

Opportunity knocks via CI TEAM

By **RICHARD GOLDSMITH**
Environmental Affairs Division

A Continuous Improvement Team has identified opportunities for the Environmental Affairs Division and TxDOT districts to increase the speed and efficiency of the environmental coordination process.

The initiative is the result of a five-month Continuous Improvement Team process completed in November 1995. The CI team – made up of ENV and district members – surveyed district and ENV personnel about the environmental coordination process.

The team also interviewed representatives of resource agencies: the U.S. Fish and Wildlife Service, the U.S. Army Corps of Engineers, the Texas Historical Commission, the Texas Parks and Wildlife Department and the Texas Natural Resource Conservation Commission.

The CI findings support encouraging more districts to talk with resource agencies and to take up environmental issues earlier in project planning. Many districts already initiate such contacts and have staff members

qualified to handle portions of environmental project review. ENV will seek to identify steps in the environmental process that districts can carry out without a review by the division. ENV will also identify qualifications needed for district personnel to carry out those steps.

Acting on the CI recommendations will involve separate agreements tailored to each of TxDOT's 25 districts. Those agreements will divide coordination functions between each district and ENV. Some districts are

expected to formally assume most of the coordination process, others to leave that responsibility fully with ENV. In some cases, a formal agreement will recognize responsibilities that have already been assumed informally at the district level.

A majority of the districts have indicated a willingness to take formal responsibility for at least part of the environmental coordination process. Houston and Tyler are the first districts expected to enter into a formal

See CI team, Page 10

In this issue

*Odessa District
aids habitat
of tiny fish,*

Page 2

*Pharr District
works to spare
Brown Pelicans,*

Page 6

*GIS plays role,
in environmental
project planning,*

Page 9

Ken Bohuslav enjoys role as ENV resource

By **RICHARD GOLDSMITH**
Environmental Affairs Division

Ken Bohuslav, deputy division director of Environmental Affairs, never has an ordinary day. That's because he spends much of his time handling the kind of issues that are never quite the same.

"If there's a typical day, it's dealing with problems. It's not routine," he says.

"He's very calm, he never panics," says ENV's Judy Hewson, who spent more than a year as Bohuslav's administrative assistant.

Bohuslav spends most of his time with a phone pressed to his ear answering questions and working to find solutions to the conflicts inherent to environmental work.

At age 46, Bohuslav already has 23 years with TxDOT, most of that in the environmental field. When he joined TxDOT he planned to stay no more than

five years. Now, not only does he know environmental policies and regulations, he knows how they evolved.

"Because of my experience I'm used a lot as a resource," he said. "I enjoy talking to people and working with people, but it means I have to delegate a lot of things even though I like technical work. One of my biggest rewards is knowing I have the opportunity to develop staff, help them grow and see that their job becomes more rewarding for them."

Bohuslav graduated from the University of Texas in 1972 with a bachelors degree in Civil Engineering. He chose engineering because he likes the systematic approach it involves to problem solving, a trait he says might have served him equally well if he had studied law or geology.

"It's also appealing to me to see

See BOHUSLAV, Page 3

TxDOT's Odessa District helps create habitat for two tiny endangered fish

By **GLEN LARUM**
Odessa District

Organizations as diverse as the National Cotton Council and the Texas Organization of Endangered Species have described the Balmorhea Cienega Project as “the classic win-win situation.”

“In the current adversarial climate surrounding the environment, that is an achievement of major proportions,” said Odessa District Engineer Jose E. Morales. Morales credits his predecessor, Marshall Huffman, who has since retired, for TxDOT’s role in the project.

“Marshall’s interest was an important reason the cienega construction project was completed,” Morales said.

A dedication ceremony May 3 at the state park site, just west of Balmorhea in West Texas, will cap 18 months of work and cite the contributions of all the partners in the project, including TxDOT and the Texas Parks and Wildlife Service.

The Balmorhea Cienega Project reconstructs a once-existing desert wetland (*cienega*) for two federally endangered fish species, Comanche Springs pupfish (*Cyprinodon elegans*) and Pecos Gambusia (*Gambusia nobilis*).

“All that had remained of their native habitat were irrigation canals and a single refugium canal at Balmorhea State Park, remnants of a desert wetland that was dried up in order to more efficiently deliver water for irrigation to local agriculture operations,” Morales said.

“The cienega project has a two-fold aim,” he explained. “The first aim is to provide for water rights to Balmorhea State Park. The second aim is to enact a mechanism to prevent local cotton farmers from being shut down for negatively impacting an endangered species.”

The innovative solution capitalized on



Odessa District Photo

The rebuilt desert cienega near Balmorhea that TxDOT helped build.

the Endangered Species Act provisions that safeguard the spring flow, guaranteeing water for the park. Once the water flows through the fish habitat, it then is available for other uses, such as irrigation.

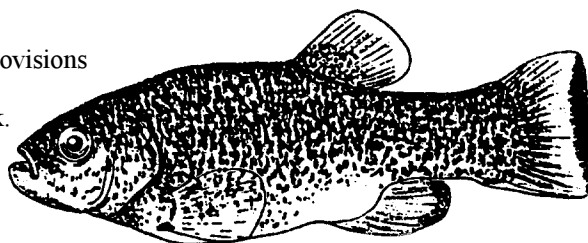
Early on, TxDOT became one of the key players in the project.

“We provided a detailed survey of the site, developed contour maps to aid in cienega construction, drew up project construction plans and provided heavy machinery and operators for construction,” Morales said.

The prize-winning project (cited by the Texas Parks and Wildlife Department in its first-ever recognition awards) offers an important benefit to TxDOT, according to Morales.

“It banks mitigation credits for TxDOT to use whenever a future highway construction project requires the destruction of existing wetlands,” he said.

All the TxDOT work was performed by



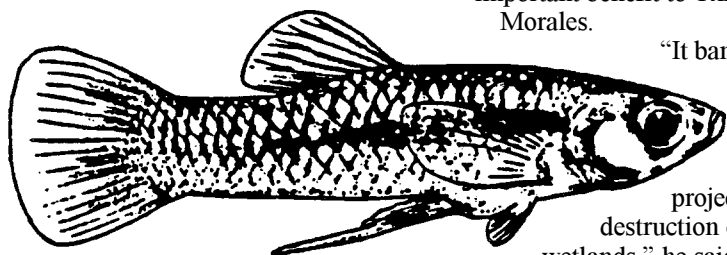
Comanche Springs Pupfish is 1.3 to 1.8 inches long

maintenance employees in the Balmorhea Maintenance Section, under the supervision of Balmorhea Roadway Maintenance Supervisor Jose Rodriguez and Pecos Area Engineer Russell Whitworth.

“We did a number of things,” explained Rodriguez, “including constructing of inflow and outflow structures at the cienega, installing of above-water and under-water viewing platforms, and constructing the pond itself.”

“This unique project emphasizes the opportunity for TxDOT to lend its considerable expertise to the creation of “win-win” situations for a variety of environmental interests,” Whitworth said. “It is also a wonderful educational site for visitors to the park.”

“Texas is a richer place when all Texans work together,” he added.



Pecos Gambusia is 1.2 inches long.

Bohuslav: No such thing as an ordinary day

Continued from Page 1

something built. I think that's why I moved in that direction (engineering)," he said.

He joined the department in 1973 as an engineering assistant with the Highway Safety Improvement Section. That job gave him the opportunity to work in a new program, developing federal safety programs. The section looked for locations with a high number of accidents and then worked with the districts "to see what we needed to do."

"Safety was really on the cutting edge then," Bohuslav said. "We saw dramatic changes in accident reductions at the locations we targeted."

In 1981, Bohuslav moved to the Environmental Section of the Highway Design Division "to take on a different challenge. I could see a lot more emphasis would be placed in that area," he said.

Except for two years in Field Area I of the Highway Design Division in the mid-'80s, Bohuslav has stayed in the environmental arena.

He became director of the Design Division's Environment Studies Section in 1987. A separate Environmental Affairs Division independent of the Design Division was created in 1992 as a policy making arm of the department. In October 1993, the current Environmental Affairs Division was created by combining the ENV division with Design's Environmental Section. Bohuslav was named deputy division director of this new and larger organization in early 1994.

When TxDOT went through Sunset review in the early '90s, Bohuslav said it drove home to the department the importance of responding to the public's concern for the environment.

"Before we went through Sunset I think the department felt very secure in the job it was doing and the public perception of us. I think what we realized through the process was that our perception of ourselves was not necessarily that of other people."

From its inception in 1917, TxDOT worked hard to create a unified system of paved roads and bridges. A new road was then perceived as something positive and the public wasn't sensitive to pollution or land use changes. Sometime in the 1970s, however, the emphasis switched from building new projects to maintaining what existed. With that transition came a better

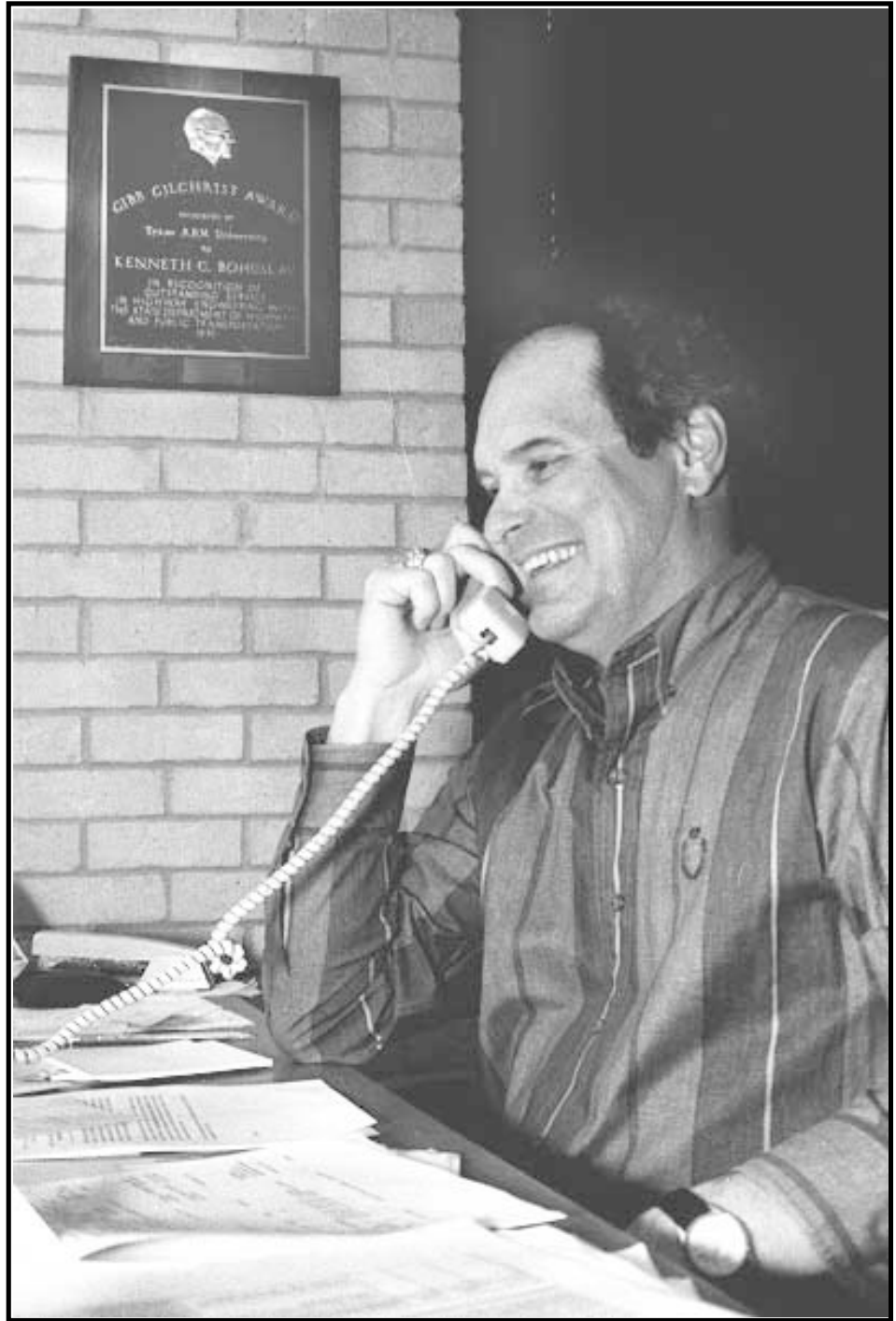


Photo by Richard Goldsmith

Environmental Affairs Deputy Division Director Ken Bohuslav flanked by the Gibb Gilchrist Award hanging on his office wall.

educated public, most of whom have never known not having good roads.

"What we're dealing with now is a customer who wants the best system, but doesn't want to see it or smell it or hear it. They just want it to be there when they

need it," Bohuslav said.

Because of that he says, it is no longer enough to provide safe, efficient transportation systems at the lowest possible cost.

See BOHUSLAV, Page 11

San Antonio District's FM 1517 project tree mitigation benefits State School

By Barrlynn J. West, Jr.
San Antonio District

The San Antonio District found an ideal off-site mitigation solution when a project to widen FM 1517 couldn't avoid taking a stand of trees along a creek.

FM 1517 (Eckhart Road) is in a suburban area of northwest San Antonio. Construction is in progress to widen 1.8 miles of the two-lane road to a four-lane curbed roadway with a continuous left turn lane. The improvement project includes replacement of the existing drainage/overflow structure at Huebner Creek.

To prevent flooding of the roadway, the larger proposed drainage structure required clearing, realignment and reshaping of the creek channel for 60 feet upstream and 500 feet downstream. Tree mitigation was included in the design, such as using portions of existing creek embankments where possible to minimize excavations. However, the channel work could not avoid removal of a dense stand of cedar elm and hackberry along with oak and persimmon trees that are part of the riparian environment along the creek.

Consultation with the Texas Parks and Wildlife Department and the United States Fish and Wildlife Service resulted in a mitigation plan to compensate for loss of the trees. Several on-site options were considered. However, development adjacent to the easement and the number of existing trees within the channel left no room for more trees.

Also, the drainage easement is in a 100-year floodplain and hydraulic calculations showed that trees could not remain in the channel without raising the elevation of the 100-year flood, a violation of San Antonio's "zero tolerance" Floodplain Ordinance.

Because mitigation could not be achieved on-site, off-site options were explored. In the quest for a suitable mitigation site, the San Antonio District learned that the State School, part of the San Antonio State Hospital Complex, needed trees for a planned nature area with hiking trails for their patients. This area on the southeast portion of the hospital complex also includes an unnamed tributary of the San Antonio River,

satisfying the need to mitigate within a comparable riparian environment.

After talks with the State School, 125 trees were planted Jan. 15 by the FM 1517 contractor on about 2.5 acres. The trees are pecans, cedar elms, burr oaks and Mexican live oaks, types likely to grow well along the creek. The trees are concentrated where a draw and the unnamed tributary to the San Antonio River intersect.

TxDOT's contractor will maintain the trees for three months. Then the State

School will take over. The trees should have a higher survival rate in this environment, as opposed to being planted along the highway, because they are not as subject to theft and will be maintained by the State School. In addition, TxDOT will not incur any cost for the maintenance of the trees after the initial three months.

Planting trees at the State School enabled the San Antonio District to meet mitigation requirements and enhance the environment while establishing a scenic area for State School residents to enjoy.

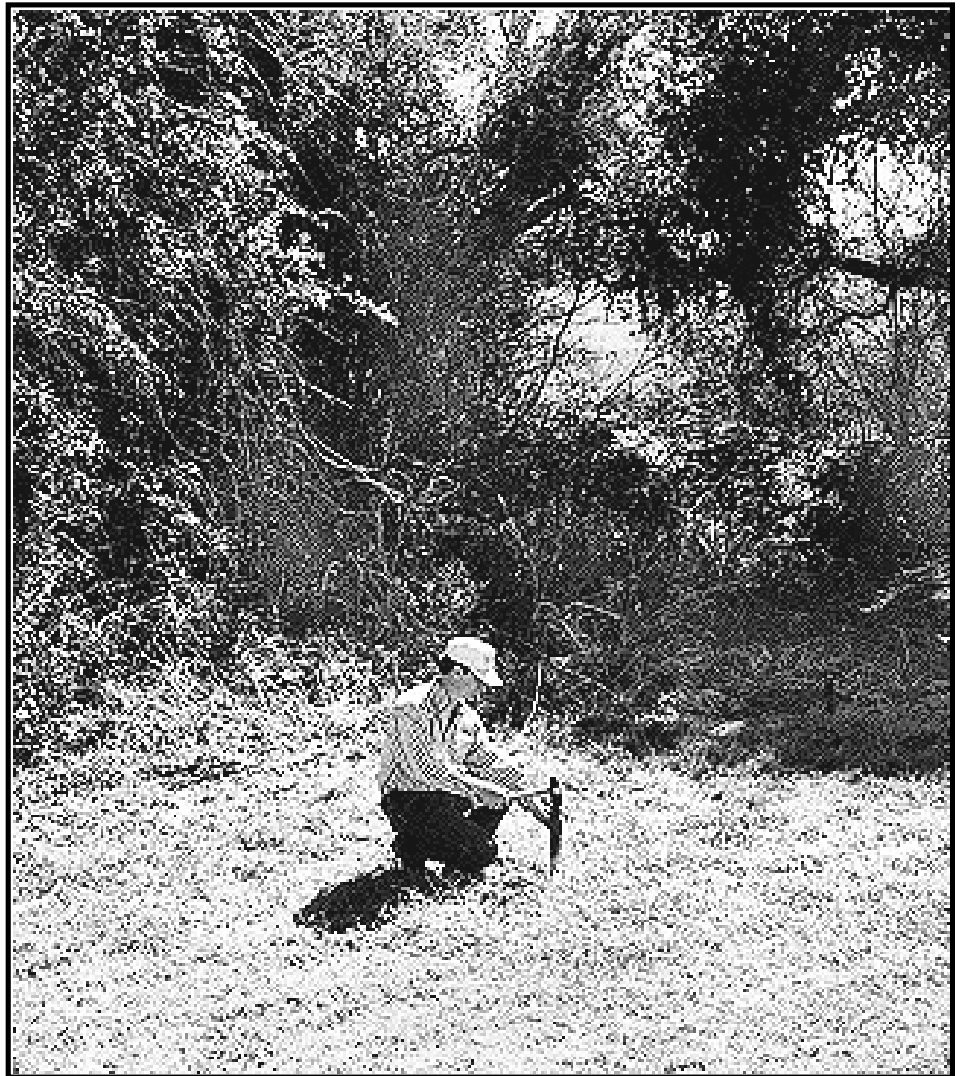


Photo by Barrlynn West

San Antonio District Vegetation Manager Marvin Hatter stakes tree locations adjacent to a tributary of the San Antonio River for the FM 1517 tree mitigation project.

Historic Austin bridge restored

By JIM DOBBINS

Environmental Affairs Division

Faced with the vexing choice of either keeping a historic bridge that did not meet federal safety standards or replacing the span, TxDOT helped the City of Austin make the Deion Sanders-like decision to do "both."

West Austin's one-lane Huck Slough Bridge, also known as the Mount Bonnell Road Bridge, stood to be demolished to make room for a modern two-lane replacement. Earmarked for destruction by Austin in 1984, the span was saved due both to protests by preservationists and a drop in city tax revenue caused by the mid-1980s real estate bust.

The city-maintained bridge was eligible for the federal bridge replacement and rehabilitation program. Structures eligible under this program receive 80 percent federal funding, with state and local entities responsible for the remaining 20 percent, as well as acquisition of any additional right of way. Because TxDOT administers federal highway dollars spent in the state, the Environmental Affairs Division's Cultural Resources Management Section became involved in the effort to save the 74-year-old structure.

One of only about 60 Warren polygonal chord pony truss bridges left in Texas, Huck Slough Bridge is also significant because it has been altered very little since it was built. The bridge is one of the few remaining truss bridges in Austin and for many years served as the gateway to scenic Mount Bonnell, a 775-foot promontory overlooking the city, Lake Austin and the Hill Country. This uniqueness makes the bridge eligible for the National Register of Historic Places.

Huck Slough Bridge was built in 1922 by the Austin Brothers Bridge Company of Dallas on a contract let by the Travis County Commissioners Court for the now bargain price of \$1,999. At 100-feet long and 16-feet wide, the steel-frame bridge supports a timber deck covered by asphalt. Because the steep approach to the crossing proved to be precarious for some, the bridge was raised 12 feet in 1929 by the same contractor who built it. The lower, original bridge foundations are still visible.

In late 1994, the contract for the new bridge and the refurbishment and conversion of the old one into a pedestrian crossing was let to the same company –



Photo by Richard Goldsmith

The old Mount Bonnell Bridge (background) coexists with the new.

now called Austin Bridge Company – that built the bridge 72 years earlier. Completed in August of last year, the project cost \$544,788.

'Instead of the historic issues being an afterthought, or something looked at late in the process, in this case all the parties cooperated early on to come up with the best solutions to preserve the bridge.'

—Barbara Stocklin

Because of the historic significance of the project and to ensure success, TxDOT employees from the Environmental Affairs Division (ENV), the Design Division and the Austin District worked with representatives from the City of Austin, the Texas Historical Commission, neighborhood associations and the contracting company. Jeff Cotham of TxDOT's Design Division served as structural designer for the project. Cotham found that aesthetic considerations and "making everybody happy" were the most challenging aspects of this

team effort.

Barbara Stocklin, a historic preservation planner with ENV, said the project succeeded because the involved agencies and groups were brought in early to make design decisions. The final plan was chosen by consensus from a variety of options available on each design issue.

"Instead of the historic issues being an afterthought, or something looked at late in the process, in this case all the parties cooperated early on to come up with the best solutions to preserve the bridge," Stocklin said.

Mike McKissick of TxDOT's Austin District and Mark Chandler of Austin Bridge Company served as project managers.

Because of the steep terrain, McKissick found that building retaining walls for the project was a challenge. This was overcome by increasing the wall segments from their typical 4.5 feet length to 12 feet.

Another obstacle encountered by McKissick came when the pier for the new bridge was placed. The City of Austin's Davis Water Treatment Plant owns the land under the bridge. A number of pipes run underground in the area, connecting the plant with the water

See BRIDGES, Page 12

Pharr District works to end Brown

By **VELMA GARCIA**
Pharr District

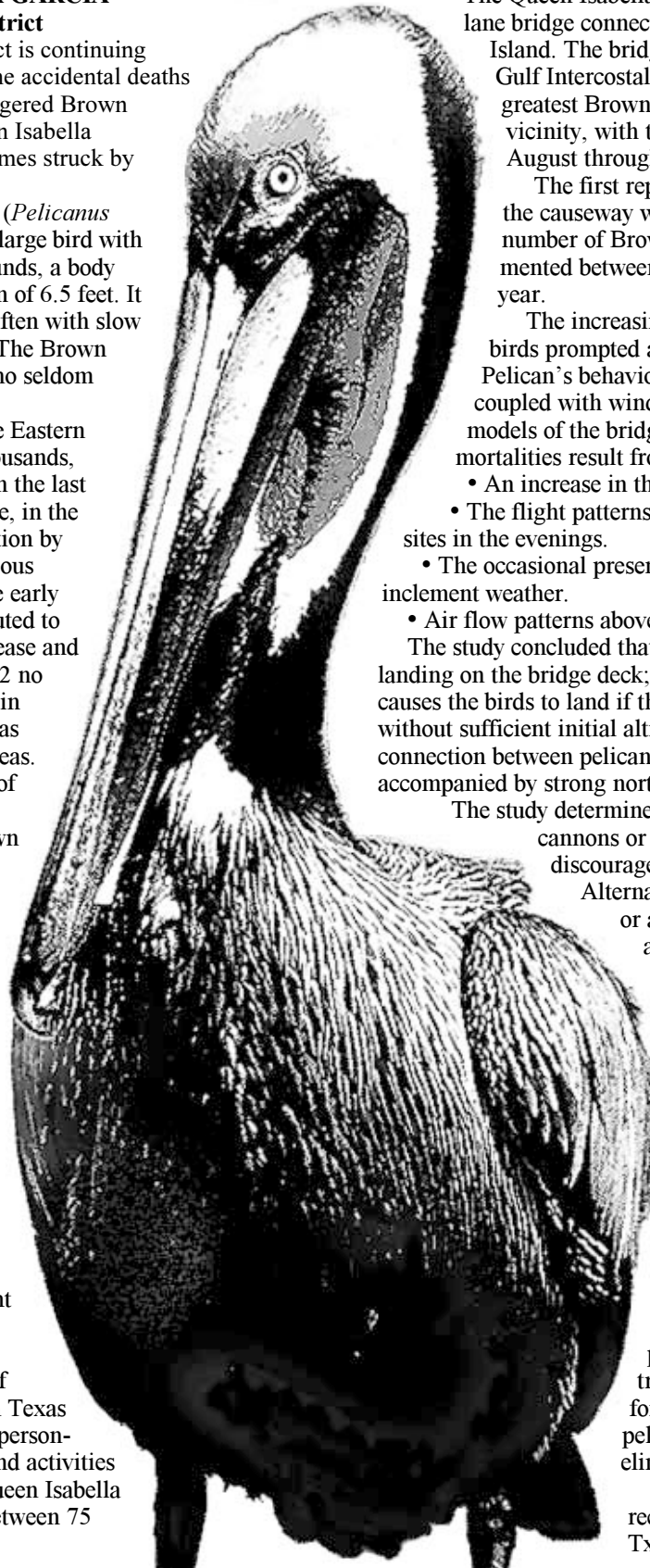
TxDOT's Pharr District is continuing efforts to eliminate the accidental deaths and injuries of endangered Brown Pelicans that land on the Queen Isabella Causeway and are then sometimes struck by vehicles.

The Eastern Brown Pelican (*Pelicanus occidentalis carolinensis*) is a large bird with an average weight of 7.5 pounds, a body length of 4 feet and a wingspan of 6.5 feet. It flies 14 to 35 miles per hour, often with slow wing beats close to the water. The Brown Pelican is a coastal resident who seldom strays inland.

The Texas population of the Eastern Brown Pelican, once in the thousands, suffered two serious declines in the last hundred years. The first decline, in the 1930s, was a result of persecution by fishermen. A second more serious decline became apparent in the early 1950s. This decline was attributed to severe weather conditions, disease and exposure to pesticides. By 1962 no Brown Pelicans were reported in locations that formerly served as either wintering or breeding areas. In 1971, the U.S. Department of the Interior placed the Texas subspecies of the Eastern Brown Pelican on the endangered species list.

Audubon Christmas Bird Counts from 1974 to 1994 illustrate the dramatic recovery of the Brown Pelican in Texas. Nine birds were sighted in Texas in 1974 and none in 1976. However, since 1977, when 29 birds were sighted, the pelican population has steadily increased. The numbers for both South Texas and the Port Isabel/Brownsville area increased steadily between 1984 and 1994. The Christmas Count recorded 86 sightings for this area in 1993 and 78 in 1994.

In early February a group of TxDOT volunteers, along with Texas Transportation Institute (TTI) personnel, observed flying patterns and activities of the Brown Pelican in the Queen Isabella Causeway area and counted between 75 and 100 pelicans each day.



The Queen Isabella Causeway is a 2.4-mile-long, four-lane bridge connecting Port Isabel and South Padre Island. The bridge center span rises 84 feet above the Gulf Intercostal Waterway. A TTI study indicated the greatest Brown Pelican activity is in the causeway vicinity, with the majority of observations from August through October.

The first reported death of a Brown Pelican on the causeway was in September 1984. Since then a number of Brown Pelican deaths have been documented between September and early March each year.

The increasing traffic mortality of the endangered birds prompted a 1988-90 TTI study. The Brown Pelican's behavior was studied and those findings, coupled with wind tunnel studies of the airflow around models of the bridge, led to the conclusion that the mortalities result from a combination of several factors:

- An increase in the pelican population.
- The flight patterns of the birds as they fly to roosting sites in the evenings.
- The occasional presence of strong northerly winds and inclement weather.
- Air flow patterns above the bridge deck.

The study concluded that the birds are not intentionally landing on the bridge deck; rather turbulence above the deck causes the birds to land if they attempt to fly over the bridge without sufficient initial altitude. The study especially indicates a connection between pelican deaths and the passage of cold fronts accompanied by strong north winds.

The study determined that flashing lights, propane cannons or other noise makers are not likely to discourage pelicans from intentionally landing. Alternate roosting structures and platforms or additional railings on the bridge were also found not to be effective.

The study identified traffic control measures as the actions most likely to effectively reduce pelican mortalities.

Several meetings have been held between TxDOT, USFWS, Texas Parks and Wildlife Department, local city and park officials, local citizens, a veterinarian from a local zoo and a professor from a local substation of the university, to discuss the deaths and efforts to preserve and protect the Brown Pelican. It was agreed among those present at the meetings that if the traffic would just slow down to allow for reaction time to miss a downed pelican, the mortalities would be eliminated or reduced.

As a result of these meetings and the recommendations from the TTI report, TxDOT took the following actions:

Down Pelican deaths on causeway

- Flashing signs to reduce speed were installed at each end of the bridge and at the crest of the bridge (this was done after it was determined that a silhouette sign previously installed was not effective).

- Lights on the causeway were adjusted to turn on 30 minutes earlier in the evenings.

- Changeable message signs were installed at each end of the bridge to warn motorists to slow down and drive cautiously for conditions that may exist on the bridge.

- Windsocks and banners to distract the pelicans were installed on light poles at the crest of the bridge.

- A "Pelican Patrol" consisting of TxDOT personnel was established to patrol the bridge during northers to pick up or assist downed pelicans and activate the warning signs.

- A plan was established to determine who would pick up the birds and where they would be taken. These measures are

enacted during northers and inclement weather months, specifically from September through February.

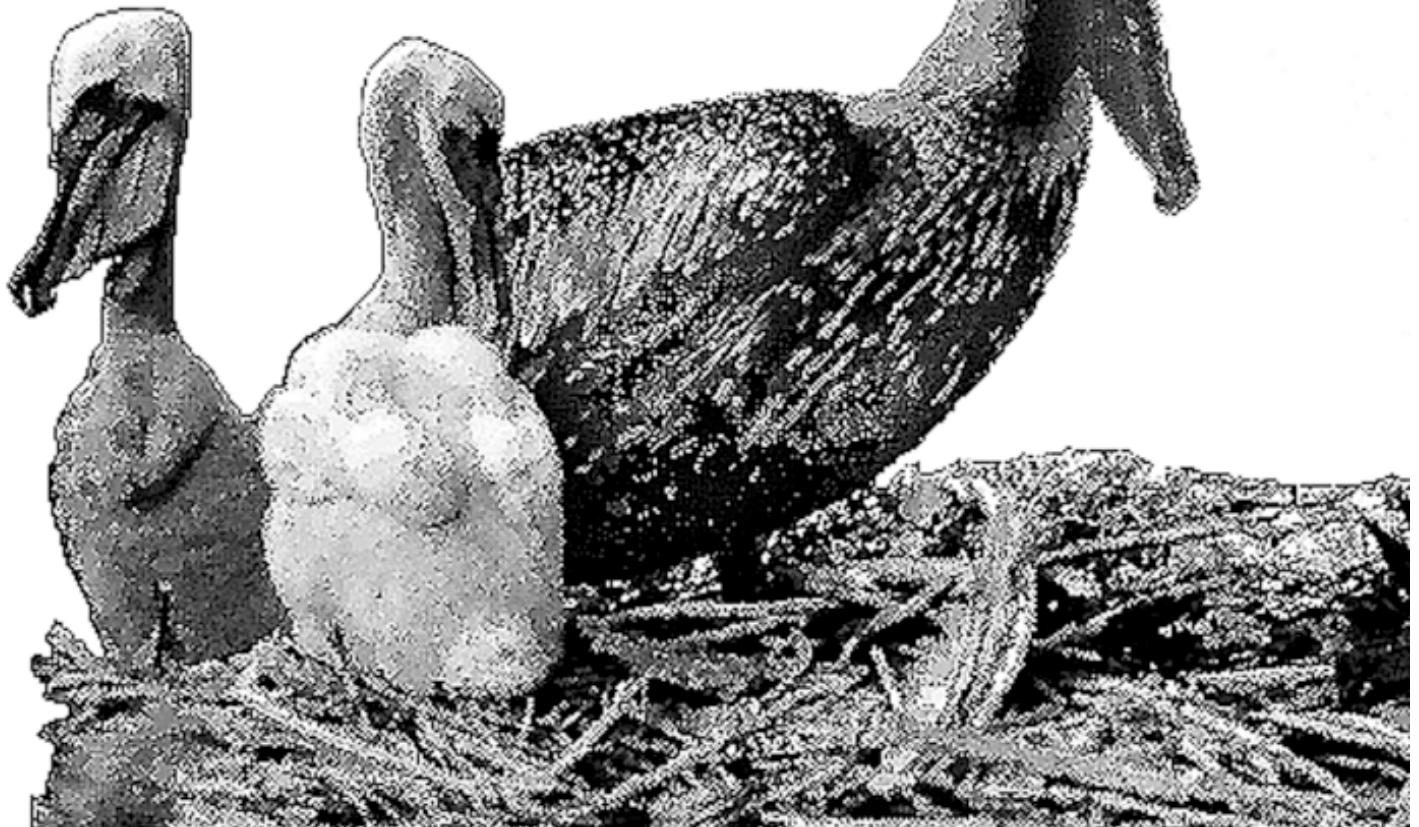
In addition, a public service announcement was produced by TxDOT and has been airing on local, national and international television stations since January. This public service announcement was intended to make the public aware of the pelican population and its endangered status. The announcement encourages motorists to reduce speed on the causeway and provides information on how to assist downed or injured pelicans.

During this winter only four pelicans have died on the causeway, a low number compared to eight last January.

TTI is conducting new research to examine the feasibility of applying advanced technologies, not only to help respond more effectively to incidents on the causeway, but to proactively predict – and therefore potentially prevent – some

incidents from occurring. This could be used in conjunction with the changeable message signs and the flashing warning signs.

TxDOT is also considering other possible mitigation measures to preserve the Brown Pelican. These include adding more banners to the causeway, a publicity campaign to include flyers and posters, adding call boxes at each end of the causeway, and installation of weather monitoring devices to detect northers.



We're trying to live up to your ideas

Before the first edition of ENVision was produced, environmental coordinators at TxDOT's 25 districts were informally surveyed by phone. All but three were reached and they turned up these ideas for the newsletter:

1) Almost all want to read about projects in other districts so they can know problems faced by peers, how those problems are solved and how mitigation efforts are handled elsewhere.

2) Mitigation success stories.

3) Advance warning that a policy change is in the works and updates on policy and regulation changes.

4) A division directory with phone numbers and description of what each person does (see Fall/Winter 1995 edition).

5) Profiles of both division and district personnel with photos to connect names with faces.

6) Current contacts in each region for Fish & Wildlife, Parks & Wildlife, the Army Corps of Engineers, TNRCC and other agencies.

7) General information on endangered species.

8) Interesting projects or oddities encountered.

9) A training course schedule.

10) One coordinator wants to see a list of violations committed by TxDOT districts, the fines and what was done to rectify the violation.

"We don't like to air dirty laundry, but facts are facts. Tell what was done wrong and what was done to correct it so that when we head down that same road, we don't get slapped," that coordinator said.

Many of these ideas have been incorporated into ENVision or will be used in the future. Thanks for the input!

Houston District's Hebert wins APA award for wetlands habitat

By **NORM WIGINGTON**
Houston District

TxDOT's Eastex Wetlands Habitat Project in the Houston District became the first department project recognized by the prestigious American Planning Association (APA).

The project was one of four recognized by the Houston section of the APA's Award Program for 1995. The Project won in the Development in Context category, one of four categories established by the Houston section.

The winning projects were recognized at a special banquet in Houston where a large crystal trophy was awarded. The awards recognize the outstanding efforts of planners, developers, special interest groups and individuals that have exemplified the principles and practices of urban planning.

Humble Maintenance Supervisor James Hebert developed the Eastex Wetlands Habitat Project. The project involved many aspects of current roadside management, including the active intervention of Hebert in the planning process prior to the completion of the new freeway. US 59 North (Eastex Freeway) is under construction in Houston from the downtown area to the Harris County line. At the intersection of the freeway and Beltway 8, Hebert designed a wetlands habitat using native grasses and trees surrounding a pond he designed and stocked with fish from local bayous.

Deputy District Engineer Steven Simmons complimented Hebert and the Humble maintenance office for working "so creatively and imaginatively."

"It is through these kinds of projects that the public becomes aware of the work that is done by this department. I am very proud of Mr. Hebert, his work and his people," Simmons said.

The project is noteworthy for several reasons. Fully mature live oak trees that would have otherwise been destroyed were transplanted from construction clearing areas. Mayhaw and cypress trees grown in the maintenance yard nursery under Hebert's direction were also planted on the site. Native grasses and wildflowers will be established that will remain a non-mowing area. Hebert installed the pond and trees before freeway completion.

Public response to the project has been

immediate and extremely positive. Passing motorists have complimented it and nearby business have asked whether or not a picnic area will be installed on the site. The answer is, of course, no. No parking areas are adjacent to the site and there are no pedestrian walkways to the traffic island. As a wetlands habitat area it is designed to remain a wild place, protected by its moat of traffic. Heron and egrets already fish the pond and flocks of ducks have been seen sitting on the pond.

"I have worked on many kinds of projects,"

Hebert said, "but this one combines most of the smart work we have done over the years — relocating fully mature trees, installing water features and developing native grass areas where no mowing will ever be required."

The site was a dusty construction work zone in June 1995 with no expectation of plantings or vegetation until construction was completed in September 1996.

By intervening now and dedicating the site, the contractor agreed not to use the site as a storage area or work zone.

If imitation is the highest form of flattery, then the project has been complimented by no less than the general contractor responsible for the three-level intersection of US 59 at BW 8. The contractor has, with Hebert's assistance, initiated the construction of a complimentary site diagonally across the intersection from the current site.

The project was nominated for the award by Mel Goodwin, a planner with TxDOT and a member of the Houston section of the APA.

"I understood that TxDOT had never won any award given by the APA and it was important that TxDOT be given the recognition it deserves," Goodwin said, "especially when it is of award-winning caliber."



James Hebert



Photo by Richard Goldsmith

Water Quality Specialist David Van Gorder and GIS Specialist Jennifer Gaa at ENV's GIS workstation.

GIS applied to environmental projects

By **TOM BRUECHERT**
Environmental Affairs Division

The private sector is ahead of us in the Geographic Information System (GIS) field, but the Environmental Affairs Division is gearing up to meet the demands of both the public and the department.

When ENV was reorganized in October 1993, several staff members formed a fledgling GIS Advisory Team. They planned then to pursue GIS as a tool to improve the way environmental research and studies are conducted within TxDOT. The team started with members who shared a common interest in GIS and has since been filled out with specialists representing each of ENV's disciplines: project management, historic structures, archeology, biological resources, communications, noise abatement, hazardous

materials and water resources.

GIS can perform complex and detailed analyses. In a nutshell, it allows data to be examined or manipulated in a plan view or map format. Information is in layers that can be overlaid in any combination. For instance, one layer could show the habitats of endangered species, historic properties or drainage areas.

These individual layers can be overlaid and used to generate a comprehensive map showing all resources relevant to a specific project's alternative routes. This is invaluable in efforts to avoid, minimize and/or mitigate impacts to the environment while planning, designing, constructing and maintaining our transportation system.

The team, with approval from division management, sought help from experts in the Information Systems Division (ISD).

As it turns out, ISD was seeking prototype users to test various aspects of GIS equipment and software. After a couple of meetings and within a short period of time, a GIS prototype was in place.

The team knew the learning curve would be quite steep, and given the workload we feared that proficiency might take awhile. The team had the foresight to also work on justification for a full-time employee to help fulfill the GIS need. Once approved by Division Director Dianna Noble, our team advisor and automation administrator, Dee Dee Broberg, hired Jennifer Gaa as our new graphics workstation specialist, a.k.a. "GIS guru."

The Anderson Tract Wetland Mitigation Project, in essence a wetland mitiga-

See GIS, Page 10

GIS: ENV developing

Continued from Page 9

tion bank, is an ongoing effort that uses GIS to account for credit and debit activity among four Northeast Texas districts. A very detailed characterization report of existing wetland types on the project was assembled using various GIS related equipment and software. This report was required to initiate use of the project and was distributed to federal and state resource and regulatory agencies. A similar GIS effort will be undertaken shortly for the Blue Elbow Swamp Mitigation Bank in the Beaumont District.

The Texas Historical Commission is using enhancement funds to develop a database on historical and archeological properties. This database will be incorporated with GIS software to log and pinpoint site-specific information. ENV is tracking their progress in this effort and suggesting options to better serve TxDOT needs in the Cultural Resources Management area. This partnership should assist in streamlining the cultural review process.

One of the main goals is to find the best way to serve and support district environmental needs with GIS. With this in mind we ask for your comments. We would like to know what you think about this effort so please call us and look for a survey/questionnaire in the future.

For more information on the activities of the team please contact Tom Bruechert at (512) 416-2735 or Jennifer Gaa at (512) 416-2782; for technical information on current GIS hardware and software, contact Chris Collier of Information Systems Division at (512) 302-2094.



Photo by Richard Goldsmith

ENV's GIS group meets regularly to track progress.

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CI team: Sept. 1 goal for district agreements

Continued from Page 1

agreement. The first meeting to develop an agreement between the Houston District and ENV took place Feb. 28. The next ENVision will summarize work on that agreement.

Sometime in fiscal year 1997 is the goal for having an agreement in place with all 25 TxDOT districts.

Those districts that take over some of the environmental coordination now handled by ENV do so with the understanding that no additional employees will be funded. However one of the recommendations is that the Senior Management Team encourage districts to devote some positions to environmental specialists. ENV is responsible for ensuring that a district has the expertise to handle a particular function.

ENV will increase the level of guidance and training provided to district personnel so that they can handle new

responsibilities. And ENV will monitor compliance with environmental regulations.

ENV will remain responsible for making sure the environmental process is followed uniformly across the state and will continue to keep a complete administrative record of all environmental coordination for all projects.

Among other CI team recommendations:

- ENV should concentrate more of its efforts on providing policy, guidance and procedures, as well as providing expertise, support and assistance on projects and environmental issues.

- Districts with the desire and capability should assume coordination with resource agencies. ENV should help districts develop working relationships with those resource agencies. ENV should assist in areas in which districts are not coordinating, help with detailed mitigation

efforts, and in detailed Section 106 historic preservation coordination and Section 7 or 10(a) Endangered Species Act coordination.

- Districts should include resource agencies, ENV and the Federal Highway Administration in early project development coordination.

- Memoranda of Understanding (MOUs) with resource agencies should be reviewed.

- ENV should develop a process to ensure that TxDOT is in compliance with environmental laws, regulations and policies.

- ENV should examine what environmental documents could be approved or cleared by districts with submittal to ENV.

- ENV should evaluate its operations to find ways to reduce turnaround time and accommodate reasonable district dead-

See CI, Page 11

Bohuslav: Proud of improving communication

Continued from Page 3

Now he says the department must respond to a whole range of environmental issues as well.

That realization has led to closer coordination with the state and federal agencies – such as Texas Parks and Wildlife, the U.S. Fish and Wildlife Service and the Texas Historical Commission – that have direct responsibility for guarding the environment and historical and archeological property. Those relationships are formalized in memorandums of understanding, or MOUs.

“We’re all agencies serving the same customer. Our goals may be different, but we must all work together,” Bohuslav said.

But closer coordination has made it easier for each agency to meet its goals, he says.

Asked what he is most proud of contributing to TxDOT, Bohuslav said, “Opening up lines of communication with resource agencies and putting our agency in a position to understand both sides and to accomplish our goals without one side feeling that they got the short end of the stick.”

He’s also proud of “Helping move the environmental process forward and changing the attitudes in the department toward environmental work as something we should be doing, not just because it’s required.”

Getting TxDOT engineers and planners to adopt a positive attitude about the environmental process was an initial obstacle. “The general perception was that

‘I think planners and designers understand the need for environmental concerns. It’s not perceived as an obstacle anymore but as an integral part of the process. This has taken place because of the efforts of the Transportation Commission to be an environmentally sensitive agency and because of awareness on the part of employees.’

—Ken Bohuslav

the environmental process was something that had to be done, not as something that built highways,” he said. Now such matters as minimizing right of way clearing and working around nesting seasons are routine.

“I think planners and designers understand the need for environmental concerns. It’s not perceived as an obstacle anymore but as an integral part of the process,” he said. “This has taken place because of the efforts of the Transportation Commission to be an environmentally sensitive agency and because of awareness on the part of employees.”

Bohuslav believes his background as an engineer, plus lots of diplomacy, has helped him communicate the environmen-

tal cause within the department.

“We need to be perceived as helping the districts and that can’t be an illusion,” he says.

Bohuslav’s efforts have not gone unrecognized. In 1991, he won the Gibb Gilchrist Award. His diplomatic and leadership abilities, his coordination with other agencies and efforts to set up a computer system for tracking the complex environmental review process were all cited as reasons for the award. “I was totally surprised,” he says. “It’s one of the highlights of my career to win the award.”

Bohuslav used to play a lot of softball, but now his passion is golf. He likes it for the fellowship and because it gets him outdoors. “Golf is an individual sport even though you play with other people. The rewards and disappointments are immediate with each shot.”

Bohuslav was raised in Hallettsville, but moved to Atlanta, Texas, for his senior year of high school. There he met his future wife, Darlene. They attended UT together and now have two sons, Adam, 18, and Matthew, 15, who share a strong interest in music. His sons love to crank up the volume on their guitar amps and they have a garage band called “Bark Stranger.”

Bohuslav believes TxDOT is leading the nation with its innovative designs to limit environmental damage from transportation projects. He’s also very proud of the ENV staff, who he says are a “strong, dedicated, fiercely protective group of people. What they do is really a way of life for them, not just a job.”

CI: Environmental conference recommended for TxDOT

Continued from Page 10

lines.

- ENV should develop training to enable districts to competently assume and better understand the environmental coordination process.

- ENV should also develop a comprehensive continuing education program for district project development, construction and maintenance personnel.

- A career ladder should be developed for district environmental specialists.

- ENV should cross-train its personnel

in project development, including project design, right of way acquisition and implementation.

- An automated tracking system for the environmental process is needed.

- ENV and districts should use project-specific partnering to continue to improve their working relationships.

- An environmental conference should be held and ENV should attend other TxDOT conferences to promote environmental awareness among all TxDOT employees.

Dobbins joins ENV

Jim Dobbins joined ENV's Communications Group in January, transferring from the Vehicle Titles and Registration Division where he worked for 11 years.

ENV also lost two staffers recently. Allison Pleasant, a hazardous materials specialist in the Pollution Prevention and Abatement Section since May 1994, left in February to move to Atlanta, Georgia, where she plans to go back to school. Chris Ward, a Cultural Resources Management archeologist since April 1993, left in December to become a project archeologist for Texas Parks and Wildlife.



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Address correction requested



Bridges: Visual harmony achieved

Continued from Page 5

intake facility on the shore of nearby Lake Austin. Most of these pipes date to the 1950s, and no accurate maps of their location were available. Fortunately, none of these were cut during the project.

The replacement span lies just west of the original bridge. Visual harmony with the old structure was maintained by using a traditional open concrete type rail. The two bridges are tied together at each end with metal pipe railing designed to match the historical structure. The new bridge sits on a specially designed decorative pier.

Mount Bonnell Road was moved a few feet to the west to cross over the new two-lane span.

Sidewalks accessible to persons with disabilities now connect either side of the former one-lane Huck Slough Bridge. The metal portions of the bridge were cleaned and repainted the original primer red – a rust-like hue – with the approval of the neighborhood association. The original span now proudly displays an “Austin Landmark” medallion. The bridge rails were modified for pedestrian use and protects the unwary from the

steep drop-off.

TxDOT is proud of its historic preservation efforts, and realizes that modern problems can be solved without destroying the past. The team approach employed in the preservation of Huck Slough Bridge is a fine example of what can be accomplished when representatives from several agencies and the community work together to find an acceptable solution. Now, too, can the department reply to these choices with a resounding “Both!”

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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 or

via GroupWise to RGOLDSMI. Deadline: **May 20** for the next issue.

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