

Laredo District's Bat Dome Culvert project wins Environmental Achievement Award

By JIM DOBBINS

Environmental Affairs Division

The 2000 Environmental Achievement Award was presented to the Laredo District on Oct. 9 at the TxDOT District Engineer/Division Director/Office Director meeting in College Station.

The Environmental Achievement Award recognizes the best projects and processes that fulfill transportation objectives while protecting and enhancing the natural and human environment. The award is presented annually by the Environmental Affairs Division to the district whose efforts demonstrate outstanding results.

Laredo District was recognized for its Bat Dome Culvert.

A 1994 study conducted by TxDOT and Bat Conservation International found that bridges and culverts designed

with certain features are favored by roosting bats, a species experiencing declining populations due to urban growth. Armed with this information and a large population of resident Mexican free-tailed bats, Laredo District Environmental Coordinator Melisa Montemayor went to work looking for designs that could be modified to accommodate bat colonies. A culvert-lengthening project in Webb County proved to be ideal. A two-foot high dome was added to the center of each of the five square "barrels" on the project. Each "barrel" is ten feet wide and ten feet tall. The walls of the dome were textured using recycled rough-sided plywood to allow roosting bats a place to grip. The dome allows for many conditions favored by bats, such as reducing light and trapping warm air, while ensuring that roosting bats will

not be drowned during times of high water. The culvert fulfills its intended use while accommodating a roost and nursery for a species experiencing declining numbers.

The Laredo District proved that a practical transportation project can also have a positive impact on the environment.

In addition to a framed certificate, the Laredo District receives a tree of its choice and a sign noting their award to be placed next to the tree. A tree-planting ceremony will take place in Laredo Dec. 5.

Also honored were:

Runner-up – Fort Worth District's Lancaster Avenue Bridge Restoration.

A project to restore the Lancaster Avenue Bridge in Fort Worth presented Fort Worth District staff with a number

See Fort Worth, Page 5

Bryan District creates TxDOT's first conservation easement for threatened orchid

By BOB COLWELL
Bryan District

For one roadway project, one of TxDOT's unique problems is solved. About six years ago it was realized that a new highway was needed to link Texas 6 to existing north-south roadways on the west side of Bryan-College Station. Progress on the proposed route, Texas 40, came to a halt because of an endangered species native to the highway's path. The protected plant was the Navasota ladies' tress, a threatened orchid.

This plant only grows in 11 Texas counties. Nine of those counties are in the Bryan District. TxDOT was able to reach an agreement on the Texas 40 project by working with the U.S. Fish & Wildlife Service (USFWS) and a local property owner. By acquiring a conservation easement through the property owner's land, TxDOT will set aside 34 acres of land adjoining the Texas 40 route. The wild orchid will be allowed to thrive in this easement while highway

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'Crunch' Casbeer takes over NRM

By RICHARD GOLDSMITH
Environmental Affairs Division

Jeff Casbeer managed to find a career that relates well to his main hobby, a keen interest in wildlife.

Casbeer, as of Sept. 11, is director of ENV's Natural Resource Management Section (NRM), replacing David Dunlap, who left the position to move to California last December.

For the previous three years Casbeer supervised a branch of the Project Management Section. Before that he was a biologist within NRM, so the new responsibilities return him to his old section. Casbeer graduated from Texas A&M in 1990 with a degree in biology that focused on wildlife and fishery sciences. He went to work for the Houston District working on wetlands delineation, environmental document preparation and noise issues. He joined ENV's NRM at the beginning of 1996 after five years with the Houston District.

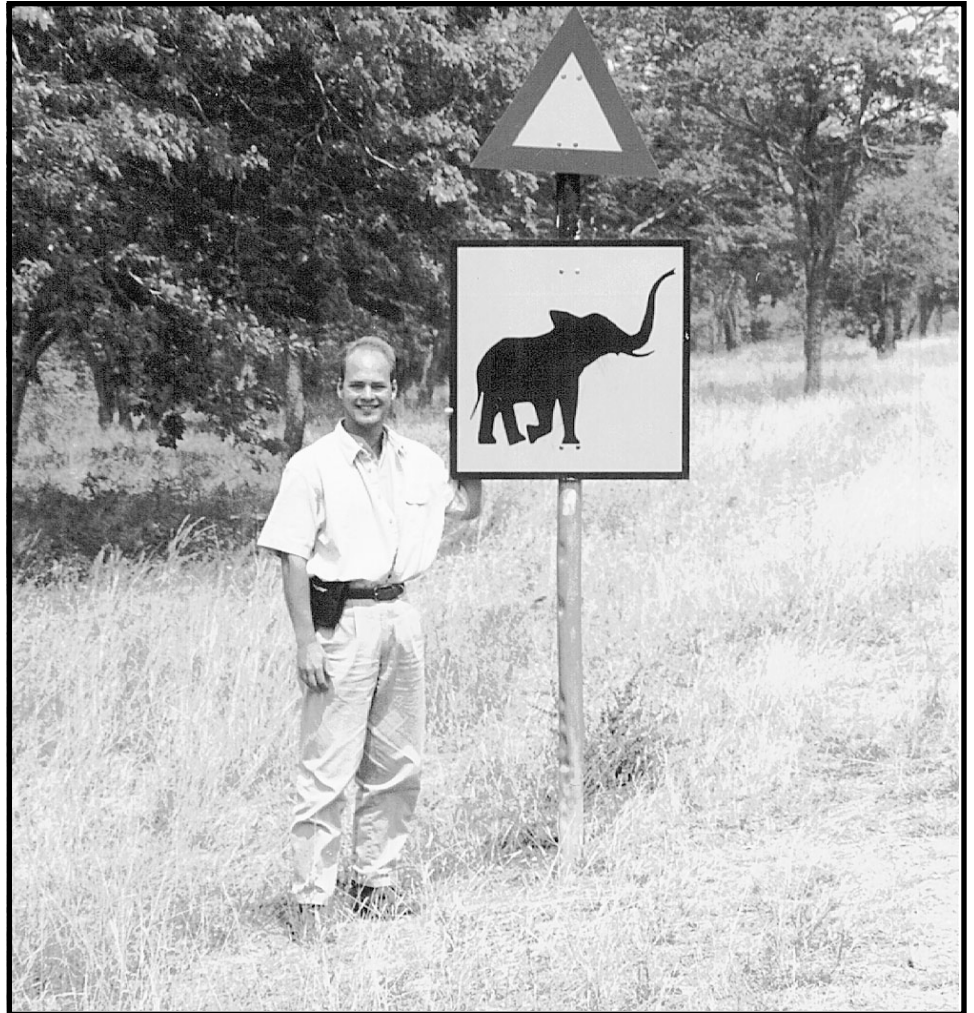
He still returns to Houston at least once a month to volunteer at the Houston Zoo, a commitment he has kept for 10 years. That hobby also led to an unfortunate encounter in 1996 with a lion. While petting the animal on a tour of a facility that provides homes for exotic animals, the lion clamped down on Casbeer's right hand. The wound required surgery when it became infected. (See ENVision, Summer 1996) Because of the incident, Casbeer's nickname at the Zoo is "Crunch."

As director of NRM, Casbeer says he has a lot of catching up to do because the position was vacant for most of the year. "It's a real challenge just because there are so many issues to deal with right now."

Water quality issues in general and wetlands issues specifically are taking most of Casbeer's attention for now because of new regulations set by the Army Corps of Engineers. He says NRM is working hard to provide districts with guidance in these and other areas in order to keep projects moving.

"I want to focus on providing support and guidance to districts. We're focusing our efforts on areas where we will get the most return. We have to pick our focus carefully because there's no way to do it all," he said.

NRM is working on getting evergreen contracts in place for such services as wetlands delineation, surveys for species,



Jeff Casbeer at an elephant crossing in Zimbabwe during his recent three-week safari to Africa.

monitoring of mitigation and stormwater issues. (Prearranged "evergreen contracts" are for services with contractors that can be used as needed for a set period.)

Casbeer took over leadership of NRM after returning from a three-week safari to Zimbabwe, a trip that combined his love of travel and wildlife. The trip included eating native delicacies – such as the supposedly delicious Mopani worm, actually a bitter caterpillar – and whitewater rafting on the Zambezi River from just below Victoria Falls. It took two years to put the trip together and it included seven Houston Zoo friends.

In 1999, Casbeer also traveled to Morocco and cycled over the Atlas Mountains to the pre-Sahara Desert to camp.

He also spent a year in Australia in 1988 as a Rotary Club Foundation Scholar. He attended the University of

Melbourne and spoke at a lot of Rotary Club meetings, trying vainly to debunk stereotypes about Texas. He said Australians thought all Texans wear boots and ride horses. He tried to convince them Texas is much the same as the rest of the U.S., but had to confess that his family has a ranch near Lampasas where his dad grew up and that he has his own horse and occasionally wears boots.

"Crunch" Casbeer is usually at the Houston Zoo the second Saturday of every month working in the Brown Education Center, usually with the reptiles.

"I enjoy working at the zoo. I get to get out and meet a lot of people. I work mostly with the reptiles. I love to see people's faces light up when they touch a python or an alligator for the first time," he said.

Navasota ladies' tresses: Conservation easement resolves Texas 40 dilemma

(Continued from Page 1) construction can begin. The property owner, Tim Crowley, retains ownership of the 34 acres, but he will not develop the land.

Mike Carpenter, the Bryan District environmental coordinator, was pleased with the compromise. He said, "It's a rather new concept for TxDOT. It may open doors for other conservation easements."

Crowley wishes to build a subdivision close to the conservation easement, and this untouched 34 acres will remain an attractive feature for his subdivision and for highway travelers.

The Navasota ladies' tresses, whose habitat fell into the Texas 40's planned path, will be replanted in the easement. The brush on the 34 acres will be thinned so the orchids can easily grow. Every three to five years, for the next 15 years, research, surveys and monitoring of the flowers will be conducted to ensure that no harm is done to the rare plants. TxDOT will manage the easement. The funding for this project comes from the Texas Transportation Commission. The USFWS will monitor the project easement so that Texas 40 can proceed. The last obstacle in Texas 40's

path is approval from the Federal Highway Administration.

The 34-acre easement will also feature a hike and bike trail. Landscape architect Maury Jacob of the Bryan District will plan the trails, which will wind along the site's perimeter. The acreage lies in a rough "T" shape and hugs Spring Creek and a tributary. Lighting and split rail fences will be built at the entrance to the trails. Most of the natural growth in the habit will remain untouched except for thinning the brush. The 12-foot-wide

trail, well away from the rare orchids, will span the creek at three to four

locations.

Jacobs feels that the area is a good site for the trails. "It connects a number of different land uses, such as residential areas and the proposed roadway," he said. "We are going to try to blend the trail into the topography in order to have as little impact on the site

as possible."

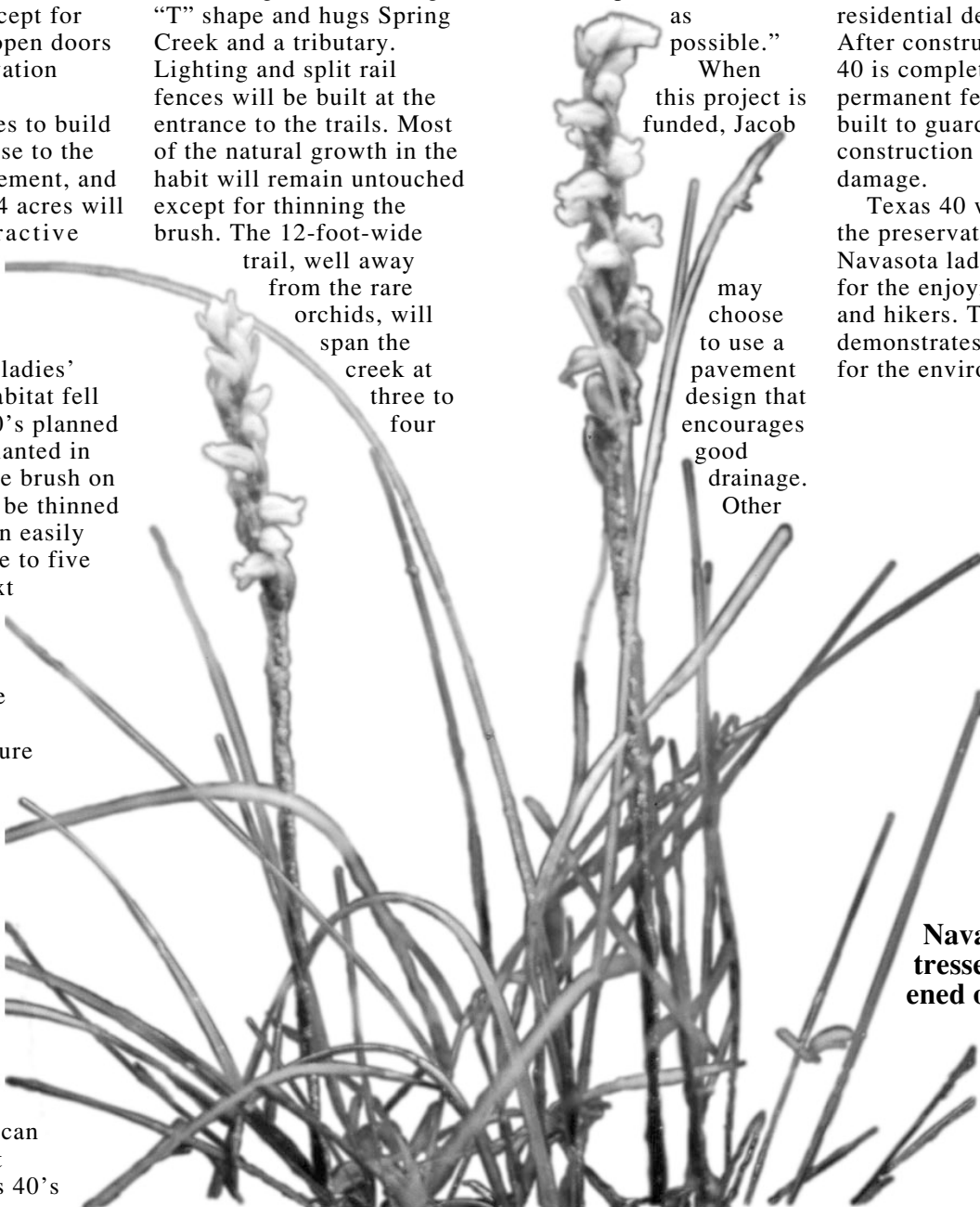
When this project is funded, Jacob

may choose to use a pavement design that encourages good drainage. Other

trail materials and designs will allow water to pass under, over, or through the path to allow dry footing for hikers.

While Texas 40 is under construction, a temporary fence will protect the easement from damage. The protective fencing will also be used for the nearby residential development. After construction of Texas 40 is completed, a permanent fence will be built to guard against construction and mowing damage.

Texas 40 will provide for the preservation of the Navasota ladies' tresses and for the enjoyment of bikers and hikers. The project demonstrates TxDOT's care for the environment.



Navasota ladies' tresses, a threatened orchid.

Freedman's Cemetery exhibit to run through Sept. 2, 2001

By **JIM DOBBINS**
Environmental Affairs
Division

A TxDOT archeology project begun in 1990 and completed in 1994 served as the catalyst for a recently-opened exhibit at Dallas' African-American Museum.

Entitled "Facing the Rising Sun: Freedman's Cemetery," the exhibition is the culmination of the exhaustive research and work put into the removal and reburial of the remains of 1,157 individuals from the right of way along North Central Expressway (State Highway 75) in Dallas prior to improvements to that highway. At one time the burials all fell within the confines of Freedman's Cemetery, which gradually was encroached upon by the growing City of Dallas.

The last reburial took place in 1994. Since then, extensive scientific analysis and study have produced two reports, most significantly the two-volume *A Legacy of a Pioneer Black Community in Dallas, Texas: Freedman's Cemetery*.

Archeologist Jerry Henderson, now an environmental reviewer with the Texas Water Development Board, served as project archeologist on the Freedman's Cemetery project.

"What I remember most about the Freedman's Cemetery project was the tremendous support we were given by the local community," Henderson said.

The multi-media exhibit contains artifacts, photographs and first-person accounts that tell the story of the residents of Freedmantown and Old North Dallas – many of the same people that were put to rest in

Freedman's Cemetery. An introductory video, interactive touch screens, and listening stations featuring oral histories and locally produced period music round out the exhibit.

Nancy Kenmotsu, supervisor of ENV's Archeological Studies Branch, attended the opening of the exhibit.

"I think the exhibit is outstanding," Kenmotsu said. "Most importantly, it has been very well received by the Dallas African-American community. Since it is their history, I feel that the exhibit initiated a new beginning – a new look at events that were not always happy. The exhibit conveys the community's perseverance in the face of adversity. I am proud that TxDOT aided in telling the story of the community."

"The exhibit highlights a little known part of Dallas history," Henderson said. "I liked the exhibit a lot and thought that it was really well done."

"The exhibit has been quite well received," said Phillip Collins, Chief Curator of the Dallas African-American Museum. "TxDOT played a major role in the planning of the exhibit. Nancy Kenmotsu and Ann Irwin (supervisor of the Cultural Resources Management Section) attended our monthly planning meetings, starting about 18 months ago. Credit for the success of the exhibit also goes to Geo-Marine, Inc., which did the artifact analysis and the archival and historical studies work, and Documentary Arts, who assembled the exhibition."

The African-American Museum is located at 3536

Grand Avenue in Fair Park. The exhibit opened on Sept. 23, 2000, and runs through Sept. 2, 2001. Admission is free except for groups of 20 or

more. Museum hours are Tuesday through Friday, noon to 5 p.m.; Saturday 10 a.m. to 5 p.m.; and Sunday 1 p.m. to 5 p.m.



One of the artifacts found during investigation of the Freedman's Cemetery site was this beautiful doll's head. All of the artifacts, including this one, that could be associated with a known grave were later reinterred. Only those artifacts that could not be associated with a grave are part of the exhibit.

Fort Worth: Lancaster Bridge takes Runner-up

(Continued from Page 1)

of obstacles to overcome. Then Area Engineer Harvey Oppermann and the staff of the South Tarrant County Area Office went to work to deal with a number of challenges. What was initially thought to be a relatively minor bridge repair turned into a major undertaking when it was found that the concrete overlay on the bridge deck had to be replaced due to cracking and salt contamination. Lead-based paint had to be removed in an environmentally sensitive manner to avoid polluting the Trinity River, Trinity Park, the Fort Worth Water Treatment Plant, and the Fort Worth Zoo, portions of which all lay below the bridge. Ornamental relief depictions of longhorn steer heads on the bridge were discovered to be badly deteriorated and in need of restoration. All of this work needed to be accomplished in a manner that did not alter the appearance of this National Register-eligible bridge. Couple all this work with the need to have the bridge open to provide access for the Fort Worth Stock Show and the magnitude of the coordination this project demanded becomes apparent.

A major artery in Fort Worth has been restored to meet the needs of its citizens.

Honorable Mention – Paris District’s Historic Truss Bridge Relocation.

When a bridge replacement project in northeast Grayson County displaced an early 20th century Warren pony truss bridge, a new home was needed for this National Register-eligible structure. Paris District Environmental Coordinator Chris Brook went to work and found an



Laredo District Photo

This view of a bat dome inside of a box culvert shows the design modifications: the raised ceiling and rough texture that allows bats to grip the surface

appropriate home in nearby Hagerman National Wildlife Refuge, operated by the United States Fish and Wildlife Service (USFWS). With the help of Sherman Area Engineer Bobby Littlefield, the bridge was relocated to the 11,300-acre refuge. At its new site, a deck made of recycled plastic that mimics wood grain was installed and other work performed to stabilize the channel. The bridge now is part of a hike and bike trail that allows access to the Dead Woman Pond wildlife viewing area.

Through the work of the Paris District and USFWS, a piece of Grayson County transportation history has been preserved for future generations.

Also, **Honorable Mention – Dallas District and the Texas Transportation Institute video “Sound**

Walls: A Sound Idea.”

When traffic noise issues became a significant aspect of urban transportation projects and a recurring theme at public meetings, Dallas District Public Information Officer Mark Ball contacted the Texas Transportation Institute’s Information Technology Exchange Center for help. At TTI, Jack Hodges and Clyde Hance went to work to develop a videotape that explains sound wall construction, design and placement in an easy to understand format. The result was “Sound Walls: A Sound Idea,” an 11-and-a-half minute video designed for screening at public hearings and before neighborhood groups, individual homeowners, business associations, environmental groups and public service organizations.

This video provides a useful introduction to sound walls that can be used by other TxDOT districts. “Sound Walls: A Sound Idea” promotes greater understanding of noise issues.

“There were a wide variety of projects submitted for consideration this year,” said Jenise Walton, a project manager that served on the review committee. “The projects submitted showed a lot of thought and creativity on the part of the district staffers. I was impressed with the entries.”

Look for the call for nominations for the 2001 Environmental Achievement Award in early January. Entries must be received at the Environmental Affairs Division by 5 p.m. on Friday, May 4, 2001.

ENV hosts district haz-mat coordinators

By DANIEL BENSON
Environmental Affairs Division

The first meetings for district hazardous materials coordinators were held Sept. 27 and Oct. 5, hosted by ENV's Hazardous Materials Management Section (HMM).

HMM's Operations and Maintenance Branch hosted two one-day meetings at ENV's Austin office attended by hazardous materials coordinators from 17 districts. The meetings allowed district personnel to meet each other and learn about the TxDOT Facilities Compliance Program administered by HMM.

The meeting communicated to district personnel recommended procedures to reduce potential and significant environmental impacts at TxDOT facilities. It also identified resources, such as the Environmental Compliance Guidance Manual available from HMM, to aid districts with individual facility compliance issues. The meeting was an opportunity for district representatives to comment on published Operations and Maintenance Branch guidance and to recommend future changes, as well as suggest how guidance should be applied.

Discussions during the meeting primarily focused on:

- ENV's compliance audit process
- results from recent environmental surveys
- the Notice of Registration for hazardous waste activities
- vehicle and equipment washing discharge issues
- TNRCC required Class V injection well inventory.

Other topics included:

- spill prevention countermeasure and control requirements
- proper characterization of the various waste streams generated during TxDOT fleet and equipment maintenance
- underground storage tank monthly reconciliation records
- corrective action at TxDOT Leaking Underground Storage Tank (LPST) facilities.

Because of the structure of TxDOT districts, environmental compliance responsibilities cross many functional areas in district operations. For example, a worker in the buildings and grounds department might handle petroleum storage tanks, while an individual in the special crews department might handle spill prevention countermeasure and control plans. Or, a person from the district warehouse might be

responsible for the district's notice of registration and annual waste summaries, while the district safety officer or hazardous materials coordinator might handle accidental spill cleanup, abandoned hazardous waste along the right of way, or maintenance facility compliance issues. In this way, the meeting supported and enhanced the department's environmental compliance program by bringing together the individuals from each district who serve as a primary point of contact with ENV on matters related to the district environmental audit process and TxDOT facility compliance issues. The district point of contact for these issues should be the district hazardous materials

continued commitment to proactive environmental management.

Another goal of the district hazardous materials coordinator meeting was met when ideas were exchanged and gathered to outline possible topics for a haz-mat related environmental training course. The training module being developed and planned for this fiscal year will focus on compliance with environmental regulations as they relate to TxDOT facility operations, with the objective of establishing more standardized environmental compliance processes across the department. The target audience for the course includes district management, warehouse personnel, safety personnel, and those at district complex and



District Hazardous Materials Coordinators meet with ENV staff in Austin Oct. 5 in one of two meetings held to discuss procedures and share experiences.

Photo by Henry Gregory Quinn

coordinator.

TxDOT facilities face many environmental compliance issues including used oil storage and recycling, hazardous waste management, vehicle and equipment maintenance waste, general housekeeping, small spill response and abandoned hazardous waste, vehicle and equipment washing, petroleum storage tanks, and spill prevention controls and countermeasures (SPCC), and universal waste management.

The internal system of assessing regulatory compliance at TxDOT facilities has traditionally been the monthly district environmental audit process, also called the environmental surveys. Among other things, the audit process allows the department to systematically identify, correct, and prevent violations. The surveys assess the department's overall performance in environmental compliance and its effectiveness. In this way, TxDOT demonstrates to resource agencies its

maintenance sections responsible for environmental compliance at TxDOT facilities.

Attendees felt that a district hazardous coordinator's meeting should be held at least once, perhaps twice a year. Attendees also thought the meeting was very beneficial because it allowed them to meet and ask questions of counterparts in other districts, particularly those with limited experience in their role as district hazardous materials coordinator. Direct communications and candid discussions between different district representatives gave a good indication that districts cannot always do business the same way because of the geography of the state. Additional meetings will be scheduled as the dynamics and complexity of environmental issues, plus changing regulatory and liability concerns, evolve.

Project Management Section gets new faces

Most of ENV's recent employee changes are within the **Project Management Section (PM)**.

Dean Tesmer is the new branch manager of Field Area III within **PM**. Tesmer recently transferred to ENV from the Fort Worth District where he was an environmental coordinator for two of his four years there. In Fort Worth, Dean was responsible for managing the district's environmental program, which included assessing environmental impacts from transportation and enhancement projects, negotiating and ensuring mitigation compliance, managing environmental contracts, and coordinating with resource agencies. In addition, he managed the District's storm water management program. Before Fort Worth, Tesmer worked on the environmental staff in the Waco District. He graduated from Southwest Texas State University in 1992 with a bachelor's degree in Geo-Research and Environmental Studies and a minor in biology. Tesmer and his wife, Ellen, are both from Austin.

Amy Link left PM Oct. 1 to accept a position with TP&P.

Michelle Skinner joined **PM** Nov. 1. She has a bachelor's degree in anthropology/history from Texas A&M University. Skinner worked for two years in Richland, Wash., in cultural resource management for the U.S. Department of Energy Hanford Site and at the Columbia River Exhibition of History, Science and Technology as a curation technician for the past year.

Ronnie Ray joined **PM's Field Area III** on Oct. 23. Ray came from the Texas Department of Criminal Justice where he worked on the environmental management of prison construction projects and properties for eight years. Ray has a bachelor's degree from

Sam Houston State University. He and his wife, Sherri, have four children.

Jeff Casbeer, formerly of **PM**, is the new director of the **Natural Resources Management Section (NRM)** as of Sept. 11 (see related story Page 2).

Rick Costa of **NRM's Water Resources Management Branch** has been licensed as a Professional Engineer as of Sept. 22.

Allen Bettis joined the **Cultural Resource Management Section (CRM)** Oct. 2 as the archeologist for the Beaumont, Houston, and Paris districts. Bettis is an experienced archeologist having worked in many regions of the state, as well as New Mexico and Mississippi. He holds a master's degree in anthropology, with a specialty in archeology, from the University of Texas at Austin and has completed all but three courses toward a Ph.D. at Texas A&M. Allen is also an experienced flint knapper, so expect to see him in future open houses that CRM hosts.

Kirsten Kahl joined **CRM** as an archeologist Oct. 23. She was formerly with Wendy Lopez & Associates of Plano. Her bachelor's degree in anthropology is from the University of Iowa. She earned a master's degree from Northern Illinois State University in anthropology, specializing in bioarchaeology. She will handle archeology for the Fort Worth district.

Beth Reed started in **CRM's Historical Studies Branch** Sept. 18. She has a master's degree from the University of Texas at Austin and focused on planning and preservation. She also is known to some here in the department as she did her thesis on the I-30 project in Fort Worth and interviewed some of ENV's staff as a student. After graduating she worked briefly for PBS&J.

Lorie Ledesma-Ramirez began Sept. 1 as ENV's new Information Resource Administrator, responsible for the

division's automation resources and oversight of the Environmental Tracking System, Historic Sites Atlas and GIS/GPS program resources. Ledesma is an eight year veteran of the Information Resources Division. Before that she worked as a technical support specialist with Dell Computer and IBM. She earned

an associate degree in Electronics Technology from Southwest School of Electronics in 1991 and is currently enrolled at St. Edwards University pursuing a bachelor's degree in Computer Information Systems. Ledesma and her husband, Daniel Ramirez, have a four-month-old baby girl, Ashley Danielle.

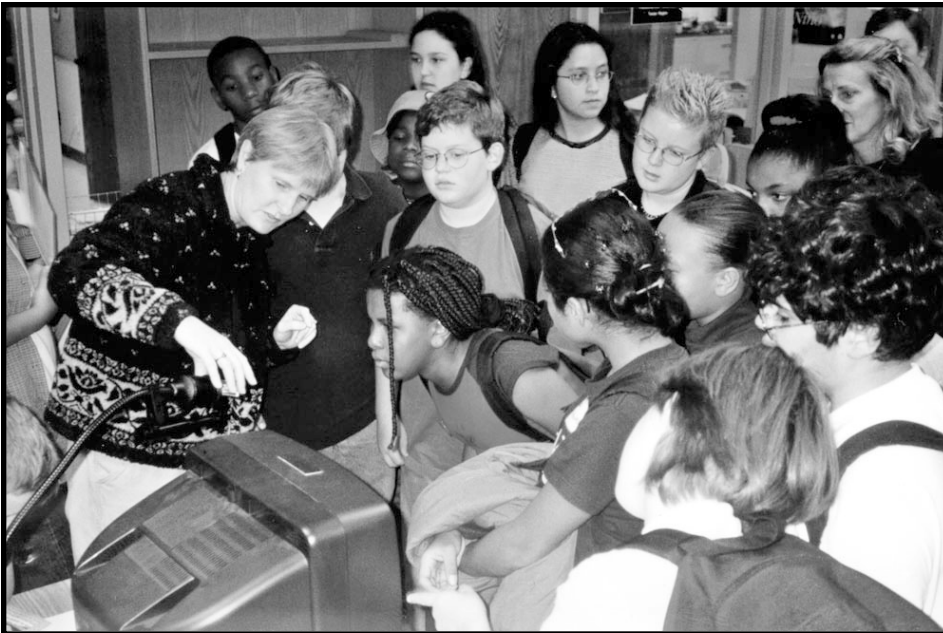
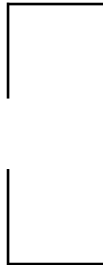


ENV's new internet web site (above) is at "http://www.dot.state.tx.us/insdtdot/orgchart/env/index.htm".



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Address correction requested



Janice Sturrock of the Austin Nature Center talks to Maplewood Elementary School students at the Earth Science Week Career Day Fair, held Oct. 10 at the Bureau of Economic Geology Building at Austin's J.J. Pickle Research Center. Sturrock's presentation was "Aquatic Critters of Lower Barton Creek." TxDOT was a sponsor of the fair, which drew more than 300 fifth- and sixth-grade students from Austin-area schools. ENV's Dennis Nielsen and Rodney Concienne, as well as Gary Lantrip of the Austin District talked to students about earth science careers at TxDOT.

Photo by Henry Gregory Quinn

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We welcome ideas for stories and standing features. Submit those to the above address, attention Richard Goldsmith, phone 512.416.2743; via

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