



# *Report to* **STAKEHOLDERS**

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# Report to STAKEHOLDERS

*Report to Stakeholders* is a publication of Edwards Air Force Base, 95th Air Base Wing, Civil Engineer Directorate, 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.

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# Environmental's Doss, part of Women's Day planning committee

The date was August 1920 — and the 19th Amendment to the U.S. Constitution had been ratified by the required three-fourths of the states (36 of 48), completing the arduous, 72-year fight to gain women the right to vote. Nearly 90 years later, that battle is commemorated annually with the recognition of National Women's Equality Day on Aug. 26.

This year's celebration at Edwards, held one day after the national event, focused on the possibilities women are afforded today in the workplace, colleges, political arena, and at home. The event at the Oasis Community Center, hosted by the 95th Air Base Wing and sponsored by the Air Force Flight Test Center and NASA Dryden Flight Research Center, included a luncheon, roundtable discussions and a keynote address by Jennifer Cole, NASA Aerodynamics and Propulsion branch chief.

Cole's presentation, titled "Sonic Booms and Astronauts in the Hallway," touched on her early struggle to launch a career in aerospace engineering, despite being told numerous times there were no jobs for women in that field. She encouraged other women to pursue their dreams no matter what they are.

"I knew this is what I loved, it was my passion, and I couldn't imagine doing anything else," Cole told luncheon attendees.

Elizabeth Doss, Environmental Manage-



**SPEAKER** — Jennifer Cole, NASA Aerodynamics and Propulsion branch chief, was the keynote speaker at the Women's Equality Day luncheon in August.

ment executive officer and a member of the event planning committee, said the luncheon helped her think about what the people fought for in the passing of the 19th Amendment, and what that means for women today.

"In our daily lives we tend to forget; we forget the sacrifices of others and we take our freedoms and rights for granted," Doss said. "For me, this event helped me to gain an appreciation for things I often take for granted; things even as simple as the right to vote."

RTS



### What's on the cover?

**HARD AT WORK** — Mojave Restoration Advisory Board member, Victor Yaw, is seen here clipping metal pieces he painted at the Corrosion Control Facility at Edwards. See article on page 4.

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

# Volunteers clean up and maintain Branch Memorial Park and Pond

**T**he 40-year-old Branch Memorial Park and Pond at Edwards Air Force Base received a face-lift earlier this year thanks to the efforts of several Environmental Management volunteers.

Environmental Management is responsible for the pond, while Outdoor Recreation is responsible for the park.

In general, the area offers fishing, nature walks, bird watching and picnicking. It features shaded picnic tables, playground equipment, large trees and restrooms.

The area surrounding the park and pond boasts one of the thickest groves of native mesquite trees in the Mojave Desert, and is accompanied by Joshua trees and many other native species.

Wildlife viewing and fishing are attractions at the park and pond that sparked an interest with volunteers, to clean up and maintain the pond on a regular basis.

“We’re trying to clean up the pond area and keep it in good condition,” said Wanda Deal, natural resources specialist with Environmental Management. “Removal of dead cattails grants better access to fishing.

“The park and pond are a great place to hang out with family and friends,” she added. “We have bigger plans, like revegetating the areas around Branch [Park] and planting trees along the road to provide more shade to name a few.”

Since August 2008, volunteers have worked to clear the dead brush and remove trash from the pond shores, while restoring the pond and recycling the dead vegetation.

“We are getting rid of dead cattails which will be used for compost,” said Staff Sgt. Timothy Sparrow with Air Mobility Command Test and Evaluation Detachment 3.

“I think the biggest reason for taking the volunteers there was because of the interest that was generated,” Deal said. “A lot of volunteers expressed an interest in actually helping at the park and pond because they feel ownership over it. They want to help maintain the pond or work on a project like this because they are invested in it.”



**CLEAN UP EFFORT** — Richard ‘Woody’ Wood is seen in the background with a sickle-bar cutter, cutting down dead cattails, while Tech. Sgt. Willis Blevins, rakes them into piles at Branch Park. The volunteer effort is an ongoing activity to maintain the park.

“We walked around the area and collected a hundred pounds of trash,” said Willis Blevins, Tech. Sgt. with Air Force Operation Test and Evaluation Center Detachment 5.

“They’re [the volunteers] interested in what’s going on at Branch [Memorial Park and Pond]. They like the area and they like the solitude; they like being able to just go out there and get away from the hubbub of normal day life,” Deal said.

Richard ‘Woody’ Wood, a former director of Environmental Management who is now retired, said he “wanted to stay involved.”

“I retired in 2002 and I’ve been volunteering for different things, this being one of them,” he added.

“When you go to Branch [Memorial Park and Pond], it takes you away from not only your work environment on base, but for those who are not desert entranced, you can almost forget you’re in the desert even though you’re surrounded by it,” Deal said. “It’s easy to just focus on the sounds of the water, trees and birds.”

According to Deal, several groups of volunteers are planning to do more projects to enhance the area. Some volunteers will install aerators — which supply the water with circulating air — later as one

of the projects.

“Another project being considered is to expand on the trail signs and to educate visitors on the more pertinent issues at the location and the history of Branch Memorial Park and Pond,” Deal said.

Volunteers put forth other ideas to include development of educational displays with photos of flora and fauna that may be found in the immediate area, removal of the metal fence posts from around the pond — west and southwest sides — and setup of geocaching sites available to individuals who already have access to Edwards.

“This is a long-term effort. The pond is going to have to be maintained on a regular basis, so the more people we have, the more vested they become in the place,” Deal said.

A state fishing license is not required for the pond, only a base fishing permit, which may be obtained from Outdoor Recreation, 1100 Kincheloe Ave., or at the Rod and Gun Club, 210 Adams Way, during regular business hours.

For more information about the pond cleanup and maintenance, you may contact Environmental Management at (661) 277-1401.

# Mojave resident devotes years to community and environment

**N**early 12 years as the Mojave, Calif., spokesperson on the Edwards Air Force Base cleanup board, 30 years as a corrosion control specialist and aircraft painter, and 32 years as a local search and rescue volunteer — he may look like your average next-door neighbor, but Victor Yaw's idea of commitment is anything but ordinary.

"I do what I do because I enjoy it," Yaw said. "I've met special people and learned a lot of interesting things through my experiences."

The positions Yaw holds speak to his ability to seize opportunities when they arise. Yaw did not have far to look to find volunteer work that valued his ties to the Mojave community. In 1997, Yaw's wife, Willa, read a newspaper advertisement for a vacancy on the Edwards Restoration Advisory Board (RAB). The RAB supports two-way communication between the public and those responsible for environmental cleanup at the base.

Willa encouraged her husband to apply because of his experience as a corrosion control specialist.

"My job taught me the basics about hazardous materials and cleanup," Yaw explained. "I had taken several classes and understood spill containment. These are the same types of issues the

cleanup folks are dealing with on base."

Yaw uses his knowledge to answer questions or ease concerns from Mojave residents.

"I think it's a shame the community isn't more interested in the base cleanup," Yaw said. "I guess they feel everything is under control. Still, I find the information very interesting."

"I know so much more about geology and how it affects the water flow underground," Yaw said. "Before I thought water just flowed freely. Now I know water flow depends on a variety of factors, that's why cleaning up groundwater is not always a simple task."

"The good thing about Edwards is that the base tries new technologies to clean up contamination."

And Yaw should know, considering he has had the opportunity to meet with representatives from RABs at other bases.

"One of my most memorable moments as a RAB member was when I accompanied Leslie Uhazy and Bob Wood to Washington, D.C.," Yaw said. "We went there to represent the Edwards RAB at a symposium. There were RAB representatives from bases all across the country. It was eye-opening."

Washington, D.C., is not the only place Yaw has traveled.

**MEETING TALK** — Victor Yaw, right, talks with California Department of Toxics Substances Control remedial project manager, Kevin Depies, at a Boron Restoration Advisory Board meeting.



Drafted into the Army, Yaw did a tour in Vietnam from 1968-69. Returning stateside, he was assigned to Fort Riley, Kan., where he met his wife of nearly 40 years.

But no matter how much time he spends away on travel, Yaw always finds himself gravitating back toward the place he grew up. After getting out of the Army, Yaw moved back to the Mojave area. He was working as a soda delivery driver when two permanent job opportunities fell into his lap.

“A position opened up at the Corrosion Control Facility and a friend recommended I apply even though I had no previous experience,” Yaw said. “My references and track record with my previous employer earned me the position at Edwards.

“At the time, it was a tough call. I was also in the running to become a park ranger in the Bakersfield area.”

Although he didn’t become a park ranger, Yaw has channeled his love of the outdoors into other pursuits. An interest in gold prospecting recently sent Yaw to Alaska for six weeks. Yaw not only volunteers time for the Kern County Sheriff’s Search and Rescue Desert Group, but he also belongs to a four-wheel club and helps the park service with their annual litter cleanup of local areas, such as Jawbone Canyon and Dove Springs.

“We pick up about 8 to 10 tons of trash in a weekend,” Yaw said. “One hundred to 150 people show up to help. People come from the local area and down below. Folks from the Los Angeles area have told me they participate in the cleanup because these areas are their recreational playgrounds.”

As a longtime outdoor hobbyist, Yaw has a unique view on

conservation of land management.

“It’s good to preserve things for future generations,” Yaw said. “But if you’re preserving land to save desert tortoise habitat, I think you should also leave open space for people to ride motorcycles and four-wheel vehicles. How else will people be able to enjoy the outdoors and develop an appreciation for nature?”

“Many of the four-wheel club members and hikers that I know leave an area in the same condition, if not better, than they found it. This includes picking up litter, even if another person left it there, or making the trail more accessible for the next person.”

Time spent making the world a better place is not a foreign concept to Yaw; being a search and rescue volunteer takes up a lot of time, requiring extensive and constant training. But Yaw remains committed because he knows the chances of a rescue increase with the number of people searching.

This past year, Yaw received an award at the group’s annual fundraiser for logging more than 100 hours during the course of five days.

“We only have one fundraiser a year,” Yaw said. “With the proceeds, we buy all of the team’s equipment. We’ve bought vehicles, a 28-foot trailer, radios and global positioning system units.

“As the group’s treasurer, I wanted to make sure we made the most money possible. So I was selling fireworks every second I could spare.”

Time — it’s not just a four-letter word for this Mojave native. For Yaw, time is meant to be spent doing what you love.

RTS



# Environmental Protection Agency board reviews Main Base restoration plans

**T**wenty-five million dollars is a considerable amount of money for the government to spend without some sort of oversight. For the Restoration group at Edwards Air Force Base, this means any cleanup remedy costing \$25 million or more automatically triggers a review by the U.S. Environmental Protection Agency's National Remedy Review Board (NRRB).

The NRRB is made up of senior managers and technical experts from each of the 10 EPA regions, as well as senior technical and policy experts from the U.S. EPA. According to the EPA Web site, the review board was formed to "help control remedy costs and promote consistent and cost-effective Superfund cleanup decisions."

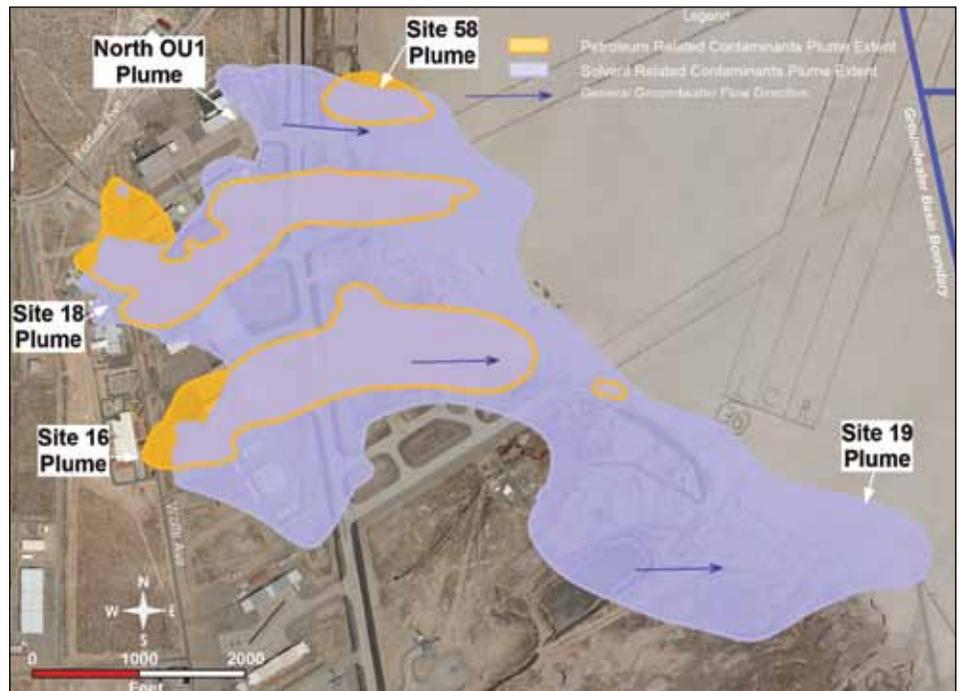
Established in 1980, the Superfund law mandates how hazardous waste should be cleaned up and requires the parties responsible for the contamination to conduct or pay for the cleanup.

"For large projects, the EPA wants to make sure that enforcement is standard across the board; that one group is not being granted more latitude than another," said Joe Dunwoody, an environmental engineer.

"It's not a recent requirement, but this is the first Edwards' site that has projected a total remedy cost greater than the \$25 million threshold," said Paul Schiff, Restoration program manager for OU1.

The proposed cleanup remedy applies to Operable Unit 1 (OU1), the flightline area located in the center of the base, where cleanup has been estimated to cost \$53 million. Currently, there are three major plumes containing solvents and petroleum that lie within OU1. The North OU1 Plume contains different site plumes, of which the Site 19 plume is closest to the groundwater basin boundary. This basin contains groundwater, of sufficient quantity and quality, that it could be used as a drinking water source.

For this reason, the Air Force proposes to use a combination of treatment approaches for the North OU1 Plume, including soil treatment using soil-vapor



**PLUMES** — Four different site plumes combine to form the North Operable Unit 1 Plume. This plume is closest to the groundwater basin used for local drinking water.

extraction to eliminate the soil source, groundwater hot-spot (or source-area) treatment for the higher groundwater concentration areas, monitored natural attenuation for the lower concentration areas, and containment of the leading edge of the North OU1 Plume.

Monitored natural attenuation involves the degradation of contaminants by natural processes, such as dispersion, dilution, chemical reaction or bacterial breakdown. These processes are explained in an EPA pamphlet called *A Citizen's Guide to Monitored Natural Attenuation*:

- **Dispersion:** Some chemicals, like oil and solvents, can evaporate, which means they change from liquids to gases within the soil. If these gases escape into the air at the ground surface, sunlight may destroy them.
- **Dilution:** As pollution moves through soil and groundwater, it can mix with clean water. This reduces or dilutes the pollution.
- **Chemical reaction:** Chemicals can stick to soil, which holds them

in place. This does not clean up the chemicals, but it can keep them from polluting more groundwater.

- **Bacterial breakdown:** Bacteria or microbes that live in soil and groundwater use some chemicals for food. When they digest the chemicals, they can change them into water and harmless gases.

For the other two major OU1 plumes, the Air Force proposes that the use of monitored natural attenuation alone is the most effective cleanup approach. Neither the South OU1 or the Site 44 plumes are located near the groundwater basin boundary. The plumes are not predicted to reach the basin boundary during the monitored natural attenuation cleanup period. Also factoring into the proposed remedies, none of the groundwater at OU1 is used for drinking water.

The proposed cleanup remedy was presented to the NRRB in May by Joseph Healy, Jr., the EPA Region 9 remedial project manager for Edwards.

"The Air Force was not allowed to

attend the board meeting,” Dunwoody said. “The EPA Region 9 remedial project manager presents our cleanup remedy to the board. We are not present to defend or explain our position.”

“In this case, EPA Region 9 and the Air Force agreed on the preferred alternative for cleaning up OU1,” said Paul Schiff, restoration program manager for OU1. “This remedy was preferred over other remedies proposed.”

The only other input provided at the NRRB meeting comes from the state regulators, the California EPA’s Lahontan Regional Water Quality Control Board and the Department of Toxic Substances Control.

“The state regulatory agencies are allowed limited input,” Dunwoody said. “They can either state their opinion in favor of the remedy or against it.”

There are several things the NRRB considers during the presentation, according to a February 2006 *Questions and Answers for Superfund Site Managers guide*. Among them:

- How will the cleanup strategy be effective?
- What is the rationale behind exposure scenarios and risk assumptions?
- What is the position of the community?
- Are the cleanup goals appropriate and attainable, and in what time frame?
- What other approaches to achieve the cleanup goals have been evaluated?
- What is the breakdown of anticipated cleanup costs (especially for the

preferred alternative) and are the cost estimates reasonable?

“  
In this case, EPA Region 9 and the Air Force agreed on the preferred alternative for cleaning up OU1. This remedy was preferred over other remedies proposed.

**Paul Schiff**  
Restoration Program Manager  
Environmental Management

”

If there is a disagreement, the regulator must specify what is planned and justify the course of action. For OU1, the Air Force has formally submitted their letter to EPA Region 9 with responses and rebuttals to the NRRB recommendations. EPA Region 9 will take the Air Force’s input into consideration, but ultimately it is EPA Region 9 only who must respond to

After the review, the NRRB sends a letter to the regional regulator, outlining what the board recommends. The regional regulator must respond to the board’s letter with an official memorandum, stating whether he disagrees or agrees with the board’s recommendations.

the NRRB.

All of this documentation becomes part of the administrative record, which is open to the public for review. The administrative record contains official documents that the public can use to examine the decision-making process that led to a cleanup remedy.

Typically, an NRRB review occurs before cleanup alternatives are presented to the public in the proposed plan stage. This is because the board’s review can affect which remedies are presented for public consideration.

“We are postponing the final proposed plan until we work through this NRRB process,” Schiff said. “The public comment period and meeting will not occur until the Air Force and EPA Region 9 work through the NRRB process and agree on the cleanup approach for OU1. The final proposed plan and start of the public comment period is tentatively scheduled, but this is subject to change.”

Officials at Edwards predict only a few more cleanup remedies will have to undergo an NRRB review.

For more information on the NRRB, you may visit their Web site at [www.epa.gov/superfund/programs/nrrb](http://www.epa.gov/superfund/programs/nrrb).

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**TIME AND EFFORT** — Joseph Healy, Jr., speaks at a Restoration Advisory Board meeting. Healy is the U.S. EPA Region 9 remedial project manager who presented the proposed cleanup for OU1 to the National Remedy Review Board in May.

## 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.  
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-Thu 11 a.m. – 7 p.m.

Sat 9 a.m. – 5 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>.

## 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: Feb. 18, 2010

Time: 5:30 p.m.

Location: California City, CA

Venue is to be determined

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