# RIP RAP

# U.S. Army Corps of Engineers Albuquerque District

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A deputy was patrolling the Corps' Conchas Lake project Aug. 29 and saw a mama and baby bear sitting near the entrance to the visitor center.



# **Bosque Project Earns Chief of Engineers Award of Excellence**

US Army Corps of Engineers ® Albuguergue District

Volume 24, Issue 10 October 2012

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District Engineer, Lt. Col. Antoinette Gant

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The Chief's Awards of Excellence Program recognizes superior projects of innovation accomplished by the Corps and private sector design and construction community partners around the world.

In its 46th year, the program has expanded this year to include the U.S. Army Corps of Engineers' Sustainability Awards Program, which reaffirms the Corps' ongoing commitment to help the Army and the Nation reach its energy security and sustainability goals.

A jury composed of nationally recognized environmental professionals singled out 15 projects and individuals for awards this year, and the District's Ecosystem Restoration (Rt66) Project was selected for an Environmental Honor Award.

The purpose of the project is to reconnect and restore 121 acres of riparian cottonwood woodland ("bosque") along a 2.5 mile stretch of the Rio Grande in the heart of Albuquerque, N.M.

Connecting urban and natural environments, the project eliminates non-native vegetation, creates more opportunities for recreational access and combats evaporative and other water loss issues. Stakeholders and customers included the sponsor, Middle Rio Grande Conservancy District (MRGCD), and the City of Albuquerque Open Space Division (which co-manages the study area with MRGCD), Bernalillo County, and the New Mexico Interstate Stream Commission. The study area fell entirely within the sponsor-managed Rio Grande Valley State Park.

"Together, in 2010, we completed the construction on the Rt66 project, and, today, we continue to monitor the project to measure the biological success of the ecosystem features we developed," said Project Manager Alicia Austin Johnson. "It has tremendous public support."

From L to R: District Project Manager Alicia Austin Johnson, District Commander Lt. Col. Antoinette Gant, Middle Rio Grande Conservancy District Vice-Chair Eugene Abeita, and MRGCD Chief Engineer Subhas K. Shah accept the award for ecosystem revitalization work in the *Rio Grande Bosque*, providing foraging and nesting habitat for 80 percent of vertebrate species in the region.



The RIP RAP supports our Operations Plan: Action 10 (Promote the Common Regional Picture and Strategic Communications).

# **Corps Awards Contracts for Cannon Expansion**

By Kristen Skopeck, Public Affairs

**D**istrict Project Manager Joe Almers and others attended a ground breaking ceremony for a new, 96-person dormitory at Cannon Air Force Base, in Clovis, N.M., Aug. 27, which is one of several Corps' projects that are part of the base's expansion.

According to Col. Wesley Norris, commander of the 27th Special Operations Maintenance Group, Cannon's expansion will include more people and more aircraft.

He said the base has approximately 4,500 people but is expected to have around 6,000 by 2016. Likewise, it currently takes care of 44 airplanes but that number will increase to about 90 in the next few years.

The increase in people and planes require new housing and new maintenance facilities,



Participants in the groundbreaking ceremony for the new dorm were (L to R): Tech. Sgt. Matthew Smith, Airman 1st Class Samantha Crenshaw, Command Chief Master Sgt. Paul Henderson, Airman 1st Class Andrew Athanasiadis, and Airman 1st Class Kyle Riess.

and the District awarded several contracts in fiscal year 2012 to accommodate those needs.

# MC-130 Squadron Operations Facility — \$13,260,000.00

The project consists of the construction of an insulated concrete form or steel frame facility with reinforced concrete foundation and slab floor, masonry-type exteriors and standing seam metal roof. It will include elevators, generators, utilities, pavements, site improvements, landscaping, fire protection, mass notification, communications, all necessary support equipment, and a Remote Switch Terminal with infrastructure.

# Special Operations Forces Facility and Unmanned Aerial Support Squad Operations Facility — \$23,600,426.80

The project was authorized to support the 3rd and 33rd Special Operations Squadron for the MQ-9 Reaper UAS, which involves aroundthe-clock, 365-day-per-year operations and requirements for bed down of Special Operations Forces. Key functional areas include an

and administrative spaces for the commander and staff. The multistory, steel frame facility will be digitally linked with units both deployed and in garrison.

operations center, ground control stations, mission planning, consolidated briefing rooms,

# Communications Facility's Soils Remediation — \$1,929,923.04

The project requires removal and proper disposal of soils, building debris, and unknown utilities suspected or known to be contaminated with asbestos-containing material. It also includes any associated over excavation of soil and backfill of all excavated areas with suitable clean engineered fill at the site of a future Consolidated Communications Facility.

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### From previous page—

### Two 96-Person Dorms — \$12,413,207.00 and \$12,463,189.00

The two projects consist of the design and construction of a three-story, dormitory (96 room) with reinforced concrete foundation, walls and floors, on steel frames. The exterior

Wastewater Treatment Plant — \$7,787,000.00

The project consists of expanding the existing wastewater treatment plant to handle a capacity of 1 million gallons per day, including the construction of a new 250,000 gallon aerobic digester, and the conversion of the existing aerobic digester into a sequencing batch reactor. A new aerobic digester will also

Apron and Taxiway — \$26,835,566.07

This project will consist of the construction of a C-130 aircraft parking apron and taxiway consisting of approximately 125,000 yards of 16.5 inch concrete pavement. The project will include, among other things, aircraft tie downs, aircraft grounding points, site drainage, associated taxiway access, shoulders, pavement markings and lighting. The project will also

### C-130 Washrack Hangar — \$9,329,356.00

The project consists of construction of an indoor wash facility for aircraft up to the size of a C-130 aircraft. The facility consists of reinforced concrete footings, foundation and

### Hangar/Aircraft Maintenance Unit — \$28,160,000.00

This project will consist of the construction of a high bay aircraft maintenance hangar, with associated aircraft maintenance unit, including

# Flight Simulator Facility — \$7,349,000.00

This project consists of the construction of a 1,427 square meter flight simulator facility. The new building will contain a simulator bay, training rooms, private offices, classrooms,

# Aircraft Maintenance Facility — \$14,700,000.00

The project consists of construction of two steel frame structures with a concrete foundation and floor slab, masonry walls and sloped metal roof. One facility is a two-story Aircraft Maintenance Squadron Facility designed to is split-faced concrete masonry unit block with a metal roof. The project will include all utilities, pavements, site improvements, landscaping and required facility support.

be constructed and will include new railings, larger blowers, and plumbing and electronic control systems. The project includes an upgrade to a larger transformer and emergency generator, and upgrades to the grit and grease collection device. A lift station upstream of the grit and grease device will be installed.

include demolition and infrastructure relocation. The infrastructure relocation is to critical base systems, such as a potable water system consisting of a new water supply well and water loop of approximately 21,000 linear feet, as well as a primary power duct bank approximately 10,000 linear feet, runway lighting controls, taxiway lighting and utilities.

floor slab, structural steel frame, insulated metal walls and roof, fire protection, apron and taxiway improvements, utilities, site improvements, communication and necessary support.

fire-water-storage tanks and pump house, fire protection utility and expansion foam. Project also includes aircraft part storage warehouse.

briefing rooms, and a mechanical yard. This facility will also contain fire suppression, utilities, site improvements, communications systems and support for the MC-130 aircraft.

accommodate management functions in support of all C-130 aircraft. The second facility is a General Purpose Maintenance Facility designed to accommodate two maintenance areas, support offices, and tool checkout area.



**D**istrict Program Manger John D'Antonio represented the District when speaking at the 57th Annual New Mexico Water Conference Aug. 28 at New Mexico State University (NMSU) in Las Cruces, N.M.

The annual conference attracts professionals involved in water management, civil works

and planning, as well as leadership from private, local, state and federal agencies.

This year's conference, titled "HARD CHOICES: Adapting Policy and Management to Water Scarcity," was co-hosted by Senator Tom Udall and NMSU President Barbara Couture.

### **Conchas Lake Cleanup**

While Conchas Lake is at one of its lowest depths in history because of drought, the project staff has been busy trying to remove debris scattered about the shoreline. Park Manager Steve Peterson said all of the refuse was either drug or plucked from the shoreline and no excavation took place, and items like tires were disposed of properly. Low lake levels have affected boating and recreation at many New Mexico lakes this year.



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# **District Assesses Dams for Risk Management, Safety**

By Elizabeth Lockyear, Public Affairs

Nationwide, 694 Corps-owned dams deliver multiple benefits to the nation, including flood risk management, recreation opportunities, navigation and hydropower. However, should a dam fail, it could be devastating downstream.

In 2005, the Corps overhauled how it looks at dams from a solely standards-based approach to a dam safety portfolio risk management approach, according to Suzi Hess-Brittelle, geologist and the District's dam safety program manager.

From 2005 to 2009, a national cadre of experts performed an initial risk screening of all Corps' dams, including those in the District. The screening gave each dam a relative risk rating to prioritize dams with highest risk first.

The new approach also expanded the routine inspection program to include periodic assessments every 10 years, in addition to the periodic inspections already performed on each dam every five years. These periodic inspections are the backbone of the dam safety program, Hess-Brittelle said. The assessments will help dam safety experts look at the bigger picture in terms of the probability, for example, of a reservoir reaching water surface elevations that could initiate a dam failure.

The District's first periodic assessment was conducted this summer on Trinidad Dam, near Trinidad, Colorado. Besides District personnel from Engineering and Operations and Hydrology and Hydraulics sections, experts from the Sacramento and Seattle districts and the Risk Management Center participated, offering an "unbiased set of eyes," which Hess-Brittelle said "makes for a better assessment."

The assessment process consisted of an inspection, a Potential Failure Mode Analysis (PFMA) and a Qualitative Risk Assessment (QRA). To save money and resources, the assessment was done in conjunction with a periodic inspection. The assessment also included a review of historic dam data, as the



assessment team had gathered any historic reports available at the Trinidad and District offices and scanned and archived them.

During the PFMA, the team brainstormed all the ways Trinidad Dam could fail without breaking the laws of physics. Then the credible failure modes were developed and assessed using a QRA.

In the draft assessment report, the team has preliminarily concluded that Trinidad Dam is not as vulnerable as the initial risk screening suggests. Much of the risk is driven by the fact that the City of Trinidad is located only two miles downstream.

Among the report's other recommendations are improved risk communication with the surrounding communities, including partnering exercises using the Emergency Action Plan with local, state and federal interests; closer monitoring of seepage; installation of inclinometers to monitor embankment movement; replacing or rehabilitating piezometers, as needed; and increasing surveillance and monitoring for reservoir pools above 6,220 feet.

Future periodic assessments are planned at a rate of one dam a year, with Abiquiu Dam next.

This activity supports our Operations Plan: Action 7 (Execute the Military Program and capitalize on Interagency and International Services opportunities).

### **District Happenings**

# **District Cleans Up Weapons Disposal Site at Kirtland**

By Elizabeth Lockyear, Public Affairs

**UXO** isn't material from outer space that crashed in Roswell, N.M. in the 1940s and it isn't the newest trend in footwear. It's short for unexploded ordnance—bombs or other Air Force ordnance that didn't explode when intended.

In addition to UXO, the Air Force identifies old or unneeded munitions and small arms that need disposed of at sites like the 165-acre Open Burn and Open Detonation site on Kirtland Air Force Base, created in the 1950s.

In 2010, when the Air Force decided to close the site, initiating a mandatory cleanup required by regulation, they turned to the Corps. Project Manager Mike Goodrich was asked to oversee the work, with technical support from the District's Environmental Engineering Section and geophysics support from people in the Fort Worth District.

The District awarded the nearly \$2 million contract to CH2M-Hill, who will conduct field work into fiscal year 2013, but, before the initial clearance of ground-surface debris began this September, the Department of Defense Explosive Safety Board in Washington D.C. reviewed the work plans that included a detailed explosive safety plan.

When viewed from above,



The District's Ordnance and Explosive Safety Expert Steve Carpenter is called to look at some debris at the site. Carpenter is part of the Corps' team on hand to monitor project activity.

the site resembles a target. The center circle of ground is clear of all vegetation and surrounded by three concentric fire breaks.

In the past, the Air Force used the center circle to blow up weapons, munitions and UXO, and the firebreaks prevented flying shrapnel from spreading brush fires.

For the initial cleanup of ground-surface debris at the site, it was divided into 942 100-by-100 feet sections. A team, on average, takes about an hour to sweep one section, although it varies depending on the amount of debris found sections with higher debris concentrations take longer.

Safety is a BIG deal on this job, and while a team works

everyone else stays a minimum of 374 feet away, in case live munitions are found.

As part of the safety procedures, all metal is documented as safe before it moves off the base. Meanwhile, the workers blow up anything people could construe as munitions. This prevents someone from finding metal that resembles munitions at a landfill that accepted scrap metal from the base, and having the operator close the landfill and notify authorities.

Additionally, any debris found on the site with voids that can't be inspected visually are subjected to a small-shaped charge to break them open.

Historical records about the *—Continued on next page* 



While a team works to sweep each 100-by-100 foot section of the site and collect munitions debris, everyone else stays a minimum of 374 feet away, in case live munitions are discovered.

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Kirtland site show 12 pits that contain munitions debris and possibly UXO. The project team has approximate locations from these records.

To find the actual pits, they will use a hand-carried EM-31, which allows detection of subsurface anomalies at depths of approximately 20 feet, by measuring the electrical conductivity of the soil directly beneath the user.

By comparing the conductivity of the soil typical to the area with the contrast from metal found in munitions and UXO, the buried pits show up dramatically, Goodrich said.

Using a computer with a connection to a Global Positioning System, the team collects and maps the data.

The initial ground-clearance



Teams have found an assortment of ordnance at the Kirtland site.

of debris and excavation of the pits are just the start of the project. Other actions will follow, like soil sampling to determine any possible soil contamination from chemical compounds in conventional munitions and removing the soil if necessary; installation of groundwater monitoring wells; and, the demolishment of the Open Burn unit. The Open Burn unit is a concrete box where small arms were burned in what Carpenter called "the popcorn effect."

# District, MRGCD Sign Cost-Sharing Agreement

By Kristen Skopeck, Public Affairs

At the Middle Rio Grande Conservancy District (MRGCD) board meeting Sept. 10, District Commander Lt. Col. Antoinette Gant



By signing the cost-sharing agreement, the Corps' and MRGCD commit to a feasibility study to construct a 50-mile stretch of levees.

presented a cost-share agreement to the board that was subsequently signed by her and MRGCD Vice-Chair Eugene Abeita.

The agreement commits both agencies to a feasibility study for constructing 50 miles of Rio Grande levees between the towns of Bernalillo and Belen, N.M., with MRGCD as the local sponsor. Results of the study will be presented to Congress for funding.

The flooding problems in the project area were documented in a 1979 feasibility report. At that time, levees to reduce the flood threat for Corrales, Isleta, Mountain View, and Belen East and West units were found to be economically justifiable and were authorized for construction in the Water Resources Development Act of 1986. A General Design Memorandum for these five units was also completed in 1986. However, in this document it was determined that the Mountain View and Isleta units were no longer economically justified and were dropped from any further design or analysis.

With the completion of the construction of the Corrales Unit in 1997, and after analyzing the actual costs of the Corrales Unit, MRGCD felt the Mountain View and Isleta units would be economically justified and requested, by letter, that they be included, as originally authorized.

The new study will provide an evaluation of the Isleta, Mountain View and Belen East/ West units and will identify a technically sound and economically justified plan for construction. A draft General Re-evaluation Report is currently underway and scheduled for completion in 2013. The cost of the study is estimated to be approximately \$1 million, and the construction of the levees would cost between \$400 and \$500 million.

### Did You Know...Our Website Really Matters!

http://www.spa.usace.army.mil/

According to studies conducted by the Pew Research Center, 58 percent of individuals who encounter problems, which had potential connection to the government, used the Internet to obtain information, whereas only 34 percent said they directly contacted the government office or agency. Please help Public Affairs ensure the information on our site is accurate!

#### Focus on People

# **Corps' Contractor Receives Rich G. Levad Award**

### By Ronnie Schelby, Public Affairs

**D**uane Nelson, a Corps' contractor at John Martin Dam and Reservoir, received the Rich G. Levad Award Aug. 25 from members of the Rocky Mountain Bird Observatory (RMBO) near Barr Lake, Colo. The award was presented by the widow of Rich Levad, Karen Lavad, a noted field biologist for whom the award is named. The purpose of the award is to recognize the efforts of individuals who have provided distinguished service, made scholarly contributions, or have shown great enthusiasm regarding bird and habitat conservation throughout the Rocky Mountain Region.

Nelson, a biologist, began working as a contractor with the Corps at John Martin in 2002. Prior to that, he worked for Colorado Division of Wildlife between 1995 and 2002 and RMBO from 1990 to 1993, and all the while he was monitoring endangered and threatened bird species at John Martin, specifically the piping plover and the least tern.

As a Corps' contractor, Nelson spends his time clearing invasive plants from an 8-acre area. In order to successfully breed, both the plover and least tern need sparse shoreline conditions. In fact, Nelson's project is the focus of work that will be done as part of National Public Lands Day at John Martin on Sept. 29. Volunteers will be asked to help continue removal of invasive species along the shoreline in preparation for the 2013 nesting season.

"The result of his effort is astonishing," said Project Manager Karen Downey. "In the 2012 nesting season, we estimate that half of all of the two endangered species nested in this particular area, and eight young plovers and five young terns were found. If not for Duane's committed efforts, it is possible that these birds would no longer be found in Colorado."



To see this story in video: www.spa.usace.army.mil/



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#### Focus on People



# **What Makes Her Tick?**

**Rip Rap asks District Commander Lt. Col. Antoinette Gant about her goals, passions, family, favorites, career and more...** 

What inspires you? There really isn't just one thing. Being an example for my kids, knowing my actions are not just for me but are a model for others who may have thoughts that achieving at this level or higher were impossible, and, finally, just knowing that there is more to accomplish. "The best is yet to come!"

Where did you grow up and what is special about it to you? I grew up in a small town in Mississippi near Vicksburg. It's said to be the city that's "too beautiful to burn" by Ulysses S. Grant during the Civil War. My special memories involve the summers with my cousins. My cousins who lived in town and I looked forward to our out-of-town cousins visiting every summer. My grandmother would always say, "it's time for me to put some meat on these kids' bones."

# How did you decide to become an engineer?

When I was in 8th grade, all I knew was there was no other career for me but in acting. I was convinced that I would attend some performing arts school and move to either New York or Hollywood to make my debut. But then, my parents paid for me to study theater at Northwestern University for the summer and I learned all the good and bad that comes with pursing an acting career. So I started looking at other options for life as an adult. While in Upward Bound (a college prep program), one of my mother's former students was the guest speaker for career day. She spoke about her experience



Left Photo: The Gant Family (Leonard, Antoinette, Lauren, and Little Leonard) in their Prairie View A&M Gear. Above: Lt. Col. Gant with her son, Little Leonard, before his Field Day at school.

> as a civil engineer, how much she enjoyed her work and how it helped the community. The intriguing part to me was how it helped the community. So I started researching all aspects of what civil engineers did and figured that was the career for me. I would do my acting on the side, as a hobby, but still have a job that allowed me to live and make an impact. Nevertheless, my passion still lies with the theater. One day, maybe I'll get to do a "One

> > *—Continued on next page*

#### Focus on People

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Woman Show" on Broadway. What is one of your biggest accomplishments? To date, it would be being selected as a regional finalist for the White House Fellowship Program. This is a highly competitive program and to be selected as a finalist was an honor.

Where did you meet your husband? I met my hubby in college. Supposedly he'd seen me during the first semester of summer school but was waiting for the right time to introduce himself. I was a freshman and he an upper classmen and athlete for the school, so our objectives were very different. I explained to him that my task at hand was not to leave college with a husband but rather a degree. But he remained persistent in his quest to win me over, and we finally started dating. And, 23 years later, we are still together!

What did your family think about you joining the Army? My family was very supportive of me joining the Army. I had uncles who'd serve in the Navy and Army, one as an enlisted Army engineer. Once it was official that I was going to be commissioned as an officer, they really all got excited and

rallied around me as a support system. Where is your favorite place

to visit? It might sound strange but I really don't have a favorite place to visit. When we travel, we usually go some place we've never been before. I just like travelling! What is a goal you still have for yourself? I have so many long term goals I want to accomplish. In the immediate future, though, they include running a half marathon and obtaining my PMP (Project Management Professional) license.

Who is somebody that you really admire? My husband, Leonard. He is so good at what he does (an educator) and will someday make a great principal. But for now, he chooses to put his dreams and ambitions on hold to support me in my journey. It takes a special kind of person to make such sacrifices.

What are you afraid of? Snakes and heights. What is your favorite food, movie, and pastime? Favorite foods are all types of Mexican and seafood. Favorite movie is "Love and Basketball," not quite the same love story between my husband and I, but it reminds me of what brought us together. Favorite pastimes include anything I can do with the entire family.

# What is a trait you developed because of your parents?

Self-confidence. My parents instilled in me that I could be or do anything I desired with hard work and the right attitude. My mother use to say, "God made only one you, and he did that so



Lt. Col. Gant volunteered at the Fisher House on Fort Sam Houston, in San Antonio, Texas. She is shown with a wounded warrior.

you could be the best you this world has ever seen." **How would you characterize your leadership style?** Funny you should ask this question. I just recently took a leadership style quiz and based on my answers my leadership styles were participative and delegative. I really think it depends on the situation as to which leadership style I display.

What is really important to you? Making a difference in the lives of others. There is no greater feeling than knowing that you have impacted the life of someone in a positive manner.

# **News Briefs—News Briefs—News Briefs—News Briefs**

If you find any object that resembles this. do not touch or move it. It's UXO and still could explode.

**Even fragments** are dangerous. Note the location and call 911. Remember, if you did not drop it,



# **Quality Management System TRIVIA**

It is time again for QMS Trivia, but first I would like to recognize September's winners for answering all five QMS questions correctly. The winners are Blaine Kemsley, Jim Marshall and Marcy Leavitt. Remember, the first three people who respond to gregory.s.allen@usace.army.mil with correct answers receive Level 1 Corps Bucks to our Corps Store.

Here are October's Questions:

1. Who is the new Quality Management Representative (OMR)?

- 2 What is the name of the Enterprise Standard 14201?
- 3) How many Centers are listed on the QMS SharePoint?
- 4) The purpose of this enterprise initiative is to provide a platform of what four things?
- 5) Which organization is considered the High Performance Organization (HPO)?

# Finance Corner

**Asset Management Part 2:** Types of assets include Real Property and Personal Property. that lose their individual **Real Property** - Consists of

land and land rights, buildings, structures, utilities and equipment attached thereto and made exceeds the established capipart of buildings and structures.

Capital real property consists of land, buildings, and structures purchased or constructed at a cost equal to or exceeding the established capitalization threshold amount (\$25,000).

Nonfinancial information pertaining to real property is recorded in the Real Estate Management Information System (REMIS), and financial information is recorded in the Corps of Engineers Financial Management System (CEFMS).

**Personal Property** - Personal property is any property, excluding real property, including military equipment, component

parts of a higher assembly, consumable items, or items identity through use.

Personal property is subject to capitalization if its cost talization threshold. Intangible property such as software, copyrights, and similar intellectual property may also fit these criteria and is recorded using the Automated Personal Property Management System (APPMS), for nonfinancial information. Financial information is recorded in CEFMS.

### Acquiring a new asset?

If your office/project is considering new acquisition/ construction/additions/ betterments and the cost will exceed the capitalization threshold of \$25,000, coordinate with Resource Management to properly account for the asset throughout its life.