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# TCEQ YEAR IN REVIEW

## *Highlights from fiscal year 2012 at the Texas Commission on Environmental Quality*



**A**n executive director retires; a new one takes the helm. A commissioner's term expires; a new one is appointed. Some challenges require major change; others, only fine tuning. Here are just a few highlights of fiscal year 2012 at the Texas Commission on Environmental Quality.

### **Changes in Leadership**

The spring saw changes at the top of the TCEQ. On April 16, Governor Rick Perry appointed Toby Baker as the agency's newest commissioner. Baker replaced Buddy Garcia, whose term expired.

On May 1, 2012, Mark Vickery concluded a career spanning 25 years with the agency, the last four as executive director. His position was filled by Deputy Executive Director Zak Covar, whose hiring was announced by the commissioners in March.

### **Teamwork Marks Drought Planning**

The record-setting drought of 2011 was cited as the most severe one-year drought in the state's history. The TCEQ was a forerunner in drought planning during previous years and, in concert with other state agencies, continues to identify and work with public water systems at risk of inadequate supply.

This team took the experience gained from earlier periods of shortage and trained water system operators on ways to plan ahead to avoid problems during times of drought in workshops held during the first quarter of 2012. The TCEQ was joined by the state's Division of Emergency Management, Department of Agriculture, and Water Development Board in making staff available to confer with operators.

The focus was on planning ahead to avoid expensive emergency situations. In fact, at each workshop, TCEQ staff directly asked water system operations: "Do you have a plan to deal with a catastrophic outage? What will you do?"

While the state cannot make decisions for water systems on how to supply water to customers, agencies can work together to suggest options and offer technical assistance before a catastrophe strikes. (See [story on drought response](#).)

### **Oil and Gas Boom**

In recent years, Texas found itself at the forefront of an energy bonanza. Widespread use of horizontal drilling and hydraulic fracturing (commonly called fracking) in shale fields made it possible to harvest huge amounts of natural gas and oil

that were previously thought to be too expensive to produce.

While the regulation of oil and gas production in Texas falls primarily under the Railroad Commission of Texas, the TCEQ has had air emissions regulations for parts of oil and gas facilities in place since the 1970s. The TCEQ continues to play an important role in these activities, primarily in the areas of air quality, surface water management and water quality, and waste management.

**Barnett Shale**—This geographic area encompasses more than 5,000 square miles in 24 counties around the Dallas–Fort Worth area. Since 2001, the area has produced more than 9 trillion cubic feet of natural gas. With development occurring in urban and rapidly developing suburban areas, some residents were concerned about potential air quality issues caused by oil and gas activities. In response, the TCEQ performed air quality studies, established state-of-the-art air monitoring, instituted new investigative procedures, and increased the number of local investigators. The agency installed seven automated gas-chromatograph monitors in the area and has plans for four more. No monitor has shown any chemical levels of concern.

**Eagle Ford Shale**—This rapidly developing oil and gas production area comprises 23 counties in South Texas, stretching from Bryan–College Station to Laredo. Most of the Eagle Ford production has taken place in sparsely populated areas and, in addition to natural gas production, this area yields large quantities of oil and condensate. Concerns in Eagle Ford focus on water, production waste, and problems stemming from a rapidly expanding workforce.

As in the Barnett Shale, the TCEQ has conducted active outreach in the Eagle Ford Shale. Staff met with nine county judges in South Texas to learn more about local concerns. The agency held numerous workshops to brief local governments and other groups about the respective jurisdictions of the TCEQ and the Railroad Commission. The TCEQ also held a workshop to educate small producers on air authorization issues.

According to the Railroad Commission of Texas, hydraulic fracturing and total mining water use represent less than 1 percent of statewide water consumption, although percentages can be larger in some localized areas.

Surface water, which is also used for oil and gas production activities in the Eagle Ford Shale, is regulated by the TCEQ through the state’s water-rights system, which allows water to be used for mining purposes.

As a result of the increased drilling activities, particularly in the Barnett Shale and Eagle Ford Shale areas, the TCEQ has seen a substantial increase in the amount of oil and gas waste being processed and disposed of at municipal solid waste landfills. To address this influx of waste, the TCEQ has worked closely with the Railroad Commission and the waste disposal industry to evaluate existing regulatory processes to ensure that permitting actions related to oil and gas waste disposal are as efficient as possible.

Also, the TCEQ has hosted delegations from 10 countries—Brazil, Canada, China, India, Japan, Jordan, Poland, Turkmenistan, Spain, and the United Kingdom—all seeking to learn about the environmental management of oil and gas drilling in shale formations. (See [story on the oil and gas boom.](#))

## Emergency Response Moved to Regions

In preparation for the 2012 hurricane season, the TCEQ instituted a major change in its emergency management structure.

Looking to expand the experience and institutional knowledge of staff called on during emergency events, the agency assigned the emergency response function to all 16 regional offices. The move provides for more flexibility, especially in the case of multiple emergencies, and allows for better long-term planning.

The new regional Disaster Response Strike Teams report to the agency’s regional directors and area directors, who decide on the makeup and size of each team. TCEQ regions with the largest

## Fast Facts and Stats in FY 2012

- Number of Administrative Orders for Enforcement: 1,826
- Amount of penalties paid: \$11.4 million
- Amount paid to Supplemental Environmental Projects: \$2.5 million
- Number of Compliance History Designations: 299,778
- Number of labs accredited by the TCEQ: 281
- Amount of Nonpoint Source Funding awarded for watershed protection: \$4.1 million
- Number of compliance reviews of public water systems conducted: 1,734
- Number of water district applications reviewed: 200 major and 270 minor
- Number of stormwater permits issued to industrial sources: 9,800
- Number of sites added to the federal Superfund program: 2
- Increase in the number of drycleaner registrations: 435
- Rulemaking packages stemming from new legislation passed: 8 

populations have more team members, as do regions along the coast.

By having strike teams drawn from regional staff, all of the necessary disciplines can be called on to respond to any particular event. This includes staff trained in hazardous materials, as well as experts in wastewater, drinking water, waste and debris management, and other areas.

Meanwhile, the Austin headquarters maintains a lead role in emergency management. An emergency management coordinator and three liaisons work closely with all the teams to ensure they receive proper training and certifications, conduct practice drills, and receive support during actual disasters. (See [story on emergency response restructuring.](#))

## Leaders in Risk Assessment

In 2012, the TCEQ hosted the fourth workshop in a series designed to enhance

a framework of chemical risk assessment methods used by government and other scientific organizations to solve current risk management problems. Toxicologists from across the United States and Canada attended in person or via webcast.

The TCEQ Toxicology Division presented a case study that incorporated how a chemical acts within the human body to predict the level of a chemical in air at which health effects would be expected. These effect levels will be important to illustrate to the public, risk managers, and other TCEQ staff the interval between the level that is safe and the level that is unsafe when communicating air monitoring results from a specific project or statewide.

The TCEQ not only evaluates the potential for chemicals to harm human health, it also interacts with stakeholders, drafts rules, and makes technical recommendations related to permitting, remediation, monitoring, and enforcement. (See [story on risk assessment](#).)

## Environmental Crimes

Environmental crimes occur all across the state, sometimes in serious

ways that can harm human health and natural resources.

The investigations are usually lengthy and require a staff knowledgeable in illegal dumping, illegal transportation and disposal of hazardous waste, illegal discharge of waste and pollutants into state waters, violations of state rules for public drinking water, and fraud involving TCEQ programs. The investigators need experience in executing search warrants, conducting witness interviews, analyzing documentation and data, and writing investigative reports for prosecutors.

Criminal activities are best met with a coordinated response. The Texas Environmental Enforcement Task Force is composed of representatives from the TCEQ, Texas Parks and Wildlife Department, Travis County District Attorney's Office, Attorney General's Office, General Land Office, Railroad Commission of Texas, and Governor's Office, as well as the EPA, FBI, and U.S. Attorney's Office.

The teamwork approach has proven to be effective. In a recent case related to financial fraud in the Texas Emissions

Reduction Plan, the TCEQ obtained a state-led search warrant, and the AG's office conducted computer forensics. Texas Parks and Wildlife provided air surveillance, laboratory support for environmental analyses, and game wardens to execute the search warrants. The EPA's Criminal Investigation Division assisted with search warrants. (See [story on environmental crimes](#).)

## In Conclusion

No end-of-the-year summary can do justice to an agency as large and diverse as the TCEQ. So much of what the agency does is behind the scenes to support clean air and water and the safe disposal of waste. Just as no highlight reel of a football game captures every position, this brief summary cannot do justice to the more than 2,700 employees statewide who do the day-to-day work needed. In the coming year, they will continue to do the job well by applying experience and flexibility as new challenges arise.

See the [Biennial Report to the 83rd Legislature](#) for a comprehensive picture of TCEQ operations. 🦋



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