

BIENNIAL
REPORT
TO THE 87TH LEGISLATURE FY 2019 - FY 2020
AGENCY MISSION AND PHILOSOPHY Mission The Texas Commission on Environmental Quality strives to protect our state's public health and natural resources consistent with sustainable economic development. Our goal is clean air, clean water, and the safe management of waste. Philosophy To accomplish our mission, we will: base decisions on the law, common sense, sound science, and fiscal responsibility; ensure that regulations are necessary, effective, and current; apply regulations clearly and consistently; ensure consistent, just, and timely enforcement when environmental laws are violated; ensure meaningful public participation in the decision-making process; promote and foster voluntary compliance with environmental laws and provide flexibility in achieving environmental goals; and hire, develop, and retain a high-quality,
diverse workforce.



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REPORT REQUIREMENTS

CEQ's Biennial Report to the Legislature is published every December prior to a regular legislative session, as required by the Texas Water Code, Section 5.178. This submission to the 87th Legislature also contains other information and reports that are required by statute and were last published in December 2018 in the *Biennial Report to the 86th Legislature* (SFR-57/18):

- Description of cooperative research efforts, page 29 [Water Code 5.1193].
- Waste exchange information, page 47 [Texas Health and Safety Code Section 361.0219(c)].
- Revenue spending from solid waste disposal and transportation fees, page 55 [THSC 361.014(a) and (b)].
- Assessment of complaints received, page 57 [Water Code Section 5.1773].
- Permit time-frame reduction process, page 65 [Government Code, Section 2005.007].
- Office of Public Interest Counsel evaluation of performance measures, page 73 [Water Code Section 5.2725].
- Study on water basins without a watermaster, page 85 [Water Code Sections 11.326(g) and (h)].

LETTER

FROM THE COMMISSION

t has been an unusual year for the Texas Commission on Environmental Quality, as it has been for all of us.

Looking back on our last biennial report report, it's almost as if we had a glimpse into the future when we closed our letter with these words:

"The TCEQ stands ready to deal with future changes that will undoubtedly come our way and, as always, will apply standards fairly and use sound science to make decisions that are consistent with our mission to protect public health and the environment, while supporting a strong Texas economy."

Although we couldn't have foreseen the harsh realities of living with COVID-19, we have adapted—learning how to work remotely, developing new ways of accomplishing tasks, and providing guidelines for a safe response to the virus that has touched every one of us.

For many positions, teleworking is not a feasible option—we still need to carry out investigations and respond to emergencies and other high-priority events. In response, agency employees from offices around the state began working in shifts to prepare personal protective equipment and sanitizing products for staff whose jobs required them to remain in the field.

Through it all, even during emergency situations, TCEQ employees have continued to work on behalf of all Texans—improving air quality; ensuring adequate, clean drinking water; and working with regulated entities to ensure compliance with our rules.

During the fiscal years of 2019 and 2020, TCEQ responded to numerous disasters, including several chemical fires, a pipeline explosion, and Hurricane Laura. Yes, even during a pandemic.

Two major chemical fires demanded urgent emergency response from TCEQ during 2019. In March, we deployed mobile air monitoring vehicles to Deer Park to combat a fire at Intercontinental Terminals Co.'s bulk petroleum terminal storage and processing center. We dispatched teams of environmental investigators to conduct handheld monitoring of air quality and assessed surface water quality data from the Houston Ship Channel and in Galveston Bay to address releases associated with the incident. A second fire, in November of 2019, required TCEQ to conduct round-the-clock air monitoring for two months following an explosion at Texas Petrochemicals Group's operations in Port Neches. Our equipment provided instantaneous readings for a variety of substances, which we made public through frequent updates on social media and our website.



Hurricane Harvey taught us that you can never be too prepared. With that in mind, TCEQ formulated emergency response plans for air quality monitoring, safe drinking water, critical water infrastructure, wastewater and sewage, and flood water in advance of Hurricane Laura in August 2020. Fortunately, Texas was spared the brunt of the storm's damage, but we were ready.

Earlier the same month, TCEQ quickly marshalled its resources in response to an explosion and fire near Nueces Bay when a barge collided with a pipeline. In addition to supporting first responders and assisting with emergency response to the fire on site, agency personnel mobilized a new Rapid Assessment Monitoring van, outfitted with state-of-the-art technology, to collect air samples in real time and continued to monitor air quality and collect water samples in the aftermath of the accident.

Although disasters tend to garner headlines, TCEQ has been working proactively to improve air quality. The agency's Texas Clean School Bus program made \$6.2 million available statewide for school districts, charter schools, and transportation systems to replace or retrofit diesel-fueled school buses. With high demand for cleaner buses, the agency was able to award an additional \$2.1 million under the program, for a total of \$8.3 million. We also announced up to \$12 million in grants for individuals, businesses, and governmental entities to build or expand alternative fueling facilities in Texas, including compressed natural gas and/or liquefied natural gas, propane, biodiesel, methanol, hydrogen, and electricity.

And importantly, TCEQ witnessed several leadership changes during FY 2019-2020, including appointment of a new commissioner, Bobby Janecka, plus the promotion of two new deputy executive directors, L'Oreal Stepney, P.E., and Ramiro Garcia, Jr.

At a time when so many lives have been disrupted by unforeseen events, TCEQ has remained committed to preserving the rich legacy of Texas and the natural wonders we all cherish. We take our responsibility as stewards of the environment seriously and regard our oath to uphold the public trust as an honor and a privilege, no matter the circumstances.



Jon Niermann
Chairman

Emily Lindley

Commissioner

Bobby Janecka
Commissioner



CHAPTER 1

AGENCY HIGHLIGHTS



s the state's environmental agency, the Texas Commission on Environmental Quality is engaged with every region of the state. Agency employees in the Austin headquarters and 16 field offices are immersed every day in a wide spectrum of issues related to air and water quality, water supply, and waste management. The agency is also active in promoting pollution prevention and educating Texans about protecting the environment.

During the fiscal years of 2019 and 2020, TCEQ found itself intensely monitoring air quality across the state in the aftermath of several chemical fires, as well as adjusting to a remote and safe approach to maintaining health and public safety with the onset of the COVID-19 pandemic.

The agency had leadership changes, including a new commissioner, and two new deputy executive directors.

All these activities occur against a backdrop of the state's fast-growing population and expanding economy. TCEQ has responded with initiatives adapted to changing times and challenges, while continuing its dedication to protecting public health and the state's natural resources.



Newly-appointed commissioner Bobby Janecka gets an introduction to emergency response.

Leadership Changes

New Commissioner

On Sept. 16, 2019, Gov. Greg Abbott selected Bobby Janecka to serve as a TCEQ commissioner alongside incumbents Emily Lindley and Chairman Jon Niermann. After serving as a section manager in TCEQ's Radioactive Materials Division for five years, Janecka spent the year leading up to his appointment as a policy adviser to Texas Gov. Greg Abbott, and as the state's liaison to the Nuclear Regulatory Commission since May 2019. Before that, he gained a bulk of his governmental experience serving as an intergovernmental relations specialist for the Texas Comptroller of Public Accounts and as a legislative aide to two state representatives.

New Executive Director

On the cusp of the new biennium, Toby Baker was appointed executive director of TCEQ on Aug. 20, 2018. Prior to his move to executive director, Baker served as a TCEQ commissioner for six years. In addition to his role as executive director, Baker also serves as Governor Abbott's appointee to the Gulf Coast Ecosystem Restoration Council, represents Texas as the chair on the Gulf of Mexico Alliance Management Team, and serves on the Coastal Land Advisory Board.

New Deputy Executive Directors

On Apr. 1, 2020, L'Oreal Stepney and Ramiro Garcia, Jr. were selected as deputy executive directors of TCEQ.

Stepney started with TCEQ in 1992 and worked eight years in the Air Permitting Division. Initially a new source review permit writer, she later became a team leader and technical specialist responsible for the development and implementation of many aspects of the Title V permitting program. In 2000, Stepney moved to the agency's water programs and became a section manager for the Wastewater Permitting Section

before being promoted to division director in 2003 for the Water Quality Division. She was later appointed to assistant deputy director of the Office of Permitting and Registration, where her focus was on the water supply and water quality programs. When the Office of Water was created in 2009, Stepney was named deputy director, a post she served in until her appointment to deputy executive director.

Garcia joined TCEQ in October 1994 in the Petroleum Storage Tank (PST) Division, where he had previously worked as a Mickey Leland environmental intern during the summer of 1993. He became a team leader in the PST Division in 1996. In 2000, Garcia transferred to the Houston Region Office where he was an investigator and subsequently a team leader until 2005, when he transferred back to the TCEQ central office. He worked in the Field Operations Air Support Section, becoming the section manager in 2007. In 2008, Garcia became the area director for the TCEQ Border/South Central Area, comprised of regional offices in Austin, San Antonio, El Paso, Laredo, and Harlingen. In 2012, Garcia became the deputy director of the Office of Compliance and Enforcement, a post he served in until his appointment to deputy executive director.

Emergency Response

During emergency situations, TCEQ provides strategic state assets to support state and local operations and assists its regulated facilities in continuing to provide essential services to the public.

ITC Fire

The incident at Intercontinental Terminals Company (ITC) in Deer Park began on March 17, 2019. TCEQ

began conducting air and water quality monitoring in the surrounding area as soon as conditions allowed.

Water Quality Monitoring

TCEQ assessed surface water quality data collected by our staff, contractors, the U.S. Environmental Protection Agency (EPA), and ITC and posted sample results on the agency's website.

Water samples were collected in the Houston Ship Channel and in Galveston Bay to identify any potential surface water quality impacts from releases associated with the ongoing ITC incident. To better determine the potential extent of impact, additional surface water quality sampling was conducted by TCEQ at various beach locations.

Sampling results were posted as the data was analyzed through June 13, 2019.

Air Quality Monitoring

TCEQ's ambient air monitoring network routinely collects data from stationary monitors throughout the state, including the Houston area. On March 18, 2020, two additional air monitoring stations (monitoring vans) were strategically deployed in coordination with the Unified Command in response to the ITC fire.

TCEQ also assigned environmental investigators and contractors to conduct 24-hour hand-held monitoring and enlisted EPA's Trace Atmospheric Gas Analyzer bus and Atmospheric Spectral Photometric Environmental Collection Technology airplane to provide air monitoring and to conduct monitoring flights over the area.

The handheld monitoring equipment provides instantaneous readings for various compounds, including volatile organic compounds (VOCs), benzene, lower







(Left) TCEQ staff worked around the clock to monitor air and water quality after the fire at Intercontinental Terminals Company in Deer Park. (Center) TCEQ staff monitor air and water quality along the shoreline after the fire at ITC. (Right) TCEQ staff collect samples to assess surface water quality after the ITC fire.

explosive limit, hydrogen sulfide, carbon monoxide, sulfur dioxide, and radiation.

All of the air monitoring data collected during the ITC event was evaluated and posted on TCEQ's website. Data continued to be collected and posted until Aug. 30, 2019, after tank demolition was completed. Data from TCEQ's ambient air monitoring network continues to be available on TCEQ's GeoTAM web application.

On Mar. 22, 2019, on behalf of TCEQ, the Texas Attorney General filed a lawsuit against ITC for violations of the Texas Clean Air Act. On Mar. 27, 2019, the lawsuit was amended to include violations of the Texas Solid Waste Disposal Act and the Texas Water Code.

Waste Management

TCEQ reviewed multiple plans for characterization of waste during and after the incident concluded. The ITC fire resulted in contaminated containment booms, decontamination waste, and debris for which TCEQ provided guidance on appropriate classification, transportation, and final disposal.

TPC Port Neches Plant Fire

For two months, TCEQ responded to the incident at the Texas Petrochemicals (TPC) Group Port Neches Operations that began on Nov. 27, 2019. Regional staff and TCEQ contractors conducted 24-hour handheld air monitoring around the incident and provided that information to Unified Command.

Throughout the incident, TCEQ provided continuous updates to the public through social media and via the homepage of TCEQ's website.

As of Jan. 17, 2020, Beaumont regional staff conducted a visible emissions and odor survey in the neighborhood surrounding TPC. No visible emissions, significant readings, or odors were documented by the investigators.

Efforts to contain the fire were also monitored by TCEQ, and water runoff resulting from firefighting was contained onsite and treated prior to discharge. TCEQ regional staff evaluated nearby water bodies for impacts.

On Feb. 21, 2020, on behalf of TCEQ, the Texas Attorney General filed a lawsuit against TPC Group, Inc. and TPC Group, LLC for violations of the Texas Clean Air Act and the Texas Water Code. The lawsuit also includes claims that TPC Group caused numerous violations of TCEQ's air quality program from January 2018 through September 2019.

Tule Lake Channel Fire

TCEQ began conducting air quality monitoring and water sampling in Corpus Christi following a barge collision with a pipeline early the morning of Aug. 21, 2020. The collision caused an explosion and fire in Tule Lake Channel near Nueces Bay.

Agency personnel coordinated with local first responders, local officials, and state and federal partners, including the Texas General Land Office and U.S. Coast Guard, to assist with emergency response to the fire.

TCEQ and its contractors conducted off-site air monitoring in the surrounding area and mobilized TCEQ's Rapid Assessment Monitoring Van to support the agency's air monitoring efforts. The Rapid Assessment Monitoring Van continuously takes air samples while driving and reports the data in real time to the monitoring team.



Aerial footage of the Tule Lake Channel after the barge collision.

Hurricane Laura

While Hurricane Laura avoided the worst-case scenario predictions for most of Texas, Hurricane Harvey taught us valuable lessons about hurricane preparedness.

In preparation for Hurricane Laura, TCEQ stood ready to enact emergency response plans for air quality monitoring, safe drinking water, critical water infrastructure, wastewater and sewage, and flood water impacts.

TCEQ's mobile monitoring assets and the Emergency Management Support Team, along with assistance from the Texas National Guard 6th Civil Support Team, were deployed to provide support to the storm-affected areas in Southeast Texas. A TCEQ Disaster Response Strike Team from the western regions was also at the ready to assist with response efforts.

TCEQ's Critical Infrastructure Division monitored the projected path of the hurricane and stood ready to assist dam owners for potential damage or failures. State Superfund sites in the projected path of Hurricane Laura were secured and there were no major impacts noted.

To ensure safe drinking water before, during, and after the hurricane, TCEO's Office of Water contacted public water system operators to provide hurricane preparedness guidance, instructions on issuing a boil water notice, and resources for assistance. In the aftermath of the hurricane, TCEQ conducted assessments of 171 drinking water systems in the seven-county area directly impacted by the storm. The agency also assessed 58 wastewater systems.

TCEQ approved several temporary debris-management sites to handle the cleanup of Laura into fiscal 2021. To

ensure these sites are being properly managed, TCEQ Beaumont region conducts weekly investigations of the sites.

Environmental Restoration

While TCEQ strives to protect air, land, and water across the state of Texas, it is impossible to prevent all harm to the environment. Sometimes the best route is environmental restoration, which takes a polluted or illegal-use space and restores it to environmental compliance. The illegal or improper disposal of scrap tires is an especially prevalent problem in Texas, and TCEQ-supported Supplemental Environmental Projects helped remediate a significant amount of land in 2019 and 2020 for use.

Supplemental Environmental Projects (SEP)

When a facility or plant is found to be in violation of an environmental law, they are often fined by TCEQ. However, state law allows a business to put a portion of the fine to work closer to home or across the state, improving the environment. This option is a SEP, which has a direct and measurable environmental benefit in communities across Texas.

SEPs have a direct impact on the ecosystem. In Van Zandt County, where agriculture is the mainstay, crews worked to remove 15,000 tires that were illegally dumped in the Jackson community. That land has now returned to agricultural use.

At the Armand Bayou Nature Center, volunteers and staff worked to protect, restore, and enhance 2,500 acres of unique and vanishing ecosystems in





(Left) Agency staff use handheld monitoring equipment in use in the aftermath of Hurricane Laura. On the left, a MultiRAE reports data directly from the field. On the right, an Optical Gas Imaging Camera (OGIC) detects gases and emissions quickly, accurately, and safely. (Right) TCEQ and other emergency response personnel prepare to depart for the Texas coast to assist in the wake of Hurricane Laura.

southeast Harris County: coastal tallgrass prairie, forested wetland, and tidal marsh stream.

Across the state, 3.58 tons of household hazardous waste and 16.89 tons of electronic waste were properly disposed of and 61.01 tons of trash was cleaned up. These are all examples of SEP projects that TCEQ supports.

Scrap Tire Remediation

When used tires are not disposed of properly, they create breeding grounds for disease-carrying mosquitos and contribute to the problem of illegal tire dumping.

Another problem is the potential for fires. Besides being difficult to extinguish, the combustion of vulcanized rubber releases toxins into the air and produces nuisance odors.

In 2019, 14.4 million scrap tires were spread across the state at 97 unauthorized scrap tire sites. Successful cleanups reduced that number to 11.8 million tires in 2020.

In Texas, an increasing number of used and scrap tires are now being turned into fuel or used for other beneficial purposes. TCEQ data shows that the number of tires being diverted from landfills has gone from 75% in 2015 to 79% in 2019— with 35.6 million tires recycled or repurposed in 2019.

Of the scrap or used tires collected, the main end-uses include tire-derived fuel sources, crumb rubber production, land reclamation projects, and other beneficial or recycling uses.

The increase in tires recycled can be attributed to a combination of factors, such as proper handling of tires and better reporting. Collaborative effort

between government and private entities is an additional factor that contributed to successful cleanups this biennium.

Gatesville Tire Site Cleanup

For 17 years, the "Gatesville tire site" served as a dumping ground for used and discarded tires. During that time, a staggering 268,000 tires accumulated on the 40-acre property.

Starting in 2000, TCEQ conducted numerous investigations into the site, leading to multiple enforcement actions, including fines as well as orders directing the responsible party to either clean up the site or to properly manage the tires.

After TCEQ exhausted all administrative enforcement actions, the case was elevated to the state Attorney General's office for civil enforcement. Meanwhile, the property owner abandoned the land, and in 2005, defaulted on the property loan. Ownership of the land reverted to the Texas General Land Office (GLO).

GLO immediately began the process of securing grants and allocating state funding for the cleanup and remediation of the site. TCEQ and GLO worked together to find ways to clean and return the site to its natural condition.

One problem, however, was that the tires were classified as waste. Designating the rubber for beneficial use would require clarification of EPA's Non-Hazardous Secondary Materials Rule. This rule effectively prevented the discarded tires at the site from being used for fuel in things like cement kilns.

TCEQ and GLO worked with EPA to obtain approval to have the tires from the Gatesville site, and others





(Left) An excavator loads scrap tires into a waiting truck as part of the multi-agency cleanup effort at the Gatesville scrap tire site where 268,000 scrap tires once littered the landscape. (Right) Before: illegally discarded scrap tires littered the landscape prior to being hauled away for recycling and disposal. After: scrap tires interfered with natural vegetation, and with their removal, the flora can once again flourish.

like it, classified as an alternative fuel source. (Prior to this clarification, tires that were considered "discarded" could not be used as tire-derived fuel in cement kilns unless those kilns met additional standards meant for commercial and industrial solid waste incineration units.)

EPA's clarification brought the potential for further recycling. Even more tires—approximately 4.4 million throughout the state—can potentially be recycled thanks to this action.

From 2018 to 2019, GLO continuously worked with TCEQ throughout the cleanup phases to ensure proper remediation of the site. TCEQ provided technical review and oversight of the remediation and disposal, and soon thousands of scrap tires were removed from the site each day, ultimately resulting in the recycling or disposal of 268,000 tires.

The partnership between TCEQ and GLO allowed TCEQ to focus on the cleanup goal, not on continued investigation and enforcement, by bringing together state and federal agencies to pursue new and less costly scrap tire solutions.

In October 2019, TCEQ personnel performed a final closure inspection and determined that the site had, indeed, been properly remediated. Overall, TCEQ investigators conducted a total of 10 site inspections throughout the span of the cleanup to monitor its progress. More than \$1.5 million in state funding supported the comprehensive cleanup efforts and improvements to site infrastructure, and the completely transformed site was listed for sale in the Fall of 2019.

The cooperation and collaboration on this singular goal for the Gatesville site between TCEQ, GLO, and

EPA was unprecedented, and would not have been possible without the dogged behind-the-scenes work of TCEQ regional and support staff.

Vista International Cleanup

In Hutchins, Texas, TCEQ and the Office of the Attorney General of Texas worked together with a new property owner to coordinate a cleanup of an abandoned tire site. Along with authorized transporters, processors, and end users, TCEQ staff worked to assist in the removal of approximately 2.5 million scrap tires and tire pieces from the property in 2019 and 2020. This removal project is ongoing.

Response to COVID-19 Pandemic

TCEQ is committed to protecting public health and the environment for all Texans, even during a pandemic.

After the rapid series of directives were issued to curb the spread of COVID-19 in Texas, a record number of agency staff were able to convert their roles to teleworking positions, on very short notice.

For some positions, teleworking was not a feasible option. Investigations and field operations in response to high-priority field events, such as citizens' environmental concerns or emergency response situations, still had to be carried out. Meanwhile, limited in-office staff members from various offices around Texas began working in shifts to package and prepare personal protective equipment and sanitizing products to be used by staff whose jobs still take them out into the field.





(Left) One of the strangest sights during COVID-19's quarantine orders was also an agency first. This photo was taken during the broadcast of the agency's first telephonic Agenda meeting. All three commissioners and the general counsel were participating from home, their audio streaming through the room's system to create this video of an empty room, complete with captioning. Agenda meetings later began using a video-streaming app. (Right) TCEQ 12 staff also got into the spirit of working from home.





Investigators take extra precautions to keep themselves and others safe while conducting investigations.

In the field, clean hands and equipment became a bigger priority. Vehicles were disinfected with wipes after use. While some investigations and emergency response events require some interaction with each other, as well as with personnel from other agencies, staff found ways to limit their exposure to the public while continuing to serve them. Procedures were developed in response to the pandemic so staff could safely conduct water quality monitoring activities in the field.

Many investigators added signs to their work trucks to let people know they were socially distancing themselves for everyone's safety, with phone numbers listed to safely stay in contact.

Staff in TCEQ's air labs devised a schedule so that staff could work in shifts throughout the week as needed. Dedicated workspaces were created for each air analyst where possible, and equipment was cleaned frequently. Staff now wear additional safety equipment when working in the lab. This allows them to keep the lab running while still maintaining social distancing.

Staff throughout the agency began using technology to its fullest extent. The Information Resources Division expanded the agency's remote information technology (IT) capabilities in record time, and was able to quickly distribute a large number of laptops and cellphones, assist with the expansion of internet and virtual private network (VPN) capability, and provide remote access to the agency telecom help line—all while managing an unprecedented uptick in the volume of Help Desk support requests.

To help the healthcare community and first responders, the agency donated 500 P95 masks to the Texas Department of Public Safety and another 300 to the Austin Regional Clinic. While TCEQ staff sometimes wear these when responding to environmental events, it was important to ensure the masks went where they were most needed at the time, because staff could use other safety-approved masks in the meantime.

To assist public water systems during the COVID-19 pandemic, TCEQ created a centralized webpage to provide important information and resources to maintain operations through the uncertainties associated with the pandemic. The webpage provides guidance for the continuity of operations, preparing for extended operator absence, technical guidance, how to obtain chemical supplies if shortages occur, and how to obtain emergency approvals.

TCEQ is in close contact with drinking water laboratories and public water system operators to ensure continued operations.

Air Quality Successes

EPA sets National Ambient Air Quality Standards for ozone, carbon monoxide, sulfur dioxide, nitrogen dioxide, coarse and fine particulate matter (PM₁₀ and PM_{2,5}), and lead. Over the past few decades, Texas has made huge strides in improving air quality. Most recently, the successes have centered around improved air monitoring technology and emissions reduction.

Air Monitoring Technology

Air Monitoring Stations for PM_{2.5} and PM₁₀

TCEQ expanded its network of air monitoring stations by introducing four new stations in Central Texas. One location is in Comal County, one is in Atascosa County, and the other two are in Bexar County.

The stations take measurements of particulate matter in the air, commonly notated as PM_{2.5} and PM_{10.5} Particulate matter is a mix of small particles and liquid droplets and can be created by both natural and manmade causes, including incomplete combustion, smoke from fires, and dust or dirt from unpaved roads or construction activities.

Quarries, sand mines, and their associated aggregate operations are also common sources of particulate matter. TCEQ deployed these particular monitoring stations in response to citizen concerns regarding local air quality in areas of heavy quarry and sand mine activity near residential areas.

The new monitoring stations are positioned in residential areas about one mile downwind of existing quarry or mining operations. Texans can access monitoring data through TCEQ's GeoTAM web application and stay aware of forecasted air quality conditions and their local air quality index by visiting TCEQ's Air Quality Forecast webpage. The forecast is also emailed and tweeted daily to the agency's Twitter feed.

Monitoring Vans

TCEQ further enhanced its air monitoring capabilities thanks to new equipment funded by the Texas Legislature and savings from the agency's 2019 budget.

As sought by TCEQ, the 86th Texas Legislature provided funding to equip three monitoring vans with enhanced technologies that allow for true mobile monitoring—capabilities it did not previously possess while budget savings allowed for the installation of three new automated gas chromatograph (autoGC) air monitoring stations in the Houston area, and the purchase of new handheld air monitors that can make specific benzene readings.

This new equipment expands TCEQ's ability to rapidly assess air quality, particularly around petrochemical facilities, but it will also help with daily monitoring of ambient conditions, including the Houston ship channel area. Upgrading air monitoring capabilities allows the agency to better respond to natural disasters and emergency response events, which in turn gives local officials valuable time to make the best possible decisions to protect public health.

Funding appropriated by the 86th Legislature was used to upgrade two existing monitoring vans with mass spectrometers that can sample in real-time for a broad target pollutant list, expandable to more than 1,000 compounds, including benzene. Funding also provided for the purchase of a third vehicle with complementary technology capable of conducting rapid assessment surveys for a narrower pollutant list that also includes benzene.

These vehicles can be deployed to any area of the state when there is the need for real-time mobile monitoring, and the data they gather will help with critical situational awareness for local officials and emergency response personnel.

Previously, TCEQ's vans were equipped with instruments capable of collecting data only while stationary and required a time-consuming process to deploy and calibrate. All three vans are now equipped with technologies that allow for analysis of compounds







(Left and center) In the wake of Hurricane Laura, TCEQ deployed air quality monitoring vans equipped with rapid assessment survey technology, which reports air quality data in real-time. (Right) TCEQ staff drive a mobile-14 monitoring van through a neighborhood after Hurricane Laura.

in seconds, making them suitable for in-transit monitoring. In addition, the newest van is equipped to conduct rapid survey assessments, allowing the agency to quickly sample for pollutant hot spots, map air concentrations in an area, and identify locations for sampling over longer durations.

Air Monitoring Stations for VOCs

In response to an agency request, the Legislative Budget Board and Gov. Greg Abbott approved the reallocation of unused 2019 funds to purchase three new autoGC air monitoring stations.

The new autoGC air monitors, capable of continuous measurement of 46 volatile organic compounds, are currently planned for the Pasadena, Manchester, and Channelview communities. Once they are operational, the data from the new monitors will be available in near real-time to the public through TCEQ's website.

Handheld Monitors

Finally, the agency was able to purchase 15 hand-held air monitors, called UltraRAEs, capable of assessing cumulative volatile organic compounds and providing benzene-specific readings down to 10 parts per billion. Associated hardware and software give investigators the ability to report data directly from the field through real-time uploading. This new technology represents a substantial upgrade in equipment, especially for use in emergency response activities.

The UltraRAEs were distributed to TCEQ's Amarillo, Dallas/Fort Worth, Tyler, El Paso, Midland, Beaumont, Houston, San Antonio, Corpus Christi, Harlingen, and Laredo regional offices, as well as to TCEQ's Monitoring Division in Austin.



TCEQ staffer using a MultiRAE after Hurricane Laura. These handheld monitors provide instantaneous readings for various compounds when present in the air.

Aerial Surveys

In March 2020, TCEQ contracted a helicopter and pilot to conduct aerial surveys around the Corpus Christi area. The aircraft was equipped with a specialized infrared camera designed to gather imagery of VOCs and other hydrocarbons that are invisible to the eye.

VOCs are a class of compounds present in common things like gasoline and solvents. They can combine with nitrogen oxides in the presence of sunlight to form ground-level ozone. Locations surveyed include petrochemical operations and other industrial facilities that have the potential to be polluters of VOCs.

Similar surveys were also conducted in the Permian Basin area as well as the Beaumont/Port Arthur and Houston/Galveston/Brazoria areas.

Emissions Reduction

TCEQ's Texas Emissions Reduction Plan (TERP) program continues to be an important tool for reducing emissions from vehicles and equipment operating in Texas, encouraging the

A PROGRAM OF TOE

use of alternative fuels for transportation in Texas, and supporting new and innovative technologies for reducing emissions from stationary sources. Some of the key program highlights through August 2020 are:

- Since 2001, the Diesel Emissions Reduction Incentive Program has awarded over \$1 billion in grants to replace or upgrade more than 19,955 vehicles and pieces of equipment.
- The Texas Clean Fleet Program, implemented in 2009, and the Texas Natural Gas Vehicle Grant Program, implemented in 2011, have together awarded more than \$117 million in grants to replace or upgrade 1,892 vehicles with medium- and heavyduty vehicles powered by compressed natural gas, liquefied petroleum gas, and liquified natural gas.
- The Seaport and Rail Yard Areas Emissions Reduction Program, implemented in 2014, has awarded over \$19 million in grants to replace 261 drayage trucks and pieces of cargo-handling equipment operating at seaports and rail yards located in nonattainment areas.
- The Alternative Fueling Facilities Program, implemented in 2011, has awarded over \$22 million in grants to establish or upgrade 142 natural gas, alternative fueling, or electric charging facilities in the Texas Clean Transportation Zone.

- Since 2005, more than \$44 million in grants has been awarded under the Texas Clean School Bus Program for the retrofit or replacement of 7,794 buses in Texas.
- The New Technology Implementation Grants Program, implemented in 2010, has awarded over \$12 million for projects with potential to reduce emissions from stationary sources and projects to store and distribute electricity from renewable sources.

Improvement Levels

Texas has seen improvement in monitored levels of five of the six criteria pollutants established by the Federal Clean Air Act to protect public health and welfare. Design values, which are referenced below, are the statistic used to compare monitored pollutant levels to EPA's National Ambient Air Quality Standards (NAAQS).

- Eight-hour ozone design values in Texas have decreased by 28% over the last 20 years.
- One-hour nitrogen dioxide (NO₂) design values in Texas have decreased by 24% and annual NO, design values in Texas have decreased by 29% over the last 20 years.
- One-hour carbon monoxide (CO) design values in Texas have decreased by 71% and eight-hour CO design values in Texas have decreased by 70% over the last 20 years.
- Lead (Pb) design values in Texas have decreased by 63% over the last 20 years.
- Annual fine particulate matter (PM, 5) design values in Texas have decreased by 24% and 24hour PM_{2.5} design values in Texas have decreased by 15% over the last 18 years. Coarse particulate matter (PM₁₀) expected exceedances have decreased by 100% over the last 18 years.

Water Successes

The Texas Water Rights Viewer

The Water Availability Division developed the Texas Water Rights Viewer, which allows the public to quickly and easily access water rights information. The viewer was designed to answer the most common data and information requests TCEQ receives. Through the viewer, a user can find copies of historical water rights adjudication documents and current water rights permits. A user can also find authorized water rights locations such as diversion points and reservoirs, 16 current ownership information, and water use data.



TCEO Annual Public Drinking Water Conference

Every August since 2003, the Water Supply Division has organized, planned, and implemented the annual Public Drinking Water Conference in Austin. This popular, free conference has attracted over 800 attendees in the past, providing training, workshops, and technical assistance about public water system operations, rule updates, and regulatory programs. Operators can earn continuing education credits for license renewal at this free conference.

In 2019, the conference changed locations to accommodate more attendees and a bigger exhibit space; attendance was over 1,100. Participants included water system operators and managers, exhibitors, laboratory professionals, and state and federal agency personnel. Each year the focus is slightly different, but there are always updates on rules and regulations and pertinent topics such as the revised total coliform rule, lead and copper rule, chloramines, cross-connection control, corrosivity, system optimization, funding, and source water protection.

In 2020, the conference moved to an online format due to the COVID-19 pandemic. There were over 1,100 participants registered to view 27 presentations, earning continuing education credits during the 2-day workshop. The presentations were recorded and are available online.

Texas Integrated Report of Surface Water Quality

The 2018 and 2020 Texas Integrated Report of Surface Water Quality were adopted by the commission and approved by EPA in 2019 and 2020, respectively.

Total Maximum Daily Loads and Implementation Plans

In fiscal 2019 and 2020, 37 Total Maximum Daily Loads (TMDL) and five TMDL Implementation Plans were approved. These activities are intended to improve water quality by reducing pollution.

Other Highlights

New Customer Service Survey

In February 2020, the Legislative Budget Board and Office of the Governor required agencies to measure customer satisfaction with eight new standard survey questions. TCEQ revised its customer survey to replace questions 4 through 11 with the newly required questions and made the new survey available online and in print in both English and Spanish.

Bi-National Collaboration

In 2020, Commissioner Janecka was appointed to the Governmental Advisory Committee to advise the EPA administrator on environmental issues under the United States-Mexico-Canada Agreement (USMCA). Commissioner Emily Lindley represents state priorities to the International Boundary and Water Commission (IBWC). And Chairman Jon Niermann was appointed to represent Texas on the Good Neighbor Environmental Board, a federal committee that advises the president and Congress on environmental and infrastructure issues along the border.

In 2019 and 2020, TCEQ Border Affairs staff in Harlingen, Laredo, and El Paso regularly organized meetings, participated in binational drills, and worked closely with EPA and state and federal counterparts in Mexico to share emergency response equipment, develop contingency plans, and hold simulated training events for first responders on both sides of the border. TCEQ supports binational emergency response planning for sister cities by facilitating communication and partnerships between fire departments in Texas and Mexico. Emergency preparedness and response is one of the Border 2025 program's key priorities.

A Diverse Workforce

In fiscal year 2000, the then-named Texas Natural Resource Conservation Commission was comprised of 54% men and 46% women. As of 2020 those numbers have flipped, with 53.6% of the workforce now women. Also, about 48% of all supervisors are women, which is up from 43% in 2008.

Cooperative Efforts Between TCEO and EPA

Non-Hazardous Secondary Materials Clarification for Scrap Tires

TCEQ's Scrap Tire Program worked collaboratively with EPA to provide clarification on the Non-Hazardous Secondary Materials rule to allow discarded tires to be used as fuel in cement kilns. This cooperative effort between TCEQ and EPA paved the way for the continued growth in tire-derived fuel and additional cleanup opportunities for discarded scrap tires (see page 9 for more).

Coal Combustion Residuals

TCEQ's Waste Permits Division worked closely with EPA to develop rules for the state's new Coal Combustion Residuals (CCR) Program. With continual changes occurring to the federal CCR rules, TCEQ often met with EPA staff from both headquarters and Region 6 to discuss federal rule changes and the impacts on equivalent state rules. The TCEQ CCR Program is currently under review for approval by EPA and, if approved, will operate in lieu of the federal CCR program in Texas.

Water Quality Division Work with EPA Region 6

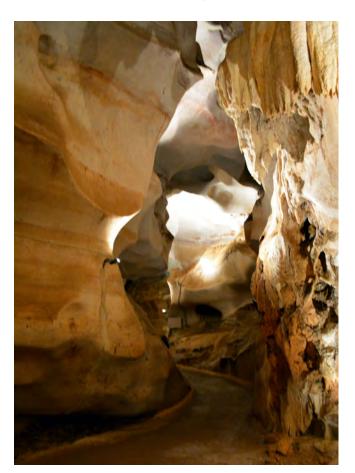
TCEQ and EPA Region 6 water quality program managers have continued to work together under the Lean Management System that was developed in fiscal 2018. The Lean system was tailored to focus on the Texas Pollutant Discharge Elimination System (TPDES) permitting program to evaluate and assess work processes to gain efficiencies and reduce waste. The Lean system helped TCEQ and EPA develop an understanding of the process used by each agency and has resulted in a cooperative relationship to help reduce the pending TPDES permit backlog related to EPA objections. It has also helped resolve other programmatic issues that resulted in the delayed issuance of TPDES permits.

In fiscal 2019, TCEQ successfully worked with EPA on the resolution of 19 TPDES permits that received

objections from EPA related to cooling water for industrial facilities and 12 TPDES permits that received comments from EPA regarding dissolved solids permit requirements. TCEQ has continued to work with EPA on the resolution of complex technical issues for individual TPDES permits that resulted in EPA objections or comments. The understanding and agreements reached between TCEQ and EPA through the Lean program have helped reduce the number of EPA objections on TPDES permits to seven in fiscal 2019, and three in fiscal 2020.

Outreach to Underserved Businesses

TCEQ continues to manage robust Historically Underutilized Business and Disadvantaged Business Enterprise programs. Agency staff prioritize the programs' goals through procurement and contracting, compliance with statutory and regulatory guidelines, and outreach, having participated in 44 events in fiscal 2020 and continuing at the same pace in fiscal 2021. TCEQ is a top performer among agencies statewide, with more than \$5 million in total expenditures; its HUB utilization ranked fifth in fiscal 2019 and second in the fiscal 2020 semi-annual reporting period.





Randy Rogers and Wade Bowen: New TCOT PSA

TCEQ's Take Care of Texas (TCOT) program tapped Texas country music mainstays Randy Rogers and Wade Bowen to perform a public service announcement that aired on Texas TV stations and social media platforms.

The native Texans—Rogers of Cleburne and Bowen of Waco—have racked up countless career milestones individually. Together, the pair shares two decades of friendship and collaboration. On May 8, 2020, they released their latest studio album, a long-awaited follow up to their critically acclaimed collaborative debut. In June 2020, their TCOT PSA began airing on platforms across the state of Texas.

In conjunction with the PSA, Texans were asked to join Rogers and Bowen in taking the pledge to Take Care of Texas. In just a little over two months, the campaign garnered pledges from 2,099 Texans, and the video was viewed more than 75,000 times across social media platforms. During the time the PSA was promoted on social media, the TCOT accounts saw more than 2.4 million impressions and 43,000 engagements.

Take Care of Texas is a statewide campaign from TCEQ that provides helpful information on Texas' successes in environmental protection and encourages all Texans to help keep our air and water clean, conserve water and energy, and reduce waste.

Administrative

In fiscal 2020, TCEQ successfully implemented the first phase in our transition to the statewide Centralized Accounting and Payroll/Personnel System (CAPPS), replacing legacy payroll, timekeeping, and personnel systems. In adopting CAPPS, TCEQ expects to increase efficiency, minimize data errors, and provide real-time, accurate personnel and payroll data.

CHAPTER 2

AGENCY ACTIVIT



his chapter summarizes the agency's fiscal 2019 and 2020 activities regarding compliance, supplemental environmental projects, compliance history, critical infrastructure, dam safety, emergency management, laboratory accreditation, and the Edwards Aquifer Program.

Enforcement

Environmental Compliance

The TCEQ enforcement process begins when a violation is discovered during investigation at a regulated entity's location, through a review of records at agency offices, or as a result of a complaint from the public that is subsequently verified by TCEQ as a violation. Enforcement actions may also be triggered after submission of citizen-collected evidence.

In a typical year, TCEQ will conduct about 107,000 routine investigations and investigate about 4,800 complaints to assess compliance with environmental laws.

When environmental laws are violated, TCEQ has the authority in administrative cases to levy penalties up to the statutory maximum—as high as \$25,000 for some programs—per day, per violation. In some programs, civil judicial cases carry penalties of up to \$25,000 per day, per violation.

In fiscal 2019, TCEQ issued 1,307 administrative orders, which required payments of over \$7.5 million in penalties and over \$2.7 million for SEPs (see "Supplemental Environmental Projects," below). The average number of days from initiation of an enforcement action to completion (order approved by the commission) was 363 days.

In fiscal 2020, TCEQ issued 1,528 administrative orders, requiring payments of over \$10 million in penalties and over \$4.2 million for SEPs. There was an average number of 336 days from initiation of an enforcement action to completion (order approved by the commission).

TCEQ can also refer cases to the state attorney general. In fiscal 2019, the AG's office obtained 30 judicial orders in cases referred by TCEQ or in which TCEQ was a party. These orders resulted in more than \$3 million in civil penalties. In fiscal 2020, the AG's office obtained 18 judicial orders, which resulted in over \$2.3 million in civil penalties.

Additional enforcement statistics can be found in TCEQ's annual enforcement report, available online at www.tceq.texas.gov/goto/aer.

Orders that have been approved by the commission and have become effective are posted on the TCEQ website, as are pending orders not yet presented to the commission.

Supplemental Environmental Projects

When TCEQ finds a violation of environmental laws, the agency and the regulated entity often enter into an agreed administrative order, which usually includes the assessment of a monetary penalty. The penalties collected do not stay at TCEQ, but instead go to state general revenue.

One option under state law, however, gives regulated entities a chance to direct some of the penalty dollars to local environmental improvement projects. By allowing penalty amounts to go toward a Supplemental Environmental Project (SEP), the violator can do something beneficial for the community in which the environmental offense occurred. Such a project must reduce or

Table 1. TCEO Enforcement Orders

Fiscal Year	Number of Orders	Assessed Penalties	Orders with SEPs	SEP Funds
2019	1,370	\$12.1 million	153	\$2.7 million
2020	1,528	\$17.1 million	196	\$4.2 million

prevent pollution, enhance the environment, or raise public awareness of environmental concerns.

TCEQ has a list of *preapproved SEPs*, which have already received general approval from the commission. The projects—which are sponsored by both nonprofit organizations and governmental agencies—represent a wide array of activities, such as cleaning up illegal dump sites, providing first-time adequate water or sewer service for low-income families, retrofitting or replacing school buses with cleaner emission technologies, removing hazards from bays and beaches, and improving nesting conditions for colonial water birds.

A regulated entity that meets program requirements may propose its own *custom SEP* as long as the proposed project is environmentally beneficial and the party that would be performing the SEP was not already obligated or planning to perform the SEP activity before the violation occurred. Additionally, the activity covered by a SEP must go beyond what is already required by state and federal environmental laws.

The Texas Water Code gives TCEQ the discretion to allow local governments cited in enforcement actions to use SEP money to achieve compliance with environmental laws or to remediate the harm caused by the violations in the case. This is called a *compliance SEP*, which may be offered to governmental authorities such as school districts, counties, municipalities, junior-college districts, river authorities, and water districts.

Except for a compliance SEP, a SEP cannot be used to remediate a violation or any environmental harm that is caused by a violation, or to correct any illegal activity that led to an enforcement action.

Compliance History

Since 2002, TCEQ has rated the compliance history of every owner or operator of a facility that is regulated under certain state environmental laws.

An evaluation standard has been used to assign a rating to approximately 430,000 entities regulated by TCEQ that are subject to the compliance history rules. The ratings take into consideration prior enforcement orders, court judgments, consent decrees, criminal convictions, and notices of violation, as well as investigation reports, notices, and disclosures submitted in accordance with the Texas Environmental, Health, and Safety Audit Privilege Act. Agency-approved environmental management systems and participation in agency-approved voluntary pollution-reduction programs are also taken into account.

An entity's classification comes into play when TCEQ considers not only enforcement, but also permit actions, the use of unannounced investigations, and participation in innovative programs.

Each September, regulated entities are classified or reclassified to reflect the previous five years of compliance data. Ratings below 0.10 receive a classification of "high," which means those entities have an above-satisfactory compliance record with environmental regulations. Ratings from 0.10 to 55.00 merit "satisfactory," for having generally complied. Ratings greater than 55.00 result in an "unsatisfactory" classification, because these entities performed below minimal acceptable performance standards.

An entity with no compliance information for the last five years will not receive a classification and is therefore "unclassified."

Critical Infrastructure

In 2011, TCEQ created the Critical Infrastructure Division within the Office of Compliance and Enforcement. This division combines elements from the OCE that are critical to TCEQ's responsibilities under the Texas Homeland Security Strategic Plan. The division seeks to ensure that regulated critical infrastructures,

Table 2. Compliance-History Designations

	September 2019		September 2020		
Classifications	Number of Entities Subject to Compliance-History Rules	Percent	Number of Entities Subject to Compliance-History Rules	Percent	
High	36,939	8.95	38,549	8.96	
Satisfactory	9,419	2.28	8,429	1.96	
Unsatisfactory	948	0.23	968	0.22	
Unclassified	365,390	88.54	382,379	88.86	
Total	413,696	100	430,325	100	

essential to the state and its residents, maintain compliance with environmental regulations; and to support these critical infrastructures during disasters. This latter duty includes not only responding to disasters but also aiding in recovery from them.

The division's programs are Homeland Security, Dam Safety, Radioactive Materials Compliance and Chemical Reporting, and Emergency Management Support.

Homeland Security

The Homeland Security Program coordinates communications during disaster response with federal, state, and local partners; conducts threat assessments regarding the state's critical infrastructure; and participates in the state's counterterrorism task forces. The program provides agency representation at the State Operations Center during disasters, and reviews and provides input on statewide plans coordinated by the Texas Division of Emergency Management and the Texas Department of Public Safety.

Dam Safety

The Dam Safety Program monitors and regulates private and public dams in Texas. The program periodically inspects dams that pose a high or significant hazard and issues recommendations and reports to the dam owners to help them maintain safe facilities. The program ensures that these facilities are constructed, maintained, repaired, or removed safely.

High- or significant-hazard dams are those for which loss of life could occur if the dam should fail.

On Sept. 1, 2013, a new state law exempted dams from Dam Safety Program regulation if they met all of the following criteria:

- Are privately owned.
- Are classified either "low hazard" or "significant hazard."
- Have a maximum capacity of less than 500 acre-feet.
- Are within a county with a population of less than 350,000.
- Are outside city limits.

As a result, the law exempts a large number of dams: 3,264.

In 2020, Texas had 4,048 state-regulated dams; of those, 1,495 were high-hazard dams and 307 were significant-hazard dams. The remaining dams were classified as low hazard.

As of July 2020, 92% of all high- and significanthazard dams had been inspected during the past five years. About 982 of the inspected dams are in either "fair" or "poor" condition. Most dam owners have begun making repairs as they are able to identify funding.

In addition to inspections, the Dam Safety Program conducts workshops concerning emergency action plans and dam maintenance. No workshops were conducted in fiscal 2020 due to the coronavirus pandemic.

Radioactive Materials Compliance and Chemical Reporting

Texas Compact Waste Facility

The Radioactive Materials Compliance Team is responsible for compliance at the disposal site for low-level radioactive waste in Andrews County. The disposal site, the Texas Compact Waste Facility, is operated by Waste Control Specialists, Inc. (radioactive-material license R04100). The waste facility was authorized to accept waste in April 2012.

The Radioactive Materials Compliance Team maintains two full-time resident inspectors at the low-level radioactive waste site to accept, survey, and approve the disposal of each shipment. Each disposal is documented in an investigation report. The following volume of shipments of low-level radioactive waste was inspected and successfully disposed of in the Texas Compact Waste Facility:

- fiscal 2019: 117 shipments
- fiscal 2020: 161 shipments

Tier II Chemical Reporting Program

The Radioactive Materials Compliance and Chemical Reporting Section also oversees the Tier II Chemical Reporting Program.

House Bill 942, 84th Legislature, transferred the Tier II Chemical Reporting Program from the Texas Department of State Health Services (DSHS) to TCEQ. The transfer from DSHS included 11 full-time-equivalent positions, equipment, and resources. Additionally, a new position was created to develop and administer a Tier II Grant Program.

The Texas Tier II Chemical Reporting Program is the state repository for annual hazardous-chemical inventories, called Texas Tier II Reports, which are required under the Emergency Planning and Community Right-to-Know Act.

Texas Tier II Reports contain detailed information on chemicals that meet or exceed specified reporting

thresholds at any time during a calendar year. The Tier II reporting system identifies facilities and owneroperators and collects detailed data on hazardous chemicals stored at reporting facilities within the state. The following volume of facility reports was received in the online reporting system:

- fiscal 2019: 8,050 reports with 84,060 facilities
- fiscal 2020: 8,314 reports with 81,709 facilities

Emergency Management Support

TCEQ's 16 regional offices form the basis of the agency's support for local jurisdictions addressing emergency and disaster situations. For that reason, during a disaster, Disaster-Response Strike Teams (DRSTs), organized in each regional office, serve as TCEQ's initial and primary responding entities within their respective regions. Team members come from various disciplines and have been trained in the National Incident Management System, Incident Command System, and TCEQ disaster-response protocols.

TCEQ's Emergency Management Support Team (EMST), based in Austin, was created to build greater disaster-response capabilities within each TCEQ region and to support the regions when necessary. The EMST joins the regional DRST during disaster responses.

The EMST is also responsible for maintaining preparedness, assisting with the development of the DRSTs in each region by providing disaster-preparedness training, and maintaining sufficiently trained personnel so that response staff can rotate during long-term emergency events.

The EMST also coordinates the BioWatch program in Texas. BioWatch is a federally funded initiative aimed at early detection of bioterrorism agents.

Accredited Laboratories

TCEQ accepts regulatory data only from laboratories accredited according to standards set by the National Environmental Laboratory Accreditation Program (NELAP) or from laboratories exempt from accreditation, such as a facility's in-house laboratory.

The analytical data produced by these laboratories are used in TCEQ decisions relating to permits, authorizations, compliance actions, enforcement actions, and corrective actions, as well as in characterizations and assessments of environmental processes or conditions.

All laboratories accredited by TCEQ are held to the same quality-control and quality-assurance standards. 22 TCEQ laboratory accreditations are recognized by other

states using NELAP standards and by some states that do not operate accreditation programs of their own.

In August 2020, there were 254 laboratories accredited by TCEQ.

Sugar Land Laboratory

The TCEQ Sugar Land Laboratory is accredited by NELAP. The laboratory supports monitoring operations for TCEQ's air, water, and waste programs, as well as river authorities and other environmental partners, by analyzing surface water, wastewater, sediments, sludge samples, and airborne particulate matter for a variety of environmental contaminants. The laboratory also supports the agency by analyzing samples collected as part of investigations conducted by TCEQ's 16 regional

The laboratory develops analytical procedures and performance measures for accuracy and precision, and maintains a highly qualified team of analytical chemists, laboratory technicians, and technical support personnel.

The laboratory generates scientifically valid and legally defensible test results under its NELAP-accredited quality system. Analytical data are produced using methods approved by the U.S. Environmental Protection Agency. The standards used for these methods are traceable to national standards, from institutions such as the National Institute of Standards and Technology and the American Type Culture Collection.

With the near-instant transmission of electronic data, TCEQ can now upload results directly to program databases.

Edwards Aquifer Protection Program

As a karst aquifer, the Edwards Aquifer is one of the most permeable and productive groundwater systems in the United States. The regulated portion of the aquifer crosses eight counties in south-central Texas, serving as the primary source of drinking water for more than 2 million people in the San Antonio area. This replenishable system also supplies water for farming and ranching, manufacturing, mining, recreation, and the generation of electric power using steam.

The aquifer's pure spring water also supports a unique ecosystem of aquatic life, including several threatened and endangered species.

Because of the unusual nature of the aquifer's geology and biology—and its role as a primary water source—TCEQ requires an Edwards Aquifer protection plan for any regulated activity proposed within the recharge, contributing, or transition zones. Regulated activities include construction, clearing, excavation, or anything that alters the surface or possibly contaminates the aquifer and its surface streams. In regulated areas, best management practices for treating stormwater are mandatory during and after construction.

Each year, TCEQ receives hundreds of plans to be reviewed by the Austin and San Antonio regional offices. Since 2012, due to increased development, TCEQ has experienced a dramatic increase in the number of plans submitted for review in both regions. TCEQ reviewed 893 plans in fiscal 2019 and 780 plans in fiscal 2020.

In addition to reviewing plans for development within the regulated areas, agency personnel conduct compliance investigations to ensure that best management practices are appropriately used and maintained. Staff also performs site assessments before the start of regulated activities to ensure that aquifer-recharge features are adequately identified for protection.

Air Quality

Changes to Standards for Criteria Pollutants

Federal clean-air standards, or the National Ambient Air Quality Standards (NAAQS), cover six criteria air pollutants: ozone, particulate matter (PM), carbon monoxide, lead, nitrogen dioxide, and sulfur dioxide (SO₂). The federal Clean Air Act (CAA) requires the United States Environmental Protection Agency (EPA) to review the standard for each criteria pollutant every five years to ensure that it achieves the required level of health and environmental protection. On March 18, 2019, EPA published its decision to retain the current NAAQS for SO₂ without revision, effective April 17, 2019. On April 30, 2020, EPA published a proposal to retain, without changes,

the current NAAQS for PM for both the primary and secondary standards. On Aug. 14, 2020, EPA published a proposal to retain the current eight-hour ozone NAAQS; EPA is in the process of reviewing the current NAAQS for lead.

As TCEQ develops plans—region by region—to address air quality issues, it revises the State Implementation Plan (SIP) and submits these revisions to EPA.

Ozone Compliance Status

2008 Ozone Standard

On May 21, 2012, EPA published final designations for the 2008 eight-hour ozone standard of 0.075 parts per million (ppm). The Dallas-Fort Worth (DFW) area was designated "nonattainment," with a "moderate" classification, and the Houston-Galveston-Brazoria (HGB) area was designated "nonattainment," with a "marginal" classification. The HGB area did not attain the 2008 eight-hour ozone standard by its marginal attainment deadline and was reclassified to moderate nonattainment effective Dec. 14, 2016.

The DFW and HGB moderate nonattainment areas were required to attain the 2008 eight-hour ozone standard by July 20, 2018, with a 2017 attainment year, which is the year that the areas were required to measure attainment of the applicable standard. Because neither area attained by the end of 2017, EPA reclassified both the DFW and HGB 2008 eighthour ozone moderate nonattainment areas to serious effective Sept. 23, 2019. The attainment date for serious nonattainment areas is July 20, 2021, with a 2020 attainment year. Serious classification attainment demonstrations and reasonable further progress SIP revisions were developed for both areas and submitted to EPA before the Aug. 3, 2020, deadline. If the areas do not attain by the end of 2020, EPA may reclassify the areas to severe nonattainment.

2015 Ozone Standard

In October 2015, EPA finalized the 2015 eight-hour ozone standard of 0.070 ppm. EPA was expected to make final designations by Oct. 1, 2017, using design values from 2014 through 2016. On Nov. 16, 2017, EPA designated a majority of Texas as attainment/unclassifiable for the

Table 3. Ozone-Compliance Status for the 2015 Eight-Hour Standard

Area of Texas	2015 Eight-Hour Ozone	Attainment Deadline
HGB (six-county area)	Marginal Nonattainment	Aug. 3, 2021
DFW (nine-county area)	Marginal Nonattainment	Aug. 3, 2021
San Antonio (Bexar County)	Marginal Nonattainment	Sept. 24, 2021
All Other Texas Counties	Attainment	Not Applicable

Note: The HGB 2015 ozone nonattainment area comprises the counties of Brazoria, Chambers, Fort Bend. Galveston, Harris, and Montgomery. The DFW 2015 ozone nonattainment area comprises the counties of Collin, Dallas, Denton, Ellis, Johnson, Kaufman, Parker, Tarrant, and Wise

ypes of Sources

Emissions that affect air quality can be characterized by their sources.

Point sources: examples include industrial facilities such as refineries and cement plants

Area sources: examples include dry cleaners, gasoline stations, and residential heating

On-road mobile sources: cars and trucks

Non-road mobile sources: examples include construction equipment, locomotives, and marine vessels

2015 eight-hour ozone NAAQS. On June 4, 2018, EPA published final designations for the remaining areas, except for the eight counties that compose the San Antonio area. Consistent with state designation recommendations, EPA finalized nonattainment designations for a nine-county DFW marginal nonattainment area (Collin, Dallas, Denton, Ellis, Johnson, Kaufman, Parker, Tarrant, and Wise counties) and a six-county HGB marginal nonattainment area (Brazoria, Chambers, Fort Bend, Galveston, Harris, and Montgomery counties). EPA designated all the remaining counties, except those in the San Antonio area, as attainment/unclassifiable. The designations are effective Aug. 3, 2018.

On July 17, 2018, EPA designated Bexar County as nonattainment, and the seven other San Antonio area counties—Atascosa, Bandera, Comal, Guadalupe, Kendall, Medina, and Wilson—as attainment/unclassifiable.

The attainment deadline for the DFW and HGB marginal nonattainment areas is Aug. 3, 2021, with a 2020 attainment year. The attainment deadline for the Bexar County marginal nonattainment area is Sept. 24, 2021, with a 2020 attainment year. If the areas do not attain by the end of 2020, EPA may reclassify them to moderate nonattainment. On June 10, 2020, the commission adopted an emissions inventory (EI) SIP revision for the 2015 eight-hour ozone NAAQS for the HGB, DFW, and Bexar County nonattainment areas. It was submitted to EPA on June 24, 2020. On July 1, 2020, the commission adopted a CAA, Section 179B, demonstration SIP revision to demonstrate that the Bexar County marginal nonattainment area would attain the 2015 eight-hour ozone standard by its attainment deadline were it not for anthropogenic emissions emanating from outside the United States. It was submitted to EPA on July 13, 2020.

In August 2018, the City of Sunland Park, New
24 Mexico, and environmental petitioners challenged EPA's

attainment/unclassifiable designation for El Paso County in the D.C. Circuit Court of Appeals (Clean Wisconsin v. EPA, No. 18-1203). On July 10, 2020, the court granted EPA's request for voluntary remand (without vacatur) for the El Paso County attainment designation to EPA, requiring EPA to issue a revised El Paso County designation as expeditiously as practicable.

Also, in August 2018, the State of Texas and TCEQ sued EPA, challenging EPA's nonattainment designation for Bexar County in the Fifth Circuit Court of Appeals. Environmental Petitioners also sued EPA for its designation of attainment/unclassifiable for the seven other San Antonio area counties—Atascosa, Bandera, Comal, Guadalupe, Kendall, Medina, and Wilson; and the litigation was consolidated in the Fifth Circuit Court of Appeals. Oral argument in the San Antonio area counties consolidated case was held Oct. 9, 2019, so a decision could be released at any time.

Redesignation for Revoked Ozone Standards

On Feb. 16, 2018, the U.S. Court of Appeals for the D.C. Circuit issued an opinion in the case *South Coast Air Quality Management District v. EPA*, 882 F.3d 1138 (D.C. Cir. 2018). The case was a challenge to EPA's final 2008 eight-hour ozone standard SIP requirements rule, which revoked the 1997 eight-hour ozone NAAQS as part of the implementation of the 2008 eight-hour ozone NAAQS. To address the potential impacts of the court's ruling, TCEQ developed and submitted a redesignation request and maintenance plan SIP revisions for four areas:

■ HGB Area One-Hour and 1997 Eight-Hour Ozone NAAQS Redesignation Request and Maintenance Plan SIP Revision, submitted to EPA on Dec. 14, 2018.

- Beaumont–Port Arthur (BPA) Area One-Hour Ozone NAAQS Redesignation Request and Maintenance Plan and 1997 Eight-Hour Ozone Second 10-Year Maintenance Plan SIP Revision, submitted to EPA on Feb. 6, 2019.
- DFW Area One-Hour and 1997 Eight-Hour Ozone NAAQS Redesignation Request and Maintenance Plan SIP Revision, submitted to EPA on April 5, 2019.
- El Paso Area One-Hour Ozone NAAQS Redesignation Request and Maintenance Plan SIP Revision, submitted to EPA on May 10, 2019.

In early 2020, EPA published final actions on the HGB and DFW submittals, determining that both areas met all criteria for redesignation. The actions removed anti-backsliding requirements and approved the maintenance plans for both areas for both revoked standards. On June 8, 2020, EPA proposed to approve the BPA second 10-year maintenance plan for the 1997 eight-hour ozone standard. EPA published its final action on Sept. 2, 2020. However, EPA has taken the position that it lacks the authority to redesignate areas to attainment under revoked standards. In response to this position, TCEQ plans to withdraw the remaining portion of the BPA submittal and the El Paso submittal relating to the redesignation request and maintenance plan for the one-hour ozone standard from EPA review. EPA's final approvals have been challenged by environmental groups in the D.C. Circuit Court of Appeals and in the Fifth Circuit (protective petition). Texas has intervened in support of EPA's final actions.

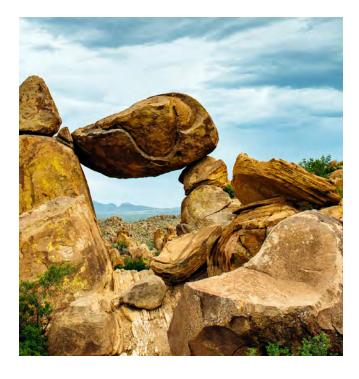
2010 SO, Standard

EPA revised the SO₂ NAAQS in June 2010, adding a one-hour primary standard of 75 parts per billion. In July 2013, EPA designated 29 areas in 16 states, which did not include Texas, as nonattainment for the 2010 standard. On March 2, 2015, a U.S. district court order set a deadline for EPA to complete an additional three rounds of designations for the SO₂ NAAQS.

In Round 2, EPA was required to designate by July 2, 2016, any areas monitoring violations or with the largest SO_2 sources fitting specific criteria for SO_2 emissions. EPA identified 12 sources in Texas meeting these criteria for Round 2 designations. EPA designated Atascosa (San Miguel), Fort Bend (W.A. Parish), Goliad (Coleto Creek), Lamb (Tolk), Limestone (Limestone Station), McLennan (Sandy Creek), and Robertson

(Twin Oaks) counties as unclassifiable/attainment and designated Potter County (Harrington) as unclassifiable, effective Sept. 12, 2016. On Dec. 13, 2016, EPA published a supplement to the Round 2 SO₂ designations for the remaining four EPA-identified Texas power plants—Big Brown, Martin Lake, Monticello, and Sandow. Effective Jan. 12, 2017, portions of Freestone and Anderson counties (Big Brown), portions of Rusk and Panola counties (Martin Lake), and a portion of Titus County (Monticello) were designated nonattainment. Milam County was designated unclassifiable.

Sources with more than 2,000 tons per year (tpy) of SO, emissions not designated in 2016 would be designated based on modeling by December 2017 in Round 3 or monitoring data by December 2020 in Round 4. In accordance with the August 2015 Data Requirements Rule, Texas identified 24 sources with 2014 SO, emissions of 2,000 tpy or more, which included the 12 sources identified in Round 2. TCEQ evaluated the Oklaunion facility in Wilbarger County through modeling submitted to EPA for designation in Round 3. EPA completed Round 3 designations for the 2010 SO, NAAQS, effective April 9, 2018, designating Wilbarger County as unclassifiable/attainment along with unclassifiable/attainment designations for 237 other counties or portions of counties in Texas. The areas designated unclassifiable/attainment in Anderson, Panola, Rusk, and Freestone counties are the parts of those counties not previously designated nonattainment in Round 2.



All remaining areas not designated in Rounds 2 or 3 will be designated in Round 4, including the following areas of Texas, currently being monitored: Jefferson, Hutchinson, Navarro, Bexar, Howard, Harrison, and Titus (remaining partial area) counties.

In October 2017, Luminant (Vistra Energy) filed notices with the Electric Reliability Council of Texas (ERCOT) stating its plans to retire the Monticello, Sandow, and Big Brown power generation plants. TCEQ voided permits for these three plants on March 30, 2018. Big Brown and Monticello were the primary SO₂ emissions sources of the areas designated nonattainment in Anderson, Freestone, and Titus counties. The Martin Lake plant, in the nonattainment area in Rusk and Panola counties, continues to operate.

On Aug. 22, 2019, EPA proposed error corrections to revise the designations of portions of Freestone, Anderson, Rusk, Panola, and Titus counties from non-attainment to unclassifiable. On April 27, 2020, Sierra Club filed suit against EPA regarding EPA not finding that Texas failed to submit attainment demonstrations for the three nonattainment areas. EPA published its finding of failure to submit for these three nonattainment areas on Aug. 10, 2020. On June 30, 2020, TCEQ sent a letter to EPA requesting clean data determinations for the areas surrounding the Big Brown and Monticello facilities. A clean data determination by EPA is required before the areas can be redesignated to attainment.

On June 26, 2020, TCEQ sent a letter to EPA requesting that Milam County be redesignated from unclassifiable to attainment. On Aug. 13, 2020, EPA provided notification to Gov. Abbott of its proposed designations for the remaining undesignated areas (Round 4 of the designations). EPA intends to designate Howard, Hutchinson, and Navarro counties as nonattainment;



Bexar, Harrison, Jefferson, and Robertson counties, as well as the remaining undesignated portion of Titus county, as attainment/unclassifiable; and Orange county as unclassifiable. EPA must finalize the Round 4 designations by Dec. 31, 2020.

Evaluating Health Effects

TCEQ toxicologists meet their goals of identifying chemical hazards, evaluating potential exposures, assessing human health risks, and communicating risk to the general public and stakeholders in a variety of ways. Perhaps most notably, TCEQ relies on health-and welfare-protective values developed by its toxicologists to ensure that both permitted and monitored airborne concentrations of pollutants stay below levels of concern. Final values for 324 pollutants have been derived so far. Texas has received compliments about these values from numerous federal agencies and academic institutions, and many other states and countries use TCEQ's toxicity values.

TCEQ toxicologists use the health- and welfare-protective values it derives for air monitoring—called air monitoring comparison values (AMCVs)—to evaluate the public-health risk of millions of measurements of air pollutant concentrations collected from the ambient air monitoring network throughout the year.

When necessary, TCEQ also conducts health-effects research on particular chemicals with limited or conflicting information. In fiscal 2018 and 2019, specific work evaluating arsenic, particulate matter $<\!2.5~\mu m$ (PM $_{\!2.5}$), ethylene oxide, and ozone was completed. This work can inform the review and assessment of state and federal air quality regulations, of humanhealth risk of air, water, or soil samples collected during investigations and remediation, as well as aid in communicating health risk to the public.

Finally, toxicologists communicate risk and toxicology with state and federal legislators and their committees, EPA, other government agencies, the press, and judges during legal proceedings. This often includes input on EPA rulemaking, including the NAAQS, through written comments, meetings, and scientific publications.

Air Pollutant Watch List

TCEQ toxicologists oversee the Air Pollutant Watch List activities that result when ambient pollutant concentrations exceed these protective levels. TCEQ routinely reviews and conducts health-effects evaluations of ambient air monitoring data from across the state by comparing air toxic concentrations to their respective AMCVs or state standards. TCEQ evaluates areas for inclusion on the Air Pollutant Watch List where monitored concentrations of air toxics are persistently measured above AMCVs or state standards.

The purpose of the watch list is to reduce air toxic concentrations below levels of concern by focusing TCEQ resources and heightening awareness of interested parties in areas of concern.

TCEQ also uses the watch list to identify companies with the potential for contributing to elevated ambient air toxic concentrations and to then develop strategic actions to reduce emissions. An area's inclusion on the watch list results in more stringent permitting, priority in investigations, and in some cases increased monitoring.

Four areas of the state are currently on the watch list, which is available at www.tceq.texas.gov/toxicology/apwl. TCEQ continues to evaluate the current APWL areas to determine whether improvements in air quality have occurred. TCEQ has also identified areas in other parts of the state with monitoring data close or slightly above AMCVs and worked proactively with nearby companies to reduce air toxic concentrations, obviating the need for listing these areas on the APWL.

Oil and Gas: Boom of Shale Plays

The early activities associated with the Barnett Shale formation in the Dallas–Fort Worth area presented an unusual challenge for TCEQ, considering that this was the first time that a significant number of natural gas production and storage facilities were built and operated in Texas within heavily populated areas. In response, TCEQ initiated improved collection of emissions data from oil and gas production areas.

TCEQ conducts in-depth measurements at all shale formations to evaluate the potential effects. TCEQ continues to conduct surveys and investigations at oil and gas sites using optical gas imaging camera (OGIC) technology and other monitoring instruments.

The monitoring, on-site investigations, and enforcement activities in the shale areas also complement increased air-permitting activities. The additional field activities include additional stationary monitors, increased collections of ambient air canister samples, flyovers using OGIC imaging, targeted mobile monitoring, and investigations (routine and complaint-driven).

shale play is a defined
geographic area containing
an organic-rich, fine-grained
sedimentary rock with
specific characteristics. The
shale forms from the compaction of
silt and clay-size mineral particles
commonly called "mud."

One vital aspect in responding to shale-play activities is the need for abundant and timely communications with all interested parties. TCEQ has relied on community open houses, meetings with the public, county judges and other elected officials, workshops for local governments and industry, town-hall meetings, legislative briefings, and guidance documents. For example, the agency recently issued a new publication, Flaring at Oil and Natural Gas Production Sites (TCEQ GI-457). This brochure is designed to provide a helpful starting point for discussions with citizens; TCEQ staff can then provide more details as needed with each person. The agency also maintains a multimedia website, www.TexasOilandGasHelp.org, with links to rules, monitoring data, environmentalcomplaint procedures, regulatory guidance, and frequently asked questions.

TCEQ continues to evaluate its statewide network for air quality monitoring and will expand those operations when needed. Fifteen automatic-gaschromatograph monitors operate in the Barnett Shale area, along with numerous other instruments that monitor for criteria pollutants. In addition, 16 VOC canister samplers (taking samples every sixth day) are located throughout TCEQ Region 3 (Abilene) and Region 4 (Dallas–Fort Worth).

In South Texas, the agency has established a precursor ozone monitoring station in Floresville (Wilson County), north of the Eagle Ford Shale; the station began operating on July 18, 2013. Another monitoring station has been established in Karnes City, which is in Karnes County; this station was activated on Dec. 17, 2014. Karnes County continues to lead the Eagle Ford Shale play in production and drilling activities. The data from these monitoring stations are used to help determine whether the shale oil and gas play is

contributing to ozone formation in the San Antonio area. It should be noted that existing monitors located within the Barnett Shale and Eagle Ford Shale plays have not indicated that pollutant levels are of sufficient concentration or duration to be harmful to residents.

In response to observed increases in oil and gas activity and reported emission events across the Permian Basin Geological Area, TCEQ conducted two mobile monitoring surveys for hydrogen sulfide and sulfur dioxide in December 2019, and February 2020. The results of the surveys were used to site three new monitoring stations in the Goldsmith, West Odessa, and Midland areas that will monitor for hydrogen sulfide, sulfur dioxide, and VOCs.

Regional Haze

Guadalupe Mountains and Big Bend national parks are identified by the federal government for visibility protection, along with 154 other national parks and wilderness areas. Regional Haze is a long-term air quality program requiring states to develop plans to meet a goal of natural visibility conditions by 2064. In Texas, the primary visibility-impairing pollutants are NO_v, SO₂,

and PM. Regional Haze program requirements include a Regional Haze SIP revision that is due to EPA every 10 years and a progress report due every five years, to demonstrate progress toward natural conditions.

The first Texas Regional Haze SIP revision was submitted to EPA in 2009. In 2016, EPA finalized a partial disapproval of that plan and proposed a federal implementation plan (FIP) that would have required emissions control upgrades or emissions limits at eight coalfired power plants in Texas. In July 2016, Texas and other petitioners, contending that EPA acted outside its statutory authority, sought a stay pending review of the FIP, which was granted by the U.S. Court of Appeals for the Fifth Circuit. Due to continuing issues with the Cross-State Air Pollution Rule, EPA could not act on best available retrofit technology (BART) requirements for electric utility generating units (EGUs). On March 20, 2018, the U.S. Court of Appeals for the D.C. Circuit issued a ruling upholding "CSAPR-better-than-BART" for Regional Haze.

On Oct. 17, 2017, EPA adopted a FIP to address BART for EGUs in Texas, which included an alternative trading program for SO₂. EPA will administer the trading program, which includes only specific EGUs in Texas



and no out-of-state trading. For NO_X, Texas remains in CSAPR. For PM, EPA determined that no further action was required. On June 29, 2020, EPA finalized the amended BART intrastate trading program FIP for Texas, and the trading program was affirmed as an alternative to BART requirements for certain sources in Texas.

Texas' first five-year progress report on regional haze was submitted to EPA in March 2014. It contained all of the following:

- A summary of emissions reductions achieved from the plan.
- An assessment of visibility conditions and changes for each Class I area in Texas that Texas may affect.
- An analysis of emissions reductions by pollutant.
- A review of Texas' visibility-monitoring strategy and any necessary modifications.

On Jan. 10, 2017, EPA published the final Regional Haze Rule Amendments to update aspects of the reasonably available visibility impairment (RAVI) and regional haze programs, including all of the following:

- Strengthening the federal land manager consultation requirements.
- Extending the RAVI requirements so that all states must address situations where a single source or small number of sources is affecting visibility at a Class I area.
- Extending the SIP submittal deadline for the second planning period from July 31, 2018, to July 31, 2021, to allow states to consider planning for other federal programs like the Mercury and Air Toxics Standards, the 2010 one-hour SO₂ NAAQS, and the 2012 annual PM_{2.5} NAAQS.
- Adjusting the interim progress report submission deadline so that second progress reports would be due by Jan. 31, 2025.
- Removing the requirement for progress reports to be SIP revisions.

In January 2018, EPA announced it would revisit the 2017 amendment to the Regional Haze Rule, though no formal action has been taken regarding the rule.

The second Regional Haze SIP is due to EPA in July 2021 and is currently scheduled to go before the commission in October 2020.

Major Incentive Programs

TCEQ implements several incentive programs aimed at reducing emissions, including the Texas Emissions Reduction Plan and the Texas Clean School Bus Program.

Texas Emissions Reduction Plan

The Texas Emissions Reduction Plan (TERP) program gives financial incentives to owners and operators of heavy-duty vehicles and equipment for projects that will lower nitrogen oxide (NO_X) emissions. Because NO_X is a leading contributor to the formation of ground-level ozone, reducing these emissions is key to achieving compliance with the federal ozone standard. Incentive programs under TERP also support the increased use of alternative fuels for transportation in Texas, including fueling infrastructure.

- The Diesel Emissions Reduction Incentive (DERI) **Program** has been the core incentive program since the TERP was established, in 2001. DERI incentives have focused largely on the ozone nonattainment areas of Dallas-Fort Worth and Houston-Galveston-Brazoria. Funding has also been awarded to projects in the Tyler-Longview-Marshall, San Antonio, Beaumont-Port Arthur, Austin, Corpus Christi, El Paso, and Victoria areas. (Note: Victoria was removed as an eligible area during the 86th Texas Legislature, Regular Session, 2019.) From 2001 through August 2020, the DERI program awarded over \$1 billion for the upgrade or replacement of 19,955 heavy-duty vehicles, locomotives, marine vessels, and pieces of equipment. Over the life of these projects, over 183,434 tons of NO_v are projected to be reduced, which in 2020 equated to approximately 20 tons per day. TCEQ expects to award additional grants under the DERI program in fiscal 2021.
- The **Texas Clean Fleet Program (TCFP)** funds replacement of diesel vehicles with alternative-fuel or hybrid vehicles. From 2009 through August 2020, 32 grants funded 682 replacement vehicles for a total of over \$61 million. These projects included a range of alternative-fuel vehicles, such as propane school buses, natural gas refuse trucks, hybrid delivery vehicles and refuse trucks, and electric vehicles. These projects are projected to reduce NO_X by over 666 tons over the life of the projects. TCEQ expects to award additional grants under the TCFP in fiscal 2021.
- The *Alternative Fueling Facilities Program (AFFP)* provides grants to ensure that alternative-fuel vehicles have access to fuel and to build the foundation for a self-sustaining market for alternative fuels in Texas. In 2017, the Clean Transportation Triangle program was incorporated

into the AFFP and the area of eligibility was designated the Clean Transportation Zone. From 2012 through August 2020, the AFFP and predecessor programs have provided over \$22 million in grants to establish or upgrade 142 natural gas, electric, or other alternative fueling facilities, including 82 electric charging stations, 40 CNG stations, four stations providing CNG and LNG, one station providing CNG and electric charging, seven stations providing LPG, and eight biodiesel stations, four of which also provide electric charging. TCEQ expects to award additional grants under the AFFP in fiscal 2021.

- The **Texas Natural Gas Vehicle Grants Program** (**TNGVGP**) provides grants for the replacement or repower of heavy- or medium-duty diesel- or gasoline-powered vehicles with natural gas- or liquid petroleum gas-powered vehicles and engines. Eligible vehicles must be operated within the clean transport zone counties. From 2009 through August 2020, the program funded 145 grants to replace 1,210 vehicles for a total of over \$56 million. These projects are projected to reduce over 1,695 tons of NO_X over the life of the projects. The TNGVGP is currently open and accepting applications through February 2021, or until all available funds have been awarded.
- Implementation Grant (NTIG) Program is to offset the incremental cost of the implementation of existing technologies that reduce the emission of pollutants from facilities and other stationary sources that may also include energy-storage projects in Texas. From 2010 through August 2020, the program funded nine grants for a total of over \$12 million. TCEQ expects to award additional grants under the NTIG in fiscal 2021.
- The *Seaport and Rail Yard Areas Emissions Reduction (SPRY) Program* was established by the Legislature in 2013 to fund the replacement of drayage trucks and cargo-handling equipment operating at seaports and railyards in Texas nonattainment areas with newer, less-polluting drayage trucks. From 2015 through August 2020, the program has funded 89 grants for the replacement of 261 trucks and pieces of cargo-handling equipment, for a total of over \$19 million. It is estimated that these projects will reduce over 952 tons of NO_X in eligible Texas seaports and railyards over the life

- of the projects. The SPRY program is currently open and accepting applications until February 2021, or until all available funds have been awarded.
- Incentive Program (LDPLIP) was established by the Legislature in 2013. The program provides up to \$5,000 for the purchase of a light-duty vehicle operating on natural gas or propane, and up to \$2,500 for the purchase of a plug-in hybrid, electric drive, or hydrogen powered vehicle. From 2014 through August 2020, the program has provided incentives for the purchase of 4,607 electric plug-in vehicles and 265 vehicles operating on compressed natural gas or propane, for a total of over \$11 million. The program is currently open and accepting applications through January 2021, or until all available funds have been awarded.
- The **Governmental Alternative Fuel Fleet (GAFF) Program** was established by the Legislature in 2017 to help state agencies, political subdivisions, and transit or school transportation providers fund the replacement or upgrade of their vehicle fleets to alternative fuels, including natural gas, propane, hydrogen fuel cells, and electricity. The first grant round for the GAFF program will open in fiscal 2021.

TERP grants and activities are further detailed in a separate report, *TERP Biennial Report to the Texas Legislature* (TCEQ publication SFR-079/18).

Texas Clean School Bus Program

The Texas Clean School Bus Program (TCSBP) aims to reduce diesel exhaust emissions inside and around school buses throughout the state. From 2008 to August 2020, the TCSBP reimbursed over \$30 million to retrofit 7,560 school buses in Texas. From September 2017 through August 2020, the TCSBP awarded over \$14 million to replace 234 school buses across the state.

Texas Volkswagen Environmental Mitigation Program

In December 2017, Gov. Greg Abbott selected TCEQ as the lead agency responsible for the administration of funds received from the Volkswagen State Environmental Mitigation Trust. A minimum of \$209 million dollars will be made available for projects that mitigate the additional NO_x emissions resulting from specific

vehicles using defective devices to pass emissions tests. From 2019 through August 2020, 164 grants funded 1,097 replacement vehicles for a total of over \$73 million. These projects included a range of vehicles, such as school buses, transit buses, refuse trucks, local delivery vehicles, and port drayage vehicles. These projects are projected to reduce NO_X by over 1,051 tons over the life of the projects. TCEQ expects to award additional grants under the Texas Volkswagen Environmental Mitigation Program in fiscal 2021.

Drive a Clean Machine

The Drive a Clean Machine program (see www. driveacleanmachine.org) was established in 2007 as part of the Low Income Vehicle Repair Assistance, Retrofit, and Accelerated Vehicle Retirement Program (LIRAP) to repair or remove older, higher-emitting vehicles. The Drive a Clean Machine (DACM) program is available to qualifying vehicle owners in 16 participating counties in the areas of HGB, DFW, and Austin–Round Rock. The counties in these areas conduct annual inspections of vehicle emissions. From the program's debut in December 2007 through August 2019, qualifying vehicle owners have received more than \$236 million. This funding helped replace 69,965 vehicles and repair 47,122.

Following the governor's veto of the appropriations funding for LIRAP and the Local Initiative Projects program for fiscal biennium 2018–19, all 16 participating counties opted out and collection of the LIRAP fee has been terminated. Funding carried over from fiscal biennium 2016–17 appropriations continued to be used for the DACM program until Aug. 31, 2019.

Local Initiative Projects

The Local Initiative Projects (LIP) program was established in 2007 to provide funding to counties participating in LIRAP for implementation of air quality improvement strategies through local projects and initiatives. Projects are funded both by TCEQ from LIRAP appropriations and through a dollar-for-dollar match by the local government, although TCEQ may reduce the match for counties implementing programs to detect vehicle-emissions fraud (currently set at 25¢/dollar). Since the LIP program's debut in December 2007, more than \$31 million has been appropriated to fund eligible projects in the participating counties. Recently funded projects include vehicle-emissions enforcement task forces, trafficsignal synchronization, and bus transit services.



Although all 16 counties participating in LIRAP have opted out, LIP funding carried over from fiscal biennium 2016–17 appropriations continued to be used for the LIP program until Aug. 31, 2019.

Environmental Research and Development

TCEQ supports scientific research to study air quality in Texas. The Air Quality Research Program (AQRP) funds projects that build on research from the previous biennium.

The AQRP and TCEQ sponsored a field campaign during May 2017 to study ozone in the San Antonio area. Ongoing analysis of atmospheric chemistry and meteorology measurements collected during this study will allow a better understanding of ozone in this area.

Other important air quality research carried out through the AQRP has included the following:

- Projects that examine the impact of wildfires and agricultural burning on air quality in Texas, including fires outside Texas and the United States.
- Improvements in the tools used to estimate biogenic volatile organic compound emissions in Texas.
- Emission inventory improvements for the Mexican energy sector and projections of emissions in future years.

In addition to research carried out through the AQRP, TCEQ used grants and contracts to support ongoing air quality research. Notable projects have included:

Analyses of fire impacts on Texas air quality using different modeling and measurement methods, with an emphasis on identifying exceptional events that may affect air quality.

- Updating inventories for emissions from flash tanks, asphalt paving, ocean-going tanker-vessel lightering (i.e., transferring liquids from one tanker to another), aircraft, railyards, and fuel use from multiple sectors.
- Improving the boundary conditions used in ozone modeling in Texas by updating the chemistry and evaluating various configurations of the model.
- Measurements of biogenic VOC emissions and improvements of the tools used to estimate those emissions both inside Texas and throughout the ozone-modeling domain.
- Monitoring studies in El Paso to understand contributions to various pollutants from within and outside the United States.

The latest findings from these research projects help the state understand and appropriately address some of the challenging air quality issues faced by Texans. These challenges are increasing, in part due to changes in air quality standards, and addressing them will require continued research. This knowledge helps ensure that Texas adopts attainment strategies that are achievable, sound, and based on the most current information.

Water Quality

Developing Surface Water Quality Standards *Texas Surface Water Quality Standards*

Under the federal Clean Water Act, every three years TCEQ is required to review and, if appropriate, revise the Texas Surface Water Quality Standards. These standards are the basis for establishing discharge limits in wastewater permits, setting instream water quality goals for total maximum daily loads, and establishing criteria to assess instream attainment of water quality.

Water quality standards are set for major streams and rivers, reservoirs, and estuaries based on their specific uses: aquatic life, recreation, drinking water, fish consumption, and general. The standards establish water quality criteria for temperature, pH, dissolved oxygen, salts, bacterial indicators for recreational suitability, and a number of toxic substances.

The commission revised its water quality standards in 2018. Major revisions included:

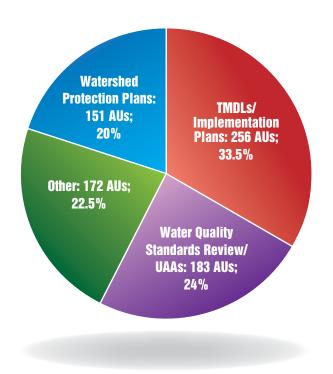
- A new single-sample criterion for coastal recreation waters as mandated by the BEACH Act.
- Revisions to toxicity criteria to incorporate new data on toxicity effects and local water quality characteristics that affect toxicity.

Numerous revisions and additions to the uses and criteria of individual water bodies to incorporate new data and the results of recent use-attainability analyses.

The revised standards must be approved by EPA before being applied to activities related to the federal Clean Water Act. Although federal review of portions of the 2010, 2014, and 2018 standards has yet to be completed, TCEQ has proceeded with the 2021 triennial standards review. Initial preparations for the 2021 Texas Surface Water Quality Standards began in June 2019, and proposal to the commission is anticipated in 2021.

Figure 1. Management Strategies for Restoring Water Quality

An assessment unit (AU) is the smallest geographic area used when evaluating surface water quality.



Total AUs with an assigned restoration strategy: 762

TCEQ can address water impairments in a variety of ways. The selection of an appropriate restoration strategy is coordinated with stakeholders through the Watershed Action Planning (WAP) process. This figure is reflective of the 2014 Texas Integrated Report. Since the 2020 Texas Integrated Report was recently approved by EPA in May 2020, we are in the process of evaluating our strategies.

use-attainability analysis
is a scientific assessment
of the physical, chemical,
biological, or recreational
characteristics of a water body.

Use-Attainability Analyses

The Surface Water Quality Standards Program also coordinates and conducts use-attainability analyses to develop site-specific uses for aquatic life and recreation. The UAA assessment is often used to re-evaluate designated or presumed uses when the existing standards may need to be revised for a water body. As a result of aquatic-life UAAs, site-specific aquatic-life uses and dissolved-oxygen criteria were adopted in the 2018 revision of the standards for individual water bodies.

In 2009, TCEQ developed recreational UAA procedures to evaluate and more accurately assign levels of protection for water recreational activities such as swimming and fishing. Since then, the agency has initiated more than 131 UAAs to evaluate recreational uses of water bodies that have not attained their existing criteria. Using results from recreational UAAs, TCEQ

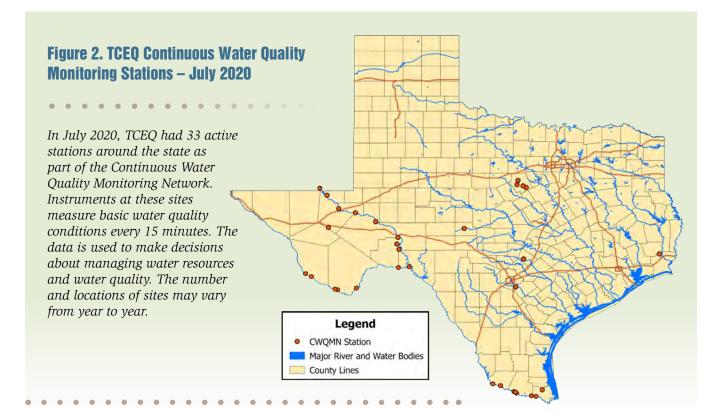
adopted site-specific contact-recreation criteria for numerous individual water bodies in the 2018 Texas Surface Water Quality Standards revision.

Clean Rivers Program

The Clean Rivers Program administers and implements a statewide framework set out in Texas Water Code, Section 26.0135. This state program works with 15 regional partners (river authorities and others) to collect water quality samples, derive quality-assured data, evaluate water quality issues, and provide a public forum for prioritizing water quality issues in each Texas river basin. This program provides 60–70% of the data available in the state's surface water quality database used for water-resource decisions, including revising water quality criteria, identifying the status of water quality, and supporting the development of projects to improve water quality.

Water Quality Monitoring

Surface water quality is monitored across the state in relation to human-health concerns, ecological conditions, and designated uses. The resulting data form a basis for policies that promote the protection and restoration of surface water in Texas. Special projects contribute water quality monitoring data and information on the



32 characteristics that affect toxicity. Source: WAP database and the 2014 Texas Integrated Report

condition of biological communities. This provides a basis for developing and refining criteria and metrics used to assess the condition of aquatic resources.

Coordinated Routine Monitoring

Each spring, TCEQ staff meets with various water quality organizations to coordinate monitoring efforts for the upcoming fiscal year. TCEQ prepares the guidance and reference materials, and the Texas Clean Rivers Program partners coordinate the local meetings. The available information is used by participants to select stations and parameters that will enhance the overall coverage of water quality monitoring, eliminate duplication of effort, and address basin priorities.

The coordinated monitoring network, which consists of about 1,800 active stations, is one of the most extensive in the country. Coordinating the monitoring among the various participants ensures that available resources are used as efficiently as possible.

Continuous Water Quality Monitoring

TCEQ has developed—and continues to refine—a network of continuous water quality monitoring sites on priority water bodies. The agency maintains 30 to 40 sites in its Continuous Water Quality Monitoring Network (CWQMN). At these sites, instruments measure basic water quality conditions every 15 minutes.

CWQMN monitoring data may be used by TCEQ or other organizations to make decisions about water-resource management to target field investigations, evaluate the effectiveness of water quality management programs such as TMDL implementation plans and watershed-protection plans, characterize existing conditions, develop and calibrate water quality models, define stream segment boundaries, and evaluate spatial and temporal trends. The data are posted at TCEQ's website.

The CWQMN data is used to guide decisions on how to better protect certain segments of rivers or lakes. For example, TCEQ developed a network of 15 CWQMN sites on the Rio Grande and the Pecos River, primarily to monitor levels of dissolved salts to protect the water supply in Amistad Reservoir. The Pecos River CWQMN stations also supply information on the effectiveness of the Pecos River Watershed Protection Plan. These stations are operated and maintained by the U.S. Geological Survey through cooperative agreements with TCEQ.

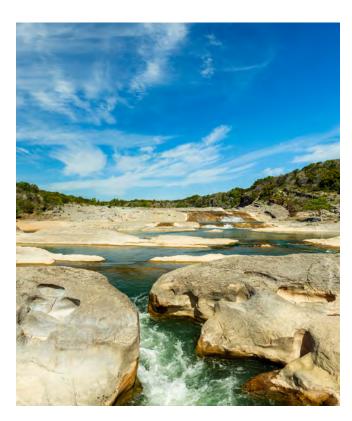
Assessing Surface Water Data

Every even-numbered year, TCEQ assesses water quality to determine which water bodies meet the surface water quality standards for their designated uses, such as contact recreation, support of aquatic life, or drinking-water supply. Data associated with 200 different water quality parameters are reviewed to conduct the assessment. These parameters include physical and chemical constituents, as well as measures of biological integrity.

The assessment is published on TCEQ's website and submitted as a draft to EPA as the Texas Integrated Report for Clean Water Act Sections 305(b) and 303(d) (found at www.tceq.texas.gov/waterquality/assessment).

The Integrated Report evaluates conditions during the assessment period and identifies the status of the state's surface waters in relation to the Texas Surface Water Quality Standards. Waters that do not regularly attain one or more of the standards may require action by TCEQ and are placed on the 303(d) List of Impaired Water Bodies for Texas (part of the report). EPA must approve this list before its implementation by TCEQ's water quality management programs.

Because of its large number of river miles, Texas can monitor only a portion of its surface water bodies. The major river segments and those considered at highest risk for pollution are monitored and assessed regularly. The 2020 Integrated Report was approved by EPA in



May 2020. In developing the report, water quality data was evaluated from 2,639 sites on 1,644 water bodies. The draft 2022 Integrated Report is under development.

Restoring Water Quality

Watershed Action Planning

Water quality planning programs in Texas have responded to the challenges of maintaining and improving water quality by developing strategies to address water quality issues in the state. Watershed Action Planning (WAP) is a process for coordinating, documenting, and tracking the actions necessary to protect and improve the quality of the state's streams, lakes, and estuaries. The major objectives are:

- To fully engage stakeholders in determining the most appropriate action to protect or restore water quality.
- To improve access to state agencies' decisions about water quality management and increase the transparency of that decision-making.
- To improve the accountability of state agencies responsible for protecting and improving water quality.

Leading the WAP process are TCEQ, the Texas State Soil and Water Conservation Board (TSSWCB), and the Texas Clean Rivers Program partners. Involving stakeholders, especially at the watershed level, is key to the success of the WAP process.

Total Maximum Daily Load Program

The Total Maximum Daily Load (TMDL) Program is one of the agency's mechanisms for improving the quality of impaired surface waters. A TMDL is the total amount (or load) of a single pollutant that a receiving water body can assimilate within a 24-hour period and still maintain water quality standards. A rigorous scientific process is used to arrive at practicable targets for the pollutant reductions in TMDLs.

This program works with the agency's water quality programs, other governmental agencies, and watershed stakeholders during the development of TMDLs and related implementation plans.

Bacteria TMDLs

Bacteria from human and animal wastes can indicate the presence of disease-causing microorganisms that pose a threat to public health. People who swim or wade in waterways with high concentrations of bacteria have an increased risk of contracting gastrointestinal illnesses. High bacteria concentrations can also affect the safety of oyster harvesting and consumption.

Of the 1009 AUs listed in the 2020 Texas Integrated Report of Surface Water Quality, about one-third are for bacterial impairments to recreational water uses.

The TMDL Program has developed an effective strategy for developing TMDLs that protects recreational safety. The strategy relies on the engagement and consensus of the communities in the affected watersheds. Other actions are also taken to address bacteria impairments, such as recreational use–attainability analyses that ensure that the appropriate contact-recreation use is in place, as well as watershed-protection plans developed by stakeholders and primarily directed at nonpoint sources.

Implementation Plans

While a TMDL analysis is being completed, stakeholders are engaged in the development of an Implementation Plan (I-Plan), which identifies the steps necessary to improve water quality. These I-Plans outline three to five years of activities, indicating who will carry them out, when they will be done, and how improvement will be gauged. The time frames for completing I-Plans are affected by stakeholder resources and when stakeholders reach consensus. Each plan contains a commitment by the stakeholders to meet periodically to review progress. The plan is revised to maintain sustainability and to adjust to changing conditions.

Programmatic and Environmental Success

Since 1998, TCEQ has been developing TMDLs to improve the quality of impaired water bodies on the federal 303(d) List, which identifies surface waters that do not meet one or more quality standards. In all, the agency has adopted 286 TMDLs for 203 water bodies in the state.

Based on a comparison of the 2016 and the 2020 Integrated Reports, water quality standards were attained for five impaired AUs addressed by the TMDL Program.

From July 2018 to July 2020, the commission adopted TMDLs to address instances where bacteria had impaired the contact-recreation use. TMDLs were adopted for 13 AUs. A TMDL is developed for each AU: Sycamore Creek (one), Armand Bayou Tidal (one), Mary's Creek Bypass (one), Mound Creek (one), Oso Creek (one), Lavaca River above Tidal and Rocky Creek (two), Navasota River above Lake Limestone (two), Brushy Creek and Spring Branch (two), North

Fork Fish Creek (one), and Martinez Creek (one). During that time, the commission also approved three I-Plans for the Lower San Antonio River, Lavaca River above Tidal and Rocky Creek, and the Navasota River above Lake Limestone. The Greater Trinity River Bacteria TMDL I-Plan is an example of successful community engagement to address bacteria impairments. Development of the I-Plan occurred through a stakeholderdriven process that included active public participation. Stakeholders engaged in the process represented a broad spectrum of authorities and interests including government, agriculture, business, conservation groups, and the public. The I-Plan identifies nine strategies for activities that address five TMDL projects. Seven AUs in the I-Plan are meeting their contact recreation uses in the 2020 Integrated Report.

Nonpoint Source Program

The Nonpoint Source (NPS) Program administers the provisions of Section 319 of the federal Clean Water Act. Section 319 authorizes grant funding for states to develop projects and implement NPS pollution management strategies to maintain and improve water quality conditions.

TCEQ, in coordination with TSSWCB, manages NPS grants to implement the long- and short-term goals identified in the Texas NPS Management Program. The NPS Program annual report documents progress in meeting these goals.

The NPS grant from EPA is split between TCEQ (to address urban and non-agricultural NPS pollution) and

TSSWCB (to address agricultural and silvicultural NPS pollution). TCEQ receives \$3 to \$4 million annually. About 60% of overall project costs are federally reimbursable; the remaining 40% comes from state or local matching. In fiscal 2020, TCEQ received \$3.8 million, which was matched with \$2.6 million, for a total of \$6.4 million.

TCEQ annually solicits applications to develop projects that contribute to the Texas NPS Management Program. Typically, 20 to 30 applications are received, reviewed, and scored each year. Because the number of projects funded depends on the amount of each contract, the number of contracts awarded fluctuates. Thirteen projects were selected in fiscal 2019, and 12 in fiscal 2020. Half of the federal funds awarded must be used to implement watershed-based plans, comprising activities that include public outreach and education, low-impact development, the construction and implementation of best management practices, and the inspection and replacement of on-site septic systems.

The NPS Program also administers provisions of Section 604(b) of the federal Clean Water Act. These funds are derived from State Revolving Fund appropriations under Title VI of the act. Using a legislatively mandated formula, money is passed through to councils of governments for water quality planning. The program received \$741,000 in funding from EPA in fiscal 2019 and \$734,000 in fiscal 2020.

Bay and Estuary Programs

The estuary programs are non-regulatory, community-based programs focused on conserving the sustainable



use of bays and estuaries in the Houston-Galveston and Coastal Bend bays regions through implementation of locally developed comprehensive conservation management plans. Plans for Galveston Bay and the Coastal Bend bays were established in the 1990s and recently updated by a broad-based group of stakeholders and bay user groups. These plans strive to balance the economic and human needs of the regions.

The plans are implemented by two different organizations: the Galveston Bay Estuary Program (GBEP), which is a program of TCEQ, and the Coastal Bend Bays and Estuaries Program (CBBEP), which is a nonprofit authority established for that purpose. TCEQ partially funds the CBBEP.

Additional coastal activities at TCEQ include:

- Participating in the Gulf of Mexico Alliance, a partnership linking Alabama, Florida, Louisiana, Mississippi, and Texas. TCEQ contributes staff time to implement the Governors' Action Plan, focusing on water resources and improved coordination among the states.
- Serving on the Coastal Coordination Advisory Committee and participating in the implementation of the state's Coastal Management Program to improve the management of coastal natural resource areas and to ensure long-term ecological and economic productivity of the coast.
- Working with the General Land Office to gain full approval of the Coastal Nonpoint Source Program, which is required under the Coastal Zone Act Reauthorization Amendments.

Galveston Bay Estuary Program

GBEP provides ecosystem-based management that strives to balance economic and human needs with available natural resources in Galveston Bay and its watershed. Toward this goal, the program fosters cross-jurisdictional coordination among federal, state, and local agencies and groups, and cultivates diverse public-private partnerships to implement projects and build public stewardship.

GBEP priorities include:

- coastal habitat conservation
- public awareness and stewardship
- water conservation
- nonpoint and point source abatement
- monitoring and research

During fiscal 2019 and 2020, GBEP worked to preserve wetlands and important coastal habitats



that will protect the long-term health and productivity of Galveston Bay. To inform resource managers, the program conducted ecosystem-based monitoring and research, and worked with partners to fill data gaps. GBEP collaborated with local stakeholders to create watershed-protection plans and to implement water quality projects. Its staff completed the Galveston Bay Plan through a collaborative stakeholder process; the plan was approved by EPA in fiscal 2020. The *State of the Bay* report, which summarizes monitoring data, research findings, and management action along with historical resource uses, began to be updated to transition it into a web-based format.

In fiscal 2019 and 2020, 682.27 acres of coastal wetlands and other important habitats were protected, restored, and enhanced. An additional 4,642 acres will be placed under conservation by the end of calendar 2020. Since 2000, GBEP and its partners have protected, restored, and enhanced a total of 33,408 acres of important coastal habitats.

Through collaborative partnerships established by the program, approximately \$15.49 in private, local, and federal contributions was leveraged for every \$1 the state dedicated to the program in fiscal 2019 and 2020.

Coastal Bend Bays and Estuaries Program

During fiscal 2019 and 2020, CBBEP implemented 56 projects, including habitat restoration and protection, outreach and educational programs, and studies that promote bay and estuary watershed planning. Based in the Corpus Christi area, CBBEP is a voluntary partnership that works with industry, environmental groups, bay users, local governments, and resource managers to improve the health of the bay system. In addition

to receiving program funds from local governments, private industry, TCEQ, and EPA, CBBEP seeks funding from private grants and other governmental agencies. In the last two years, CBBEP secured \$6,705,581 in additional funds to leverage TCEQ funding.

CBBEP priority issues focus on human uses of natural resources, freshwater inflows, maritime commerce, habitat loss, water and sediment quality, and education and outreach. One of CBBEP's goals under their comprehensive conservation and management plan is to address 303(d)-listed segments so that they meet state water quality standards.

Other areas of focus:

- Conserving and protecting wetlands and wildlife habitat through partnerships with private landowners.
- Restoring the Nueces River Delta for the benefit of fisheries, wildlife habitat, and freshwater conservation.
- Environmental education and awareness for more than 8,000 students and teachers annually at the CBBEP Nueces Delta Preserve by delivering educational experiences and learning through discovery, as well as scientific activities.
- Enhancement of colonial-waterbird rookery islands by implementing predator control, habitat management, and other actions to help stem the drop in populations of nesting coastal birds in the Coastal Bend and the Lower Laguna Madre.
- Supporting the efforts of the San Antonio Bay Partnership to better characterize the San Antonio Bay system and to develop and implement management plans that protect and restore wetlands and wildlife habitats.

Drinking Water

Of the approximate 7,000 public water systems (PWSs) in Texas, about 4,660 are community systems, mostly operated by cities. These systems serve about 97% of Texans. The rest are non-community systems—such as those at schools, churches, factories, businesses, and state parks.

TCEQ makes data tools available online so that the public can find information on the quality of locally produced drinking water. The Texas Drinking Water Watch at www.tceq.texas.gov/goto/dww provides analytical results from the compliance sampling of PWSs. In addition, the Source Water Assessment Viewer at www.tceq.texas.gov/gis/swaview shows

the location of the sources of drinking water. The Viewer also allows the public to see any potential sources of contamination, such as an underground storage tank.

All PWSs are required to monitor the levels of contaminants present in treated water and to verify that each contaminant does not exceed its maximum contaminant level, action level, or maximum residual disinfection level—the highest level at which a contaminant is considered acceptable in drinking water for the protection of public health.

In all, EPA has set standards for 102 contaminants in the major categories of microorganisms, disinfection by-products, disinfectants, organic and inorganic chemicals, and radionuclides. TCEQ evaluates approximately 165,000 analytical results each month to determine compliance with these standards. The most significant microorganism is coliform bacteria, particularly *E. Coli*. The most common chemicals of concern in Texas are disinfection by-products, arsenic, fluoride, and nitrate.

More than 58,000 water samples are collected by TCEQ each year just for chemical compliance. Most of the chemical samples are collected by TCEQ contractors and then submitted to an accredited laboratory for analysis. The analytical results are sent to TCEQ and the PWSs.

Each year, TCEQ holds a free symposium on public drinking water, which typically draws about 1,000 participants. The agency also provides technical assistance to PWSs to ensure that consumer confidence reports are developed correctly and include all required information.

Any PWS that fails to have its water tested or reports test results incorrectly faces a monitoring or reporting violation. When a PWS has significant or repeated violations of state regulations, the case is referred to TCEQ's enforcement program.

EPA developed the Enforcement Response Policy and the Enforcement Targeting Tool for enforcement targeting under the Safe Drinking Water Act. TCEQ uses this tool

Table 4. Violations of Drinking-Water Regulations

	Fiscal 2019	Fiscal 2020
Enforcement Orders	346	444
Assessed Penalties	\$420,900	\$548,105
Offsets by SEPs	\$27,620	\$14,785

Note: The numbers of public-water-supply orders reflect enforcement actions from all sources in the agency.

to identify PWSs with the most serious health-based or repeated violations and those that show a history of violations of multiple rules. This strategy brings the systems with the most significant violations to the top of the list for enforcement action, with the goal of returning those systems to compliance as quickly as possible.

More than 99% of the state's population is served by a PWS producing water that meets or exceeds the National Primary Drinking Water Standards.

Review of Engineering Plans and Specifications

PWSs are required to submit engineering plans and specifications for new water systems or for improvements to existing systems. The plans must be reviewed by TCEQ before construction can begin. In fiscal 2019, TCEQ completed compliance review of 2,327 engineering plans for PWSs; in fiscal 2020, 2,352.

The agency reviews creation applications for generallaw water districts and bond applications for water districts to fund water, sewer, and drainage projects. In fiscal 2019, the agency reviewed 563 water-district applications; in fiscal 2020, 557.

Assistance

TCEQ strives to ensure that all water and wastewater systems have the capability to operate successfully. TCEQ contracts with the Texas Rural Water Association to assist utilities with financial, managerial, and technical expertise. About 1,060 assignments were made through this contract in fiscal 2019, and 992 assignments in fiscal 2020.

Wastewater Permitting

The Texas Pollutant Discharge Elimination System was created in 1998, when EPA transferred the authority of the National Pollutant Discharge Elimination System for water quality permits in the state to Texas. The TPDES program issues municipal, industrial, and stormwater permits.

Industrial and Municipal Individual Permits

Industrial wastewater permits are issued for the discharge of wastewater generated from industrial activities. In fiscal 2019, TCEQ issued 189 industrial wastewater

permits; in fiscal 2020, 179. Municipal wastewater permits are issued for the discharge of wastewater generated from municipal and domestic activities. In fiscal 2019, TCEQ issued 593 municipal wastewater permits; in fiscal 2020, 560.

Stormwater Permits

Authorization for stormwater discharges are primarily obtained through one of three types of general permits: industrial, construction, and municipal. TCEQ receives thousands of applications a year for coverage. To handle the growing workload, the agency has introduced online applications for some of these permitting and reporting functions.

Industry

The multi-sector general permit regulates stormwater discharges from industrial facilities. Facilities authorized under this general permit must develop and implement a stormwater pollution prevention plan, conduct regular monitoring, and use best management practices to reduce the discharge of pollutants in stormwater. On average per month, TCEQ receives 50 notices of intent, 23 no-exposure certifications, and 35 notices of termination for industrial facilities.

Construction

The construction general permit regulates stormwater runoff associated with construction activities, which include clearing, grading, or excavating land at building projects. Construction disturbing five or more acres is labeled a "large" activity, while construction disturbing one acre or more but less than five acres is termed "small." TCEQ currently receives about 658 notices of intent and 366 notices of termination a month for large construction activities.

Table 5. Stormwater General Permits

Applications Affected (issued)		Applications Received (monthly average)		Applications Received (total)	
Fiscal 2019	Fiscal 2020	Fiscal 2019	Fiscal 2020	Fiscal 2019	Fiscal 2020
1,336	876	111	73	1,330	876
8,625	7,893	712	658	8,540	7,895
13 5		4	1	526	15
	Affe (iss) Fiscal 2019 1,336 8,625	Affected (issued) Fiscal 2019 Fiscal 2020 1,336 876 8,625 7,893	Affected (issued) Fiscal Fiscal 2019 1,336 876 111 8,625 7,893 712	Affected (issued) Received (monthly average) Fiscal 2019 Fiscal 2020 Fiscal 2019 Fiscal 2020 1,336 876 111 73 8,625 7,893 712 658	Affected (issued) Received (monthly average) Applications Fiscal 2019 Fiscal 2020 Fiscal 2019 Fiscal 2019 1,336 876 111 73 1,330 8,625 7,893 712 658 8,540

a. Includes No-Exposure Certifications.

Municipal

TCEQ also regulates discharges from municipal separate storm-sewer systems (MS4s). This category applies to a municipality's system of ditches, curbs, gutters, and storm sewers that collect runoff, including controls for drainage from state roadways. TCEQ has 23 active individual MS4 Phase I permits and 583 active MS4s Phase II authorized under a general permit. MS4s must develop and implement a stormwater management plan.

Water Availability

Managing Surface Water Rights

TCEQ is charged with managing state surface water in Texas. The agency implements its authority through permitting and enforcement of surface water rights. The use of water for domestic or livestock purposes is considered a superior water right that does not require a permit. TCEQ is responsible for protecting senior and superior water rights, as well as for ensuring that water right holders divert state water only in accordance with their permits

Texas water law specifies that in times of shortage, permitted water rights will be administered based on the priority date of each water right, also known as the prior appropriation doctrine—that is, the earliest in time is senior. Additionally, exempt domestic and livestock uses are superior to permitted rights. Among permitted water right holders, the permit holders that received their authorization first (senior water rights) are entitled to take their water before water right holders that received their authorization on a later date (junior water rights). Additionally, exempt domestic and livestock uses are superior to permitted rights. Senior or superior water right holders not able to take their authorized water can call on TCEQ to enforce the priority doctrine (a priority call).

Under the TCEQ v. Texas Farm Bureau decision, if suspension is necessary to satisfy a priority call by a senior or superior water right holder, TCEQ will not be able to exempt any junior water rights. This includes exemptions based on public health, safety, or welfare concerns for junior water rights used for municipal purposes or power generation.

Managing Water Availability During Drought

TCEQ is engaged to respond to extreme drought. The agency's focus on drought response and its activities include monitoring conditions across the state, expedited processing of drought-related water rights

applications, priority call response, and participating in multi-disciplinary task force meetings. TCEQ also communicates information about drought to state leaders, legislative officials, county judges, county extension agents, holders of water right permits, and the media.

Drinking Water Systems

The TCEQ Public Drinking Water Program is responsible for ensuring that the citizens of Texas receive a safe and adequate supply of drinking water. TCEQ carries out this responsibility by implementing the Safe Drinking Water Act. All public water systems are required to register with TCEQ, provide documentation to show that they meet state and federal requirements, and evaluate the quality of the drinking water.

Exploring New Supplies through Alternative Treatment

The population of Texas is expected to reach almost 46 million by the year 2060. Planning well in advance is critical to sustaining Texas' increasing water needs in a state that experiences prolonged droughts, floods, and other challenges. Recognizing this, more and more public water systems are beginning to propose the use of less-conventional sources of water that often require complex innovative treatment. TCEQ's engineers and scientists use their expertise to help guide public water systems through the process of selecting appropriate innovative treatment technologies, and to ultimately grant approvals for those technologies while ensuring that the treated water is safe for human consumption. Some examples of challenging water sources that require innovative treatment technologies are groundwater with elevated levels of nitrates, radionuclides, or other contaminants; saline or brackish groundwater; seawater; and effluent from municipal wastewater treatment plants reclaimed for direct potable reuse.

Disaster Preparedness

TCEQ encourages public water systems to take an allhazards approach in preparing their water system for any disaster and to become more resilient prior to and following a disaster. TCEQ's public website addresses natural-disaster preparedness, drought contingency plan reporting, drinking water flood information, homeland security FAQs for public water systems, information on regulatory guidance, and mutual-aid assistance through the Texas Water/Wastewater Agency Response Network (TXWARN). In addition, TCEQ's Water Security Contract

provides educational workshops and seminars to public water systems across the state covering topics such as risk assessments, emergency response planning, hazard mitigation funding, disaster relief funding, drought workshops and emergency management resources. TCEQ's educational and disaster preparedness resources assist public water systems in providing a safe, adequate and continuous supply of drinking water to their customers before, during and after a disaster.

In addition to the education and preparedness resources, public drinking water drought-response activities are coordinated through TCEQ's Drought Team. The team issues updates on the status of drought conditions and continues to monitor a targeted list of PWSs that have a limited supply of water. In addition, the multi-agency Emergency Drinking Water Task Force, which was formed to respond to drought emergencies at public water systems, currently meets quarterly to discuss the systems being tracked and opportunities for outreach, funding, and assistance.

Water Rights Permitting

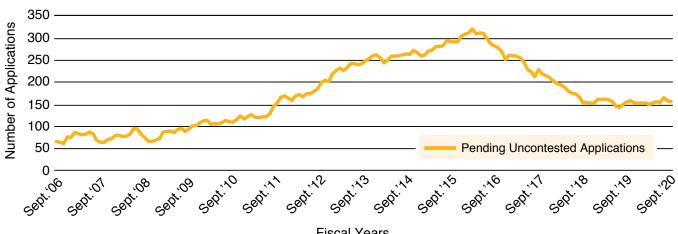
Water flowing in Texas creeks, rivers, lakes, and bays is state water. The right to use state water may be acquired through appropriation via permitting as established in state law. An authorization (permit or certificate of adjudication) is required to divert, use, or store state water or to use the bed and banks of a watercourse to convey water. However, there are several specific uses of state water that are exempt from the requirement to obtain a water right permit, such as domestic and livestock (D&L) purposes. For any new appropriation of state surface water, the Texas Water Code requires TCEQ to determine whether water is available in the source of supply. Once obtained, a surface water authorization is perpetual, with the exception of some temporary and term authorizations.

TCEQ reviews permit applications for new appropriations of state water for administrative and technical requirements related to conservation, water availability, and the environment. In addition to new appropriation requests, the agency also reviews amendment applications and other applications including bed-and-bank authorizations, reuse, and temporary water rights. In fiscal 2019 and 2020, the agency processed 217 water rights actions, including new permits, amendments, water-supply contracts, and transfers of ownership.

Major changes to state water policy (for example, developing environmental flow standards), drought, complex applications, and other projects can shift TCEQ water rights permitting staff from permitting activities. Beginning in 2007, several of these factors affected water rights processing. The result was an increase in pending permit applications, 355 by early 2016. That number has since been reduced to 168 as of September 2020. Figure 3 shows the number of water right permit applications pending with TCEQ from November 2014 to August 2020. This graph shows TCEQ's recalibration efforts.

TCEQ continues to strongly encourage preapplication meetings to assist applicants in developing more complete applications, limiting time extensions granted to applicants to respond to requests for information, and implementing return policies when an applicant is unresponsive. Additionally, LEAN management tools and practices

Figure 3. Pending Uncontested Water Rights Applications, September 2006-September 2020



Fiscal Years

have been applied to the water rights permitting process to streamline the process and assist with identifying and solving process problems. LEAN management incorporates continuous improvement into the management process. In addition, TCEQ has engaged in outreach efforts to help water right holders remain in compliance with statutory requirements for reporting water use. Whenever possible, TCEQ has reached out to water rights stakeholders and has increased its presence and availability at water conferences and other events.

Fast Track Permitting

Not all water right applications require the same level of technical review. In July 2016, the Water Rights Permitting program began a "Fast Track" pilot program designed to provide for more streamlined processing for less complex water right applications. This program was largely successful, with 337 Fast Track applications processed between July 2016 and August 2020, at a median processing time of 280 days.

In 2020, TCEQ reviewed and revised the program based on its successes and challenges over the four-year pilot program. The Fast Track program now streamlines Fast Track application processing through a modified LEAN prioritization system. Additionally, application types that did not fit the program were removed, while other types were added. TCEQ will continue to evaluate the Fast Track program to ensure focus on the overall goal of providing streamlined permit processing for less complex applications while adapting to changes in the water rights permitting program.

Texas Water Rights Viewer

In September 2019, TCEQ launched the Texas Water Rights Viewer. The Viewer is a GIS-based tool that houses water rights information. The Viewer makes a wide range of information easily available to the public in a spatial format. The water rights permit data available includes copies of water right permits, water right ownership data, and water-use data. Prior to the Viewer, obtaining much of this data required an in-person search of TCEQ records or a Public Information Request.

Changes of Ownership and Water Use Reports

TCEQ processes ownership changes in support of water rights permitting statewide. Current ownership information ensures that proper notice information is received by water rights permit holders. Additionally, current owner information is critical to ensure that information

is conveyed to the appropriate permit holder to achieve the desired effect of actions taken to meet a priority call during drought.

TCEQ also requires the completion of Water Use Reports to support modeling efforts and enforcement of water rights. Water Use Reports are sent to water rights permit holders outside of watermaster areas on Jan. 1 of each year and are due back to TCEQ on March 1. The return rate for these reports was 72% for the 2019 water year, but this actually represents approximately 95% of the permitted water in the state.

Water Conservation and Drought Contingency Plans

Under Texas Water Code, Chapter 11, and Title 30 Texas Administrative Code, Chapter 288, certain water right holders and other entities are required to develop, implement, and submit updated Water Conservation Plans (WCPs) (including Water Conservation Implementation Reports) and Drought Contingency Plans (DCPs) to TCEQ every five years. The most recent deadline to submit updated WCPs and DCPs to TCEQ was May 1, 2019. As of September 1, 2020, TCEQ has completed the review of 90% (1,162 of 1,288) of the required plans.

Changes in Water Rights Permitting

In 2019, the 86th Texas Legislature passed two bills relating to surface water rights that required changes to TCEQ's rules. House Bill (HB) 1964 streamlined the water rights permitting process for simple amendments to a water right that do not affect other water rights or the environment. HB 720 removed permitting barriers for water right applications for new appropriation and amendments that include (1) storage in an aquifer storage and recovery (ASR) project for later recovery for the ultimate authorized beneficial use under an appropriation and (2) aquifer recharge (AR) projects. TCEQ implemented the requirements of these bills in a single rulemaking adopted in May 2020.

In April 2019, TCEQ adopted rules to complete implementation of HB 2031 from the 84th Legislature by designating discharge and diversion zones based on a Marine Seawater Desalination Diversion and Discharge Zone Study completed by the Texas Parks and Wildlife Department and the General Land Office. In April 2019, in response to a petition for rulemaking, TCEQ also adopted rules to provide an exception from notice requirements for applications to extend the time to commence or complete construction of a reservoir designed for storage of more than 50,000 acre-feet of water.

Environmental Flows

In 2007, the Legislature passed two landmark measures relating to the development, management, and preservation of water resources, including the protection of instream flows and freshwater inflows. The measures changed how the state determines the flow that needs to be preserved in the watercourse for the environment, requiring the consideration of both environmental and other public interests.

TCEQ adopted rules for environmental flow standards for Texas' rivers and bays through three rulemakings. The third rulemaking for the environmental flow standards was completed in February 2014. TCEQ's ongoing goal is to protect the flow standards—along with the interests of senior water-rights holders—in the agency's water rights permitting process for new appropriations and amendments that increase the amount of water to be taken, stored, or diverted.

Evaluations of River Basins without a Watermaster

Under Section 11.326 of the Texas Water Code, TCEQ is required every five years to evaluate river basins that do not have a watermaster program to determine whether a watermaster should be appointed. Agency personnel are directed to report their findings and make recommendations to the commission.

In 2011, TCEQ developed a schedule for conducting these evaluations, as well as criteria for developing recommendations. TCEQ has completed one five-year cycle of evaluations. The agency is currently in the second five-year cycle. In 2019, TCEQ evaluated the Sabine and Neches River basins. In 2020, TCEQ evaluated the Canadian and Red River basins.

The commission did not create a watermaster program on its own motion at the conclusion of any evaluation year. In the first five-year cycle, TCEQ expended approximately \$570,000 total in staff time, travel costs, and other administrative costs to conduct evaluations. In the first and second years of the second five-year cycle, the agency expended approximately \$198,000.

For more information, see Appendix D, "Evaluation of Water Basins in Texas without a Watermaster."

Texas Interstate River Compacts

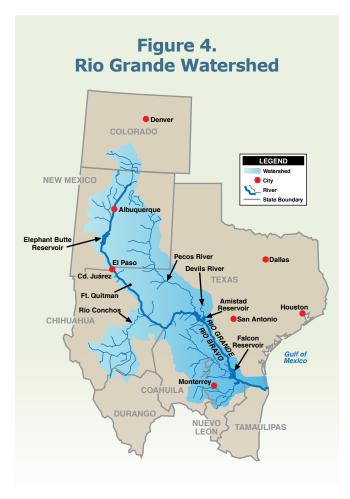
Texas is a party to five interstate river compacts. These compacts apportion the waters of the Canadian, Pecos, Red. and Sabine rivers and the Rio Grande between

the appropriate states. Interstate compacts form a legal foundation for the equitable division of the water of an interstate stream with the intent of settling each state's claim to the water.

Rio Grande Compact

The Rio Grande Compact, ratified in 1939, divided the waters of the Rio Grande among the signatory states of Colorado, New Mexico, and Texas from its source in Colorado to Fort Quitman, Texas. The compact did not contain specific wording regarding the apportionment of water in and below Elephant Butte Reservoir. However, the compact was drafted and signed against the backdrop of the 1915 Rio Grande Project and a 1938 U.S. Bureau of Reclamation contract that referred to a division of 57% to New Mexico and 43% to Texas. The compact contains references and terms to ensure sufficient water to the Rio Grande Project.

The project serves the Las Cruces and El Paso areas and includes Elephant Butte Reservoir, along with canals and diversion works in New Mexico and Texas. The project water was to be allocated according



to the 57:43% division, based on the relative amounts of project acreage originally identified in each state. Two districts receive project water: Elephant Butte Irrigation District (EBID), in New Mexico, and El Paso County Water Improvement District No. 1 (EP#1), in Texas. The latter supplies the city of El Paso with about half of its water.

In 2008, after 20 years of negotiations, the two districts and the Bureau of Reclamation completed an operating agreement for the Rio Grande Project. The agreement acknowledged the 57:43% division of water and established a means of accounting for the allocation. The agreement was a compromise to resolve major issues regarding the impact of large amounts of groundwater development and pumping in New Mexico that affected water deliveries to Texas.

But significant compliance issues continue regarding New Mexico's water use associated with the Rio Grande Compact. In 2011, New Mexico took action in federal district court to invalidate the 2008 operating agreement. In response to the lawsuit and in coordination with the Legislative Budget Board and the Attorney General's Office, the Rio Grande Compact Commission of Texas hired outside counsel and technical experts with specialized experience in interstate water litigation to protect Texas' share of water.

In January 2013, Texas filed litigation with the U.S. Supreme Court. A year later, the Supreme Court granted Texas' motion and accepted the case. Subsequently, the United States filed a motion to intervene as a plaintiff on Texas' side, which was granted.

As Texas develops information to support its position, evidence grows that New Mexico's actions have significantly affected, and will continue to affect, water deliveries to Texas. On Nov. 3, 2014, the Supreme Court appointed a special master in this case with authority



to fix the time and conditions for the filings of additional pleadings, to direct subsequent proceedings, to summon witnesses, to issue subpoenas, and to take such evidence as may be introduced. The special master was also directed to submit reports to the Supreme Court as he may deem appropriate.

A "special master" is appointed by the Supreme Court to carry out actions on its behalf such as the taking of evidence and making rulings. The Supreme Court can then assess the special master's ruling much as a normal appeals court would, rather than conduct the trial itself. This is necessary as trials in the United States almost always involve live testimony and it would be too unwieldy for nine justices to rule on evidentiary objections in real time.

Motions to Intervene filed by EP#1 and EBID were referred to the special master. Following a hearing on the motions conducted Aug. 19–20, 2016, the special master filed his First Interim Report with the Supreme Court on Feb. 13, 2017. He recommended denying the motions to intervene filed by EP#1 and EBID as well as New Mexico's motion to dismiss. The First Interim Report was also very favorable to Texas' position.

On Oct. 10, 2017, the Supreme Court ruled to dismiss New Mexico's motion to dismiss Texas' complaint. The court also denied the motions by EBID and EP#1 to intervene. Various motions to file amicus curiae briefs were granted. (Amicus curiae: literally "friend of the court"—persons that are not party to the case that are allowed to present points of law or information to the court.) The exception of the United States and the first exception of Colorado to the First Interim Report of the Special Master were heard during oral arguments by the Supreme Court on Jan. 8, 2018. On March 5, 2018, the court ruled that the United States may pursue the compact claims it has pleaded in the litigation and all other exceptions were denied.

A new special master, Judge Michael Melloy, was appointed by the Supreme Court on April 2, 2018. New Mexico filed a response to Texas' complaint on May 22, 2018, denying the allegations and filed counterclaims against Texas and the United States. Texas submitted a response on July 20, 2018, to counterclaims filed by New Mexico. Texas generally denied all the counterclaims and requested they be dismissed. An Amendment to the Case Management Order was issued by the Special Master on Jan. 31, 2019. Additionally, the Special Master dismissed most of New Mexico's counterclaims on March 31, 2020.

Due to the COVID-19 emergency, deposition discovery was originally stayed until April 2020. The Special Master then extended discovery through August 2020. All other discovery, including the submission and responses to interrogatories and exchanges of documents, is continuing. The Special Master has scheduled bi-weekly status videoconferences.

The trial is currently scheduled for late 2021, but this may change, depending on Special Master rulings that are taken up to the Supreme Court for review. A mediator has been appointed to try to settle the issues.

International Treaties

Two international treaties have a major impact on water supplies available to Texas. The 1906 convention between the United States and Mexico apportions the waters of the Rio Grande Basin above Fort Quitman, Texas, while the 1944 treaty between the United States and Mexico apportions the waters of the basin below Fort Quitman.

Mexico continues to under-deliver water to the United States under the 1944 treaty. Mexico does not treat the United States as a water user and only relies on significant rainfalls to make deliveries of water. This stands in contrast to the manner in which the United States treats Mexico with regard to the Colorado River. In fact, the United States has always supplied Mexico its annual allocation from the Colorado River. The Colorado River and the Rio Grande are both covered by the same 1944 treaty. Efforts continue through the Texas congressional delegation to address this problem.

Mexico's failure to deliver 1944 treaty water and overall water-management strategies have negative impacts on Texas, especially in the Lower Rio Grande Valley below Falcon Dam. Mexican drains of irrigation tailwater—including the Morillo Drain, which continues to function below the capacity specified by the minutes of the 1944 treaty—negatively affect salinity levels in the Rio Grande below Falcon Dam. Salinity levels above 1,000 mg/L compromise crops and municipal water systems. The Rio Grande Watermaster monitors salinity levels and provides notifications to stakeholders when salinity in the Rio Grande below Falcon Dam is elevated.

A related issue concerns the accounting of waters in the Rio Grande at Fort Quitman. While the 1906 convention clearly granted to the United States 100% of all waters between El Paso and Fort Quitman, the

International Boundary and Water Commission has allocated the waters equally between the United States and Mexico.

Groundwater

TCEQ is responsible for delineating and designating priority groundwater management areas (PGMAs) and creating groundwater conservation districts in response to landowner petitions or through the PGMA process.

In 2021, TCEQ and the Texas Water Development Board will submit a joint legislative report that details activities in fiscal biennium 2019–20 relating to PGMAs and the creation and operation of groundwater conservation districts.

Groundwater conservation districts (GCDs), each governed by a locally selected board of directors, are the state's preferred method of groundwater management. Under the Texas Water Code, GCDs are authorized and required to issue permits for water wells, develop a management plan, and adopt rules to implement the plan. The plan and the "desired future conditions" for a groundwater management area must be readopted and approved at least once every five years. TCEQ actively monitors and ensures GCD compliance to meet requirements for adoption and re-adoption of management plans.

TCEQ also has responsibility for supporting the activities of the interagency Texas Groundwater Protection Committee (TGPC). Texas Water Code, Sections 26.401–26.408, enacted by the 71st Texas Legislature (1989), established non-degradation of the state's groundwater resources as the goal for all state programs. The same legislation created the TGPC to bridge gaps between existing state groundwater programs and to optimize groundwater quality protection by improving coordination among agencies involved in groundwater activities.

Three of the TGPC's principal mandated activities are:

- Developing and updating a comprehensive groundwater protection strategy for the state.
- Publishing an annual report on groundwater monitoring activities and cases of documented groundwater contamination associated with activities regulated by state agencies.
- Preparing and publishing a biennial report to the legislature describing these activities, identifying gaps in programs, and recommending actions to address those gaps.

Waste Management

Disposal of Low-Level Radioactive Waste

In 2009, TCEQ issued a license to Waste Control Specialists LLC (WCS) authorizing the operation of a facility for disposal of low-level radioactive waste (LLRW) in Andrews County, Texas.

The Texas Low-Level Radioactive Waste Disposal Compact is an interstate compact between Texas and Vermont. LLRW generated in the Texas Compact may be disposed of in the Compact Waste Facility (CWF). The CWF can also accept non-compact wastes provided that the importation is approved by the Texas Low-Level Radioactive Waste Disposal Compact Commission. A separate, adjacent facility, the Federal Waste Facility (FWF), authorized by the same license as the CWF, may accept LLRW and mixed waste (waste that contains both a hazardous and a radioactive constituent) from federal facilities. Upon eventual closure of the FWF, the facility will be owned by the U.S. Department of Energy (DOE).

After TCEQ authorized commencement of operations at the CWF portion of the site, the facility received its first waste shipment in April 2012. TCEQ then authorized operations to begin at the FWF portion of the site, and the facility received its first waste shipment in June 2013. Since operations began at both sites, more than 550,000 cubic feet of waste have been safely disposed of, and over \$56 million in disposal and processing fees have been collected as revenue for the state through the third quarter of fiscal 2020.

LLRW is produced predominantly by nuclear utilities, academic and medical research institutions, hospitals, industry, and the military. It typically consists of radioactively contaminated trash, such as:

- paper
- rags
- plastic
- glassware
- syringes
- protective clothing (gloves, coveralls)
- cardboard
- packaging material
- organic material
- used, sealed radioactive sources

Nuclear power plants contribute the largest portion filters, contaminated tools and clothing, and irradiated



metals and other hardware. LLRW does not include high-level waste and spent nuclear fuel.

By law, TCEQ is responsible for setting rates for the disposal of LLRW at the compact facility. In November 2013, TCEQ adopted a final disposal rate by rule and published the notice in the Texas Register. The disposal rate has been reviewed and revised as necessary, or at the request of the compact facility operator and the compact generators.

Disposal of Radioactive By-Product Material

Licensed in 2008, the WCS site has been open for byproduct disposal since 2009. By-product material that can be disposed of by the WCS facility is defined as tailings or wastes produced by, or resulting from, the extraction or concentration of uranium or thorium from ore.

Since 2009, the WCS facility has disposed of one by-product waste stream containing 3,776 canisters of waste generated by the DOE's Fernald facility in Ohio.

Underground Injection Control Program

Underground Injection Control (UIC) is a federally authorized program that was established under the authority of the federal Safe Drinking Water Act to protect underground sources of drinking water from degradation caused by unsafe injection of fluids underground. The state of Texas gained primacy for the UIC program in 1982 and jurisdiction is shared between TCEQ and the Railroad Commission of Texas (RRC). There are six classes of injection wells. TCEQ's jurisdiction covers Class I, III, IV, and V injection wells.

- Class I wells are used for deep injection of hazardous and non-hazardous wastes.
- Class III wells are used to extract minerals other than oil and gas, and are regulated by TCEQ or the RRC, depending on the type of well.

- Class IV wells are only authorized by TCEQ or EPA in special circumstances regarding environmental cleanup operations.
- Class V wells are used for many different activities and are regulated by either TCEQ or the RRC, depending on the type of well.

Uranium Production

Uranium is produced in Texas through in situ leaching. Uranium is leached directly out of a uranium-bearing formation underground and pumped in solution to the surface for processing. The conventional method used in the past for uranium production created impoundments for disposal of by-product waste. These impoundment sites have all been capped, are no longer accepting waste, and will be transferred to the DOE upon license termination. Currently, Texas has five uranium mining licenses comprising seven sites and two licensed uranium-processing facilities.

Managing Industrial and Hazardous Waste

The Resource Conservation Recovery Act (RCRA) establishes a system for controlling hazardous waste from the time it is generated until its ultimate disposal. EPA has delegated the primary responsibility of implementing the RCRA in Texas to TCEQ.

TCEQ reviews and approves plans, evaluates complex analytical data, and writes new and modified Industrial and Hazardous Waste (I&HW) permits. Texas has 177 permitted industrial and hazardous waste treatment, storage, and disposal facilities.

During fiscal 2019 and 2020, TCEQ issued 21 I&HW permit renewals, performed approximately 1,160 industrial waste-stream audits, and oversaw remediation of a total of 314 sites.

Managing Municipal Solid Waste

With growing demands on the state's waste-disposal facilities, TCEQ evaluates the statewide outlook for landfill capacity and strives to reduce the overall amount of waste generated.

In fiscal 2019 (the most recent data available), there were 198 active municipal solid waste landfills in the state. Over 36.8 million tons of waste were disposed of, an increase of 4.2% from fiscal 2017. In fiscal 2019, the average per capita disposal rate was 6.96 pounds per person per day.

At the end of fiscal 2019, overall municipal solid waste capacity was over 1.9 billion tons, representing 53 years of statewide remaining disposal capacity. The net capacity increased approximately 6.2 million tons, or about 0.3%, compared with the capacity in fiscal 2017. Throughout the state, the existing trend is for regional landfills to serve the state's more-populous areas, while less-populous areas in West Texas are served by small, arid-exempt landfills that accept less than 40 tons per day.

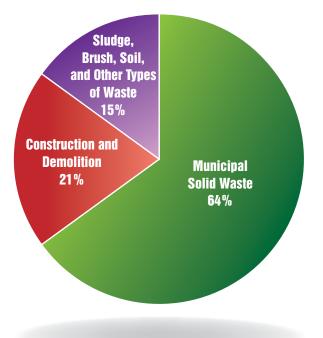
To assist regional and local solid waste planning initiatives, such as addressing adequate landfill capacity, TCEQ provides solid waste planning grants to each of the 24 regional councils of governments (COGs). The planning initiatives are based on goals specified in each COG's regional solid waste management plan.

For the 2018-19 grant period, the COGs received about \$10.9 million. Pass-through projects included recycling activities, cleanups of illegal dump sites (including illegal tire sites), household hazardous waste collection events, and education and outreach projects.

The Regional Solid Waste Grants Program Funding Report, Fiscal Year 2018/2019, includes data collected by TCEQ from the 24 COGs, and details the regional solid waste grant activities for that two-year period. The report will be available on TCEQ's website in January 2021.

Figure 5. Municipal Solid Waste

Texas had 198 active municipal solid waste landfills in fiscal 2019. Municipal solid waste disposal reached about 36.8 million tons.



of LLRW in the form of spent ion-exchange resins and

Superfund Program

Superfund is the federal program that enables state and federal environmental agencies to address properties contaminated by hazardous substances. EPA has the legal authority and resources to clean up sites where contamination poses the greatest threat to human health and the environment.

Texas either takes the lead or supports EPA in the cleanup of Texas sites that are on the National Priorities List (NPL), which is EPA's ranking of national priorities among known or threatened releases of hazardous substances, pollutants, or contaminants.

In addition, Texas has a state Superfund program to address sites that are ineligible for the federal program. This program is the state's safety net for addressing contaminated sites. TCEQ uses state funds for cleanup at sites in the Texas Superfund Registry if no responsible parties can or will perform the cleanup. TCEQ also takes legal steps to recover the cleanup expenses.

After a site is proposed for the state Superfund program, either the responsible party or TCEQ proceeds with a remedial investigation, during which the agency determines the nature and extent of the contamination. A feasibility study follows to identify possible cleanup remedies. A public meeting is held to explain the proposed remedy and to accept public comments. TCEQ then selects an appropriate remedial action.

In fiscal 2019, Texas had 108 active sites in the state and federal Superfund programs. No new sites were proposed or listed on the NPL or Texas Superfund Registry during the fiscal year. Remedial actions were completed at two state Superfund sites—in Matagorda and Galveston counties.

In fiscal 2020, no new sites were proposed or listed on the NPL or Texas Superfund Registry, for a total of 108 active sites. No remedial actions were completed.

Petroleum Storage Tanks

TCEQ oversees the cleanup of contamination of groundwater and soil due to leaking petroleumstorage tanks. Since the program began in 1987, the agency has received reports of 28,488 leaking PST sites—primarily at gasoline stations.

By the end of fiscal 2020, cleanup had been completed at 27,335 sites, and corrective action was under way at 1,153 sites.

Of the total reported PST releases, about half 48 have affected groundwater.

Leaking PSTs are often discovered when a tank owner or operator upgrades or removes tanks, when an adjacent property owner is affected, or when the tank leak-detection system signals a problem. Some leaks are detected during construction or utility maintenance. Most tank-system leaks are due to corrosion, incorrect installation, or damage during construction or repairs.

To avoid releases, tank owners and operators are required to properly operate and monitor their storagetank systems, install leak-detection equipment and corrosion protection, and take measures to prevent spills and overfills.

Tank owners and operators are required to clean up releases from leaking PSTs, beginning with a site assessment that may include drilling monitoring wells and taking soil and groundwater samples. TCEQ oversees the remediation.

Under state law, cleanups of leaking tanks that were discovered and reported after Dec. 23, 1998, are paid by the owners' environmental liability insurance or other financial-assurance mechanisms, or from their own funds.

The PST State Lead Program cleans up sites at which the responsible party is unknown, unwilling, or financially unable to do the work—and in situations in which an eligible site was transferred to State Lead by July 2011. State and federal funds pay for the corrective actions. Except for the eligible sites placed in the program by the July 2011 deadline, the state allows cost recovery from the current owner or any previous responsible owner.

Voluntary Cleanups

The Texas Voluntary Cleanup Program (VCP) gives incentives for pollution cleanup by releasing future property owners from liability once a previously contaminated property is cleaned up to the appropriate risk-based standard.

Since 1995, the program has provided regulatory oversight and guidance for 2,962 applicants and has issued 2,490 VCP certificates of completion.

In the last two years, the program received 144 applications and issued 160 certificates. Recipients of the certificates report that the associated release of liability helps with property sales, including transactions that would not have otherwise occurred due to real or perceived environmental impacts. As a result, many underused or unused properties may be restored to economically beneficial use.

The key benefit of the VCP is the liability release afforded to future property owners once the certificate



is issued. The certificate insulates future owners from potential changes in environmental conditions, such as the discovery of previously unknown contamination.

The VCP is funded by an initial \$1,000 fee paid by each applicant. Costs beyond the initial fee are invoiced to the applicant monthly by TCEQ.

Under the Innocent Owner/Operator Program (IOP), TCEQ also implements the law providing liability protection to property owners whose land has been affected by contamination that migrated onto their property from an off-site source. In the last two years, TCEQ issued 62 IOP certificates.

Dry Cleaners

Since 2003, TCEQ has been responsible for collecting fees for a remediation fund designed to help pay for the cleanup of contaminated dry-cleaner sites. The fees come from the annual registration of dry-cleaning facilities and drop stations, property owners, prior property owners, and solvent fees from solvent distributors.

In 2007, the Legislature established registration requirements for current and prior property owners who wish to claim benefits from the remediation fund and authorized a lien against current and prior property owners who fail to pay registration fees due during corrective action.

In addition, the use of perchloroethylene was prohibited at sites where the agency has completed corrective action.

In fiscal 2019, there were 2,578 dry-cleaner registrations and more than \$3.1 million in invoiced fees: in fiscal 2020, there was a total of 2,449 registrations and approximately \$2.9 million in invoiced fees.

Waste Reduction Hazardous Waste

TCEO provides technical advice and collaborates on the offering of innovative approaches and in-person workshops for improving environmental performance through pollution prevention (P2) planning.

All together, these efforts resulted in reductions of hazardous waste by more than 918 thousand tons and of toxic chemicals by more than 240 thousand tons during fiscal biennium 2019-20.

Renewing Old and Surplus Materials

Texas established the Resource Exchange Network for Eliminating Waste (RENEW) in 1988 to promote the reuse or recycling of industrial waste.

The materials-exchange network has assisted in the trading of millions of pounds of materials, including plastic, wood, and laboratory chemicals. These exchanges divert materials from landfills and help participants reduce waste-disposal costs and receive money for their surplus materials. Additionally, exchanges help protect the environment by conserving natural resources and reducing waste.

RENEW is a free, easy-to-use service. Listings are grouped under "Materials Available" for anyone offering raw materials to other facilities, and "Materials Wanted" for anyone looking to find raw materials.

Through the RENEW website, www.renewtx.org, these participants can list and promote information on opportunities for exchanging at national and regional levels.

In fiscal 2019 and 2020, 102 users signed up to use RENEW, and 204 new listings were posted.

Compliance Assistance

TCEQ uses technical assistance, education, and pollution prevention programs to encourage environmental improvements. The Program Support and Environmental Assistance Division (PSEAD) steers many of these programs in a direction that focuses on agency priorities and aligns with agency regulatory systems.

In fiscal 2019 and 2020, the division responded to 15,091 requests for assistance from small businesses



and local governments. Of those, 277 received one-onone assistance at their business site or facility.

For fiscal 2019, PSEAD's Site Visit program continued to focus resources on the requirement of the federal Energy Policy Act (EACT), that all registered petroleum storage tanks (PSTs) must undergo an investigation at least once every three years. Through the Site Visit Program, PST facilities have an opportunity to receive an EACT site visit. If they achieve full compliance with the EACT checklist, they receive credit for their three-year investigation. Site visits do not lead to an investigation or citation, unless there is an imminent threat to human health or the environment.

In fiscal 2019, 145 EACT site visits were completed, resulting in 130 EACT-compliant facilities. Non-compliant facilities received recommendations for resolving non-compliance issues so that they can prepare for a future EACT investigation. In fiscal 2019, the Site Visit program also piloted a new EACT Abandoned checklist and conducted 33 site visits at potentially abandoned PST facilities.

In fiscal 2020, the Site Visit program focused resources on EACT Abandoned site visits and conducted 221 site visits at potentially abandoned PST facilities. In fiscal 2020, TCEQ developed a process to establish when a PST can be considered abandoned and removed from the EACT investigation cycle. This process also provides guidance to other parts of the agency for determining what additional assistance or action may be necessary to mitigate risks that may be presented by these abandoned PSTs.

During fiscal 2019, the Site Visit program, utilizing a grant from EPA, conducted 221 site visits at potentially abandoned PST facilities in the 60 counties affected by Hurricane Harvey to assess damage that may have resulted from the hurricane. In fiscal 2019, the Site Visit program also conducted comprehensive site assessments at seven of these facilities to determine whether a release had occurred. In fiscal 2020, the Site Visit program conducted an additional 25 comprehensive site assessments. Cleanups were initiated at three facilities and completed at one facility.

The Program Support and Environmental Assistance Division hosts a variety of workshops to help educate the regulated community.

During fiscal 2019 and 2020, Nitrification Action Plan workshops were hosted for public water systems (PWSs) that use chloramines for disinfection. Licensed operators received continuing-education units for attending. Workshops were held in Tyler (2), Willis, Lumberton, Waco, Corpus Christi, Dallas, and Ft. Worth. In total, the workshops had 277 attendees. Workshops planned for the spring and summer of 2020 were cancelled as a result of the coronavirus pandemic.

In fiscal 2020, compliance workshops for Transient Non-Community (TNC) Public Water Systems were held in Fredericksburg and San Marcos. A total of 101 participants received a TNC Compliance Notebook to assist in preventing recordkeeping-related violations and to comply with the rules and regulations associated with producing and distributing drinking water.

In fiscal 2019, 18 PST compliance workshops were held across the state. A total of 444 participants received an Underground Storage Tank Compliance Notebook to help them be prepared for their upcoming EACT investigations. In fiscal 2020, four webinars were offered in lieu of in-person workshops, due to the coronavirus pandemic. Over 650 people registered to attend the webinars.

TCEQ's External Relations Division also offers educational opportunities and technical assistance through coordinated workshops, seminars, and education events, including the annual Environmental Trade Fair and Conference (ETFC) held in downtown Austin. There was a decrease in the number of events and attendees in fiscal 2020, due to the cancellation of events including the ETFC as a result of the coronavirus pandemic. During the last two years, the agency sponsored 12 seminars to provide technical information to almost 7.420 attendees.

CHAPTER 3

LEGISLATION FROM THE 86TH SESSION

(FY 2019-FY 2020)

uring the regular legislative session in 2019, state lawmakers considered 405 bills that had the potential to affect the programs and activities of the Texas Commission on Environmental Quality.

Of those, 91 bills were passed and became law. The new laws triggered a variety of activities at TCEQ: new rules, operational or procedural changes, revised guidance documents, or internal administrative actions. Some of the newly enacted laws are summarized in this chapter.

Aggregate Production Operation (APO) Fees and Penalties (HB 907)

House Bill 907, introduced by Rep. Dan Huberty, amended Sections 28A.053, 28A.101, and 28A.102 Texas Water Code (TWC) Chapter 28A. This amendment:

required TCEQ to investigate APOs every two years during the first six years in which the APO is registered, and at least once every three years thereafter.

- authorized TCEQ to conduct unannounced periodic investigations at APOs that were issued notices of violations during the preceding three-year period, but limited the period for unannounced investigations to one year or less.
- required all investigations, including those prompted by complaints, to be conducted by one or more investigators trained in the regulatory requirements under the jurisdiction of TCEQ that are applicable to an active APO.
- increased the maximum annual registration fee for APOs from \$1,000 to \$1,500, as well as, increased the maximum penalty assessed to an unregistered APO from \$10,000 to \$20,000 for each year the APO operates without a registration.
- increased the maximum total penalty assessed to an APO that is operated three or more years without being registered from \$25,000 to \$40,000.

HB 907 became effective on Sept. 1, 2019. TCEQ was required to conduct rulemaking to increase the annual registration fee for APOs.

The commission adopted rules implementing the bill on July 15, 2020, which became effective Aug. 6, 2020.



Application Fee for a Permit for a Municipal Solid Waste Facility (HB 1331)

House Bill 1331, introduced by Representative Ed Thompson, increased the application fee for a permit for a municipal solid waste (MSW) facility from \$100 to \$2,000.

The commission determined that the \$2,000 application fee would apply to applications for a permit or major permit amendment for an MSW landfill, as provided in 30 Texas Administrative Code (30 TAC) Section 305.62(j)(1). All other application fees would remain unchanged. Under Section 305.53(b), the application fee must also include an additional fee of \$50 to be applied toward the cost of providing required notice. This would result in a total fee of \$2,050 for the specified applications.

The bill became effective on Sept. 1, 2019. TCEQ rules implementing the bill are anticipated to be effective Oct. 29, 2020.



Procedure for Action on Certain Applications for an Amendment to a Water Right (HB 1964)

HB 1964, introduced by Reps. Lyle Larson and Trent Ashby, streamlined the water rights permitting process by removing requirements for technical review, public notice, and the opportunity for a contested case hearing for specific water right amendment applications that have no impact on other water rights or the environment. HB 1964 added new Texas Water Code, Subsection 11.122 (b-3) to describe specific types of amendment applications that would only be subject to an administrative review. The types of amendments covered by HB 1964 include changes to the purpose of use, place of use, and small moves of diversion points.

The bill became effective on June 10, 2019. TCEQ's water rights notice rules in 30 TAC Chapter 295 were amended to implement the provisions of HB 1964. The commission adopted these rules on May 6, 2020, which became effective on May 28, 2020.

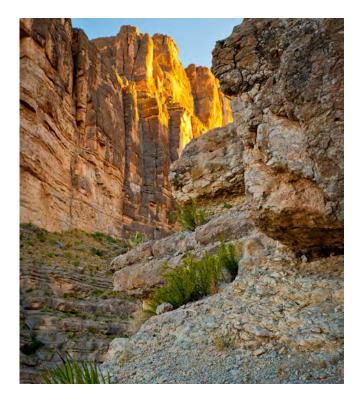
Construction While Permit Amendment Application Pending (HB 2726)

HB 2726, introduced by Rep. John Kuempel, revised Texas Health and Safety Code (THSC), Section 382.004, Construction While Permit Application Pending. The revised statute allows a person who applies for a permit amendment to begin construction on the project after the TCEQ executive director has issued a draft permit including the permit amendment, rather than waiting until the final permit amendment has been issued. The statute does not authorize any construction that is prohibited by federal law, and the construction is done at the applicant's own risk.

HB 2726 also added a restriction to Section 382.004 that prohibits the use of this option for early construction at concrete batch plants located within 880 yards of a property used as a residence.

The bill became effective on Jan. 1, 2020. The commission proposed rulemaking on Jan. 29, 2020, to make agency rules consistent with the new statutory language.

Following proposal, EPA began conducting a parallel review of the proposed rules. On April 23, 2020, EPA



proposed approval of TCEQ's HB 2726 rules in the *Federal Register*. The commission adopted the final rules on July 15, 2020, which became effective Aug. 6, 2020.

Transfer of Regulatory Authority for Wastewater Discharges from Oil and Gas Facilities (HB 2771)

House Bill 2771, introduced by Rep. J. M. Lozano, required TCEQ to submit a request by Sept. 1, 2021, to the U.S. Environmental Protection Agency (EPA) to request National Pollutant Discharge Elimination System (NPDES) program authority to regulate oil and gas discharges into water in the state.

Additionally, HB 2771 transfers state regulatory authority for these discharges from the Railroad Commission of Texas (RRC) to TCEQ upon EPA granting NPDES program authority over oil and gas discharges to TCEQ.

HB 2771 became effective Sept. 1, 2019. TCEQ was required to conduct the following activities to implement HB 2771:

- Rulemaking to adopt EPA's oil and gas effluent limitations guidelines in 40 Code of Federal Regulations Parts 435 and 437: The commission adopted the rule on May 20, 2020.
- Rulemaking to amend the TCEQ/RRC Memorandum of Understanding regarding oil and gas

- jurisdiction: The commission adopted the rule on June 10, 2020, and RRC adopted on June 16, 2020.
- Develop and submit the NPDES application for oil and gas program authority: The application is expected to be submitted to EPA in September or October 2020.
- Amend the Hydrostatic Test General Permit (TXG670000): Amendments will expand permit applicability to include hydrostatic tests from oil and gas facilities upon oil and gas program approval from EPA. The revisions to the Hydrostatic Test General Permit are expected to be finalized in October 2020.

Texas Emissions Reduction Plan Fund and Account (HB 3745)

HB 3745, introduced by Rep. Cecil Bell, amended the THSC to establish the Texas Emissions Reduction Plan (TERP) "Fund" as a trust fund, outside of the state treasury, to be held by the comptroller and administered by TCEQ as trustee. The Fund consists of money deposited from the TERP fees and from grant money recaptured under the TERP programs.

- TCEQ can use money in the Fund only as directed by THSC Chapter 386, relating to the TERP programs, allocations, and criteria.
- TCEQ is required to transfer the unencumbered balance of the Fund to the credit of the TERP Account No. 5071 no later than the 30th day after the last day of each state fiscal biennium.
- The bill also increased the allocation amount that may be used for administrative costs from \$8 million to \$16 million.

The bill became effective Aug. 30, 2019. The creation of the TERP fund and the increase in the amount allocated for administrative costs will not be effective until Sept. 1, 2021.

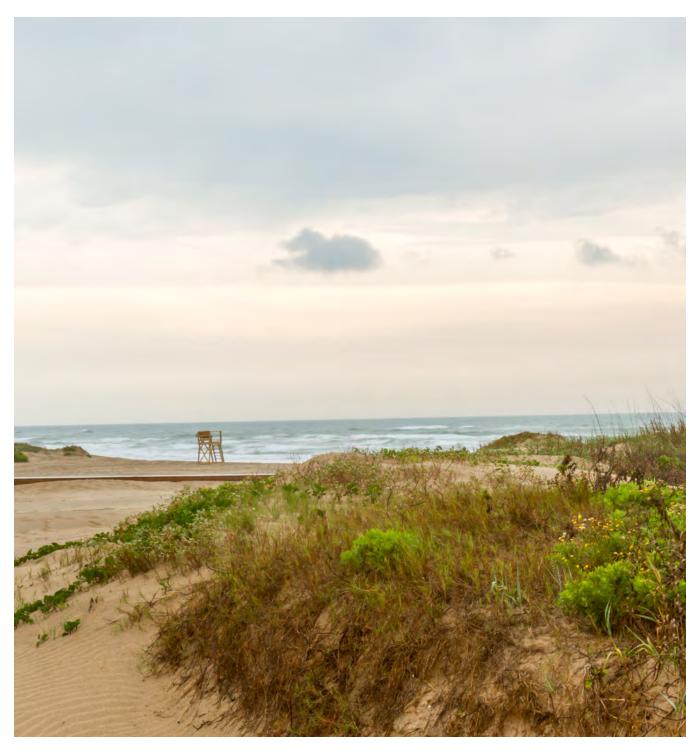
HB 3745 also amended the Texas Tax and Transportation Codes, effective Aug. 30, 2019, to extend the TERP Fees until all areas in Texas have been designated by EPA as in attainment or unclassifiable/attainment, or EPA has approved a redesignation substitute making a finding of attainment. In addition, the TERP programs do not expire until there is no pending judicial review of those EPA actions, and the final notice of such action is published in the *Texas Register* by TCEQ as required by THSC, Section 387.037.

Expedited Permitting Surcharge Allowance (SB 698)

SB 698, introduced by Sen. Brian Birdwell, amended THSC Section 382.05155, Expedited Processing of Application. The bill allows TCEQ to pay full-time equivalent commission employees to support the expedited processing of air permit applications with surcharges collected under the expedited program.

The bill further clarified that money from the surcharge collected may be used to support the expedited processing of air permit applications.

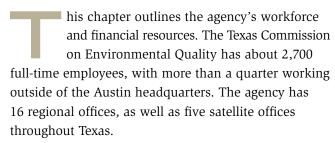
The bill became effective on Sept. 1, 2019. The commission proposed rulemaking on Nov. 20, 2019, to make agency rules consistent with the new statutory language. The commission adopted the final rules on May 6, 2020, which became effective May 28, 2020.



CHAPTER 4

AGENCY RESOUR

(FY 2019-FY 2020)



These field offices give TCEQ a statewide presence, enabling its staff to communicate firsthand with municipalities, businesses and industry, and community groups in all quarters of Texas.

TCEQ's budgetary needs are based on the demands of state and federal laws concerned with protecting human health and the environment. The operating budget totaled \$374.5 million in fiscal 2019 and \$400.0 million in fiscal 2020. Most of the budget is supported from revenues collected from fees.

TCEQ posts its quarterly expenditures online. The data is reported in broad categories, such as salaries, travel, utilities, and maintenance. The webpage also links to an expenditure database, called "Where the Money Goes," on the state comptroller's website. These online postings are in response to the Texas Legislature's call for greater accountability in state government.

Workforce

Size and Job Categories

The overall size of the TCEQ workforce remains fairly consistent. In fiscal 2019, the agency was authorized to have 2,794.8 full-time-equivalent (FTE) positions, and the average number of FTEs utilized was 2,628.0. In fiscal 2020, the authorized FTEs were 2,829.3; TCEQ averaged 2,643.5 during that time.

TCEQ staff is composed largely of professionals trained in science, technology, engineering, computer science, and related fields. In fiscal 2020, professionals represented 66.52% of the workforce; technical and

administrative support staff made up 21.62%; and officials and administrators (managers) filled 11.86% of positions. These percentages reflect almost no change in the distribution of job categories within the agency from fiscal 2019, with professionals up only 0.03%, technical and administrative support staff down 0.69%, and officials and administrators (managers) up 0.66%.

Equal Employment

TCEQ's policy is to afford equal-employment opportunities to all employees and qualified applicants, regardless of race, color, religion, national origin, sex, sexual orientation, age, disability, genetic information, veteran status, or other status protected by law.

The agency is committed to recruiting, selecting, and retaining a multitalented, culturally diverse workforce that is representative of the state's available labor force. In accordance with the Texas Labor Code, Chapter 21, all employees are trained on equal-employment practices to make them aware of state and federal employment laws and regulations.

With regard to race and ethnicity, the agency's workforce composition in fiscal 2020 was categorized as 61.46% white, 10.36% black, 18.03% Hispanic, and 10.15% other ethnicities (including Asian, Pacific Islander, American Indian, and Alaskan Native). With regard to gender, women continue to be in the majority at TCEQ: female employees represented 53.65%; males, 46.35%.

Ethnicity and Gender

Each state agency must analyze its workforce by ethnicity and gender. TCEQ compares its workforce to the state civilian workforce using data provided by the Civil Rights Division of the Texas Workforce Commission. The TWC's report on equal-employment-opportunity hiring practices, which is published at the beginning of each legislative session, uses data sets based on the

percentage of blacks, Hispanics, and females—by job category—within the civilian labor force in Texas.

In fiscal 2020, TCEQ exceeded the percentage of the available black labor force in the job category of administrative support by 10.37%. The agency's female workforce exceeded the available female labor force in top management (officials and administrators/ managers) by 10.64%, as well as in administrative support, by 10.62%.

Recruitment and Retention

In fiscal 2020, staff turnover was 10.98%, 3.5% below fiscal 2019. TCEQ's turnover continues to fall below the overall average for full- and part-time classified employees at state agencies, significantly due to the effectiveness of the agency's recruitment and retention programs.

TCEQ administers multiple hiring programs tailored to meet the agency's unique hiring needs. As an example, the Engineer Hiring Program is designed for individuals who hold a professional engineering license (P.E.). Express Hire allows supervisors to extend a conditional offer of employment at recruiting events, and Transitions Hiring expedites hiring and provides a diverse applicant pool for entry-level positions requiring a college degree.

The agency recruits widely, including at colleges and universities throughout the state. And recently it began using recruitment bonuses to attract candidates for certain positions—offered in remote locations and requiring highly technical skills.

TCEQ also administers the Mickey Leland Environmental Internship Program. MLEIP encourages the participation of minorities and women pursuing environmental, engineering, science-related, and publicadministration careers in summer internship opportunities. Intern familiarity with the agency's mission and working environment often spurs their future interest in full-time employment at the agency.

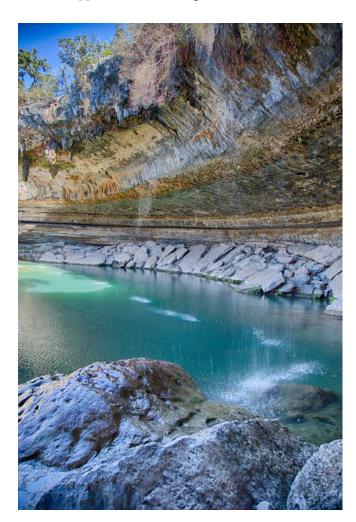
Retention strategies include employee recognition and administrative-leave awards, wellness programs, flexible schedules, and retention bonuses for staff classified in mission-critical occupations experiencing significant turnover. To retain and deepen employee expertise, TCEQ offers robust programs. The recently rolled out onboarding program offers new employees planned activities to ensure that they become fully acclimatized to TCEQ programs and personnel.

Another retention tool is the agency's facilitation of employee movement internally. In addition to the 56 employee's ability to apply for posted positions, there is the Lateral Transfer Opportunity Program. Lateral transfers facilitate career enhancement, allowing for mastery of other subject matter without impacting classification or pay. As staff look toward leadership and management opportunities, the Leadership and Management Excellence Program offers eligible employees training that promotes the alignment of their leadership and management development with TCEQ's organizational goals.

Finances

In fiscal 2019, the agency's approved operating budget was \$374.5 million. Of that, \$311.6 million was appropriated from dedicated fee revenue, \$37.8 million from federal funds, and \$16.2 million from general revenue. Other sources provided the remaining \$8.9 million.

In fiscal 2020, the approved operating budget totaled \$400.0 million. Of that, \$327.8 million was appropriated from dedicated fee revenue, \$36.8 million from federal funds, and \$25.9 million from general revenue. Other sources supplied the remaining \$9.5 million.



Pass-through funds accounted for 34% of the agency's operating budget in fiscal 2019 and 35% in fiscal 2020. Pass-through funds primarily support grants, remediation, and reimbursements for agency programs. Such programs included the Texas Emissions Reduction Plan (TERP), Clean Rivers, and Municipal Solid Waste Programs, and Petroleum Storage Tank and Superfund cleanups. Compared to the 2017-2018 biennium, the share of pass-through funds decreased due to the vetoed Low-Income Repair Assistance, Retrofit, and Accelerated Vehicle Retirement Program.

Funds other than those passed through are devoted to day-to-day agency operations. Salaries accounted for 45% in fiscal 2019 and 43% in fiscal 2020. The remaining operating funds support professional services, supplies, utilities, rent, travel, training, and capital needs.

The Waste Management Account, primarily funded by the Solid Waste Disposal Fee, supports the Municipal Solid Waste, Industrial Hazardous Waste, Voluntary Cleanup, and Radioactive Materials programs. In 2013, the fee was reduced by 25%, and the percent allocated to the account increased from 50% to 66.7%. For fiscal 2019, the account's obligations, \$41.1 million, exceeded annual revenues, which were approximately \$36.5 million. The agency expects the account's balance, \$25.6 million at the end of fiscal 2019, to continue to decline, as revenue remains constant and expenditures rise, due to fringe and retirement costs.

Fees

TCEQ collects more than 100 separate fees. The fees listed below each generated revenue of more than \$16 million a year:

■ Texas Emissions Reduction Plan (TERP) (\$262.7 million in fiscal 2019, \$252.1 million in fiscal 2020). TERP funding supports programs vital to implementing the State Implementation Plan. The TERP Account (5071) draws from five fees and surcharges, assessed on the sale, registration and inspection of vehicles, as well as a surcharge on the rental or purchase of diesel equipment in the state. TCEQ, as the authorized manager of the account, handles the management and transfer of funds. The Comptroller of Public Accounts (CPA), the Texas Department of Public Safety, and the Texas Department of Motor Vehicles collect the fees on behalf of TCEQ.



- Petroleum-Product Delivery Fee (\$17.3 million in fiscal 2019, \$16 million in fiscal 2020). The fee is assessed on the bulk delivery of petroleum products. The CPA collects and deposits the fee to the Petroleum Storage Tank Remediation Account (0655).
- Air Emissions Fee (\$40.8 million in fiscal 2019, \$39.4 million in fiscal 2020). The fee recovers the costs of developing and administering the Title V Operating Permit Program. Revenue is deposited to the Operating Permit Fees Account (5094).
- Solid-Waste Disposal Fee (\$33.9 million in fiscal 2019, \$32.2 million in fiscal 2020). The fee is assessed on the operators of municipal solidwaste facilities for the disposal of solid waste. Account 0549 receives 66.7% of the revenue collected: Account 5000 receives 33.3%.
- Motor-Vehicle Safety-Inspection Fee (\$46.5 million in fiscal 2019, \$44.3 million in fiscal 2020). The fee, assessed per vehicle, is assessed on the sale of state safety-inspection stickers at inspection stations, auto dealers, and other service providers. Revenue is deposited to the Clean Air Account (0151).
- Consolidated Water Quality Fee (\$28.3 million in fiscal 2019, \$28.6 million in fiscal 2020). The fee is assessed against each permit, issued under the Texas Water Code, Chapter 26, authorizing the treatment and/or discharge of wastewater. It is calculated based on factors including flow volume and type, traditional pollutants, toxicity, and whether a facility is designated as major or minor. The fee revenue is deposited to Water Resource Management Account 0153.

Resource Management Account 0153.

■ Lead Acid Battery Fee (\$22.7 million in fiscal 2019, \$23 million in fiscal 2020). The fee is assessed on the retail sale of lead acid batteries. A fee of \$2.00 is assessed on the purchase of lead acid batteries less than 12 volts—the surcharge on batteries 12 volts and higher is \$3.00. The CPA collects and deposits the revenue to the Hazardous and Solid Waste Remediation Account (0550) on behalf of TCEQ.

Fee Revisions

State legislation passed in 2019 changed TCEQ's fees and funding structure as follows:

- HB 907 increased the maximum annual registration fee for aggregate production facilities from \$1,000 to \$1,500. Revenue for this fee is deposited to Water Resource Management Account 0153.
- HB 1331 established a municipal solid waste facility permit fee. Revenue is deposited to General Revenue Account 0001.

- HB 2771 allows TCEQ to issue permits for the discharge of produced water, hydrostatic test water, and gas plant effluent from certain oil and gas activities. The authority to issue permits is contingent upon delegation of National Pollutant Discharge Elimination System permit authority by the U.S. Environmental Protection Agency.
- HB 3317 re-enacted the dedication of revenue for aggregate production registrations to Water Resource Management Account 0153. The original legislation, HB 571 82nd Legislative Session, excluded the fee from the funds consolidation bill. The bill also re-enacted the dedication of revenue for expedited air permit application surcharges to Clean Air Account 0151. The original legislation, SB 1756 83rd Legislative Session, excluded the fee from the funds consolidation bill.
- HB 3745 established a TERP trust fund in addition to the existing TERP account, 5071. Beginning in fiscal 2022, all TERP revenue will be deposited to the new TERP trust fund and will be available for expenditure by TCEQ during the fiscal year of receipt. All unexpended and unobligated funds remaining in the trust fund as of August 31 of each fiscal year must be transferred to Account 5071 within 30 days.



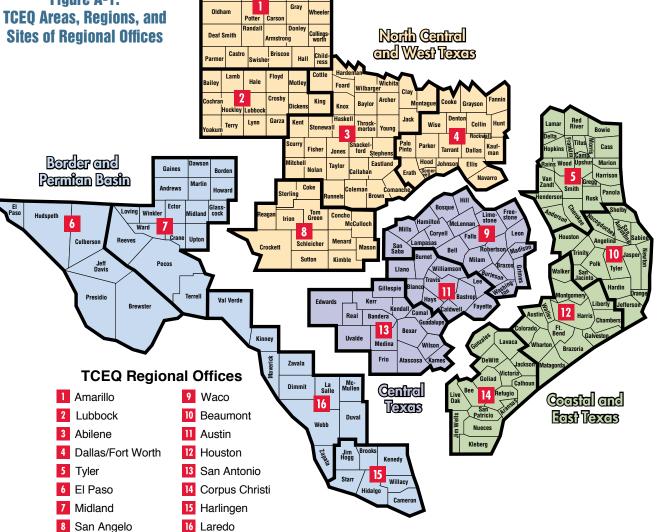
APPENDIX A

ASSESSMENT OF COMPLAINTS RECEIVED

he Texas Commission on Environmental Quality receives thousands of complaints ous environmental matters. In these communications, the complainant relates a situation or event in which a possible environmental, health, or regulatory violation has occurred. Complaints can be submitted to TCEQ online, or by phone, email, or letter to our central office

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each year from Texans concerned about varior one of 16 regional offices for response. The agency maintains a 24-hour toll-free hotline (888-777-3186) for receiving such calls and a webpage providing an online form and email address. Figure A-1.



TCEQ must review complaints received each year, including analysis by any of the following categories:

- region
- environmental media (air, waste, and water)
- priority classification
- enforcement action taken
- commission response
- trends by complaint type

TCEQ also must assess the impact of any changes made in our complaint policy. This analysis is conducted and reported as per Sections 5.1773 and 5.178 of the Texas Water Code.

Complaint Data Collection and Reporting

After the Office of Compliance and Enforcement receives an environmental complaint, the data related to the initial complaint are recorded in the Consolidated Compliance and Enforcement Data System (CCEDS). If an investigation is warranted, an investigator is assigned who enters investigation data into that data system. Management reviews, approves, and documents the investigation in CCEDS.

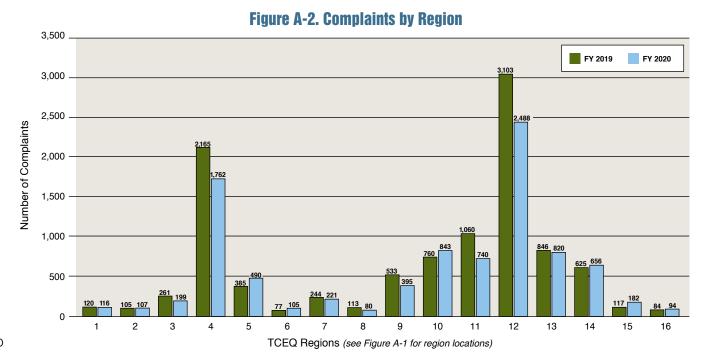
All the data summarized in this appendix is from CCEDS. This report reflects activity that occurred in the agency's 16 regions and at the central office during fiscal 2019 (Sept. 1, 2018, through Aug. 31, 2019) and fiscal 2020 (Sept. 1, 2019, through Aug. 31, 2020). The data are presented in Figures A-2 to A-7.



Complaints by Region

In fiscal 2019, TCEQ regions received a total of 10,598 complaints; in fiscal 2020, the total was 9,298. Figure A-2 shows the breakdown of these totals.

The number of complaints varies according to regional population. In fiscal 2019, 50 percent of all complaints came from the two largest metropolitan areas, the Dallas-Fort Worth region (20 percent) and the Houston region (29 percent). In fiscal 2020, 46 percent of complaints were by the Dallas-Fort Worth region (19 percent) and the Houston region (27 percent).



Complaints Received by Environmental Media (Air, Waste, Water, Multimedia, and No Media)

Total complaints were analyzed by environmental media (air, waste, water, multimedia, and no media) statewide. "No media" refers to complaints that do not fit within one of the established medias (for example, noise). Most complaints in fiscal 2019 and 2020 were about water. *See* Figure A-3.

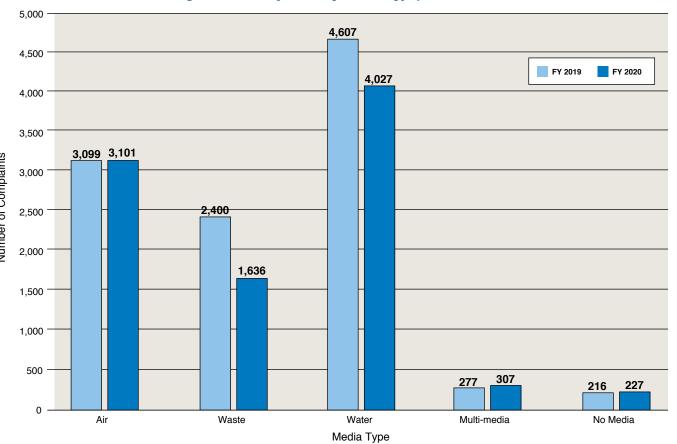
The increase in water complaints in fiscal 2019 is a result of an increasing number of wastewater treatment facilities being constructed, as well as aging water infrastructure systems with inadequate operation or maintenance and reinvestment into the systems. Areas of Texas have also experienced continued growth and development, which led to an increase in stormwater-related complaints.

In fiscal 2019 and 2020, air complaints increased, and primarily concerned odor and dust. There was an increase in odor complaints related to industrial operations in the Dallas-Fort Worth and coastal regions and

poultry operations in the Tyler and Beaumont regions. Dust complaints were related to aggregate production operations and new construction in the Houston, Dallas-Fort Worth, El Paso, and San Antonio regions.

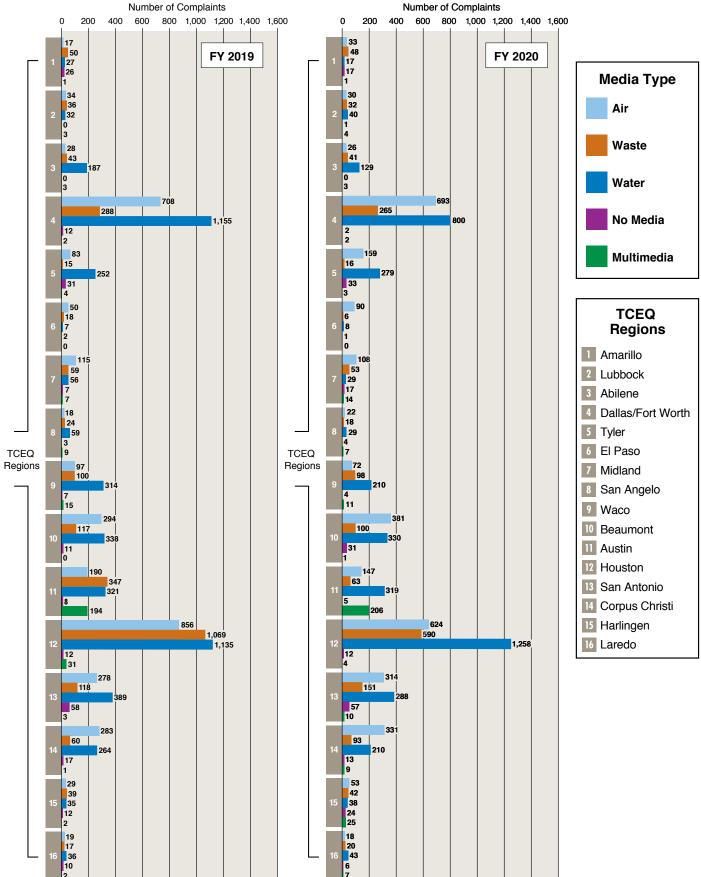
A decrease in landfill complaints in the Houston region resulted in considerably fewer waste complaints in both fiscal 2019 and 2020.

Figure A-3. Complaints by Media Type, Statewide



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Figure A-4. Complaints by Region & Media Type



Complaints Received by Priority Level

Complaints received in regional offices are prioritized in the following categories, based on the relative threat to public health, safety, or the environment. Each priority level represents a prescribed response time. The priority levels are:

Immediate response required

Response time is as soon as possible, but no later than 24 hours from receipt. This classification also includes a category that requires a response within 18 hours for odor complaints involving certain types of poultry operations.

Respond within one working day

As soon as possible, but no later than one working day from receipt.

Respond within five working days

As soon as possible, but no later than five working days from receipt.

Respond within 14 calendar days

As soon as possible, but no later than 14 calendar days from receipt.

Respond within 30 calendar days

As soon as possible, but no later than 30 calendar days from receipt.

Refer or do not respond

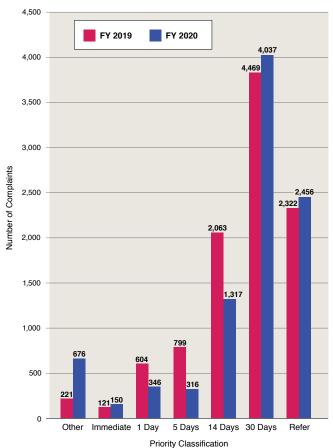
This classification is for complaints that, due to jurisdictional issues, are referred to other authorities, or for complaints that TCEQ does not routinely investigate but must track for special projects, as determined by management.

Other specified time frame

This classification is for special projects that occur as on-demand events and complaints in which the complainant or source is unavailable and region management has granted prior approval for extending an investigation. Response time is based on management's evaluation of the project and the overall staff workload.

The distribution of complaints is shown by priority classification statewide in Figure A-5. Approximately 71 percent of the complaints received during the last two years were classified as requiring an investigation in 30 calendar days or less.

Figure A-5.
Complaints by Priority, Statewide





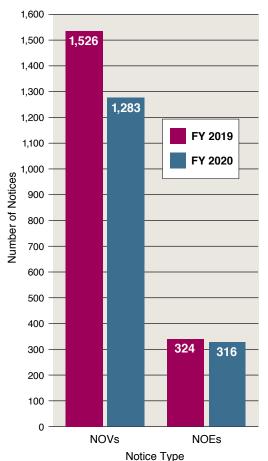
Complaint Investigations that Trigger Enforcement Action

All complaint investigations are conducted according to priority levels, as described above. Subsequent action depends on the outcome of the investigation. For approximately 64 percent of the complaints received during fiscal 2019 and 2020, no enforcement action was required. For the remainder, TCEQ took enforcement action in the form of a notice of violation (NOV) or a notice of enforcement (NOE) per TCEQ's enforcement initiation criteria.

An NOV is issued when TCEQ rules, state statutes, or permit requirements have been violated, but the violation is not considered serious enough to require an enforcement order. Violations are expected to be resolved within a time frame specified in the NOV.

An NOE is issued when a substantial violation has been documented and formal action is required. Typically, an NOE leads to the assessment of administrative penalties.

Figure A-6. Complaints Resulting in NOVs & NOEs, Statewide



Complaints Investigated by Program Type

TCEQ also analyzed complaint investigations by program type. Waste and water media each have several subcategories of programs. Air complaints are not further subdivided. If an investigation involves more than one type, it is classified as "multi-program."

The waste program types are:

- dry cleaners
- emergency response
- petroleum storage tanks
- industrial and hazardous waste
- municipal solid waste

The water program types are:

- animal feeding operations
- Edwards Aquifer Protection Program
- on-site sewage facilities
- public water supply
- water rights
- aggregate production operations
- landscape irrigation
- water quality



Water quality also comprises several program subtypes (sludge transporters, beneficial use, stormwater, and municipal and industrial wastewater treatment, and pretreatment); however, these sub-types are not listed separately in this analysis.

Figure A-7 shows the number of complaint investigations that were conducted in each program type. In fiscal 2019, 4,935 investigations were conducted. In fiscal 2020, 4,559 investigations were conducted. One investigation may be conducted for multiple complaints for the same or similar incidents or conditions.

In fiscal 2019, air complaint investigations made up 34 percent of the total; water complaint investigations, 50 percent; waste investigations, 14 percent; and multiprogram complaint investigations, 2 percent. In fiscal 2020, air investigations were 39 percent of the total; water investigations, 46 percent, waste investigations, 13 percent; and multi-program complaint investigations, 3 percent.

Conclusions

TCEQ experienced an overall decrease in complaints received for fiscal 2019 and 2020 compared to previously reported years, with the most significant decrease

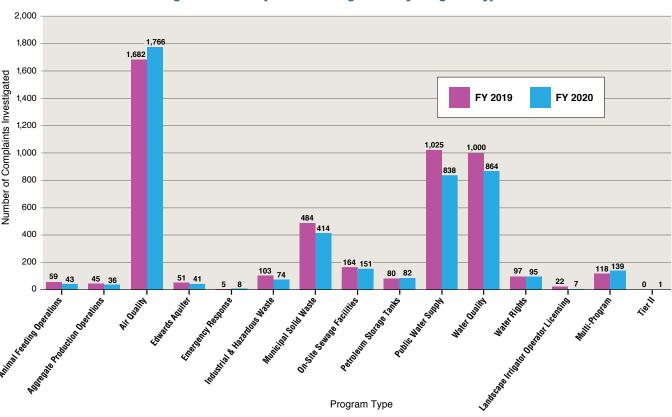
in waste complaints from fiscal 2018 to 2019. In fiscal 2017 and 2018, there was a marked increase in waste numbers resulting from complaints near landfills in the Houston area, however, this number has decreased considerably in fiscal 2019 and 2020. The number of waste complaints received in fiscal 2019 and 2020 appears to represent a return to previously reported waste-related complaint volumes.

Despite the overall decrease in the number of complaints, water complaints increased in fiscal 2019 due to aging water infrastructure in some areas of the state, as well as the construction of new wastewater treatment facilities in other areas. As Texas has continued to experience economic growth, this growth and development has also resulted in increased stormwater-related complaints.

A lower number of complaint investigations were conducted in fiscal 2020 compared to fiscal 2019 which correlates with a decrease in the number of complaints received. However, the total number of complaint investigations remains consistent with the number of complaint investigations in previous years.

When multiple complaints are related, they may be addressed collectively according to the agency's standard investigative procedures. Therefore, there is not

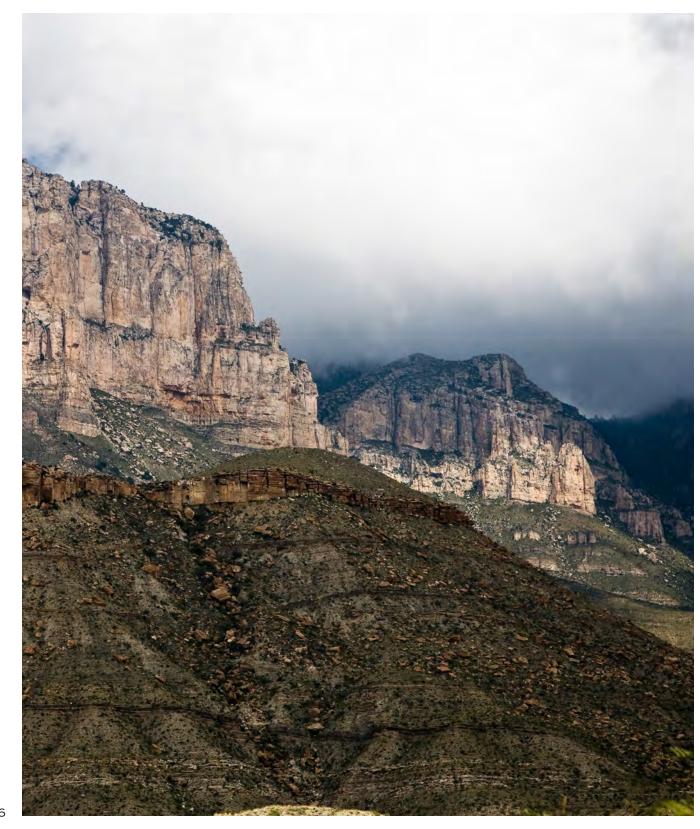
Figure A-7. Complaint Investigations by Program Type



Notice Type Program Type 65

a direct correlation between the number of complaints received and the number of investigations.

Finally, the analysis of complaint investigations by program type demonstrates that TCEQ places a high priority on investigating complaints. All complaints are reviewed by management, prioritized according to potential impact on public health or the environment, and either investigated in accordance with the assigned priority or, if not within the jurisdiction of this agency, referred to the appropriate authority.



PERMIT TIME FRAME REDUCTION AND TRACKING

he Texas Commission on Environmental
Quality is charged with issuing permits and
other authorizations for controlling air pollution, managing hazardous and nonhazardous waste
and surface water, protecting water quality and safe
and adequate drinking water, remediating soil and
groundwater, and safely operating in situ mines.

Texas Government Code 2005.007 requires TCEQ to report every two years on its permit application system, showing the periods adopted for processing each type of permit issued and any changes enacted since the last report.

The biennial update also includes a statement of the minimum, maximum, and average time periods for processing each type of permit—from the date a request is received to the final permitting decision. Finally, the report describes specific actions taken to simplify and improve the entire permitting process, including changes to application and paperwork requirements.

Permit Time Frame Tracking

One of the agency's primary goals is to issue well-written permits that protect human health and the environment, and to do so as efficiently as possible. TCEQ's Permit Time Frame Tracking process focuses on establishing time frames for processing permits and goals for adhering to those time frames. The goal in most program areas is to review 90% of all permit applications within the established time frames. Air Permitting has a goal to review 75% of all permit applications with the established time frames.

Each type of TCEQ authorization tracked within this process is prioritized as follows:

■ **Priority 1.** These projects require agency action before applicants may begin operations. This category includes uncontested applications for new permits and for amendments to existing permits.

Amendment applications request changes from current permit requirements.

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■ **Priority 2.** These projects allow permit applicants to continue operating while the agency processes the request. This category includes uncontested applications for renewals of existing permits to continue under existing permit conditions.

The time frame goals, or "target maximums," established by the agency for processing each type of permit vary by program area and by environmental media.

Figures B-1 through B-6 show the status of Priority 1 and Priority 2 projects at the end of fiscal 2020 in the following categories:

- air permits
- waste permits
- water quality permits
- water right permits
- water supply authorizations
- radioactive material licenses
- permits and authorizations for underground injection control (UIC)



Excluded from the data are projects that were contested or that involved significant review or approval outside of TCEQ—such as obtaining U.S. Environmental Protection Agency (EPA) approval—that can significantly slow down application processing times.

Three permitting areas met their time frame goals:

- Air Permitting reviewed 75% of all permit applications within the established time frames despite an increase in applications that were more complex and required more time to review and issue.
- Water Quality Permitting reviewed 90% (within the 5% measure allocation) of all permit applications within established time frames while also resolving long standing permit applications not subject to permit processing time frames (for example, resolving long-standing EPA objections)
- Waste Permits reviewed 90% of all applications within established time frames.

Water Rights Permitting did not meet the time frame goals. Severe drought conditions that continued through 2015 required a focus on drought response, resulting in a backlog of applications. From fiscal 2016 to 2020, Water Rights Permitting reduced the number of pending water rights applications by approximately

53%. This reduction paves the way for the program area to focus on processing applications that currently exceed time frames.

Greater Efficiencies

The agency has identified several ways to streamline the permitting process, improving efficiencies and reducing paperwork requirements. Some of those measures are described below.

Expand options for applicants for online permitting, notification, and payment

TCEQ's e-permitting options allow applicants to apply for a permit online and receive authorization within minutes. TCEQ has offered e-permitting, along with specific fee incentives, since 2008 and has implemented requirements for obtaining authorizations electronically for the large categories of stormwater general permits unless waivers are obtained.

In fiscal 2018, the Air Permitting program began requiring all permits by rule (PBR) applications to be submitted through the e-permitting system. Between fiscal 2019 and 2020, the Air Permitting program



expanded e-permitting to allow case by case new source review (NSR) and all standard permit applications be submitted through the e-permitting system.

The ePermits system has helped with Air Permitting's workload. With similar staffing, the number of completed projects submitted online significantly increased—10,814 between fiscal 2019 and 2020. During the same time period, the Air Permitting program completed 38% of NSR projects automatically through e-permitting with same-day response.

And for fee collection, during fiscal 2019 and 2020, the agency's e-Pay system processed over 80,000 fee payments and collected about \$39 million in fees.

Implement targeted initiatives within permitting and authorization programs

Waste Permits:

- Holding pre-application meetings.
- Improving checklists, forms, and guidance documents to facilitate more consistent and complete applications.
- Consolidating application review processes to improve turnaround times.
- Implementing a LEAN Management system to improve processes.

Radioactive Material Licenses and UIC Permits:

- Holding pre-application meetings and communicating with the applicants during the permit review process to ensure a better understanding of TCEQ rules and procedures.
- Developing new and revised standard operating procedures and checklists for staff efficiency and consistency; also developing a quick reference guide for staff that includes a list of program specific rules and regulations.
- Streamlining the regulation for pre-injection units (PIU) associated with injection wells by removing redundant requirements for registering or permitting PIUs under 30 TAC Chapter 331.

Water-Rights Permits:

- Implementing LEAN Management for processing water rights permits.
- Establishing a separate, streamlined permitting process for specific applications that have no impact on other water rights or the environment



(certain changes to the purpose of use, place of use, and location of diversion points), as provided for by House Bill 1964, 86th Legislature.

- Holding pre-application meetings to facilitate more complete applications.
- Revising forms, standard operating procedures, guidance, checklists, and templates to support smoother application processing.
- Continuing to implement extension and return policies.

Water Quality:

- Holding pre-application meetings to facilitate more complete applications.
- Working with applicants to achieve efficient publishing of public notices.
- Working to resolve significant policy and technical issues in permitting.
- Obtaining delegated authority to issue wastewater discharge permits for oil and gas facilities.

Water Supply:

- Holding pre-application meetings and providing checklists, guidance, and forms to facilitate more consistent and complete applications.
- Using an electronic submission process and updating the internal process to expedite review.

Air Permits:

- Developing electronic guidance tools and workbooks to improve application quality.
- Streamlining the internal review process for NSR applications so that administrative and technical reviews are conducted simultaneously and deficiencies are identified earlier in the process.
- Creating checklists to facilitate more consistent and complete internal reviews.
- Expanding the ePermits system to include case by case NSR permit applications and all standard permits applications, which were previously not available.
- Implementing changes to Title V permits to incorporate PBR requirements using a new PBR Supplemental Table with applications.
- Developing additional readily available permits (RAP) for specific types of facilities. TCEQ currently has four RAPs.

Expand the options for more standardized permitting by using general permits, standard permits, and PBRs

TCEQ offers over 20 types of standard permits, 104 PBRs, and six general operating permits (GOP) in the Air Permitting program; 13 general permits in its Water Quality program; six PBRs and three registrations by rule in the Waste Permitting program; and one general permit in the UIC program. Continuing to use these authorizations has reduced the time frames for processing permits.

Maintain an expedited permitting and authorization process for all economic-development projects

In addition to the time frame goals for processing standard permits, TCEQ maintains an expedited permitting process for economic-development projects. TCEQ personnel meet regularly with the Governor's Office of Economic Development and Tourism to prioritize these types of projects. During fiscal 2019 and 2020, TCEQ tracked and issued eight permits for major economic-development projects.

From Sept. 1, 2018 through Aug. 31, 2020, TCEQ processed to a final decision 33 industrial and hazardous waste (IHW) and 44 municipal solid waste (MSW) authorizations. As shown in Figure B-2, the average processing time for these applications ranged from

147 days to 433 days. These average times were within their respective targets.

In addition to the targeted initiatives to streamline applications and reduce review times, the Office of Waste continues to resolve minor issues and minor application deficiencies through phone calls and emails.

From Sept. 1, 2018 through Aug. 31, 2020, TCEQ's Water Supply Authorization program completed reviews for 8,266 applications and authorizations. As shown in Table B-5, the average processing time for the applications and authorizations completed during fiscal 2019 and 2020 ranged from 49 to 255 days.

Growth and development in the state has increased expedited bond application reviews. The Water Supply Division created a districts stakeholder workgroup to identify efficiencies and streamline the districts bond application process. The Districts Advisory Workgroup provides an open forum to discuss TCEQ's water district processes and procedures.

The Radioactive Materials Division met and communicated with applicants during the permitting and licensing process to improve their understanding of agency regulations, forms, and procedures. This allowed for a more streamlined resolution of application deficiencies and issues.



Figure B-1. Air Permits (Uncontested) Processing Times

Figure B-1. Air Permits (Uncontested) Processing Times							
Application Type	Received in FY19 and FY20	Processed in FY19 and FY20	Exceeding Target as of 8/31/20	Minimum Processing Time	Maximum Processing Time	Average Processing Time (Days)	Target Maximum
Priority 1							
NSR New Permits	162	227	2	42	2,711	321	285
NSR Amendments	650	914	26	2	2,536	372	315
NSR New Permits – Federal Timeline	15	22	1	91	504	344	365
NSR Amendments – Federal Timeline	59	56	6	51	1,185	399	365
Federal NSR (Prevention Significant Deterioration, Nonattainment, 112g) New & Major Modifications	99	119	7	8	2,264	404	365
PBRs	7,696	7,780	1	1	358	17	45
Standard Permits (w/o public notice), Changes to Qualified Facilities (SB1126) & Relocations	3,572	3,575	0	1	731	10	45
Standard Permits (with public notice)	144	140	0	13	167	87	150
Standard Permits for Concrete Batch Plants (with public notice)	373	370	0	1	199	84	195
Priority 1 Totals	12,770	13,203	43				
Priority 2							
NSR Alterations & Other Changes	864	859	0	1	1,680	56	120
NSR Renewals	452	670	21	2	3,098	423	270
New Site Operating Permits (SOP)	64	82	3	117	2,093	596	365
SOP Revisions	453	588	17	1	3,979	428	365
SOP Renewals	360	407	27	97	3,686	503	365
New General Operating Permits (GOP)	90	109	0	43	391	112	120
GOP Revisions	142	173	0	1	237	157	330
GOP Renewals	98	83	0	25	342	138	210
Priority 2 Totals	2,523	2,971	68				
Overall Totals	15,293	16,174	111				
	_						

Figure B-2. Waste Permits (Uncontested) Processing Times

Application Type	Received in FY19 and FY20	Processed in FY19 and FY20	Exceeding Target as of 8/31/20	Minimum Processing Time	Maximum Processing Time	Average Processing Time (Days)	Target Maximum
Priority 1							
IHW New Permits	2	3	0	416	416	416	450
IHW Class 3 Modifications	8	7	0	246	424	351	450
IHW Major Amendments	0	0	0	N/A	N/A	N/A	450
MSW New Permits	15	12	0	16	273	147	360
MSW Major Amendments	25	25	0	8	357	186	360
MSW Registered Transfer Stations	4	7	0	123	223	176	230
MSW Registered Liquid Waste Processor	0	0	0	N/A	N/A	N/A	230
Priority 1 Totals	54	54	0				
Priority 2							
IHW Renewals	22	23	1	38	1542	433	450
Priority 2 Totals	22	23	1				
Overall Totals	76	77	1				

Figure B-3. Water Quality Permits (Uncontested) Processing Times

Application Type	Received in FY19 and FY20	Processed in FY19 and FY20	Exceeding Target as of 8/31/20	Minimum Processing Time	Maximum Processing Time	Average Processing Time (Days)	Target Maximum
Priority 1							
New Permits (Major Facilities)	1	0	0	0	0	0	330
Major Amendments (Major Facilities)	70	56	24	224	3321	498	330
New Permits (Minor Facilities)	172	141	11	133	713	314	330
Major Amendments (Minor Facilities)	111	123	10	184	1,417	344	300
Sludge Registrations	92	71	7	35	433	175	270
Priority 1 Totals	446	391	52				
Priority 2							
Renewal Major Facilities	227	265	25	148	2,420	351	330
Renewal Minor Facilities	870	892	23	131	976	254	300
Priority 2 Totals	1,097	1,157	48				
Overall Totals	1,543	1,548	100				

Figure B-4. Water Rights Permits (Uncontested) Processing Times

Application Type	Received in FY19 and FY20	Processed in FY19 and FY20	Exceeding Target as of 8/31/20	Minimum Processing Time	Maximum Processing Time	Average Processing Time (Days)	Target Maximum
Priority 1							
Water Rights New Permits	83	72	48	10	3,190	625	300
Water Rights Amendments w/Notice	62	51	35	97	3,515	1,015	300
Water Rights Requiring Notice Review Pursuant to Work Session	2	25	8	295	2,373	1,104	300
Water Rights Amendments without Notice, Rio Grande Watermaster Area	40	46	2	82	1,418	290	180
Water Rights Amendments without Notice, Outside Rio Grande Watermaster Area	21	23	1	20	812	198	180
Priority 1 Totals	208	217	94				

Figure B-5. Water Supply Reviews/Authorizations Processing Times

Application Type	Received in FY19 and FY20	Processed in FY19 and FY20	Exceeding Target as of 8/31/20	Minimum Processing Time	Maximum Processing Time	Average Processing Time (Days)	Target Maximum
Priority 1							
Water District Expedited Bond Applications	409	341	0	4	118	53	60
Water District Regular Bond Applications	271	331	4	4	867	167	180
Water District Expedited Escrow Releases & Surplus Fund Requests	150	129	0	2	91	49	60
Water District Regular Minor Applications	237	278	0	8	428	56	120
Water District Expedited Creation Applications	30	16	0	93	201	130	120
Water District Regular Creations & Conversions	27	25	5	89	1,249	255	180
Water Engineering Plan Reviews	4,727	4,679	0	0	89	55	60
Exceptions	2,375	2,291	0	0	188	86	100
Alternative Capacity Requirements	173	176	0	53	107	80	90
Priority 1 Totals	8,399	8,266	9				

Figure B-6. Radioactive Materials Permits (Uncontested) Processing Times

Application Type	Received in FY19 and FY20	Processed in FY19 and FY20	Exceeding Target as of 8/31/20	Minimum Processing Time	Maximum Processing Time	Average Processing Time (Days)	Target Maximum
Priority 1							
Uranium Radioactive Material License Initial Issuance	0	1	1	N/A	1618	1618	885
Low-Level Radioactive Waste, Radioactive Material License Initial Issuance	0	0	N/A	N/A	N/A	N/A	990
UIC New Permits	0	2	N/A	N/A	N/A	N/A	390
UIC General Permit Notice of Registration	0	0	0	N/A	N/A	N/A	60
UIC Permit Major Amendments	3	3	0	280	280	280	390
UIC Class III Production Area Authorizations	1	1	0	34	34	34	90
UIC Class I Pre-Injection Unit Registrations	1	1	N/A	N/A	N/A	N/A	390
Priority 1 Totals	Priority 1 Totals 5 8 1						
Priority 2							
Uranium Radioactive Material License Renewals	1	0	N/A	N/A	N/A	N/A	885
Uranium Radioactive Material License Major Amendments	0	1	0	690	690	690	885
Uranium Radioactive Material License Minor Amendments	0	0	N/A	N/A	N/A	N/A	230
Low-Level Radioactive Waste, Radioactive Material License Renewals	0	0	N/A	N/A	N/A	N/A	990
Low-Level Radioactive Waste, Radioactive Material License Major Amendments	0	0	N/A	N/A	N/A	N/A	990
Low-Level Radioactive Waste, Radioactive Material License Minor Amendments	5	4	1	70	301	176	230
UIC Permit Renewals	38	20	4	272	1116	756	390
UIC Class V Authorizations	253	251	19	0	236	26	60
Priority 2 Totals	297	276	24				
Overall Totals	302	284	25				

Definitions for Tables

Number Received – The number of applications/permits/amendments received.

Number Processed – The number of applications/permits/amendments completed.

Exceeding Target – The total pending applications/permits/amendments exceeding agency target WITHOUT exceptions.

Minimum Processing Time (Days) – The minimum processing time of applications/permits/amendments WITHOUT exceptions.

Maximum Processing Time (Days) – The average processing time of applications/permits/amendments WITHOUT exceptions.

Average Processing Time (Days) – The average processing time of applications/permits/amendments WITHOUT exceptions.

Target Maximum – The maximum days allowed for processing the specific applications/permits/amendments.

APPENDIX C

OFFICE OF PUBLIC INTEREST COUNSE ANNUAL REPORT TO THE TCEQ

FISCAL YEAR 2020

Introduction

exas Water Code, Chapter 5, Subchapter G prescribes the role, responsibilities, and duties of the Office of Public Interest Counsel (OPIC or Office) at the Texas Commission on Environmental Quality (Commission or TCEQ). Included among these statutory duties is the requirement under Texas Water Code, Section 5.2725 for OPIC to make an Annual Report to the Commission containing:

- 1. An evaluation of the Office's performance in representing the public interest;
- 2. An assessment of the budget needs of the Office, including the need to contract for outside expertise; and
- 3. Any legislative or regulatory changes recommended pursuant to Texas Water Code, Section 5.273.

In even-numbered years the report must be submitted in time for the Commission to include the reported information in the Commission's reports under Texas Water Code, Section 5.178(a) and (b), and in the Commission's biennial legislative appropriations requests, as appropriate. Though there is no statutory deadline for the submission of the report in odd-numbered years, OPIC is committed to providing this information to the Commission near the end of each fiscal year for purposes of reporting consistency. Accordingly, OPIC respectfully submits this Annual Report to comply with the requirements of Texas Water Code, Section 5.2725.

Overview of OPIC

OPIC was created in 1977 to ensure that the Commission promotes the public's interest. To fulfill the statutory directive of Texas Water Code, Section 5.271, OPIC participates in contested case hearings and other Commission proceedings to help develop a complete record for the Commission to consider in its decision-making process. In these proceedings, OPIC develops positions and recommendations supported by applicable law and the best available information and evidence. OPIC also protects the rights of members of the public to participate meaningfully in the decision-making process of the Commission to the fullest extent authorized by the law.

OPIC works independently of other TCEQ divisions and parties to present a public interest perspective on matters that come before the Commission. OPIC does this work through activities that include:

- Participating as a party in contested case hearings;
- Preparing briefs for Commission consideration regarding hearing requests, requests for reconsideration, motions to overturn, motions for rehearing, use determination appeals, and various other matters set for briefing by the Office of General Counsel;
- Reviewing and commenting on rulemaking proposals and petitions;
- Reviewing and recommending action on other matters considered by the Commission, including, but not limited to, proposed enforcement orders and proposed orders on district matters;

- Participating in public meetings on permit applications with significant public interest; and
- Responding to inquiries from the public related to agency public participation procedures and other legal questions related to statutes and regulations relevant to the agency.

As a party to Commission proceedings, OPIC is committed to providing independent analysis and recommendations that serve the integrity of the public participation and hearing process. OPIC is committed to ensuring that relevant information and evidence on issues affecting the public interest is developed and considered in Commission decisions. OPIC's intent is to facilitate informed Commission decisions that protect human health, the environment, the public interest, and the interests of affected members of the public to the maximum extent allowed by applicable law.

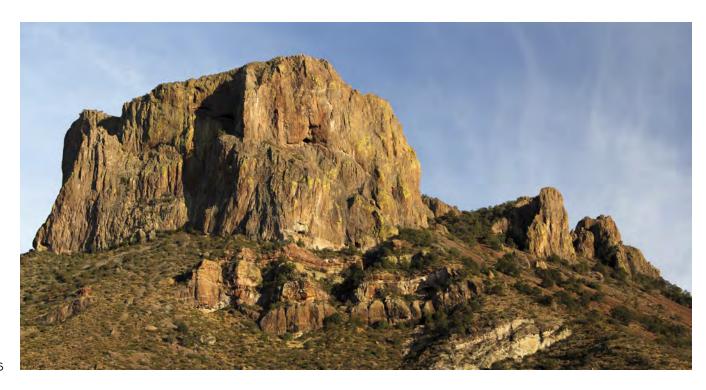
The Public Interest Counsel (Counsel) is appointed by the Commission. The Counsel supervises the overall operation of OPIC by managing the Office's budget, hiring and supervising staff, ensuring compliance with agency operating procedures, and establishing and ensuring compliance with Office policies and procedures. OPIC has eight full-time equivalent positions: Public Interest Counsel; Senior Attorney; five Assistant Public Interest Counsels; and the Office's Executive Assistant.

OPIC is committed to fulfilling its statutory duty to represent the public interest in Commission proceedings by hiring, developing, and retaining knowledgeable staff who are dedicated to OPIC's mission. To maintain high quality professional representation of the public interest, OPIC ensures that attorneys in the office receive continuing legal education and other relevant training. OPIC further ensures that its staff undertakes all required agency training and is fully apprised of the agency's operating policies and procedures.

Evaluation of OPIC's Performance

Texas Water Code, Section 5.2725(a)(1) requires OPIC to provide the Commission with an evaluation of OPIC's performance in representing the public interest. In determining the matters in which the Office will participate, OPIC applies the factors stated in 30 Texas Administrative Code (TAC) Section 80.110 (Public Interest Factors) including:

- 1. The extent to which the action may impact human health;
- 2. The extent to which the action may impact environmental quality;
- 3. The extent to which the action may impact the use and enjoyment of property;
- 4. The extent to which the action may impact the general populace as a whole, rather than impact an individual private interest;
- 5. The extent and significance of interest expressed in public comment received by the Commission regarding the action;



- 6. The extent to which the action promotes economic growth and the interests of citizens in the vicinity most likely to be affected by the action;
- 7. The extent to which the action promotes the conservation or judicious use of the state's natural resources; and
- 8. The extent to which the action serves Commission policies regarding the need for facilities or services to be authorized by the action.

OPIC's performance measures classify proceedings in four categories: environmental proceedings; district proceedings; rulemaking proceedings; and enforcement proceedings.

Environmental proceedings include environmental permitting proceedings at the State Office of Administrative Hearings (SOAH) and Commission proceedings related to consideration of hearing requests, requests for reconsideration, motions to overturn, proposals for decision, and miscellaneous other environmental matters heard by the Commission. These include proceedings related to municipal solid waste landfills and other municipal and industrial solid waste management and disposal activities, underground injection and waste disposal facilities, water rights authorizations, priority groundwater management area designations, watermaster appointments, municipal and industrial wastewater treatment facilities, sludge application facilities, concentrated animal feeding operations, rock and concrete crushers, concrete batch plants, other facilities requiring air permits, use determination appeals, various authorizations subject to the Commission's motion to overturn process, permit and licensing denials, suspensions, and revocations, and emergency orders.

District proceedings include proceedings at SOAH and at the Commission related to the creation and dissolution of districts and any other matters within the Commission's jurisdiction relating to the oversight of districts.

Rulemaking proceedings include Commission proceedings related to the consideration of rulemaking actions and state implementation plan matters proposed for publication and adoption and consideration of rulemaking petitions.

Enforcement proceedings include enforcement proceedings active at SOAH and Commission proceedings related to the consideration of proposed orders. For purposes of this report, enforcement proceedings do not include other agreed enforcement orders issued by the Executive Director in matters that were never active cases at SOAH.

OPIC's Performance Measures

As required by Texas Water Code, Section 5.2725(b), the Commission developed the following OPIC performance measures which were implemented on September 1, 2012:

Goal 1: To provide effective representation of the public interest as a party in all environmental and district proceedings before the Texas Commission on Environmental Quality

Objective: To provide effective representation of the public interest as a party in 75 percent of environmental proceedings and 75 percent of district proceedings heard by the TCEQ

Outcome Measure:

- Percentage of environmental proceedings in which OPIC participated
- Percentage of district proceedings in which OPIC participated

Goal 2: To provide effective representation of the public interest as a party in all rule-making proceedings before the Texas Commission on Environmental Quality

Objective: To participate in 75 percent of rulemaking proceedings considered by the TCEQ

Outcome Measure:

Percentage of rulemaking proceedings in which OPIC participated

Goal 3: To provide effective representation of the public interest as a party in all enforcement proceedings before the Texas Commission on Environmental Quality

Objective: To provide effective representation of the public interest as a party in 75 percent of enforcement proceedings heard by the TCEQ

Outcome Measure:

Percentage of enforcement proceedings in which OPIC participated

FY 2020 Performance

OPIC's performance measures for environmental, district, rulemaking and enforcement proceedings are expressed as percentages of the proceedings in which OPIC could have participated. OPIC uses a reporting process within the TCEQ Commissioners' Integrated

Database that allows OPIC to track its work on permitting matters active at any point within a fiscal year. Other tools used by OPIC include worksheets that track fiscal year agenda item totals by performance measure category and track enforcement matters active at SOAH at any point during the fiscal year. Performance measure percentages were derived by using information available for FY 2020 as of August 14, 2020. In fiscal year 2020, OPIC participated in a total of 870 proceedings consisting of: 81 environmental proceedings; 6 district proceedings; 92 rulemaking proceedings; and 691 enforcement proceedings.

OPIC's participation in 81 of 81 total environmental proceedings resulted in a participation percentage of 100%.

OPIC's participation in 6 of 6 district proceedings resulted in a participation percentage of 100%.

OPIC's participation in 92 of 92 rulemaking proceedings, including the review of all petitions, proposals, and adoptions considered by the Commission during fiscal year 2020, resulted in a participation percentage of 100%.

OPIC's participation in 691 of 691 enforcement proceedings, including the review of orders considered at Commission agendas and the participation in additional cases that were active at SOAH during fiscal year 2020, resulted in a participation percentage of 100%.

Assessment of Budget Needs

Texas Water Code, Section 5.2725(a)(2) directs OPIC to provide the Commission with an assessment of its budget needs, including the need to contract for outside expertise. The operating budget for OPIC in fiscal year 2020 was \$581,525 as shown in Figure C-1.

The changed circumstances of working remotely during the COVID-19 pandemic created savings in budget category 54 for facilities, furniture and equipment funds. Toward the end of FY 2020, funds from category 54 were transferred to budget category 42, Phone and Utilities, and used to procure basic state agency cell phones. While OPIC staff works remotely, these phones will be used to return calls from the public and make other calls as necessary for work purposes.

Additional funding of approximately \$1840 in OPIC's fiscal year 2021 budget and beyond would allow OPIC to continue this phone service. This would facilitate OPIC's communication with the public in the event TCEQ has future periods of remote working. For the same reasons, OPIC would benefit from having the capability to exchange staff desktop computers for

agency-issued laptops if this option is offered to offices in the future.

Texas Water Code, Section 5.274(b) provides that OPIC may obtain and use outside technical support to carry out its functions. Texas Water Code, Section 5.2725(a) (2) requires this report to include information about OPIC's budget needs to contract for outside technical expertise. For context, OPIC provides an overview of how the Office has addressed retaining outside technical expertise since this reporting requirement was enacted.

Fiscal year 2013 was the only year OPIC's initial budget included funding for retaining outside technical expertise. OPIC's fiscal year 2013 budget category number 35, professional and temporary services, included \$30,000 specifically earmarked for such purposes. OPIC worked with agency staff to develop administrative and contracting procedures to hire outside consultants. Because establishing these procedures required more time than expected, OPIC was unable to implement this process in time to use the earmarked funding included in the fiscal year 2013 category 35 budget. OPIC's initial budgets since fiscal year 2013 have not included funding in budget category 35 specifically designated for retaining outside technical expertise. Instead, sporadic needs timely identified in in specific cases have been addressed through the additional funding request (AFR) process.

During fiscal year 2014, further contracting procedures were established with the assistance and guidance of the Executive Director's purchasing staff. In that year, through an AFR, OPIC requested and received \$4,200 to retain expert consulting services for purposes of OPIC's participation in the contested

Figure C-1. OPIC Budget, FY 2020

	Budget Category	FY 2020 Budget
31	Salaries	\$564,525
37	Travel	\$7,100
39	Training	\$5,500
43	Consumables	\$500
46	Other Operating Expenses	\$1,600
54	Facilities, Furniture & Equipment	\$2,300
TOTA	L	\$581,525

case hearing on the air permit application of Corpus Christi Liquefaction, LLC.

During fiscal year 2015, an AFR of \$5,000 was granted to pay for expert consulting services for purposes of OPIC's participation in complex proceedings relating to a water use permit application to construct and maintain a reservoir on Bois d'Arc Creek. OPIC received a report evaluating the applicant's water conservation plan that facilitated OPIC's understanding of the applicant's compliance with applicable statutory and regulatory requirements. Another AFR of \$5,000 was granted to retain expert consulting services for purposes of proceedings on an air permit application submitted by Columbia Packing, Inc. Because the decision to grant a contested case hearing on this application was not made until after fiscal year 2015 ended—and the application was subsequently withdrawn—OPIC requested a release of these funds to the Commission's general operating budget.

During fiscal year 2016, OPIC requested and received additional funding of \$5,000 to retain technical expertise regarding sewage sludge land application issues in proceedings on the application of Beneficial Land Management, LLC for renewal and amendment of Permit No. WQ0004666000. The parties settled this case prior to completion of the contested case hearing.

For fiscal years 2017 through 2020, OPIC's initial budgets have not included funds that could be used for retaining technical expertise. Also, OPIC has not requested additional funding for such purposes. Circumstances where OPIC could have benefited from outside consulting on issues arising in specific cases were not fully known in time to identify, obtain, and use technical expertise in a timely and effective way. The complex permit applications OPIC tracks during the comment period do not all proceed to a contested case hearing. In the interest of conserving state resources, OPIC generally does not consider pursuing the possibility of retaining an expert consultant until the Commission refers an application to SOAH.

Most of the contested case hearings for which OPIC would use outside expertise are subject to SB 709. In these cases, Administrative Law Judges (ALJs) must issue a proposal for decision (PFD) no later than 180 days after a preliminary hearing. Some hearings are set with shorter durations of 120 days. Because ALJs reserve a full 60 days for preparing their decision after the close of the record, even in cases with the longest 180-day period allowed, 120 days at most are available for all aspects of the actual hearing before the close of



the record (written discovery and depositions, pre-filed testimony and exhibits, objections and motions, pre-hearing conferences, the hearing on the merits, and the filing of closing briefs and replies).

All of these factors result in a specific, narrow window of time to: (1) identify and communicate with potential experts regarding their qualifications and availability; (2) request and obtain funding; (3) move through the necessary procurement and contracting processes; and (4) have any retained expert review necessary materials and prepare a report to be delivered in time to be useful for hearing purposes. It is only useful for OPIC to consult with technical experts if their reports can be in hand a few weeks after the preliminary hearing—in time for use in reviewing pre-filed testimony, preparing for the hearing on the merits, and subsequently preparing written closing briefs and replies.

With the time allowed under SB 709 procedural schedules and SOAH's reservation of two months following the close of the record to issue a PFD, OPIC attorneys generally have found that their time during the weeks between the preliminary hearing and the hearing on the merits is better spent participating in the discovery process, reviewing pre-filed exhibits and prefiled testimony, reviewing and responding to objections and motions, and preparing for the cross-examination of witnesses. Nevertheless, OPIC remains open to possibilities for retaining outside technical expertise in novel and complex cases when the timing and circumstances allow. Currently, as this report is being written, OPIC is in the process of submitting a request for additional funding for FY 2021 and interviewing consulting experts for possible assistance for a specific contested case hearing proceeding expected to progress and be active early in FY 2021. Also, we have explored

developing relationships with university environmental science institutions and organizations that may expedite identifying and retaining consulting experts when needed in the future.

Legislative Recommendations

Texas Water Code, Section 5.273(b) authorizes OPIC to recommend needed legislative changes. Texas Water Code, Section 5.2725(a)(3) provides that such recommendations are to be included in OPIC's Annual Report. Accordingly, OPIC's legislative change recommendations are reported below.¹

1. Applicability of Requirement for Public Comment for Each Member of the Public Seeking Party Status at SOAH

OPIC recommends seeking clarification from the Legislature on the following question: Is the timely submittal of public comment a prerequisite for each person protesting an SB 709 permit and appearing at SOAH to request party status in a contested case hearing? Clarification of legislative intent may require changes to Texas Government Code, Section 2003.047 (Hearings for TCEQ) and Texas Water Code, Section 5.115 (Persons Affected in Commission Hearing). OPIC is not proposing the answer to this question; the only goal of this proposal is to resolve the uncertainty resulting from recurring arguments and different decisions in SB 709 contested case hearings.²

SB 709 changed several aspects of the public participation procedures for most TCEQ permitting programs, including Commission determinations on whether hearing requestors are affected persons. Texas Water Code, Section 5.115 (a-1)(2)(B) states: "For a matter referred under Section 5.556, the commission may not find that a *hearing requestor* is an affected person unless the *hearing requestor* timely submitted comments on the permit application." (emphasis added.) Accordingly, Commission rule 30 TAC Section 55.203(c)(6) provides that "for a hearing request" subject to SB 709, a factor to consider is whether the requestor submitted comments.

Clearly, a hearing requestor must file timely comments as a prerequisite for being determined an affected person when the Commission evaluates hearing requests for SB 709 applications under 30 TAC Chapter 55; however, it is not as clear whether this requirement applies to party designations by SOAH ALJs under 30 TAC Chapter 80. The Commission's rules at 30 TAC Section 55.211(e) state: "If a request for a contested case hearing is granted, a decision on a request for reconsideration or contested case hearing is an interlocutory decision on the validity of the request or issue and is not binding on the issue of designation of parties under § 80.109 of this title (relating to Designation of Parties) or the issues referred to SOAH under this section." The rule also states: "A person whose request for reconsideration or contested case hearing is denied may still seek to be admitted as a party under §80.109 of this title if any hearing request is granted on an application."

Under 30 TAC Section 80.109(a), entitled "Designation of Parties", the Commission's rules further provide: "All parties to a proceeding shall be determined at the preliminary hearing or when the ALJ otherwise designates. To be admitted as a party, a person must have a justiciable interest in the matter being considered and must, unless the person is specifically named in the matter being considered, appear at the preliminary hearing in person or by representative and seek to be admitted as a party." This subsection allows the ALJ to admit parties in addition to the affected persons who had hearing requests granted by TCEQ.

Section 80.109 does not expressly require the filing of timely public comments as a prerequisite for being named a party by a SOAH ALJ. Under 30 TAC Section 80.109(b)(5), affected persons shall be parties to hearings "based upon the standards" set forth in 30 TAC Section 55.203. While arguments have been made that Section 55.203(c)(6) must apply to ALJ decisions on party status, this regulatory provision is worded narrowly to apply to Commission decisions on "hearing requests" by "requestors." Because of this narrow wording, the counterargument made in SOAH proceedings has been that Section 55.203(c)(6) does not apply to ALJ decisions on party designations after hearing requests have been granted and the hearing has been convened.

Whether a person must submit timely public comments as a prerequisite to being designated a party in SOAH proceedings has been decided on a case-by-case basis with different outcomes. The predominant SOAH interpretation has been that failure to file public comment does not preclude a person from being named a party.³ However, in at least one hearing, an ALJ took a different approach.⁴ Because Texas Water Code, Section 5.115 does not expressly address party status determinations at SOAH, and because this issue has been argued in several separate SOAH hearings which resulted in different outcomes, the contested case hearing process would benefit from a clear legislative directive, possibly requiring amendments to both Texas Government Code, Section 2003.047 and Texas Water Code, Section 5.115.

2. Judicial Review of Matters Delegated to the Executive Director

The proposal would eliminate the need for appellants to "double file" petitions for judicial review on air and waste permitting matters delegated to the Executive Director. The proposal would clarify that the judicial review timeline established by Texas Water Code, Section 5.351, including HB 3177 passed in 2017 during the 85th Texas Legislative Session, applies to permitting matters under Texas Health and Safety Code Chapters 361 and 382.

In 2017, the Legislature passed HB 3177 to address a problem encountered by persons seeking judicial review of TCEQ actions on matters delegated to the Executive Director. Prior to enactment of this legislation, persons appealing many decisions delegated to the Executive Director were required to file two separate petitions for judicial review in district court. Then-current law required the first petition to be filed within 30 days of the effective date of the decision, while the person simultaneously exhausted administrative remedies through the motion to overturn process.

A second petition would then be filed after any motion to overturn had either been denied by the commission or overruled by operation of law. HB 3177 sought to remedy this confusing and duplicative set of circumstances by delaying the requirement for petition filing until after TCEQ had acted on any timely filed motion to overturn. While HB 3177 sought to create a more efficient and fair process, it inadvertently resulted in confusion as to which judicial appeal processes were governed by the new procedure.

Advocates for the passage of HB 3177 in 2017 thought that bill's changes to Texas Water Code, Section 5.351 applied across all agency programs and established uniform timelines for appeals across media. This interpretation makes sense because Texas Water Code Chapter 5 establishes the general powers of the Commission and is not media specific. Given the placement of Section 5.351 in Chapter 5 of the Texas Water Code that enumerates the general powers and duties of the Commission across all media under its jurisdiction, the plain wording of the statute, and the legislative intent discussed above, Texas Water Code, Section 5.351 in its current form arguably should control any contrary provisions in media-specific statutory provisions.

Nevertheless, after motions to overturn were filed in waste and air matters after the passage of HB 3177, it was realized that contrary media-specific statutes had not been revised and uncertainty remained about the need to double file petitions for judicial review. To provide certainty about the deadlines for seeking judicial review, OPIC's Annual Report for Fiscal Year 2018 proposed to amend Texas Water Code, Section 5.351(c) as follows:

Notwithstanding Subsection (b) or any other statutory provisions within the commission's jurisdiction authorizing the filing of a petition to review, set aside, modify, or suspend an act of the commission, a person affected by a ruling, order, or other law may, after exhausting any administrative remedies, file a petition to review, set aside, modify, or suspend the ruling, order, or decision not later than the 30th day after:

- (1) the effective date of the ruling, order, or decision; or
- (2) if the executive director's ruling, order, or decision is appealed to the commission as authorized by Section 5.122(b) or other law, the earlier of:

^{1.} On April 15, 2020, OPIC also submitted these recommendations to the TCEQ Intergovernmental Relations Division.

^{2.} In the context of SOAH proceedings, OPIC's position on this issue has not been neutral. In hearings convened after the *Vulcan* contested case hearing referenced in footnote 3 below, OPIC has argued that SOAH should follow the precedent of *Vulcan* and be consistent in its interpretation of existing statutory and regulatory requirements for party status.

^{3.} In the Matter of the Application of Vulcan Construction Materials, LLC, SOAH Docket No. 582-19-1955, TCEQ Docket No. 2018-1303-AIR (the issue was raised in oral arguments at the preliminary hearing and the ALJ decided to admit multiple parties who had not previously participated); In the Matter of the Application by Bosque Solutions LLC, SOAH Docket No. 582-19-6473, TCEQ Docket No. 2019-0665-AIR (the ALJ requested and received written briefing on the specific issue of whether timely submitted comments were required, then admitted a party who had not filed comments); In the Matter of the Application of Ingram Concrete, LLC, SOAH Docket No. 582-20-0884; TCEQ Docket No. 2019-0902-AIR (after hearing testimony from the person about their interests, ALJ admitted a party who had not previously submitted comments).

^{4.} *In the Matter of Camp Champions Texas, LP*, SOAH Docket No. 582-20-1022, TCEQ Docket No. 2019-0901-MWD (landowners adjacent to a facility were conditionally admitted as parties based on their concerns and interests and their claim they had not received mailed notice; however, when the applicant later presented evidence of mailed notice that was not rebutted, the adjacent landowners were dismissed as parties for their failure to submit timely comment).

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- (A) the date the commission denies the appeal; or
- (B) the date the appeal is overruled by operation of law in accordance with commission rules.

During the 86th Texas Legislative Session in 2019, Senator Zaffirini's office sponsored SB 2354 which proposed similar changes to Texas Water Code, Section 5.351, and proposed additional corresponding changes to Texas Health and Safety Code, Sections 361.321 and 382.032. The Texas Senate passed SB 2354. The bill was reported favorably out of the House Committee; however, it was not scheduled for a House vote.

OPIC anticipates that the regulated community and the environmental community alike would welcome eliminating the need for double filing petitions and avoiding the potential procedural pitfalls that now exist when petitioning for judicial review of matters delegated to the Executive Director. The public interest would be served by streamlined and less confusing procedures. For these reasons, OPIC recommends changes to Texas Water Code, Section 5.351, and changes to other provisions such as Texas Health and Safety Code, Sections 361.321 and 382.032 that may be helpful in harmonizing these timing requirements concerning the filing of an appeal in district court.

3. Changes Made to an Application for an Environmental Permit **Before a Contested Case Hearing**

This proposal would prohibit changes to permit applications after the 31st day prior to the date scheduled for the preliminary hearing, other than changes to correct clerical errors or to update nontechnical application information. The proposal would track SB 1990 and companion bill HB 1006 filed in 2019 during the 86th Texas Legislative Session. Also, with some modifications, the proposal is based on existing Texas Health and Safety Code, Section 382.0291(d) which currently limits an air quality permit applicant's ability to amend applications.

Members of the public often express concern about perceived unfairness when permittees change their applications late in the public participation process in response to issues or evidence brought to light by protesting parties. These parties contend that when such changes are allowed—and the need to address 82 deficiencies has been made known only through efforts and expenses of protesting parties—the subject of the hearing becomes a "moving target." OPIC's proposal is intended to address the "moving target" concern by discouraging application changes late in the public participation process. The proposal seeks to encourage the regulated community to ensure applications are accurate and complete when filed, or at least 31 days before the hearing. The intended result is a more efficient use of the time and resources of all parties to a proceeding.

OPIC's Annual Report for Fiscal Year 2018 included a similar proposal. During the 86th Texas Legislative Session, Senator Zaffirini filed SB 1990 to remedy the concerns raised in OPIC's proposal. Representative Collier filed companion bill HB 1006. OPIC's current proposal tracks these bills and would amend Texas Government Code, Section 2003.047 by adding subsection (d)(1) as follows:

This subsection only applies to an environmental permit governed by Texas Water Code Chapter 26 or 27 or Texas Health and Safety Code Chapters 361 or 382. An applicant for a license, permit, registration, or similar form of permission required by law to be obtained from the commission may not request changes to the application, other than changes to correct clerical errors or update other non-technical information in the application, after the 31st-day before the first date scheduled for a preliminary hearing on the application. If an applicant chooses not to proceed with the preliminary hearing on the application after the 31st day before the date scheduled for the preliminary hearing, the applicant must withdraw the application with or without prejudice in accordance with commission rule. If an applicant who has withdrawn an application without prejudice subsequently resubmits a revised application, the applicant must comply with applicable notice and other requirements in effect on the date the revised application was submitted to the commission. This subsection does not apply to a change made to an application for which:

- (1) all timely requests for a contested case hearing have been denied by the commission or withdrawn prior to the preliminary hearing; or
- (2) a preliminary hearing has been held and parties to the hearing have been named;
- (3) all parties to the hearing have agreed in writing to the proposed changes; and

(4) the applicant has complied with applicable notice requirements.

Texas Health and Safety Code, Section 382.0291(d), which applies only to changes to air permit applications, would no longer be needed and could be repealed.

Regulatory Recommendations

Texas Water Code, Section 5.273(b) authorizes OPIC to recommend needed regulatory changes. Texas Water Code, Section 5.2725(a)(3) provides that such recommendations are to be included in OPIC's Annual Report. With some modifications, the recommendations discussed below have been carried forward from OPIC's FY 2019 Annual Report.

1. Proposal Concerning Procedural **Schedules in Contested Case Hearings on Permit Applications Subject to SB 709**

HB 801 established timeframes for procedural schedules in contested case hearings on applications filed on or after September 1, 1999. For these matters, hearings are required to last no longer than one year from the date of the preliminary hearing until the issuance of the PFD. No specific timeframe was set for the time between the close of the hearing record and the issuance of the PFD. At least since the implementation of HB 801, SOAH ALJs have reserved a 60-day period following the close of the hearing record for writing and issuing the PFD, though this practice is not expressly addressed by statute or rule applicable to TCEQ environmental permit application hearings.⁵

SB 709 established timeframes for procedural schedules in contested case hearings on applications filed on or after September 1, 2015. For these matters, hearings are required to last no longer than 180 days from the

date of the preliminary hearing until the issuance of the PFD. There are no specific statutory requirements in SB 709 regarding the time between the close of the hearing record and the issuance of the PFD.

Because of the statutory limitation on the maximum time period allowed between a preliminary hearing and issuance of the PFD, SOAH's reservation of 60 days of the hearing schedule exclusively for preparation of the PFD negatively affects the rights of members of the public to challenge permit applications. These parties are impaired in their ability to develop and argue the merits of their positions through the contested case hearing process. If the Commission sets the duration of a hearing at 120 days, half of that schedule is reserved by SOAH to prepare the PFD. Even if the Commission sets the duration of a hearing at the maximum amount of time statutorily allowed, SOAH's 60-day PFD preparation period consumes one-third of the 180-day schedule.

When an ALJ reserves 60 days (approximately 2 months) to prepare the PFD, this leaves the parties with a maximum of 120 days (approximately 4 months) to conduct all discovery, including serving and responding to written discovery requests and participating in the depositions of any fact witnesses and testifying expert witnesses, resolve discovery disputes through motions and hearings as necessary, prepare and submit pre-filed testimony and exhibits, file and serve any objections to pre-filed testimony and exhibits, have objections and motions for summary disposition resolved through any needed pre-hearing conferences, conduct the hearing on the merits over a period of days, await the court reporter's transcript of the hearing, and then prepare comprehensive written closing arguments and replies to closing arguments. These aspects of the hearing process must happen sequentially; they must conclude before the record is closed; and the record must close before the 60-day clock for preparation of the PFD begins ticking.

A reallocation of the 180-day time period would serve the public interest by allowing parties more time to develop the evidentiary record and present arguments in support of their respective positions. The public interest would be served by allowing 30 working days, rather than 60 days, from the close of the hearing record until issuance of the PFD.

The proposal is based in part on former 30 TAC Section 80.251(b) that applied to applications filed before September 1, 1999. The rule was repealed effective

^{5.} Texas Government Code, Section 2001.058(f)(1) allows a state agency to provide by rule that a proposal for decision in an occupational licensing matter must be filed no later than the 60th day after the latter of the date the hearing is closed or the date by which the judge has ordered all briefs, reply briefs, or other post-hearing documents to be filed. By its wording, this statute applies to occupational licensing matters and not environmental permitting matters subject to HB 801 or SB 709.

Texas Government Code, Section 2001.143 does provide that decisions or orders that may become final should be signed within 60 days of the close of the hearing. However, in interpreting and implementing this statutory directive for purposes of TCEQ hearings, the Commission adopted 30 TAC Section 80.267 which provides that: (a) the Commission shall make its decision 30 days or later following the service of the ALJ's PFD; and (b) the Commission's order (not the ALJ's PFD) should be signed not later than the 60th day after the hearing is finally closed. The rule does not require or reserve a 60-day period for preparing the PFD.

May 19, 2020 after a determination was made that there were no permit applications still pending that were filed before September 1, 1999. Under Section 80.251(b), ALJs were required to issue a PFD within 30 working days after the close of the record; though, notably, there was no statutorily mandated restriction on the duration of the hearing. The following provisions would amend the Commission's Chapter 80 rules in 30 TAC Sections 80.105(b)(3), 80.252(c) and/or such other Chapter 80 rules deemed appropriate:

Section 80.105. Preliminary Hearings

- (b) If jurisdiction is established, the judge shall:
 - (1) name the parties;
 - (2) accept public comment in the following matters:
 - (A) enforcement hearings; and
 - (B) applications under Texas Water Code (TWC), Chapter 13 and TWC, §§ 11.036, 11.041, or 12.013;
 - (3) establish a docket control order designed to complete the proceeding within the maximum expected duration set by the commission. The order should include a discovery and procedural schedule including a mechanism for the timely and expeditious resolution of discovery disputes. <u>In contested</u> cases regarding a permit application filed with the commission on or after September 1, 2015 and referred under TWC, §5.556, the order shall include a date for the issuance of the proposal for decision that is within the maximum expected duration set by the commission. For applications referred under TWC, §5.556 or §5.557, the date for issuance of the proposal for decision shall be no later than the 30th working day after the judge closes the hearing record;

Section 80.252. Judge's Proposal for Decision

- (a) Any application that is declared administratively complete on or after September 1, 1999, is subject to this section.
- (b) Judge's proposal for decision regarding an application filed before September 1, 2015, or applications not referred under Texas Water Code, §5.556 or §5.557. After closing

- the hearing record, the judge shall file a written proposal for decision with the chief clerk no later than the end of the maximum expected duration set by the commission and shall send a copy by certified mail to the executive director and to each party.
- (c) <u>Judge's proposal for decision regarding an</u> <u>application filed on or after September 1,</u> 2015 and referred under Texas Water Code, §5.556 or §5.557. The judge shall file a written proposal for decision with the chief clerk no later than 30 working days after the date the judge closes the hearing record. If the judge is unable to file the proposal for decision within 30 working days, the judge shall request an extension from the commission by filing a request with the chief clerk. In no event shall the proposal for decision be filed later than 180 days after the date of the preliminary hearing, the date specified by the commission, or the date to which the deadline was extended pursuant to Texas Government Code, §2003.047(e-3). Additionally, the judge shall send a copy of the proposal for decision by certified mail to the executive director and to each party.

2. Proposal Concerning Mandatory Direct Referrals

OPIC recommends the regulatory changes discussed below to conserve agency resources when processing a permit application which has triggered a large volume of hearing requests and when it is obvious that hearing requests have been filed by affected persons.

Texas Water Code, Section 5.557(a) provides that an application may be referred to SOAH for a contested case hearing immediately following issuance of the Executive Director's preliminary decision. Under this statutory authority, and under Commission rules at 30 TAC Section 55.210(a), the Executive Director or the applicant may request that an application be directly referred to SOAH for a contested case hearing. While the Executive Director has independent statutory authority to request a direct referral, the practice has been to defer to the applicant and not request direct referral without the applicant's approval. In effect, this practice negates the Executive Director's statutory authority and renders it moot.

In past cases, the Executive Director's justification for this practice is a purported right of applicants to go before the Commission to request a narrowing of the scope of issues to be referred. OPIC agrees that Texas Water Code, Section 5.556 requires the Commission to specify issues referred to hearing when granting hearing requests; however, the Legislature envisioned that in some cases the Executive Director could request a direct referral without the consent of the applicant. Otherwise, it would have been pointless for the Legislature to grant the Executive Director such independent authority under Texas Water Code, Section 5.557(a).

Often when the TCEQ receives a large volume of hearing requests from persons located near a facility, there is little doubt that there are affected persons who will be granted a contested case hearing. In these situations, a hearing is a reasonable certainty, even before the TCEQ begins the resource-intensive tasks of setting consideration of the requests for a Commission agenda, mailing notice and a request for briefs to a multitude of interested persons, having the Executive Director and OPIC prepare briefs analyzing a voluminous number of requests, and serving such briefs on a multitude of people. OPIC's proposed rule change would require a mandatory direct referral under these circumstances. Such a rule change would conserve TCEQ resources in a number of ways, including reducing the number of multiple mass mailings from multiple agency offices. This change would also conserve the TCEQ's human resources required to process, review, analyze, and brief a multitude of voluminous hearing requests in circumstances where a hearing is already a reasonable certainty.

The following provision would be added to 30 TAC Section 55.210(a):

The executive director shall refer an application directly to SOAH for a hearing on the application if:

- (1) at least fifty timely hearing requests on the application have been filed with the chief clerk; and
- (2) for concrete batch plant standard permit registrations subject to a right to request a contested case hearing, the executive director confirms that at least one of the timely hearing requests was filed by a requestor who owns or resides in a

- permanent residence within 440 yards of the proposed facility; or
- (3) for wastewater discharge authorizations subject to a right to request a contested case hearing, the executive director confirms that at least one of the timely hearing requests was filed by a requestor owning property either adjacent to or within one-half mile of the proposed or existing facility or along the proposed or existing discharge route within one mile downstream; or
- (4) for all other applications subject to a right to request a contested case hearing, the executive director confirms that at least five of the hearing requestors own property or reside within one mile of the existing or proposed facility.

3. Proposal to Clarify Commission Authority to Consider Characteristics, Functioning, Capacity, and Suitability of Discharge Routes in TPDES Permitting Decisions

Under the Texas Pollutant Discharge Elimination System (TPDES) permitting program, the TCEQ regulates water quality through the issuance of permits for the discharge of waste or pollutants into or adjacent to water in the state. Texas Water Code, Section 26.027. When reviewing applications for such permits, the Commission considers the suitability of the proposed site given its design features and operational functions. The purposes of 30 TAC Chapter 309, Subchapter B, Domestic Wastewater Effluent Limitation and Plant Siting requirements, include goals "to minimize the possibility of exposing the public to nuisance conditions" and "to prohibit issuance of a permit for a facility to be located in an area determined to be unsuitable or inappropriate, unless the design, construction, and operational features of the facility will mitigate the unsuitable site characteristics." 30 TAC Section 309.10(b).

Additionally, 30 TAC Section 309.12 provides that "the commission may not issue a permit for a new facility or for the substantial change of an existing facility unless it finds that the proposed site, when evaluated in light of the proposed design, construction or operational features, minimizes possible contamination of surface water and groundwater." OPIC asserts that proper functioning of the discharge route as modeled

in the draft permit is relevant to assessing site suitability characteristics and the potential water quality and environmental impacts of proposed activities under TPDES permits. An unsuitable discharge route (such as an undefined route, a poorly defined route, or a route blocked with debris or obstructions) may fail to transport or channel properly the expected volume of effluent, may interfere with effluent mixing and the permittee's ability to meet effluent limitation parameters as modeled in the draft permit, and may cause nuisance conditions from standing water or the inundation of neighboring property with contaminants. Such conditions can render the siting of the facility unsuitable. Though such concerns may be combined in public comments or hearing requests along with interrelated comments about "flooding," these are not general flooding concerns, but rather site-specific issues about the suitability of the discharge route as an operational feature of the facility.

In OPIC's experience, however, when concerned citizens file correspondence with the TCEQ that both questions the characteristics, functioning, capacity, and suitability of a proposed discharge route and raises concerns about flooding, such issues are often lumped together and collectively viewed as "general concerns about flooding" that are not under the Commission's jurisdiction to address within the context of the TPDES permitting program. OPIC acknowledges that Chapter 26 of the Texas Water Code authorizes the TCEQ to regulate water quality and not general concerns about flooding. However, as discussed above, site-specific concerns as to whether a proposed discharge route can function properly and other Chapter 309 site suitability considerations do relate to water quality and the prevention of nuisance conditions and are properly within the Commission's jurisdiction. OPIC respectfully submits that these concerns should not be dismissed because they also happen to mention, in an interrelated fashion, concerns about flooding. OPIC proposes to clarify the Commission's authority to consider the suitability of the discharge route in permitting decisions.

Amended 30 TAC Section 309.12 would add a new subsection 5 and read as follows:

The commission may not issue a permit for a new facility or for the substantial change of an existing facility unless it finds that the proposed site, when evaluated in light of the proposed design, construction or operational features, minimizes possible contamination of surface water and groundwater. In making this determination, the commission may consider the following factors:

- (1) active geologic processes;
- (2) groundwater conditions such as groundwater flow rate, groundwater quality, length of flow path to points of discharge and aquifer recharge or discharge conditions;
- (3) soil conditions such as stratigraphic profile and complexity, hydraulic conductivity of strata, and separation distance from the facility to the aquifer and points of discharge to surface water;
- (4) climatological conditions; and
- (5) characteristics, functioning and capacity of the proposed discharge route, including the route's suitability to contain and channel the permitted volume of effluent, allow for mixing and water quality consistent with the permit's modeling and effluent limitations, and avoid causing or contributing to conditions of standing water, nuisance, or the inundation of surrounding property with discharged effluent.

Conclusion

OPIC appreciates the opportunity afforded by this statutory reporting requirement to reflect upon the Office's work. OPIC continues in its commitment to represent the public interest in Commission proceedings and to conduct its work and evaluate its performance transparently.



APPENDIX D

EVALUATION OF WATER BASINS IN TEXAS

WITHOUT A WATERMASTER

CEQ evaluates, at least once every five years, the river basins that do not have a watermaster program to determine if one should be established, as required by Section 5.05 of House Bill 2694, the Sunset bill from the 82nd legislative session. The statute also required that the commissioners establish criteria for the evaluation.

Overview of Watermaster Programs

A TCEQ watermaster office is headed by a watermaster and staffed with personnel who regulate and protect water rights under the provisions of Chapter 11 of the Texas Water Code (TWC). Watermaster programs are created and authorized to take actions under TWC Sections 11.326, 11.3261, 11.327, 11.3271, 11.329, and 11.551–11.559. Rules governing this program are under Title 30, Texas Administrative Code, Chapters 295, 297, 303, and 304.

Watermasters and their staffs have the authority to protect water rights by the following:

- Reviewing diversion notifications.
- Authorizing appropriate diversions.
- Deterring illegal diversions.
- Providing real-time monitoring of area streamflow.
- Investigating alleged violations of Chapter 11.
- Mediating conflicts and disputes among water users.

TWC Chapter 11 sets forth the mechanisms for establishing a watermaster program:

- By the executive director in a water division established by the commission under Section 11.325.
- By court appointment.
- By the commission, upon receipt of a petition of 25 or more water-right holders in a river basin or segment of a river basin, or on its own motion, if the commission finds that senior water rights have been threatened.

In addition, the Legislature has the authority to create a watermaster.

TCEQ has an existing watermaster program in each of these areas:

- Rio Grande, which serves the Rio Grande River segment from Fort Quitman to the Gulf of Mexico in the Rio Grande River Basin (excluding the Pecos and Devils Rivers). Coordinates releases from the Amistad and Falcon reservoir systems. Established by a 1956 court appointment.
- South Texas, which serves the Lavaca, Nueces, San Antonio, and Guadalupe river basins, as well as the adjacent coastal basins. Established in 1988, based on a water-division creation order that was signed that year and amended in 1998.
- Concho River, which serves a portion of the Concho River segment of the Colorado River Basin. Created by the Legislature in 2005.
- Brazos, which serves the Lower Brazos River Basin including and below Possum Kingdom Lake. On April 12, 2014, the commission issued an order directing that a watermaster be appointed for this basin after receiving a petition from 25 or more water right holders. The program was fully implemented on June 1, 2015.

Criteria and Schedule

In 2011, the commissioners established the following criteria to consider during evaluations:

- Is there a court order to create a watermaster?
- Has a petition been received requesting a watermaster?
- Have senior water rights been threatened based on the following:
- » A history of senior calls or water shortages within the river basin?
- » The number of water right complaints received annually in each river basin?

The agency completed the first five-year cycle in Fiscal 2016. The second cycle began in Fiscal 2017 to evaluate the river basins below:

Fiscal 2017

Brazos River Basin (Upper) Brazos–Colorado Coastal Basin San Jacinto-Brazos Coastal Basin Colorado River Basin Colorado–Lavaca Coastal Basin

Fiscal 2018

Trinity River Basin Neches-Trinity Coastal Basin San Jacinto River Basin Trinity-San Jacinto Coastal Basin

Fiscal 2019

Neches River Basin Sabine River Basin

Fiscal 2020

Canadian River Basin Red River Basin

Fiscal 2021

Sulphur River Basin Cypress Creek Basin

Evaluation Activities in Fiscal 2019

For the Neches and Sabine River Basins:

- Updated the webpage explaining the evaluation process, inviting stakeholders in these basins to participate and get automated email updates. See: www.tceq.texas.gov/goto/basins.
- Mailed initial outreach letters on March 11, 2019 (Figure D-1), to the stakeholders in each area, including all water-right holders, county judges and extension agents, river authorities, agricultural interests, industries, environmental organizations, and other interested parties. The 2nd letter announcing stakeholder meetings was mailed on May 3, 2019. The comment period was open until June 19, 2019.
- Held three stakeholder meetings in June 2019. At each meeting, the manager of the Watermaster Section was present to deliver information and to answer questions.

Comments

Neches and Sabine—Of the 9 stakeholder comments received related to these basins:

- 9 were opposed to establishing a watermaster program.
- 0 were in favor.

Evaluation Findings

TCEQ evaluated the basins based on the established criteria. The findings are highlighted below:

- There were no court orders to appoint a watermaster for any of the basins in this cycle.
- There were no petitions to appoint a watermaster for any of the basins in this cycle.

Threats to Senior Water Rights

In evaluating whether senior water rights have been threatened, staff considered if any priority calls were received and the history of complaints and investigations related to water rights management.

Within the Neches and Sabine River Basins, we received no priority calls during the evaluation period. The TCEQ regional offices received and investigated a total of 25 complaints and completed 417 investigations related to water rights management (e.g. complaints, temporary permits, and compliance initiatives) during the five-year period. The majority of these were completed with no violations or enforcement actions.

Costs to the Agency

Estimated costs to conduct the investigation activities for Fiscal 2014 through 2018:

Neches and Sabine River Basins were \$38,651 and \$31,836, respectively.

The cost of the required evaluations for these basins in 2019:

- Office of Water: \$75,970.27, which included salary and fringe benefits, postage, and travel.
- Office of Legal Services staff time: \$104.04.
- Office of Compliance and Enforcement: \$626.20, which included staff time, travel time, and equipment use.
- Staff in TCEQ's Intergovernmental Relations
 Division participated in the evaluation process
 but incurred no cost.

At the commission's agenda meeting on September 27, 2019, TCEQ personnel gave a presentation and made recommendations related to the fiscal 2019 evaluation.

Evaluation Activities in Fiscal 2020

For the Canadian and Red River Basins:

- Updated the webpage explaining the evaluation process, inviting stakeholders in these basins to participate and get automated email updates. See: www.tceq.texas.gov/goto/basins.
- Mailed initial outreach letters on February 24, 2020 (Figure D-2), to the stakeholders in each area, including all water-right holders, county judges and extension agents, river authorities, agricultural interests, industries, environmental organizations, and other interested parties. The 2nd letter announcing stakeholder meetings was mailed on May 15, 2020. The comment period was open until June 30, 2020.
- Held two electronic stakeholder meetings in June 2020. At each meeting, the manager of the Watermaster Section was present to deliver information and to answer questions.

Comments

Canadian and Red—Of the 8 stakeholder comments received related to these basins:

- 8 were opposed to establishing a watermaster program.
- 0 were in favor.

Evaluation Findings

TCEQ evaluated the basins based on the established criteria. The findings are highlighted below:

- There were no court orders to appoint a watermaster for any of the basins in this cycle.
- There were no petitions to appoint a watermaster for any of the basins in this cycle.

Threats to Senior Water Rights

- In evaluating whether senior water rights have been threatened, staff considered if any priority calls were received and the history of complaints and investigations related to water rights management.
- Within the Canadian and Red River Basins, we received no priority calls during the evaluation period. The TCEQ regional offices received and investigated a total of 13 complaints and completed 15 investigations related to water rights management (excluding temporary permit investigations) during the five-year period. The majority of these were completed with no violations or enforcement actions.



Costs to the Agency

Estimated costs to conduct these activities in fiscal years 2015 through 2019:

Canadian River Basin, \$658, and Red River Basin, \$14,522.

The costs to conduct the required evaluations of these basins in 2020:

- Office of Water: \$27,282, which included salary and fringe benefits, postage, and travel.
- Office of Legal Services staff time: \$31.
- Office of Compliance and Enforcement: \$408, which included staff time, travel time, and equipment use.
- Staff from TCEQ's Intergovernmental Relations Division participated in the evaluation process but incurred minimal costs.

At the commission's agenda meeting on September 9, 2020, TCEQ personnel gave a presentation and made recommendations related to the fiscal 2020 evaluation.

Executive Director's Recommendation in Fiscal 2019 and 2020

With no court orders or petitions to create a watermaster, and no repeated history of threatened water rights, the executive director recommended that the commission not move forward on its own motion to create a watermaster program in any of the basins reviewed in fiscal 2019 and fiscal 2020.

While the statute requires the agency to evaluate the need for a watermaster in those basins without a watermaster program at least every five years, there is no prohibition against evaluating a basin sooner, as needed. The executive director can review this decision and evaluate additional threats to senior water rights as they occur and consider area stakeholder input.

Since stakeholders would be responsible for paying annual fees to support a new regulatory program, it is important to have their support in articulating the threat and the need to establish such a program.



Figure D-1. Outreach Letters to Stakeholders, FY 2019

Jon Niermann, Chairman Emily Lindley, Commissioner Toby Baker, Executive Director



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

March 11, 2019

Re: Watermaster Evaluation for the Neches River and Sabine River Basins

Dear Stakeholder:

The Texas Commission on Environmental Quality (TCEQ) is currently evaluating the Neches River and Sabine River Basins to determine whether a watermaster should be appointed. The purpose of this letter is to notify you and to seek written input on the process, which will help the agency to identify information that should be considered during our evaluation.

According to Subsections 11.326(g) and (h) of the Texas Water Code, the Executive Director (ED) must evaluate all river basins at least once every five years that do not currently have a watermaster to determine whether one should be appointed. The ED must report the findings from the evaluation and make recommendations to the TCEQ Commissioners. The Commissioners will direct the ED to move forward with the recommendation, revise the recommendation, or they may take no action on the recommendation. The evaluation findings and recommendations are to be included in the agency's Biennial Report to the Legislature.

In an effort to include the public and develop the best recommendations, we are soliciting input from stakeholders, including water right holders, domestic and livestock users, river authorities, agricultural, industrial and environmental organizations, the general public, and other interested parties. As part of the evaluation, we plan to mail notifications of stakeholder meetings to all stakeholders within these basins expected to be held in June. The input received from stakeholders will be discussed at the TCEQ Commissioners' Agenda tentatively scheduled for late summer.

As a stakeholder in these basins, you are being contacted during this initial outreach. If you are aware of any other person who might be interested but did not receive this initial outreach letter, please forward this information to them.

We will consider the following criteria when evaluating a basin:

- (1) Has there been a court order to create a watermaster?
- (2) Has TCEQ received a petition requesting a watermaster?
- (3) Have senior water rights been threatened, based on either the history of senior calls or water shortages within the basin or the number of water right complaints received on an annual basis in each basin?

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Figure D-1. Outreach Letters to Stakeholders, FY 2019 cont.

Re: Watermaster Evaluation

Page 2

March 11, 2019

If the establishment of a watermaster is recommended and approved, a budget would be established each year, and the watermaster program would be administered using fees collected from water right holders in the watermaster area. The enclosed fact sheet includes general information about the watermaster programs including the fees associated to a program. TCEQ requests and appreciates your input on this evaluation. In particular, we ask that you provide written input regarding the possible threat to senior water rights (item 3 above) as well as proposals for implementing a possible watermaster program.

Please include the following information in your letter:

- 1. The river or waterbody you are discussing.
- Your affiliation (for example, a water right holder with a water right permit (including number if known), a domestic and livestock user, an adjacent landowner, an interested party, or environmental organization).

This request for written input is your first opportunity to participate in this process. Comments will be accepted through the end of June. In order to help us plan for our June stakeholder meetings, please any send written comments you have at this time by April 5, 2019. Comments should be sent to my attention at the following address: TCEQ, Water Availability Division, Watermaster Section, MC-160, P.O. Box 13087, Austin, Texas 78711-3087. You may also send an email to: watermaster@tceq.texas.gov.

If you have any questions or additional comments, please feel free to contact me at (512) 239-2025.

In addition, you may sign up to receive email updates at: https://public.govdelivery.com/accounts/TXTCEQ/subscriber/new. Additional information on the evaluation process is available on TCEQ's website: www.tceq.texas.gov/goto/watermaster. We value your comments on the evaluation process, including the criteria being used, as well as information to assist the agency in its evaluation of your basin. Thank you for your participation.

Sincerely,

Brooke McGregor, Watermaster Program Liaison

Water Availability Division

Varcoke McChegor

Texas Commission on Environmental Quality

Enclosures

Figure D-1. Outreach Letters to Stakeholders, FY 2019 cont.

Jon Niermann, *Chairman*Emily Lindley, *Commissioner*Toby Baker, *Executive Director*



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

May 3, 2019

te: Stakeholder Meetings: Watermaster Evaluation for the Neches River and Sabine River Basins

Dear Stakeholder:

Under Texas Water Code §11.326 (g) and (h), the Texas Commission on Environmental Quality (TCEQ) must evaluate river basins without watermasters every five years. Evaluations are utilized to determine whether a watermaster should be appointed as well as to report the findings and to make recommendations to the Commission. In 2019, the TCEQ is evaluating the Neches and Sabine River Basins. Stakeholder input is an important part of this process. The TCEQ will be taking public comment through 5:00 p.m. on June 19, 2019.

Stakeholder Meetings

The purpose of this letter is to invite you to attend stakeholder meetings where the TCEQ will provide additional information about this process and will take public comment. Stakeholder meetings will be held as follows:

6:00 p.m. – June 11, 2019 TCEQ Region 10 Office 3870 Eastex Freeway Beaumont, Texas 77703 6:00 p.m. - June 12, 2019 Angelina College Community Services Bldg., Room CS104 3500 South First Street Lufkin, Texas 75904

6:00 p.m. – June 13, 2019 TCEQ Region 5 Office 2916 Teague Drive Tyler, Texas 75701

Information about the Process

The TCEQ mailed letters on March 11, 2019, to all water right holders, county judges, extension agents, and other interested parties providing information about the process. Information about the process is also available on the TCEQ's website: www.tceq.texas.gov/goto/watermaster.

If you have any questions about the process, please contact:

- Brooke McGregor, Watermaster Liaison, at (512) 239-2025 or
- Laurie Gharis, Watermaster Section Manager, at (512) 239-1835

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Figure D-1. Outreach Letters to Stakeholders, FY 2019 cont.

Stakeholder Meeting Page 2 May 3, 2019

Additionally, you can sign up to receive email updates at: https://public.govdelivery.com/accounts/TXTCEO/subscriber/new.

Public Comment

The TCEQ will be taking public comment through 5:00 p.m. on June 19, 2019. Please mail your comments to the Watermaster Section, MC 160, P.O. Box 13087, Austin, Texas 78711-3087 or by email to watermaster@tceq.texas.gov. Thank you for your participation as we go through this very important process.

Sincerely,

Brooke McGhegor

Brooke McGregor, Watermaster Program Liaison Watermaster Section, MC-160 Water Availability Division Texas Commission on Environmental Quality

Figure D-2. Outreach Letters to Stakeholders, FY 2020

Jon Niermann, *Chairman*Emily Lindley, *Commissioner*Bobby Janecka, *Commissioner*Toby Baker, *Executive Director*



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

February 24, 2020

Re: Watermaster Evaluation for the Canadian River and Red River Basins

Dear Stakeholder:

The Texas Commission on Environmental Quality (TCEQ) is currently evaluating the Canadian River and Red River Basins to determine whether a watermaster should be appointed. The purpose of this letter is to notify you and to seek written input on the process, which will help the agency to identify information that should be considered during our evaluation.

According to Subsections 11.326(g) and (h) of the Texas Water Code, the Executive Director (ED) must evaluate all river basins at least once every five years, which do not currently have a watermaster to determine whether a watermaster should be appointed. The ED must report the findings from the evaluation and make recommendations to the TCEQ Commissioners. The Commissioners may direct the ED to move forward with the recommendation, revise the recommendation, or take no action on the recommendation. The evaluation findings and recommendations are to be included in the agency's Biennial Report to the Legislature.

To include the public and to develop the best recommendations, we are soliciting input from stakeholders, including water right holders, domestic and livestock users, river authorities, agricultural, industrial and environmental organizations, the general public, and other interested parties. As part of the evaluation, we plan to mail notifications of stakeholder meetings, which are expected to be held in June, to all stakeholders within these basins. The input received from stakeholders will be discussed at the TCEQ Commissioners' Agenda tentatively scheduled for late summer.

We will consider the following criteria when evaluating a basin:

- (1) Has there been a court order to create a watermaster?
- (2) Has TCEQ received a petition requesting a watermaster?
- (3) Have senior water rights been threatened, based on either the history of senior calls or water shortages within the basin or the number of water right complaints received on an annual basis in each basin?

If the establishment of a watermaster is recommended and approved, a budget would be established each year, and the watermaster program would be administered using fees collected from water right holders in the watermaster area.

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Figure D-2. Outreach Letters to Stakeholders, FY 2020 cont.

The enclosed fact sheet includes general information about the watermaster programs including the fees associated to a program. TCEQ requests and appreciates your input on this evaluation. We ask that you provide written input regarding the possible threat to senior water rights (item 3 above) as well as proposals for implementing a possible watermaster program.

Please include the following information in your letter:

- 1. The river or waterbody which you are discussing
- Your affiliation (for example, a water right holder with a water right permit including number if known, a domestic and livestock user, an adjacent landowner, an interested party, or environmental organization)

As a stakeholder in these basins, you are being contacted during this initial outreach. If you are aware of any other person who might be interested but did not receive this initial outreach letter, please forward this information to them.

This request for written input is your first opportunity to participate in this process. Although comments will be accepted through the end of June, please consider sending written comments by April 15, 2020 to help us plan for our June stakeholder meetings. Comments should be sent to: Daniel Schroeder, Watermasters Section Liaison, Water Availability Division, TCEQ, MC-160, P.O. Box 13087, Austin, Texas 78711-3087 or by email to watermaster@tceq.texas.gov if you choose to contact us electronically.

If you have any questions or additional comments, please feel free to contact Daniel Schroeder directly at (512) 239-0067.

You may sign up to receive email updates at: https://public.govdelivery.com/accounts/TXTCEQ/subscriber/new

Information on the evaluation process is available on TCEQ's website: www.tceq.texas.gov/goto/watermaster

We value your comments on the evaluation process, including the criteria being used, as well as any information you provide to assist the agency in its evaluation of your basin. Thank you for your participation.

Sincerely,

James Charles Waterman at the S

Laurie Gharis, Watermasters Section Manager Watermasters Section Water Availability Division Texas Commission on Environmental Quality

Enclosure

P.O. Box 13087 • Austin, Texas 78711-3087 • 512-239-1000 • tceq.texas.gov

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Figure D-2. Outreach Letters to Stakeholders, FY 2020 cont.

Jon Niermann, *Chairman*Emily Lindley, *Commissioner*Bobby Janecka, *Commissioner*Toby Baker, *Executive Director*



TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

May 15, 2020

Re: Stakeholder Meetings: Watermaster Evaluation for the Canadian River and Red River Basins

Dear Stakeholder:

The Texas Commission on Environmental Quality (TCEQ) is currently evaluating the Canadian River and Red River Basins to determine whether a watermaster should be appointed. According to Subsections 11.326(g) and (h) of the Texas Water Code, the Executive Director (ED) must evaluate all river basins at least once every five years, which do not currently have a watermaster, to determine whether a watermaster should be appointed. The ED must report the findings from the evaluation and make recommendations to the TCEQ Commissioners. Since stakeholder input is an important part of this process, TCEQ will conduct stakeholder meetings, as well as take public comment.

Stakeholder Meetings

The purpose of this letter is to invite you to attend stakeholder meetings where TCEQ will provide additional information about this process and will take additional public comment. Due to current circumstances, the stakeholder meetings will be held electronically. Individuals may attend the meetings via Skype or by conference call. Information for joining the meetings is shown below:

Tuesday, June 2, 2020 from 6-7 PM

Skype Link: https://meet.lync.com/tceq/laurie.gharis/php309t4 Conference Call: 844-368-7161 (Collaboration code: 493641#)

Thursday, June 4, 2020 from 6-7 PM

Skype Link: https://meet.lync.com/tceq/laurie.gharis/cwjg2flv Conference Call: 844-368-7161 (Collaboration code: 493641#)

Although registration is not required, individuals interested in attending are requested to email Daniel Schroeder at watermaster@tceq.texas.gov with the expected date of attendance, as well as whether attendance is expected through Skype or through conference call.

P.O. Box 13087 • Austin, Texas 78711-3087 • 512-239-1000 • tceq.texas.gov

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Figure D-2. Outreach Letters to Stakeholders, FY 2020 cont.

Information about the Process

TCEQ mailed letters in late February 2020 to all water right holders, county judges, extension agents, and other interested parties to provide information about this process.

Information about the process is also available on TCEQ's website: www.tceq.texas.gov/goto/watermaster

Additionally, you can sign up to receive email updates at: https://public.govdelivery.com/accounts/TXTCEQ/subscriber/new

If you have any questions about the process, please contact:

- Daniel Schroeder, Watermasters Section Liaison, at (512) 239-0067 or
- Laurie Gharis, Watermasters Section Manager, at (512) 239-1835.

Public Comment

The TCEQ will be taking public comment through **June 30, 2020.** Please mail your comments to Daniel Schroeder, Watermasters Section Liaison, MC 160, P.O. Box 13087, Austin, Texas 78711-3087 or email your comments to <u>watermaster@tceq.texas.gov</u> if you choose to contact us electronically. Thank you for your participation in this important process.

Sincerely,

Lauria Charia Watermantore Castin

Laurie Gharis, Watermasters Section Manager Watermasters Section

Water Availability Division

Texas Commission on Environmental Quality

P.O. Box 13087 • Austin, Texas 78711-3087 • 512-239-1000 • tceq.texas.gov