

SUMMER

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OUTLOOK

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY



GALVESTON BAY ESTUARY PROGRAM

**Preserving Galveston Bay
for Generations to Come**



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Exploring environmental issues and challenges in Texas

The TCEQ Creates Office of Water

1

To enhance the agency's focus on the challenges facing Texas with respect to water quality and quantity, the TCEQ created the Office of Water, which brings together the divisions of Water Quality, Water Quality Planning, and Water Supply.

TCEQ Expert Speaks at International Workshop

2

L'Oreal Stepney, deputy director of the TCEQ Office of Water, was invited by the World Bank to talk about the successes of the TCEQ's water programs in Texas at "Global Experiences in River Clean-Up and Basin Management: Relevance of the Ganga," a workshop in New Delhi.

The TCEQ Hosts International Toxicological Workshop

5

Toxicologists from as far away as the Netherlands and New Zealand travelled to the TCEQ's Park 35 Circle campus in March to discuss dose-response assessment issues.

from the cover

Galveston Bay Estuary Program

6

The TCEQ's Galveston Bay Estuary Program works to preserve one of the state's most valuable recreational, economic, and environmental assets.

North Deer Island Partners Honored by Presidential Award

9

The TCEQ's Galveston Bay Estuary Program, as part of the North Deer Island Protection Team, has received the Coastal America Partnership Award.

Inside the TCEQ Lab

10

The TCEQ's lab in Houston is a model of efficiency, dependability, and productivity.

Restoring Lake Tyler's Langley Island

12

Using TCEQ Supplemental Environmental Project (SEP) funds, the Tyler Audubon Society, Audubon Texas, and the City of Tyler have embarked on a project designed to increase the diversity and quality of the habitat on Langley Island, a 70-acre island near the center of Lake Tyler.

on the back

We Value Your Opinion

Find out how you can give the TCEQ feedback on the job we are doing.



COVER: The willet is one of several shorebirds found in the Galveston Bay system.

Photo courtesy of Stan A. Williams/TxDOT

THE TCEQ CREATES OFFICE OF WATER

Agency enhances its focus on water quantity and water quality

Texas is one of the fastest-growing states in the nation. And as our population climbs, the demand for water will increase. Ensuring a plentiful, clean water supply for the state's growing population will be a major challenge for years to come.

To enhance the agency's focus on the challenges facing Texas with respect to water quality and quantity, in late 2009 the TCEQ created the Office of Water, which brings together the divisions of Water Quality, Water Quality Planning, and Water Supply.

Office of Water Programs

The Office of Water is responsible for the implementation of the following major programs:

- Public drinking water
- Water rights
- Districts and utilities
- Groundwater protection
- Wastewater, storm water, and concentrated animal feeding operation permitting
- Pretreatment
- Surface water quality monitoring
- Watershed protection plans and total maximum daily loads (TMDLs)
- Galveston Bay Estuary Program
- Coastal Bend Bays and Estuaries Program
- Texas Surface Water Quality Standards
- Non-point Source Program

"The new office recognizes that the state's population is expected to double in the next 30 years," says Chairman Bryan W. Shaw, Ph.D. "So the agency must put even more focus on water issues, to ensure that there will be adequate water quality and quantity for future demand."

Office of Water's First Deputy Director

Serving as the first deputy director of the Office of Water is L'Oreal W. Stepney, P.E.

Stepney, who has worked for the TCEQ and its predecessor agencies since 1992, brings a wealth of experience to the position. She has a long track record of managing and directing agency programs—she has served as a technical specialist and manager in air permitting, as section manager in the Wastewater Permitting Section, as director of the Water Quality Division, and as assistant deputy director for the Office of Permitting and Registration. She holds a bachelor's degree in aerospace engineering and a master's degree

in environmental engineering from the University of Texas at Austin.

For Stepney, it has been rewarding to see the excitement on the part of staff members about the new Office of Water, as well as their commitment to function as a team, focusing on the mission of the agency.

"I'm humbled by the opportunity to lead such a group of highly competent and talented professionals who use their expertise in their day-to-day work taking care of the state's water resources," Stepney says. "Communication and information sharing across the water programs have increased even more since the creation of the office. I'm very excited about the opportunities for the new office to serve the citizens of Texas."



Standing (left to right): Office of Water Technical Assistant Todd Chenoweth, Office of Water Special Assistant Kim Wilson, Office of Water Special Counsel Kevin McCalla, Water Quality Division Director Charles Maguire. Seated (left to right) Water Quality Planning Division Director Kelly Keel, Office of Water Deputy Director L'Oreal Stepney, Water Supply Division Director Linda Brookins.

TCEQ photo by Annette Berksan

Priorities

“There are 6,900 public water systems in our state,” says TCEQ Executive Director Mark Vickery. “Making sure the water that comes through these systems is clean and healthy is a priority of the TCEQ and is critically important to many, many Texans.”

Several high-priority projects are under way in the Office of Water, such as revising the Texas Surface Water Quality Standards and participating in the implementation of the Environmental Flows Process (Senate Bill 3, 80th Texas Legislative Session). In addition, the Office of

Water is focusing on national issues that may affect water quality and quantity in Texas.

“We also have a priority initiative to reduce permit time frames, so that permits are processed as expeditiously as possible,” says Stepney.

“Continuing to provide great customer service is important to me and is a major emphasis for the Office of Water,” she says. “We will strive to be efficient, accessible, and technically sound. It is also important to establish great partnerships and work closely with communities and stakeholders to achieve our priorities.”

One Vision, One Voice

Consolidating the agency’s water monitoring, permitting, planning, and assessment functions into one office has the added benefit of creating one point of contact for questions regarding wastewater, groundwater, surface water, and water rights.

“This is an important step,” says Commissioner Buddy Garcia. “Water planning, water supply, and water quality are all issues that are important to the future of our state.”

“The response from stakeholders and the public has been positive,” says Stepney. “And internal groups see it as

TCEQ EXPERT SPEAKS AT INTERNATIONAL WORKSHOP

In India, L’Oreal Stepney describes state’s water successes

As it makes the 1,560-mile journey from its origins in a Himalayan ice cave, southeastward across India and Bangladesh to the Bay of Bengal, one of the world’s largest rivers flows through one of the most fertile and densely populated regions in the world.

Known as “Mother Ganga,” the Ganges River is a life support for the millions of people in India who depend on its waters. The river’s water quality, however, is at risk due to population growth, industrialization, and urbanization.

In April, the World Bank and India’s Ministry of Environment and Forests co-sponsored “Global Experiences in River Clean-Up and Basin Management: Relevance of the Ganga,” a workshop that brought experts from around the globe

to New Delhi to share ideas and best practices with the country’s new National Ganga River Basin Authority (NGRBA), the organization formed to spearhead Ganges River conservation efforts.

L’Oreal Stepney, deputy director of the TCEQ’s Office of Water, was one of those experts sponsored by the World Bank to speak at the workshop, as was a representative of the San Antonio River Authority.

“The World Bank learned about the success of TCEQ programs at a meeting with TCEQ Commissioner Carlos Rubinstein,” says Stepney.

Stepney’s presentation included successes of the TCEQ’s Texas Clean Rivers Program, different techniques used by the agency to improve water quality

across the state, how technology is used to communicate and share information with stakeholders, and how the agency assures integrity and accountability in the regulatory process.

“They were especially interested in how we develop partnerships and engage stakeholders in our decision-making process,” Stepney says. “I was able to share some of the techniques we’ve used in Texas in partnering with different stakeholder groups. I also talked about how we work with the International Boundary and Water Commission specifically on international border matters.”

With around 150 community leaders, government officials, biologists, and academics in attendance, Stepney says the workshop was an opportunity to share

a real plus. Working in a collaborative effort, such as with the Office of Water team, encourages integrated solutions to the challenges facing Texas. We are able to maximize staff resources and knowledge.”

“We are all on the same page,” she adds. “We are moving in the same direction with the same vision. It’s great to have one voice.”

Water Quality Division

The Water Quality (WQ) Division, which is responsible for protecting the quality

of water in Texas, comprises a skilled team of engineers, aquatic scientists, geologists, agronomists, and technical support staff.

“Our principal function is to issue wastewater permits,” says the division’s director, Charles Maguire. “We also handle storm water permits and permits for concentrated animal feeding operations (CAFOs).”

Automated permit services, available online through ePermits, allow customers to complete a form, pay an

application fee, and get approval in 30 minutes or less.

“We’ve been very successful with ePermits,” says Maguire. “We offer electronic renewals for the general CAFO permit, and some of the storm water program permits are available for renewal electronically. That increases our hours of operation to 24-7, 365 days a year.”

In addition to handling permits, the WQ division is responsible for implementing standards for surface water quality and for updating the Water Quality Management Plan, which provides long-range planning and technical data for the water quality management activities that are required under the Texas Water Code and the federal Clean Water Act.

Maguire feels that the consolidation has enhanced the division’s ability to develop integrated solutions and efficiencies for resource use, and has also enhanced communication.

“We have a common body of stakeholders,” he says, “and coming from a single office, the communication with those stakeholders is much more focused.”

Water Quality Planning Division

When you want to know anything that has to do with maintaining or improving the quality of the state’s surface waters, you need to talk to the TCEQ’s Water Quality Planning Division.

“We are responsible for everything from establishing water quality standards, to monitoring surface quality, to addressing water bodies that do not meet the Texas Surface Water Quality Standards,” says the division’s director, Kelly Keel.

“We are in the process of revising the standards,” she adds. “The rules



L’Oreal Stepney, deputy director of the TCEQ Office of Water, was invited by the World Bank to speak about the successes of the TCEQ’s water programs in Texas at “Global Experiences in River Clean-Up and Basin Management: Relevance of the Ganga,” a workshop held in New Delhi.

lessons learned and potentially gain new strategies for managing water resources.

“I enjoyed talking one-on-one with some of the participants,” she says. “I learned that even though we’re a world away from each other, we talk the same language when it comes to water quality.”

Stepney also learned how well respected the Texas program is internationally.

“We have great respect for the extent to which the State of Texas manages its rivers through a mix of incentives, regulation,

outreach, and investment,” says Genevieve Connors of the World Bank. “Other countries can stand to learn a lot from this knowledge, which has been built up over decades of river-cleaning work.”

“It is such an honor for the TCEQ’s water quality maintenance and clean-up efforts to be recognized on the world stage,” says Rubinstein. “We are pleased to share what we have learned to help India protect the health and well-being of her people.”

have been proposed and should be final this summer.”

The division also maintains a considerable amount of data about surface water in Texas. This includes continuous monitoring and water flow data on rivers, streams, bays, estuaries, and reservoirs.

The Texas Clean Rivers Program, the Galveston Bay Estuary Program, the Coastal Bend Bays and Estuaries Program in Corpus Christi, and the Houston Laboratory are all part of the Water Quality Planning Division.

Keel feels that communication is the key to success, both externally and internally, and is gratified that the consolidation has helped to give the agency one consistent voice.

“We are able to more effectively communicate our water strategies within the Office of Water,” she says, “which means we can communicate more effectively with people outside the agency.”

Engaging stakeholders, landowners, interested parties, and local communities

in determining the best way to improve water quality is important.

“We want them to be involved and know what we’re doing and why we’re doing it,” says Keel. “We are committed to working with the public and listening to people’s concerns.”

“We can be successful in managing the state’s surface water,” she adds, “and we want people to participate in that success.”

Water Supply Division

“Ensuring a safe, adequate water supply for Texans is one of the Water Supply Division’s many responsibilities,” says the division’s director, Linda Brookins.

To accomplish this, the division assesses and protects sources of public drinking water, offers technical assistance on the design and operation of public water systems, and oversees the production, treatment, quality, and delivery of public drinking water.

In 2009, large portions of the state experienced a prolonged drought, which put a strain on water supplies. Division staff, who evaluate water conservation plans and drought contingency plans, played a major role in making sure that water was available.

“The drought was a big issue, especially for our water rights permitting group,” says Brookins. “Staff assisted with successful response to a senior water rights call in the Brazos Basin and helped water systems across the state with their drought implementation plans.”

Public outreach and volunteer programs—such as the Texas Source Water Protection Program and the Texas Water/Wastewater Agency Response Network (TXWARN)—also help the division in the performance of its responsibilities.

“TXWARN is a really great network of public and private water and wastewater utilities,” says Brookins. “If a facility is damaged by a natural disaster such as a hurricane, others in the network help out with equipment or personnel.”

The Water Supply Division also provides administrative and technical support for the environmental flows allocation process, a process created by the Texas Legislature to provide science- and policy-based flow recommendations.

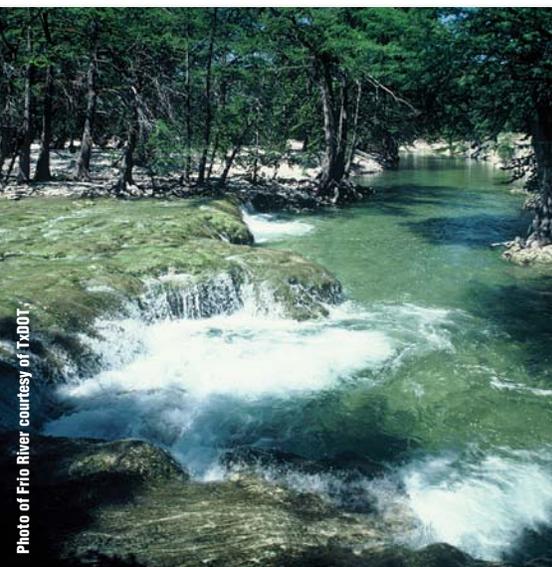
Brookins says the consolidation has had a positive impact. “The three divisions in the Office of Water affect each other,” she says. “Being in the same group allows us to coordinate on a consistent basis and to get issues resolved in a timely manner.”

Focused Level of Response

Stepney emphasizes that the goals for the Office of Water include making balanced decisions based on sound science, proactively working with stakeholders to implement programs, continuing to develop and train staff, providing accurate and prompt communication, increasing the use of technology to help gain efficiencies, and working for the people of Texas on water issues.

“Over the past several years, much of the state experienced a fierce drought,” says Commissioner and former Rio Grande Watermaster Carlos Rubinstein. “Our agency’s response to the people and communities that suffered from this event was extraordinary, and this new Office of Water will ensure that we provide an even higher and more focused level of response.”

For more information about the Office of Water, visit the TCEQ website at www.tceq.state.tx.us/goto/water. 



When you want to know anything that has to do with maintaining or improving the quality of the state’s surface waters, you need to talk to the Water Quality Planning Division of the TCEQ’s Office of Water.

THE TCEQ HOSTS INTERNATIONAL TOXICOLOGICAL WORKSHOP

Risk assessors from around the globe discuss dose-response assessment issues

SXSW wasn't the only event that drew people from around the world to Austin in March.

Toxicologists from as far away as the Netherlands and New Zealand travelled to the TCEQ's Park 35 Circle campus to attend "Beyond Science and Decisions: From Issue Identification to Dose-Response Assessment," a workshop organized by the Alliance for Risk Assessment.

Different Camps Discuss the Silver Book

The workshop brought together representatives from academic, governmental, industrial, and nonprofit institutions to discuss a report, "Science and Decisions: Advancing Risk Assessment," which was published in 2008 by the National Academy of Sciences (NAS). The report is also known as the "Silver Book," because of its silver cover.

"The Silver Book recommends that risk assessors change the way they look at a chemical, and assume that a chemical has no safe level of exposure," says chief TCEQ toxicologist Michael Honeycutt, Ph.D. "That's the complete opposite of the way we've done it for centuries. Science and biology will tell you that there *is* a safe level of exposure for most chemicals. However, mathematicians will tell you that there is *no* safe level of exposure."

"This workshop was really the first time since the report came out that people from both camps got together to talk about it," he adds.

Focus on Biological and Statistical Issues

Through a series of meetings and discussions led by panels of experts, attendees focused on biological and statistical issues related to dose-response assessment, which is the process used to determine the level at which a chemical will produce harmful health effects.

Representing the Environmental Defense Fund at the workshop was air quality specialist Elena Craft, who holds a Ph.D. in toxicology from Duke University.

"These are important discussions to have," says Craft. "The decisions that evolve from processes like this will eventually affect everyone on a day-to-day basis. We need everyone's input in developing the best ways to assess and manage risk."

Workshops Will Lead to a Guidance Document

The workshop in Austin, which was also available via webcast, was the first in a series of three that will be conducted over the course of a year. Participants will research and fully develop selected case studies, with the ultimate goal of developing a consensus-based guidance document.

"The guidance document will combine the best that the biologists and toxicologists have to offer with the best of what was in the 2008 NAS report," says Honeycutt.

Participant Debra A. Kaden, Ph.D., who represented the Mickey Leland National Urban Air Toxics Research Center, one of the workshop sponsors, emphasizes the importance of the workshops.

"This research will ultimately inform agencies that make regulatory decisions," she says, "including ones that do risk assessment."

Honeycutt agrees. "It's not something that will happen overnight," he says. "However, the process will definitely change how we do chemical assessments and will dramatically affect everything that this agency does in the future." ✨

GALVESTON BAY ESTUARY PROGRAM

Preserving Galveston Bay for Generations

Galveston Bay is a coastal treasure—one of the state's most valuable recreational, economic, and environmental assets.

Fed by the Trinity and San Jacinto rivers, local bayous, and incoming tides from the Gulf of Mexico, this 600-square-mile bay is the largest and most important estuary on the Texas coast.

A unique nutrient-rich environment that plays host to an abundance of plants and animals is created in the estuary by the mixing of fresh water with the salty sea water. Many marine organisms—such as shrimp, oysters, crabs, and fish—find food and shelter here during their juvenile phase.

In terms of seafood, Galveston Bay ranks as one of the most

productive estuaries in the nation, second only to Chesapeake Bay. Its recreational and commercial fishing industries combined are valued at over \$3 billion annually, and support over 40,000 jobs in the area. The bay and its associated habitats claim one of the most diverse bird populations on earth. And its unique variety of wildlife draws people from around the world, supporting the important and fast-growing nature-tourism segment of the area's \$7.5 billion tourism industry.

Keeping the bay healthy is critical to the region's well-being and economy.

Yet human activities can alter the ecosystem and affect its productivity.

And with over five million people, or 75 percent of Texas' coastal population, residing

AM

ations to Come



Photo courtesy of Jarrett (Woody) Olen Woodrow, Jr.

in the five counties surrounding Galveston Bay, managing bay resources to sustain its future productivity is not without challenges.

Greatest Challenge

Wetlands and other natural areas along the Texas coast provide many important services—from protecting water quality to mitigating erosion and lessening the intensity of storm surges and flood damage. Wetlands provide habitat for a diversity of fish and wildlife, including many commercially and recreationally important species.

“Habitat loss poses the greatest challenge to the health of the bay’s ecosystem,” says Helen Drummond, the director of the TCEQ’s Galveston Bay Estuary Program (GBEP), who holds a B.S. in marine and environmental science and an M.S. in environmental management.

Ericka McCauley, the GBEP’s public information officer, adds that from the early 1950s to 1989, Galveston Bay lost nearly 35,000 acres (20 percent) of its wetlands.

The TCEQ, through the GBEP, is working hand-in-hand with local partners to maintain and improve water quality, restore wetlands,

protect unique habitats, ensure safety of the seafood from the bay, and support healthy, resilient communities.

Galveston Bay Estuary Program

The GBEP was established in 1989 as part of the National



Photo courtesy of Texas Sea Grant

Estuary Program—created by the U.S. Congress to promote long-term planning and management of nationally significant estuaries.

The GBEP is one of 28 programs in the country that work with local stakeholders to protect and restore estuaries.

In 1995, the U.S. EPA approved the Galveston Bay Plan, a comprehensive 20-year science-based plan designed to protect and restore the

GALVESTON BAY ESTUARY PROGRAM ACCOMPLISHMENTS



Since its inception, the TCEQ's Galveston Bay Estuary Program (GBEP) has partnered with citizens and organizations in the Galveston Bay area to protect the bay's ecological and economic health. These partnerships, along with hard work and public education, have resulted in numerous successes, and many of the projects have received national awards. Following are just a few of the successful restoration and conservation projects completed by the GBEP and its partners:

- **Galveston Island State Park.** Restored 130 acres of new intertidal marshes in Carancahua and Dana coves of West Galveston Bay, along the north shoreline of Galveston Island State Park. Over two miles of geotextile tubes were placed along the outer perimeter of the coves to protect over 700 acres of marshes, uplands, and shallow open water areas in which an estimated 300 acres of seagrass beds have been re-established.
- **Jumbile Cove.** Protected and restored 100 acres of intertidal marshes and tidal flats from erosion. Created over 40 acres of marsh mounds and shallow open water suitable for seagrass reestablishment. In 2005, the Gulf of Mexico Program acknowledged the Jumbile Cove partners for their efforts.
- **Delehide Cove.** Protected and restored nearly 300 acres of intertidal marsh, tidal flats, open water areas, freshwater wetlands, and upland habitats from erosion by employing 8,000 feet of geotextile tube breakwater structures. The project saved Hoeckers Point and wetlands along the western shore of the historic Eckert Bayou from complete destruction. In 2006, project partners received the prestigious National Wetland Conservation Partner Award from the U.S. Fish and Wildlife Service.
- **Brays Bayou.** Created an urban wetland complex to treat storm water from a local neighborhood. The completed project increased capacity for flood waters, provided treatment for storm water runoff, and created a place for wildlife to feed and rest, for families to enjoy a day in the park, and for adults and children to learn more about wetlands and Galveston Bay. The site is now home to the annual cleanup and educational event Trash Bash, which provides a hands-on opportunity to educate and involve the local community in environmental stewardship of the watershed. The project has received numerous awards, including: a Partnership Award from the Parks People; the Gulf Guardian Award, Partnership, Second Place, from the Gulf of Mexico Program; and the Engineering Excellence Award, Gold Medal Winner in Environment, from the Texas Council of Engineering Companies. The project was also a finalist for a Texas Environmental Excellence Award.
- **East Bay, Chambers County.** Restored an unprecedented 17,002 feet of the East Bay's northern shoreline and protected 8,000 acres of coastal habitat at the Anahuac National Wildlife Refuge—an ecologically rich and diverse system of wetlands and prairies. Out of 41 entries, the GBEP placed first for the 2007 Gulf Guardian Partnership Award in environmental excellence, an award given by the EPA. The project also received the 2008 Cooperative Conservation Award from the Department of the Interior for its outstanding partnership effort. 🌟

Photo courtesy of Jarrett (Woody) Olen Woodrow, Jr.

bay. The Galveston Bay Council, a 41-member advisory committee to the TCEQ, guides the implementation of the plan and GBEP staff coordinates implementation efforts.

The 41 members of the council represent a broad range of interests, including local governments, businesses, ports, commercial fisheries, recreational anglers, environmental organizations, and state and federal natural-resource agencies.

Drummond, who joined the GBEP in 1994 as leader of the water and sediment quality team, emphasizes the importance of partnerships and collaboration to the success of the program. “Diverse concerns for habitat and wildlife protection, competing resource uses, water quality, and human health require the involvement of multiple agencies and groups, and are in part the impetus for our partnership approach.”

Through collaborative efforts, public education, and hard work, the GBEP and its partners have made substantial progress in preserving Galveston Bay’s ecological and economic health. Their accomplishments not only demonstrate the value of partnerships, but the strength that these long-term relationships maintain through the toughest of challenges.

For more information and to find out what you can do to help preserve Galveston Bay for generations to come, visit www.gbep.state.tx.us. 🌿



Photo courtesy of Jarrett (Woody) Olen Woodrow, Jr., USFWS

NORTH DEER ISLAND PARTNERS HONORED BY PRESIDENTIAL AWARD

TCEQ is part of team recognized for protecting critical coastal habitat

The TCEQ’s Galveston Bay Estuary Program, as part of the North Deer Island Protection Team, has received the Coastal America Partnership Award—the only environmental award of its kind given by the president of the United States—for its efforts to protect the most important colonial waterbird rookery on the upper Texas coast: North Deer Island.

The North Deer Island shoreline restoration project is a collaborative effort between federal, state, and local governments, as well as nongovernmental organizations and the private sector, to stabilize nearly two miles of shoreline that was once rapidly eroding. As a result of the effort, nesting and foraging sites for tens of thousands of waterbirds from 19 different species will be sustained for years to come. This restoration project has been instrumental in the brown pelican’s recovery in Galveston Bay.

The other members of the North Deer Island Protection Team are the Texas Parks and Wildlife Department, Audubon Texas, NRG Energy, the EPA’s Gulf of Mexico Program, EPA Region 6, the Houston Audubon Society, the Texas General Land Office, the U.S. Fish and Wildlife Service, and the Galveston Bay Foundation.

“Fish and wildlife resources in Texas contribute more than \$8 billion to the state’s economy every year,” says Chairman Bryan W. Shaw, Ph.D. “This award recognizes the efforts of the many agencies, stakeholders, and individuals in the ongoing efforts to restore and protect our nation’s sensitive coastal environment. The TCEQ, through the Galveston Bay Estuary Program, is proud to be a part of this important work.” 🌿



Photo courtesy of TCEQ

INSIDE THE TCEQ LAB

TCEQ's lab in Houston is a model of efficiency, dependability,

—With contributions from Chip Morris, Community Relations Specialist, TCEQ Water Quality Planning

The exterior of the TCEQ laboratory is deceiving. It's a nondescript 20-something-year-old building just off the outer beltway in East Houston, closer to Channelview than anywhere else. The 23,000-square-foot facility, housing room after room of laboratory equipment, seems much larger from the inside.

TCEQ photos by Hope Souders



Chemist Susan Johnson prepares an oil and grease sample.



Microbiologist Jahangir Alam performs an *E. coli* analysis.

TCEQ Scientists Hard at Work

Almost two dozen TCEQ scientists are busy analyzing samples of water, wastewater, soils, sediments, and sludge. These folks are the backbone of many TCEQ programs. For Surface Water Quality Monitoring (SWQM), Total Maximum Daily Load (TMDL), and many other programs, the laboratory's work is essential. In addition, the lab has a state-of-the-art metals-testing area.

Assistant laboratory manager Shirley Best, a chemist who has been with the lab since 1980, estimates that the laboratory processes over 6,000 samples a year.

"Each sample can include as many as 14 different analytical parameters," she says. "For example, a SWQM sample may need to be tested for total Kjeldahl nitrogen (TKN), ammonia, total phosphorus, total dissolved solids, total suspended solids, volatile suspended solids, nitrates, nitrites, fluoride, chlorophyll, *E. coli*, alkalinity, and more. Each one of these tests is run separately."

Testing that many samples, as well as keeping track of such a large amount of information from the time it enters the door until a final report is generated, is no small task. But the laboratory has this process down to a science.

It All Starts in the Field

Samples are collected by TCEQ employees in the regional offices. Karen Smith, investigator and water quality work leader in the Dallas–Fort Worth regional office, is one of six investigators who collect samples from wastewater treatment plants in 19 counties across the region.

"Once we collect the samples," says Smith, "we package them carefully in ice to keep them stable and we ship them overnight to the lab."

"We include what type of tests we want conducted on a chain-of-custody form, along with the date and time the sample was collected," she adds.

and productivity

A sample collected in the field may also require a chemical additive as a means of preservation.

“Some samples require the field investigator to add sulfuric, hydrochloric, or nitric acid to keep it from degrading,” says Best. “And a sample containing an acid would require a base such as sodium hydroxide or ammonium hydroxide to neutralize it [prior to analysis].”

Once the lab receives the sample, it is checked in by a sample custodian to ensure that it was preserved correctly. The information is logged into the laboratory information management system and the testing begins.

When the analysis is completed and the results are double-checked and validated, a report is generated and sent back to the investigator.

Investigators then compare the results in the report with a facility’s permit limits to see if it’s in compliance with its permit. If the levels are above the levels allowed by the permit, the facility is cited with a violation.

“The lab is performing an extremely important service,” says Smith. “Without the lab, we wouldn’t be able to determine if a facility is discharging wastewater that has been treated adequately to comply with the limits in its discharge permits.”

New Manager at the Helm

Andy Goodridge, who came to the agency in 2000, took over the reins as manager of the laboratory in early 2009.

“It is a privilege to be able to walk out of my office into a chemistry laboratory full of scientists in white lab coats doing really neat stuff,” he says. “It’s something most office workers just don’t see every day and it makes the job more fun.”

Goodridge has a degree in chemistry from Old Dominion University in Norfolk, Virginia.

Lab Provides Service to the EPA

The laboratory is not only indispensable to TCEQ programs, but also performs vital tests for the EPA.

“Over 20 years ago, the TCEQ and the EPA shared lab space in the same building,” says David Stockton of the EPA’s Region 6 laboratory in Houston. “When we had work that we couldn’t do in our lab, such as wastewater treatment plant samples, the TCEQ would do it and give us the report.”

Stockton says that most of the EPA work provided today by the TCEQ lab is for superfund sites throughout EPA Region 6. In exchange, the EPA purchases equipment for the TCEQ lab.

“Each year, we set aside funds for them in our capital equipment budget,” says Stockton. “Much of the equipment is paid by the superfund and is covered under a revocable license agreement. We buy it. They use it. When the equipment is worn out, it comes back to us and we recycle it or dispose of it.”

“They do a lot of work for us,” he says, “and the quality of their work is superb.”

Planning for the Future

Shirley Best estimates that about 80 percent of the samples processed by the lab are from the TCEQ surface water quality monitoring team. So it seems a natural fit that when the Office of Water was created in late 2009, the laboratory became part of this new TCEQ unit.

Goodridge feels that the organizational change has helped to more effectively integrate the lab into agency operations, helping staff plan for the future.

“I believe the creation of the Office of Water is a sign of the agency’s maturity,” he says, “as well as responsiveness to internal business needs and to the needs of present and future generations of Texans.” 🐾

RESTORING LAKE TYLER'S LANGLEY ISLAND

TCEQ program will help improve and protect the island's habitat

Langley Island, a 70-acre island near the center of Lake Tyler, is a city park that has been maintained as a wildlife sanctuary by the Tyler Audubon Society (TAS) since 1951.

During the 1960s and 1970s, the TAS planted several thousand non-native trees and shrubs to encourage wildlife on the island.

Today, the island is dominated by Florida slash pine and loblolly pine, intermixed with water oak, hardwoods, and dense patches of yaupon holly. Because the dense pine canopy reduces the amount of sunlight that comes through, the understory mainly consists of a thick layer of pine needles.

That's about to change. Using TCEQ Supplemental Environmental Project (SEP) funds, the TAS, Audubon Texas, and the City of Tyler have embarked on a project designed to increase the diversity and quality of the habitat on the island, as well as to enhance the educational value of the island for visitors while maintaining its relative remoteness.



Photos courtesy of Andy Urhan

The TCEQ SEP program directs penalties assessed for environmental violations toward environmentally beneficial projects such as this one.

Joe Marsey of the TAS, who is the coordinator of the restoration project on Langley Island, says that the initial plans for the island were confined to replacing the signage and conducting a cleanup.

“This money gives us the opportunity to do much more restoration work than we initially were able to do,” he says.

TAS volunteer Dan Dawson, a former TCEQ environmental investigator with a background in wildlife biology, suggested they look into conducting a prescribed burn.

“A high-intensity burn will kill the understory, as well as the weaker and younger trees, giving us some nice open patches,” Dawson says.

With input from biologists at Texas Audubon and the Texas Parks and Wildlife Department, Dawson prepared a management plan for the project, which includes planting a seed mix for native pine savannah after the burn.

“You normally don’t have to seed because there’s a seed bank,” says Dawson. “But the island was originally a pasture that was then planted with non-native species, so we don’t think the seed bank exists. Seeding with native species will help prevent invasion by non-native species present on the surrounding lakeshore.”

The overall idea is to make the island as diverse as possible. “If we make the habitat better, we’ll have a better diversity of wildlife,” he says.

Dawson, who conducts quarterly bird surveys on the island, says there are currently around 30 to 40 species of birds common to an urban park environment present on the island. This includes pine warblers, red shoulder hawks, woodpeckers, egrets, and blue herons. The island also supports a year-round cormorant nesting and roosting site.

Mammals on the island include squirrels and armadillos. And the occasional deer.

“I’ve seen deer swimming out to the island,” says Marsey. “It’s a great refuge for the animals.”

To assist with the restoration project, Marsey has recruited volunteers from the Native Plant Society of Texas, Texas Parks and Wildlife, the Texas Master Naturalist Program, two Boy Scout troops, and one Cub Scout troop.



Whitehouse Boy Scout troops 248 and 354 have assembled and installed wood duck boxes around the perimeter of Langley Island.

Whitehouse Boy Scout troops 248 and 354 have assembled and installed wood duck boxes around the perimeter of the island. Man-made heron and egret platforms, as well as high platforms for raptors, will also be installed.

Through presentations to local organizations, Marsey is raising awareness for the project and for the island itself.

“Community interest and support have increased,” says Marsey. “People didn’t know they could walk on the island. Now they know what a jewel it is and they’re canoeing over there to walk and hike around.”

For more information about the TCEQ’s SEP program, visit www.tceq.state.tx.us/legal/sep. 🗺️

Using TCEQ Supplemental Environmental Project (SEP) funds, the Tyler Audubon Society, Audubon Texas, and the City of Tyler have embarked on a project designed to increase the diversity and quality of the habitat on Langley Island, a 70-acre island near the center of Lake Tyler.



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