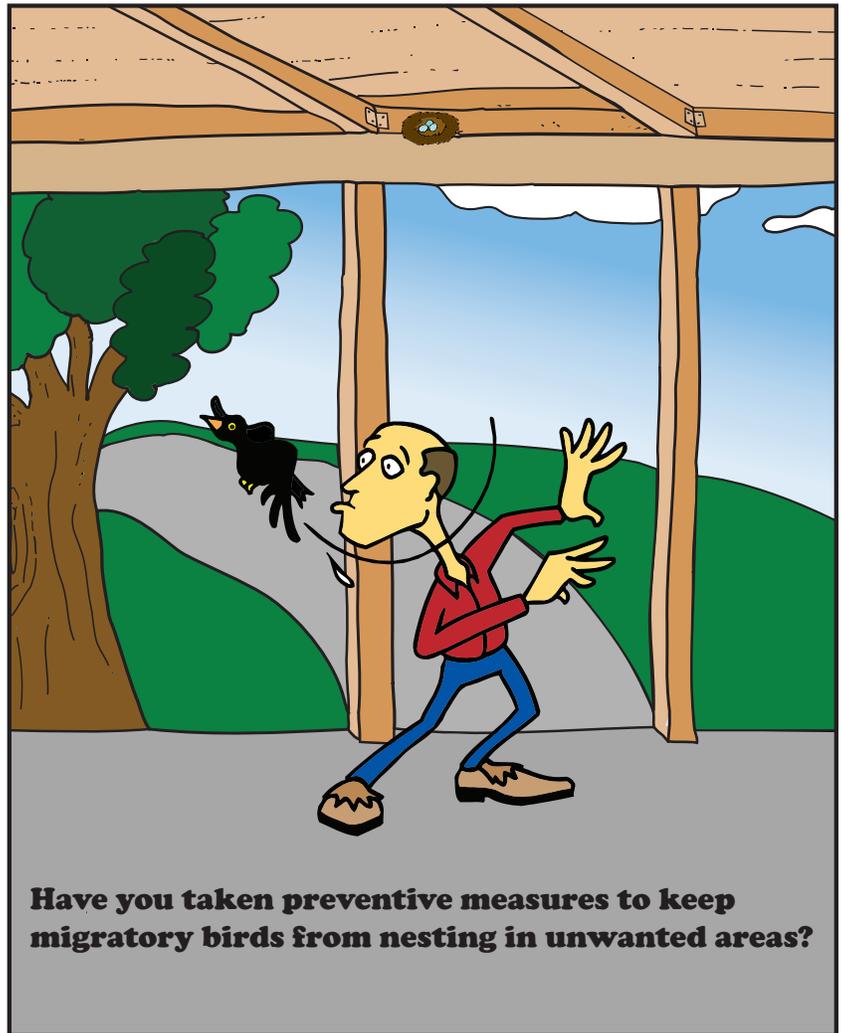
“Be prepared to live with birds for about four to six weeks, which is the time it takes most species to hatch and fledge from the nest,” Hailstone said. “Once a bird lays eggs in a nest, there is nothing you can do but wait. Sometimes the adults will use the same nest again in the same season.”

“The key to discouraging birds from nesting is to be persistent,” Bratton said. “There have been times when we remove nests that are clear of eggs or young and see the birds taking new nesting materials to the same location to try to rebuild the nest. That’s why it’s important to take measures that discourage birds from nesting prior to and during the nesting season.”

Base residents and workers can call Environmental Management at (661) 277-1401 for more information on nest prevention or if they find an injured bird.

Some of the most common protected birds found in base housing and business areas are the Brewer’s blackbird, house finch, Say’s phoebe and even the common raven. For a complete list of birds covered under the *Migratory Bird Treaty Act of 1918*, you can go to www.fws.gov/migratorybirds/intrnltr/mbta/mbtandx.html.

RTS



Have you taken preventive measures to keep migratory birds from nesting in unwanted areas?

Here are some preventive measures biologists recommend taking before and during nesting season:



Residents can:

- Cover attic vents with wire mesh
- Fill holes in bricks
- Remove or alter flat surfaces
- Enclose eaves with wire mesh
- Prune vegetation



Housing demolition and construction workers can:

- Enclose all attic vents and eaves with wire mesh
- Alter or remove flat surfaces
- If windows and doors are to be removed, replace these openings with poly sheeting, boards or like materials
- Ensure other openings are covered with poly sheeting, boards or like materials
- Remove trees and bushes on the same day they are cleared by a professional biologist



Workers can:

- Make sure all eaves around facility or patio areas are enclosed with wire mesh
- Remove or alter flat surfaces

Edwards community urged to increase water conservation efforts

Water: it's one of the building blocks of life.

When you think of how many times people use water throughout the day, the amount consumed during a lifetime can be staggering. It might be hard to imagine the supply running dry, especially since this precious resource is readily available in bottles or at the tap. But base Civil Engineering experts warn that now is the time to adopt stricter water conservation habits for the future.

"California's population is continuing to increase," said Scott Patterson, staff architect at Civil Engineering. "Our water

resources and distribution network were developed to sustain the current population. The problem is that the population keeps growing and so the demand on those resources also keeps growing."

"We're seeing farmers relinquishing their water rights — in some cases selling their water rights — so Southern Californians can irrigate their lawns," said Joseph Diorio, a mechanical engineer at Edwards.

"And we're in the midst of a drought era that is diminishing those resources," Patterson said. "So, the pressure to conserve water is increasing."

In June 2008, Gov. Arnold Schwarzenegger declared a statewide

drought, urging Californians to conserve more water. Many Southern California cities have already initiated water conservation laws to help decrease water consumption.

Long Beach, Calif. — a forerunner in water conservation — started a program in September 2007 that included consumer education, distribution of water-saving devices, consumer rebates and the adoption of water prohibitions. So far, the program has reduced the city's water use by 8 percent, according to the City of Long Beach Office of Sustainability Web site.

At Edwards, the water conservation program is much more mature.

LANDSCAPED YARD — *Newly constructed housing on base, features landscaping in the front yards designed to conserve water, with grass limited to the backyards. It is estimated that this has helped the base reduce its grass areas by 40 percent since the 1980s.*



“The base has been steadily progressing toward increased conservation over the past 20 years,” Patterson said. “Edwards has been a leader in energy conservation in general, and water conservation specifically.”

“We live in a desert and we understand that while many resources are abundant, some are not. Water happens to be one of our scarcest resources.”

As part of earlier efforts to conserve water, Edwards built a new wastewater treatment plant in the mid-1990s. The base added systems to purify wastewater and recycle it for landscaping purposes.

“Edwards became one of the first installations, if not the only, to have this capability in the military,” Patterson said. “We recycle close to 100 percent of the domestic water used on this installation.”

The reclaimed water uses a separate infrastructure consisting of purple pipes. These pipes deliver treated water to public green areas such as the base golf course, library and baseball parks.

The separate infrastructure ensures that recycled water is never mistaken or used for drinking water. Posted signs identify the purple pipes and outlets for public awareness. Even though the water is not used for drinking purposes, it is still subject to strict quality testing.

“The water at the base treatment plant is tested daily,” said Wendell Blackwell, wastewater quality specialist for Environmental Management. “The water quality must meet state regulatory requirements.”

As an added precaution, recycled water is not used to irrigate landscapes near eating establishments, in areas where children play — such as playgrounds or the child development center — or in the immediate residential areas.

“Our wastewater treatment program benefits us twofold,” Patterson said. “We recycle nearly all of the base’s wastewater into landscape irrigation, and by reusing it, we’ve reduced the amount of drinking water the base needs to acquire from fresh-water sources.”

Using recycled water to feed green areas can make a big impact in conserving water considering the percentage of water used

for landscaping. In fact, landscape water accounts for 50 to 70 percent of the average household’s water use, according to the City of Long Beach Web site.

For this reason, Patterson and Diorio urge people to be more vigilant to cut water usage outdoors.

“A key message is to not use an excessive amount of water,” Diorio said. “And the time of day is equally important. Lawns shouldn’t be watered during the daytime when winds are higher. Plus, the sun and heat midday will evaporate a good portion of the water. Watering in the early morning ensures more water will be absorbed by your lawn, not lost to evaporation.”

“Also, if you’re going to plant grass, don’t put it next to your sidewalk. Surround the grass with a buffer, like bushes or desert plants. That way any water that does mist or is carried away from the lawn will be used by the surrounding plants,” Diorio said.

“That’s the other part of the equation,” Patterson added. “Use native landscaping at home. This means using plants appropriate for the climate area, such as *Xeriscaping*™ in desert climates. This does not preclude having grass, just less of it, and incorporating more native plants into the landscape.”

The base has incorporated drought-tolerant plants into its industrial and residential landscapes in an effort to further reduce water usage. For example, newly constructed base housing areas feature landscaping in the front yards designed to conserve water, with grass limited to the backyards. Patterson estimates this helped the base reduce its grass areas by 40 percent, compared to 20 years ago.

Outdoor usage may account for the bulk of spent household water, but conserving water indoors is just as important. The California Department of Water Resources offers several indoor conservation tips. They include fixing any leaks, replacing toilets with a high-efficiency flusher, using an *Energy Star*™ washer that has a water factor at or lower than 9.5, running water only when it is actually being used and reducing shower time.

“We hope our efforts to use water wisely have a positive influence on residents to participate in their own personal conservation of water resources,” Patterson said.

RTS

Edwards Watering Guide

Winter

(November, December, January and February)

Mornings per week	3
Frequency (between 4 and 7 a.m.)	Once
Duration (minutes)	5

Summer

(May, June, July and August)

Mornings per week	6
Frequency (between 3 and 7 a.m.)	Once
Duration (minutes)	10

Spring and Fall

(March, April, September and October)

Mornings per week	6
Frequency (between 3 and 7 a.m.)	Once
Duration (minutes)	7



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. 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>.

Report to STAKEHOLDERS SUBSCRIPTIONS

- New subscription
- Change of address
- Cancel subscription

Name _____

Organization _____

Address _____

City _____

State _____ Zip _____

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

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.
Robert McGowan High School
17100 Lorraine Ave.
North Edwards, Calif

RAB Members

OFF-BASE COMMUNITIES

Boron

Vacant

California City

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

Lancaster

Peter Zorba (661) 723-6234 Work
pzorba@cityoflancasterca.org
ALTERNATE: Ed Sileo (661) 723-6019 Work
esileo@cityoflancasterca.org

Mojave

Victor Yaw (661) 824-2886 Home
vicyaw@yahoo.com (661) 275-4296 Work

North Edwards

Ruby Messersmith (760) 769-4357 Home
messersmith2@verizon.net

Rosamond

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

ON-BASE COMMUNITIES

Housing

Vacant

Main Base Air Base Wing

Carolyn Coe (661) 277-6678 Work
ccoe@triwest.com

Main Base Test Wing

Vacant

NASA Dryden

Gemma Fregoso (661) 276-2817 Work
Gemma.Fregoso-1@nasa.gov

North Base

Vacant

South Base

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

AF Research Laboratory and Propulsion

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

Remedial Project Managers

California Department of Toxic Substances

Control

Kevin Depies (916) 255-3688 Work
KDepies@dtsc.ca.gov

Edwards AFB

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

Lahontan Regional Water Quality Control

Board

Jehiel Cass (760) 241-2434 Work
jcass@waterboards.ca.gov

U.S. Environmental Protection Agency

James Ricks (415) 972-3023 Work
ricks.james@epa.gov

Joseph Healy (415) 972-3269 Work
healy.joseph@epa.gov



95 ABW/EM
5 E. Popson Ave., Bldg. 2650A
Edwards AFB, CA 93524-8060
Official Business

Presorted
First Class
U.S. Postage
PAID
Permit No. 294
Tucker, GA

ADDRESS SERVICE REQUESTED



Edwards Recycles