

Pelicans start new nesting colony

By **KIM JENKINS**

Environmental Affairs Division

The Eastern Brown Pelican is the subspecies of brown pelican common to the Texas Gulf Coast. This species (*Pelicanus occidentalis carolensi*) is currently listed as endangered by the U.S. Fish and Wildlife Service (USFWS) and the Texas Parks and Wildlife Department (TPWD). The Texas Department of Transportation (TxDOT) organized an expedition this summer to investigate whether a new nesting colony for brown pelicans had been established in the Laguna Madre area of the Gulf Coast. Members of the expedition included representatives from TxDOT, the Texas Transportation Institute (TTI) and TPWD.

The expedition was initiated by an increase in the number of area pelicans and, in turn, a rising mortality rate of the birds on the Queen Isabella Causeway. Before 1995, TxDOT experimented with methods to keep pelicans from being struck by vehicles crossing the causeway. The speed limit on the causeway was lowered and flashing signs were installed to warn drivers when conditions are likely to cause pelicans to land on the bridge. But the problem of pelicans landing on the causeway continued to increase.

In the summer of 1995, out of concern for both motorists and the endangered bird, meetings were held between TxDOT, regulatory agencies and private citizens. Those meetings resulted in a more

aggressive approach to the problem. One measure was the construction of changeable message signs at each end of the bridge. In addition to other uses, such as hurricane evacuation information, the signs alert motorists when weather conditions are favorable for pelicans to land on the causeway (when a norther moves through the area), or when brown pelicans are obstructing the roadway. Streamers were placed on some of the bridge light poles to test whether the additional noise and movement would cause the pelicans to fly higher and avoid any down drafts that might pull them to the bridge. Also, Velma Garcia of the

See *PELICANS*, Page 3

EPA rules for air tightened

By **BILL KNOWLES**

Environmental Affairs Division

The Environmental Protection Agency (EPA) has revised the National Ambient Air Quality Standards (NAAQS) for ozone and particulate matter (PM2.5 and PM10), a change likely to push the Austin, San Antonio and Tyler-Longview-Marshall areas into nonattainment status for ozone. The new NAAQS went into effect Sept. 16.

The new ozone standard was changed from 120 parts per billion (ppb), averaged over a 1-hour period and not to be exceeded more than three times in three years, to 80 ppb averaged over an 8-hour period.

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El Paso saves money, avoids lead paint with I-10 overlay project

By **BLANCA DEL VALLE**
El Paso District

On April 22, 1996, the El Paso District began one of its most challenging construction projects. The project saved taxpayers millions, was environmentally sensitive and now provides a pleasant, aesthetic drive.

The I-10 Downtown Reconstruction Project involved overlaying the existing roadway with a new 6.5 inch concrete road surface. TxDOT implemented a new concrete overlay process over a one-mile stretch through the El Paso downtown area. This new process saved taxpayers millions of dollars, costing about \$35 per yard, almost half

of what a full-depth pavement would cost. The new overlay process dried more quickly than a full-depth concrete pavement, 24 hours compared to a full week for the usual process.

This depressed corridor was resurfaced to preserve and maintain the life of the original 1960s pavement. A by-product of the first opportunity in 30 years to close the main lanes of the freeway for construction purposes was the inspection of all 13 overpasses and utility bridges. While the structural evaluation of the bridges was satisfactory, the existing silver gray paint that coated the steel

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Fort Worth's Clifton has too much fun to retire

By RICHARD GOLDSMITH
Environmental Affairs Division

Burton Clifton has watched TxDOT's environmental role expand through the post-World War II building boom to the present and all from a designing engineer's perspective.

"I've been involved in design since year one, with some time in construction," he said.

After serving in the U.S. Army Corps of Engineers during the war, Clifton went back to school at Texas Tech University. During the summers of 1947-49 he worked for the Lubbock District. When he graduated in August 1949 he went from the Lubbock District straight to the Fort Worth District where he has remained since. That's almost 49 years of TxDOT service. At age 71, Clifton says he hasn't made any plans to retire.

"I guess I stay around because I enjoy what I do," he said. "I guess I'll quit when I get tired. It's hard to leave when you're having fun."

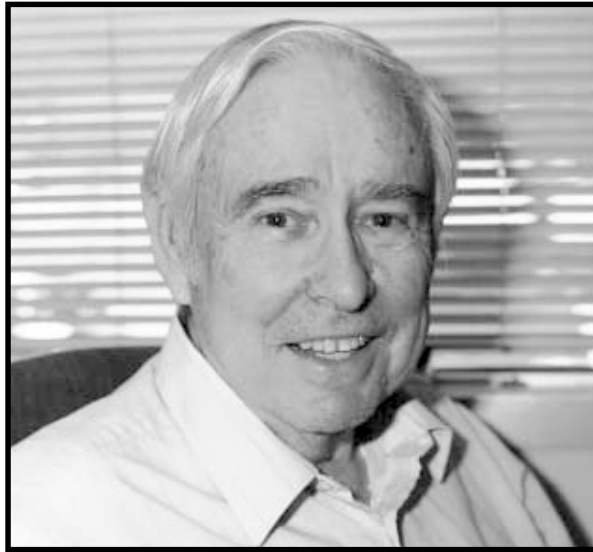
Almost all of Clifton's career has focused on geometric design of highways. Although his title has changed through the years – currently he is "district advanced project development engineer" – his duties have remained fairly constant: the preliminary design of highways. When the requirements for environmental documentation began and expanded, his duties took in that responsibility as well. But Clifton says that long before there was a formal requirement to consider environmental factors in design, he observed "a moral requirement to look out for the environment before anyone knew the word."

He remembers a project in Palo Pinto County where in order to straighten a road it was necessary to move a creek.

"You go back and look at it now and it looks like the Lord did it," Clifton said.

"I feel like we've (TxDOT) gradually become more sensitive to the environment because we've organized it into the system," he said.

In 1951, Clifton said he was sent to the Mineral Wells resident engineer's office to gain experience on construction projects and was told to expect a short stay. "I stayed until I was running the office," he said. In 1957 he was transferred back to Fort Worth's Expressway Office and has been involved in preliminary design ever since, along with detailed plans for several projects.



The Fort Worth District's Burton Clifton

"My degree of responsibility has expanded since then, but not my area of concern," he said.

In 1957 he became involved in designing interstate highways. Then as now, locating the interstate meant dealing with city and county governments. In the early days, before the federal government took over paying 90 percent of the cost to purchase interstate project right of way, the counties or cities had to pay for right of way.

"We just had to get along with the people. In the urban environment we tried to fit the highways in with the existing street system. Over time the cities have adapted to the freeways where they sometimes didn't fit in the first place," he said.

Nowadays, the challenge is often to expand those roadways built earlier in his career with a minimum of disruption. In the case of widening I-35 in Fort Worth, retaining walls were used to fit the new lanes into existing right of way and to minimize displacement.

That's the same philosophy he used when planning for a proposed bypass around Mineral Wells in the '50s. Instead of building the bypass, Clifton said two parallel streets through the central business district were found and turned into one-way streets for through traffic.

"We were able to push through with that without disturbing anybody," he said. "The bypass? No one even remembers it but me."

Although environmental regulations

have added steps to the planning process, such as more extensive public involvement, Clifton says that's turned out for the best, in most cases.

"Eventually a project comes out better. You've got the community in the boat with you."

The Army drafted Clifton out of college during World War II and he spent 26 months in uniform. First he was sent to Army Drafting School and he became part of a construction battalion that was sent to France, Germany, the Philippines, and then to Japan as part of the occupation forces there.

"I had a rifle, but I never had to face the enemy. We were in artillery range but they never bothered to fire at us," Clifton said.

Although the soldiers in his construction battalion were trained to fight in an emergency, Clifton said "Generals were reluctant to use engineers as infantry because it meant losing the ability to move their forces."

Clifton returned to college after the war, also joining the Army ROTC. He stayed in the Army Reserve until 1979 and advanced to the rank of colonel.

For 20 years, Clifton was an instructor for the Army's Command and General Staff College teaching "lieutenants and captains how to become colonels and generals."

He also taught engineering courses for the Army Corps of Engineers, until he was promoted to colonel. Since the Army had a rule against colonels teaching, he started work on a new specialty, army intelligence.

Burton isn't the only one in his family with an interest in education. His son, David, is involved in physics research in Austin. His wife, Dorothy, who he jokes "isn't much younger than I am," earned a degree in Religion and Humanities in 1991 from Texas Wesleyan University.

Clifton sings in the choir at his church, Edgepark Methodist, and was choir director for three years. He has let interests in golf and barbershop quartet singing lapse, but he's thinking about

See CLIFTON, Page 12

'Game' teaches about the environment

Environmental Pursuit created as fun alternative to traditional teaching methods

By **JIM DOBBINS**

Environmental Affairs Division

Don't be surprised if you hear good-natured laughter while walking past TxDOT district and division training classrooms during the coming year – the students are participants in TxDOT's newest training class, "Environmental Pursuit."

"Environmental Pursuit" was developed by the staff of ENV's Communications Section in response to the department's strategic plan objective to educate all TxDOT employees about the environment. Modeled on a class developed by Motorola, the class breaks

the traditional mold of TxDOT training and ensures an experience that is both educational and fun.

The four-hour class consists of discussions, videotape viewings, and multiple choice question and answer sessions covering a broad spectrum of environmental topics. Topics discussed during the class include air quality issues, landfill and garbage disposal problems, hazardous materials issues, recycling and water quality.

Classes contain 20 to 25 TxDOT employees, who are divided into teams of four or five each. Each team has a marker on the "Environmental Pursuit" game

board, which is a map of Texas with all 25 districts shown. A single die is rolled and the marker is moved the indicated number of spaces. Questions are read aloud and are considered by each team, whose "scribe" then writes the answer that team consensus feels is correct on a hand held dry-erase board. Correct answers are rewarded with either \$500 or \$1,000 bills ("funny money" of course!). The team with the most money at the end of the class wins. But beware, interspersed across the board are spaces where a "Chance" card is drawn. Some cards

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Pelicans: New nesting area discovered

(Continued from Page 1)

Pharr District, Kim Jenkins and Eddie Sutherland from the Environmental Affairs Division, and the maintenance crew at the San Benito Maintenance Office of TxDOT, developed what came to be known as "The Pelican Patrol."

The Pelican Patrol is a long-term effort to document the number of mortalities and also to remove any dead or injured pelicans from the causeway. The removal of the pelicans is performed under special permit from the USFWS. Dead pelicans are taken to TxDOT's maintenance yard in San Benito and USFWS is contacted for disposal of the birds. Any injured birds are taken to either the Gladys Porter Zoo or the University of Texas - Pan American where they are allowed to convalesce until they can be released. Because it seems that the majority of the mortalities occur when visibility is low, the patrol monitors the causeway in the morning and evening on days when northers are predicted, posts a warning message on each message sign, and turns on the bridge lighting a half hour before dawn or a half hour before dusk to increase visibility.

In September 1995, the Pharr District sponsored a research project called, "Evaluation of Innovative Monitoring Systems for the Queen Isabella Causeway to Assist in the Preservation of Endangered Brown Pelicans." TTI representatives Deborah Jasek and Mark Shafer performed the research. One aspect of the research was to find an innovative way of predicting weather changes near the causeway, and to better estimate when to turn on bridge lights and change the message signs when inclement

weather is approaching.

Another aspect of the research was to attempt to gain information needed to down- or de-list the pelican as an endangered species. The recovery plan calls for an increase in the number and distribution of nesting colonies. When researchers reported a high number of pelicans year-round, the potential for a

nesting site in the area became evident. A site investigation was made on Aug. 14, 1996. Potential sites were noted and plans were made to revisit these sites in the spring or summer of 1997. TxDOT personnel informed TPWD of the high potential for a nest sight in the vicinity and TPWD biologists assisted TxDOT in searching the area to the north and the south of the causeway for possible pelican nest sites. On May 20, eight active nests with two to three eggs each, and one inactive nest that contained no eggs were found on a spoil island in the Laguna Madre area. Weeks later 12 young were recorded at the site.

Before the discovery of this latest nesting colony, there were

only three currently established nesting colonies reported for brown pelicans in Texas. These colonies are on Pelican Island in Corpus Christi Bay, Sundown Island in Matagorda Bay and Little Pelican Island in Galveston Bay. This newest colony, the Laguna Madre colony, is the first ever recorded in the immediate vicinity.

This is an exciting time for all concerned and TxDOT plans to work closely with researchers and resource agencies in an attempt to help maintain this nesting colony, while, at the same time, to provide safe and efficient transportation across the Queen Isabella Causeway.



Photo by Deborah Jasek

A new Pelican nest in the Laguna Madre area.

Watch for ISTEA reauthorization

Renewal may have significant environmental implications

By ORLANDO V. JAMANDRE Jr.
Environmental Affairs Division

With its passage in 1991, the Intermodal Surface Transportation Efficiency Act (ISTEA) drastically changed federal transportation funding policies by declaring the interstate highway system complete and by focusing greater attention on balancing transportation needs and impacts with the nation's social, economic, environmental and energy goals.

ISTEA restructured the availability of transportation funds by specifying programs for which certain funds can be used, such as Congestion Mitigation and Air Quality (CMAQ) and enhancement programs; broadened the flexibility of funding sources, such as using surface transportation program funds for mass transit projects; and strengthened the role of metropolitan planning organizations (MPOs) in project planning. The goal of ISTEA was to develop a nationwide intermodal transportation system by incorporating and funding a wide variety of transportation modes to include highway, transit, bicycle and pedestrian facilities.

Environmentally-focused programs such as CMAQ and transportation enhancements opened up new types of projects and funding sources for the project development process. In areas of the state classified as nonattainment for ozone and carbon monoxide, CMAQ funds were earmarked for transportation projects that contributed to an area's compliance with the Clean Air Act.

ISTEA also required each state to use a minimum of 10 percent of its Surface Transportation Program (STP) funds for a state-administered program of transportation enhancement activities. Eligible enhancement projects included pedestrian and bicycle facilities, acquisition of scenic easements and historic sites, landscaping and beautification projects, historic preservation, rehabilitation of historic transportation facilities, preservation of abandoned railway corridors, archeological planning and research, and mitigation of water pollution caused by highway runoff.

ISTEA's current six-year authorization

To keep up with reauthorization of ISTEA check out these web sites:

TxDOT Legislative information: <http://www.dot.state.tx.us>

USDOT ISTEA Reauthorization: <http://www.dot.gov/ost/govtaffairs/istea>

AASHTO: http://www.autometric.com/main/recommends/arec_main.html

Surface Transportation Policy Project ISTEA page: <http://www.istea.org>

of federal highway funding expired on Sept. 30, 1997. On Sept. 24, 1997, the House Transportation and Infrastructure Committee approved an \$11.9 billion extension of present transportation funding levels for six months, thereby delaying a multi-year reauthorization bill until next spring.

ISTEA Reauthorization

The Texas Natural Resource Conservation Commission (TNRCC) hosted the second of three teleconferences dedicated to the topic of ISTEA reauthorization on July 16. Sponsored by the North Carolina State University's Center for Transportation and the Environment, the teleconference brought transportation leaders together from the Federal Highway Administration, American Association of State Highway Transportation Officials, American Public Transit Association, Surface Transportation Policy Project, and the Metropolitan Transportation Commission. A panel format was used to discuss funding formulas, streamlining of program delivery, and environmental issues associated with ISTEA. Moreover, the panelists provided an update on proposed legislation and discussed some of the implications of the possible successors to ISTEA.

Much of the national debate on ISTEA reauthorization has focused on the important issues of spending levels and formulas for the equitable distribution of funds. The reauthorization proposal from the Chairman of the House Transportation and Infrastructure Committee also contains many other proposals that could have significant implications for environmental programs. Representative Bud Shuster's (R-Penn.) bill, HR 2400, or

BESTEPA (Building Efficient Surface Transportation and Equity Act) contains provisions such as:

- increased funding for CMAQ and transportation enhancement programs;
- creation of a new enhancement program specifically for transit-related facilities;
- a new Border Infrastructure Program to ensure that needs resulting from NAFTA-related trade and safety issues are addressed;
- dedicated funding to aid in the planning and development of multi-state corridors of national significance, such as the I-69 corridor;
- integration of the Major Investment Study (MIS) into the National Environmental Policy Act (NEPA) process and elimination of the MIS as a stand alone document; and
- institution of a three-year environmental review pilot program that would permit the federal government to delegate environmental review approvals under NEPA to selected states.

The transportation community will have to wait until March 1998 to see which programs and provisions are agreed upon by the House and Senate versions. Once the transportation bill that succeeds ISTEA is finally signed into law, TNRCC will host the last of the three ISTEA teleconferences to discuss the ramifications for the nation's transportation system.

ENV historians busy crunching data from survey of Depression Era masonry works

Study to determine eligibility of surviving relics for National Register

By **RICK MITCHELL**
Environmental Affairs Division

The worldwide Great Depression of the 1930s dramatically affected the lives of Texans. Factories and stores shut down, while farmers were the victims of drought and dust storms. Franklin D. Roosevelt's New Deal programs, started when FDR took office in 1933, were a response to the economic calamity. These "work-relief" programs created public jobs on an enormous scale.

In Texas, roadway improvement was an important part of the work-relief programs. During the 1930s, road work employed more Texans than any other single enterprise. Besides putting large numbers of people to work, road construction also satisfied the widespread desire to "get the farmer out of the mud" and connect Texas cities with modern, paved highways.

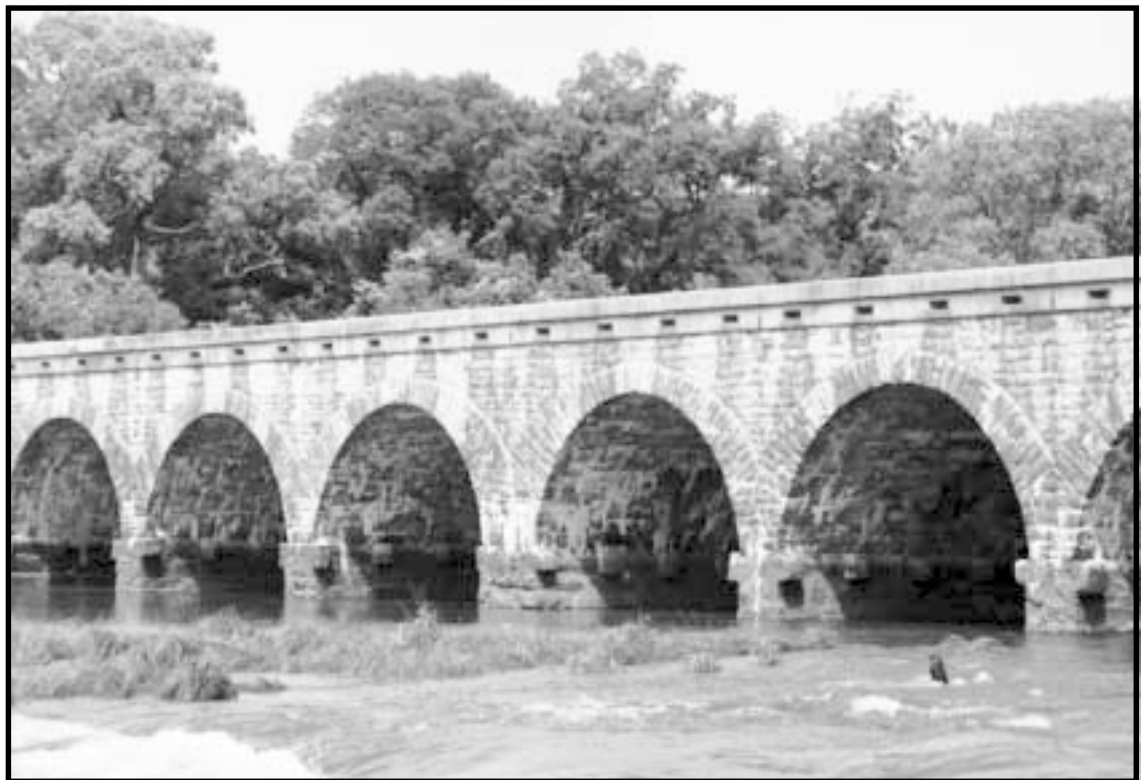
A variety of federal relief programs were involved in road construction, including the Works Progress Administration (WPA), National Youth Administration (NYA), Civilian Conservation Corps (CCC), Public Works Administration (PWA), and Civil Works Administration (CWA). In addition, most Texas Highway Department projects were governed by provisions calling for maximum use of labor and preferential hiring for the unemployed.

Relief workers completed all sorts of road projects, ranging from graveling of county roads to blasting cuts through mountains for wide trunk highways. They built roadside parks, massive bridges and historical markers around the state. Work-relief road projects used many types of materials for construction.

Concrete and timber were common building materials for bridges and other drainage structures. However, it is stone masonry that is recognized as the hallmark of work-relief construction. Masonry was ideally suited for work-relief road projects, maximizing the use of plentiful hand labor while offering a cheap material source. Stone masonry also fit in perfectly with the "Rustic" principles championed by architects and landscape architects during the 1920s and 1930s. Rustic structures, with their natural materials and rough surface textures, were designed to blend in with the surrounding rural landscape.

Today, much of the work-relief legacy along Texas roadways has been removed or altered. However, a few reminders of these tremendous efforts remain - from huge multiple-span bridges to small culverts, from highway landscaping to magnificent retaining walls, from state

boundary markers to scenic roadside parks. Increasingly, these remaining resources are being affected by TxDOT projects. In response, TxDOT and the Texas Historical Commission initiated an interagency study of Depression-era masonry road features. ENV has compiled a database of all known masonry road features within TxDOT's rights of way, using bridge inspection records and information provided by district staff in a 1995-96 survey. Historians are currently determining each resource's eligibility for the National Register of Historic Places. The eligibility determinations should be completed by the end of the year. Maps and lists indicating eligible and ineligible resources will be sent to district environmental coordinators. The eligibility determinations will allow for more informed project selection and will speed up the project clearance process.



TxDOT file photo

The State Highway 16 bridge over the Brazos River in Palo Pinto County is the longest masonry bridge in Texas. The Works Progress Administration built the bridge in 1941-42.

Looking back at TxDOT...80 Years of Progress

Massive construction program starts after end of World War II

TxDOT celebrating its 80th anniversary

By STEVE SADOWSKY

Environmental Affairs Division

Editor's note: This is the second and final story on TxDOT's history marking the department's 80th anniversary.

After World War II, the department faced the task of rebuilding state roads that were overused and undermaintained during the war years, and providing new and expanded facilities for Texas' booming population. More than 3 million vehicles were registered in the state in 1950, and Texas cities were becoming increasingly congested with traffic. State Highway Engineer Dewitt C. Greer had foreseen the demands that postwar growth and prosperity would place on the state's road network, and had started planning new roads during the war. The department was ready by the time money, materials, and manpower became plentiful. Dallas, Fort Worth, Houston and San Antonio all established urban projects offices in 1945 and began construction of their urban freeways. In 1952, Houston's Gulf Freeway was the first of the urban freeways to open.

Harris County had the lion's share of the state's vehicle registrations in the postwar years, along with first place in road expenditures. Dallas County captured runner-up honors in registrations and expenditures, but although Bexar County had more vehicle registrations than Tarrant County, Tarrant received more federal expenditures in 1952.

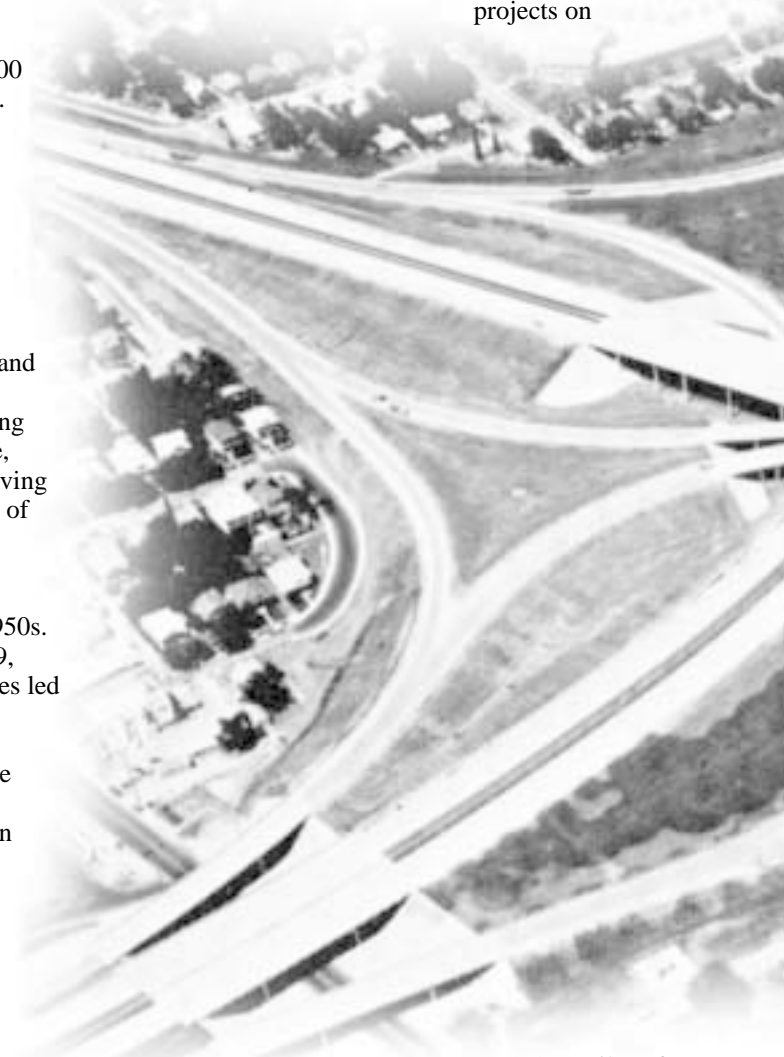
Records of completed construction in the postwar period reveal that while metropolitan counties had a higher percentage of the state's road budgets, smaller counties actually completed more miles. At the end of fiscal 1951, Ellis County led the state in road improvement miles; the miles completed in the same period in Harris, Dallas, and Tarrant counties combined did not exceed the figure for Ellis. The next year, Lamar County completed the most miles in the

state.

The mid-1950s experienced a boom in Texas road-building. The Federal Aid Highway Act of 1956 designated a national system of interstate highways, with over 3,000 interstate miles in Texas. The designation and construction of the interstate network occurred at a fortuitous time. The legislature, in 1955, had increased the gasoline tax, providing more revenue for the department to construct and maintain roads. The department began building freeways across the state, learning from and improving upon the first generation of postwar urban freeways. Freeway construction in metropolitan counties accelerated in the late 1950s. By the end of fiscal 1959, Dallas and Harris counties led the state in the cost of completed miles.

Freeways were not the only focus of the department's construction program. The Colson Briscoe Act of 1949 authorized an appropriation of the state's General Fund for the construction of farm-to-market roads. Greer had been very influential in the composition and the passage of the FM Road bill; since his early years in East Texas, he had pledged to improve farm roads. In fact, Texas' farm-to-market road program had started prior to the passage of the Colson-Briscoe Act. By Aug. 31, 1948, the department

maintained more than 5,300 miles of farm-to-market roads, but this figure exploded after 1949 with the new appropriation. By mid-1951, the department had paving projects on



2,425 miles of farm-to-market roads; fiscal 1959 saw the completion of improvements to almost 7,000 miles on the farm-to-market system, which had grown to a system of more than 30,000 miles. From 1949 to 1960, the department spent almost \$152 million on farm-to-market road construction and

Looking back at TxDOT...80 Years of Progress

maintenance.

The department expanded in the postwar period to meet the needs of the road construction boom. Beginning in the late 1940s, new divisions with specialized operations were created, some the product of a merger of existing offices and divisions. The department expanded its services to the public in the creation of the Division of Information and Statistics in 1953, which became the Travel and

Information

environmental factors in road design and construction. The National Historic Preservation Act of 1966 further required the department to evaluate the effect of its projects on cultural resources located on the project corridor. The Environmental and Community Factors Section and the Archeology Section were created within the Highway Design Division to oversee the department's new environmental responsibilities in 1970.

With the majority of Texas' interstate network of 3,200 miles completed by the mid-1970s, the amount of new road construction began to taper off, and the department began to focus more on upgrading and maintaining existing facilities. Urban freeways

throughout the state were widened and expanded to accommodate continuing growth in traffic volumes, and suburban freeways and loops were planned and constructed to alleviate inner-city traffic congestion.

Many of the early farm-to-

the state's transportation system besides roadways. In 1975, the highway department became the State Department of Highways and Public Transportation, reflecting its merger with the Mass Transportation Commission. Although Dewitt C. Greer wanted to maintain the purity of the focus of the agency to road-building and opposed the merger, the department adapted to its changing role and undertook the planning and administration of Texas' evolving multimodal transportation network. The department undertook administration of the Gulf Intracoastal Waterway in 1975, adding water-borne transportation to its spectrum of responsibilities. In 1991, the agency merged the Department of Aviation and the Motor Vehicle Commission to become the Texas Department of Transportation.

In recent years, the department has committed itself to proactive planning and roadway design. The Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) required each state to develop transportation systems incorporating multimodal facilities. In 1993, the department embarked upon the transportation enhancements program, receiving applications from municipal and regional planning boards for federal funds to improve non-traditional transportation facilities, such as hike-and-bike trails, water pollution control measures, and historic preservation activities. Rebuilding and reconstructing the historic Hill County Court House, which had been devastated by fire, was the first transportation enhancement project to go to contract. Many other communities have submitted proposals for rehabilitating old buildings on historic transportation corridors, constructing hike-and-bike trails, setting up wildlife observation areas, and other transportation enhancements; as administrator of the program, the department has expanded its role beyond the construction of roads and highways.

The department has also taken a greater interest in preserving its own historic resources. The Greer Building in downtown Austin was the subject of an extensive renovation program in the early 1990s, under which the exterior walls and decorations were cleaned and repaired, and the rich interior finishes of the lobby

Division in 1959, and set up offices to better handle its own internal affairs with the creation of the Personnel Division in 1950. The department also responded to the growing number of environmental regulations governing road construction in the 1960s and 1970s. Passage of the National Environmental Policy Act of 1969 required the department to institute a formal review of

market roads into towns had evolved into major thoroughfares, requiring upgrades to accommodate the mostly urban traffic on these roads. In addition, many bridges had deteriorated over time and required replacement to provide safer, up-to-date facilities.

The department also accepted the responsibility of overseeing other facets of

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ENV, Fort Worth staff exhibit at Oct. 16-18 CAST

By JIM DOBBINS

Environmental Affairs Division

The Fort Worth District staff recently teamed up with the Environmental Affairs Division to provide an exhibit at the

Conference for the Advancement of Science Teaching (CAST), held Oct. 16-18 at the Tarrant County Convention Center.

About 5,000 science teachers, kindergarten through 12th grade, converged on Fort Worth for this annual event.

Sonja Whitehead of the district's Environmental Section was one of those who staffed the exhibit. "I enjoyed CAST. I think it was beneficial to the teachers, and allowed for some positive interaction with the public. The information that we provided can be used for classroom activities, and ultimately

benefit the students. The whole experience, I felt, was a positive one," Whitehead said.

Visiting teachers had the opportunity to select from a wide variety of literature, including posters, stickers, brochures and flyers detailing TxDOT's involvement with environmental and educational issues. Videotapes, including a selection of "Don't Mess with Texas" spots, were an integral part of the TxDOT booth.

Fort Worth staffers Robert Perales, Bill Page, Chad Lorange and Judy Johanson also helped make the exhibit a success.

Game: Fun training

(Continued from Page 3)

dictate cash bonuses, while others constitute monetary penalties!

District and division administrations have selected a total of 68 trainers to bring this class to their personnel. These trainers are presently being trained. Ten class kits have been assembled and will be rotated around the state as classes are conducted.

ENV Environmental Quality Specialist Terry Dempsey was one of the first graduates of "Environmental Pursuit."

"The strength of the class is that it conveys a broad-based understanding of fundamental environmental issues in non-technical terms, so that it is easily understood by most anyone" said Dempsey. "The class goes through a variety of pace changes - discussions, videos, questions - that prevent the class from becoming tedious."

Mary Perez is an Environmental Quality Specialist in the Corpus Christi District and an "Environmental Pursuit" trainer. Perez likes the flexibility that the class gives trainers.

Said Perez, "We plan to use the class as a forum to educate our district staff about local environmental issues and concerns. The material allows us the flexibility to focus on what is important in our district."

Can't wait to take "Environmental Pursuit"? Look for class notices in your workplace and sign up soon. Who said learning has to be dull?

EPA: New standards set for ozone, PM

(Continued from Page 1)

An area will exceed the new ozone standard when the three-year average of the fourth highest daily ozone levels (measured over an eight-hour period) from each year is greater than 80 ppb. The EPA will designate new nonattainment areas for ozone in 2000.

Based on projections of current data, Austin, San Antonio and Tyler-Longview-Marshall will join Beaumont-Port Arthur, Dallas-Fort Worth, El Paso, and Houston-Galveston as ozone nonattainment areas under the new standard.

The EPA also established a new annual and 24-hour particulate matter standard of 2.5 micrometers or less (known as PM 2.5).

This pollutant is typically referred to as "fine particulate," whereas the existing PM10 standard is known as the "coarse particulate." The PM10 standard essentially stayed the same and remains in effect in addition to the new PM2.5 standard. The EPA will designate new nonattainment areas for PM10 in 2000.

The EPA has determined that the new PM2.5 standard warrants further scientific study that includes the development of a PM2.5 monitoring network and the gathering of three years of data from PM2.5 monitors. The EPA will designate new nonattainment areas for PM2.5 by 2004. Currently only El Paso is in noncompliance with the PM10 standard and a very preliminary projection places Houston and Corpus Christi in noncompliance with the new PM2.5 standard.

El Paso: Paint on 13 bridges resealed

(Continued from Page 1)

and concrete beams and girders was beginning to flake off. The original 1960s paint was believed to be formulated with lead. The district wanted to prevent potential public exposure to lead particles. The solution was to treat the isolated exposed areas of peeling paint and repaint all 13 bridges to enclose the original paint with an outside coating of lead-free paint. The result contained the lead and avoided the added cost of an expensive decontamination process.

The bridges were painted various

colors to achieve an added aesthetic benefit. Richard Mason, district landscape architect, chose colors that reflect El Paso's ambiance as a border city. Three wall murals were painted, designed to create visual continuity among three adjacent walls.

The El Paso District successfully completed the I-10 bonded overlay, corrected potential environmental problems and created visual accents that add to El Paso's setting as a bridge between cultures.

Looking back at TxDOT...80 Years of Progress

(Continued from Page 7)

and public rooms were restored to their 1933 grandeur. The department has also undertaken a comprehensive survey of the state's metal truss bridges, nominating 33 of them to the National Register of Historic Places. The Environmental Affairs Division staff is working to compile an inventory of Depression-era work relief program structures, including

historic roadside parks, culverts, retaining walls, and the like. Plans are under way to complete an inventory of the state's concrete and masonry bridges and structures for evaluation of their historical significance.

The Texas Department of Transportation has come a long way in 80 years, although its primary purpose to improve Texas' transportation system

remains as valid today as it was in 1917. Still concerned with creating transportation facilities to best serve the needs of the motoring public, the department has risen to each challenge of expanding its role and responsibilities to balance good engineering, a concern for the environment, public service and progressive planning.

Environmental Affairs Roster of Employees

ADM Administration
Dianna Noble, director 2734
Ken Bohuslav, deputy director & legislative liaison 2605
 Judy Hewson, director's adm. asst. . 2734
 Amy Jackson, adm. support 3001
 Human Resources Officer (vacant) .. 2761
 Rene Chadwick, HR specialist. 2570
 Dee Dee Broberg, Info. Resource Adm. ... 2578
 Jennifer Gaa, GIS & automation 2782

PIO Public Information & Communications
Jean Oliver, section dir. 3171
 Jim Dobbins, info.spec. 3006
 Richard Goldsmith, ENVision 2743
 Greg Quinn, photo/graphics 2616

PM Project Management
Ken Bohuslav, acting dir. 2605
 Pat Gonzalez, adm. support 3002

Field Area I
 Tom Bruechert, supervisor 2735
 Julie Lane, dist. coordinator 2612
 Jenise Walton, dist. coordinator 2763

Field Area II
 Elvia Gonzalez, supervisor 2610
 Greg Wood, dist. coordinator 2638

Field Area III
 Jeff Casbeer, supervisor, 2615
 Tony Horne, dist. coordinator 2611
 Emmett (Trey) Rushing, dist. coord. 2784

The Division's main number is 512-416-3001. To dial an individual direct, use the 416- prefix plus that person's four digit extension. Main fax, -2746; alternative fax numbers, -2643, -2319

NRM Natural Resources Management
Eddie Sutherland, section dir. 2608
 Sherry House, adm. support 2691

Biological Resources Branch
 David Dunlap, supervisor/biologist .. 3014
 Ken Holmes, staff biologist 2786
 Bill Hood, staff biologist 2623
 Kim Jenkins, staff biologist 2733

Water Quality Resources Branch
 Carlos Swonke, supervisor 2625
 Kristie Denton, water qual. spec. 2607
 David VanGorder, water qual. spec 3012
 Wendy Worthy, water qual. spec 2644

PPA Pollution Prevention & Abatement
David Boswell, section director 3007
 Carol Caldwell, adm. support 2606

Air & Noise Branch
 Melissa Neeley, supervisor 2620
 Mike Shearer, noise 2622
 Bill Knowles, air quality 2624

Hazardous Materials Branch
 Bill Curra, supervisor 3008
 Scott Christopherson, field area I 2753
 Terry Dempsey, field area II 3010
 Field area III (vacant)
 Don Hill, haz. mat. 3009
 Erin Trujillo, haz-mat 3232

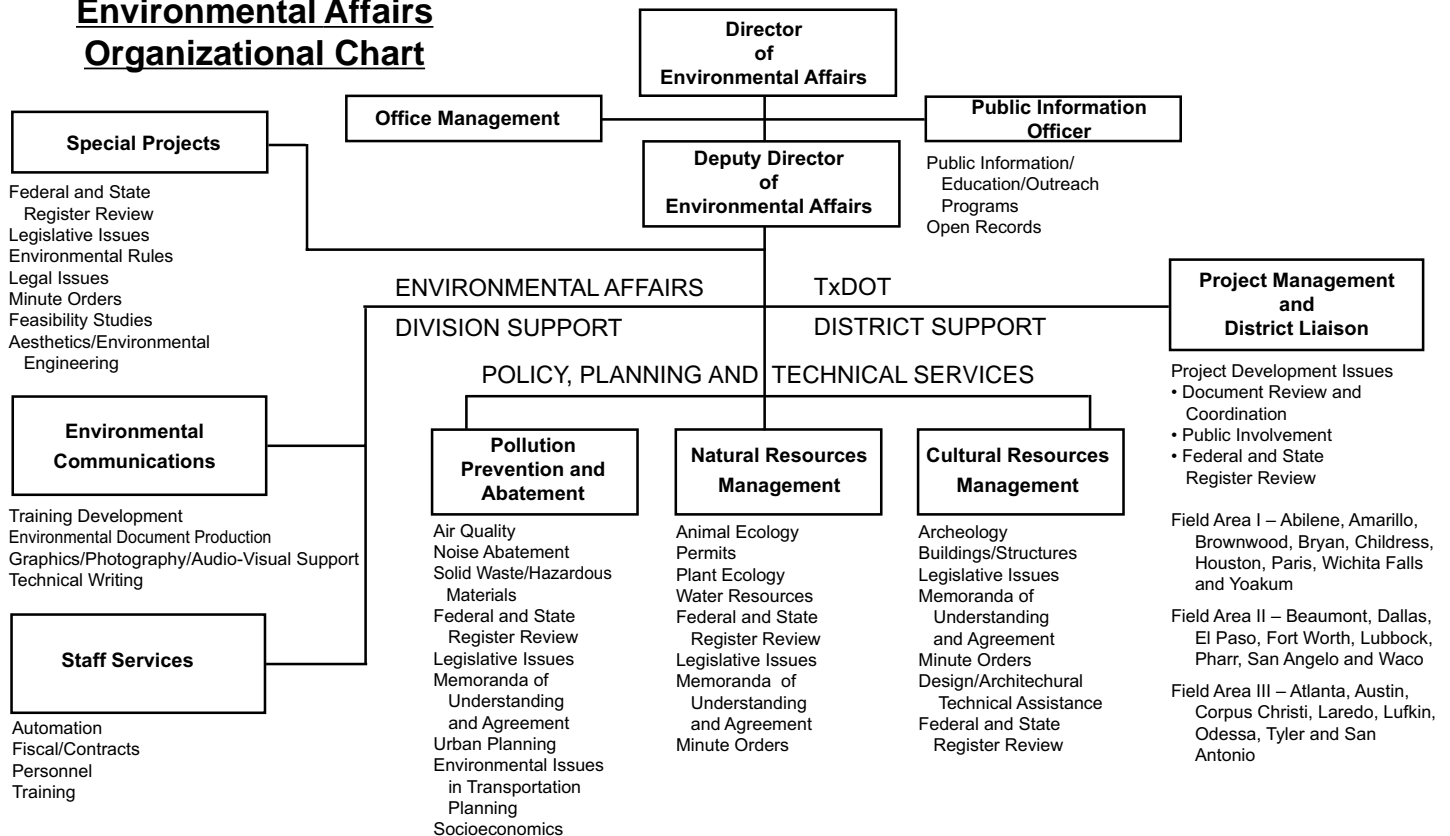
CRM Cultural Resources Management
Ann Irwin, section dir. 2626
 Suzie Watson, adm. support 2617
 Chuy Gonzalez, support, lab, library 2641

Archeological Studies Branch
 Nancy Kenmotsu, supervisor 2631
 Jim Abbott, geoarcheologist 2758
 John Clark, historical archeolog. 2635
 Daymond Crawford, survey archeolog. 2640
 Diane Dismukes, archeologist 2632
 Lain Ellis, archeologist 2109
 Glenn Goode, archeolog./pre-hist. 2634
 Sterling Hays, archeolog./pre-hist. 2583
 Barbara Hickman, archeologist 2637
 Al McGraw, archeologist./research 2613
 Dennis Price, archeolog./pre-hist. 2636

Historic & Socioeconomic Studies Branch
 Barbara Stocklin, supervisor 2628
 Tom Eisenhour, preserv. architect 2619
 Orlando Jamandre Jr., socioecon. 3005
 Laurie Marder architectural hist. 2309
 Rick Mitchell, architectural hist. 2329
 Steve Sadowsky, architectural hist. 2729

Texas Historical Commission Contract
 Amy Arnold, historian 2785
 Daniel Harris, historian 2133
 John Murphy, historian 2110
 Pat St. George, graphics 2757

Environmental Affairs Organizational Chart



Babies and new staffers welcomed

While we don't usually report on the arrival of babies here at ENV, we don't usually have so many at once. Three division staffers gained family members in a three-week period of August.

David VanGorder, of the Natural Resources Management Section (NRM), and his wife, Amy, welcomed Ross Christian VanGorder (10 pounds, 11 ounces, 21 inches) into the world on Aug. 4. Ross is their second child.

Bill Knowles, of Pollution Prevention and Abatement, and his wife, Carolyn, are now proud parents of Abigail Rose Knowles (7 pounds, 11 ounces, 20 1/4 inches) born Aug. 12, their first child.

Sherry House, administrative support

for the NRM and Communications sections, and her husband, Tracy, welcomed their second child, Kristie Marie House (8 pounds, 13 ounces, 20 1/2 inches) on Aug. 21.

The division has begun a thorough environmental assessment of its building's water supply.

Since ENVision last appeared, ENV has welcomed four new employees and has had to say "so long" to two staff members.

Trey Rushing joined the Project Management Section as of July 15. He handles the Atlanta, Laredo and Lufkin districts.

Rushing is an environmental geologist

whose master's thesis was on the geochemical alteration of ground water in the Carrizo sand aquifer of Anderson County. After he finished graduate school at Stephen F. Austin University in 1987, he managed the underground storage tank program in the Tyler office of the Texas Water Commission, which later became part of the Texas Natural Resource Conservation Commission (TNRCC). In 1991, he left the TNRCC to open his own environmental consulting business in Nacogdoches. He moved his consulting business to Austin in 1995. In Austin he also taught asbestos and lead-based paint courses and monitored air at asbestos abatement project sites. In addition to his Project Management duties, Rushing is also working with Bill Curra of the Pollution Prevention and Abatement Section (PPA) to establish a TxDOT policy for dealing with lead-based paint in the right of way.

Todd Ashby, who was part of ENV's Project Management Section, is realizing a lifetime dream. Ashby left Sept. 19 and is now in the Department of Public Safety's officer training school to become a highway trooper. Ashby hopes to later become a Texas Ranger. "...I couldn't have been going that fast, honest officer Ashby..."

Diane Dismukes is the latest addition to the Cultural Resources Management Section's Archeological Studies Branch. Dismukes started Sept. 15 and will handle archeology issues for the Dallas, Fort Worth and Paris Districts.

She earned a master's degree from the University of Houston where she devoted field and lab work to historical archeology. Her thesis was in her area of specialization, zooarchaeology or faunal analysis. Dismukes also has an undergraduate degree in business from Texas Woman's University. For the past four and a half years she has been co-owner and president of BC & AD Archaeology, Inc., a small projects cultural resources management firm in Houston. She has also worked for other cultural resources related companies as a field worker and project assistant and gained experience in the excavation of shell middens on the Texas Gulf Coast.

Amy L. Arnold, a Texas Historical Commission (THC) contract historian,

(See ENV, Page 11)



Jamandre's Jumbly Word Jambalaya

by Orlando Villa Jamandre Jr.

Unscramble the five jumbly words (one letter to each square or circle) to form five ordinary words and then arrange the circled letters to form the answer to the puzzle.



A federal law that protects golf courses...

FONTE



CAMPIT



VERSID



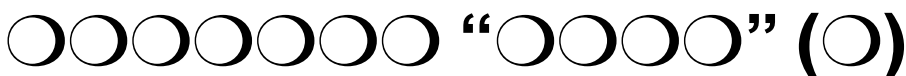
JOCREPT



TREUFU



Print your answers in the circles below
(Answers on back page).



ENV: Historian welcomed

(Continued from Page 10)

joined ENV Oct. 20 as part of the Cultural Resources Management Section's historic concrete bridge survey team. Arnold will receive her master's degree in historic preservation from Eastern Michigan University in December. She received her bachelor of arts degree in history/anthropology from Western Michigan University. Arnold interned three times with the Michigan State Historic Preservation Office where she provided support in the development of Michigan's five-year state historic preservation plan and wrote National Register nominations for state-owned buildings. She recently completed a survey of the historic structures and landscape features of the state parks in Michigan's Upper Peninsula. She also held an internship with the City of Toledo conducting Section 106 Review.

Courtney Dumas joined ENV's Information Resources staff Oct. 20 on contract for about a year. He will be upgrading ENV's tracking system. Dumas earned his bachelor's degree from the University of Tulsa, Oklahoma, in management information systems and has more than 10 years of computer experience.

Wendy Worthy has moved from the Hazardous Materials Branch of the Pollution Prevention and Abatement Section to the Water Quality Branch of the Natural Resources Management Section (NRM) as of Oct. 1. She will handle environmental assessments for the Brownwood, Childress, Houston, Lufkin, Tyler and Waco districts. She will also handle training issues, Section 404 permits and Coastal Management Program issues.

Worthy has an undergraduate degree in wildlife conservation and management from Southwest Missouri State University and a master's degree in environmental biology from the University of Louisville. She came to ENV May 15, 1996.

Lana Meredith, ENV's human resources officer, left as of Oct. 2 after two years and three months for a new position as the human resources administrator for the Austin office of an engineering/construction company that designs and builds clean rooms for the high tech industry.



BrainBender

by CRM's Steve Sadowsky



Project Management

Find the names of these common Project Management terms and of ENV's Project Management team listed in the column at right in the puzzle below. Names may be horizontal, vertical, diagonal, and in reverse order. Letters may be used more than once. (Answers on Page 8.)

S P P L T S I H C A O I R O G L N
 A O M A C L E A R A N C E N T A A
 I S N I S U S N I A S L I L E E T
 B T N E M U C O D B V D A N I P A
 G T T Y E K I I M I N U M L E G A
 M O N O M R L S A U T L U O R R U
 A F F E J C B U F O N J D G L B G
 I H L A M E U L C T E N N I E S C
 M I A A X S P C A T M I A A T I O
 F S L J A T S X C A E N R H T O M
 A L S S E A E E H R E I O A E I M
 T A F P A T T L S O R L M R R R I
 L O Y G G E R A V S G M E P O E T
 R I N I R M O C S L A E M N F N M
 D K O E H E N I A R Y E S L A B E
 L E T T I N G R G N I T A A U A N
 A N P L A T F O N S I I N Y T N T
 R A U R N T R G E S I N E J H E W
 R I Y D O P O E Y R K G O N O O D
 C R L D P J O T T R N T N E R V Y
 H M D A L H E A R I N G W N I E L
 A O S I N I R C E E S R E R T A E
 A M N D V N A E T E Y J W A Y R D

Agreement

- Ken
- Pat
- Tom
- Julie

Memorandum

- Jenise
- Elvia
- Todd
- Greg
- Jeff
- Tony
- Trey
- NEPA

Commitment

Categorical Exclusion

Programmatic

- Document
- Assessment
- File
- Project
- Clearance
- Letting
- FONSI
- Meeting
- Public
- Hearing
- Letter of Authority
- Statement
- Funding



**Environmental Affairs Division
125 East 11th Street
Austin, Texas 78701-2483**

Address correction requested



Clifton: Having fun

(Continued from Page 2)

renewing his involvement in the barbershop society.

Clifton says he has enjoyed seeing those who worked for him get promotions. For instance, ENV's Director, Dianna Noble, worked for Clifton. So did Houston District Engineer Gary Trietsch.

"Maybe I should have tried to move on up in the organization," he said. He thought about it seriously in the early '90s when so many TxDOT managers took early retirement. But he reasoned that he might retire soon as well, so he stayed put.

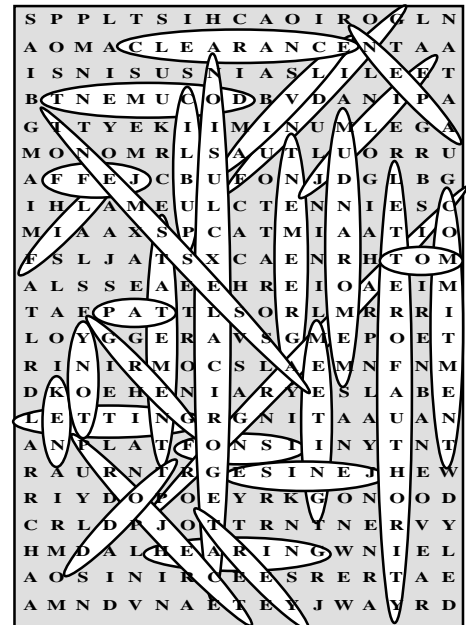
"I don't really regret it," he said. "I've certainly enjoyed what I do and I feel like I've done the world some good."

Jumbly Word Jambalaya Answers

...Often Impact Drives Project Future...

A federal law that protects golf courses... "Section 'Fore' (F)"

Section 4(f) of the Department of Transportation Act of 1966 states that any federal transportation project requiring the use of any publicly-owned land of a public park, recreation area, wildlife refuge, waterfowl refuge, or historic site (of national, state or local significance) must show that (1) there is no feasible and prudent alternative to the use of such land and that (2) the project includes all possible planning to minimize harm to the 4(f) protected lands resulting from such use.



ENVision is a publication of the Environmental Affairs Division, Texas Department of Transportation, 125 East 11th Street, Austin, Texas, 78701-2483.

We welcome ideas for stories and standing features. Submit those to the above address, attention Richard

Goldsmith, phone 512-416-2743 or via GroupWise to RGOLDSMI.

Is ENVision going to the right person in your organization? Please contact us to correct an address or to suggest additions to the mailing list.

**Division Director
Dianna F. Noble, P.E.**

**Deputy Division Director
Ken Bohuslav, P.E.**

**Communications Director
Jean Beeman**

Editor Richard Goldsmith



RECYCLED PAPER
SOY-BASED INK

