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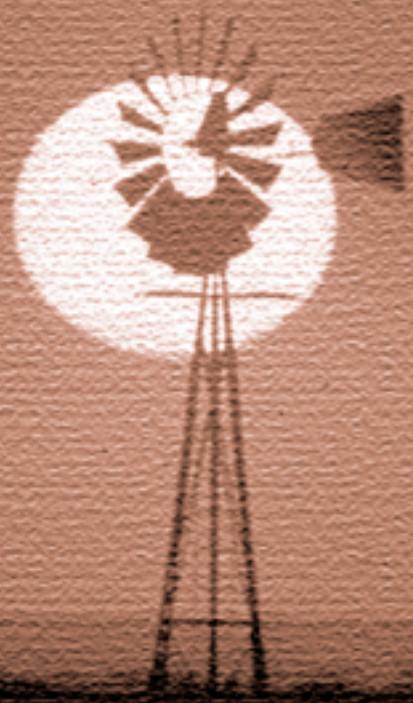
TEXAS NATURAL RESOURCE CONSERVATION COMMISSION

STATE OF THE AGENCY

Strategic Plan

FISCAL YEARS 2003 – 2007 VOLUME 1



SFR-035A/02

TEXAS NATURAL RESOURCE CONSERVATION COMMISSION

STATE OF THE AGENCY

Strategic Plan

FISCAL YEARS 2003 - 2007 VOLUME 1

Submitted to the
Governor's Office of Budget and Planning and the Legislative Budget Board

June 2002

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Term Expires: August 31, 2003

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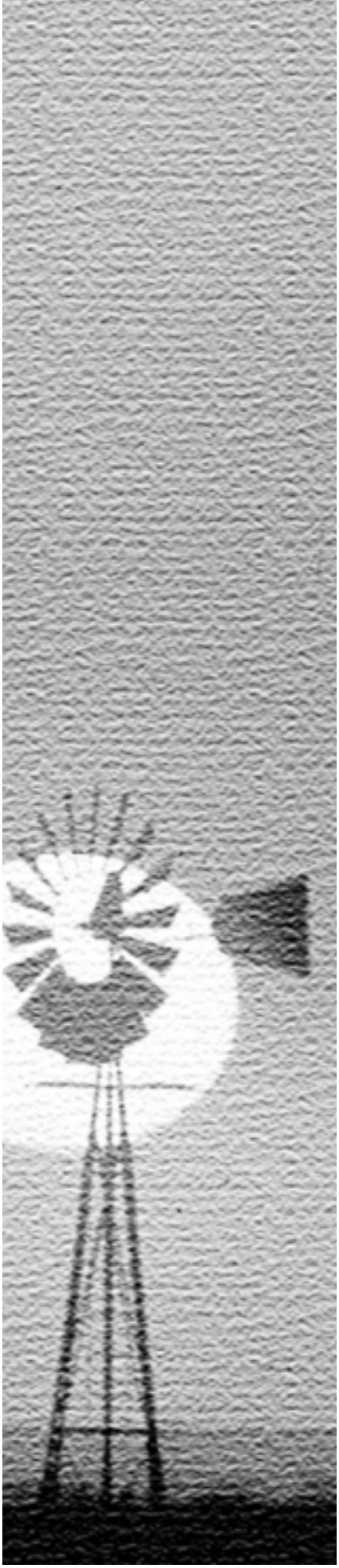

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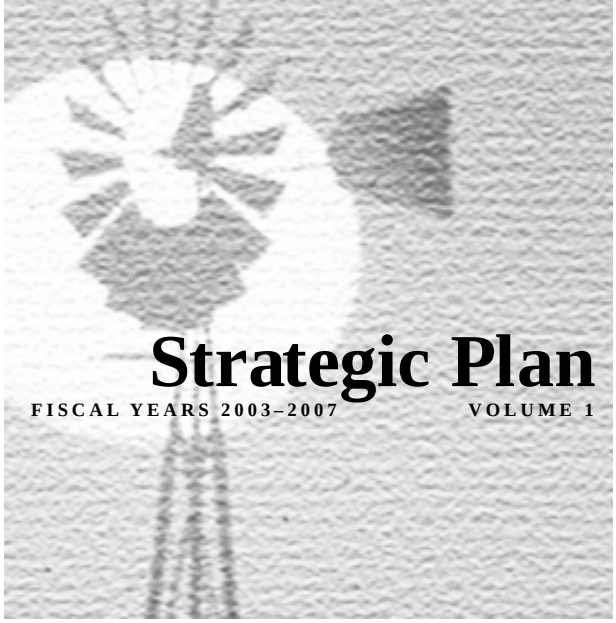


COMMISSIONERS' STATEMENT

The Texas Natural Resource Conservation Commission (TNRCC) was created in 1993 by consolidating most of the state's major environmental protection agencies into a single state agency. This consolidation set the stage for establishing and implementing a coordinated program of resource management and protection, which recognizes the significant interrelationships that exist among air, water, and waste management. Then in 2001, as part of the Sunset review process for state agencies, the 77th Legislature reauthorized the TNRCC for another 12 years.

The 2000-2001 Biennium

One of the agency's many proud highlights of the 2000-2001 biennium is the Texas Star Award, presented to the TNRCC by Governor Rick Perry for distinctive and measurable success in providing services to Texas citizens. The award reflects the TNRCC's high marks for responsiveness and accurate reporting to state budget writers, excellence in customer service, and high employee participation in surveys to improve the efficiency and effectiveness of governmental organizations. Given the often controversial nature of environmental protection issues, the commissioners are especially gratified that the hard work and dedication of the TNRCC staff has been recognized with this prestigious award.

The agency underwent an intensive Sunset review by the 77th Legislature and, from that examination, received a strong vote of confidence from the state's leadership. The TNRCC will use this legislative expression of trust to continue to deal with existing and new environmental challenges facing the state in the next decade. The agency also got a new name. In September 2002, the TNRCC will begin phasing in its new name, the Texas Commission on Environmental Quality (TCEQ).

The TNRCC commissioners have set high performance standards for the agency, and expect to continue upholding those standards as the agency fulfills its mandate to serve the people and the environment of the state of Texas.

Priority Programs

The TNRCC devotes considerable staff time and financial resources to implementing and maintaining several priority programs. During the next five years of the 2003-2007 strategic planning cycle, the following priorities are of particular importance:

- reducing the time to review and issue air, water, and waste permits;
- reducing potential environmental threats to the public welfare from terrorist attacks on public water systems, power plants, and other critical businesses and infrastructure;
- developing total maximum daily load (TMDL) water quality assessments for all impaired water bodies in the state within 10 years from the time they are listed as impaired;
- implementing all applicable rules resulting from legislation passed by the 77th Legislature by January of 2003;
- administering a program for the banking and trading of air emissions credits;
- administering the Texas Pollution Discharge Elimination System storm water permitting program;

- refining the Houston-Galveston area ozone State Implementation Plan;
- implementing the Texas Emissions Reduction Plan; and
- increasing the effectiveness of compliance and enforcement activities.

The following is a brief review of these priority programs.

Permit Time-Frame Reduction Project

In a continuing effort to improve the efficiency of the permitting processes, the TNRCC has implemented a project designed to shorten the time it takes to review and process major uncontested permits. The TNRCC is committed to the agency mission of environmental protection and realizes that there are ways to serve the environment through a more efficient review process. Improvements will be carried out in a way that will ensure the integrity of the environmental permit review process. More importantly, improvements will in no way reduce the environmental protectiveness of permit application reviews. Part of this process will involve identifying policy or regulatory changes needed to reduce processing times without sacrificing environmental protection. Project goals include eliminating backlogs of applications for new authorizations within the targeted maximum time frame of December 31, 2002, and identifying any barriers to more efficient permit processing.

Homeland Security

The possibility of domestic terrorism poses a serious threat to the state's natural resources and to the general public welfare. Since the fall of 2001, the TNRCC has been working closely with the regulated community to determine their security and vulnerability to potential terrorist attacks. The agency has reexamined its involvement in all programs and has considered worst-case terrorism scenarios. As a result, the TNRCC has identified various measures and methods needed to improve the security of the TNRCC headquarters facilities in Austin. In addition, the TNRCC is an active member of the Governor's Task Force on Homeland Security.

Total Maximum Daily Loads

In 1998, the TNRCC committed to developing TMDLs for all impaired water bodies within 10 years of being placed on the Clean Water Act Section 303(d) list of impaired water bodies. A TMDL is a technical analysis that determines the maximum loading of pollutants that a water body can receive and still attain and maintain the designated use identified by Texas Surface Water Quality Standards.

Slightly over 4,000 miles of rivers and streams, 628,000 acres of reservoirs, and 756 square miles of estuaries were reported as impaired in the year 2000. Since 1997, the reported percentage of assessed water bodies meeting all of their uses has dropped from about 89 percent to about 79 percent. This decline is likely due to an increase in monitoring efforts and detection of previously unidentified impairments rather than an actual decline in overall water quality.

The pace and progress of the TNRCC in addressing surface water impairments has risen sharply over the past two years, with the number of TMDL projects under development jumping from 63 in 2000 to 179 projects in 2001. As of November of 2001, final approval was given for 51 of these 179 TMDLs. TMDLs are progressing well, and the TNRCC should meet this commitment within the established 10-year time frame.

Implementation of Laws Passed by the 77th Legislature

The TNRCC is implementing new laws concerning environmental regulation passed in 2001 by the 77th Texas Legislature. This effort has identified approximately 64 rule-making projects and 56 other projects. The TNRCC plans to implement all applicable rules resulting from legislation passed by the 77th Legislature by January 2003. The agency has established and achieved its goal of developing all legislatively required rules within each biennium since 1999.

Air Emissions Credit Banking and Trading Program

The TNRCC has developed a market-based approach for trading emission increases or decreases of volatile organic compounds (VOC), nitrogen oxides (NO_x), and other pollutants from stationary and mobile sources in nonattainment areas. Stationary sources can purchase or sell

emissions allowances or bank any unused portions to carry over to the next year. This program provides compliance flexibility, encourages cleaner technology, reduces total air emissions in areas, and allows for the use of the most efficient emissions controls.

Texas Pollutant Discharge Elimination System

The Texas Pollutant Discharge Elimination System (TPDES) permitting program continues to be a priority for the TNRCC. Work is progressing on storm water general permits covering discharges from construction sites and municipal storm sewer systems. The TNRCC continues to review and revise permitting procedures based on approved TMDLs and improved science.

State Implementation Plan (SIP) Revisions

On December 6, 2000, and September 26, 2001, the TNRCC adopted revisions to the SIP for the Houston-Galveston area (HGA) ozone nonattainment area. The EPA approved these latest SIP revisions in November 2001. These revisions contained rules and photochemical modeling analyses in support of the HGA ozone attainment demonstration.

Over the last several months, TNRCC staff worked with a broad group of scientists and other experts to develop the science and analytical tools needed to address air quality issues in the Houston-Galveston area. Participants included over 250 scientists from across the country representing academia, environmental and public interest groups, industry representatives, and other state and federal governmental entities. This science evaluation has dramatically advanced our understanding of ozone formation in Houston.

The TNRCC is currently working on a mid-course review of the SIP. For the Houston-Galveston area this review will consist of two phases. Phase I (scheduled for adoption in December 2002) will focus on the results of an independent, thorough analysis of ozone formation in the Houston area and will address issues such as: whether rapid ozone formation events can be controlled with different strategies; the incorporation of the framework for the Texas Emissions Reduction Plan and Energy Efficiency programs; and scientific improvements and enhancements.

Phase II (scheduled to be adopted in May 2004) will focus on additional improvements and enhancements to the science; incorporation of control strategies that will fill the remaining gap in reductions needed to reach attainment; and other necessary adjustments to strategies already adopted.

In conjunction with the Phase II revision for the Houston-Galveston area, the commission will also be completing a mid-course review of the SIP for the Dallas-Fort Worth and Beaumont-Port Arthur ozone nonattainment areas. This review will also focus on improvements and enhancements to the science and any necessary adjustments to control strategies already adopted.

Texas Emissions Reduction Plan

The Texas Emissions Reduction Plan (TERP) was authorized by Senate Bill (SB) 5, 77th Legislature. SB 5 created the innovative Texas Emissions Reduction Plan that includes grants and other incentives to improve air quality. It is designed to achieve emissions reductions through the replacement or retrofit of diesel engines, the introduction of clean burning fuels, incentives for cleaner light-duty motor vehicles, and the development of new emissions-reducing technologies. SB 5 is a major part of the state's strategy for meeting federal air quality standards, and it provides the TNRCC vital tools to ensure clean air.

While funding of SB 5 has been more limited than originally expected, the TNRCC has had two grant application periods. Between $10 and $20 million in grant projects are anticipated. These projects cover the purchase and lease of new equipment, repowering of existing equipment with cleaner engines, retrofitting existing engines with cleaner add-on equipment, using cleaner burning fuel, creating fueling infrastructure for cleaner burning fuels, and demonstration of clean burning technology.

Compliance and Enforcement

The TNRCC has made a concentrated effort to increase the effectiveness of its compliance and enforcement activities. In fiscal year 2001, the TNRCC issued 850 administrative enforcement

orders that required payments of $4.3 million in administrative penalties. The agency also approved an additional $1.3 million in supplemental environmental projects (SEPs). Of the total administrative enforcement orders, 250 were issued in the air program, 393 in the water program, and 207 in the waste program.

Demonstrations of Success

During the 2000-01 biennium, the TNRCC achieved several major accomplishments. Evidence of the agency's effectiveness in protecting the quality of our state's natural resources include: the successful completion of the Sunset review process, which resulted in the continuation of the agency for another 12 years; the development of major database projects for easier access to information, such as the Central Registry and the Consolidated Compliance and Enforcement Database; and the receipt of the Texas Star Award presented to the TNRCC by the Governor for distinctive and measurable success in providing services to Texas citizens. This strategic plan provides an overview of the progress made to date toward achieving the goals, objectives, and strategies of the TNRCC.

STATEWIDE VISION AND MISSION

Vision of Texas

"Working together, I know we can accomplish our mission and achieve these priority goals for our fellow Texans:

- To assure open access to an educational system that not only guarantees the basic core knowledge necessary for citizenship, but also emphasizes excellence in all academic and intellectual undertakings;
- To provide for all of Texas' transportation needs of the new century;
- To meet the basic health care needs of all Texans;
- To provide economic opportunities for individual Texans and provide an attractive economic climate with which to attract and grow business; and
- To provide for the safety and security of all within our border."

– Gov. Rick Perry
March 2002

Texas Mission

Texas state government will be limited, efficient, and completely accountable. It will foster opportunity, economic prosperity, and family. The stewards of the public trust will be men and women who administer state government in a fair, just, and responsible manner. To honor the public trust, state officials will seek new and innovative ways to meet state government priorities within its financial means.

THE PHILOSOPHY OF TEXAS STATE GOVERNMENT

"The task before all state public servants is to govern in a manner worthy of this great state. We are a great enterprise, and as an enterprise we will promote the following core principles.

- First and foremost, Texas matters most. This is the overarching, guiding principle by which we will make decisions. Our state, and its future, is more important than party, politics, or individual recognition.
- Government should be limited in size and mission, but it must be highly effective in performing the tasks it undertakes.
- Decisions affecting individual Texans are best made by those individuals, their families, and the local governments closest to their communities.
- Competition is the greatest incentive for achievement and excellence. It inspires ingenuity and requires individuals to set their sights high. And just as competition inspires excellence, a sense of personal responsibility

drives individual citizens to do more for their future, and the future of those they love.

- Public administration must be open and honest, pursuing the high road rather than the expedient course. We must be accountable to taxpayers for our actions.
- Finally, state government should be humble, recognizing that all its power and authority is granted to it by the people of Texas, and those who make decisions wielding the power of the state should exercise their authority cautiously and fairly.

Aim high. . . we are not here to achieve inconsequential things!"

Statewide Functional Goal

Priority Goal: To ensure a clean environment for all Texans, and to conserve and protect the state's natural resources with sustainable economic development and prudent stewardship.

Benchmarks:

- Percent reduction in priority air pollutants in counties not meeting air quality standards
- Percent of Texans with drinking water meeting or exceeding safe drinking water standards
- Percent of Texas surface waters meeting or exceeding water quality standards
- Percent of federal and state "Superfund" sites being or already cleaned up
- Percent of annual stationary and mobile source pollution reduction in non-attainment areas
- Percent of voluntary properties and former industrial properties that are dormant or underused (Brownfields) that are cleaned up and made available

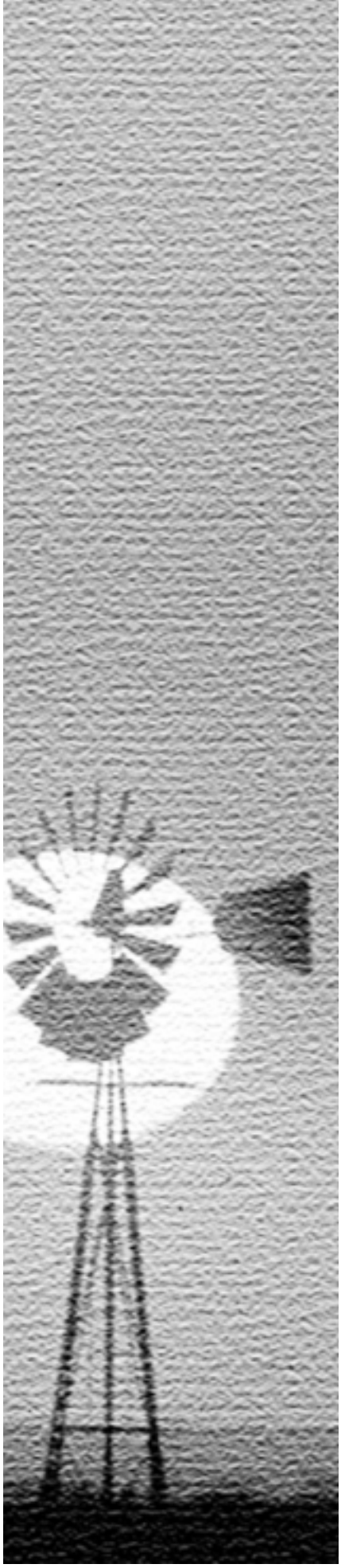
TNRCC Mission

The Texas Natural Resource Conservation Commission strives to protect our state's human and natural resources consistent with sustainable economic development. Our goal is clean air, clean water, and the safe management of waste.

TNRCC Philosophy

To accomplish our mission, we will:

- base decisions on the law, common sense, good science, and fiscal responsibility;
- ensure that regulations are necessary, effective, and current;
- apply regulation 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;
- promote and provide leadership in pollution prevention and waste minimization; and
- hire, develop, and retain a high-quality, diverse workforce.



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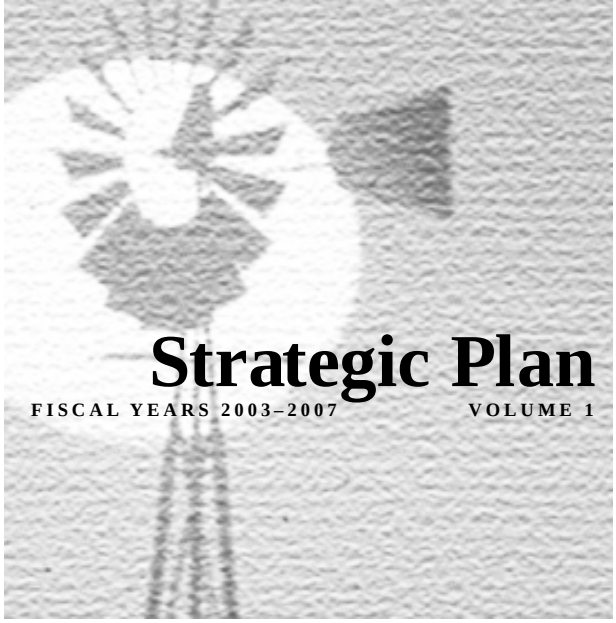


STATE OF THE AGENCY

MAJOR EVENTS IN TNRCC HISTORY

Texas Timeline

1913 The Legislature creates the State Board of Water Engineers to establish procedures for defining and administering the rights of surface water users.

1953 The Legislature creates the Texas Water Pollution Advisory Council, the first state body charged with handling pollution-related issues.

1956 Texas' first air quality initiative is established in 1956, when the State Department of Health, Division of Occupational Health and Radiation Control, begins air sampling in the state.

1957 The Legislature creates the Texas Water Development Board to forecast state water supply needs and to provide funding for water supply and water conservation projects.

1961 The Legislature creates the Texas Water Pollution Board and eliminates the Water Pollution Advisory Council, creating the state's first true pollution control agency.

1962 Texas Board of Water Engineers is renamed the Texas Water Commission, with responsibility for surface water rights, water conservation, and pollution control.

1965 The Legislature reorganizes the Texas Water Commission as the Texas Water Rights Commission, and transfers non-water rights functions to the Texas Water Development Board.

1965 The Texas Clean Air Act establishes the Texas Air Control Board within the Department of Health.

1967 The Legislature creates the Texas Water Quality Board, assuming all the functions of the Texas Water Pollution Board.

1969 The Legislature adopts the Texas Solid Waste Disposal Act.

1971 The Legislature creates a preconstruction permit review system.

1973 The Legislature removes the Texas Air Control Board (TACB) as well as air staff from the Health Department and establishes the TACB as a separate state agency.

1977 The Legislature creates the Texas Department of Water Resources by combining the Water Rights Commission, the Water Quality Board, and the Water Development Board. A six-member board is set up as a policymaking body for the new agency.

1985 The Legislature dissolves the Texas Department of Water Resources, giving most regulatory and water rights duties to the recreated Texas Water Commission and most planning and finance responsibilities to the recreated Texas Department of Water Resources. At the same time, the Legislature transfers two programs to the newly created Texas Water Commission: the Water Rates and Utilities Services Program from the Public Utility Commission of Texas, and industrial and hazardous waste regulation from the Texas Department of Health.

1992 The Legislature transfers the Water Hygiene Division, the Solid Waste Bureau, and the Radioactive Waste Disposal Bureau from the Texas Department of Health to the Texas Water Commission. The commission also acquires the functions of the Texas Water Well Drillers' Board and the State Board of Irrigators.

1992 The Texas Water Commission and the Texas Air Control Board are consolidated by Senate Bill 2 to create the Texas Natural Resource Conservation Commission (TNRCC), a comprehensive environmental protection agency with responsibilities for air, water, and land resource protection.

1997 The Legislature transfers the regulation of water well drillers from the TNRCC to the Texas Department of Licensing and Regulation.

1997 The TNRCC concludes a Performance Partnership Agreement with the U.S. Environmental Protection Agency, allowing limited flexibility in federally funded program organization and funding. The aim of the agreement is to allocate resources most appropriately throughout Texas on a regional basis.

1997 The Legislature adopts Senate Bill 1, mandating water conservation planning for large water users and requiring development of drought contingency plans by public water suppliers.

1997 The Legislature returns oversight functions for uranium mining, processing, and by-product disposal to the Texas Department of Health.

1999 The Legislature transfers the functions of the Texas Low-Level Radioactive Waste Disposal Authority to the TNRCC.

2001 The Legislature continues the TNRCC until September 1, 2013, and changes the name to the Texas Commission on Environmental Quality, effective January 1, 2004.

Federal Timeline

1969 A presidential order creates the Federal Environmental Protection Agency (EPA).

1971 The EPA adopts Federal Ambient Air Quality Standards.

1972 Congress enacts the Federal Clean Water Act.

1974 Congress enacts the Federal Safe Drinking Water Act.

1976 Congress enacts the Resource Conservation and Recovery Act (RCRA), controlling the treatment, storage, and disposal of hazardous and solid waste.

1977 Congress enacts the Federal Clean Air Act (FCAA).

1980 Congress enacts the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), popularly known as the Superfund Law. The law authorizes cleanups of hazardous waste sites.

1984 Hazardous and Solid Waste Amendments (HSWA) pass, creating major amendments to RCRA.

1986 Congress adopts the Superfund Amendments and Reauthorization Act (SARA), reauthorizes CERCLA, and creates the Toxics Release Inventory (TRI).

1986 Congress amends the Federal Safe Drinking Water Act.

1987 Federal Clean Water Act is reauthorized.

1990 Federal Clean Air Act Amendments increase the responsibilities of the Texas Air Control Board.

1996 Federal Safe Drinking Water Act is reauthorized.

CURRENT ORGANIZATION

At the top of the operating structure of the TNRCC are the offices of the commissioners and the executive director, with several divisions lending direct support. The agency's primary environmental programs and administrative offices are represented by five major offices, all of which have broad responsibilities. Under each of those offices are divisions with clearly defined duties.

Office of the Commissioners

Three full-time commissioners are appointed by the governor to establish overall agency direction and policy and to make final determinations on contested permitting and enforcement matters. Commissioners are appointed for six-year terms with the consent of the Senate. Serving together during fiscal year 2001 were Chairman Robert J. Huston, Commissioner R.B. "Ralph" Marquez, and Commissioner John Baker. Baker, who joined the TNRCC in September of 1995, retired in August of 2001, and Governor Rick Perry appointed Kathleen Hartnett White to succeed Baker.

The following offices report directly to the commissioners:

General Counsel

The general counsel is the chief legal adviser for the three-member commission and the chief ethics officer for the agency. The general counsel provides legal assistance to the commissioners for their review of permits, proposed enforcement actions, rules, litigation, and other matters, in addition to managing the administrative affairs of the commissioners' office.

Alternative Dispute Resolution

This office assists permit applicants and persons who request contested hearings in resolving their differences informally, if possible. This alternative avoids the time and expense of an evidentiary hearing. Alternative dispute resolution (ADR) procedures are voluntary, and participation does not forfeit a person's right to a hearing if a settlement is not achieved.

Chief Clerk

The chief clerk is responsible for posting required notices of applications, public hearings, and meetings in the *Texas Register*. The chief clerk also prepares the commission agendas, transmits final decision documents to applicants and other parties, and maintains the official records of commission proceedings.

Internal Audit

This office helps the commission and management meet agency goals and objectives by evaluating agency control systems and auditing the efficiency and effectiveness of program, management, and electronic data operations for economy and effectiveness.

Public Assistance

This office answers questions about TNRCC permits, explains how the agency makes permitting decisions and how citizens may participate in the permitting process, and conducts many public meetings around the state on permit applications. Staff also are available to help minority and low-income communities work through environmental equity problems with industries and facilities near their homes.

Public Interest Counsel

This office was created to ensure that the public's interest is represented in issues considered by the commission. The Office of Public Interest Counsel (OPIC), however, does not formally represent individuals at commission proceedings.

Office of the Executive Director

The executive director manages the daily operations of the agency. Major responsibilities include implementing commission policies, making recommendations to the commissioners about contested permitting and enforcement matters, and approving uncontested permit applications and registrations. Executive Director Jeff Saitas and Deputy Executive Director Glenn Shankle have worked together since 1998 to direct TNRCC management.

Five primary division clusters—organized by function and reporting directly to the executive director—carry out the agency's regulatory and administrative responsibilities. In addition, the executive director directly oversees the divisions of Intergovernmental Relations, Agency Communications, and Small Business and Environmental Assistance.

Intergovernmental Relations

This division coordinates the agency response to legislative inquiries, constituent issues, legislative initiatives, and interim committee studies. The division also coordinates the agency's testimony and participation during legislative sessions and ensures that the Legislature is informed of the TNRCC's initiatives and activities.

Agency Communications

This division strives to improve and streamline the delivery of print and Internet information to the public. This division coordinates the agency's response to media inquiries, prepares news releases, and organizes news conferences. The division includes the TNRCC library and a publishing unit that coordinates, produces, and distributes regulatory and general information materials on environmental subjects.

Small Business and Environmental Assistance

This division helps small businesses, local governments, and other agency customers to conserve resources, prevent pollution, and comply with regulations through seminars, trade fairs, workshops, toll-free hot lines, and on-site technical assistance. The Small Business and Environmental Assistance (SBEA) division performs a variety of duties: recognizes environmental achievements through voluntary programs, awards, and special events; provides educational information and recycling and disposal opportunities; promotes recycling and composting; provides technical assistance to small businesses and local governments; and reviews applications for pollution control property tax exemptions.

Office of Permitting, Remediation & Registration

The Office of Permitting, Remediation & Registration (OPRR) is responsible for implementing the federal and state laws and regulations governing all aspects of permitting for air, water, and waste programs. In addition, OPRR oversees the investigation and cleanup of hazardous pollutants released into the environment; registers and manages reporting requirements for certain facilities; and implements the petroleum storage tank reimbursement program. Also, toxicology and risk assessment staff evaluate conditions that may have the potential to cause adverse health effects. The following six divisions carry out these responsibilities.

Air Permits

The Air Permits Division (APD) has primary responsibility for reviewing applications for permits to emit pollutants into the air, including new source review and Title V federal operating permits. The new source review staff process permit applications and permits by rule for all new and modified sources of air emissions. Federal operating permits codify all state and federal air emissions regulations applicable to the site. The APD also oversees the Emission Reduction Credit Banking and Trading Program.

Waste Permits

The Waste Permits Division (WPD) is responsible for administering waste-related programs, including permitting facilities that store, process, and/or dispose of industrial and hazardous waste, nonhazardous industrial waste, municipal solid waste, special waste, and maquiladora waste from Mexico. WPD staff also audit self-classifications of industrial and hazardous waste; permit Class 1 underground injection control wells used for the disposal of industrial and municipal waste fluids; inspect all uranium Class I and Class III injection wells; review license applications for disposal of most radioactive materials and low-level radioactive wastes; and provide groundwater protection recommendations for other types of wells through the Surface Casing Program.

Water Quality

The Water Quality Division (WQD) is responsible for: issuing wastewater permits under the Texas Pollutant Discharge Elimination System; developing surface water quality standards; updating the water quality management plan; establishing requirements for concentrated animal feeding operations and storm water runoff; conducting state water quality certification reviews; reviewing toxicity tests from permit holders; and analyzing the potential for impacts to groundwater from wastewater.

Water Supply

The Water Supply Division (WSD) implements the federal Safe Drinking Water Act and oversees all public drinking water systems. The division also issues water rights permits, develops water availability models for river basins, and evaluates water conservation and drought contingency plans. As part of its utility regulation duties, the WSD reviews applications for certain rate changes and applications related to utility service areas and services. The division also is responsible for reviewing applications concerning water districts, ranging from the creation of new districts to the issuance of bonds. The WSD exercises the state's supervisory authority over water districts.

Remediation

The Remediation Division oversees the investigation and cleanup of hazardous substances and pollutants released into soil, water, or air, and seeks reparation when natural resources are damaged by contaminants. The division also oversees programs concerned with: helping once-polluted land to become viable commercial properties; safeguarding and restoring natural resources; cleaning up leaking petroleum storage tanks and locating the responsible parties; and attending to abandoned or inactive hazardous sites that have been designated under the state and federal Superfund Program.

Registration, Review, and Reporting

The Registration, Review, and Reporting Division receives notifications of registrations, incoming permit applications, and reports for review and processing. The division's duties include: a preliminary review of most air, water, and waste permits and authorizations; reimbursement of eligible petroleum storage tank (PST) cleanup costs; industrial and hazardous waste registrations and reports; used oil and used oil filter registrations and reports; scrap tire registrations and reports; medical waste registrations and reports; sludge transportation registrations and reports; PST facility registrations, notifications, self-certification of compliance, and technical support; Stage II vapor recovery; and oversight of the Central Registry, the agency's centralized record-keeping function.

Office of Compliance & Enforcement

The Office of Compliance & Enforcement oversees enforcement, emergency response, dam safety, monitoring activities, and the operation of 16 regional offices around the state. Those regional offices are located in Amarillo, Lubbock, Abilene, Dallas-Forth Worth, Tyler, El Paso, Midland, San Angelo, Waco, Beaumont, Austin, Houston, San Antonio, Corpus Christi, Harlingen, and Laredo.

Monitoring Operations

The Monitoring Operations Division (MOD) is responsible for monitoring air and water quality within the state and reporting the results to the public. Staff examine and interpret the causes, nature, and behavior of air and water pollution in Texas. The division also operates central and mobile laboratories based in Austin and a laboratory in Houston, which provide analytical services for air, water, and waste samples. Staff also issue forecasts of possible ground-level ozone concentrations in Texas cities.

Enforcement

The Enforcement Division works to ensure that violations of state environmental laws are corrected. The division pursues formal enforcement cases in accordance with state statutes and agency rules and in keeping with the agency's philosophy that enforcement, when necessary, should be swift, sure, and just. Specifically, the division drafts proposed enforcement orders that include appropriate

penalties and orders for the commissioners' consideration and approval.

Field Operations

The Field Operations Division (FOD) consists of 16 regional offices and two special-project offices, in addition to a central office in Austin. These frontline employees are the first to respond to emergency spills or unscheduled air emissions around the state. Regional responsibilities include conducting compliance investigations at permitted and registered air, water, and waste facilities; investigating complaints at permitted and nonpermitted facilities and operations; and developing enforcement actions for most types of air, water, and waste violations identified during investigations. Staff in Field Operations also monitor local and statewide air quality; drinking water for the protection of public water supplies; and surface water for the continued quality of streams, lakes, and rivers. In addition, the FOD assists with TMDLs; oversees compliance with water rights; and, during drought conditions, allocates the limited water resources in certain areas of the state. Regional offices also approve pollution abatement plans to protect underground water supplies (aquifers), and administer the Dam Safety Program.

Compliance Support

The Compliance Support Division administers licensing programs for 11 occupations whose work affects environmental quality. Examples include operators and installers of water and wastewater facilities, landscape irrigation systems, and on-site sewage facilities (septic tanks). In addition, this division manages the on-site sewage facilities and landscape irrigation programs, oversees the quality assurance program for federally funded activities, and inspects environmental laboratories. Staff are developing the new environmental laboratory accreditation program and administering the state's certification program for drinking water laboratories.

Office of Legal Services

The Office of Legal Services (OLS) manages the agency's legal and litigation coordination services and provides general legal services for agency operations. The office's mission is to provide legal counsel and support to the executive director, to the agency's program areas, and, in conjunction with the offices of the General Counsel and Public Interest Counsel, to the commissioners. The primary goals are to ensure that decisions made by the executive director and the commission are consistent with the law, that rules developed by the agency comply with statutory authority, and that these rules are applied consistently.

General Law

The General Law Division provides legal counsel on issues related to personnel, ethics and employment law, contracts, public information processing and distribution, and records retention. Division staff also prepare the administrative records for appeals under the Administrative Procedures Act and provide the Office of Legal Services with administrative support.

Environmental Law

The Environmental Law Division supports the agency's air, water, and waste programs. Division staff provide legal counsel to the agency in all areas of permitting and rule making, and represent the executive director in contested permitting matters.

Litigation

The litigation division provides legal representation and support to the Office of Compliance and Enforcement and to the Financial Administration and Remediation divisions. Staff also negotiate agreed enforcement orders, litigate enforcement actions, pursue delinquent fee and penalty payments, and give advice on cleanup standards and cost recovery. The division also coordinates supplemental environmental projects (SEP) and environmental audits and, through the Special Investigations staff, investigates and assembles evidence for potential environmental cases.

Office of Administrative Services

The Office of Administrative Services is responsible for many of the functions that are essential to any large government organization. These services include strategic planning, budgeting,

human resources, financial administration, administrative audits, financial assurance, computer resources, and facilities support and maintenance.

Chief Financial Officer

The chief financial officer oversees all budgeting and financial matters. This office develops and submits the agency's strategic plan, biennial appropriations request, and quarterly performance reports to the Legislature and the Governor's Office. The financial office also prepares, submits, and monitors all of the agency's federal grant applications and work plans, providing centralized grants management in support of TNRCC programs. In addition, the office audits contracts, grants, and fee revenue; ensures compliance with contract and grant regulations; provides risk assessments; and serves as a state and federal audit liaison. The office also monitors revenue and estimates revenue collections.

Budget and Planning

This division develops and monitors the annual operating budget and assists in the development of the agency's biennial legislative appropriations request. The division also performs special analyses throughout the year to ensure that appropriated funds are spent effectively and efficiently to achieve agency goals and priorities.

Financial Administration

This division is responsible for managing the agency's financial transactions, ensuring the integrity of the accounting records, and maintaining adequate internal controls to safeguard the agency's financial assets. The division is composed of four sections—Disbursements, Revenue, Contracts, and Financial Reporting. The division is responsible for payroll, payments to employees and vendors, billing and collection of fees and federal grants, financial assurance, procurement of goods and services, monitoring participation by historically underutilized businesses (HUBs), and providing financial reports.

Human Resources and Staff Development

This division performs a wide range of personnel services. The division recruits qualified staff to fill openings; designs, develops, and delivers needs-based training; administers employee benefit programs, such as health insurance and retirement plans; and ensures compliance with state and federal laws on equal opportunity and fair labor practices. As part of its training responsibilities, the division evaluates and implements emerging technologies, such as satellite broadcasts, computer-based training, and online training.

Information Resources

This division provides systems management support for all agency computers and develops and supports software to meet internal and external customer needs. Staff maintain agency records facilities and serve as a clearinghouse for providing agency database information to the public and other government agencies. Staff also coordinate the preparation of the Information Resources Strategic Plan and the Biennial Operating Plan.

Support Services

This division maintains facilities and equipment for other TNRCC programs, handles risk management and workers' compensation claims, and conducts safety training and inspections. In addition, staff provide security for agency facilities and copying and mail service, and manage all of the agency's physical assets.

Office of Environmental Policy, Analysis & Assessment

The Office of Environmental Policy, Analysis & Assessment (OEPAA) has four major functions: strategic environmental analysis and assessment; coordination of policy development and rule making; coordination of border affairs; and technical analysis of data to support these functions. The office also handles a number of important projects having agency-wide impact, such as developing legislative implementation strategies. OEPAA staff also coordinate bill reviews and the executive review of documents communicating the agency's national policy positions to the Environmental Protection Agency, Congress, federal agencies, and national environmental organizations.

Strategic Assessment

The Strategic Assessment Division researches regional and statewide environmental issues to set priorities and develop strategies to improve and protect the state's environment. The division assesses environmental conditions to determine whether conditions are improving.

Within the division, the Strategic Environmental Analysis group produces the TNRCC's *State of the Texas Environment* report, which is Volume 2 of the agency's *Strategic Plan*. It also conducts evaluations of agency strategies and their impact on environmental conditions.

The State Implementation Plan team takes the lead in developing the State Implementation Plan, which details how a state will comply with federally mandated national ambient air quality standards. The Total Maximum Daily Load Team is responsible for developing plans to preserve or restore water quality in specified water bodies. The Waste Planning Team is responsible for developing the state solid waste plan and administering a grant program for Councils of Governments for solid waste projects. The Texas Emissions Reduction Plan Team is responsible for implementing the grant program designed to address clean air issues in Texas.

Policy and Regulations

The Policy and Regulations Division handles policy development and rule making. Staff coordinate and develop agency policy positions on federal issues and coordinate the development of rules. The division performs a variety of activities, including: coordinating regulatory forums, commissioners' work sessions, and statewide public hearings; publishing agency rules in the *Texas Register*; developing memoranda of understanding with other state agencies; maintaining the online Rules Tracking Log; and processing rule petitions. The division oversees the implementation of changes in operations or rules related to new state legislation. It also heads up the Texas Groundwater Protection Committee and coordinates the activities of the Coastal Bend Bays Estuary Program and the Galveston Bay Estuary Program.

Technical Analysis

The Technical Analysis Division (TAD) assesses the quality of the state's air and water resources, plans for the management of those resources and administers programs that support clean air and water. The TAD maintains the emissions inventory for all major point, mobile, and area sources of air contaminants.

Technical Analysis offers computer modeling and data analysis to support pollution control strategies. The division also designs and implements mobile source pollution reduction programs, such as the vehicle inspection and maintenance program.

In addition, the division performs surface water quality planning, assessments, and watershed restoration under the Texas Clean Rivers and the Nonpoint Source Pollution Management programs, and supports development of the impaired waters 303(d) list. The division identifies priority groundwater management areas.

Border Affairs

The Border Affairs group works with TNRCC regional offices in Laredo, Harlingen, El Paso, and San Antonio to resolve concerns for border residents. Border Affairs has assisted in developing cross-border environmental agreements and programs with Mexican counterparts at the local, state, and federal levels and with stakeholders in the private sector. It also works with entities such as the Border Environment Cooperation Commission, North American Development Bank, International Border Water Commission, and local jurisdictions to complement state policies and priorities.

CONTACTING THE TNRCC

The Texas Natural Resource Conservation Commission is committed to maintaining open communication and providing quality customer service. The agency strives to ensure that communication with the agency is available to all persons and through several means.

The agency's comprehensive range of responsibilities call for highly diversified activities that

involve permitting, licensing, compliance, enforcement, and pollution prevention programs and education. Therefore, it is important to be as specific as possible when contacting the agency for information.

The TNRCC has a central campus located in Austin and regional offices located throughout the state of Texas to serve the needs of customers.

Agency Web Site

The most up-to-date information can be found on the agency Web site, located at:

www.tnrcc.state.tx.us

Links can be found here that relate to recent news releases, the agency directory and organization, download sites for publications and forms, and instructions on how to request public information.

By U.S. Postal Service

Due to the sensitive nature of requests for public information and hearing requests, the TNRCC encourages the use of the United States Postal Service.

Requests for Public Information:

TNRCC
Legal Division, MC 173
P.O. Box 13087
Austin, TX 78711-3087

Hearings Request:

TNRCC
Chief Clerk, MC 105
P.O. Box 13087
Austin, TX 78711-3087

By E-mail

Internet e-mail is provided for general questions that cannot be answered with the information already provided on the agency Web site. Inquiries should be directed to:

Agency Communications: ac@tnrcc.state.tx.us

By Telephone

The Environmental Violations Hot Line is now available for individuals wishing to report an environmental concern to the TNRCC. By calling **1-888-777-3186**, residents anywhere in Texas are routed immediately to the closest TNRCC regional office. Most environmental investigations are conducted by the agency's 16 regional offices.

The TNRCC also maintains other toll-free numbers for specific uses (see below). Other TNRCC departments at the Austin headquarters may be reached by calling the main directory assistance: **512/239-1000**.

Information Lines:

Public Assistance on Permitting: 1-800-687-4040

One-stop calling for the general public to inquire about permitting activity within the TNRCC.

Small Business and Local Government Assistance: 1-800-447-2827

Hotline for small businesses and local governments to request or obtain information on the environment and compliance with environmental regulations.

Smoking Vehicle Program: 1-800-453-7664

Hotline for the public to report smoking vehicles.

Superfund Community Relations Line: 1-800-633-9363

Local citizens can call with questions and concerns regarding state and federal Superfund sites in their area.

Used Oil Program: 1-888-892-7833

Recorded message provides information related to the recycling of used oil, such as collection locations.

Water Rights Diversion Management: 1-800-687-8078

Water Rights permittees in the Brazos River Basin may call to find information on whether they can divert water under the restrictions of their permit.

Vehicle Registration Denial Line: 1-888-295-0141

Vehicle Registration Denial Fax Line: 1-888-485-4304

Motorists receive letters explaining that they could be denied vehicle registration if their cars do not meet the program requirements. Motorists have 45 days to respond by either calling or faxing in the required documentation.

Ozone Status: 1-888-994-9901

Hotline provides automated warning messages to the public for the Houston and Dallas-Fort Worth areas when unhealthy levels of ozone occur.

Reporting Lines:

Laboratory Reporting Line: 1-800-252-0237

Laboratories use this number to report positive fecal coliform content in water samples.

Petroleum Storage Tank/Stage II Vapor Recovery: 1-800-533-3AIR

Hotline number is posted on gasoline pumps for the public to report problems with pumps and for use by station owners to obtain information on pump requirements or to obtain technical advice.

Stephenville Special Project Office: 1-800-687-7078

Number used to report complaints from the Stephenville area concerning dairy operations, including runoff, overflowing ponds, etc.

Watermaster Water Usage Reporting Line: 1-800-733-2733

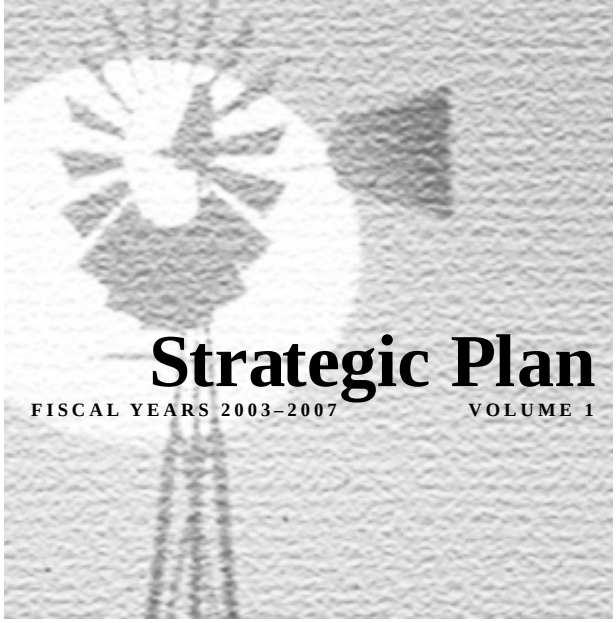
Number used by water rights holders in the South Texas Watermaster's area to report water pumping/usage in advance.

Hazardous Waste Reporting Line: 1-800-430-5569

Industrial Hazardous Waste customers may call this number to obtain electronic reporting software to meet their reporting requirements.

Rio Grande Water Master: 1-800-609-1219

Water rights holders in the Rio Grande area may use this number for greater accessibility to the Rio Grande Water Master for requesting authorization to divert water from the Rio Grande, report water usage, process water rights ownership changes, and process sales and water rights conversion and/or contracts between water rights holders.



STATE LEGISLATIVE ISSUES

The 77th Legislative Session of 2001 was one of particular significance for the Texas Natural Resource Conservation Commission (TNRCC) and for the natural resources and environmental quality of the state. Along with other natural resource management agencies, the TNRCC went through Sunset review in 2001. This process involved an extensive assessment of the agency, both internally and externally, and offered the Legislature the opportunity to change or end every aspect of the agency's programs and responsibilities.

In addition to the Sunset Bill and the General Appropriations Act, the 77th Legislature passed several key pieces of environmental legislation. Senate Bill 2 refined and expanded the regional water planning process established under Senate Bill 1 in 1997 and further strengthened the ability of local units of government to manage the use of groundwater resources. Senate Bill 5 provided the TNRCC with tools to improve the state's air quality. In other actions, the Legislature continued the program for regulation and remediation of petroleum storage tanks and completely rewrote the TNRCC's occupational licensing authority.

The following is a partial list of bills enacted by the 77th Legislature that will directly affect the operations of the agency:

House Bill 2912

This bill, the TNRCC "Sunset Bill," continues the Texas Natural Resource Conservation Commission (TNRCC or commission) until September 1, 2013, and changes the name of the agency to the Texas Commission on Environmental Quality, effective January 1, 2004. (The agency will begin to phase in the change, beginning September 1, 2002.) The following are specific provisions of the bill, summarized by article:

Administration and Policy

- Revises the agency's conflict-of-interest statutes, including new requirements for appointments to the commission.
- Requires rules adopted by the TNRCC to include a specific citation to the statute that grants the authority for the action.
- Directs the TNRCC to make reasonable attempts to have balanced representation for all groups convened by staff or commissioners to provide input on policy matters.
- Requires the TNRCC to develop a research model to address regulatory needs.
- Specifies types of environmental testing laboratories required to be used for data used for compliance, enforcement, permitting, or corrective actions.
- Requires the TNRCC to develop and implement policies for air, water, and land to protect the public from cumulative risks, and to give priority to monitoring and enforcement in areas in which regulated facilities are concentrated.
- Requires the TNRCC to develop a program to encourage the use of environmental management systems.
- Requires the TNRCC to encourage the use of electronic reporting using the Internet and reduce duplicative reporting.
- Requires TNRCC public notices to include a succinct and understandable statement of the subject of the notice.

- Requires the TNRCC to educate the public on the complaint process, to maintain files on written complaints, to update complainants on progress of response, to train local enforcement officials at their request, and to adopt an after-hours complaint response policy.
- Requires the agency to adopt rules specifying when the executive director of TNRCC is allowed to participate in hearings on certain permit applications and prohibited from rehabilitating an applicant witness or assisting in meeting an applicant's burden of proof.
- Authorizes the Office of Public Interest Counsel to obtain outside technical assistance and to make recommendations for legislative and regulatory changes. Creates a joint interim study to look at issues related to establishing the Public Interest Counsel as an entity separate from the commission.
- Authorizes the TNRCC to initiate enforcement action based on information provided by a private individual if it is determined to be sufficient and credible.
- Provides that the purpose of the commission, as expressed in its authorizing statutes, is to consider economic development in the course of fulfilling its responsibilities.

Notice Requirements

- Requires an applicant for a municipal solid waste permit to hold a public meeting within 45 days of applying, and requires that notice must be published for three weeks before the meeting.
- Clarifies the application of notice requirements to certain air permit applications and amendments.

Fees and Rates

- Combines the waste treatment inspection fee and the water quality assessment (Clean Rivers) fee into a single water quality fee for a maximum consolidated fee of $75,000 (the maximum under the current TNRCC rule is $65,000). The use of the revenue from the newly consolidated fee will support activities associated with protecting the water resources of the state, including water quality management activities.
- Expands the use of revenue from numerous water fees—such as the public drinking water fee, the water use permit construction fee, the water use permit fee, and the fees for temporary or emergency water use—to cover costs incurred for the protection of water resources of the state, including programs reasonably related to the activities of the fee payers. The bill does not change the current assessment of these fees. The revenue from all water-related fees will continue to be deposited to the Water Resource Management Account.
- Expands the use of water fees that are currently collected solely from water districts, water supply corporations, investor-owned utilities, and other similar entities to support the activities related to these entities. Revenue from these fees will continue to be deposited to the Water Resource Management Account.
- Limits to not more than $500 the charge-back fee the TNRCC may collect from a local government for which the TNRCC issues permits for on-site wastewater systems.
- Changes the notice period for water utility rate changes from 30 days to 60 days.

Performance-Based Regulation

- Requires the TNRCC to establish performance-based regulatory programs applicable to water quality, underground injection control, solid waste, air quality, and radioactive waste activities. Does not apply to occupational licensing.
- Requires the TNRCC, by February 1, 2002, to establish a uniform definition of compliance history for regulated entities, which must include consideration of enforcement orders, court judgments, consent decrees, criminal convictions, and valid notices of violation.
- Requires the TNRCC, as of September 1, 2002, to classify an entity's compliance history to distinguish among poor, average,

and high performers. Determinations of compliance status must be considered in decisions regarding permit actions, enforcement, the use of announced inspections, and participation in innovative programs.

- Requires the TNRCC, as of September 1, 2002, to consider whether violations are of minor, moderate, or major significance; to establish criteria for classifying repeat violators; to more closely oversee poor performers; and to deny an application for a permit or permit amendment if an applicant's history is unacceptable.
- Requires the TNRCC to develop a strategically directed regulatory structure to encourage enhanced performance.
- Requires the TNRCC to collect compliance performance data and make it available to the public via the Internet.
- Requires that control methods proposed under the regulatory flexibility program be more stringent than would otherwise be required.
- Precludes the TNRCC from approving a supplemental environmental project in an enforcement case if the respondent has already agreed with a governmental agency that it will perform the project.
- Renames the Waste Reduction Advisory Committee as the Pollution Prevention Advisory Committee and directs it to advise the TNRCC on the new regulatory structure.

Regulation of Air Pollution

- Defines an "emissions event" as certain, nonroutine emissions and establishes reporting requirements. Requires the TNRCC to develop criteria to identify excessive emissions events and authorizes it to require a facility to take action to reduce emissions from such events.
- Requires the TNRCC to prohibit the location of or operation of a new concrete crushing facility within 440 yards of a building used as a single or multifamily residence, school, or place of worship.
- Prescribes specific requirements for the permitting or shutdown of grandfathered facilities, distinguishing among existing facilities, small business stationary sources, pipelines, and electric generating facilities, and setting forth specific permitting requirements.
- Requires the TNRCC to immediately shut down a rock crusher or concrete batch plant operating without a required permit and to impose specific penalties.
- Precludes the TNRCC, before January 1, 2004, from setting more stringent fuel standards than those adopted by the U.S. Environmental Protection Agency (EPA), except for low-emission diesel, which may not be required to be distributed before February 1, 2005. Allows the TNRCC to authorize an alternative method of compliance.

Regulation of Solid Waste

- Authorizes the TNRCC to use appropriated money for remediation or removal action at a scrap tire site.
- Requires the TNRCC to regulate all solid waste processing facilities as solid waste facilities.
- Provides procedural requirements for the reopening of a municipal solid waste landfill that received waste and was later closed.
- Requires the TNRCC, by rule, to prohibit the storage, processing, or disposal of hazardous waste in salt domes.
- Requires Class B sludge application operations to obtain a permit rather than a registration. Holders of current registrations must be permitted by September 1, 2003.
- Allows the TNRCC to issue an order for the closure, postclosure care, or other remediation of hazardous waste at a solid waste facility.
- Requires a political subdivision or solid waste producer contracting for solid waste disposal services to give preference to entities who use technology to reduce the volume of sludge and hazardous waste being disposed of through land application or landfilling.
- Prohibits the TNRCC from issuing a permit for a Type IV landfill in certain circumstances.

Edwards Aquifer

- Requires the TNRCC to make available digital copies of the Edwards Aquifer recharge, transition, and contributing zone boundaries, to report annually on the finances of the Edwards Aquifer program, and to allow a 30-day comment period for protection plans in the contributing zone.

Remediation

- Prohibits the TNRCC from naming a person as a responsible party for a contaminated site if the TNRCC finds that the contaminants appear to originate from an off-site source, additional corrective action is not required at the site, and the TNRCC will not undertake formal enforcement.

Requirements for Certain Concentrated Animal Feeding Operations

- For the Bosque River watershed and Lake Waco, requires sampling for phosphorus on certain concentrated animal feeding operation (CAFO) application fields, and requires individual permits for all new and expanded dairies in the watershed. Prescribes requirements for new CAFOs in the region, including the removal of all collectable manure.

Underground and Aboveground Storage Tanks

- Requires secondary containment for certain underground storage tanks (USTs) located over the Edwards and Trinity Aquifers in Bexar and Comal Counties.
- Prescribes a schedule and deadlines for corrective action for releases reported by December 22, 1998.
- Authorizes the TNRCC to initiate enforcement for missing any deadline and clarifies that a person is obligated to perform corrective action, regardless of eligibility for reimbursement.
- Provides that a new regulation or ordinance adopted by a local government for the design, construction, installation, or operation of underground storage tanks is not valid.
- Sunsets the underground storage tank reimbursement program on September 1, 2006.

Other Provisions

- Transfers responsibility for environmental laboratory accreditation from the Texas Department of Health (TDH) to the TNRCC, effective September 1, 2001.
- Transfers certification of residential water treatment specialists from the Texas Department of Health to the TNRCC, effective September 1, 2001.
- Allows the TNRCC to waive registration requirements if Texas has a reciprocity agreement with another state in which the applicant is licensed.
- Authorizes a veterinarian in a county with a population under 10,000 to burn or bury animal remains on their property on a noncommercial basis.
- Creates the Texas Environmental Health Institute by joint agreement between the TNRCC and the TDH to identify health conditions related to living near a federal or state Superfund site.
- Authorizes the TNRCC to order a water utility to make an adjustment to a utility bill if it determines the utility failed to properly adjust a customer's account.
- Provides that TNRCC approval is not needed for contracts between a municipality and a water district.
- Authorizes the TNRCC to license certain multiple treatment devices as an on-site sewage system.

Senate Bill 2

Senate Bill 2 follows the major rewrite of the state's water law in Senate Bill 1 (1997) by addressing the implementation of water resource plans developed by the regional water planning groups and by strengthening the role of groundwater conservation districts in the management of underground water resources. The following list summarizes significant provisions of the bill that apply to the TNRCC:

- Creates the Texas Water Policy Council, composed of representatives of the major

water and natural resource agencies, the Legislature, and the public, to provide focus and recommendations on state water policy initiatives and the function of the state's river authorities.

- Modifies provisions related to amendments to water rights and applications for use of unappropriated state water, adds requirements for water conservation plans, and establishes a priority for agricultural use of water.
- Modifies provisions related to the designation of priority groundwater management areas and the creation of districts in priority management areas, and requires the TNRCC to complete the designation of priority groundwater management areas by September 1, 2005.
- Amends provisions related to the creation of groundwater conservation districts and the authority of districts to adopt and enforce rules, including those related to well permits and permit exceptions, spacing and production limits, fees, and groundwater export.
- Creates the Water Infrastructure and Rural Water Assistance Funds and the Joint Committee on Water Infrastructure to conduct an interim study and make recommendations regarding water marketing, water financing, and conveyance systems.
- Amends requirements for the authorization of concentrated animal feeding operations near sole-source drinking water supplies and revises the authority of water utilities to amend rates.
- Prohibits the authorization by the TNRCC of certain injection wells into or through the Edwards Aquifer, specifically excluding the injection of groundwater from the Edwards Aquifer and the injection of groundwater or flood water through improved sinkholes or caves.

Senate Bill 5

Senate Bill 5 establishes the Texas Emissions Reduction Plan (TERP) to be administered by the TNRCC, the Comptroller, the Public Utility Commission of Texas (PUC), and the new Texas Council on Environmental Technology. The program provides grants and other funding for a variety of incentive programs for air quality initiatives.

- Requires the TNRCC to manage funds and oversee the plan; produce guidelines, protocols, and criteria for eligible projects; develop cost-effectiveness methodologies; assess the plan's progress; and submit the program as a revision to the State Implementation Plan (SIP).
- Establishes the Diesel Emissions Reduction Incentive Program to provide grant funding to eligible projects to offset the incremental cost of projects that reduce NO_x emissions from high-emitting sources in the nonattainment and near-nonattainment areas of the state. The program targets on-road diesels (defined as vehicles weighing 10,000 pounds or more—for example, large trucks) and nonroad diesels.
- Establishes the On-Road Diesel Purchase or Lease Incentive Program to encourage the purchase of vehicles weighing over 10,000 pounds gross vehicle weight rating (GVWR) that meet a cleaner NO_x emissions standard than otherwise required. Incremental costs up to $15,000 or $25,000 would be reimbursed, depending on the incentive emissions standard.
- Establishes the Motor Vehicle Purchase or Lease Incentive Program to provide grants for the purchase of cleaner light-duty vehicles (weighing less than 10,000 GVWR) than would otherwise be required. The reimbursement amount ranges from $1,250 to $5,000, depending upon the emissions standard of the vehicle purchased.
- Requires the PUC to develop the Energy Efficiency Grant Program. The program would complement the energy efficiency program required by Senate Bill 7, the electric utility restructuring act (1999). The program provides for the retirement, replacement, and recycling of materials and appliances that contribute to peak energy demand to ensure air emissions reductions.
- Establishes the Texas Emissions Reduction Plan Fund to provide funding for the grant programs. Funding comes from surcharges

on construction equipment, the purchase or lease of certain on-road diesels, and the registration of truck-tractor or commercial motor vehicles; contributions from owners and operators of sites in the Houston-Galveston and Dallas-Fort Worth areas who choose to use emission reductions made under the plan; and from increased fees on commercial vehicle inspections. The fee increase for the registration of out-of-state vehicles was recently nullified by a court decision.

- Establishes a new technology research and development program to be implemented by the Texas Council on Environmental Technology.
- Establishes Texas Building Energy Performance Standards for construction in the state.

House Bill 906

House Bill 906 serves as the Sunset bill for the Coastal Coordination Council (CCC) and continues the CCC until September 1, 2013. In addition, the bill does the following:

- Adds the director of the Texas A&M University Sea Grant Program as a nonvoting member of the CCC.
- Retains the requirement that agreement of three voting members is required for CCC review of an agency action for consistency with the Coastal Management Program (CMP).
- Clarifies the eligibility requirements to serve on the CCC and the grounds for removal of a CCC member.
- Requires CCC members to complete a training program prior to being eligible to vote, deliberate, or be counted as a member in attendance at a CCC meeting.

House Bill 2310

House Bill 2310 continues the Texas State Soil and Water Conservation Board (TSSWCB) until September 1, 2013. The board is required to establish goals, set priorities to reduce nonpoint source pollution, assist landowners, and provide the agricultural community information on the jurisdictions of the TSSWCB and the TNRCC related to nonpoint source pollution. Significant provisions of the bill relating to the TNRCC follow:

- Requires the TSSWCB to update the identification of priority areas for the control of nonpoint source pollution at least every four years, and establishes criteria to be used by the TSSWCB in considering changes to identified priority areas, including bodies of water identified by the TNRCC as impaired, areas threatened by nonpoint source pollution, and areas of groundwater concern.
- Requires the TSSWCB to notify the TNRCC within 10 business days if the board decertifies a water quality management plan for an animal feeding operation.
- Requires the TSSWCB to maintain detailed records about each referral of an agricultural or silvicultural operation to TNRCC for enforcement, including information regarding final disposition by TNRCC.
- Provides that, except as required under Chapter 26 of the Water Code, a permit is not needed as a prerequisite for the land application of animal waste if the property is not owned or controlled by an owner or operator of a facility regulated under Chapter 26.
- Authorizes the TSSWCB to create and certify a water quality management plan on the request of an owner of land on which animal waste is applied.

House Bill 3111

This bill creates a new Chapter 37 in the Water Code to consolidate administrative requirements and establish uniform procedures for the occupational licensing and registration programs administered by the TNRCC, including the following actions:

- Outlines uniform procedures for issuing and renewing occupational licenses and registrations.
- Authorizes the TNRCC to establish and collect reasonable and consistent licensing and registration fees.
- Establishes and clarifies statutory language concerning occupational licenses and registrations.

- Clarifies enforcement authority for occupational licenses and registrations.
- Authorizes the TNRCC to approve licensing-related training.
- Enacts the Sunset Commission's across-the-board recommendations for licensing programs.
- Clarifies the functional descriptions of activities that must be licensed or registered.

House Bill 2134

The bill provides the TNRCC greater flexibility in implementing the motor vehicle inspection and maintenance program, and requires the TNRCC to adopt a program for counties that volunteer to participate. The bill also authorizes the TNRCC to require more than one type of test; set the same testing fee, regardless of whether different tests are used for different vehicles; set different fees for different counties or regions; and to develop incentives for participation in a testing network. The bill also establishes a vehicle repair, retrofit, or retirement assistance program for low-income drivers and authorizes the TNRCC to provide funding to counties that elect to participate.

House Bill 2687

This bill, which duplicates language in HB 2912, extends the Petroleum Storage Tank (PST) Cleanup Program and continues the collection of the petroleum product delivery fee to support the regulatory, reimbursement, and state-lead programs. The bill authorizes the TNRCC to continue to reimburse for cleanup of PST spills that were reported by December 22, 1998, through September 1, 2006. The legislation clarifies the definition of "owner" for the purposes of the PST program and establishes a new fee schedule that reduces the fee each year until it sunsets in the year 2007.

HB 2687 repeals statutory language ending the collection of the product delivery fee when the fund balance reaches $100 million, and alters the percentage of the fund allowed for administrative costs each year to reflect the changing revenue stream.

The bill ties eligibility for reimbursement to compliance with specific interim deadlines:

- Site assessments must be completed by September 1, 2002.
- Pilot study and corrective action plan (CAP) must be submitted by September 1, 2003, or demonstrate that a CAP is not required.
- A CAP, if required, must be installed and running by September 1, 2004.
- If a CAP is not required, site closure requests must be submitted by September, 1, 2005.
- All reimbursement claims must be submitted by March 1, 2006.
- The reimbursement program sunsets on September 1, 2006.

Federal Legislative Issues

Several federal environmental policies are pending at the national level that can impact Texas. The outcome of these issues can significantly affect the environmental programs and workload of the TNRCC.

Clean Air Issues

Title I of the federal Clean Air Act directs the EPA to establish national standards for commonly occurring air pollutants that pose threats to public health. These National Ambient Air Quality Standards (NAAQS) constitute national levels for acceptable concentrations of six specific pollutants in outdoor air. These six pollutants, which are called "criteria pollutants," include:

- ground-level ozone
- particulate matter (PM)
- lead
- nitrogen dioxide (NO_2)
- sulfur dioxide (SO_2)
- carbon monoxide (CO)

Once an area has violated the set standard for any of these pollutants, the EPA can designate the area as a "nonattainment area" for that pollutant.

Two of these criteria pollutants—ground-level ozone (smog) and particulate matter (soot)—are of concern in some areas of Texas. A related air quality concern facing the state is the issue of regional haze and its effect on the scenic views in national

parks. EPA regulations require the submittal of state implementation plans (SIPs) to address regional haze beginning in the year 2004.

Ozone

Ozone is formed through chemical reactions between natural and man-made emissions of volatile organic compounds (VOCs) and nitrogen oxides (NO_x) in the presence of sunlight. Higher ozone levels occur most frequently on hot summer afternoons. Ozone is the major component of smog and presents Texas with its most pressing urban air quality problem. Unhealthful ozone levels are a problem in several large urban areas in East and Central Texas.

Health and Environmental Effects

When inhaled at harmful levels, ozone can pose health problems for children, asthmatics, the elderly, and even healthy adults. Ozone can also cause acute respiratory problems; aggravate asthma, emphysema, and bronchitis; and impair the body's immune defenses.

Ground-level ozone reduces agricultural yields for many economically important crops and also reduces visibility in many parts of the U.S. It also causes damage to materials and sometimes causes them to weather faster. In addition, ozone can adversely affect plant life and ecosystems.

The 1-Hour Ozone Standard

The existing, implemented standard for ozone, written by the EPA, is 0.12 parts per million (ppm), which equals 120 parts per billion (ppb). The ambient air quality monitors measure ozone in parts per billion. An area violates this standard when 1-hour readings at any one monitor equal or exceed 125 ppb more than three times during any consecutive three-year period.

Areas in Nonattainment of the 1-Hour Ozone Standard

Four areas in Texas are currently designated by the EPA as being in nonattainment of the 1-hour ozone standard:

- Houston-Galveston
- Dallas-Fort Worth
- Beaumont-Port Arthur
- El Paso

However, El Paso falls under different federal rules because of its proximity to Ciudad Juárez, Mexico.

The EPA's Proposed 8-Hour Ozone Standard

In July 1997, the EPA adopted new health-based air quality standards for ozone and particulate matter. The new ozone standard is 0.08 ppm (80 ppb) based on 8-hour measurements. An area violates this standard when the average of the fourth-highest daily maximum 8-hour ozone concentrations from each of the proceeding three years equals or exceeds 85 ppb (see Table 2-1).

Table 2-1
Example of Nonattainment of 8-hour Ozone Standard

8-Hour Readings	Year			3-Year Average
	1997	1998	1999	
Highest	96	91	103	NA
2nd highest	91	85	97	NA
3rd highest	90	82	97	NA
4th highest	87	81	96	88

However, this new ozone standard was called into question through challenges filed by industry and others. On May 14, 1999, a three-judge panel of the Court of Appeals for the District of Columbia Circuit held that the Clean Air Act, as applied and absent further clarification, was unconstitutional because it "effects an unconstitutional delegation of legislative power." The circuit court left the new ozone standard in place, but determined that the EPA could not enforce that standard.

In June 1999, the EPA filed a petition to have key aspects of the case reheard. On October 29, 1999, the circuit court denied the EPA's request for a rehearing. The EPA appealed this decision to the Supreme Court.

In February 2001, the U.S. Supreme Court unanimously upheld the constitutionality of the federal Clean Air Act (FCAA) as the EPA had interpreted it in setting health-protective National Ambient Air Quality Standards (NAAQS). The court also reaffirmed the EPA's interpretation that it must set those standards based solely on public

health considerations without consideration of costs. However, the court found that the EPA had not properly accounted for the statutory requirement for the 1-hour ozone standard. The court required the EPA to reconsider the 8-hour ozone standard implementation plan to be consistent with the opinion.

On March 26, 2002, the D.C. Circuit Court upheld the 8-hour ozone and the fine particulate matter standards issued by the EPA in 1997, finding the challenged standards neither arbitrary nor capricious. The court denied the petitioners' challenges, except to the extent that further action is required by the EPA under previous holdings by the Supreme Court and the D.C. Circuit Court in these cases challenging the standards.

Implementation Regulations under Development

The EPA plans to propose their revised regulations to implement the new 8-hour ozone standard during FY 2002, with actions on the fine particulate standard to follow in one to two years. The EPA's decision on how the states are to calculate compliance and designate nonattainment areas under the new 8-hour ozone standard is of great interest to several areas in Texas that are currently measuring values close to the new standards. Those areas include Austin, Corpus Christi, Longview-Tyler, and San Antonio.

Any areas that are designated nonattainment may face statutorily mandated requirements and possible economic sanctions. Agency staff are following the progress of these rules closely in the hopes of promoting flexibility—particularly for areas of Texas that have already undertaken early actions to reduce emissions. Finally, any attainment deadlines for the fine particulate matter ($PM_{2.5}$) standard developed by the EPA can also impact existing state efforts to reduce regional haze and improve visibility.

Clean Water Issues

Total Maximum Daily Loads (TMDLs)

Title III of the Clean Water Act directs states to establish and periodically review standards to protect surface water and to conduct assessments of surface water in the state. Based on these assessments, surface water bodies that are not meeting standards are to be listed as impaired, and are subject to further detailed evaluations to determine the sources of impairment and the maximum allowable pollutant loading to maintain the water quality and the uses of the water body. Such evaluations are referred to as total maximum daily loads (TMDLs) and provide the technical foundation upon which to base a surface water quality improvement strategy to ensure attainment of appropriate uses and applicable standards.

The EPA adopted new TMDL regulations in July of 2000. In response, Congress prohibited the implementation of these new regulations and directed the EPA and the National Academy of Sciences to complete a more thorough evaluation of the impact of the TMDL regulations.

As a result, TMDL regulations adopted by the EPA in July 2000 have not been implemented in order to fulfill an EPA request to delay implementation. The delay allows time to further evaluate the impacts to state environmental programs and to consider revisions to the regulation.

Regulations Being Revised

The potential impacts of EPA efforts to revise the TMDL regulation or to implement the adopted regulation are significant to the state of Texas and to the TNRCC. The state's current water quality program is administered by the TNRCC. Working in partnership with other agencies and stakeholders, the TNRCC identifies the allowable pollutant loading in the streams of Texas and the appropriate actions to improve water quality. TMDL evaluations are included as an integral part of this program and have been used to establish the technical basis for actions to improve and protect surface water quality.

The structure of the final TMDL rule could impact the Texas water quality program by redirecting resources from the implementation of corrective actions in priority areas of the state to the evaluation of areas in which additional corrective action may not be required. In addition, the state could lose the flexibility to prioritize the identification of problems, as well as the needed corrective actions.

Recent Bills Passed by Congress

Farm Bill

Farm bills are enacted every five to seven years and authorize agricultural programs administered by the U.S. Department of Agriculture. Such bills establish the manner and amount of support payments to agricultural producers; subsidies in support of agricultural trade; conservation payments; loan programs and insurance; subsidies for sustainable agriculture and rural investments; and goals and priorities, as well as authorization for funding, research, education, and extension activities.

Since 1985, farm bills have recognized the environmental problems caused by or associated with agriculture. The farm bill adopted in 2002 authorizes considerable increases in funding assistance for conservation measures. The Conservation Reserve Program (CRP), the Wetlands Reserve Program (WRP), and the Grasslands Reserve Program (GRP) have been expanded to increase the acreage cap and allow more funding assistance for conservation practices. Funding for cost-share payments in the Wildlife Habitat Incentives Program (WHIP), the Environmental Quality Incentives Program (EQIP), and the Water Conservation Program was increased to $700 million, $9 billion, and $600 million, respectively.

Brownfields

The Small Business Liability Relief and Brownfields Revitalization Act passed both the House and Senate before the close of the first session of the 107th Congress, and was signed by the President in January 2002. The bill provides relief for small businesses from liability under the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA). Amendments to the act promote the cleanup and reuse of brownfields, provide financial assistance for brownfields revitalization, and enhance state response programs. The EPA will be developing regulations to implement this bill.

Issues Pending in Congress

Reauthorization of Environmental Laws

For the past several years, Congress has elected to appropriate funding for the various environmental statutes on a year-by-year basis, as opposed to reauthorizing the laws themselves. Overdue for consideration by Congress are the Clean Water Act; the Resource Conservation and Recovery Act; the Comprehensive Environmental Response, Compensation and Liability Act; and the Pollution Prevention Act. Action by Congress on any of these laws—from changes in federal funding to changes in the scope of these programs—can impact the TNRCC's related programs

Security Issues

In light of the September 11, 2001, terrorist attacks, concern over possible acts of bioterrorism has increased both the federal and state government review of public safety and how to prepare or respond properly in the event of such unconventional attacks. In the environmental area, potential threats to water supplies, theft, and misuse of hazardous chemicals, laboratory testing, and remediation of biohazardous materials continue to be of significant concern. Many bills have been filed in the 107th Congress to propose federal funding to assist state and federal agencies in responding to such threats.

SIGNIFICANT COURT CASES

Decided Cases—Air

Whitman v. American Trucking Associations

U.S. Supreme Court, Nos. 99-1257, 99-1426 (February 27, 2001)

Decision Summary:

The U.S. Supreme Court unanimously upheld the constitutionality of the Federal Clean Air Act (FCAA) as EPA had interpreted it in setting health-protective National Ambient Air Quality Standards (NAAQS), which were issued in 1997 for ground-level ozone (smog) and particulate matter (soot). The court also reaffirmed the EPA's interpretation that it must set those standards based solely on public health considerations without consideration

of costs. The court required the EPA to reconsider the 8-hour ozone standard implementation plan to be consistent with the opinion.

Impact on the TNRCC:

- The EPA reinstated the 1-hour ozone standard in response to a previous court decision to remand the 8-hour ozone standard on July 5, 2000. This reinstatement means the TNRCC must continue to create and amend 1-hour ozone standards in the State Implementation Plan (SIP)—for example, the Northeast Texas SIP recommendations currently in process while continuing to await implementation guidance for the 8-hour ozone standard.
- Planning for implementation of the 8-hour ozone standard must continue. Implementation of the 8-hour ozone standard will require updated SIP recommendations for existing nonattainment areas, and possible new SIP recommendations for areas that are currently attaining the 1-hour ozone standard, but may be nonattainment under the new standard.
- While the appeal was pending, the ozone and fine particle standards remained in effect, since the underlying D.C. Circuit court did not vacate the standards. However, the EPA cannot begin implementing the 1997 fine particle standard until three years of monitoring data is collected to determine the attainment status of areas. The fine particle monitoring network was complete in 2000. The EPA anticipates designations for the fine particle standard to occur sometime during the period from 2004 to 2005. These designations would result in further SIP submittals, if any areas in Texas were to be designated nonattainment.

Michigan, et al. v. EPA, et al.

U.S. Supreme Court, No. 00-632
(petition denied March 5, 2001)

Decision Summary:

The U.S. Supreme Court declined to hear the appeal of the EPA's rule to reduce the regional transport of ozone (NO_x SIP Call rule). In March 2000, the D.C. Circuit upheld the NO_x SIP Call rule, but stayed the application of the rule requiring certain Northeastern states to adopt rules to reduce nitrogen oxides (NO_x) in attainment areas in order to assist nonattainment areas in achieving the ozone NAAQS. The D.C. Circuit had remanded to the EPA a few aspects of the rule, and the EPA in January 2001 issued a proposed rule to address the remanded issues. The stay was lifted on June 22, 2000, which rendered states subject to the rule to submit revised SIPs.

Impact on the TNRCC:

- Texas is not subject to the NO_x SIP Call at this time, but the EPA could in the future issue a similar SIP call for Texas. The D.C. Circuit, and now the U.S. Supreme Court, by its refusal to hear the appeal, upheld the EPA's methodology in determining whether an upwind state significantly contributes to smog problems in downwind areas.
- The remanded issues address how much pollution control should be applied to stationary internal combustion engines and how to define electric generating units, which could have impacts for how these sources are regulated in other areas.

The Air Transport Association of America, Inc. v. TNRCC, et al.

345th Judicial District Court, Travis County, Texas, No. GNO-01483 (March 2, 2001)

Status:

Trial commenced on November 15, 2000. While awaiting the court's judgment, the TNRCC reached agreement with the major airlines operating in the Houston-Galveston and the Dallas-Fort Worth areas. These airlines, as well as the airport operators, agreed to enter binding agreements requiring reductions in air emissions, which together will equal those required by the rule. Based upon the agreements, the TNRCC repealed the ground support equipment rule.

Impact on the TNRCC:

The settlement of this case resulted in binding agreements to reduce emissions from airports. This result is unprecedented nationally. The

agreements will allow the state to maintain its SIP without having to identify additional emissions reduction strategies.

H. M. Dodd Motor Co. and Autoplex Automotive, L.P. v. Texas Dept. of Public Safety, et al.

261st Judicial Civil District Court, Travis County, Texas, No. GN102585

Decision Summary:

The DPS, TxDOT, CPA, and the state of Texas were sued by Dodd and Autoplex (Intervenors: CarMax Auto Superstores), and a temporary injunction was granted in October 2001 against collecting a $225 verification fee from out-of-state vehicles, as provided under SB 5. Motions for summary judgment have been granted as to the claim that Texas Transportation Code, Section 548.226 (Section 9 of Senate Bill 5) violates the commerce clause (and other claims relating to equal protection clause, etc).

The court concluded that Section 548.256 only applies to interstate transfer of automobile registrations and is facially discriminatory and in violation of the commerce clause. The court ruled that "... while the improvement of air quality is undoubtedly a legitimate and worthy interest, defendants have not explained why they target only vehicles brought into Texas that were last registered in another state or country to meet their goal and why they have not pursued less discriminatory alternatives."

The court stated as evidence of precedence that courts in California, Florida, and Kentucky have stricken legislation nearly identical to Section 548.256. Procedurally, the parties will prepare an order that reflects this ruling and then will be signed by the judge. Judgment will be effective 30 days from signing of the order or if the state decides to appeal, that time will be extended.

Impact on the TNRCC:

The impact of this ruling falls strictly on Section 9 of SB 5 relating to the $225 verification fee for out-of-state vehicles. There are other sources to fund the Texas Emissions Reduction Plan (TERP). For the TNRCC, the impact is a loss in funding for TERP from approximately $99 million to about $18.3 million during the first year (a total of about $40 million for the biennium). This last funding, if not replaced, could cause the state to fail to implement its SIP, causing sanctions and a conformity lapse.

Decided Cases—Waste

TSP Development, Ltd. v. TNRCC

Austin, Texas Appellate Court, 16 SW3d 148 (2000) (no writ).

Decision Summary:

In 1998, the TNRCC returned to the TSP Development corporation its industrial nonhazardous landfill application due to a county ordinance prohibiting the proposed landfill siting. TSP appealed the TNRCC's decision to remand the application, in part based on the Legislature's 1999 reenactment of the previously repealed regulatory freeze statute (formerly Texas Government Code Section 481.143).

The district court affirmed the TNRCC's decision. The appellate court reversed that decision, holding that the TNRCC was not justified in considering the county ordinance in its technical review of TSP's application, and that—based on the Texas Supreme Court decision in *Quick v. City of Austin*—the TNRCC must process applications filed during the effective period of the regulatory freeze statute (1987-1997) according to the laws and rules in effect at that time.

Impact on the TNRCC:

The opinion requires the TNRCC to process applications filed during the effective period of the regulatory freeze statute (from 1987 until the statute was repealed in 1997) according to the laws and rules in effect at that time. TNRCC Rule 30 TAC Section 305.50(2) provides that the TNRCC must review applications for compliance with applicable federal, state, and local statutes. Based on the TSP decision applying the *Quick* case, for any pending cases filed between 1987 and September 1, 1997, the phrase "applicable federal, state, and local statutes" should be interpreted to mean those laws in effect at the time the application was filed.

Decided Cases—Water

FM Properties Operating Co. v. City of Austin

Texas Supreme Court, 22 SW3rd 868 (2000)

Decision Summary:

The Texas Supreme Court upheld summary judgement for the city of Austin granted by the 200th District Court of Travis County, Texas. The Supreme Court found a provision in Section 26.179 of the Texas Water Code (allowing certain private landowners to create water quality protection zones in certain cities' extraterritorial jurisdiction) to be an unconstitutional delegation of legislative power to private landowners.

Impact on the TNRCC:

The ruling eliminated the TNRCC's responsibilities under the Texas Water Code Section 26.179 and 30 TAC Chapter 216. These responsibilities included review and approval of water quality plans for water quality protection zones, collection of monitoring results from the zones, and enforcement of water quality protection measures.

Sierra Club, et al. v. EPA

5th Circuit Court of Appeals, No. 99-60011

Decision Summary:

The Sierra Club filed an appeal to EPA's approval of the Texas Pollutant Discharge Elimination System (TPDES) program. Appellants sought withdrawal of the EPA program approval and the state of Texas intervened in the case. This case has been settled.

Impact on the TNRCC:

The settlement requires an annual conference among the EPA, Sierra Club, and the TNRCC to review the TNRCC's ability to issue permits on a timely basis and to enforce the permits.

Decided Cases—Enforcement

Harmon Industries, Inc. v. Carol Browner

8th Circuit Court, 191 F.3d 894 (1999, rehearing denied 2000)

Decision Summary:

The 8th Circuit U.S. Court of Appeals held that the EPA did not have authority to "overfile" (that is, to bring a separate, additional action against Harmon) where the state had already brought an enforcement action against Harmon for the same violations.

Potential Impact:

If followed in Texas, this ruling would significantly affect the EPA's enforcement options. However, similar cases were presented to the 9th and 10th U.S. Circuits, whose rulings criticized and distinguished the *Harmon* decision. See *United States v. Power Eng'g Co.*, 125 F. Supp. 2d 1050 (D. Colo. 2000); *United States v. Elias*, 269 F.3d 1003 (9th Cir. Idaho 2001).

Status:

The split between the circuit courts will be left unresolved until a party seeks and is granted review by the United States Supreme Court.

Decided Cases—Superfund

IT-Davy v. TNRCC

200th Judicial District Court, Travis County, Texas, No. 98-07589

Decision Summary:

IT-Davy sued TNRCC without legislative consent, claiming approximately $7.5 million in costs due to change orders under a remediation contract at the Sikes Federal Superfund Site in Harris County. On interlocutory appeal before the Supreme Court of Texas, the Attorney General's Office, on behalf of the TNRCC, recently prevailed on a plea to the jurisdiction based on sovereign immunity. The court concluded that IT-Davy's claims were barred based on the sovereign immunity doctrine, and their claims against the TNRCC were dismissed for want of jurisdiction.

Impact on the TNRCC:

The decision provides additional case law on the subject of a state agency's sovereign immunity concerning contract issues. The TNRCC is investigating whether IT-Davy may still pursue legislative consent to sue TNRCC, or if a statute of limitations applies to bar suit.

Pending Cases—Air

Public Citizen, Inc., et al. v. Gregg Cooke

5th Circuit Court, No. 0260069
(Filed February 5, 2002)

Petition Summary:

This is a challenge of the EPA's final approval of Texas's Operating Permits Program. The petitioners are challenging the EPA's action on the grounds that it violated various provisions of the federal Clean Air Act (FCAA) by giving final approval to a Title V operating permit program that failed to meet the requirements of 42 U.S.C. Sections 7661-7661e and 40 CFR Part 70. The petitioners also alleged that the EPA's action also failed to include evidence to support the demonstrations required by the FCAA and failed to satisfy various requirements for reasoned decision making.

A second lawsuit filed by Public Citizen about March 8 was consolidated with the February 5, 2002 lawsuit. The second suit challenged the EPA's decision to not issue a notice of deficiency to the state of Texas for each and every deficiency identified by petitioners in comments submitted to the EPA during the agency's notice of comment period on program deficiencies. An industry group was granted intervention in May 2002. Settlement negotiations were held during April and were discontinued when the parties failed to reach agreement. Briefing will begin in June 2002 and will continue until the fall.

Potential Impact on the TNRCC:

If the Fifth Circuit agrees with the petitioners' claims in the first lawsuit, the approval of the Texas Federal Operating Permit Program would be invalid, and could require the EPA to implement a Federal Operating Permit Program in Texas. If the Fifth Circuit agrees with the petitioners' claims in the second lawsuit, the EPA could be required to issue another notice of deficiency to the state of Texas, requiring changes to the Texas Federal Operating Permits Program.

Sierra Club, et al. v. EPA

5th Circuit Court, No. 01-60537 (Filed August, 2001)

Petition Summary:

The Sierra Club filed a petition for review of the EPA's approval of the Beaumont-Port Arthur (BPA) SIP recommendations, alleging that: (a) the EPA did not have authority to extend the final attainment date to the year 2007 by its use of the transport policy; and (b) the EPA's finding that there were no additional reasonably available control measures (RACM) was arbitrary and capricious. The Sierra Club made virtually identical arguments in the 4th and D.C. Circuit Courts. The TNRCC and four local industries were allowed to intervene in the case. Parties' briefs have been filed with the court and no order has been issued concerning the granting of oral argument.

Potential Impact on the TNRCC:

If petitioners are successful with their position on the transport policy, the BPA area would be reclassified under the FCAA from moderate to serious under the 1-hour ozone national ambient air quality standard. This would require the TNRCC to revise the SIP, and more stringent controls would be required.

Natural Resources Defense Council, et al. v. EPA

D.C. Circuit Court, No. 99-2976
(Filed November 8, 1999)

Petition/Interim Decision Summary:

The Natural Resources Defense Council (NRDC) filed suit to force the EPA to require SIP revisions for 17 serious or severe nonattainment areas, including the Houston-Galveston area (HGA), and either approve those SIP revisions or impose federal implementation plans (FIP). The plaintiffs and the EPA negotiated a consent decree (signed June 9, 2000), requiring the EPA either to approve a full attainment demonstration SIP on or before October 15, 2001, or to propose a full attainment demonstration (FIP) by the same day and promulgate the FIPs by June 14, 2002.

The EPA approved the HGA SIP on October 15, 2001. On November 21, 2001, the NRDC filed a motion to enforce the consent decree with the court regarding the EPA's approval of the HGA 1-hour ozone SIP, alleging the EPA violated the consent decree of June 9, 2000, by its failure to either approve a full attainment demonstration plan or issue a FIP. At issue is whether Texas' enforceable commitments that provide that Texas has until

2004 to submit the additional emissions controls needed for attainment constitute a full attainment demonstration plan. Texas has sought intervention in this case. As of April 25, 2002, the court had not ruled on the merits of NRDC's claim or the motions to intervene.

Potential Impact on the TNRCC:

Whether the EPA is required to issue a FIP for Texas, or disapproves in whole or in part the HGA SIP, the issue would involve what sanctions would come into play and when. A FIP or sanctions would affect industry, local government, and the general public to varying degrees—based on what control strategies and transportation measures are implemented, all of which are expected to be more stringent than what currently exists in the HGA SIP.

BCCA Appeal Group, et al. v. U.S. EPA

5th Circuit Court, No. 02-60017
(filed January 14, 2002)

Petition Summary:

Industry representatives, environmental groups, and local governments have challenged the EPA's approval of the HGA SIP on various grounds. Claims are similar to those in the motion filed by the National Resources Defense Council (NRDC) in the District of Columbia case (see previous briefing, *NRDC v. EPA*), as well as specific objections to particular parts of the SIP, including the speed limit reduction, lawn service equipment operating restrictions, and the vehicle inspection requirements; not all parties have specifically listed objections. The parties have begun briefing and this is expected to continue throughout the summer and into early fall.

Potential Impact on the TNRCC:

If certain petitioners are successful with their position that EPA actions were not lawful, the TNRCC would be required to revise the SIP and require more stringent controls, or the EPA may be required to issue a FIP for Texas. In either outcome, the issue would involve whether and what sanctions would come into play and when. A FIP or sanctions would affect industry, local government, and the general public to varying degrees—based on what control strategies and transportation measures are implemented, all of which are expected to be more stringent than what currently exists in the HGA SIP.

BCCA Appeal Group, et al. v. TNRCC et al.

250th District Court, Travis County, Texas
No. GN1-00210 (filed January, 2001)

Petition Summary:

Industry representatives have challenged the following rules, which are part of the HGA SIP: point source No_x; cap and trade; and low emission diesel; as well as the Texas SIP generally.

The petitioners seek a temporary injunction and/or declaratory judgment, claiming the following:

- Rules violate Texas Government Code requirements for rule making.
- Rules violate Texas Health and Safety Code, as they are not economically feasible or reasonable or technically practical.
- Rules are arbitrary and capricious and therefore violate due process clauses in the U.S. and Texas Constitutions.

The TNRCC has entered into a consent order with the plaintiffs that stays the case while the TNRCC conducts a science evaluation. As required by the consent order, the TNRCC staff presented written findings on the science evaluation to the commission on February 28, 2002. The next anticipated step in the consent order is for the executive director's staff to present a SIP revision and rules based on the science evaluation to the three-member commission on June 5 (extended by agreement from June 1).

Potential Impact on the TNRCC:

SIP and rule revisions are likely to resolve the issues. Most particularly, SIP and rule revisions during the 2002 and 2004 mid-course review may resolve the issues. However, if the plaintiffs are successful in the rule challenges, this would affect the HGA SIP. The TNRCC would be required to revise the SIP, requiring more stringent controls, or the EPA may be required to issue a FIP for Texas. In either outcome, the issue would involve whether and what sanctions would come into play and when. A FIP or sanctions would affect industry, local government, and the general public to varying degrees—based on what control strategies and

transportation measures are implemented, all of which are expected to be more stringent than what currently exists in the HGA SIP.

Tamara Maschino, et al. v. TNRCC

98th District Court, Travis County, Texas, No. GN0-02202 (filed August 2000)

Petition Summary:

Plaintiffs were protesting parties in a contested case hearing regarding three permits that were issued by the TNRCC to American Acryl LP and Elf Atochem North America, Inc. They challenged the issuance of those permits.

Potential Impact on the TNRCC:

The court was asked to consider whether parts of the TNRCC's administrative record in the case can be submitted under seal as confidential records. The decision could have significant impacts on the regulated community, since it could affect what type of information may be submitted as confidential trade secrets as part of air quality permit applications.

There is no direct impact on the TNRCC except that the practice of segregating certain confidential information may no longer be required. A letter ruling was issued on April 1, 2002, which held that part of the records were emissions data and would not be covered by the motion to seal. An order is being prepared by the interveners.

Cemex USA and Texas Industries, Inc. v. TNRCC

201st Judicial District Court, Travis County, Texas, No. GN 001480

Petition Summary:

The plaintiffs have sued the TNRCC in state district court regarding its recently adopted rule requiring reductions of NO_x emissions from cement kilns in the eastern and central portions of the state. The plaintiffs claim that the rule making is defective on procedural grounds because the agency did not perform a regulatory impact analysis (RIA), changed the rule too much upon adoption without reproposing and allowing for more public comment, and did not state a reasoned justification for the rule.

Furthermore, plaintiffs cite statutory grounds for the challenge, alleging that the agency exceeded its statutory authority by adopting a rule that is not technically and economically feasible. They argue that the rule is arbitrary and capricious in that it unfairly targets the cement industry and does not explain how the rule will cause a decrease in ozone formation within the nonattainment area. Finally, they claim that all of these defects raise constitutional due process grounds for challenge.

The plaintiffs request injunctive relief prohibiting the agency from implementing the rule. They also ask that, if the rule is eventually held to be valid, that the compliance date be delayed until three to five years after that final decision.

Potential Impact for the TNRCC:

If the state court agrees with the plaintiffs, the state will either have to revise the rule making to correct the errors or identify replacement emissions reduction strategies to achieve the needed reductions for the Dallas-Fort Worth provisions of the State Implementation Plan.

Brazoria County, Texas and Ft. Bend County, Texas v. TNRCC

53rd Judicial District Court, Travis County, Texas , Cause No. GV-100139

Petition Summary:

On January 19, 2001, the Brazoria and Montgomery counties of Texas filed suit against the TNRCC in the Travis County District Court regarding several rules adopted by the TNRCC on December 6, 2000. On February 20, 2001, Fort Bend County of Texas joined the lawsuit. The plaintiffs sought declaratory relief regarding the following rules: point source NO_x; inspection and maintenance (I&M), particularly remote sensing technologies; construction shift; and limited use of commercial lawn and garden equipment. They also generally pleaded that they are entitled to be excluded from the Houston-Galveston nonattainment area, a claim they later dropped in their second amended petition. Montgomery County nonsuited its claims on January 8, 2002.

Potential Impact on the TNRCC:

If the district court agrees with the petitioners that the 55-mile-per-hour speed limit should be eliminated, federal highway funds for the HGA area could be impacted. If the court decides that

the agency did not properly promulgate the I&M, point source NO_x and lawn and garden equipment revisions to replace those programs in the SIP could be necessary.

Coalition of Concerned Citizens v. TNRCC

Travis County District Court, Texas, No. GN-102370

Petition Summary:

MC Energy applied to the TNRCC to build a natural gas-fired power plant near Montgomery, Texas. At the June 20, 2001 agenda meeting, the commissioners denied all hearing requests including the hearing request of the coalition. The coalition asserts that the commission erred in denying the hearing requests because the protesting parties are affected persons who have raised disputed issues of fact that are relevant and material to the three-member commission's decision on the application, and are therefore entitled to a contested case hearing. The TNRCC has filed a general denial. MC Energy has intervened in the suit on the side of the TNRCC. On April 30, 2002, the court ruled that both of the lawsuits filed by the coalition were not timely and dismissed the cases.

Potential Impact on the TNRCC:

The protesting parties raised attention to issues, such as human health effects caused by air emissions from the proposed facility; effects on livestock, animal, wildlife, and plants; as well as economic impacts. This case presents the first opportunity for the agency to receive judicial guidance on the HB 801 hearing request standards. Since both lawsuits were dismissed, there is no immediate impact on the TNRCC. However, it is not known if the coalition will appeal.

Pending Cases—Waste

Secured Environmental Management, Inc. v. TNRCC, et al.

200th District Court, Travis County, Texas, No. GN1-02659

Petition Summary:

The petition challenges:

- the constitutionality of a provision in House Bill 2912, which prohibits the storage, processing, or disposal of hazardous waste in a solution-mined salt dome cavern or sulphur mine; and
- the return of the SEM application during the pendency of the declaratory judgment.

The petitioner seeks a declaratory judgment relating to the constitutionality of a provision in HB 2912, which prohibits the storage, processing, or disposal of hazardous waste in a solution-mined salt dome cavern or sulphur mine. Injunctive relief is also requested to prevent the agency from returning SEM's applications during the pendency of the declaratory judgment. A temporary restraining order was granted against the TNRCC on August 31, 2001, temporarily preventing the agency from returning SEM's applications. Summary judgment was granted to the TNRCC in March 2002. In April, SEM filed a motion to modify judgment or to stay or suspend judgment during any appeal. The TNRCC filed a responsive pleading and forwarded to SEM a notice of deficiency letter relating to the application in the latter part of April.

Potential Impact on the TNRCC:

If the court agrees with the petitioner, the statute would be declared unconstitutional, and the TNRCC would re-amend its rule proposal to eliminate the prohibition on disposal of hazardous waste by injection into salt dome caverns. If the court agrees with the TNRCC, the current rule proposal will continue to be processed, and injection of hazardous waste in salt dome caverns will still be prohibited.

Pending Cases—Water

City of Waco v. TNRCC

Petition Summary:

The petitioners claim that a federal rule—40 CFR 122.4(i)—adopted by reference in TNRCC rules, prohibits the TNRCC from issuing a permit for a new or expanding concentrated animal feeding operation (CAFO) located within the watersheds of the two impaired segments of the Bosque River. The claim was dismissed by the trial court because the challenge was not deemed ripe for appeal. Appeal of the trial court dismissal is currently being reviewed by the 3rd Court of Appeals. Oral argument was held on October 24, 2001.

Potential Impact on the TNRCC:

If the petitioner prevails, there would be a major impact on the TNRCC because no permit to a new or expanding CAFO located in the North Bosque watersheds could be issued until implementation of a total maximum daily loads (TMDL) occurs.

Texas Association of Dairymen and City of Waco v. TNRCC

03-01-00271-CV

Petition Summary:

This petition is based on the following claims:

- The 2001 interim CAFO policy is a rule that was adopted without complying with rule-making requirements of the Administrative Procedures Act (APA).
- The TNRCC continues to enforce the invalid 2001 interim CAFO policy notwithstanding its repeal on April 5, 2001.

Trial court dismissed the first claim as moot and the second claim as not ripe. The Attorney General has been informed that the plaintiff, the Texas Association of Dairymen (TAD), intends to withdraw from the litigation, but no notice of non-suit has been filed. If TAD nonsuits, then the city of Waco would be the only party challenging the 2001 interim CAFO policy.

Potential Impact on the TNRCC:

Even if the petitioners prevail, the impact on the TNRCC should not be major because the 2001 interim CAFO policy is no longer in effect and Article 12 of House Bill 2912 (77th Legislature) contains specific requirements that apply to CAFO applications in the North Bosque watershed.

Farm Bureau Federation, et al. v. EPA.

(TNRCC intervened as a plaintiff.)

Petition Summary:

The Farm Bureau Federation and other industry representatives challenge all aspects of new federal total maximum daily load (TMDL) regulations. The TNRCC intervened to challenge two parts of the regulations: (1) EPA approval of implementation plans; and (2) EPA assumption of some permitting functions in impaired watersheds. The petition was stayed until May of 2002, pending EPA review of the regulations. The EPA has initiated settlement discussions in the interim in the hope of negating litigation.

Potential Impact on the TNRCC:

If portions of the EPA TMDL regulations that the TNRCC challenges are upheld, the impact on the TNRCC would be major because each TMDL implementation plan would have to be approved by the EPA, and the EPA could assume some permitting functions in impaired watersheds. This would inhibit the state's ability to independently implement TMDL requirements.

City of Waco v. TNRCC and Coblentz

(201st Judicial District Court, GV1-03893) and

Wilson et al. v. TNRCC and Coblentz

(261st Judicial District Court, GN1-03762)

Petition Summary:

These petitions challenging the TNRCC issuance of CAFO Registration No. 04208 are pending in Travis County District Court. The city of Waco asserts that issuance of registration is prohibited by federal rule 40 CFR 122.4(i), which has been adopted by reference in TNRCC rules. Wilson alleges that Subchapter B rules are invalid, and the TNRCC misapplied Subchapter B rules. The TNRCC and Coblentz filed pleas to the jurisdiction, asserting that Waco did not have standing to challenge the registration because they are not an aggrieved person. No briefing or hearing schedule has been set.

Potential Impact on the TNRCC:

If petitioners prevail, there could be a major impact on the TNRCC if the court rules that the Subchapter B rules are invalid, or that Section 122.4(i) prohibits issuance of this registration.

Bernays and Spoonts v. TNRCC, et al.

126th Judicial District Court, GN1-03572

Petition Summary:

The petitioners challenge the TNRCC issuance of CAFO Registration No. 03163. Plaintiffs argue that: (1) Subchapter B exceeds the TNRCC's statutory authority of the Texas Water Code (TWC) Section 26.040 and the Texas Health and Safety Code (THSC) Chapter 382; and (2) issuance of the

registration violates THSC Chapter 382, due process and takings provisions of the U.S. and Texas Constitutions, and 40 CFR Section 122.4, as a new source and discharger into an impaired stream.

Potential Impact on the TNRCC:

If the petitioner prevails, the impact to the TNRCC could be major if the court rules that Subchapter B rules exceed the TNRCC's statutory authority under TWC, Section 26.040 or that Section 122.4(i) prohibits issuance of this registration.

United States Bureau of Reclamation v. Elephant Butte Irrigation District

MV/RLP U.S. District Court, District of New Mexico, CV 97-0803

Petition Summary:

The U.S. Bureau of Reclamation sued the state of New Mexico, Elephant Butte Irrigation District in New Mexico, the El Paso County Water Improvement District No. 1, and the city of El Paso, claiming that the water in Elephant Butte Reservoir belongs to the bureau. The state of Texas moved to intervene. The trial court dismissed the case and all counterclaims. The bureau and El Paso County Water Improvement District No.1 appealed, and the case was heard in November of 2001. A decision is expected in May of 2002.

Potential Impact on the TNRCC:

If there is an agreement or a ruling concerning the bureau's ownership of the water rights in Elephant Butte, this would impact the Texas adjudication in the Upper Rio Grande, which is pending at the State Office of Administrative Hearings. If it limits the state of Texas' ownership or right to regulate water in the bureau's reservoirs, this case could have more far-reaching results.

Ex parte Guadalupe-Blanco River Authority

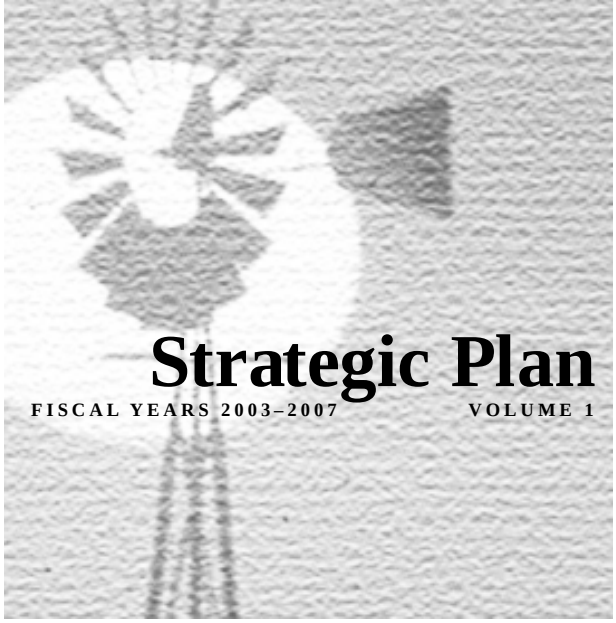
126th District Court of Travis County, Texas, CV GN1-104169

Petition Summary:

This case started as an appeal by the Friends of Canyon Lake (FOCL) and Linda Parker in regards to the issuance of Permit No. 18-2074E to divert 90,000 acre-feet of water from Canyon Lake. The Guadalupe-Blanco River Authority (GBRA) filed a declaratory judgment under a bond act, requiring the protesting parties to bring their claims into that action. The hearing was held on March 18, 2002. Linda Parker has settled with GBRA. The trial court ruled for GBRA on March 18, 2002. Friends of Canyon Lake has appealed.

Potential Impact on the TNRCC:

If the FOCL organization prevails on its arguments concerning standing, it will change how the TNRCC has determined affected persons in a water rights case. The FOCL is a group of persons who live around the lake and claim an interest in property values and loss of recreation. This case could affect or clarify how the TNRCC assesses an affected person status in a water rights case in other ways also.



STATE OF THE AGENCY

AGENCY ACCOMPLISHMENTS

The TNRCC's diligence and hard work during fiscal years 2000-2001 earned it one of the premier awards for state agencies. The Texas Star Award was presented to the TNRCC by Governor Rick Perry for distinctive and measurable success in providing services to Texas citizens.

The TNRCC earned high marks for responsiveness and accurate reporting to state budget writers; excellence in customer service; and high employee participation in surveys administered by the University of Texas and designed to improve the efficiency and effectiveness of government organizations.

This was one of many highlights over the biennium. The TNRCC has dealt with a number of weighty issues the last two years, such as the agency's Sunset review, the State Implementation Plan for air quality, and planning for water and waste management projects. Agency divisions worked in tandem to meet the challenges.

Small Business and Local Government Assistance

The Small Business and Environmental Assistance (SBEA) Division continues to focus on compliance with rules and regulations. The goal is to assist small governments, businesses, and community organizations in implementing the most cost-effective means of complying with the rules.

Through a toll-free hot line and site visits, the division responds to more than 4,800 inquiries a year from small businesses and local governments. Staff trained more than 1,200 people on environmental regulations in fiscal year 2001 through workshops offered around the state.

One new means of reaching out to communities is the Local Government Advisory Committee. This group of 150 county and city officials is provided with technical resources and information, along with the opportunity to comment on pending environmental regulations and the impact on local communities.

The SBEA division also initiated a project to encourage proper disposal of municipal waste by working with communities to address illegal dumping, outdoor burning problems, and options for managing construction and demolition waste.

To promote air quality, SBEA's Engineering and Technical Assistance Team offered workshops in Beaumont, Corpus Christi, Midland, San Antonio, and Tyler to help industrial facilities develop in-house programs for reducing air emissions from unexpected upsets and maintenance activities. The team follows up with bimonthly meetings on environmental training, innovative technologies, and resource sharing. The division also has joined with local governments and environmental organizations to form the Texas State Agency Clean Air Working Group, a partnership to increase awareness and understanding of clean air issues.

The division continues to conduct compliance site visits, promoting use of low-emission solvents and other best management practices with chemicals usage. These free site visits are used to discover problems and identify viable, cost-effective pollution prevention methods. SBEA coordinated 230 on-site compliance assistance visits in fiscal year 2001.

SBEA organizes the TNRCC's annual Environmental Trade Fair, the state's main conference on environmental regulations and innovative technologies and processes. This three-day event each

spring provides updates on the leading environmental issues and training on major regulatory programs. Educational tracks are designed for local government officials, industry professionals, engineers, environmental consultants, small businesses, and educators. In 2001, about 4,000 people attended the event, which featured more than 160 sessions and 259 environmentally related companies exhibiting their products and services.

Through the Total Maximum Daily Load (TMDL) Program, SBEA received grant funding to raise public awareness of water pollution from rainfall runoff and its effects on water quality. The Nonpoint Sources Urban Runoff Pollution Education Campaign targets urban areas in which water bodies are listed as "impaired" under the Clean Water Act. Educational materials explain how rainfall carries pollutants from yards, streets, and parking lots into waterways.

As part of the division's educational component, SBEA issued a classroom guidebook, *Lesson Plans & Resources for Teaching Environmental Sciences* (GI-268), to help teachers with lesson plans and student activities, and to provide resource materials on air, water and land management issues. The lessons plans were contributed by teachers who have completed the TNRCC's Teaching Environmental Sciences courses, which are held each summer at colleges and universities.

Permitting

A crucial part of crafting the State Implementation Plan (SIP) for complying with the federal Clean Air Act was developing the Emissions Cap and Trade Program. It allows facilities in the Houston-Galveston area to use a market-based approach in achieving compliance with emission reduction strategies.

Under this program, the TNRCC will annually allocate an emissions allowance to stationary facilities that emit nitrogen oxide (NO_x). This allowance will be lowered so that nitrogen oxide (NO_x) emissions from all facilities subject to the program will be reduced up to 90 percent. A facility that is subject to the cap can purchase or sell allowances, or bank any unused portions of its annual allowance to carry over to the next year. New facilities must obtain allowances equal to their NO_x emissions from facilities that already own allowances. This policy will eliminate growth in NO_x emissions locally and encourage cleaner technologies and more efficient emissions controls.

The Texas Pollutant Discharge Elimination System (TPDES) permitting program continued to be a priority matter as staff finalized the multisector general permit, which regulates storm water runoff from different types of industries. Work progressed on other storm water general permits covering discharges from construction sites and municipal separate storm sewer systems. Staff also revised permitting procedures for implementing the state's updated surface water quality standards, and implemented a streamlined approach for conducting Section 401 certification reviews of U.S. Army Corps of Engineers permit applications for the discharge of dredged or fill materials into U.S. waters.

In waste permitting, the TNRCC adopted a new rule that exempts certain nonhazardous industrial wastes from the definition of solid waste if they meet eight criteria spelled out in the rule. This "eight-nonwaste-criteria rule" allows such wastes to be recycled—for example, by being applied to land in road construction projects or as materials used in concrete. The rule is designed to remove the long-standing stigma attached to these materials when they are regulated as solid waste. That label sometimes hampers materials from being reused in construction projects.

This new exemption will encourage and promote the legitimate recycling of many kinds of wastes, such as fly ash and bottom ash from burning coal, that are generated in high volumes but are low in toxicity.

Staff also completed an initiative to provide Texans with better access to information on all pending waste permit applications. The project began in fiscal year 2000 with the online posting of databases listing pending applications for municipal solid waste and industrial and hazardous waste permits. A database of pending underground injection control (UIC) applications has been added to the agency's Web site. The UIC database affords easy access to information on pending or recently approved permit applications, including the status of an application and technical information on an injection well.

Air Quality

In an unprecedented and coordinated effort to address air emissions from a variety of sources, the TNRCC gave final approval to new air quality regulations that affect heavy and light industrial facilities, diesel equipment, lawn and garden equipment, cars and trucks, and formulations of gasoline.

The State Implementation Plan (SIP) targets the nonattainment areas of Houston-Galveston, Dallas-Fort Worth, Beaumont-Port Arthur, and El Paso. All four metropolitan areas have violated federal air quality standards, primarily for ozone, and have a 2007 deadline for achieving compliance. The only exception to this deadline requirement is El Paso, which is affected by emissions from south of the border and has demonstrated considerable improvement in its ozone readings, as well as in measurements for other pollutants.

Other urban areas—Austin, San Antonio, Corpus Christi, Victoria, and Longview-Tyler-Marshall, and several counties around the Dallas-Fort Worth area—are being closely monitored for near-nonattainment of ozone standards.

In all of these areas, TNRCC monitors operate around the clock to evaluate air quality. In fiscal year 2001, the TNRCC operated air monitoring stations at 132 locations, mostly in urban areas. Many of the sites have multiple monitors, sampling for ozone, carbon monoxide, particulate matter, and other pollutants, so the actual number of monitors totaled 502.

The Texas SIP was designed to address the needs of each nonattainment region. The Houston area, for example, is host to one of the country's largest industrial complexes. Those industrial and petrochemical operations, combined with high-volume traffic in cars and trucks, produce a challenging ozone pollution picture that continues to be studied by research scientists.

Dallas-Fort Worth is challenged by ozone-producing emissions that stem primarily from a growing number of cars, trucks, and diesel construction equipment. In Beaumont-Port Arthur, emissions are generated from a concentration of oil refineries and marine vessels, supplemented by heavy-duty trucks and construction equipment.

The TNRCC's final clean air strategy was influenced by legislation passed in 2001—primarily Senate Bill 5—which created first-time incentives for reducing air pollution. As a result, the TNRCC revised some of its proposed pollution control measures for the Houston area, including the repeal of the proposed early-morning construction ban and the early retirement and replacement of off-road diesel equipment. Other SIP changes included restrictions on engine idling, requirements concerning diesel fuel and diesel engines, controls on large industrial emissions, and the emissions cap-and-trade program.

Tailpipe Testing

In fiscal year 2002, the TNRCC began expanding the inspection and maintenance (I&M) tests for car and truck emissions. The program to curb vehicular emissions that contribute to ozone formation focuses on the areas of Houston-Galveston, Dallas-Fort Worth, and El Paso.

Vehicles that are 2 to 24 years old will be tested annually as part of the state's mandatory safety inspection. Motorists will have to pass both tests to receive a safety sticker. Vehicles that fail the I&M test must be repaired to comply with emissions standards and then submitted for a retest.

The Texas Department of Public Safety will continue to administer the safety and emissions inspections program.

The new I&M program applies not only to more counties, but requires the use of more sophisticated testing equipment: the acceleration simulation mode, or ASM-2 test, for model year 1995 and older; and an onboard diagnostic (OBD) test for model year 1996 and newer. These emissions tests will be performed by vehicle inspection stations that opt to participate in the emissions testing program.

The program also expands another monitoring component—remote sensing on highways. This equipment, which is installed on vans, will be used to identify high-emitting vehicles commuting to the target areas from adjacent counties.

8-Hour Standard

A tougher measure has been devised for monitoring ground-level ozone: the EPA's 8-hour standard. Compliance is more difficult because the longer monitoring period provides for more opportunities to capture the consequences of high-volume traffic and industrial activities.

The 8-hour standard would most affect the near-nonattainment areas. All are being monitored by the TNRCC under the newer standard, as are the nonattainment areas.

Although the EPA began instituting the 8-hour standard in 1997, the federal program was placed on hold because of legal challenges. The U.S. Supreme Court has upheld the EPA's appeal of those challenges. The court also required the EPA to reconsider the 8-hour ozone standard implementation plan, and the EPA is in the process of redeveloping those rules.

Even with the 8-hour standard in legal limbo, some Texas cities have begun to tackle their ozone problems through expanded use of car pools, flexible work schedules for commuters, and use of alternative fuels. Near-nonattainment areas have worked on modeling air emissions and developing control strategies.

Water Quality

The TNRCC administers water quality management programs with the goal of protecting, maintaining, and restoring water resources. To meet this task, the TNRCC calls on a variety of programs and resources and enlists the cooperation of stakeholders. The job of restoring and maintaining water quality requires the TNRCC to collect data on the quality of water bodies and to use the information to formulate cleanup plans.

In surface water, the TNRCC oversees water quality planning, assessments, and watershed restoration. The Texas Clean Rivers Program, a partnership of the TNRCC, other state agencies, local governments, and stakeholders, coordinates the efforts of 15 regional planning agencies to monitor water quality at more than 1,500 sites throughout Texas. These sites are monitored on a monthly or quarterly basis for water chemistry and field measurements. Additional monitoring is conducted at many stations for a variety of factors, including toxic substances, bacteria, temperature, and the quality of wildlife habitat.

The TNRCC is also responsible for the state's management plan to prevent pesticide contamination of groundwater, and it manages the state's program to identify and assess priority groundwater management areas. Groundwater can be contaminated when pollutants on or near the surface of land migrate through the soil or encounter an opening, such as a well or sinkhole, that connects directly with an aquifer.

Legislation in 2001 ratified the creation of the groundwater districts created in 1999 on an interim basis and amended provisions related to the creation of groundwater conservation districts and the authority of districts to adopt and enforce rules, including those related to well permits and permit exceptions, spacing and production limits, fees, and groundwater export. Lawmakers also modified provisions related to the designation of priority groundwater management areas and the creation of districts in priority management areas, and gave the TNRCC until September 2005 to complete the designation of priority groundwater management areas.

Total Maximum Daily Loads

The Total Maximum Daily Load (TMDL) Program aims to restore water quality in surface waters that do not meet their designated uses, such as swimming, fishing, or supplying drinking water.

A TMDL is a technical analysis that determines the maximum volume of specified pollutants a body of water can receive and still meet its water quality standards.

The federal Clean Water Act requires all states to identify the water bodies in their jurisdiction that do not meet water quality standards. This list of impaired water bodies, called the 303(d) list, is developed in Texas by the TNRCC using water quality data from various sources. All freshwater and marine water bodies—with sufficient water quality data to assess at least one designated use—are evaluated.

According to the latest water quality inventory, 54 percent of the 516 assessed water bodies in Texas have been found to fully meet acceptable state water quality standards. For the water bodies that do not meet all standards, the TNRCC must either demonstrate that the impairment listing is no longer valid, or perform a technical analysis to develop a TMDL.

Each TMDL adopted by the TNRCC must also be submitted to the EPA for approval.

After a TMDL has been established for a particular water body, the TNRCC develops an

implementation plan with the participation of local stakeholders, describing the voluntary and regulatory measures needed to achieve the pollution reduction detailed in the TMDL. The plan may address reductions in point source pollutants from an identified source through adjustments to wastewater discharge permits. Pollution from nonpoint source pollution caused by runoff from multiple sources may be addressed through measures called "best management practices." The TMDL and implementation plan together constitute a watershed action plan.

In 1998, the TNRCC committed to developing TMDLs for all impaired water bodies within 10 years of each being first placed on the 303(d) list. In 2000, that included 240 water bodies with 336 impairments.

By the end of fiscal year 2001, there were 169 different TMDLs in various stages of development for 125 different water bodies. Other water bodies on the 303(d) list were undergoing intensive monitoring to further pinpoint the source or cause of the impairment before the TNRCC initiates a TMDL project.

As more TMDLs are completed, the TNRCC focuses increasingly on developing implementation plans. By the end of fiscal year 2001, the commission had approved five implementation plans, and many more were being prepared.

Remediation

The TNRCC strives to protect health and the environment by ensuring responsible management of hazardous and nonhazardous waste. This requires conducting programs that cover a broad range of activities associated with waste management and cleanup.

In fiscal year 2001, the agency's remediation program closed more than 780 leaking petroleum storage tank cases; issued 94 Voluntary Cleanup Program certificates for once-polluted properties that were returned to productive use; and issued 37 Innocent Owner/Operator Program certificates verifying that property owners or operators were not responsible for contamination on or near their property.

Other agency remediation projects included the following: completed 11 projects requiring removal of waste and contamination, which posed an immediate risk to human health or the environment; approved cleanup efforts at 401 industrial and hazardous waste sites; proposed eight new sites for the state Superfund Registry; deleted two state Superfund sites; and worked with the EPA to add two sites to the federal Superfund list. Four projects involving restoration of coastal marshes in Galveston Bay also were completed.

In fiscal year 2001, remediation was completed at eight state Superfund sites, and more than 300 industrial solid waste projects satisfied cleanup goals.

Superfund

From the inception of the federal Superfund Program in 1980, Texas has actively participated in leading the cleanups or supporting the EPA. The program addresses sites contaminated by hazardous substances, with emphasis on the sites considered to be the most hazardous of the abandoned or inactive properties in the state.

Since 1985, Texas' Superfund Program has dealt with sites that were ineligible for the federal program. Listing a site on the state Superfund Registry enables the TNRCC to use state funds for cleanup operations at the contaminated property if no responsible parties exist to perform the cleanup.

As of August 2001, Texas had a total of 91 sites in the state and federal Superfund Programs. Projects that enter the Superfund Program are prioritized by risk, with the most hazardous sites placed at the top of the list.

Petroleum Storage Tanks

The contamination of groundwater and soil due to leaking petroleum storage tanks (PSTs) is an environmental problem in all regions of the state. The TNRCC oversees PST cleanups and reimburses eligible parties who take appropriate action when leaks are discovered.

In all, 22,823 leaking petroleum storage tanks—primarily those at gasoline stations—had been reported by the end of fiscal year 2001; of those, cleanup at 16,176 sites had been completed, and corrective action was under way at 6,647 sites.

Tank owners and operators are required by state law to clean up releases from PSTs. The TNRCC oversees the remediation. Under state law, leaking tanks discovered on or after Dec. 23, 1998,

are not covered under the Petroleum Storage Tank Remediation Fund. Subsequent cleanups are paid for by the owners' environmental liability insurance or other financial assurance mechanisms.

The state continues to clean up sites at which the responsible party is unwilling or financially unable to do the work. State and federal funds are used to pay for the corrective actions. State statutes allow cost recovery from the current owner or any previous responsible owner. From August 2000 through August 2001, more than $500,000 was recovered.

The Legislature extended the PST reimbursement program to September 2006, and ensured that sufficient funds will be available for cleanup of the sites that are eligible for reimbursement and reported a spill by the December 22, 1998 statutory deadline.

Waste Management

Texans disposed of 28.6 million tons of municipal solid waste in 2000, according to the latest available data. That amount of disposal equaled 7.5 pounds per person per day. These numbers continue to grow as the state expands in population and business activities.

By the end of 2000, municipal solid waste capacity in Texas had reached 904 million tons, representing about 30 years of disposal capacity.

Texas had 183 active municipal solid waste landfills in 2000; of those, five received permit amendments to expand. These expansions indicate a trend toward more regional landfills serving larger areas. Statewide, there appears to be adequate disposal capacity for the coming decades; however, capacity estimates vary substantially from region to region.

To address solid waste issues, the TNRCC manages a statewide planning program designed to ensure the state will have the landfill space that it needs in the long term. Every four years, the TNRCC develops a state plan, in which regional plans developed by the 24 Councils of Governments (COGs) throughout the state are updated. The next state plan is due for release in 2004. To assist the COGs, the TNRCC issues grants that are funded by fees paid by municipal solid waste disposal facilities. For the 2000-2001 grant period, the grants funded 500 local and regional projects that ranged from collection stations in underserved areas to education programs and enforcement against illegal dumping.

Compliance and Enforcement

To aid compliance and enforcement efforts, the TNRCC has begun using real-time monitoring of air and water resources, computer-based information systems, Internet-accessible data, enhanced sampling techniques, and fuel cell power supplies.

In water, the agency developed the capability to continuously monitor lakes and rivers for several measurements of water quality, then display those data in near real time on the Internet.

In air, the agency deployed new ozone monitoring stations in the Dallas-Fort Worth area to allow for more accurate mapping of how ozone develops and drifts. Other new stations will provide continuous monitoring of small particulate matter and real-time assessment and analysis.

The agency also began deploying a new generation of air samplers that are triggered when hydrocarbon or other pollutant levels exceed a preset threshold. The samplers, which can be activated either remotely on the Internet or by a continuous analyzer, were designed according to agency specifications for use during peak ozone periods and unscheduled emissions from industrial upsets and maintenance activities.

As legislation required the agency to track and reduce unscheduled air emissions, the TNRCC developed new rules about the reporting of upset and maintenance activities, ran a pilot project on enforcing the new rules, and created a program to inform the regulated community about the new rules and to help facilities curb upsets.

The TNRCC also developed a consolidated database of compliance and enforcement activities. This database will support implementation of legislation requiring compliance history to become a more significant component of permitting and enforcement actions.

The agency takes formal enforcement actions when the violator is unable or unwilling to correct the violation in a timely manner, or when the nature of the violation is significant. In fiscal year 2001, the Enforcement Division issued a total

of 850 administrative enforcement orders that required payments of $4.3 million in administrative penalties and approved an additional $1.3 million worth of supplemental environmental projects. Of all the administrative enforcement orders, 250 were issued in the air program, 393 in the water program, and 207 in the waste program.

The agency also established a new record for obtaining convictions involving environmental crimes—28 convictions in fiscal year 2001.

Participation increased in the Supplemental Environmental Projects (SEPs) Program, which allows violators to offset administrative penalties for environmental violations by funding or implementing environmentally beneficial projects, typically in the community where the violation occurred. There were 105 new SEPs approved in fiscal year 2001.

CURRENT YEAR ACTIVITIES

TNRCC employees put their training and expertise to use every day—for example, by responding to emergency calls or by developing community support for pollution prevention. In all of these endeavors, the agency's fundamental goal is to advance the protection of natural resources and to broaden the public's involvement in environmental issues. The following activities illustrate how the agency is working to meet these goals.

Homeland Security

Domestic terrorism has become a leading concern for most state agencies. As the designated protector of the state's natural resources, the TNRCC is responsible for safety threats or risks that could affect air and water quality or management of waste.

Since the fall of 2001, the TNRCC has worked to determine whether any entities are vulnerable to actions that could pose a risk to human health—for example, through contamination of the air or damage to water supplies.

The Homeland Security Coalition of key TNRCC staff was organized to:

- identify the TNRCC's role in helping regulated entities determine their vulnerability and increase their security;
- identify and mobilize resources for this role;
- establish specific TNRCC contacts for communications with other government agencies on homeland security matters;
- identify measures needed to improve the security of the TNRCC's own facilities; and
- support the Governor's Task Force on Homeland Security.

The agency has reexamined its involvement in air quality permitting, drinking water supplies, wastewater treatment plants, hazardous waste facilities, and dam safety. The agency discovered that some of its existing policies and operations already covered security against threats of terrorism. For example, applicants for air permits already had to consider worst-case scenarios for release of contaminants from the planned facility.

For water supplies, the TNRCC has been working with the EPA, water utilities, and water-related interest groups to share information and ensure that water systems consider their vulnerabilities and what actions they can take. This is in addition to security requirements that are already included in TNRCC rules and permits.

For smaller communities that do not have their own hazardous materials units to deal with possible leaking or escaping hazardous materials, the TNRCC already contracts with emergency response teams to respond to such situations when concerns arise.

Historic Site Recognized for Cleanup

An historic "poor farm" near Socorro, Texas, has a new lease on life, thanks to cleanup efforts initiated by the city of Socorro and the Rio Grande Council of Governments (COG). The redevelopment project received assistance from the TNRCC's Voluntary Cleanup Program (VCP) and the Environmental Protection Agency (EPA).

The partnership was the first in west Texas to take advantage of the Brownfields Site Assessment Program offered through the VCP.

Through the VCP, contaminated properties—called "brownfields"—can be returned to productive

uses as commercial properties that contribute to the local job market and property tax rolls, or as nonprofit centers that benefit the community. Site assessments are used to evaluate a site's level of real or perceived contamination and the potential for cleanup.

Redevelopment plans for Rio Vista Farm include a multipurpose community service center offering community college courses, an educational service center, city offices, a museum, and tourist information center.

Rio Vista Farm, which is listed in the National Register of Historic Places, was built in 1915 to house El Paso's growing indigent population. Known to local residents as "the poor farm," Rio Vista Farm became a safe haven for the indigent during its five decades of operations. It was an early model for welfare-to-work and a nurturing environment for raising children.

The farm was one of the first to grow cotton in the Rio Grande Valley. However, the agricultural and business endeavors eventually led to property contamination—residue from an old boiler, lead from a firing range, pesticides and herbicides from farm storage buildings, and asbestos in several buildings.

More recently, the property was investigated for contamination, and an environmental cleanup was conducted under the supervision of the TNRCC. Sampling data collected during the subsequent site assessment confirmed that public health and environmental concerns had been addressed. The project has been awarded a VCP certificate of completion.

Surviving Drought

Recent years will be remembered as one of the driest periods in several decades in Texas. In the summer of 2001, a total of 130 public water systems throughout the state had to notify customers to limit water usage through restrictions; of those, 55 systems imposed mandatory restrictions, and the rest were voluntary.

For the Lower Rio Grande Valley, drought conditions were classified as "extreme" because rainfall has remained at critically low levels since the early 1990s. Both the Amistad and Falcon reservoirs have experienced ongoing depletion of water due to lack of inflows and rainfall.

The TNRCC continues to monitor the growing demand on the Rio Grande as a result of urbanization and industrialization. Communities on both sides of the river, along with agricultural operations, rely on the river and its tributaries. Valley farmers predict large economic losses without sufficient irrigation water, and border cities, which have priority over farms, worry about projected water deficits.

The Rio Grande's problems are complicated by the spread of nonnative weeds, which allow silt to build up and, at times, choke off water flow.

In mid-2001, the Rio Grande stopped flowing into the Gulf of Mexico, which required work crews to dredge out a channel to restore flow to the sea. At the same time, the taps ran dry in Matamoros when the Rio Grande dipped lower than the city's intake pumps. The TNRCC and the Brownsville Public Utility Board helped their southern neighbor by providing short-term municipal water needs. The TNRCC also provided $50,000 for mechanical removal of water hyacinth and hydrilla.

The TNRCC has worked to ensure that community water suppliers around the state are better prepared for dry times. The state's 236 largest retail water utilities (those serving more than 3,330 connections) have all prepared and adopted drought contingency plans, as required by state law. The 300 wholesale suppliers to retail water systems also have adopted the required plans.

TNRCC staff check for these contingency plans as part of annual inspections of the state's 4,500 retail water suppliers. The agency emphasizes that having to implement drought contingency measures, when warranted, is not a sign of a failing public water system, but simply a part of responsible, professional utility management.

Houston Flood Recovery

While water shortages plagued some parts of Texas, the Houston area was inundated with three feet of rain in June 2001. In quick response to Tropical Storm Allison, the TNRCC's Region 12 staff and the agency's Strike Team mobilized to respond to environmental threats.

The disaster brought together—for the first time under emergency conditions—all the members of the TNRCC Strike Team. These 11 staffers from various regional offices have been trained for rapid

response to oil and hazardous materials spills, emergency sewage overflows, and other disaster-related environmental events.

Once flooding began, the Houston Ship Channel area posed the potential for key environmental problems because of the concentration of refineries and petrochemical plants. The team worked with refineries and chemical plants that experienced unauthorized releases of air emissions due to electrical outages and advised those companies on emergency operational procedures.

The Strike Team joined the General Land Office (GLO), the U.S. Coast Guard, the EPA, and contractors in cruising the ship channel to round up 529 floating containers. High waters had swept drums, compressed gas cylinders, and other containers filled with chemical compounds from their storage areas. The participating agencies assembled the barrels and drums at a secure location until proper analysis and disposal of the items could be conducted.

Some industrial plants discovered that floating roofs on storage tanks were sinking. This allowed raw chemicals to be discharged, with the contents spilling onto the ground or mixing with floodwaters. The Strike Team, with the help of GLO and the Coast Guard, oversaw the installation of booms to contain chemical slicks on the surface of the floodwaters until cleanup could occur. Companies also conducted their own mitigation efforts to control emissions and odors.

The TNRCC's Houston regional office worked with 34 public water supply systems experiencing contamination problems and helped them restore operations. Staff provided technical guidance and assistance on issuing boil-water notices and procedures for disinfecting private water wells. Staff also alerted the public to the environmental and health implications of flood debris, household hazardous waste, and insecticide usage.

In the aftermath, the TNRCC continued to coordinate with local governments, the EPA, and the Federal Emergency Management Agency on debris collection and disposal of contaminated household hazardous waste products. To help landfills cope with towering volumes of waste resulting from the storm, the Houston regional office worked to grant temporary permit amendments, allowing the facilities longer hours of operation.

The TNRCC's flood management team also assisted the local disaster field office and held workshops to help homeowners assess damage.

Better Access to Data

A computer application designed to provide better access to comprehensive information about the regulated community is now under way at the TNRCC.

The Central Registry contains information about the customers and entities the agency must regulate under law. This new program serves as a central point of contact for information about TNRCC permits, registrations, or licenses. Building a central system to allow access to all TNRCC databases is an ongoing project.

To track all permits and registrations an entity may hold, each entity is uniquely identified in each program area database with an 11-digit number. To ensure accuracy, data standards have been developed to consistently store information. For example, addresses are validated with the U.S. Postal Service.

Eventually, the commonality of the data fields will help link the TNRCC databases into a "virtual location," allowing users to receive a comprehensive report about an entity's environmental history with the TNRCC.

New Stewardship Program

The TNRCC's new Clean Texas program offers more Texans an opportunity to get involved with environmental stewardship. Administered by the Small Business and Environmental Assistance (SBEA) division, the program is designed for organizations that have compiled a solid environmental record and have shown a willingness to commit to preserving the air, water, and land resources. It replaces the former Clean Texas 2000 programs known as Clean Cities 2000, Clean Industries 2000, Clean Industries Plus, and Clean Texas Star.

The previous programs focused on waste reduction and drew members primarily from industries and local governments. Now three levels of membership are available with varying degrees of commitment for a three-year period. This structure makes it easier for all types of organizations from

industries and small businesses to local governments, nonprofits, and academic institutions—to participate.

To join, organizations must demonstrate a good compliance history and maintain a good compliance record while in the program. Three levels of membership are offered: Leader, Partner, and Advocate.

In another new twist, Clean Texas members are grouped with their counterparts in the same region for networking and building partnerships. This approach creates greater local participation among neighbors, focuses more on regional and local issues, and provides local recognition for members. In its first year, Clean Texas hosted several regional meetings across the state, providing an avenue for environmental leaders to meet their counterparts in other communities.

Beyond networking, members receive such benefits as technical assistance, training opportunities, and use of the Clean Texas logo. They earn recognition during the annual conference and the Texas Environmental Excellence Awards, and receive the TNRCC's *Clean Texas Update* newsletter.

Organizations that have achieved Leader status are eligible for incentives that include regulatory flexibility, technical and program assistance, and organization-specific public recognition, based on the specific needs of each member. By December 2001, Clean Texas had 184 charter members, representing 35 different industry sectors.

Liquid Waste Initiative

The field and headquarters staff assigned to SBEA's Small Business and Local Government Assistance (SBLGA) section frequently team up to tackle common problems facing communities and small businesses. One recent issue involved waste from grease traps.

While every community with a restaurant may face a grease disposal problem, few communities have adequate resources for dealing with the potential problems. For example, a town with 1,500 food service facilities—each with a typical grease trap holding 1,000 gallons—generates 6 million gallons of this waste a year, assuming the normal pump-out at 90-day intervals. Too often, sewers become blocked with grease overflow into area waterways or residences, or run-off from illegal dumps pollutes lakes and streams.

In response to an obvious need for help with grease trap waste, SBLGA initiated and led a Liquid Waste Workgroup of TNRCC representatives. Working with stakeholders, the group developed a plan to generate additional capacity for treating this waste in as many areas as possible to reduce the amount of illegal dumping, and to educate generators, transporters, processors, and disposal facilities on how to reduce the amount of waste generated and comply with waste management rules. The long-term goals are to use innovative technology to treat and reuse the waste, and to identify new markets for beneficial use of grease wastes.

The workgroup conducted seminars on liquid waste management; developed plans for plain-language documents on the waste registration process, kitchen practices for managing grease trap waste, and selecting a transporter and disposal facility; and compiled model city ordinances on grease trap waste that local authorities can use to develop their own rules.

The group also researched opportunities to apply innovative technologies and management practices to the issue. Some options involve additional composting facilities and incentives for locating facilities that process grease trap waste at landfills.

Laredo Steps Up to Environmental Challenge

Intense trade activity along the U.S.-Mexico border brings environmental risks associated with the handling and storing of hazardous materials. The city of Laredo has taken innovative steps—with the help of state and federal officials—to address potential problems.

As the country's busiest inland port, Laredo handles 40 percent of all U.S.-Mexico trade transported by land. When commodities are being transported, trucks typically drive the goods to warehouses near the border and unload the cargo. From there, short-distance trucks carry the goods across the border to warehouses where they are stored until trucks pick them up and take them to their final destination.

Of the 8,000 trucks crossing Laredo's bridges each day, several dozen carry hazardous materials (for example, chemicals, paints, and polymers) that are stored before being allowed across the border.

Not all warehouses are designed to store such materials, nor are all the warehouse employees properly trained. Sometimes corrosive materials are unclaimed and remain in storage for years, eventually leaking from containers and becoming dangerous contaminants in nearby soil or waterways.

Laredo used a TNRCC grant to begin registering the growing number of warehouses and ordering them to comply with guidelines for hazardous material. The city's zoning ordinance was revised to ensure warehouses are built along main traffic arteries that avoid critical watersheds.

To ensure compliance with environmental laws, the EPA and TNRCC regional staff teamed up with the Laredo Fire Department to conduct surprise investigations. They found instances of improper storage of used oil and failure to label the contents of containers.

As a result, special seminars were conducted on how to properly label hazardous materials and dispose of abandoned materials. The TNRCC also presented workshops to review pertinent environmental laws with freight forwarders, customs brokers, warehouse operators, transporters, and shippers.

Protecting Texas Beaches

Offshore dumping of containers filled with hazardous materials or petroleum products into Texas and international waters is illegal. Often these containers end up on beaches and in bays and estuaries. When sealed barrels, drums, or other containers wash ashore, the TNRCC has the responsibility to assess the contents and conduct proper recycling or disposal.

In Texas, jurisdiction over beaches is a shared responsibility. The TNRCC is responsible for non-petroleum spills. The U.S. Coast Guard (CG) has federal jurisdiction over the prevention and cleanup of chemical and hydrocarbon spills in coastal waters and on adjacent beaches. The state General Land Office (GLO), as trustee for state lands, has state jurisdiction over coastal oil spills. The CG and GLO may, however, lack the necessary training to assess and respond to hazardous materials response, so the TNRCC fills that role, primarily from the regional offices based in Beaumont, Houston, Corpus Christi, and Harlingen.

Each year, the TNRCC evaluates more than 1,000 sealed containers for potential removal. These containers can hold hazardous materials, such as petroleum by-products, corrosive solvents, and pesticides. TNRCC regional staff call on the Emergency Response Program and its lead contractor to help determine the chemical makeup of the contents and whether leakage has occurred. Of the containers inspected, about 400 a year need to be removed by the state and taken to the appropriate recycling or disposal facilities.

Much of this recovery work occurs on ecologically fragile areas along the Texas coast, such as Matagorda Island. The refuge is home to threatened or endangered species, such as the whooping crane and the Ridley sea turtle.

While the agency has long performed this role, the practice was just formalized in 2001 when the TNRCC signed a memorandum of agreement (MOA) with the Coast Guard outlining the need for the recovery of sealed containers washed onto Texas beaches. The agreement also spells out the roles and coordination requirements between the two agencies and procedures for documentation and reimbursement.

Under the MOA, the TNRCC can recover past costs for hazardous materials response. By August 2001, the TNRCC had recovered almost $400,000 from the Coast Guard for beach cleanup dating back to 1998. Those funds cover staff time, direct contractor costs, equipment use, and agency overhead.

The TNRCC will continue to be reimbursed for its participation as long as the MOA remains in effect. The agreement will be reviewed every three years.

Permit Time-Frame Reduction Project

In a continuing effort to improve the efficiency of the permitting processes, the TNRCC has implemented a project designed to shorten the time it takes to review major uncontested permits. The TNRCC is committed to the agency mission of environmental protection and realizes that there are ways to serve the environment through a more efficient review process.

Improvements will be carried out in a way that will ensure the integrity of the environmental permit review process. Improvements will in no way

reduce the environmental protectiveness of permit application reviews. As a part of this effort, policy or regulatory changes needed to reduce processing times without sacrificing environmental protection will be identified. Project goals include completing new authorizations for construction or operation within the targeted maximum time frame of December 31, 2002, and identifying any barriers to more efficient permit reviews.

State Implementation Plan Revisions

On December 6, 2000, and September 26, 2001, the TNRCC adopted revisions to the SIP for the Houston-Galveston area (HGA) ozone nonattainment area. The EPA approved these latest SIP revisions in November 2001. These revisions contained rules and photochemical modeling analyses in support of the HGA ozone attainment demonstration.

In addition, these revisions contained enforceable commitments to implement further measures in support of the Houston-Galveston attainment demonstration, as well as a commitment to perform and submit a mid-course review revision to the SIP in 2004.

Implementation of the rules and other control measures contained in this SIP revision will close the gap and achieve attainment of the 1-hour ozone standard in the Houston area by November 15, 2007, the date required for attainment.

Rules and strategies included in the SIP for the Houston area are:

- Reduction of 90 percent in nitrogen oxides emissions from industrial sources.
- An enhanced vehicle inspection and maintenance program.
- Voluntary mobile source emissions reduction plans.
- The Texas Emissions Reduction Plan program, which includes grants and other financial incentives for improving air quality in Texas.
- Lowered speed limits to 55 mph.
- Cleaner diesel fuel strategy.
- Agreements between cities, airlines, and airports to reduce emissions from ground service equipment and other related airport activities.
- Commercial lawn and garden equipment-use restriction.
- Transportation control measures.
- Requirements for stationary diesel engines and water heaters.
- Requirements for certain spark-ignition equipment to meet California standards.
- Idling restriction of no more than 5 minutes for vehicles heavier than 14,000 pounds.

The TNRCC is currently working on a mid-course review of the SIP. For the Houston-Galveston area, this review will consist of two phases. Phase I (scheduled for adoption in December 2002) will focus on the results of an independent, thorough analysis of ozone formation in the Houston area and will address issues such as: whether rapid ozone formation events can be controlled with different strategies; the incorporation of the framework for the Texas Emissions Reduction Plan and Energy Efficiency programs; and scientific improvements and enhancements.

Phase II (scheduled to be adopted in May 2004) will focus on additional improvements and enhancements to the science; incorporation of control strategies that will fill the remaining gap in reductions needed to reach attainment; and other necessary adjustments to strategies already adopted.

In conjunction with the Phase II revision for the Houston-Galveston area, the commission will also be completing a mid-course review of the SIP for the Dallas-Fort Worth and Beaumont-Port Arthur ozone nonattainment areas. This review will also focus on improvements and enhancements to the science and any necessary adjustments to control strategies already adopted.

Inspection and Maintenance Program

A new vehicle Inspection and Maintenance (I/M) program is being implemented beginning May 1, 2002, in Harris, Dallas, Tarrant, Collin, and Denton counties in order to reduce emissions of nitrogen oxides (NO_x) and volatile organic compounds (VOCs). The new tests are part of the

state's implementation plan for bringing the Houston-Galveston and Dallas-Fort Worth areas into attainment with federal air quality standards.

A new test capable of identifying vehicles with high NO_x emissions, known as acceleration simulation mode (ASM), was introduced on May 1, 2002. This test uses a chassis dynamometer to more closely imitate actual driving conditions and produce more accurate emissions results.

The test will be performed on all gasoline model year (MY) vehicles 1995 and older. All MY 1996 and newer gasoline powered vehicles will be subject to an on-board diagnostic (OBD) test, which involves downloading information from the vehicle's on-board computer to quickly and accurately check all the emissions related parts.

While the program requires all inspection stations to offer both ASM and OBD testing, there is an exception for low-volume inspection stations. These stations can opt to perform only OBD testing if they do not exceed 1200 OBD tests per year.

A low-income vehicle repair assistance, retrofit, and accelerated vehicle retirement program—LIRAP for short—is being implemented as a result of legislation passed during the 77th Texas Legislature (House Bill 2134). The program provides financial assistance for eligible low-income owners of vehicles that fail the emissions test. The program will be administered by local counties that voluntarily opt to participate in LIRAP, or through a county-designated program administrator.

Texas Air Quality Study

Over the past year, TNRCC staff have worked with a broad group of scientists and other experts to develop the science and analytical tools needed to address and assess health effects of air pollutants. Intensive sampling of gaseous, particulate, and hazardous air pollutants and measurements were made at ground stations and from multiple aircraft throughout the eastern half of the state, with a particular focus on the Gulf Coast.

The study has improved our understanding of the chemical and physical process that controls air pollutant formation and transport. The study also is providing an extensive set of data that can be used to formulate control strategies to address the challenges of meeting the National Ambient Air Quality Standards (NAAQS) for ozone and for fine particulate matter and regional haze.

Participants included over 250 scientists from across the country, representing academia; environmental and public interest groups; industry representatives, and other state and federal governmental entities. This science evaluation has dramatically advanced our understanding of ozone formation, especially in the Houston-Galveston ozone nonattainment area.

The team of scientists, working with national experts from government, academia and industry, has concluded that a more comprehensive set of emission reductions is needed from point sources. A somewhat lower NO_x reduction strategy may be effective when combined with a suite of reductions in emissions of highly reactive VOCs.

The Texas Emissions Reduction Plan

The Texas Emissions Reduction Plan (TERP) program was authorized by Senate Bill 5. The TERP program provides grants and rebates for the improvement in emissions from diesel engines. The Legislature required the TNRCC to remove the construction shift and Tier 2 and 3 accelerated purchase programs from the State Implementation Plan recommendations for Dallas-Fort Worth and Houston-Galveston, and to replace them with the voluntary TERP program.

The TNRCC has had two grant application periods. Between $10 and $20 million in grant projects are anticipated. These projects cover the purchase and lease of new equipment, repowering of existing equipment with cleaner engines, retrofitting existing engines with cleaner add-on equipment, using cleaner burning fuel, creating fueling infrastructure for cleaner burning fuels, and demonstration of clean-burning technology.

The program was estimated to have available up to $130 million per year in funding. A lawsuit will prevent over two-thirds of these funds from being collected. However, the TNRCC will continue the air quality improvements started by the TERP program.

SERVING GEOGRAPHIC REGIONS

The Texas Environment

The environmental laws of Texas are designed to protect and preserve the unique and diverse geographic regions of the state. Volume 2 of the *Strategic Plan, State of the Texas Environment*, has been developed in conjunction with Volume 1 of the *Strategic Plan, State of the Agency,* in an ongoing effort to identify environmental issues that the state and TNRCC may face in the near future. The report focuses on issues the state will face in the near future and identifies resources to protect those issues. Topics include air quality, surface water quality, groundwater quality, land resources, drinking water quality, and water supply.

The report includes a ranking of key natural resource issues by region of the state, as well as an "environmental scorecard" that gives a brief overview of outcomes of the state's natural resource protection efforts. A variety of indicators are used to characterize the quality and condition of our air, water, and land resources to develop a better understanding of existing and potential environmental conditions.

Volume 2 provides a special focus on the areas of air quality, surface water quality, and groundwater quality. Issues such as air toxics, mercury deposition, ambient monitoring, and nutrient concentrations in surface water are discussed in some detail in the report. The report also includes discussions on health effects related to environmental conditions and the challenges associated with developing direct correlations between the two issues.

The Rio Grande and Border Region

The first of a series of planned annual reports will be published this year as the *State of the Rio Grande and the Environment of the Border Region, Strategic Plan, Fiscal Years 2004—2007, Volume 3*. The report provides a detailed overview of border environmental issues. The report will serve as a companion to *Strategic Plan, Fiscal Years 2003—2007, Volume I*, and *State of the Texas Environment, Fiscal Years 2003—2007, Volume 2*.

This report prepared by the TNRCC describes the border environment as it exists in 2002 from the perspective of border residents. The report looks at local, state, federal, and international efforts to address these issues, along with results that have been achieved thus far, but it is not meant to provide a comprehensive action plan for the border.

The key environmental issue along the entire Texas-Mexico border is the need for a reliable supply of good-quality water. While other issues have also attracted attention within different regions and are described in this report, the pressure on the quantity and quality of the border water supply is the chief concern of the overwhelming majority of border residents, regardless of location.

To understand public opinion regarding environmental issues along the border, the TNRCC relied on a variety of sources, including formal hearings, board and workgroup meetings, and roundtable discussions. These sessions were hosted by many different organizations, including the TNRCC, the U.S. Environmental Protection Agency (EPA), and the Mexican environmental agency (SEMARNAT). Water quantity and water quality issues topped the lists of priorities generated by these meetings without fail.

The Rio Grande often is perceived as a single entity with similar characteristics. However, environmental differences occur due to economic conditions, population density, geography and climate. Border residents in different subregions of the border also identified major local priorities. The top priorities in subregions were as follows:

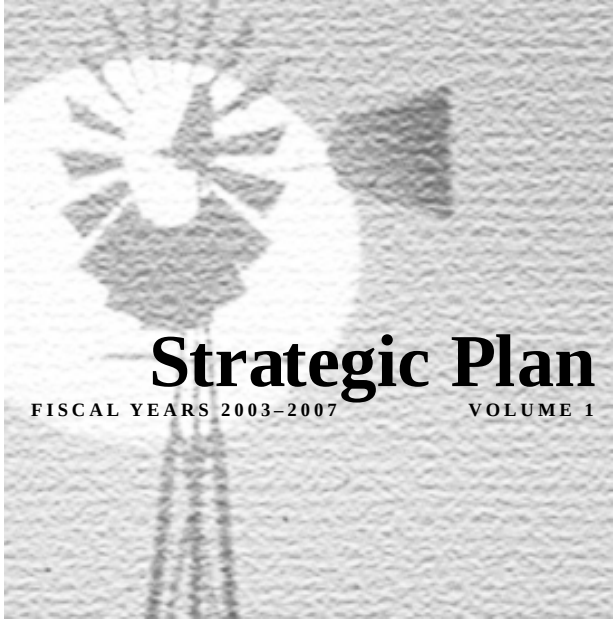
- Upper Rio Grande Subregion (El Paso to Amistad Dam) — water quantity, water quality, and air quality;
- Middle Rio Grande Subregion (Amistad Dam to Falcon Dam) — water quantity, water quality, and waste management; and
- Lower Rio Grande Subregion (Falcon Dam to the Gulf of Mexico) — water quantity,

water quality, and provision of environmental infrastructure to colonias.

Volumes 2 and 3 of the *Strategic Plan* provide opportunities to learn more about the complexities of environmental protection in Texas and to better understand the difficult choices facing decision makers when they try to address many of the environmental issues both statewide and by region.

New Agency Name

Future reports of all three volumes of the *Strategic Plan* that are published after September 1, 2002, will be produced under the TNRCC's new name, the Texas Commission on Environmental Quality (in Spanish, Commisión de Calidad Ambiental de Texas). The name was changed by the 77th Texas Legislature in 2001.



STATE OF THE AGENCY

FINANCIAL STATUS AND OUTLOOK

Funding Sources

The TNRCC is funded primarily by fee revenue. For the 2000-2001 biennium, the agency was appropriated $778.4 million, of which $607.7 million was from dedicated fees. The remainder of the appropriations consisted of $99.3 million from federal funds, $60.0 million from General Revenue, and $11.4 million in interagency contracts and appropriated receipts.

For the 2002-2003 biennium, the 77th Legislature initially appropriated $998.7 million to the agency. In addition to fee revenue appropriated for the 2002-2003 biennium, the TNRCC was appropriated $77.1 million in federal funds, $63.6 million in General Revenue, and $8.7 million in interagency contracts and appropriated receipts. These other funding sources comprise approximately 15 percent of the agency's total appropriation.

Because of a recent court decision, approximately $172.2 million of projected fee revenue for 2002-2003 will not be collected or available for appropriation. The decision precludes collection of vehicle "green sheet" fees. Created by Senate Bill 5 (SB 5), 77th Legislature, as part of the Texas Emissions Reduction Plan (TERP), green sheet fees were scheduled to be assessed on vehicles imported into the state. The state district court in Austin struck down the fee provision on the basis that it is discriminatory and in violation of commerce laws. Because the green sheet fee constituted the majority of revenue expected under SB 5, the TNRCC can now expect to collect less than 20 percent (or approximately $18.3 million in fiscal year 2002) of the amount originally projected.

Funding Uses

The TNRCC's total operating budget for fiscal year 2002 is $420.4 million. The assessment, permitting, and prevention goal in the agency's budget structure receives the largest share of the 2002 operating budget at 39 percent, within which the air quality assessment and planning strategy constitutes the major component. This strategy contains new programs created by the 77th Legislature, such as the Texas Emissions Reduction Plan (TERP) and the Low-Income Vehicle Repair Assistance (LIRAP) program. The agency's pollution cleanup goal constitutes 37 percent of the budget, while the enforcement and compliance assistance goal uses 12 percent. The remaining 12 percent of the budget covers the agency's indirect administration expenses.

Funding Issues

Recent legislation has enabled the TNRCC to take steps to improve the efficiency, flexibility, and stability of its funding structure.

The agency underwent the Sunset review process in 2001, which resulted in the passage of House Bill 2912 (HB 2912) by the 77th Legislature. Provisions in this bill enhanced flexibility in the use of fee revenue by enabling the commission to transfer the lesser of 7 percent or $20 million in appropriation authority from one appropriation item to another, consistent with the General Appropriations Act. The

commission is working to make the best use of this new ability. In addition to this enhancement, HB 2912 also allowed the commission to combine and streamline wastewater inspection and water quality assessment fees, to use water fees to protect water resources, and to make occupational licensing fees more uniform.

Further improvements are planned for both air and waste fees. Air fees have not been increased since the mid-1990's. The commission is evaluating a proposed rule change to adjust air fees to support appropriations for fiscal year 2003 and future years from Fund 151, the Clean Air Account. Specifically, the commission proposes to modify the air emissions fee based on the federal consumer price index. This new rate will generate sufficient revenue to administer Title IV and V of the federal Clean Air Act. The proposal will also adjust inspection and permit fees to generate adequate revenue to fund the commission's regulation of sources not subject to Title V. In addition, the proposal will introduce a fee on new permit-by-rule (PBR) applications filed with the commission.

After completing its planned air fee evaluation, the TNRCC will assess improvements to waste fees. The commission's goals for revising waste fees are similar to goals for its air and water fees: to generate sufficient revenue to fund the commission's waste programs; to consolidate and streamline its fee structure; and to have greater flexibility in the use of waste fees to fund related waste programs and activities.

While these improvements and proposals are needed steps, other issues remain. One funding concern is the long-term stability of fee revenue. Many of the largest fees collected by the agency are based on the volume of waste generated or the air contaminants emitted. Consequently, as the TNRCC continues to achieve its major goals—such as the reduction of air emissions and waste generation—the agency simultaneously reduces the amount of revenue it collects to fund its operations. However, workloads are not likely to decrease because permitting, assessment, and inspection depend more on the number of facilities being constructed or in operation than on the volume of pollution generated at a facility.

Despite these ongoing issues, the TNRCC is making progress in its efforts to achieve greater revenue flexibility, to ensure fiscal stability, and to streamline its fee structure. The commission will continue to work toward these goals in future years.

Historically Underutilized Businesses (HUBs)

It is the policy of the TNRCC to demonstrate a good-faith effort to provide procurement and contracting opportunities for all businesses, including minority- and women-owned businesses. The TNRCC understands the difficult challenges that sometimes face minority- and women-owned businesses. The state's Historically Underutilized Business (HUB) Program was designed to enhance agency commitment to the recruitment and promotion of these businesses in the procurement process.

What Is a HUB?

A HUB is defined as a corporation, sole proprietorship, partnership, joint venture, or supplier with its principal place of business in Texas, which is formed for the purpose of making a profit and is otherwise legally recognized as a business organization under the laws of Texas. State laws specify that at least 51 percent of the assets and 51 percent of any classes of stock or equitable securities must be owned by one or more persons who are members of the following groups that have been economically disadvantaged by business practices of the past: Black Americans, Hispanic Americans, Asian Pacific Americans, Native Americans, and American women.

Goals and Objectives

Through all reasonable means available, the TNRCC strives to award procurement and contracting opportunities to minority- and women-owned businesses. The agency's goal is to meet or

exceed the performance of the TNRCC for the previous two years as shown in Table 4-1.

Strategies for Achieving HUB Goals and Objectives

The following procedures have been developed as part of the TNRCC's good-faith effort to achieve these goals:

- Prepare and distribute information on procurement procedures that encourages all businesses to participate in agency contracts.
- Divide proposed requisitions into reasonable lots.
- Assess bond and insurance requirements to reasonably permit more than one business to perform the work.
- Specify reasonable, realistic delivery schedules consistent with actual needs.
- Ensure that specifications, terms, and conditions reflect actual needs.
- Provide contractors with a reference list of certified HUBs for subcontracting.

In addition, the job evaluations of division directors and other personnel responsible for the procurement of goods and services will measure their good-faith efforts in attempting to increase HUB purchases and procurements.

The TNRCC will continue to increase the use of HUBs by:

- Educating agency staff on procurement rules and procedures.
- Actively recruiting and educating prospective HUB businesses.
- Promoting the Texas Building and Procurements Commission (TBPC) HUB Certification Program.
- Establishing and maintaining a HUB Web page.
- Providing representation at all available forums and events sponsored by the TBPC, other state, local and federal entities, and elected officials, to inform prospective HUB vendors of TNRCC business opportunities.

Furthermore, the TNRCC will advertise all contracting opportunities in minority trade journals to attract HUB vendors. Agency program areas will also include criteria for increasing HUB participation in their annual business plans.

Table 4-1
HUB Goals and TNRCC Performance

Category	TNRCC Performance		Goals for 2003-07
	2000	2001	
Special Trade Construction Contracts	N/A	7.4%	10.0%
Commodity Services Contracts	14.7%	22.1%	11.5%
Other Services Contracts	21.8%	18.0%	33.0%
Professional Services Contracts	12.9%	16.4%	18.1%

The TNRCC will also design a HUB forum program modeled after the TBPC program, where HUB vendors will: make presentations at its facility targeting senior management staff; ensure subcontracting plans are appropriately included in contracts of which the value exceeds $100,000; and actively evaluate contractor performance compliance with subcontracting plans as applicable in contracts of $100,000 or more.

FACILITY INFRASTRUCTURE

Agency Headquarters

The TNRCC central office complex in Austin is comprised of six buildings on approximately 30 acres of land. There are approximately 377,109 square feet of office and laboratory space in five buildings in the complex that are leased with the option to purchase (LWOP). The sixth leased building contains 163,070 square feet of space, and one leased warehouse contains 14,335 square feet. The office space in the complex totals 554,514 square feet. There are parking facilities for 2,100 vehicles.

Regional Offices

The TNRCC maintains 16 regional offices in the following locations: Amarillo, Lubbock, Abilene, Dallas-Fort Worth, Tyler, El Paso, Midland,

San Angelo, Waco, Beaumont, Austin, Houston, San Antonio, Corpus Christi, Harlingen, and Laredo. An estuary program office is located in Webster; a laboratory facility, in Houston; and a satellite office, in Stephenville. Three of the regional offices are in state-owned buildings: the El Paso office has 7,124 square feet; the Corpus Christi office has 11,164 square feet; and the Houston office has 39,011 square feet; for a total of 57,299 square feet in state-owned buildings. The remaining 13 regional offices are in leased buildings that contain a total of 215,039 square feet of office and laboratory space.

Vehicles

The TNRCC maintains a fleet of approximately 440 vehicles, with 80 percent of them assigned to the field and the remaining 20 percent located in Austin. TNRCC field employees use vehicles to conduct inspections, to investigate complaints, and to monitor air and water throughout the state. Vehicles maintained at the central office provide an economical means to visit and inspect facilities that have permit applications with the TNRCC, and allow staff to attend meetings, conferences, and hearings throughout the state.

The TNRCC has an established vehicle replacement schedule to maximize the use and efficiency of state vehicles. This schedule requires vehicles in the field to be replaced if any of the following criteria apply: mileage over 115,000, over seven years old, unsafe to operate, or deemed uneconomical to repair and operate. As a result, the Field Operations Division typically needs to replace 33 to 35 vehicles per year.

Once a vehicle is retired from the field, it may be reassigned to the central office to make short trips within the Austin area, to assist in building maintenance, to make mail room pickup and delivery, and to purchase and deliver supplies.

Capital Improvements

The infrastructure needs of the agency have become greater as the buildings and the systems supporting these buildings have become older. The TNRCC has identified capital needs in two major areas — repairs and renovations and capital improvements.

The following capital improvements may be included in the legislative appropriations request to the 78th Legislature, as other agency funding needs and priorities allow:

Repairs and Renovations

- Replace the carpet in Building B.
- Construct a fire escape leading to the outside of the agenda room in Building E.
- Change signs in the complex to reflect the agency's new name, the Texas Commission on Environmental Quality.
- Renovate the restroom facilities in Building C to comply with ADA regulations.

WORKFORCE SUMMARY

Composition

While the TNRCC continues to receive additional responsibilities, the agency proceeds to operate within mandated full-time equivalent (FTE) limits without any significant reduction in service to its customers. The agency currently has an authorized workforce of 3,042 budgeted FTE positions. To effectively and efficiently administer the state's environmental laws, the TNRCC relies on competent and knowledgeable staff.

The overall average tenure of employees at the TNRCC is seven years. Professionals (including administrators) and paraprofessionals make up more than 89 percent of the entire workforce. The remaining workforce consists largely of administrative support and technical positions (Figure 4-1). The distribution of the workforce remained fairly consistent between fiscal years 2000 and 2001, with a slight increase noted in administrative support. The TNRCC also relies on an average of 100 contractor FTEs per year to perform vital functions relating to information technology, administrative, and technical program support.

The TNRCC uses a wide variety of job classifications to carry out its mission in preserving the environment. The top eight most common job classifications in fiscal year 2001 were the following

(see Figure 4-2): Environmental Investigators III and V; Administrative Technicians I, III and IV; Manager IV; and Program Specialists II and VI.

Salary

The TNRCC used data from the Human Resources Analysis System maintained by the State Auditor's Office (SAO) to compare the salaries of widely used job classifications at several agencies that deal with natural resource issues: Texas Parks and Wildlife Department (TPWD), Texas Water Development Board (TWDB), General Land Office (GLO), Railroad Commission (RRC), and Texas Department of Agriculture (Ag Dept). Figure 4-3 compares the median salaries for the entry level positions for six of the job classifications. Based on the SAO data, salaries for these classifications at the TNRCC lag behind the other agencies in four out of six job classifications.

Equal Employment

It is the policy of the TNRCC to provide equal employment opportunities to all employees and qualified applicants, regardless of race, color, national origin, sex, sexual orientation, age, disability, or veteran status.

Figure 4-1
Agency Workforce, Fiscal Years 2000 and 2001

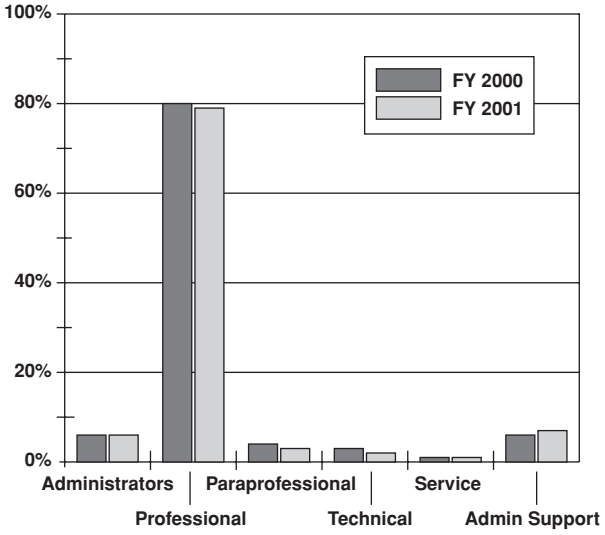


Figure 4-2
Most Commonly Used Job Classifications, Fiscal Year 2001

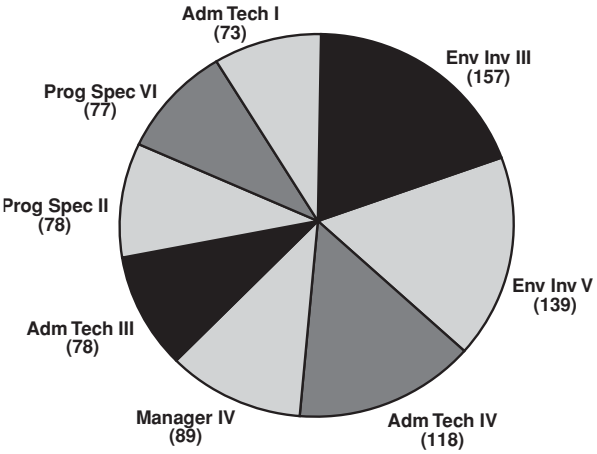
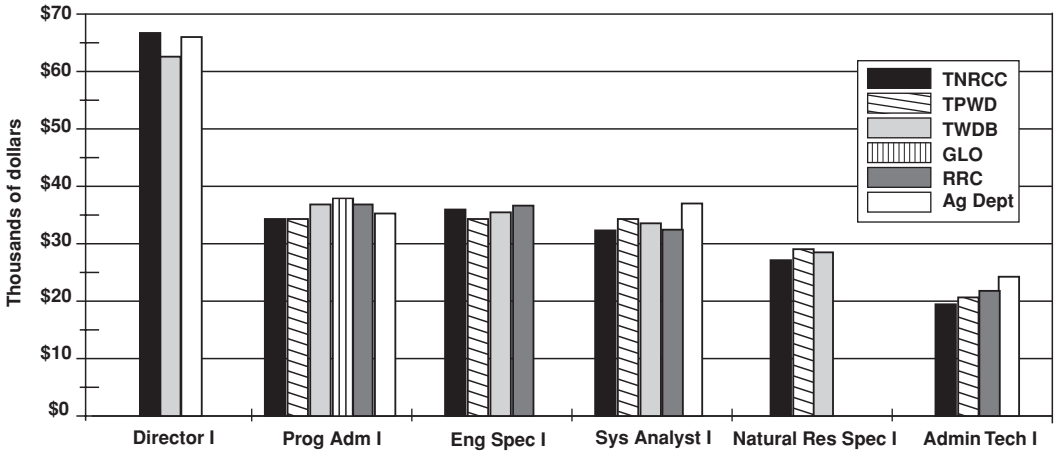


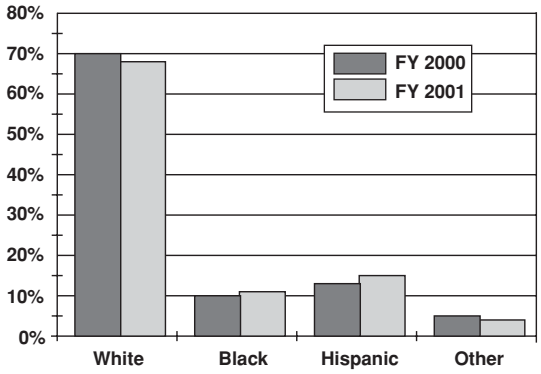
Figure 4-3
Median Salary Comparison



The TNRCC is committed to recruiting, selecting, and retaining a diverse workforce that is representative of the state's labor force. The agency aggressively seeks to identify and recruit a diverse workforce. In addition, all employees are provided equal employment opportunity training to make them aware of state and federal employment laws and regulations.

In fiscal year 2001, Blacks and Hispanics made up more than 25 percent of the agency's workforce, with other ethnic groups comprising over 5 percent (Figure 4-4). The racial category percentages remained consistent between fiscal years 2000 and 2001.

Figure 4-4
Ethnicity of Employees



Agency Workforce Compared to House Bill 1976

The table below (Table 4-2) provides an analysis of the agency's workforce, compared to the hiring goals prescribed by the Texas Commission on Human Rights (TCHR), as mandated in House Bill 1976. This table reflects the percentages representing Blacks, Hispanics, and females within the statewide civilian workforce, based on information provided and updated in a March 22, 2002 letter from the TCHR.

Training

The TNRCC places a strong emphasis on enhancing the technical and professional skills of employees. Reflecting this emphasis, members of the Human Resources and Staff Development Division perform analyses of staff development, consult with managers and executives, and conduct annual surveys to determine the training needs of employees. In designing, developing, and implementing training, these staff members also evaluate and incorporate emerging technologies, such as satellite broadcasts, computer-based training, Internet-based training, and webcasting.

Recruitment and Retention

The purpose of the TNRCC's recruitment and retention effort is to identify, recruit, and retain a multitalented and culturally diverse workforce in science, technology, engineering, computer science, and other related fields, which is representative of the citizens of Texas.

Table 4-2
Statewide Workforce According to EEOC Compared to TNRCC Workforce, FY 2001

EEO JOB CATEGORY	BLACK		HISPANIC		FEMALE	
	EEOC	TNRCC	EEOC	TNRCC	EEOC	TNRCC
Officials/Administration	7%	9.33%	11%	12.44%	31%	29.78%
Professional	9%	8.36%	10%	13.13%	47%	44.17%
Technical	14%	18.28%	18%	15.05%	39%	31.18%
Paraprofessionals	18%	23.48%	31%	26.09%	56%	89.57%
Administrative Support	19%	21.86%	27%	30.77%	80%	83%
Service/Maintenance	18%	8.33%	44%	41.67%	26%	8.33%

*Beginning FY 2001, Skilled Craft job category no longer used; replaced with Service/Maintenance.

The agency participated in approximately 84 recruitment events during fiscal years 2000 and 2001 and the first quarter of fiscal year 2002, including three out-of-state events. The agency chose these events as a way of contacting students, as well as professionals in the fields of engineering, accounting, finance, and information technology.

The agency is committed to developing employees and promoting employee advancement and initiative. Career ladders have been established for 24 out of 56 nonmanagement classification series. Approximately 80 percent of agency employees are on career ladders. The establishment of structured career progression reflects the agency's business needs and benefits the employees by having defined career advancement opportunities. Another retention tool is providing employees with opportunities for education, training, and varied types of work experience.

With a turnover rate of 14.64 percent, the TNRCC continues to struggle with the problem of recruiting and retaining qualified staff. The inability of the state to match private industry salaries is the principal cause of this problem. The TNRCC has attempted to retain staff by creating career ladders and career paths for agency staff, but success is limited when promotions are capped.

INFORMATION TECHNOLOGY

Information Technology Planning

Resource Allocation

Information Technology (IT) planning for the agency is performed by the IT Steering Committee, with the support of the IT Work Group. The Steering Committee consists of the deputy executive director and the deputy directors of each office, one of whom is the agency's information resource manager (IRM). The Steering Committee sets the strategic direction for the TNRCC IT philosophy and all IT projects to support the agency's regulatory, environmental, and administrative programs.

Following the priorities identified by the Steering Committee, the Work Group approves IT standards, allocates resources for application maintenance, performs research, and makes recommendations to the Steering Committee. The group includes the IRM, representatives from each office, and the Information Resources (IR) Division. The IRM, the Work Group, and the IR Division work together to direct the use of information technologies to support the missions of all parts of the agency.

The development of an Information Strategic Plan (ISP) in June 1995 established the direction for TNRCC's IT initiatives. The ISP provided a thorough assessment of the agency's information needs and recommendations for strategic direction. It addressed the need for integrating the data from different programs into a comprehensive picture of the environment in Texas. To achieve this goal, the Information Strategic Plan Design and Implementation project is currently under way, beginning with the development of the Central Registry system. Data identifying regulated entities from existing systems is currently being integrated into the Central Registry and a related system known as the Consolidated Compliance and Enforcement Database System (CCEDS).

Standards

With technology changing so frequently, there is an increased need to conform to industry standards, guidelines, and best practices for software development. The agency continues to use the guidelines in the Architecture Framework for Information Resources Management (AFIRM) that is published by the Department of Information Resources (DIR) for developing the technical architecture. In addition, the agency has adopted the Project Management Institute (PMI) standards for managing projects. Many of the project managers have received advanced training and obtained certification in software project management.

The TNRCC continues to use the tool known as COOL:Gen integrated computer-aided software engineering (I-CASE) to support software system development. All of the data models developed with this tool are documented and stored in a single location to ensure standards are followed. This

facilitates the reuse of these data models by subsequent projects. Implementing new features and technologies incorporated in the tool, such as component-based development and middleware for Web deployment, will continue to require resources and training.

Current Network Configuration

The TNRCC's computing environment consists of local area networks (LANs) and client/server-based UNIX systems connected via a wide area network (WAN) through 6 central campus buildings, 16 regional offices, and 7 satellite offices. The LAN systems are a mixture of Novell, UNIX, and NT file servers connected to approximately 3,485 IBM compatible (Intel-based) desktop computers.

Internet and *e*-Government

The emphasis of agency Internet efforts is to provide a secure mechanism for all TNRCC customers and environmental partners to obtain and submit data electronically. The TNRCC will be using the electronic information security and authentication standards of the State of Texas and the United States Environmental Protection Agency (EPA) to accomplish this goal. The Internet will be used to publish environmental information and information on conducting business with the agency by use of an easy-to-use consolidated interface based on a geographic information system (GIS). It will also be used to receive information from agency customers and other environmental agencies, including the electronic transfer of fees.

The TNRCC's main *e*-government initiative is the development of a consolidated electronic reporting system. The purpose of this system is to provide a common and consistent interface for TNRCC customers to use to submit data to the agency over the Web. The system will also provide a common security and archiving system. Some electronic submission applications will accept the payment of fees. The Texas Online payment gateway will be used for handling the fee payments. In addition, the electronic submission system will be linked to and from the Texas Online Web site.

Geographic Information System (GIS)

The TNRCC will increase its use of GIS to integrate data on several different types of environmental media (air, water, and waste). GIS affords a user-friendly interface through which stakeholders can obtain data on all environmental media through one source. This initiative is sustained and enhanced through the acquisition and use of highly accurate digital ortho-imagery, acquired for the entire state of Texas through cooperative agreements between state and federal agencies.

The TNRCC also plans to expand GIS Internet geographic and topographic displays. Making browser-based GIS capabilities available will also allow TNRCC program areas to improve the accuracy of geospatial data layers by identifying and correcting horizontal positional inaccuracies.

Current Capital Budget Projects

During each biennial planning and budgeting cycle, the agency includes capital projects to ensure the continued efficient operation of an information resources infrastructure that will effectively execute its core functions and business processes.

Network and Infrastructure Projects

The TNRCC operates an Information Resources infrastructure to directly support its regulatory and environmental mission. Daily operations support the baseline operations of the agency, as well as replace and enhance the agency's existing technology infrastructure by developing systems. Daily operations are further defined as the installation, configuration, operation, maintenance, and planning that is associated with computer hardware, operating systems, applications software, voice and data networks that support core agency business and administrative processes.

Capital project functions and processes require the ability to capture, archive, and analyze significant amounts of data to serve the public and agency-regulated entities. Without the full

operation of the installed information resources infrastructure, the agency could not accomplish its mission. The following represent a sample of the types of infrastructure projects for which strategic planning and budget allocations are often required for daily operations:

- upgrade of servers (hardware);
- acquisition of tools for capacity planning, hardware and software;
- replacement and upgrade of data center equipment; and
- acquisition of GIS spatial data.

Planning and Implementation of Personal Computers

The Information Resources Division continues to enhance and replace aging equipment in the agency's technology infrastructure to allow for safe and secure processing, storage, and usage of agency information. A hardware replacement schedule was developed and is being implemented. The PC Replacement project is part of this schedule.

Software Development Projects

Central Registry

In the TNRCC Information Strategic Plan, the Central Registry is the foundation data integration project. The Central Registry creates an information system containing the agency's core data used by all agency functions, including: planning, permitting, enforcement, legal, administrative, and remediation. In other words, the Central Registry will collect together the "who," "what," and "where" information about the entities regulated by the TNRCC. Each entity, facility, and site regulated by TNRCC will be represented in the system by a unique identification number that allows the presentation of information across all environmental media—air, water, waste. The purpose of this project is to place core data maintained in various existing systems into one central location where the core data can be centrally administered for quality assurance and efficient retrievability.

Analysis for enhancements to the completed Central Registry system was conducted in the third and fourth quarters of fiscal year 2001. Currently, the migration of legacy core data to the Central Registry is being completed.

Consolidated Compliance and Enforcement Database System (CCEDS)

There are currently more than 30 discrete databases in the Field Operations and Enforcement Divisions that are used to monitor compliance information. Because these databases cannot be linked to one another and do not track the same type of data, a request for information that requires access to each of these databases can require excessive staff resources and can delay responses. The Consolidated Compliance and Enforcement Database System (CCEDS) will provide a more efficient and effective way to track and review air, water, and wastewater compliance and enforcement data for all entities regulated by the TNRCC. CCEDS also provides a way to promptly respond to inquiries from the general public and the regulated community. This database is specifically identified as a "strategic" project in the agency's Information Strategic Plan.

The CCEDS project is beginning the implementation of Phase I components. Four of the five identified components in Phase I were deployed to the first regional office in November of 2001. CCEDS is expected to be in all regional offices by August of 2002, and the deployment to central campus will follow. The August 2002 date to complete regional deployment is an update to the May 2002 date reported in the December 2001 Biennial Operating Plan.

Fiscal Services Systems (FSS)

The primary goal of the FSS effort is to redevelop the DOS applications supporting the current automated budgeting and reporting systems and to integrate them with the other fiscal services processes, such as e-procurement. The general objective is to create controlled data entry opportunities to the budgeting system that will enable the Budget and Planning Division and the Financial Reporting Section to provide more timely and supportable budgeting and reporting information.

The FSS effort consists of a series of small- to medium-sized redevelopment projects. Each project will focus on the redevelopment of a function or group of functions, currently being processed with DOS tools, in the Budget and Planning Division and the Financial Reporting Sections of TNRCC.

Though only recently started, the work on this project has already provided some use of the current year's financial data, which is contained in the newly developed Oracle database, to financial administration staff members. A system requirement is in development for the Budget and Planning Division's automated budget system (Paradox DOS) tables.

Historically Underutilized Businesses (HUB) Reporting

This project is scheduled to begin in March 2002. The current system that captures HUB information must be improved upon through automation to ensure the agency meets reporting requirements. The tasks are currently performed in manual processes that gather the information from several Paradox DOS database systems. This project seeks to develop a system that will gather all of the necessary elements into one technologically current database system.

New Source Review (NSR) and Title V Integration

This air permitting project incorporates data from minor New Source Review (NSR) permits for sources not related to Title V of the federal Clean Air Act into the existing Title V (Operating Permits) database. The project also enhances the Title V portion of the database consistent with federal rule revisions in December 2001. Upon completion, a single database will exist to support all air permitting activities and data requests, as well as to facilitate development and implementation of an integrated air permit.

Subject matter experts from NSR and Title V met to identify the similarities and differences between the two programs with respect to the existing Title V business model. Issues identified during this process were addressed prior to entering the analysis phase, which began in January 2002.

Noncontinuous Air Monitoring Information System (NCAMIS)

The primary objective of the NCAMIS project is to develop a multi-user information system to manage atmospheric volatile organic compound (VOC) data collected by a network of noncontinuous air samplers called the Multi-Canister (MC) Network. This system will include a multi-user relational database, a client graphical user interface (GUI), and applications to produce standard reports. MC data is currently managed in a single-user PC-based system.

Development of a prototype database and user interface was completed in Phase 1. The project is currently in the software requirements specification stage of Phase 2. The project data model has undergone review and is being revised to address recommendations resulting from the review and to meet new federal EPA data reporting requirements.

Waste and Wastewater Consolidation (WWC)

A joint software development project for consolidating the data used by the waste and wastewater programs found in the Office of Permitting, Registration, and Remediation involves two offices that no longer exist — the Office of Waste Management and Office of Water Resource Management (OWM/OWRM). The focus of the Waste and Wastewater Consolidation (WWC) project is to develop an integrated database that: upgrades databases currently maintained in either antiquated or stand-alone desktop systems, or both; facilitates the streamlining and standardization of state and federal legislative directives; eliminates duplicate data tracking; interfaces with existing agency databases, GIS, and electronic reporting initiatives; and supports agency goals and strategies which protect human health and the environment.

The system includes three phases:

- **Phase III**: Electronic reporting (pilot). Complete.
- **Phase II**: Graphical information system interface (pilot). Complete.
- **Phase I**: Database consolidation of legacy system integration (LSI). Currently all but one component (contracts) are complete and meet the requirements for the project. Environmental data management requires additional enhancements to be compatible with three larger legacy system requirements. The system, implemented in

October of 2000, is currently in use by seven permitting programs within the agency. Migration continued during the first quarter of the 2002-2003 biennium for six smaller permitting programs. Analysis for a contracting component began in fiscal year 2001. Design and construction will be completed with internal and external resources by August 31, 2002.

Timekeeping System Replacement Acquisition (TSRA)

The purpose of this project is to acquire a timekeeping system that uses a comprehensive commercial off-the-shelf software package. Legacy data will be migrated into the new system. The new system will — together with custom modifications if necessary — effectively manage the timekeeping needs of TNRCC. The new system will also provide tracking of labor distribution, work, and leave hours.

State Implementation Plan-Emissions Data Management System (SIP EDMS)

Due to the upcoming Consolidated Emissions Reporting Rule (CERR) proposed by the EPA, the agency is in need of a central repository to efficiently receive and store statewide area and mobile source (AMS) emissions inventory data. CERR will require statewide reporting of TNRCC data on AMS emissions, and near-nonattainment areas. This data is needed by all potential users involved with State Implementation Plan (SIP) development, photo-chemic modeling, EPA emissions reporting and public information requests.

The SIP Emissions Data Management System (EDMS) project will consist of the development of an emissions data management system and delivery of AMS EI data and inventory development methodologies throughout the agency via the Intranet. Service will be provided to external customers by use of prescribed queries via the Internet.

This project is under the supervision of the Technical Analysis Division of the agency. Functional and data requirements have been identified and documented, and the initial version of the data model has been completed and reviewed by the division's SIP EDMS project team.

Source Water Assessment and Protection Program (SWAP)

Under the Safe Drinking Water Act Amendments (SDWA) of 1996 (P.L. 104-182), the TNRCC is required to assess all source waters for susceptibility to contamination no later than May 31, 2003. This project will build upon the existing and successful Vulnerability and Wellhead Protection Program. Online access to information critical to agency decision making will be provided, which should speed up information-gathering required for processing actions requested by Utilities, Water Systems and Districts. The system will also greatly automate the process of gathering information required for EPA reporting. Current EPA reporting is done through a combination of electronic and manual reporting formats.

An additional component of this project is a digital hydro-geologic atlas for aquifers of Texas. The objective of this component is to produce digital data-sets on a CD-ROM of aquifer properties for 40 major and minor aquifers of Texas. The spatial data sets will be limited to aquifer properties used by the Texas Source Water Assessment Protection (SWAP) for each aquifer, but generally will include hydraulic conductivity, effective porosity, thickness, and altitude information, along with source documents or databases and project information.

The USGS is nearing the stage that will entail testing software functionality. The SWAP staff is finalizing the Potential Source of Contamination (PSOC) database design and have finished the contaminant assignment database for each of the PSOC data sets. These contaminant databases were developed through EPA studies, USGS modification of the EPA data sets, and research from other sources. Additional PSOC Data sets from the Comptroller of Public Accounts have been used, and locations have been matched for latitudes and longitudes. This work resulted in more than 44,000 PSOC records from many different sources.

State of Texas Air Reporting System (STARS)

The State of Texas Air Reporting System (STARS) system was designed to store all emissions inventory data from area, mobile, and point

sources. It is a replacement for a large subset of the existing Point Source Database (PSDB) and therefore constitutes approximately 60 percent of a PSDB reengineering effort. The database will be used to store, track, and retrieve information concerning emissions, and attributes of emission generating, abating, and emitting equipment. Business requirements dictate that the agency maintain the historical emissions data it has collected in the legacy system.

The system will ultimately provide for electronic submission of a majority of the point source accounts. The system will improve the agency's ability to collect and retrieve such data. Companies will be able to electronically submit data, using their own submission programs. The new system is designed to be more flexible and to allow the storage of the special inventories collected by the section to support State Implementation Plan (SIP) modeling.

The data model, database, and access windows used to modify the data are complete and tested. The tool to migrate data is complete, and the migration of data has begun. It will be finished as the current inventory is completed. Features have been added that will ease data entry, reformat data, and maintain integrity of historical and previously assessed data.

Web-STEERS

This project is a Web-based application called Web-STEERS (State of Texas Environmental Reporting System) to replace the old STEERS application. The Web version will have the same functionality of the earlier version written in Delphi. The technical architecture, hardware and software configurations are different in the Web application. The new application will run on a TNRCC server rather than the customer's. The customer will need a PC with an Internet connection and an e-mail account to use Web-STEERS. Some additional program-related information, such as the Petroleum Storage Tank (PST) self-certification program, may be included in the development.

Successes

Infrastructure Projects

Several network upgrades have been accomplished over the last year including upgrades to increase bandwidth and balance the agency network load. As a part of the agency initiative to enhance and replace aging equipment in the agency's technology infrastructure, PC replacement and server upgrade projects are ongoing, with five new Unix servers and four new NT servers being implemented last year.

Several software upgrades in support of the agency infrastructure have also been completed, including an upgrade of the agency e-mail system, agency standard report generation software, and tracking software for computer problems used by the Information Resources Call Center.

Software Projects

FCAA Title V (Federal Clean Air Act) Information Management System

The FCAA Information Management System is a computerized system that supports the TNRCC implementation of the Federal Operating Permits Program (Title V) mandated by the Federal Clean Air Act Amendments of 1990. This project was completed in fiscal year 2001.

Partnership 2000

The Partnership 2000 and Integrated Grants Management System is a streamlined, electronic solution that reengineered and automated the grant management process for EPA and state partners.

Phase I of the Partnership 2000 pilot project, accomplished in August 1999, included the development of an automated grants processing and tracking system between the EPA and the states, with TNRCC being one of five state pilot agencies. This phase completed the primary system design, testing, and initial production of several grants with TNRCC.

Phase II implemented the Integrated Grants Management System. This phase began in September 1999 and continued through August of 2001

as the TNRCC expanded the use of the system to 50 percent of the grant activity with EPA.

In fiscal year 2002, Phase III will move the agency to full processing and tracking for all EPA grants — from application through closeout.

Water Availability Modeling (WAM)

The water availability modeling project was developed to meet legislative requirements. Supported by consultants and contractors in the private and academic sectors, the agency coordinated with the Texas Water Development Board and the Texas Parks and Wildlife Department to develop models that will help determine water availability, provide information about available surface water, and provide other hydrologic information. This information will be used by the TNRCC, regional and state water planners, and individual water rights holders to facilitate statewide water planning and drought management decisions.

In November of 2001, 10 Engineering Water Availability Models (WAMs) were completed. Naturalized flow data sets were also finished, with GIS watershed parameters developed for the remaining 12 WAMs and preliminary or final models constructed for submission in December of 2001. As of November 2001, the Water Availability Modeling Database is in production. This database incorporates both Water Rights permits and Watermaster Accounting components. The next phase of the project will include development of reports and system interfaces for additional requirements, with a start date of September 1, 2002.

Water Utilities Database System (WUD)

The Water Utilities Database System (WUD) has replaced existing systems from three functional areas within the Water Utilities Division. The new application facilitates data sharing and provides data tracking and reporting requirements of the Safe Drinking Water Act (SDWA) national primary drinking water regulations, as agreed to in the State/EPA Primacy designation. This project was completed in fiscal year 2001.

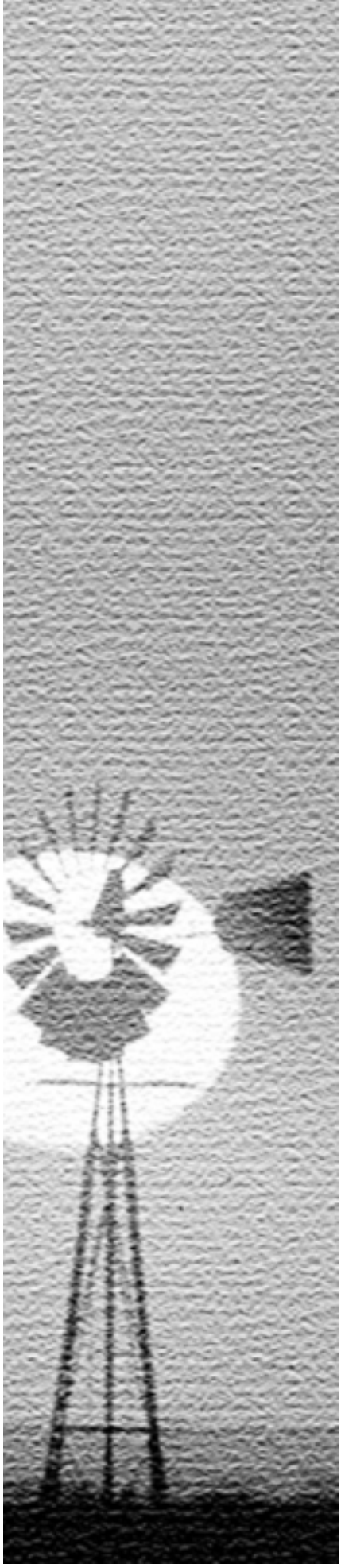
Initiatives

The agency's executive management team, the information resource manager (IRM), and members of the Information Technology Steering Committee (ITSC) will continue to enhance and maintain the major software systems that support the agency's regulatory, environmental, and administrative programs. The agency's Information Strategic Plan (ISP) will be reviewed to identify further changes that are required to enhance and maintain the critical software systems supporting the agency programs.

Traditionally, software systems were developed, enhanced, and maintained by in-house technical staff. This approach alone is no longer viable because it has become increasingly difficult to maintain the trained senior-level technical staff required to administrate these large complex software systems. The agency has proceeded with a strategy to complete maintenance using a combination of in-house staff and contractor services.

The agency is developing a strategy to replace the aging small software systems that support the agency's administrative functions. The redevelopment of these small systems is expected to improve functionality, staff productivity, and reduce technical maintenance time. This effort has included the redevelopment of several small DOS applications that support administrative functions within the Commissioner's Office. These applications can be found in the current Financial Services System project and in the HUB redevelopment project slated to begin in March of 2002.

The agency's executive management team, the IRM, and the ITSC members continue to direct and support the ISP as written. The Information Resources Division continues to carry out the direction of the ISP and the directives of the ITSC in its efforts to enhance and replace aging equipment in the agency's technology infrastructure to allow for safe and secure processing, storage, and usage of agency information.



PART IV: APPENDIXES

A. Strategic Planning Process

B. TNRCC Organization Chart

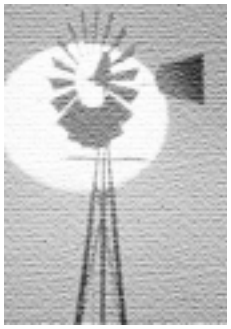
C. Outcome Projections

D. Measure Definitions

E. Workforce Plan

F. Survey of Organizational Excellence

G. Information Resources Strategic Plan



APPENDIX A AGENCY PLANNING PROCESS

This strategic plan highlights the TNRCC's dedication to continually improve the conservation and protection of our state's natural resources.

To prepare this strategic plan, the TNRCC brought together the talents, expertise, and efforts of a broad group of individuals, including the commissioners, senior and middle management, and rank-and-file employees. Each office and division actively participated in the development of this plan.

While building upon the accomplishments of the past, the TNRCC also aimed to increase the readability of this report. Sections have been regrouped under new headings. There are also other organizational changes to make the document more user friendly. For example, the performance measures section now includes a preface explaining the significance of measure reporting and the elements found within measure definitions. The 2003—2007 edition of Volume 1 also has a new name, *State of the Agency*.

This strategic plan continues to provide a summary of the agency's long history, the court decisions that have shaped how programs are administered today, and a section that should help the regulated community and the public efficiently contact the agency. All of these sections have been updated to reflect the changes of events and technology over the past years. In particular, the contact information for the TNRCC now includes information on the agency Web site and e-mail addresses for ease of electronic communication.

This strategic plan has a "Major Events in TNRCC History" section, which describes the gradual evolution of the TNRCC and its predecessor agencies—from protecting the right of access to water in 1913 to today's broader role of protecting public health and conserving natural resources for future generations.

To understand how programs are shaped by recent judicial decisions, the Office of Legal Services has prepared and updated the "Significant and Pending Court Cases" section. This legal history is intended to provide a summary of those court cases that have affected the agency in the recent past and those that may affect the agency in the near future.

The "Current Organization" section was revised by each division to reflect the changes in roles and responsibilities as a result of the recent reorganization of the agency. It created the Water Quality and Water Supply divisions by redistributing responsibilities from the Water Permits and Resource Management division.

The chief financial officer updated the "Financial Status and Outlook" section of the strategic plan to reflect the current and long-term funding requirements of the agency.

The Human Resources and Staff Development Division has provided new information in the "Workforce Summary" section to identify and summarize agency efforts in recruiting, selecting, and retaining a diverse workforce that is representative of the state's labor force. A comprehensive "Workforce Plan" in Appendix E is a new initiative that explains how the agency plans to address the expected shortages of skilled workers and other resources needed to carry out the mission of the agency. The workforce plan is included in this strategic plan under guidelines developed by the State Auditor's Office (SAO), and as required by Senate Bill 587 of the 77th Legislature. The workforce plan will also be provided as a stand-alone report to the SAO.

The "Historically Underutilized Businesses" section has been updated by the Financial Administration Division to show the agency's efforts in awarding procurement and contracting opportunities to minority and women-owned businesses. This section also includes a summary of the agency's strategies to increase future participation of HUBs.

The "Facility Infrastructure" section of the strategic plan was amended by the Office of Administrative Services and the Field Operations Division to account for the agency's current physical assets and future capital improvement needs.

With advice and assistance from the Information Resources Division, the Information Technology (IT) Workgroup, which is composed of representatives from each office, and the IT Steering Committee, which is composed of representatives from each office, completed both the "Information Technology" section of this strategic plan and the "Information Resources Strategic Plan" in Appendix G.

The "State and Federal Issues" section was updated by the Office of Environmental Policy, Analysis, and Assessment (OEPAA) to reflect changes in state law enacted by the 77th Legislature and changes to identify federal issues affecting the administration of federally delegated programs.

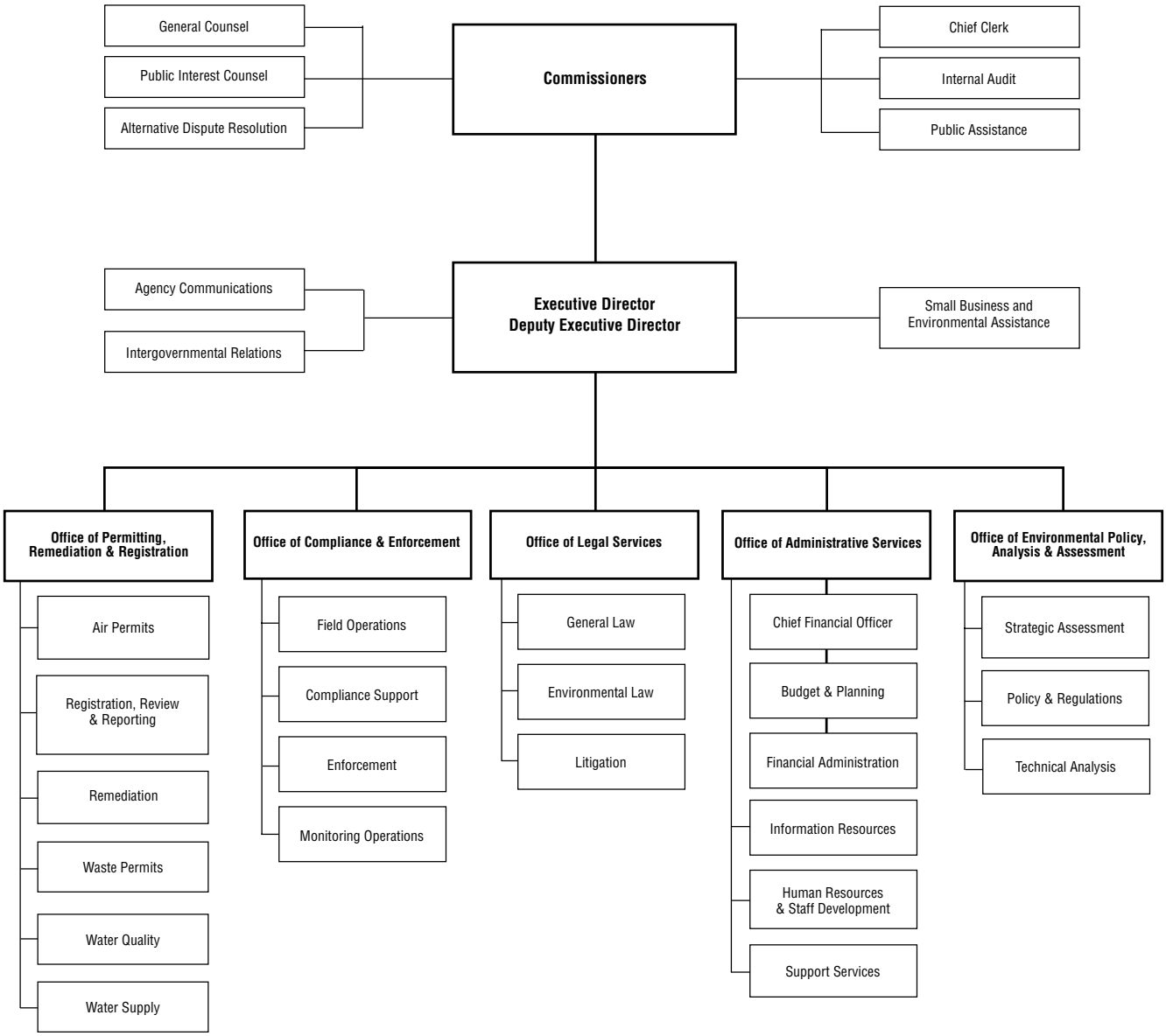
In addition, the Office of Environmental Policy, Analysis, and Assessment (OEPAA) has prepared two reports that will supplement Volume 1 of the strategic plan, *State of the Agency*.

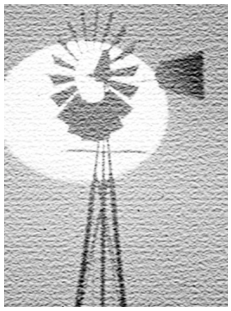
Volume 2, *State of the Environment,* features a review of the environmental conditions of each geographic region of the state and the TNRCC's response to the conditions found. This information was compiled by the Strategic Environmental Analysis (SEA) Group, which was established in October 1998 to provide environmental strategic planning information to complement the agency's existing budgeting and strategic processing process. The SEA Group analyzes environmental data to determine the causes of apparent trends and to facilitate preparation and planning for future environmental problems.

Volume 3, *State of the Rio Grande and the Environment of the Border Region,* was prepared by OEPAA's Border Affairs division. It describes the border environment as it exists from the perspective of border residents. The report uses information that the TNRCC and other agencies have collected and assessed over time. The TNRCC intends to update and publish the border report on an annual basis.

APPENDIX B
TNRCC
ORGANIZATION CHART

MAY 2002



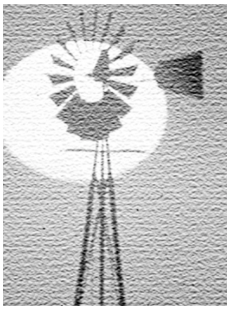


APPENDIX C
OUTCOME PROJECTIONS
FISCAL YEARS 2003-2007

The measures below had not received formal approval from the LBB/GOBP at the time of this printing.

Goal/Obj	Outcome Measure	2003	2004	2005	2006	2007
01–01.01	Annual percent of stationary and mobile source pollution reductions in nonattainment areas	6%	6%	6%	6%	6%
01–01.02	Nitrogen Oxides (Nox) emissions reduced through the Texas Emissions Reduction Plan (in tons per day)	7.04	7.04	7.04	7.04	7.04
01–01.03	Percent of Texans living where the air meets federal Air Quality Standards	33%	33%	33%	33%	33%
01–01.04	Annual percent reduction in pollution from permitted wastewater facilities discharging to the waters of the state	0.8%	0.8%	0.8%	0.8%	0.8%
01–01.05	Percent of Texas surface waters meeting or exceeding water quality standards	79%	80%	80%	81%	81%
01–01.06	Annual percent reduction in disposal of municipal solid waste per capita	1.5%	1.5%	1.5%	1.5%	1.5%
01–01.07	Annual percent decrease in the toxic releases in Texas	2%	2%	2%	2%	2%
01–01.08	Annual percent decrease in the amount of municipal solid waste going into Texas landfills	(2%)	(2%)	(2%)	(2%)	(2%)
01–01.09	Tons of air emissions and waste reduced and minimized as identified by site assistance visits, Pollution Prevention, and Environmental Management Systems Program training	40,000	60,000	90,000	90,000	90,000
01-01.10	Amount of financial savings achieved by the regulated community as identified by site assistance visits, pollution prevention training and environmental management systems programs.	$25,000,000	$30,000,000	$35,000,000	$35,000,000	$35,000,000
01-01.11	Tons of emissions and waste reduced and minimized for the Texas-Mexico border region as identified by site assistance visits and Pollution Prevention and Environmental Management Program training.	10,000	10,000	10,000	10,000	10,000
01–02.01	Percent of Texas population served by public water systems which meet drinking water standards	97.5%	95%	95%	95%	95%
01–02.02	Percent of Texas public water systems protected by a source water protection program	72%	78%	80%	82%	85%
01–02.03	Percent of Texas population served by public water systems protected by a program which prevents connection between potable and non-potable water sources	91%	92%	93%	93.5%	94%
02–01.01	Percent of inspected or investigated air sites in compliance	97%	97%	97%	97%	97%

02–01.02	Percent of inspected or investigated water sites and facilities in compliance	98%	98%	97%	97%	97%
02–01.03	Percent of inspected or investigated waste sites in compliance	98%	98%	97%	97%	97%
02–01.04	Percent of identified noncompliant sites and facilities for which appropriate action is taken	85%	85%	85%	85%	85%
02–01.05	Percent of inspected or investigated occupational licensees in compliance	86%	86%	86%	86%	86%
03–01.01	Percent of leaking petroleum storage tank sites cleaned up	85%	82.2%	85.8%	89.4%	92.9%
03–01.02	Percent of Superfund sites cleaned up	56.7%	52.1%	52.6%	53%	55.2%
03–01.03	Percent of voluntary and brownfield cleanup properties made available for commercial/industrial redevelopment, community, or other economic reuse	16%	14%	14%	12%	12%



APPENDIX D
MEASURE DEFINITIONS

The state of Texas uses a set of organized procedures known as the "Strategic Planning and Budgeting System," in which funding and other decisions are based upon what an agency is *accomplishing*, rather than just what they are doing. As an important element of the monitoring phase of budgeting, *performance measures* serve as specific targets that indicate the success in achieving agency goals.

Introduction to Performance Measures

There are four types of performance measures:
1. Outcome Measures are tools used to assess the effectiveness of an agency's effectiveness in serving its customers and in achieving its mission and goals. An outcome measure is typically expressed as a percentage, rate, or ratio.
2. Ouput Measures are tools, or indicators, to count the services and goods produced by an agency. They are helpful in assessing agency workload and demand for services as well as agency efforts to address those demands. The number of people receiving a service and the number of services delivered are often used as measures of output.
3. Explanatory Measures reflect the agency's operating environment and explain factors that are relevant to the interpretation of other agency measures.
4. Efficiency Measures are indicators which quantify costs, unit cost, or productivity associated with a given outcome or output.

Measure Definitions

The definition of a performance measure follows a format prescribed by the Texas Legislative Budget Board. The components of a measure are as follows:

- **Short Definition:** Provides a brief explanation of the measure, with enough detail to give a general understanding of the measure.
- **Purpose/Importance:** Describes the intended purpose of the measure and its significance.
- **Source/Collection Data:** Describes the source of the data or information and how it is collected.
- **Method of Calculation:** Clearly specifies how the measure is calculated.
- **Data Limitations:** Identifies any limitations and factors beyond the control of the agency which may impact reported performance.
- **Calculation Type:** Specifies whether the information is cumulative or non-cumulative from quarter to quarter.
- **New Measure:** Identifies whether the measure is new or has been significantly changed.
- **Desired Performance:** Clarifies whether the optimal level of performance is higher, near, or lower than projections.

The following is a listing of the TNRCC's performance measures and their definitions for fiscal year 2002. The performance measures and definitions below have not received formal approval from the Legislative Budget Board (LBB) and the Governor's Office of Budget and Planning (GOBP) at the time of this printing.

PERFORMANCE MEASURES AND DEFINITIONS — FISCAL YEAR 2003

(The performance measures and definitions below have not received formal approval from the LBB/GOBP at the time of this printing.)

Outcome 01–01.01	**Annual percent of stationary and mobile source pollution reductions in nonattainment areas**

Short Definition: This measure quantifies changes in criteria pollutants or precursors for criteria pollutants for which the area has failed to meet a national standard from sources within nonattainment areas.
Purpose/Importance: The measure reflects trends of criteria emissions in the nonattainment areas showing pollution changes in areas that have failed to meet national emission standards. These changes are potential indicators of strategies put in place to reduce emissions which will result in meeting attainment status.
Source/Collection of Data: The sources of data include the annual inventory of major stationary point sources and the inventory of minor point sources and mobile sources that occurs every three years.
Method of Calculation: This measure is calculated by subtracting emissions data totals of the most recent emissions inventory from the total emissions figures of the previous year, divided by a base year emissions according to pollutant type. This measure is calculated on a calender year (January 1 through December 31) basis because data cannot be quality-assured in a timely manner so that it is available on a fiscal year basis.
Data Limitations: The lack of consistency between the current methods of conducting emissions inventories for major stationary point and minor stationary point and mobile emissions results in the inability to compile detailed annual trend analyses.
Calculation Type: Non-cumulative.
New Measure: No.
Desired Performance: Above projections.

Outcome 01–01.02	**Nitrogen Oxides (NOx) emissions reduced through the Texas Emissions Reduction Plan (TERP)**

Short Definition: This measure is intended to show the amount of NOx emissions reduced through implementation of the TERP incentive grants for cleaner on- and off-road diesel engines.
Purpose/Importance: The TERP program was established by the 77th Legislature (Senate Bill 5) to offset emission reductions required of construction equipment operation and required accelerated purchase of cleaner diesel engines by providing incentives purchase or retrofit of cleaner on- and off-road diesel engines.
Source/Collection of Data: Emissions reduced is the difference between emissions estimated for current equipment and emissions from new purchase or retrofit equipment as reported by grant recipients over the life of the projects.
Method of Calculation: Tons per year NOx reduced is generated by totaling the annual emissions reduction reported by each grant recipient and is expressed as tons per day reductions.
Data Limitations: None identified; grant recipients are required to report emissions reduced by the funded projects. These reductions will most likely occur in the Houston/Galveston and Dallas/Fort Worth areas. However, both the Commission and the TERP advisory board can recommend going out beyond these two areas.
Calculation Type: Non-cumulative.
New Measure: Yes.
Desired Performance: Above projections.

Outcome 01–01.03	**Percent of Texans living where the air meets federal Air Quality Standards**

Short Definition: Percent of Texans living where the air meets federal Air Quality Standards.
Purpose/Importance: This measure reflects compliance with federal Air Quality Standards.
Source/Collection of Data: Population in counties in metropolitan areas that exceed federal air quality standards.
Method of Calculation: The percentage of Texas population in areas meeting federal clean air standards is measured by identifying the population within the counties in which the federal standards are being exceeded and subtracting this population figure from the statewide total population figure. This number is then divided by the total population

and multiplied by 100 to derive a percentage. Population for Texas and Texas counties are taken from the most recent yearly population estimates released by the Texas State Data Center. This measure is calculated on a calendar year (January 1 through December 31) basis because data cannot be quality-assured in a timely manner so that it is available on a fiscal year basis.
Data Limitations: None identified.
Calculation Type: Non-cumulative.
New Measure: No.
Desired Performance: Near projections.

Outcome 01–01.04	**Annual percent reduction in pollution from permitted wastewater facilities discharging to the waters of the state**

Short Definition: Annual percent reduction in pollution from permitted wastewater facilities discharging to the waters of the state
Purpose/Importance: This measure reflects the reduction in the pollution load from all facilities discharging to the waters of the state.
Source/Collection of Data: Using a TNRCC data base maintained by the Permits Administrative Review Section of Registration, Review & Reporting Division, the Water Quality Division staff will report the total permitted pounds per day of the Five Day Biochemical Oxygen Demand (BOD5) or the Five Day Carbonaceous Biochemical Oxygen Demand (CBOD5) and the total permitted flow for the month of June of each year.
Method of Calculation: The total permitted pollution load from all facilities discharging to the waters of the state will be divided by the total permitted discharge flow to the waters of the state. The permitted pollution load will be subtracted from the previous year's permitted pollution load divided by the previous year's permitted pollution load, and multiplied by 100 to determine the percent reduction from the previous year.
Data Limitations: None identified.
Calculation Type: Non-cumulative.
New Measure: Yes.
Desired Performance: Above projections.

Outcome 01–01.05	**Percent of Texas surface water meeting or exceeding water quality standards**

Short Definition: Using the most recent Texas Water Quality Inventory, the agency will calculate the percentage of state waters meeting designated site-specific standards, as defined in the Texas Surface Water Quality Standards, for each major water body type. These numbers are then averaged in order to develop a single statewide percentage. Calculated annually.
Purpose/Importance: The Texas Surface Water Quality Standards establish explicit numerical goals for water quality in the surface waters of Texas. The extent to which water quality standards are attained is a direct environmental measure of water quality in Texas rivers, reservoirs, and estuaries.
Source/Collection of Data: Water quality data is collected by TNRCC and other agencies in Texas and compiled into a TNRCC database. This data is assessed for standards compliance in the Texas Water Quality Inventory and in the Texas 303(d) list of impaired waters. Numerical standards are listed in The Texas Surface Water Quality Standards, Chapter 307 of title 30 of the Texas Administrative Code. Additional screening criteria are listed in TNRCC Guidance for Screening and Assessing Texas Surface and Finished Drinking Water Quality Data.
Method of Calculation: Standards attainment is determined from data printouts which incorporate information in the TNRCC Texas Water Quality Inventory [305(b) Report] and the Texas 303(d) list of impaired waters. Calculations to update the statewide totals from this segment-by-segment information are conducted by the Water Quality Monitoring Team. Using this information, the percent of waters meeting water quality standards is calculated separately for rivers, reservoirs, and estuaries. For this calculation, the percent meeting standards = 100 x ("amount supporting"+ "amount

partially supporting") / "total amount assessed"; where "total amount assessed" = "amount supporting" + "amount partially supporting" + "amount not supporting"; "amount" = miles for rivers, acres for reservoirs, and sq. miles for estuaries. The overall percent of waters attaining standards for the state is then calculated as (% of rivers meeting standards + % of reservoirs meeting standards + % of estuaries meeting standards) / 3.
Data Limitations: Several years of data are typically needed to assess standards compliance in each water body. Therefore, the rate of change of this measure is relatively slow. In addition, the extent of standards compliance can be affected by changes in the procedures for assessing attainment rather than by actual changes in instream water quality. Results can also be artificially affected by the continuing increase in the number of water bodies which are sampled for standards compliance. Even with these limitations, standards compliance is generally an effective environmental indicator on a statewide basis.
Calculation Type: Non-cumulative.
New Measure: No.
Desired Performance: Above projections.

Outcome 01–01.06	**Annual percent reduction in disposal of municipal solid waste per capita**

Short Definition: The annual percent reduction in the amount of municipal solid waste disposal in the state per person.
Purpose/Importance: To provide a general indicator of the effectiveness of statewide solid waste reduction and planning efforts.
Source/Collection of Data: Waste disposal data obtained through the annual reporting program for municipal solid waste landfills is used. In addition, population estimates from the Texas State Data Center are used (i.e., July 1 estimates for the year of report, 1.0 Growth Scenario).
Method of Calculation: Per capita rates are determined by dividing total annual disposal amounts for the state by total annual population for the state. The percent reduction is determined by the formula: (current rate - previous rate)/previous rate • 100.
Data Limitations: Population estimates are used, assuming a certain growth scenario. Although population growth has a direct affect on solid waste generation, economic factors are also important and are not currently considered in the calculation. In addition, only about 41% of total waste disposal is determined by actual scale weight, with the majority of waste disposal in the state determined by volume estimates.
Calculation Type: Non-cumulative.
New Measure: No.
Desired Performance: Above projections.

Outcome 01–01.07	**Annual percent decrease in the toxic releases in Texas**

Short Definition: Annual percent decrease in the toxic releases in Texas.
Purpose/Importance: This measure reflects industry efforts to make reductions in their toxic releases.
Source/Collection of Data: Using the adjusted data reported in the annual Toxic Release Inventory, the amount of toxic releases during the reporting period, to air, land, and water will be subtracted from the previous year's level, and this difference will be divided by the previous year's level and multiplied by 100 to calculate the percent reduction.
Method of Calculation: Using the adjusted data reported in the annual Toxic Release Inventory, the amount of toxic releases during the reporting period, to air, land, and water will be subtracted from the previous year's level, and this difference will be divided by the previous year's level and multiplied by 100 to calculate the percent reduction.
Data Limitations: Data depends on the timely retrieval of information from the Toxic Release Inventory maintained by the EPA.
Calculation Type: Non-cumulative.

PERFORMANCE MEASURES AND DEFINITIONS — FISCAL YEAR 2003

(The performance measures and definitions below have not received formal approval from the LBB/GOBP at the time of this printing.)

New Measure: No.
Desired Performance: Above projections.

Outcome 01–01.08	**Annual percent decrease in the amount of municipal solid waste going into Texas landfills**

Short Definition: Annual percent decrease in the amount of municipal solid waste going into Texas landfills
Purpose/Importance: This measure reflects conservation efforts to reduce the amount of solid waste going into Texas landfills.
Source/Collection of Data: The percent decrease in the amount of municipal solid waste (MSW) going into Texas landfills will be computed by subtracting the amount in tons for the reporting period from the amount in tons for the previous year. This difference will then be divided by the amount in tons for the previous year and multiplied by 100 to determine the percent decrease. The disposal amount in tons is based on the most current set of complete data obtained through annual reports required for all permitted MSW facilities.
Method of Calculation: The percent decrease in the amount of municipal solid waste (MSW) going into Texas landfills will be computed by subtracting the amount in tons for the reporting period from the amount in tons for the previous year. This difference will then be divided by the amount in tons for the previous year and multiplied by 100 to determine the percent decrease. The disposal amount in tons is based on the most current set of complete data obtained through annual reports required for all permitted MSW facilities.
Data Limitations: Due to the continued growth in population in the state, there will more than likely not be a decrease in municipal solid waste going to landfills despite the best efforts to encourage recycling and reuse for some time to come.
Calculation Type: Non-cumulative.
New Measure: No.
Desired Performance: Above projections.

Outcome 01-01.09	**Tons of emissions and waste reduced and minimized as identified by site assistance visits and Pollution Prevention and Environmental Management Program training**

Short Definition: Tons of air emissions and waste reduced and minimized by the regulated community implementing strategies identified by Pollution Prevention and Environmental Management staff during technical site assistance visits and Pollution Prevention and Environmental Management training.
Purpose/Importance: This measure provides an indication of Pollution Prevention and Environmental Management staff's ability to encourage the regulated community to implement pollution prevention and waste minimization practices and technologies. The measure provides a measurable indicator of emissions and waste reduced and minimized in Texas as a result of pollution prevention/waste minimization and environmental management system implementation efforts.
Source/Collection of Data: Implemented projects and emission and waste reduction information are documented for facilities who have participated in pollution prevention and environmental management, Resource Exchange Network for Eliminating Waste (RENEW) Workshops and site assistance visits. Provided by participating entities through voluntary surveys, reduction information is collected by Pollution Prevention and Industry Assistance staff and entered into a Paradox database.
Method of Calculation: Tons of hazardous waste, tons of nonhazardous waste, tons of air emissions decreased, and tons of RENEW materials transferred during the reporting period is calculated and compared to the previous year's level. Each reporting facilities' reductions totals are then summed to calculate total tons reduced.
Data Limitations: Reduction information is provided by businesses on a voluntary basis. Tons of emissions and waste prevented/minimized is based on previous year's data. Expanding facilities must often rely on estimates to determine a reduction number during periods of increased production.
Calculation Type: Non-cumulative.

New Measure: Yes.
Desired Performance: Above projections.

Outcome 01–01.10	Amount of financial savings achieved by the regulated community as identified by site assistance visits, pollution prevention training and environmental management systems programs.

Short Definition: Dollar amount of savings voluntarily reported by the regulated community resulting from reduced purchases of raw materials, avoided disposal costs, and compliance costs through Pollution Prevention and Environmental Management technical assistance activities.
Purpose/Importance: This measure provides an indication of Pollution Prevention and Environmental Management staff's ability to encourage the regulated community to implement pollution prevention and waste minimization practices, innovative programs and environmental cost accounting practices. The measure provides a measurable indicator of the financial savings achieved through pollution prevention/waste minimization and innovative programs.
Source/Collection of Data: Implemented projects and cost savings information is documented for facilities who have participated in pollution prevention and environmental management site assistance visits and training workshops. Provided by participating entities through voluntary surveys, reduction information is collected by Pollution Prevention and Industry Assistance staff and entered into a Paradox database.
Method of Calculation: Dollar savings is voluntarily calculated by the regulated entity for each facility and documented on a survey instrument provided by the commission to show the financial savings during the reporting period and compared to the previous year's level. Each reporting facilities' financial saving are then summed to calculate statewide savings.
Data Limitations: Financial information is provided by the regulated community on a voluntary basis through an annual survey based on previous year's data. The regulated entity relies on both documented costs savings and estimates based on environmental cost accounting principles to measure environmental compliance costs.
Calculation Type: Non-cumulative.
New Measure: Yes.
Desired Performance: Above projections.

Outcome 01–01.11	Tons of emissions and waste reduced and minimized for the Texas-Mexico border region as identified by site assistance and Pollution Prevention and Environmental Management Program training.

Short Definition: Tons of air emissions and waste reduced and minimized by the regulated community implementing strategies identified by Pollution Prevention and Environmental Management staff during technical site assistance visits and Permanent Pollution Prevention and Environmental Management training.
Purpose/Importance: This measure provides an indication of Pollution Prevention and Environmental Management staff's ability to encourage the regulated community along the Texas-Mexico border region to implement pollution prevention and waste minimization practices and technologies. The measure provides a measurable indicator of emissions and waste reduced and minimized in Texas as a result of pollution prevention/waste minimization and environmental management system implementation efforts.
Source/Collection of Data: Implemented projects and emissions and waste reduction information are documented for facilities who have participated in pollution prevention and environmental management, Resource Exchange Network for Eliminating Waste (RENEW) Workshops and site assistance visits. Provided by participating entities through voluntary surveys, reduction information is collected by Pollution Prevention and Industry Assistance staff and entered into a Paradox database.
Method of Calculation: The number of: tons of hazardous waste; tons of nonhazardous waste; tons of air emissions decreased; and tons of RENEW materials transferred during the reporting period is calculated and compared to the previous year's level. Each reporting facility's reduction totals are then summed to calculate total tons reduced.

Data Limitations: Reduction information is provided by the regulated community on a voluntary basis. Tons of emissions and waste prevented/minimized is based on previous year's data. Expanding facilities must often rely on estimates to determine a reduction number during periods of increased production.
Calculation Type: Non-cumulative.
New Measure: Yes.
Desired Performance: Above projections.

Output 01–01–01.01	**Number of state and federal new source review air quality permit applications reviewed**

Short Definition: The total number of pre-construction new permit applications, permit amendment applications, permit alteration applications, and permit-by-rule registrations reviewed by the Air Permits Division. Permit applications include general permit applications, Standard Permits, Flexible Permits, federal prevention of significant air quality deterioration (PSD) permits, and federal nonattainment area (NAA) permits.
Purpose/Importance: This measure provides an indication of the permitting workload of the Air Permits Division staff assigned to work on state and federal new source review permit applications.
Source/Collection of Data: The source of this information is the NSR permits information management system database. An entry for each project is created in the database when the project is received in the Air Permits Division. Each permit engineer is then responsible for tracking certain elements of the project's progress through the review and ensuring that these tracking elements are entered into the database by the data entry staff. Data entry for each project is then closed out at the time the project is approved, issued, or denied. Signature of permits by the Chairman of the TNRCC or designee denotes completion of the review process.
Method of Calculation: This information is obtained by running a computer query on the NSR permits database for the types of projects being reported.
Data Limitations: A potential limitation of the data is the time lag between completion of a project and the entry of the completion tracking elements into the database. Generally, this time lag is less than one week. The Air Permits Division staff has no control over the number of applications that are received.
Calculation Type: Cumulative.
New Measure: No.
Desired Performance: Near projections.

Output 01–01–01.02	**Number of federal air quality operating permits reviewed**

Short Definition: This measure reflects the number of completed application reviews for federal air quality operating permits mandated by Title V of the FCAA.
Purpose/Importance: This measure provides an indication of the permitting workload of the Air Permits Division staff assigned to work on federal operating permit applications.
Source/Collection of Data: The source of this information is the TNRCC's Information Management System (IMS) database. An entry for each project is created in the database when the project is received in the Air Permits Division. Each permit engineer is then responsible for tracking certain elements of the project's progress through the review and ensuring that these tracking elements are entered into the database. Data entry for each project is then closed out at the time the project is approved, issued, or denied. For purposes of operating permits, application reviews completed means General Operating Permit grant letters signed and/or Site Operating Permits sent to EPA as a proposed permit. Also included are any applications which are voided or withdrawn.
Method of Calculation: The data is collected by running a query on the operating permits database within the IMS to obtain the number of operating permit applications which have been acted on.
Data Limitations: A potential limitation of the data is the time lag between completion of a project element and the entry of the tracking element into the database. Generally, this time lag is less than one week.

Calculation Type: Cumulative.
New Measure: No.
Desired Performance: Above projections.

Efficiency 01–01–01.01	**Percent of air quality permit applications reviewed within established time frames**

Short Definition: For new source review (NSR) and Title V permit applications, the percent of air quality permit applications reviewed within targeted time frames will be determined by dividing the number of applications reviewed within the target time frame by the total number of application reviews completed. This procedure will be conducted for all NSR and Title V application categories using the NSR and Title V Information Management System (IMS). Target time frames: Initial NSR Permit applications - 240 days; NSR permit amendments - 270 days; NSR permit applications involving new federal NSR permits (prevention of significant deterioration, nonattainment, 112(g), or 112(j)) or major modifications - 330 days; NSR permits-by-rule, NSR standard permits without public notice, changes to qualified facilities, and relocations - 45 days; concrete batch plant standard permits - 150 days; NSR multiple plant permits, voluntary emission reduction permits, and electric generating facility permits (SB7) - 330 days; NSR alterations and other changes - 120 days; NSR renewals - 270 days; initial issuance and revisions of Title V Site Operating Permits - 330 days; new general operating permits (GOP) - 120 days; GOP revisions - 330 days; GOP renewals - 210 days; and SOP renewals - 330 days. Target time frames will not apply to applications for which a hearing has been requested.
Purpose/Importance: This measure addresses the efficiency of the staff of the Air Permits Division in reviewing air quality permit applications. In the case of new source review and Title V operating permits, the deadlines were established based on past permitting history and an evaluation of what was a reasonable workload for permit engineers.
Source/Collection of Data: The source of the data will be the Air Permits Division new source review (NSR) and Title V information management systems.
Method of Calculation: The percent air quality permit applications reviewed within established time frames for air permits is calculated by running queries on the NSR and Title V permits IMS. The queries will determine the number of days taken to process each application during each quarter. The queries will count the number of days between receipt of a complete permit application and the date on which final action was taken in each quarter. For NSR applications, final action is determined by the date the permit action is signed by the Executive Director or his designee, or by the date the application is considered void. For Title V applications, final action is determined by the date on which a grant letter is signed, a proposed permit is sent to the EPA, the commission or its designee takes action to deny or void the application, or the date the applicant withdraws the application. The queries will then compare the processing time for each type of application to the target time frames, count the number of applications processed within the target time frames, and divide this number by the total number of applications to determine the percent of applications reviewed within the target time frames.
Data Limitations: None identified.
Calculation Type: Non-cumulative.
New Measure: No.
Desired Performance: Near projections.

Explanatory 01–01–01.01	**Number of state and federal new source review (NSR) air quality permits issued**

Short Definition: The number of state and federal new source review (NSR) air quality permits which were actually issued or approved.
Purpose/Importance: This measure reflects the number of NSR air quality permits reviewed under the Texas Clean Air Act and the federal NSR permitting program which were actually issued or approved.

Source/Collection of Data: The source of this information is the NSR permitting information management system (IMS) database.
Method of Calculation: The sum of the state and federal NSR permits issued or approved during the reporting period. The data will be obtained by running a query on the NSR IMS.
Data Limitations: A potential limitation of the data is the time lag between completion of a project element and the entry of the tracking element into the database. Generally, this time lag is less than one week.
Calculation Type: Cumulative.
New Measure: No.
Desired Performance: Near projections.

Explanatory 01–01–01.02	**Number of federal air quality operating permits issued**

Short Definition: The number of federal air quality operating permits mandated by Title V of the Federal Clean Air Act (FCAA) which were actually issued. Issued, for purposes of operating permits, means EPA review completed and the Chairman of the TNRCC or his designee has signed the grant letters and/or permits. The sources of this information is the TNRCC Information Management System Database.
Purpose/Importance: This measure reflects the number of federal air quality operating permits reviewed under the Texas Clean Air Act which were actually issued or approved.
Source/Collection of Data: The source of this information is the federal operating permits information management system (IMS) database.
Method of Calculation: The sum of the number of federal operating permits issued or approved during the reporting period. The data will be obtained by running a query on the federal operating permits IMS.
Data Limitations: A potential limitation of the data is the time lag between completion of a project element and the entry of the tracking element into the database. Generally, this time lag is less than one week.
Calculation Type: Cumulative.
New Measure: No.
Desire Performance: Near projections.

Output 01–01–02.01	**Number of applications to address water quality impacts reviewed**

Short Definition: Number of applications to address water quality impacts reviewed.
Purpose/Importance: This measure reflects agency workload with regard to the review of water quality permit applications.
Source/Collection of Data: The Wastewater Permitting Section will provide a number each reporting period which identifies the number of municipal and industrial wastewater permits it has drafted and filed with the Chief Clerk for public notice. Filing of draft permits with the Chief Clerk denotes completion of the program review process. This information is tracked on databases within the Wastewater Permitting Section. The total number of sewage sludge beneficial use registrations and permits, sewage sludge process and/or disposal permits, and water treatment sludge land application registrations and/or disposal permits will be included. In addition, the total number of general permits Notice of Intent (NOI) processed will be included. The mailing of the confirmation letter to the applicant denotes the completion of the program review. This measure does not include authorizations by rule or pretreatment audits. In addition to the information provided by the Wastewater Permitting Section, this measure will include Edwards Aquifer (EA) protection plans reviewed and applications reviewed for on-site sewage facilities (OSSF) by the Field Operations Division (FOD). This information will be based on EA plan reviews which are completed and entered into the FOD water program databases during the reporting period and OSSF applications that are reviewed during the reporting period.
Method of Calculation: The wastewater permitting section provides data from their database and the Field

Operations division provides their data to Strategic Planning division. These two numbers are added together to provide the number of applications reviewed.
Data Limitations: None identified.
Calculation Type: Cumulative.
New Measure: No.
Desired Performance: Near projections.

Output 01–01–02.02	**Number of applications to address water rights impacts reviewed**

Short Definition: This measure is the number of permitting action reviews completed and is calculated by totaling the number of water rights applications, ownership transfers, temporary permits (as reported by Field Operations), and water supply contracts processed and reviewed during the reporting period.
Purpose/Importance: This measure reflects agency workload with regard to the review of water rights permit applications.
Source/Collection of Data: Water Rights Permitting and FOD staff enter milestone information into databases. Staff query these databases for application reviews completed this quarter and review monthly activity reports for ownership changes and supply contracts.
Method of Calculation: Applications completed this quarter are summed together with ownership changes and contracts as reported in monthly activity reports.
Data Limitations: None identified.
Calculation Type: Cumulative.
New Measure: No.
Desired Performance: Above projections.

Output 01–01–02.03	**Number of concentrated animal feeding operation (CAFO) permits reviewed**

Short Definition: Number of concentrated animal feeding operation (CAFO) permits reviewed
Purpose/Importance: This measure reflects agency workload with regard to processing CAFO permits.
Source/Collection of Data: Using information maintained by the Wastewater Permitting Section, this measure will be reported at the end of each quarter by calculating the total number of concentrated animal feeding operations permits and authorizations reviewed by the staff. Transmittal of reviewed applications from the program to the Chief Clerk's Office denotes process completed by the program.
Method of Calculation: Using information maintained on the TRACS database, this measure will be reported at the end of each quarter by calculating the total number of concentrated animal feeding operations permits and authorizations reviewed by the staff. Transmittal of reviewed applications from the program to the Chief Clerk's Office denotes process completed by the program.
Data Limitations: None identified.
Calculation Type: Cumulative.
New Measure: No.
Desired Performance: Near projections.

Efficiency 01–01–02.01	**Percent of water resource permit applications reviewed within established time frames**

Short Definition: This measure includes non-contested water right and wastewater permit applications. The percent of water rights permit applications reviewed within targeted time frames will be determined by dividing the number of applications reviewed within the targeted time frame in that quarter by the total number of permits issued in that quarter. This information is tracked using water rights databases. The targeted time frame for the review of water

rights permits is established by statute, agency rules or agency standard operating procedures.
The percent of municipal and industrial wastewater permits reviewed within targeted time frames will be determined by dividing the number of applications reviewed within targeted time frames in that quarter by the total number of permits reviewed during that quarter and does not include contested permits or permits under additional review by the EPA. This information is tracked using databases administered in the wastewater permitting program. The targeted time frame for the review of municipal and industrial wastewater permits is established by statute, agency rules, or agency standard operating procedures.
Purpose/Importance: This measure indicates the efficiency of the Water Supply Division's and Water Quality Division's staff in processing permit applications.
Source/Collection of Data: Staff enter all pertinent application information into the water rights or wastewater permitting databases as the application is processed. Staff query this database and total the number of completed reviews within the quarter. Staff then subtract the completed date from the administratively complete date to determine the review time for all reviews completed within the quarter.
Method of Calculation: The number of reviews completed within established time frames are summed and divided by the total number of reviews completed within the quarter. Staff from each division then report the percent of water rights and wastewater permits reviewed within established time frames to Strategic Planning and Appropriations. The percent of each division is added and divided by two for the final percent.
Data Limitations: Applications are excluded from the count when suspended from processing in accordance with either agency rules or agency policy.
Calculation Type: Non-cumulative.
New Measure: No.
Desired Performance: Near projections.

Explanatory 01–01–02.01	**Number of water quality permits issued**

Short Definition: This measure will report the total number of water quality permits approved by the Executive Director or by the Commissioners.
Purpose/Importance: To report the number of TPDES, State and Agricultural permits issued for the year.
Source/Collection of Data: This information is tracked in a database maintained by the Chief Clerk's Office.
Method of Calculation: This information is pulled from the database maintained in the Chief Clerk's Office and is supplied by a query to the database by the date the permit was signed.
Data Limitations: None Identified.
Calculation Type: Cumulative.
New Measure: No.
Desired Performance: Near projections.

Explanatory 01–01–02.02	**Number of water rights permits issued**

Short Definition: This measure will report the total number of water rights permits approved by the Executive Director or by the Commissioners.
Purpose/Importance: To report the number of Water Rights permits issued for the year.
Source/Collection of Data: This information is tracked in a database maintained by the Chief Clerk's Office.
Method of Calculation: This information is pulled from the database maintained in the Chief Clerk's Office and is supplied by a query to the database by the date the permit was signed.
Data Limitations: None identified.
Calculation Type: Cumulative.
New Measure: No.

Desired Performance: Near projections.

Output 01–01–03.01	**Number of new system waste evaluations conducted**

Short Definition: Audits conducted on generators' self-classification of their industrial waste.
Purpose/Importance: That wastes are correctly classified to ensure appropriate management, disposal, and fee assessment.
Source/Collection of Data: The data is collected through the annual waste summary submitted every January by waste generators regulated by the TNRCC. In the case of out-of-state wastes written submissions from the generators is used. Waste streams are audited on a random basis or manually selected from the TRACS database when there is sufficient information to suspect the wastes were classified incorrectly.
Method of Calculation: On a monthly basis the total number of completed audits is maintained in a division Quattro Pro spreadsheet. On a quarterly basis the total is derived, reconciled against information from the TRACS database, and reported. Audits are considered complete when: (1) the auditee submits sufficient data for the TNRCC to review, and (2) the TNRCC has sufficient time to complete the review.
Data Limitations: Data could be impacted by lack of response from generators or incorrect written submissions received from the generators.
Calculation Type: Cumulative.
New Measure: No.
Desired Performance: Above projections.

Output 01–01–03.02	**Number of corrective actions approved for sites contaminated by solid waste**

Short Definition: Number of corrective actions approved for hazardous, industrial, and municipal waste sites. For the Municipal Solid Waste Permits (MSW) Section, includes the number of municipal solid waste facility and commercial industrial non-hazardous waste landfill corrective actions.
Purpose/Importance: This measure quantifies the number of corrective actions approved for hazardous, industrial, and municipal sites contaminated by solid waste. Implementation of corrective actions will result in protection of human health and the environment.
Source/Collection of Data: Information regarding the number of corrective actions approved for sites contaminated by solid waste is maintained in databases maintained by the Office of Permitting, Remediation, and Registration. Manual records are also maintained.
Method of Calculation: This measure will be reported by calculating the number of approvals, determinations for no further action, and notices of self implemented cleanups for hazardous and industrial waste sites. For municipal solid waste and commercial industrial non-hazardous waste landfill corrective actions, this calculation will include approvals of investigations and corrective action plans/reports specific to municipal solid waste including Assessment of Corrective Measures, Selection of Remedy, and Implementation of Corrective Action Program.
Data Limitations: Data collected reflects the actual production. This measure involves review and approval of documents required by agency orders and compliance plans, as well as self-implemented cleanup allowed by the regulations. The agency does not have control over the number of cleanup projects and the types or quality of documentation submitted to pursue self-implemented cleanups.
Calculation Type: Cumulative.
New Measure: No.
Desired Performance: Near projections.

Output 01–01–03.03	Number of nonhazardous waste permit applications reviewed

Short Definition: Number of non-hazardous waste permit applications reviewed. For the Municipal Solid Waste (MSW) Permit Section, includes the number of permit reviews for new, modified, or amended MSW storage, treatment, processing, and disposal facilities and renewed or amended commercial industrial non-hazardous waste landfill (CINWL) facilities.
Purpose/Importance: This measure quantifies the number of reviews conducted to ensure proposed facilities meet design and operational requirements and are protective of human health and the environment.
Source/Collection of Data: Information regarding the status of individual MSW or CINWL permit applications is maintained in a database maintained by the Office of Permitting, Remediation, and Registration, MSW Permits Section. Date of review of a permit is entered into the database by a TNRCC staff member when a permit application is deemed technically complete. Using an agency database maintained by the Office of Permitting, Remediation, and Registration, this measure will calculate the total of (1) the number of final draft permits for new, modified, and/or amended municipal solid waste storage, treatment, and disposal facilities, (2) the number of final draft permits for new, renewed, and/or amended commercial industrial non-hazardous waste landfill facilities, (3) the number of technical completions prepared for municipal solid waste and commercial industrial non-hazardous waste landfills, (4) the number of municipal solid waste and commercial industrial non-hazardous waste landfill applications denied and withdrawn by the commission, and (5) the number of new and modified MSW registrations.
Method of Calculation: Totals are calculated by adding the numbers for each category together.
Data Limitations: None identified.
Calculation Type: Cumulative.
New Measure: No.
Desired Performance: Near projections.

Output 01–01–03.04	Number of hazardous waste permit applications reviewed

Short Definition: Number of permits and authorizations reviewed, denied, or withdrawn. Includes all permitting and authorization actions (new, renewed, amended, modified, Class 1, and Class 1ED) for Underground Injection Control (UIC) Well permits (Class I, Class III, and Class V), radioactive material disposal licenses, hazardous waste permits, commercial industrial non-hazardous waste permits. This also includes regulatory flexibility orders.
Purpose/Importance: This measure quantifies the number of environmentally protective authorizations recommended by the TNRCC staff.
Source/Collection of Data: Using an agency database maintained by the Office of Permitting, Remediation, and Registration, this measure will calculate the total of (1) the number of final draft permits for new, renewals, major and minor amendments, Class 1ED, 2, 3 modifications and regulatory flexibility orders for hazardous and industrial waste storage, treatment, and disposal facilities and (2) the number of final draft permits for new, renewed and/or amended underground injection control wells, (3) the number of new, renewed, and/or amended radioactive waste license, (4) the number of final draft permits for new, renewals, major and minor amendments, Class 1ED, 2, 3 modifications for commercial industrial non-hazardous solid waste storage and treatment facilities, and the number of applications returned and/or withdrawn. A reviewed application is defined as: transmittal of the final draft permit from the program to the Chief Clerk's Office or the return/withdrawal of the application to the applicant either by the applicant's request or as the result of administrative or technical deficiencies. For UIC permits and radioactive material disposal licenses - Date of filing of a final draft document with the Chief Clerk is entered into the appropriate databases by the TNRCC staff member who delivers the product to the Chief Clerk's office. The data is checked by supervisor.
For hazardous waste permits and commercial industrial non-hazardous permits, data maintained in agency Paradox database include the facility name, identification number, date application is received, and date reviewed, or

returned/withdrawn prior to final draft permit, are entered after the action has occurred. A reviewed application is defined as an application received and the transmittal of the final draft permit from the program to the Office of Chief Clerk.
Method of Calculation: Totals are calculated by adding the number of completed items together.
Data Limitations: None identified.
Calculation Type: Cumulative.
New Measure: No.
Desired Performance: Near Projections

Efficiency 01–01–03.01	**Percent of waste management permit applications reviewed within established time frames**

Short Definition: Percent of waste management permit applications reviewed within established time frames.
Purpose/Importance: This measure reports whether the agency is in compliance with established time frames for reviewing permit applications.
Source/Collection of Data: Using an automated tracking system maintained by the Office of Permitting, Remediation and Registration, this measure will track the number of waste permit applications reviewed during the fiscal year and the number of waste permit applications that were reviewed within the prescribed agency time frames during the fiscal year. A reviewed application is defined as: transmittal of the final draft permit from the program to the Chief Clerk's Office (for those permit applications subject to notice requirements); completion of other final actions (for those permit applications not subject to notice requirements); or the return/withdrawal of the application to the applicant either at the applicant's request or as the result of administrative or technical deficiencies. The percent of waste permit applications reviewed will be derived by dividing the total number of waste permit applications reviewed within the target time frames by the total number of waste permit applications reviewed for the fiscal year. This process will be completed on the following waste permit applications: (1) new, renewals, major and minor amendments, and Class 1, Class 1ED, 2, or 3 modifications for municipal, industrial, and hazardous waste, (2) regulatory flexibility orders for hazardous waste facilities and commercial industrial non-hazardous (storage/treatment only) waste facilities, (3) UIC Class I Injection Well and Class III Injection Wells, and (4) authorizations for UIC Class V Injection Wells. Excluded are the delayed permit applications for interim status closures, protective filings for interim status units that will be permitted with renewals or the combustion strategy implementation.
Method of Calculation: Query agency databases for the number of applications reviewed and determine those reviewed within established time frames. Express as a percentage.
Data Limitations: None identified.
Calculation Type: Cumulative.
New Measure: No.
Desired Performance: Near projections.

Explanatory 01–01–03.01	**Number of nonhazardous waste permits issued**

Short Definition: Number of non-hazardous waste permits issued.
Purpose/Importance: This measure reflects agency workload with regard to the number of permits issued. This measure quantifies the number of permits issued for facilities that are protective of human health and the environment.
Source/Collection of Data: Using an agency data base maintained by the Office of Permitting, Remediation, and Registration, this measure will be reported by calculating the number of permits and registrations issued for municipal facilities and commercial industrial non-hazardous waste landfill facilities in the fiscal year. A permit issued is one that has been signed by either the Executive Director (or designated representative) or by the Commission. Date of issuance of a permit is entered into the database by the TNRCC staff member when a copy of the issued permit is received by the Section from the Chief Clerk's Office.

Method of Calculation: Query agency databases for reported performance. Totals are calculated by adding the number of issued permits together.
Data Limitations: None identified.
Calculation Type: Non-cumulative.
New Measure: No.
Desired Performance: Near projections.

Explanatory 01–01–03.02	Number of hazardous waste permits issued

Short Definition: Number of hazardous waste permits, UIC permits, and radioactive material authorizations issued.
Purpose/Importance: This measure reflects agency workload with regard to the number of permits issued.
Source/Collection of Data: Using an agency data base maintained by the Office of Permitting, Remediation and Registration , this measure will be reported by calculating, the number of permits and licenses issued, denied, returned, or withdrawn for industrial and hazardous waste facilities, commercial industrial non-hazardous (storage and treatment) waste facilities, UIC Class I injection well permits, UIC Class III injection well permits, UIC Class V injection well permits and authorizations and radioactive waste licenses. A permit issued is one that has been signed by either the Executive Director (or designated representative) or by the Commission.
Method of Calculation: Query agency database for reported performance. Totals are calculated by adding the number of issued permits together.
Data Limitations: None identified.
Calculation Type: Non-cumulative.
New Measure: No.
Desired Performance: Near projections.

Explanatory 01–01–03.03	Number of solid waste sites remediated by responsible parties

Short Definition: Number of solid waste sites remediated by responsible parties.
Purpose/Importance: This measure reflects the number of solid waste and commercial industrial non-hazardous waste cleanups completed by responsible parties.
Source/Collection of Data: Using an agency tracking system and manual record reviews maintained by the Office of Permitting, Remediation, and Registration, this measure will be reported by calculating the number of municipal solid waste and commercial industrial non-hazardous waste landfill facility cleanups completed and funded by responsible parties in accordance with their approved plans during the reporting period. This includes all remediation activities (including groundwater and landfill gas remediations) at permitted municipal solid waste and commercial industrial nonhazardous waste landfill facilities. A cleanup is considered complete upon issuance of a letter by the agency to the responsible party indicating remediation activities have been completed.
Method of Calculation: Query agency database.
Data Limitations: None identified.
Calculation Type: Cumulative.
New Measure: No.
Desired Performance: Near projections.

Explanatory 01–01–03.04	Number of industrial solid waste cleanups

Short Definition: The number of approvals of reports documenting that cleanup goals have been achieved at sites

contaminated by industrial solid waste and municipal hazardous waste.
Purpose/Importance: This measure tracks the number of cleanup projects which have been completed. Final completion of remediation projects is the ultimate goal of this agency. It evaluates reduction in the number of contaminated sites across the state and is a true measure of protection of human health and the environment.
Source/Collection of Data: As responsible parties submit reports documenting attainment of cleanup standards, agency staff review and either comment on or approve the reports. Codes are entered into a database upon approval of reports documenting site cleanups or closures.
Method of Calculation: Each quarter, cumulative totals of each code are calculated.
Data Limitations: This measure involves approval of documents required by agency orders and compliance plan, as well as self-implemented cleanup allowed by the regulations. The agency does not have control over the number of cleanup projects and the types of documentation submitted to pursue self-implemented cleanups.
Calculation Type: Cumulative.
New Measure: No.
Desired Performance: Near projections.

Output 01–01–04.01	**Number of point source air quality assessments**

Short Definition: The number of National Ambient Air Quality Standards (NAAQS) criteria and toxic pollutant industrial point source inventories evaluated and entered into the point source data base.
Purpose/Importance: Point source data currently collected are quality assured by engineering staff, emissions recalculated where appropriate, and data are formatted and entered into the point source data base. The measure calculates the number of stationary sources of air pollution in Texas which exceed the reporting requirement of 30 TAC Rule 101.0 based on actual or potential levels of emissions. These emissions are in turn used for planning activities such as State Implementation Plans and are submitted to the EPA as required in the Federal Clean Air Act of 1990.
Source/Collection of Data: Data are collected through inventory surveys submitted annually to the point source staff in the Industrial Emissions Assessment Section.
Method of Calculation: The count of sources is based on the number of accounts with emissions that are entered into the point source or other electronic database.
Data Limitations: Data is affected by the number of non-attainment areas in the state or by the NAAQS levels; should the number of non-attainment areas or the level or number of NAAQS change, the number of accounts reviewed will also change.
Calculation Type: Cumulative.
New Measure: No.
Desired Performance: Near projections.

Output 01–01–04.02	**Number of area source air quality assessments**

Short Definition: This assessment is the number of area source categories for which emissions are inventoried or calculated by county and entered into a data base by the Technical Analysis Division. Area sources are defined as a wide variety of sources of air pollution too small and too numerous to identify individually and are expressed in tons of emissions per year and tons per ozone season average weekday. Emissions from area sources are assessed by making regional emissions estimates using either a “top-down” method which applies an EPA approved emission factor to a generic activity indicator such as a county total population or a “bottom-up” method using local area surveys or site inspection data for assessing processes and materials usage of individual categories.
Purpose/Importance: Area sources cumulatively make up a large sector of air pollution sources including gas stations, consumer products, small printing and painting operations, wildfires, and small industrial and residential

combustion sources. Emissions from these sources are included in strategies associated with ozone nonattainment area State Implementation Plans.
Source/Collection of Data: Data used for this measure come from the number of area source categories for which emissions estimates are developed.
Method of Calculation: The measure is accounted for by staff reporting the number of area source categories within each geographic area for which emissions are developed.
Data Limitations: The variety in the level of work performed on any particular area source category limits its usefulness as an easily measured output measure. Also, the measure is not stored in a data base that would easily facilitate calculating this measure.
Calculation Type: Cumulative.
New Measure: No.
Desired Performance: Above projections.

Output 01–01–04.03	**Number of mobile source air quality assessments**

Short Definition: This measure depicts the number of on-road mobile source/ transportation related scenarios evaluated by the Technical Analysis Division. Mobile sources are defined as the eight classes of on-road vehicles for which emissions are estimated in tons of emissions per year and tons per ozone season average weekday.
Purpose/Importance: Mobile sources in large urban areas comprise a very significant source of air emissions. In some ozone nonattainment areas they are considered the largest source of ozone-forming pollutants. Emissions from these sources are included in strategies associated with ozone nonattainment area State Implementation Plans. Assessments are also used to evaluate the impacts of different vehicle Inspection/Maintenance programs, roadway construction projects and transportation control measures.
Source/Collection of Data: Assessment counts are dependent on Technical Analysis Division staff reporting. Emission calculations/ assessments are dependent upon the inputs to the MOBILE computer model used to develop emission factors, as well as, the travel activity applied to emission factors to calculate emissions. Variables assessed in different travel scenarios include measured vehicle miles of travel, speeds, fleet composition, fuels, controls in place and other information pertinent to the area of concern. Much of the travel related data is provided by transportation planning agencies both at the state and local level.
Method of Calculation: The EPA MOBILE computer model is the primary tool used to calculate mobile source emissions. A particular set of inputs to the model will constitute a specific scenario being modeled. Collecting the input data, setting up and running the model, and applying the vehicle activity to estimate emissions for that scenario is considered as one assessment. The number of assessments reported is based on a quarterly summation of weekly staff counts of mobile scenarios run for each week.
Data Limitations: None identified.
Calculation Type: Cumulative.
New Measure: No.
Desired Performance: Above projections.

Output 01–01–04.04	**Number of air monitors operated**

Short Definition: Number of air monitors operated.
Purpose/Importance: This measure provides an indication of the agency's ability to collect scientific data concerning the level of air pollutants to which Texas citizens are being exposed. The number of air monitors operated includes a count of the total number of individual monitors including ozone, nitrogen dioxide, carbon monoxide, sulfur dioxide, air toxics, lead, particulate matter of 10 microns or less, particulate matter of 2.5 microns or less, wind speed/direction, etc. A computerized file is maintained by the Monitoring Operations Division which provides information on all

monitoring sites.
Source/Collection of Data: The manager of the Texas air monitoring networks maintains a computerized file of all air monitors operating at each monitoring site in the state. Deployment personnel provide a written record to the network manager each time they make any changes in equipment at any monitoring site. The manager then updates the computerized file to reflect the network changes.
Method of Calculation: The computerized file depicts a site description and a listing of the number of each type of monitor at each site. The file contains formulas which automatically recalculate each time an entry is updated or added. The formulas sum the number of each type of monitor, then sum the totals for each type of monitor to derive a total number of air monitors in operation. Each quarter, the computerized file is printed in hard copy and the totals are calculated manually to verify the accuracy of the computerized file.
Data Limitations: This measure provides a reliable indication of the state's air pollution monitoring capability. The number of air monitors in operation across the state is limited by funding and staffing levels as well as by equipment failures.
Calculation Type: Non-cumulative.
New Measure: No.
Desired Performance: Near projections.

Efficiency 01–01–04.01	**Percent of data collected by TNRCC continuous and non-continuous air monitoring networks**

Short Definition: Percent of data collected by TNRCC continuous and non-continuous air monitoring networks.
Purpose/Importance: The percent of valid data collected by the TNRCC continuous and non-continuous air monitoring networks allows a comparison of state performance to federal monitoring requirements.
Source/Collection of Data: Valid measurements are defined as measurements which meet federal monitoring criteria. Total possible measurements for continuous monitoring are defined as the number of samples which should theoretically be collected during the reporting period. Only TNRCC data will be reported in this measure, and the source of the data will be TNRCC's automated data collections systems for continuous data and TNRCC's non-continuous air monitoring databases for non-continuous data. The data will be reported during the quarter in which is it validated (the quarter after it is collected), and the sampling periods will be as follows as required by federal regulations: January-March, April-June, July-September, and October-December.
Method of Calculation: The percentage of valid data collected for each pollutant will be determined by dividing the number of valid measurements by the total possible measurements, then multiplying by 100. The percent of valid data collected by the networks will be determined by summing the percentages of valid data collected for all pollutants measured and dividing by the number of pollutants measured.
Data Limitations: None identified.
Calculation Type: Non-cumulative.
New Measure: No.
Desired Performance: Above projections.

Efficiency 01–01–04.02	**Average cost per air quality assessment**

Short Definition: This measure accounts for the funds expended by the Technical Analysis Division on salaries and other operating expenses related to staff working on air quality assessments divided by the number of assessments performed during the period.
Purpose/Importance: This measure reflects agency efforts to produce air quality assessments in an efficient manner. It also relates operating expenses to a combination of three output measures; point source assessments, area source assessments and mobiles source assessments.
Source/Collection of Data: Operating expense data is taken from USAS reports for the Technical Analysis Division.

The number of assessments for the period are compiled by staff in the Industrial Emissions Assessment Section for point source assessments and the Area and Mobile Source Assessment Section for both area and mobile source assessments.
Method of Calculation: Using budgetary figures maintained by the Technical Analysis Division, this measure will be reported by: (1) identifying the total funds expended and encumbered through the reporting period of salaries and operating costs for staff performing air quality assessments; (2) collect and combine point, area and mobile air quality assessment outputs; and (3) divide the total identified expenses by the total number of point source, area source, and mobile source air quality assessments conducted during the reporting period to derive an average cost per assessment.
Data Limitations: Since the outputs used to calculate this measure are not reported from a computer data file but are dependent on staff recording and reporting the number of assessments conducted, the reporting process is time consuming and subject to large variation. The resources expended on assessments vary widely between the different types of assessments, and the work load for mobile and area source assessments is highly dependent on customer demand.
Calculation Type: Non-cumulative.
New Measure: No.
Desired Performance: Below projections.

Efficiency 01–01–04.03	**Average cost of LIRAP vehicle emissions repairs/retrofits**

Short Definition: Average cost of repairs/retrofits to cars participating in the Low-Income Vehicle Repair Assistance, Retrofit, & Accelerated Vehicle Retirement Program (LIRAP) that fail the vehicle emissions portion of the Inspection and Maintenance test.
Purpose/Importance: This measure seeks to provide a better understanding of the amount of funds a county might expect to allocate to a participating LIRAP repair station for vehicle repairs or retrofits.
Source/Collection of Data: This measure will be generated from quarterly reports gathered by each program county.
Method of Calculation: An average cost of LIRAP repairs and retrofits will be calculated each fiscal year by averaging data collected from participating county quarterly reports. Particpating counties report monies allocated to each repair station for repairs and retrofits.
Data Limitations: Data is limited by the accuracy and efficiency of data reporting conducted by each program county.
Calculation Type: Cumulative.
New Measure: Yes.
Desired Performance: Near projections.

Efficiency 01–01–04.04	**Average cost of LIRAP vehicle retirements**

Short Definition: Average cost of vehicle retirements for cars participating in the Low-Income Vehicle Repair Assistance, Retrofit, & Accelerated Vehicle Retirement Program (LIRAP) that fail the vehicle emissions portion of the Inspection and Maintenance test.
Purpose/Importance: This measure seeks to provide a better understanding of the amount of funds a county might expect to allocate to LIRAP participants who choose to participate in the vehicle retirement program
Source/Collection of Data: This measure will be generated from quarterly reports gathered by each program county.
Method of Calculation: An average cost of LIRAP retirements will be calculated each fiscal year by averaging data collected from participating county quarterly reports. Participating counties report monies allocated to each vehicle retirement program participant.
Data Limitations: Data is limited by the accuracy and efficiency of data reporting conducted by each program

county.
Calculation Type: Cumulative.
New Measure: Yes.
Desired Performance: Near projections.

Explanatory 01–01–04.01	**Number of days ozone exceedances are recorded in Texas**

Short Definition: The number of days that ozone standards are exceeded by more than one National Air Monitoring Site in any urban area.
Purpose/Importance: The measure reflects compliance with National Ambient Air Quality Standards.
Source/Collection of Data: This information is tracked using the TNRCC's air quality database.
Method of Calculation: The sum of days by urban area that the ozone standards are exceeded. Ozone exceedances will be monitored by the National Air Monitoring Site (NAMS) network. If more than one NAMS site in any urban area exceeds the standards on any given day, that day would only count once. The exceedance will be based on the NAAQS standard in place at the beginning of the fiscal year(to be updated as necessary) for ozone.
Data Limitations: The measure depends on which federal standard (8 hour or 1hour) is in place. This work is performed as needed. There are no quotas for State Implementation Plan (SIP) modeling.
Calculation Type: Cumulative.
New Measure: No.
Desired Performance: Below projections.

Output 01–01–05.01	**Number of surface water assessments**

Short Definition: Number of surface water assessments includes a diverse assemblage of assessment types performed and reported by multiple divisions within the agency.
Purpose/Importance: The measure attempts to quantify the surface water quality assessment activities of the agency. Assessment of water quality is essential to identification of impacted water bodies, development of water quality standards, and development of effluent standards for wastewater discharges and development of watershed implementation strategies.
Source/Collection: The Technical Analysis Division (TAD) of the Office of Environmental Policy Analysis and Assessment (OEPAA) performs and reports the Clean Rivers Program Assessment report, Clean Water Act §319 NPS Management Program, and Clean Water Act §319 Annual Report. The Water Quality Division of the OPRR performs and reports Water Quality Management Plan updates and Receiving Water Assessments. The Strategic Assessment Division (SAD) of the OEPAA performs and reports Total Maximum Daily Loads. The Monitoring Operations Program (MOP) of Office of Compliance and Enforcement (OCE) performs and reports Integrated Water Quality Monitoring and Assessment Report and special studies.
Method of Calculation: The assessments are tracked manually and reported to the Strategic Planning and Appropriations Division by the respective division identified along with any explanation of variance from the projected performance of that Division, if required. The sum of all assessments is reported quarterly for the agency by the Strategic Planning and Appropriations Division.
Data Limitations: The individual assessments included in the measure range from assessments requiring as little as one week to five years to complete. Certain assessments come due every year, every other year, every three years or every five years. Some assessments are grant deliverables which occur only once based on completion of the particular grant tasks. Other assessments, such as receiving water assessments (RWA's), special studies and hydraulic studies are performed as needed based on permitting demands for documentation of stream conditions, stream standards, and reasonable uses. Depending upon the complexity of the total maximum daily load assessment, development may require less than a year to greater than five years. Within the fiscal year, the performance for the

number of surface water assessments varies from quarter to quarter. It's not a straight-line projection and it cannot be normalized. Field work is generally done in the first quarter (fall) and the fourth quarter (summer) when critical low flow conditions occur. Weather conditions may also impact the time required to conduct particular field assessments.
Calculation Type: Cumulative.
New Measure: No.
Desired Performance: Near projections.

Output 01–01–05.02	**Number of groundwater assessments**

Short Definition: Number of groundwater assessments. The reports completed evaluate environmental or programmatic data related to groundwater quality or quantity issues.
Propose/Importance: The measure attempts to quantify the groundwater assessment activities of the agency. The measure includes a diverse grouping of assessment types performed and reported by multiple divisions within the agency. Assessments range in complexity and effort from a basic data report compiling and analyzing the results of a field sampling trip to a major report evaluating the water resources, future demand and recommended management strategies for a multi-county area. Assessment of groundwater quality and quantity issues is essential to the protection and conservation of limited groundwater resources.
Source/Collection: The Technical Analysis Division (TAD) of the Office of Environmental Policy Analysis and Assessment (OEPAA) performs and reports groundwater quality assessments, regional groundwater vulnerability assessments, groundwater management program assessments, pesticides in groundwater assessments for a range of state and federal mandates. The Water Permits and Resource Management Division (WPRM) of the OPRR performs and reports groundwater impact assessments for facility applications of regulated entities.
Method of Calculation: The assessments will be tracked manually and reported to the Strategic Planning and Appropriations Division by the respective division identified above along with any explanation of variance required. The number of assessments by Office and the total of all assessments are reported quarterly for the agency by the Strategic Planning and Appropriations Division.
Data Limitations: The individual assessments included in the measure range from assessments requiring as little as one week to one year to complete. Certain assessments come due each year and some every other year. Some assessments address federal or state mandates which may vary little or greatly from one fiscal year to the next. Within the fiscal year, the performance for the number of assessments varies from quarter to quarter. A straight-line projection of performance cannot describe the assessment activities the distribution cannot be normalized over a given time frame.
Calculation Type: Cumulative.
New Measure: No.
Desired Performance: Near projections.

Output 01–01–05.03	**Number of dam safety assessments**

Short Definition: Number of dam safety assessments conducted.
Purpose/Importance: The measure reflects the combined workload of the agency and the agency's contractor associated with ensuring the safety of dams in the state. Assessments are conducted to ensure the safe design, construction, maintenance, repair and removal of dams in the state
Source/Collection of Data: Using the Dam Safety Project Tracking Database, or any successor databases, this measure is the total number of dam safety assessments completed in the reporting period. Assessments include on-site investigations as well as in-house review of plans and specifications for dams, spillway adequacies, breach analyses, emergency action plans, engineering reports and water use permit applications involving dams. Assessments are conducted to ensure the safe design, construction, maintenance, repair and removal of dams in the state.

Method of Calculation: Query of agency database.
Data Limitations: None identified.
Calculation Type: Cumulative.
New Measure: No.
Desired Performance: Near Projections.

Efficiency 01–01–05.01	**Average cost per dam safety assessment**

Short Definition: Average cost per dam safety assessment completed. Assessments include on-site investigations as well as in-house review of plans and specifications for dams, spillway adequacies, breach analyses, emergency action plans, engineering reports and water use permit applications involving dams.
Purpose/Importance: Assessments are conducted to ensure the safe design, construction, maintenance, repair and removal of dams in the state. The average cost measures how efficiently these assessments are conducted.
Source/Collection of Data: Field investigators enter investigation information into the Dam Safety Project Tracking Database or any successor databases. Each reporting period Field Operations retrieves from the database the number of assessments completed from the database. USAS expenditure figures for the Dam Safety Program are used to determine costs.
Method of Calculation: Database query retrieves the total number of assessments completed during the reporting period. Average cost per assessment is calculated by dividing total funds expended as reported in USAS for the Dam Safety Program by the total number of dam safety assessments conducted through the reporting period.
Data Limitations: Average cost figures may vary considerably due to the number and complexity of assessments performed.
Calculation Type: Cumulative.
New Measure: No.
Desired Performance: Below projections.

Explanatory 01–01–05.01	**Percent of Texas' rivers, streams, wetlands and bays protected by site-specific water quality standards**

Short Definition: Percent of Texas' rivers, streams, wetlands and bays protected by site-specific water quality standards
Purpose/Importance: The Texas Surface Water Quality Standards establish explicit numerical goals for water quality in the surface waters of Texas. The percentage of water bodies which have been assigned site-specific water quality standards is a measure of how well the standards have been tailored to individual water bodies and in the state. Using the Texas Water Quality Inventory, the percentage of state waters with designated site-specific standards is determined for each major water body type. These numbers are then averaged in order to develop a single statewide percentage. Calculated annually.
Source/Collection of Data: The TNRCC Texas Water Quality Inventory is used as a data source to provide the size of individual water bodies, and also to provide the total amount of each water body type in the state. The Water Quality Inventory is a publicly available document which is periodically reviewed and updated by TNRCC. The Texas Surface Water Quality Standards, which are established as Chapter 307 in Title 30 of the Texas Administrative Code, are used to determine the list of water bodies which are assigned site-specific water quality standards.
Method of Calculation: For this measure, water body types are defined as rivers, reservoirs, estuaries, and wetlands. The amount of (area or length) of "classified" waters with site-specific standards is determined for each water body type from the Texas Water Quality Inventory [305(b) report]. The length of partially-classified streams is calculated from the current Texas Surface Water Quality Standards and added to the total of rivers with site-specific standards. The length of partially-classified streams is calculated by multiplying the number of partially-classified streams in Appendix D of the standards by the average length of these streams (6.3 miles). To determine the total amount of each

water body type in the state (classified and unclassified), information in the 1996 Texas Water Quality Inventory is used as a baseline, except for reservoirs. For reservoirs, the total amount is based on the 1994 water quality inventory, since this total is not reported in the 1996 inventory. Newly constructed major reservoirs are added to the base total when they are completed. The % of waters with standards is calculated for each water body type = 100 x (the amount of classified and partially-classified waters / the total amount of that water body type). Then the percentages of each water body type with site-specific standards are averaged to obtain a single statewide percentage.
Data Limitations: The designation of water bodies with site-specific standards is typically revised every three years. Therefore, the rate of change of this measure is relatively slow.
Calculation Type: Non-cumulative.
New Measure: No.
Desired Performance: Above projections.

Explanatory 01–01–05.02	**Number of regional action plans implemented**

Short Definition: Number of regional action plans implemented.
Purpose/Importance: Number of projects implemented under an action item adopted as part of a regional action plan such as a comprehensive conservation and management plan.
Source/Collection of Data: Number of projects implemented under an action item adopted as part of a regional action plan such as a comprehensive conservation and management plan. This information will be calculated through a manual calculation by the Office of Water Permits and Resource Management.
Method of Calculation: This information will be calculated through a manual calculation by the Office of Water Permits and Resource Management.
Data Limitations: None identified.
Calculation Type: Cumulative.
New Measure: No.
Desired Performance: Near projections.

Explanatory 01–01–05.03	**Number of dams in the Texas Dam Inventory**

Short Definition: Number of dams in the Texas Dam Inventory.
Purpose/Importance: This measure reflects the number of dams in the state subject to dam safety assessments.
Source/Collection of Data: The Dam Safety Team in the Field Operations Division will use information from field inspections and new water rights permit applications to maintain and update an existing database of approximately 7200 dams. The database will be updated quarterly by the additional listing of new dams and updated changes in the attributes of existing dams.
Method of Calculation: The database will be queried for the number of existing dams in the database.
Data Limitations: None identified.
Calculation Type: Cumulative.
New Measure: No.
Desired Performance: Near projections.

Output 01–01–06.01	**Number of municipal solid waste facility capacity assessments**

Short Definition: The number of annual capacity assessments for municipal solid waste landfills reviewed by the Waste Planning Team.
Purpose/Importance: To gather current and accurate landfill capacity data to assist in the development of state strategic solid waste management plans required by legislation (Chapter 361, Texas Health & Safety Code), and in the

development of regional solid waste management plans required by legislation (Chapter 363, Texas Health & Safety Code). This information is critical in determining whether sufficient disposal capacity exists to manage the quantity of municipal solid waste generated in the state.
Source/Collection of Data: Capacity assessment forms are sent annually to municipal solid waste landfills by the Waste Planning Team. The returned forms are reviewed for consistency with previously reported capacity data, as well as for consistency with related permit and fee data. Data is then entered into a computer database.
Method of Calculation: Capacity is reported in cubic yards, and landfill compaction rates in pounds per cubic yard, as based on actual field measurements or on allowable estimation methods. With this data, capacity is then converted to tons. Landfill life expectancy in years is then projected by dividing the capacity in tons by the number of tons disposed of in landfills during the annual reporting period.
Data Limitations: The number of capacity assessments depends wholly on the number of permitted landfills in the state. This number may be affected by the issuance of new permits as well as facility closures. Therefore, there may be some variance from the projected number of assessments. A number of landfills report capacity and compaction estimates rather than the results of actual field measurements. In addition, projected landfill life expectancies assume no changes in reported landfill size, disposal amounts, and compaction rates. Further, only about 41% of total waste disposal is determined by actual scale weight, with the majority of waste disposal in the state determined by volume estimates.
Calculation Type: Cumulative.
New Measure: No.
Desired Performance: Near projections.

Efficiency 01–01–06.01	**Average cost per municipal solid waste facility capacity assessment**

Short Definition: Average cost per municipal solid waste facility capacity assessment.
Purpose/Importance: This measure reflects agency efforts to conduct municipal solid waste facility capacity assessments in an efficient manner.
Source/Collection of Data: Using USAS expenditure figures maintained by the Office of Environmental Policy, Analysis and Assessment, this measure will be reported by calculating the total funds expended and encumbered through the reporting period for municipal solid waste facility capacity management assessments, divided by the total number of municipal solid waste facility capacity assessments conducted through the reporting period.
Method of Calculation: Using USAS expenditure figures maintained by the Office of Environmental Policy, Analysis and Assessment, this measure will be reported by calculating the total funds expended and encumbered through the reporting period for municipal solid waste facility capacity management assessments, divided by the total number of municipal solid waste facility capacity assessments conducted through the reporting period.
Data Limitations: None identified.
Calculation Type: Non-cumulative.
New Measure: No.
Desired Performance: Below projections.

Explanatory 01–01–06.01	**Number of Council of Government regions in the state with less than 10 years of disposal capacity**

Short Definition: Out of the 24 Council of Government (COG) regions in the state, the number with less than 10 years of projected municipal solid waste landfill capacity remaining.
Purpose/Importance: To identify those regions of the state with projected capacity shortfalls, which may require more detailed solid waste management planning, possibly at the local level.
Source/Collection of Data: Capacity data obtained through the annual reporting program for municipal solid waste landfills is used.

Method of Calculation: Capacity data entered into the program database is sorted geographically by COG region. Capacity is reported in cubic yards, and landfill compaction rates in pounds per cubic yard, as based on actual field measurements or on allowable estimation methods. With this data, capacity is then converted to tons. Landfill life expectancy in years for each COG region is then projected by dividing the capacity in tons by the number of tons disposed of in landfills during the annual reporting period.
Data Limitations: A number of landfills report capacity and compaction estimates rather than the results of actual field measurements. In addition, projected landfill life expectancies assume no changes in reported landfill size, disposal amounts, and compaction rates. Further, only about 41% of total waste disposal is determined by actual scale weight, with the majority of waste disposal in the state determined by volume estimates. (It should be noted that this measure makes no distinction between the disposal capacity located in a particular region and the disposal capacity that may be available to a particular region by nature of that capacity being located within a reasonable distance in a neighboring region.)
Calculation Type: Non-cumulative.
New Measure: No.
Desired Performance: Below projections.

Output 01–01–07.01	**Number of on-site technical assistance visits, presentations and workshops on pollution prevention/waste minimization and environmental management systems conducted**

Short Definition: Total number of pollution prevention/waste minimization and environmental management systems on-site technical assistance visits, workshops and presentations conducted by Pollution Prevention and Environmental Management staff.
Purpose/Importance: This measure provides an indication of Pollution Prevention and Environmental Management staff's ability to conduct outreach and information dissemination of pollution prevention and environmental management systems information to Texas businesses and organizations.
Source/Collection of Data: Site visits, workshops, and presentations are tracked by Pollution Prevention and Environmental Management staff, who include workshop and presentation information into the section's weekly reports. This information is then pulled from the weeklies and entered into a Paradox database.
Method of Calculation: The number of site visits, workshops and presentations conducted during each quarter are summed. Fiscal year totals are calculated by adding quarterly totals.
Data Limitations: None identified.
Calculation Type: Cumulative.
New Measure: No.
Desired Performance: Above projections.

Output 01–01–07.02	**Number of entities joining Clean Texas, the Texas Environmental Management Systems (EMS) Program, and Innovative Programs**

Short Definition: Number of entities approved or authorized to participate in the Clean Texas voluntary environmental leadership program, the Texas EMS, and Innovative Programs.
Purpose/Importance: This measure reflects the agency workload associated with the new Clean Texas program, Texas EMS, and Innovative Programs.
Source/Collection of Data: This measure will be reported by calculating the number of participants in the agency's Clean Texas Program at the Leader, Partner and Advocate levels, the number of participants in the Texas EMS program, and the number of Air Flexible Permits issued and the number of Regulatory Flexibility Orders issued. This information is maintained by the Small Business and Environmental Assistance Division and Office of Permitting, Remediation, & Registration in a computerized database. The measure counts new members joining Clean Texas, Texas EMS, and Innovative Programs in that report period. If a company joins again after completing its three-year commitment at the Partner or Leader level, it would be counted as a new member in the fourth year.

Method of Calculation: Query of database.
Data Limitations: None identified.
Calculation Type: Cumulative.
New Measure: Yes.
Desired Performance: Near projections.

Output 01–01–07.03	**Number of quarts of used oil diverted from landfills and processed**

Short Definition: Number of quarts of used oil diverted from landfills and processed
Purpose/Importance: This number indicates the amount of used oil which, if not received by the registered collection centers, would otherwise be delivered to landfills or improperly disposed, potentially causing harm to human health and the environment. The number is a quantitative measurement of pollution prevention. This number represents the total volume of used oil, expressed in quarts, which were reported to the agency by Used Oil Collection Centers. The Collection Centers collect and prepare the oil for recycling before reuse or resale to the public. The reports are due January 25 of each year for the previous year's activity.
Source/Collection of Data: This number is obtained from the quantities of oil reported on TNRCC Form 0567, *Annual Report for Used Oil and Used Oil Filter Collection Centers*, from the box titled "Total Gallons of Used Oil Collected". Since the report is due on January 25 of each year for the previous year's activity, only one number is used and is reported for the second quarter and again for the Year-to-Date Performance.
Method of Calculation: Performance data is obtained from the total quantities of oil reported on TNRCC Form 0567, *Annual Report for Used Oil and Used Oil Filter Collection Centers*, from the box titled "Total Gallons of Used Oil Collected".
Data Limitations: Some collection centers in previous years have reported the same oil twice, including the oil they transport as oil collected. This would make the number larger than it actually is. TNRCC staff continues to work with the collection centers to ensure that reported values are accurate and representative of actual oil collected.
Calculation Type: Non-cumulative.
New Measure: No.
Desired Performance: Near projections.

Efficiency 01–01–07.01	**Average cost per on-site technical assistance visit**

Short Definition: The average cost of each technical site assistance visit performed by Pollution Prevention and Environmental Management staff.
Purpose/Importance: This measure provides an indication of staff's ability to provide pollution prevention assistance and training in a cost-effective, efficient manner.
Source/Collection of Data: Use USAS expenditure figures maintained by the Small Business and Environmental Assistance Division to calculate the total funds expended and encumbered through the reporting period for on-site technical assistance visits. This is then divided by the total number of on-site visits to determine an average cost per visit for the reporting period.
Method of Calculation: This measure will be calculated by totaling funds expended and encumbered through the reporting period and dividing by the number of visits conducted through the period.
Data Limitations:
- Average cost per site visit may not necessarily be an indicator of staff efficiency.
- Certain areas in Texas are more expensive to visit; travel to those locations incurs more costs than visits to other locations even when staff efficiency is high.

Calculation Type: Non-cumulative.
New Measure: No.

Desired Performance: Below projections.

Explanatory 01–01–07.01	Tons of hazardous waste reduced as a result of pollution prevention planning

Short Definition: This measure indicates the level of hazardous waste reduction by Texas facilities and provides information regarding the agency's efforts to reduce toxics released in Texas.
Purpose/Importance: This information is not measured by any other program at the TNRCC and provides information that is independent of economic factors such as production.
Source/Collection of Data: The source of the data is the information provided by facilities on the annual progress report required by Waste Reduction Policy Act (WRPA). This information is maintained in a Paradox database.
Method of Calculation: The measure is calculated by adding up the source reduction number from all facilities reporting.
Data Limitations: Data is dependent upon accurate and timely reporting by facilities. In addition, the data reported reflects actual values from 2 years prior. For example, data reported in August 2000, will represent data received from industry in 1999, which is for their calendar year 1998.
Calculation Type: Non-cumulative.
New Measure: No.
Desired Performance: Above projections.

Explanatory 01–01–07.02	Tons of waste collected by local and regional collection and cleanup events coordinated/assisted by TNRCC

Short definition: The tons of waste collected through household hazardous waste, agricultural chemical waste, and empty pesticide container collections and cleanup events, including river and lake and rural cleanups, coordinated, sponsored or assisted by TNRCC.
Purpose/Importance: This measure provides data on how much household hazardous waste, agricultural waste chemicals and litter was collected and properly disposed of in Texas, thus reducing the impact on the environment.
Source/Collection of Data: Manual count of agency records. This data reports submitted by entities holding events.
Method of Calculation: Summation of all related events in Texas.
Data Limitations: Data quality is limited to quality of reports submitted to agency.
Calculation type: Cumulative.
New Measure: No.
Desired Performance: Above projections.

Explanatory 01–01–07.03	Tons of agricultural waste chemicals collected by TNRCC-sponsored entities

Short definition: The tons of agricultural waste chemicals collected by agency contractors. The contractor(s) will report to the agency the amount of all agricultural waste chemicals weighed and measured at each collection.
Purpose/Importance: This measure provides data on how much agricultural waste chemicals were collected and properly disposed of in Texas, thus reducing the impact on the environment**.**
Source/Collection of Data: The contractor(s) will report to the agency the amount of all agricultural waste chemicals weighed and measured at each collection.
Method of Calculation: Summation of weights of wastes collected at events reported by contractors.
Data Limitations: None identified.
Calculation type: Cumulative.
New Measure: No.
Desired Performance: Above projections.

Explanatory 01–01–07.04	Number of registered waste tire facilities and transporters

Short Definition: Number of Registered Waste Tire Facilities and Transporters.
Purpose/Importance: The number depicts the quantity of regulated facilities involved in scrap tire management, who have complied with the agency's rules and provide reports on tire management and recycling. The number can also indicate any trends in scrap tire management, such as increase or decrease in number of facilities from year to year.
Source/Collection of Data: The number is obtained from either the Tires Management System (TMS) or a Paradox file from TMS. This number represents the universe of facilities which either transport, store, process, recycle or burn for energy recovery, scrap tires.
Calculation Method: The Registration & Reporting Section registers and maintains data on these facilities. The number is a sum total of all entries in the database.
Data Limitations: None identified.
Calculation Type: Non-cumulative.
New Measure: No.
Desired Performance: Near projections.

Outcome 01–02.01	Percent of Texas population served by public water systems which meet drinking water standards

Short Definition: This measure will report the total Texas residential population of all community public water systems which have not had Maximum Contaminant Level (MCL) violations.
Purpose/Importance: Measures the success of our performance outputs and all regulatory activities conducted by TNRCC to protect the public health of Texans receiving water from a public drinking water system. This measure reflects the percent of the population in Texas served by drinking water systems which meet drinking water standards.
Source/Collection of Data: Population information is gathered during each sanitary survey of a public water system (PWS) conducted by field staff. Violation data is obtained from the review of chemical and microbiological data which is either submitted to TNRCC from certified laboratories after samples are collected by PWS personnel or contract sample collectors. Original inspection reports as well as Chemical and Microbiological data are kept in the Central Records facility located in Building F, first floor. Population data is kept in a Water Utilities Data System (WUD) while violation data is kept in the legacy violation and chem tables.
Method of Calculation: Using the Public water supply inventory and the violation data bases, the measures will report the total Texas residential population of all PWSs which have not had Maximum Contaminant Level (MCL) violations as described by the Drinking Water Standards. This population figure is divided by the total population served by all community water systems, multiplied by 100 to derive a percentage. (Total state population served by public water systems is defined from data projected by the comptroller's office and census data.)
Data Limitations: None identified.
Calculation Type: Non-cumulative.
New Measure: No.
Desired Performance: Above projections.

Outcome 01–02.02	Percent of Texas public water systems protected by a source water protection program

Short Definition: The percent of Texas community public water systems (PWS) which have been provided the tools to initiate a source water protection program. These tools include a detailed susceptibility assessment report for each system reporting their susceptibility to drinking water contaminants, locations of all potential contaminant sources, and recommended actions to address these potential contaminants.
Purpose/Importance: This measure addresses the extent to which source water protection services are being provided and targeted towards susceptible public water supply systems. These services include identification of the

contributing area, identification of potential sources of contamination (PSOC), a site specific report that explains these PSOCs, and recommendations on how to eliminate or minimize these threats. It is far more cost effective to prevent a water source from being contaminated than to remediate it or to find an alternative source.
Source/Collection of Data: Population information is gathered during each sanitary survey of PWS conducted by TNRCC field staff. Field staff also provide location of water sources and sanitary set back information for each well. Chemical data from the Water Utilities Data System (WUD) and other inter/intra agency databases are used to determine susceptibility through the Source Water Assessment & Protection software. Ground inventories of PSOCs will be conducted by TNRCC staff, outsource contractor, or PWS personnel/volunteers and incorporated into PSOC databases. Locations are derived through GPS and GIS technology.
Method of Calculation: A percentage is obtained by dividing the number of community PWS that have been provided the tools for participating in a protection program by the total number of community PWS, multiplied by 100. Participation is defined when one of the following is met: 1) has had a ground PSOC inventory conducted or updated within the last seven years, 2) has been provided the current assessment results with maps of PSOCs and associated best management practice (BMPs) strategies within three years, or 3) has actively initiated protection strategies and BMPs within the last seven years.
Data Limitations: Poor locational accuracy may affect the susceptibility determination.
New Measure: Yes.
Desired Performance: Above projections.

Outcome 01–02.03	**Percent of Texas population served by public water systems protected by a program which prevents connection between potable and non-potable water sources**

Short Definition: Percent of Texas population served by public water systems protected by a program which prevents connection between potable and non-potable water sources.
Purpose/Importance: To indicate what percentage of the population is served by public water systems, which have viable cross-connection control programs. Having a viable cross-connection control program protects the public water system from contamination caused by siphonage or backflow of pollutants into the system as a result of low or inadequate pressure.
Source/Collection of Data: Data collected from cross-connection control program surveys that were mailed to all public water systems in the State of Texas, sanitary surveys completed by Texas Natural Resource Conservation Commission regional staff, and on-site visits by central office staff to survey public water systems that did not respond to the mailed surveys.
Method of Calculation: Using public water supply databases, the total of the Texas residential population served by community water systems which have implemented a program which prevents connection between potable and non-potable water sources will be divided by the total residential population served by community public water systems, all of which are required by agency rule to have such a program to prevent connection between potable and non-potable water. This measure will track the compliance rates of such systems with this recently developed rule.
Data Limitations: Data limited by the information provided by the public water systems in the returned cross-connection surveys. Data is also limited by the accuracy of the reported population of the State of Texas.
Calculation Type: Non-cumulative.
New Measure: No.
Desired Performance: Above projections.

Output 01–02–01.01	**Number of public drinking water systems which meet primary drinking water standards**

Short Definition: Number of public drinking water systems which meet drinking water standards
Purpose/Importance: Measures the success of our performance outputs and all regulatory activities conducted by TNRCC to protect the public health of Texans receiving water from a public drinking water system. This measure will

report the total number of all community public water systems which have not had Maximum Contaminant Level (MCL) violations.
Source/Collection of Data: Population information is gathered during each sanitary survey of a public water system (PWS) conducted by field staff. Violation data is obtained from the review of chemical and microbiological data which is either submitted to TNRCC from certified laboratories after samples are collected by PWS personnel or contract sample collectors. Original inspection reports as well as Chemical and Microbiological data are kept in the Central Records facility located in Building F, first floor. Population data is kept in a database table called the Water Utilities Data System (WUD) while violation data is kept in the legacy violation and chem tables.
Method of Calculation: Using the Public water supply inventory and the violation databases, the measures will report the number of PWSs which have not had Maximum Contaminant Level (MCL) violations as described by the Drinking Water Standards.
Data Limitations: None identified.
Calculation Type: Cumulative.
New Measure: No.
Desired Performance: Above projections.

Output 01–02–01.02	**Number of drinking water samples collected**

Short Definition: Number of drinking water samples collected.
Purpose/Importance: Chemical samples are collected from Public Water systems (PWS) to assure safe drinking water and protect public health. Samples must be collected in order to be analyzed.
Source/Collection of Data: Chemical samples are collected by PWS personnel or contract sample collectors and the numbers are reported to the Public Drinking Water Section Monitoring Team on a monthly basis. Original Chemical data are kept in the Central Records facility located in Building F, first floor. It is also maintained electronically. Chemical data is kept in data base tables called G:\inven\map_70 ,G:\inven\organic and G:\inven\orgpos. Field investigators enter investigation information into the monthly Workplan Commitment Report or its successor database. Each reporting period Field Operations retrieves from the report or its successor database the number of samples collected.
Method of Calculation: Chemical samples collected from PWSs are reported from two sources. The number os samples collected by the PDW contract sample collectors is obtained from the Public Drinking Water Section Monthly Activity Report while samples collected by TNRCC are reported as totals obtained from the Field Operations Division Monthly Activity Report. The numbers are totaled on a monthly basis. The number of samples collected by the PDW Contractor will be obtained from the Public Drinking Water Section Monthly Activity Report while samples collected by TNRCC Field Operations Division will be reported as totals obtained from the Workplan Commitment Report or its successor database.
Data Limitations: None identified.
Calculation Type: Cumulative.
New Measure: No.
Desired Performance: Above projections.

Output 01–02–01.03	**Number of utility rate reviews performed**

Short Definition: Number of utility rate reviews performed
Purpose/Importance: This measure reflects the number of requests from utilities to increase rates which are reviewed and the number of staff initiated audits of utility rate structures.
Source/Collection of Data: Using the agency's Water Utilities Data (WUD) system, this measure will report on the

number of all utility rate audits, appeals, and applications reviewed which receive either administrative approval by agency staff or are referred to the commission for action.
Method of Calculation: Query of the agency's WUD system, summation of rate reviews performed.
Data Limitations: The number of rate reviews performed is tied with economic conditions in the state.
Calculation Type: Cumulative.
New Measure: No.
Desired Performance: Near projections.

Output 01–02–01.04	**Number of district applications processed**

Short Definition: Number of district applications processed
Purpose/Importance: This measure reflects agency workload in reviewing utility district applications.
Source/Collection of Data: Using the agency's Water Utilities Data (WUD) system, this measure will report on the number of all utility district applications reviewed which receive either administrative approval by agency staff or are referred to the commission for action.
Method of Calculation: Query and sum agency's WUD system on a quarterly basis.
Data Limitations: The number of applications received is directly related to economic development activity in the state.
Calculation Type: Cumulative.
New Measure: No.
Desired Performance: Near projections.

Output 01–02–01.05	**Number of certificates of convenience and necessity applications processed**

Short Definition: Number of certificates of convenience and necessity applications processed.
Purpose/Importance: This measure reflects the number of applications by utilities to modify or extend their systems for which a certificate of convenience and necessity is required.
Source/Collection of Data: Using the agency's Water Utilities Data (WUD) system, the total number of Certificate of Convenience and Necessity applications reviewed which receive either administrative approval by agency staff or are referred to the commission for action . A Certificate of Convenience and Necessity delineates a utility's service area.
Method of Calculation: Using the agency's WUD system, the number of applications reviewed will be summed on a quarterly basis.
Data Limitations: This activity is related to economic development activity in the state.
Calculation Type: Cumulative.
New Measure: No.
Desired Performance: Near target.

Outcome 02–01.01	**Percent of inspected or investigated air sites in compliance**

Short Definition: Percent of inspected or investigated air sites in compliance.
Purpose/Importance: The measure reflects inspection/investigation activity as regulated entities are inspected/investigated to assure compliance with rules, regulations, and statutes designed to protect human health and the environment. Measuring compliance rates of sites following inspections/investigations allows the agency to determine if regulatory assistance, inspection/investigation, and enforcement programs are effective. Lower

compliance rates may indicate a need for increased assistance to the regulated community to ensure that they understand their responsibilities.
Source/Collection of Data: This information is tracked using the databases in the Enforcement and Field Operations Divisions. An enforcement action is defined as issuance of an order, compliance agreement, or referral to an appropriate agency or division (EPA, OAG, or Remediation or Field Operations Divisions for Superfund, voluntary cleanup, or emergency removal action).
Method of Calculation: The percent of inspected or investigated air sites in compliance is derived by calculating the total number of sites inspected/investigated for compliance with air rules, regulations, and statutes minus the total number of air cases screened and approved for enforcement action, dividing this difference by the total number of sites inspected/investigated for compliance with air rules, regulations, statutes, multiplied by 100.
Data Limitations: The agency can encourage compliance through regulatory assistance and ensuring that a strong and fair enforcement program exists, however, the TNRCC cannot control the will or financial status of the regulated community regarding their ability to comply.
Calculation Type: Non-cumulative.
New Measure: No.
Desired Performance: Above projections.

Outcome 02–01.02	**Percent of inspected or investigated water sites and facilities in compliance**

Short Definition: Percent of inspected or investigated water sites and facilities in compliance.
Purpose/Importance: This measure reflects inspection/investigation activity as regulated entities are investigated to assure compliance with rules, regulations, and statutes designed to protect human health and the environment. Measuring compliance rates following inspections/investigations allows the agency to determine if regulatory assistance, inspection/investigation, and enforcement programs are effective. Lower compliance rates may indicate a need for increased assistance to the regulated community to ensure that they understand their responsibilities.
Source/Collection of Data: The enforcement and inspection/ investigation information is tracked using databases in the Enforcement and Field Operations Divisions and the number of wastewater and water supply facilities is tracked using the Water Utilities Database, TRACS, and the Federal Permit Compliance System. The total number of cases screened and approved for enforcement action does not include occupational certification program activities. An enforcement action is defined as issuance of an order, compliance agreement, or referral to an appropriate agency or division (EPA, OAG, or Remediation or Field Operations Divisions for Superfund, voluntary cleanup, or emergency removal action).
Method of Calculation: The percent of inspected or investigated water sites and facilities in compliance is derived by taking the total number of facilities inspected/investigated for compliance with water rules/ regulations/ statutes, including water rights sites, wastewater treatment facilities, public water supply systems, sludge/septage transporters, beneficial use sites, and livestock and poultry operations; plus the number of wastewater and water supply facilities required to self report and/or conduct chemical analyses; minus the total number of water cases (for the categories described above) screened and approved for enforcement action; and dividing this difference by the total number of facilities inspected/investigated or evaluated for compliance with water rules/regulations/statutes, including self reporting requirements (as described above); multiplied by 100.
Data Limitations: The agency can encourage compliance through regulatory assistance and ensuring that a strong and fair enforcement program exists, however, the TNRCC cannot control the will or financial status of the regulated community regarding their ability to comply.
Calculation Type: Non-cumulative.
New Measure: No.
Desired Performance: Above projections.

PERFORMANCE MEASURES AND DEFINITIONS — FISCAL YEAR 2003

(The performance measures and definitions below have not received formal approval from the LBB/GOBP at the time of this printing.)

Outcome 02–01.03	**Percent of inspected or investigated waste sites in compliance**

Short Definition: Percent of inspected or investigated waste sites in compliance.
Purpose/Importance: The measure reflects inspection/investigation activity as regulated entities are inspected/investigated to assure compliance with rules, regulations, and statutes designed to protect human health and the environment. Measuring compliance rates following inspections/investigations allows the agency to determine if regulatory assistance, inspection/investigation, and enforcement programs are effective. Lower compliance rates may indicate a need for increased assistance to the regulated community to ensure that they understand their responsibilities.
Source/Collection of Data: This information is tracked using databases in the Enforcement and Field Operations Divisions and the inspections database used by the UIC and Radioactive Waste Section. An enforcement action is defined as issuance of an order, compliance agreement, or referral to an appropriate agency or division (EPA, OAG, or Remediation or Field Operations Divisions for Superfund, voluntary cleanup, or emergency removal action).
Method of Calculation: The percent of inspected or investigated waste sites in compliance is derived by calculating the total number of facilities inspected/investigated for compliance with waste rules/ regulations/ statutes minus the total number of cases screened and approved for enforcement action, dividing this difference by the total number of facilities inspected/investigated for compliance with waste rules/regulations/statutes, multiplied by 100. Waste sites include industrial and hazardous waste, municipal solid waste, petroleum storage tank, underground injection control, and radioactive waste sites.
Data Limitations: The agency can encourage compliance through regulatory assistance and ensuring that a strong and fair enforcement program exists, however, the TNRCC cannot control the will or financial status of the regulated community regarding their ability to comply.
Calculation Type: Non-cumulative.
New Measure: No.
Desired Performance: Above projections.

Outcome 02–01.04	**Percent of identified noncompliant sites and facilities for which appropriate action is taken**

Short Definition: Percent of identified noncompliant sites and facilities for which appropriate action is taken.
Purpose/Importance: This measure compares enforcement actions which the agency takes during a fiscal year and determines whether they have been taken within appropriate time frames. Timeliness of enforcement processes is important to ensure that the regulated entity returns to compliance as soon as possible.
Source/Collection of Data: Using Enforcement Database, the Enforcement Division will determine the total number of formal enforcement actions taken during the reporting period and will evaluate whether or not the actions were completed timely. Formal actions include issuance of an order, compliance agreement, or referral to an appropriate agency or division (EPA, OAG, or Remediation or Field Operations Divisions for Superfund, voluntary cleanup, or emergency removal action), as determined according to agency guidelines. Each of these actions taken will be evaluated to determine whether or not the action was completed within internal agency time frames in order to determine whether appropriate action was taken, using the date of screening as the start date and the date of the order, compliance agreement, or referral as the end date.
Method of Calculation: The percentage will be calculated by taking the total number of cases with actions taken within appropriate time frames against noncompliant facilities divided by the total number of cases with formal action taken, multiplied by 100 to derive a percentage.
Data Limitations: Time frames for completion of enforcement actions involve processes which cannot be solely controlled by the TNRCC. The respondents in these cases can create delays in processing the orders and compliance agreements if they request hearings or if the technical requirements are complex, requiring extensive negotiation.
Calculation Type: Non-cumulative.

PERFORMANCE MEASURES AND DEFINITIONS — FISCAL YEAR 2003

(The performance measures and definitions below have not received formal approval from the LBB/GOBP at the time of this printing.)

New Measure: No.
Desired Performance: Above projections.

Outcome 02-01.05	**Percent of investigated occupational licensees in compliance**

Short Definition: Percent of inspected or investigated licensees in compliance.
Purpose/Importance: The measure reflects inspection/investigation activity as occupational certification licensees are inspected/investigated to assure compliance with rules, regulations, and statutes designed to protect human health and the environment. Measuring compliance rates following investigations allows the agency to determine if regulatory assistance, investigation, and enforcement programs are effective. Lower compliance rates may indicate a need for increased assistance to the regulated community to ensure that they understand their responsibilities.
Source/Collection of Data: This information is tracked using databases in the Enforcement and Compliance Support Divisions. An enforcement action is defined as issuance of an order, compliance agreement, or referral to the OAG.
Method of Calculation: The percent of inspected licensees in compliance is derived by calculating the total number of licensees inspected/investigated by the Compliance Support Division minus the total number of occupational certification cases screened and approved for enforcement action, dividing this difference by the total number of licensees inspected/ investigated (as defined above), multiplied by 100.
Data Limitations: The agency can encourage compliance through regulatory assistance and ensuring that a strong and fair enforcement program exists, however, the TNRCC cannot control the will or financial status of licensees regarding their ability to comply.
Calculation Type: Non-cumulative.
New Measure: No.
Desired Performance: Above projections.

Output 02–01–01.01	**Number of inspections and investigations of air sites**

Short Definition: Number of inspections and investigations performed at regulated air sites.
Purpose/Importance: Regulated entities are investigated to assure compliance with rules, regulations, and statutes designed to protect human health and the environment.
Source/Collection of Data: Using the Air Program Point Source Database, this measure is calculated by adding the total number of inspections/investigations completed for air entities during the reporting period. An investigation is considered complete when the investigation has been conducted, a report has been written, management has approved, and manager's approval date has been reflected in the database. An inspection/investigation is defined as the evaluation of a regulated entity against a standard and includes all (initial and follow up) compliance inspections, file reviews, site assessments and agent evaluations. Site is defined as a geographic location or place where regulatory activities of interest to the agency occur or have occurred. Investigations are conducted to ensure compliance of regulated entities with rules, regulations and statutes designed to protect human health and the environment. Number does not include citizen complaint investigations.
Method of Calculation: Each reporting period, Field Operations retrieves from the database the number of investigations completed in the field offices as well as those completed by city and or county local programs for certain air related activities. An investigation is considered complete when the investigation has been conducted, a report has been written, management has approved, and the manager's approval date has been reflected in the database.
Data Limitations: None identified.
Calculation Type: Cumulative.
New Measure: No.
Desired Performance: Near projections.

Output 02–01–01.02	**Number of inspections and investigations of water rights sites**

Short Definition: Number of inspections/investigations performed at regulated water rights sites.
Purpose/Importance: The measure reflects agency efforts to divide the water of the streams and regulate the controlling works of reservoirs in accordance with the adjudicated water rights.
Source/Collection of Data: Using a manual count of records maintained by the Watermaster Program, this measure is the total number of Watermaster diversion site inspection/investigations performed as a result of a request to divert water.
Method of Calculation: Each reporting period, Field Operations retrieves from the database the number completed by the Water Masters.
Data Limitations: None identified.
Calculation Type: Cumulative.
New Measure: No.
Desired Performance: Above projections.

Output 02–01–01.03	**Number of inspections and investigations of water sites and facilities**

Short Definition: Number of inspections and investigations performed at regulated water sites and facilities.
Purpose/Importance: Regulated entities are investigated to assure compliance with rules, regulations, and statutes designed to protect human health and the environment.
Source/Collection of Data: Using water program databases and/or Workplan Activity reports, this measure is calculated by adding the total number of inspections/investigations completed for water entities during the reporting period. An inspection/investigation is considered complete when the investigation has been conducted, a report has been written, management has approved, and manager's approval date has been reflected in the database. Inspection/Investigation is defined as the evaluation of a regulated entity against a standards and includes all (initial and follow up) compliance inspections, file reviews, site assessments and agent evaluations. Water entities include, but are not limited to, domestic and industrial wastewater treatment plants, public water supply systems, sludge/septage transporters, beneficial use sites, on-site sewage facility (OSSF), compliance review audits of on-site OSSF authorized agents, and municipal utility districts. Site is defined as a geographic location or place where regulatory activities of interest to the agency occur or have occurred. This measure includes OSSF installation and follow-up investigations. Inspections/investigations are conducted to ensure compliance of regulated entities with rules, regulations and statutes designed to protect human health and the environment. Number does not include citizen complaint investigations or investigations of livestock and poultry operations.
Method of Calculation: Each reporting period, Field Operations retrieves from the database the number of investigations completed in the field offices as well as those completed by city and or county local programs for certain activities. An investigation is considered complete when the investigation has been conducted, a report has been written, management has approved, and the manager's approval date has been reflected in the database.
Data Limitations: None identified.
Calculation Type: Cumulative.
New Measure: No.
Desired Performance: Above projections.

Output 02–01–01.04	**Number of inspections and investigations of livestock and poultry operation sites**

Short Definition: Number of inspections and investigations at livestock and poultry operation sites.
Purpose/Importance: Regulated entities are investigated to assure compliance with rules, regulations, and statutes designed to protect human health and the environment.

Source/Collection of Data: Using a water program database, this measure is calculated by adding the total number of inspections/investigations completed at livestock and poultry operations during the reporting period. An inspection/investigation is considered complete when the investigation has been conducted, a report has been written, management has approved, and manager's approval date has been reflected in the database. Investigation is defined as the evaluation of a regulated entity against a standard and includes all (initial and follow up) compliance inspections, file reviews, site assessments and agent evaluations. Site is defined as a geographic location or place where regulatory activities of interest to the agency occur or have occurred. Investigations are conducted to ensure compliance of regulated entities with rules, regulations and statutes designed to protect human health and the environment. This definition formerly included investigations in the dairy outreach areas only. It now includes livestock and poultry investigations statewide. Number does not include citizen complaint investigations.
Method of Calculation: Each reporting period, Field Operations retrieves from the database the number of investigations completed. An investigation is considered complete when the investigation has been conducted, a report has been written, management has approved, and the manager's approval date has been reflected in the database.
Data Limitations: None identified.
Calculation Type: Cumulative.
New Measure: No.
Desired Performance: Above projections.

Output 02–01–01.05	**Number of inspections and investigations of waste sites**

Short Definition: Number of inspections and investigations performed at waste sites.
Purpose/Importance: Regulated entities are investigated to assure compliance with rules, regulations, and statutes designed to protect human health and the environment.
Source/Collection of Data: Using the Field Operations Division databases, this measure is calculated by adding the total number of inspections/investigations completed of regulated municipal solid waste (MSW), industrial and hazardous waste (IHW), petroleum storage tank (PST) and state II vapor recovery entities during the reporting period. An inspection/investigation is considered complete when the investigation has been conducted, a report has been written, management has approved, and manager's approval date has been reflected in the database. Investigation is defined as the evaluation of a regulated entity against a standard and includes all (initial and follow up) compliance inspections, file reviews, site assessments and agency evaluations. MSW includes, but is not limited to investigations of generators, storage sites, transporters and processors of waste tire entities and used oil/used oil filter facilities. IHW includes, but is not limited to, investigations of generators, treatment/storage, land disposal, boilers and industrial furnaces (BIF), underground injection control (UIC), Department of Defense/Department of Energy and border warehouses. Site is defined as a geographic location or place where regulatory activities of interest to the agency occur or have occurred. Investigations are conducted to ensure compliance of regulated entities with rules, regulations, and statutes designed to protect human health and the environment. Number does not include citizen complaints investigations.
Method of Calculation: Each reporting period, Field Operations retrieves from the database the number of investigations completed in the field offices as well as those completed by city and or county local programs for certain activities. An investigation is considered complete when the investigation has been conducted, a report has been written, management has approved, and the manager's approval date has been reflected in the database.
Data Limitations: None identified.
Calculation Type: Cumulative.
New Measure: No.
Desired Performance: Above projections.

Output 02–01–01.06	**Number of spill cleanup inspections**

Short Definition: Number of spill cleanup inspections.
Purpose/Importance: Regulated entities are investigated to assure compliance with rules, regulations, and statutes designed to protect human health and the environment.
Source/Collection of Data: Using the Field Operations Division spill database, this measure is calculated by adding the total number of initial, on-site spill incident inspections/investigations conducted. An inspection/investigation is defined as the evaluation of a regulated entity against a standard. Inspections/investigations are conducted to ensure compliance of regulated entities with rules, regulations, and statutes designed to protect human health and the environment.
Method of Calculation: During each reporting period, the Field Operations Division retrieves from the database the number of initial, on-site spill investigations conducted.
Data Limitations: The TNRCC has no control over the number of spills that occur.
Calculation Type: Cumulative.
New Measure: No.
Desired Performance: Below projections.

Efficiency 02–01–01.01	**Average inspection and investigation cost of livestock and poultry operations**

Short Definition: The average cost per inspection/investigation of livestock and poultry operations.
Purpose/Importance: This measure reflects how efficiently the agency conducts investigations of livestock and poultry operations in the state. Regulated entities are investigated to assure compliance with rules, regulations and statutes designed to protect human health and the environment.
Source/Collection of Data: Using USAS expenditure figures and activity reports maintained by the Field Operations Division, this measure will be reported by calculating the total funds expended during the reporting period for TNRCC monitoring of livestock and poultry operations, divided by the number of inspections/investigations, other compliance inspections and complaint investigations for livestock and poultry operations conducted during the reporting period.
Data Calculation: Query of database for number of inspections divided into the amount of funds expended during the reporting period.
Data Limitations: None identified.
Calculation Type: Non-cumulative.
New Measure: No.
Desired Performance: Below projections.

Efficiency 02–01–01.02	**Average time to complete an inspection/investigation of air sites**

Short Definition: Average time to complete an inspection/investigation of air sites.
Purpose/Importance: The measure reflects how efficiently the agency completes investigations of air sites.
Source/Collection of Data: An inspection/investigation is considered complete when investigation is conducted, report is written, approved by management and manager's approval date has been reflected in the database. Inspection/Investigation is defined as the evaluation of a regulated entity against a standard. Using air program databases and calculations, this measure is derived by calculating the total number of calendar days between date of inspection and date of completion divided by the total number of completed air investigations reported under Output 02-01-01.01 for air entities during the reporting period.
Method of Calculation: this measure is derived by calculating the total number of calendar days between date of inspection and date of completion divided by the total number of completed air investigations reported under Output 02-01-01.01 for air entities during the reporting period.

Data Limitations: None identified.
Calculation Type: Non-cumulative.
New Measure: No.
Desired Performance: Below projections.

Efficiency 02–01–01.03	**Average time to complete an inspection/investigation of water sites and facilities**

Short Definition: Average time to complete an inspection/investigation of water sites.
Purpose/Importance: The measure reflects how efficiently the agency completes investigations of water sites.
Source/Collection of Data: An inspection/investigation is considered complete when the investigation has been conducted, a report has been written, management has approved, and manager's approval date has been reflected in the database. Inspection/Investigation is defined as the evaluation of a regulated entity against a standard. Using water program databases and calculations, this measure is derived by calculating the total number of calendar days between date of inspection and date of completion divided by the total number of completed water investigations reported under Output 02-01-01.03 for water entities during the reporting period.
Method of Calculation: This measure is derived by calculating the total number of calendar days between date of inspection and date of completion divided by the total number of completed water investigations reported under Output 02-01-01.03 for water entities during the reporting period.
Data Limitations: None identified.
Calculation Type: Non-cumulative.
New Measure: No.
Desired Performance: Below projections.

Efficiency 02–01–01.04	**Average time to complete an inspection/investigation of waste sites**

Short Definition: Average time to complete an inspection/investigation of waste sites
Purpose/Importance: The measure reflects how efficiently the agency completes investigations of waste sites.
Source/Collection of Data: An inspection/investigation is considered complete when the investigation has been conducted, a report has been written, management has approved, and manager's approval date has been reflected in the database. Inspection/Investigation is defined as the evaluation of a regulated entity against a standard. Using division waste databases, this measure is derived by calculating the total number of calendar days between date of investigation and date of completion divided by the total number of completed waste_investigations reported under Output 02-01-01.05 for waste entities during the reporting period.
Method of Calculation: This measure is derived by calculating the total number of calendar days between date of investigation and date of completion divided by the total number of completed waste investigations reported under Output 02-01-01.05 for waste entities during the reporting period.
Data Limitations: None identified.
Calculation Type: Non-cumulative.
New Measure: No.
Desired Performance: Below projections.

Explanatory 02–01–01.01	**Number of air sites in noncompliance**

Short Definition: Number of air sites in noncompliance.
Purpose/Importance: Reflects the number of enforcement cases required following investigations.
Source/Collection of Data: This measure will be derived by calculating the total number of air cases screened and approved for enforcement action during the fiscal year. This information is tracked using the Enforcement Database.

An enforcement action is defined as issuance of an order, compliance agreement, or referral to an appropriate agency or division (EPA, OAG, or Remediation or Field Operations Divisions for Superfund, voluntary cleanup, or emergency removal action).
Method of Calculation: This measure will be derived by calculating the total number of air cases screened and approved for enforcement action.
Data Limitations: The agency can encourage compliance through regulatory assistance and ensuring that a strong and fair enforcement program exists, however, the TNRCC cannot control the will or financial status of the regulated community regarding their ability to comply.
Calculation Type: Cumulative.
New Measure: No.
Desired Performance: Below projections.

Explanatory 02–01–01.02	**Number of water sites and facilities in noncompliance**

Short Definition: Number of water sites and facilities in noncompliance.
Purpose/Importance: Reflects the number of enforcement cases required following investigations.
Source/Collection of Data: This measure will be derived by determining the total number of water cases screened and approved for enforcement action. Water cases include livestock and poultry operations, water rights, wastewater treatment facilities, sludge/septage transporters, beneficial use sites, and public water supply cases and does not include occupational certification cases. This information is tracked using the Enforcement Database. An enforcement action is defined as issuance of an order, compliance agreement, or referral to an appropriate agency or division (EPA, OAG, or Remediation or Field Operations Divisions for Superfund, voluntary cleanup, or emergency removal action).
Method of Calculation: This measure will be derived by determining the total number of water cases screened and approved for enforcement action.
Data Limitations: The agency can encourage compliance through regulatory assistance and ensuring that a strong and fair enforcement program exists, however, the TNRCC cannot control the will or financial status of the regulated community regarding their ability to comply.
Calculation Type: Cumulative.
New Measure: No.
Desired Performance: Below projections.

Explanatory 02–01–01.03	**Number of waste sites in noncompliance**

Short Definition: Number of waste sites in noncompliance.
Purpose/Importance: Reflects the number of enforcement cases required following inspections or investigations.
Source/Collection of Data: This measure will be derived by calculating the total number of waste cases screened and approved for enforcement action. Waste cases includes industrial and hazardous waste, municipal solid waste, petroleum storage tank, underground injection control, and radioactive waste cases. This information is tracked using the Enforcement Database. An enforcement action is defined as issuance of an order, compliance agreement, or referral to an appropriate agency or division (EPA, OAG, or Remediation or Field Operations Divisions for Superfund, voluntary cleanup, or emergency removal action).
Method of Calculation: This measure will be derived by determining the total number of waste cases screened and approved for enforcement action.
Data Limitations: The agency can encourage compliance through regulatory assistance and ensuring that a strong and fair enforcement program exists, however, the TNRCC cannot control the will or financial status of the regulated community regarding their ability to comply.

Calculation Type: Cumulative.
New Measure: No.
Desired Performance: Below projections.

Explanatory 02–01–01.04	Number of occupational licensees in noncompliance

Short Definition: Number of occupational licensees in noncompliance.
Purpose/Importance: This measure reflects agency investigation and enforcement efforts for licensees.
Source/Collection of Data: This measure will be derived by calculating the total number of cases screened and approved for enforcement action for occupational certification cases. This information will be tracked using the Enforcement Database. An enforcement action is defined as issuance of an order, compliance agreement, or referral to the OAG.
Method of Calculation: This measure will be derived by calculating the total number of cases screened and approved for enforcement action for occupational certification cases.
Data Limitations: The agency can encourage compliance through regulatory assistance and ensuring that a strong and fair enforcement program exists, however, the TNRCC cannot control the will or financial status of the licensees regarding their ability to comply.
Calculation Type: Cumulative.
New Measure: Yes.
Desired Performance: Below projections.

Explanatory 02–01–01.05	Number of citizen complaints investigations completed

Short Definition: Number of citizen complaints investigations completed.
Purpose/Importance: Regulated entities are investigated to assure compliance with rules, regulations, and statutes designed to protect human health and the environment.
Source/Collection of Data: Using a Field Operations database, this measure is calculated by adding the total number of citizen complaints investigated.
Method of Calculation: Each reporting period, Field Operations retrieves from the database the number of investigations completed in the field offices as well as those completed by city and or county local programs for certain activities. An investigation is considered complete when the investigation has been conducted, a report has been written, management has approved, and the manager's approval date has been reflected in the database.
Data Limitations: None identified.
Calculation Type: Cumulative.
New Measure: No.
Desired Performance: Near projections.

Output 02–01–02.01	Number of small businesses and local governments assisted

Short Definition: The number of small businesses and local governments assisted includes the following types of direct assistance: answers to hotline inquiries regarding permit and regulatory applicability; site assistance visits; notification of rule changes; outreach activities; industry specific workshops; dispute resolution assistance to small businesses to resolve complaints against the agency; and government sponsored conferences; and government-sponsored conferences.
Purpose/Importance: This measure provides an indication of the responsiveness of Small Business and Local Government Assistance (SBLGA) staff to small business and local government inquiries. This measure also indicates pro-active activities provided by SBLGA staff to assist small businesses and local governments.

Source/Collection of Data: The data is collected using an electronic tracking and reporting system maintained by SBLGA staff.
Method of Calculation: A total number is obtained by adding the types of assistance provided to small businesses and local governments as indicated in the above definition.
Data Limitations: None identified.
Calculation Type: Cumulative.
New Measure: Yes.
Desired Performance: Above projections.

Output 02–01–02.02	**Number of air program administrative enforcement orders issued**

Short Definition: Number of air program administrative enforcement orders issued.
Purpose/Importance: Reflects agency enforcement efforts.
Source/Collection of Data: Using the Enforcement Database, this measure will be derived by calculating the number of air program administrative orders issued. Multi-media orders will be evaluated to determine which media is the primary media and then will be added to the number for the appropriate measure.
Method of Calculation: This measure will be derived by calculating the number of air program administrative orders issued, including multi-media order with an air emphasis.
Data Limitations: Finalization of enforcement orders cannot be solely controlled by the TNRCC. Due process of law allows all respondents for enforcement orders the opportunity for hearing. The timing for the hearing is then the decision of the administrative law judge at the State Office of Administrative Hearings. In addition, delays can occur when the technical requirements necessary to achieve compliance are complex, requiring extensive negotiations.
Calculation Type: Cumulative.
New Measure: No.
Desired Performance: Below projections.

Output 02–01–02.03	**Number of water program administrative enforcement orders issued**

Short Definition: Number of water program administrative enforcement orders issued.
Purpose/Importance: Reflects agency enforcement efforts.
Source/Collection of Data: Using the Enforcement Database, this measure will be derived by calculating the number of water program administrative orders issued. The water program for this measure includes water rights, wastewater treatment facilities, sludge/septage transporters, beneficial use sites, livestock and poultry operations, public water supply, and occupational certification orders. Occupational certification orders are counted in this category since they primarily cover water related activities. Multi-media orders will be evaluated to determine which media is the primary media and then will be added to the number for the appropriate measure.
Method of Calculation: This measure will be derived by calculating the number of water program administrative orders issued, including multi-media order with a water emphasis.
Data Limitations: Finalization of enforcement orders cannot be solely controlled by the TNRCC. Due process of law allows all respondents for enforcement orders the opportunity for hearing. The timing for the hearing is then the decision of the administrative law judge at the State Office of Administrative Hearings. In addition, delays can occur when the technical requirements necessary to achieve compliance are complex, requiring extensive negotiations.
Calculation Type: Cumulative.
New Measure: No.
Desired Performance: Below projections.

Output 02–01–02.04	Number of waste program administrative enforcement orders issued

Short Definition: Number of waste program administrative enforcement orders issued.
Purpose/Importance: Reflects agency enforcement efforts.
Source/Collection of Data: Using the Enforcement Database, this measure will be derived by calculating the number of waste program administrative orders issued. The waste program for this measure includes industrial and hazardous waste, municipal solid waste, petroleum storage tanks, radioactive waste, and underground injection control. Multi-media orders will be evaluated to determine which media is the primary media and then will be added to the number for the appropriate measure.
Method of Calculation: This measure will be derived by calculating the number of waste program administrative orders issued, including multi-media order with a waste emphasis.
Data Limitations: Finalization of enforcement orders cannot be solely controlled by the TNRCC. Due process of law allows all respondents for enforcement orders the opportunity for hearing. The timing for the hearing is then the decision of the administrative law judge at the State Office of Administrative Hearings. In addition, delays can occur when the technical requirements necessary to achieve compliance are complex, requiring extensive negotiations.
Calculation Type: Cumulative.
New Measure: No.
Desired Performance: Below projections.

Output 02–01–02.05	Number of commercial lab inspections

Short Definition: Number of commercial environmental laboratory inspections conducted for purposes of awarding, maintaining, or renewing accreditation according to Texas Water Code Section 6.01 et seq.
Purpose/Importance: On-site inspections are conducted prior to accreditation and at least every two years after accreditation is awarded. Inspections verify compliance with accreditation requirements.
Source/Collection of Data: Each inspection is documented in an inspection report prepared and maintained by the Compliance Support Division. Each report is dated and sequentially numbered for the fiscal year.
Method of Calculation: Inspection reports issued during a fiscal year are counted by laboratory inspection staff of the Compliance Support Division.
Data Limitations: None identified.
Calculation Type: Cumulative.
New Measure: Yes.
Desired Performance: Near projections.

Output 02–01–02.06	Number of drinking water labs certified

Short Definition: Number of laboratories certified by the state to analyze public water supply (PWS) samples.
Purpose/Importance: The measure reflects the number of laboratories certified according to the federal Safe Drinking Water Act and associated state laws and regulations to perform microbiological, chemical, and radiochemical analyses of PWS samples.
Source/Collection of Data: Using a spreadsheet maintained by the Compliance Support Division to calculate the number of certificates in force at the end of the each reporting period. A certificate is issued when signed by the Executive Director. Dates each certificate are issued and expire are entered into the spreadsheet by a TNRCC staff member when the certificate is issued.
Method of Calculation: Query the spreadsheet to calculate the number of certificates in force at the end of each reporting period.

Data Limitations: None.
Calculation Type: Cumulative.
New Measure: Yes.
Desired Performance: Near projections.

Efficiency 02–01–02.01	**Average number of days to file notices of formal violations**

Short Definition: Average number of days to file notices of formal violations.
Purpose/Importance: Reflects agency efficiency in filing notices.
Source/Collection of Data: This information will be derived from the Enforcement Database.
Method of Calculation: Using computerized searches, the average number of days to file notices of formal violations will be calculated as the sum of the number of days from screening to the mailing date of the initial draft order or the filing date of the initial Executive Director's Preliminary Report and Petition (EDPRP) on a case, divided by the total number of draft orders or EDPRPs. EDPRPs for failed expedited orders will not be counted since the initial draft orders will already have been counted in this category.
Data Limitations: None identified.
Calculation Type: Non-cumulative.
New Measure: No.
Desired Performance: Below projections.

Explanatory 02–01–02.01	**Amount of administrative penalties required to be paid in final administrative orders issued**

Short Definition: Amount of administrative penalties required to be paid in final administrative orders issued.
Purpose/Importance: Reflects penalties required to be paid to General Revenue. Note: This is not the amount which is paid to TNRCC, this is the amount that the Orders require to be paid, some may have payment schedules and some may be default orders.
Source/Collection of Data: Using the Enforcement Database, this measure will be reported at the end of the fiscal year by calculating the total penalty amounts required to be paid to General Revenue in final administrative orders issued.
Method of Calculation: This measure will be derived by calculating the total penalty amounts required to be paid to General Revenue in final administrative orders issued.
Data Limitations: None identified.
Calculation Type: Cumulative.
New Measure: No.
Desired Performance: N/A.

Explanatory 02–01–02.02	**Amount required to be paid for supplemental environmental projects issued in administrative orders**

Short Definition: Amount required to be paid for supplemental environmental projects issued in administrative orders.
Purpose/Importance: Reflects money required to be paid or projects required to be conducted in addition to penalty amounts paid in enforcement orders. The supplemental environmental projects are normally designed to benefit the communities or the environment where the violations occurred.
Source/Collection of Data: Using the Enforcement Database, this measure will be reported at the end of the fiscal year for the total dollar amount specified in the Administrative Orders which must be spent on supplemental environmental projects approved by the agency.
Method of Calculation: This measure will be reported at the end of the fiscal year for the total dollar amount

specified in the Administrative Orders which must be spent on supplemental environmental projects approved by the agency.
Data Limitations: None identified.
Calculation Type: Cumulative.
New Measure: No.
Desired Performance: N/A.

Explanatory 02–01–02.03	**Percent of administrative penalties collected**

Short Definition: Percent of administrative penalties collected.
Purpose/Importance: Reflects how much penalties are collected.
Source/Collection of Data: This measure will be calculated using databases maintained by the Financial Administration Division and the Enforcement Division.
Method of Calculation: Using databases maintained by the Financial Administration Division and the Enforcement Division, this measure will be reported by calculating the total amount of administrative penalties required to be paid to General Revenue in Administrative Orders issued during the fiscal year and the total amount of payments received by the agency during the fiscal year. The amount will be divided by the total amount of administrative penalties required to be paid, then multiplied by 100.
Data Limitations: None identified.
Calculation Type: Non-cumulative.
New Measure: No.
Desired Performance: N/A.

Output 02–01–03.01	**Number of applications for certification**

Short Definition: The number of individual applications for environmental professional certification that are received by the agency and processed to formal action during the reporting period to include: notification of certification or notification of certification denial/disapproval for non-compliance with certifications or requirements, including examination failure.
Purpose/Importance: This measure indicates the number of new and renewal applications received. It is a primary measure of workload and it indicates the number of potential licensed professionals or companies.
Source/Collection of Data: The Compliance Support Division staff scan or enter data into the Occupational Licensing databases from the applications that are received.
Method of Calculation: The number of individual applications for environmental professional certification are received by the agency and processed to formal action, which includes certification or denial . This information is tracked using databases maintained by the Compliance Support Division.
Data Limitations: None identified.
Calculation Type: Cumulative.
New Measure: No.
Desired Performance: Near projections.

Output 02–01–03.02	**Number of examinations administered**

Short Definition: The number of individual examinations administered by the agency during the reporting period.
Purpose/Importance: This measure indicates the number of exams administered to applicants who are potential licensees.
Source/Collection of Data: The Compliance Support Division staff scan or enter exam information into the

Occupational Licensing databases after examinations are administered by the commissions designated agents, the Compliance Support Division, and Field Operations Division staff.
Method of Calculation: The number of individual examinations administered by the agency is tracked using Occupational Licensing databases maintained by the Compliance Support Division.
Data Limitations: Receiving the examinations at the central office for processing is dependent on the designated agents submitting it timely.
Calculation Type: Cumulative.
New Measure: No.
Desired Performance: Near projections.

Output 02–01–03.03	**Number of new licenses issued**

Short Definition: The number of new and newly upgraded licenses issued during the reporting period.
Purpose/Importance: This measure indicates the number of licenses that were issued to individuals and companies who have met licensing requirements.
Source/Collection of Data: The Compliance Support Division staff generate certificates and licenses for qualified applicants and maintain this information in the Occupational Licensing databases.
Method of Calculation: The number of new and upgraded licenses issued to individuals is tracked using databases maintained by the Compliance Support Division.
Data Limitations None identified.
Calculation Type: Cumulative.
New Measure: No.
Desired Performance: Near projections.

Output 02–01–03.04	**Number of licenses renewed**

Short Definition: The number of licenses re-issued to previously certified environmental professionals and companies during the reporting period.
Purpose/Importance: This measure indicates the number of licenses that were renewed and will continue as current licensed entities.
Source/Collection of Data: This information currently exists in the Occupational Licensing databases and is updated accordingly as applications are received.
Method of Calculation: The number of licenses re-issued to individuals holding unexpired licenses during the reporting period is tracked using databases maintained by the Compliance Support Division.
Data Limitations: Licensed individuals and companies may have change of addresses that go unreported to the agency. This may result in the loss of the license due to failure to renew.
Calculation Type: Cumulative.
New Measure: No.
Desired Performance: Near projections.

Efficiency 02–01–03.01	**Average annualized cost per license**

Short Definition: The average annualized cost per license.
Purpose/Importance: Reflects average annualized cost for licensing program per license issued.
Source/Collection of Data: USAS expenditure figures maintained by the Office of Compliance and Enforcement
Method of Calculation: Total licensing related funds expended during the each quarter by Compliance Support Division annualized divided by the total number of licenses in force by the agency during the fiscal year.

Data Limitations: None identified.
Calculation Type: Non-cumulative.
New Measure: No.
Desired Performance: Below projections.

Explanatory 02–01–03.01	Number of TNRCC-certified environmental professionals

Short Definition: The total number of environmental professional licenses currently registered with the agency.
Purpose/Importance: This measure presents the order of magnitude of the TNRCC licensing programs. It provides basic information for workload evaluation.
Source/Collection of Data: The Compliance Support Division maintains this information in the Occupational Licensing databases.
Method of Calculation: The total number of environmental professional certifications currently registered with the agency is tracked using databases maintained by the Compliance Support Division.
Data Limitations: The measure provides only a workload indicator because not all licenses require the same amount of work.
Calculation Type: Non-Cumulative.
New Measure: No.
Desired Performance: Near projections.

Explanatory 02–01–03.02	Number of jurisdictional complaints received

Short Definition: Number of jurisdictional complaints received.
Purpose/Importance: This measure provides workload information as all complaints must be investigated. It also indicates a level of confidence among the general public.
Source/Collection of Data: The Compliance Support Division staff maintains this data in the Occupational Licensing databases
Method of Calculation: The number of complaints received which are within the agency's jurisdiction of statutory responsibility. These complaints may be received by telephone, in writing, or in person and are documented by agency staff upon receipt. This information is tracked using databases maintained by the Compliance Support Division.
Data Limitations: The number of complaints do not provide an indication of compliance by licensed individuals. Many complaints are not valid or are not within the jurisdiction of the agency.
Calculation Type: Cumulative.
New Measure: No.
Desired Performance: Below target.

Outcome 03–01.01	Percent of leaking petroleum storage tank sites cleaned up

Short Definition: The percentage of leaking petroleum storage tank sites at which no further corrective action is required, compared to the total population of known leaking petroleum storage tank sites.
Purpose/Importance: This measure provides an indication of the agency's efforts to clean up leaking petroleum storage tank sites relative to the total population of known leaking petroleum storage tank sites.
Source/Collection of Data: Using an agency database maintained by the Remediation Division, the number of leaking petroleum storage tank sites issued "no further action" letters is divided by the total number of reported leaking petroleum storage tank sites, multiplied by 100 to derive a percentage.
Data Limitations: Most "no further action" letters are issued upon a written request from responsible parties and the agency does not control when these requests are submitted. Therefore, the percentage reported may represent fewer

sites than which would otherwise actually qualify for "no further action" status.
Calculation Type: Non-cumulative.
New Measure: No.
Desired Performance: Above projections.

Outcome 03–01.02	**Percent of Superfund sites cleaned up**

Short Definition: The percentage of state and federal Superfund sites cleaned up since program inception.
Purpose/Importance: This measure reflects long-term agency efforts to clean up Superfund sites.
Source/Collection of Data: Using an automated agency system maintained by the Remediation Division of the Office of Permitting, Remediation, and Registration, the percentage of state and federal Superfund sites cleaned up since program inception.
Method of Calculation: The total combined number of state and federal Superfund sites completed divided by the total combined number of state and federal Superfund sites listed or proposed for the State Registry or National Priorities List since program inception. The ratio of this cumulative data will be calculated at the end of each fiscal year/biennium. This number will be multiplied by 100 to derive a percentage.
Data Limitations: The agency has limited control over the federal Superfund program listings, progression of federal site cleanups and deletions. The progression of sites through the federal superfund program is directly related to federal funding issues, scheduling, and the final approval of submittals, which are reviewed by the U.S. Environmental Protection Agency. Department of Defense (DOD) and Department of Energy (DOE) funding issues that are beyond the TNRCC's control also effect the progress of Superfund sites which are federal facilities. Additionally, the agency cannot accurately predict how many federal sites will be discovered and added to the program during any given year.
Calculation Type: Cumulative.
New Measure: No.
Desired Performance: Near projections.

Outcome 03–01.03	**Percent of voluntary and brownfield cleanup properties made available for commercial/industrial redevelopment, community, or other economic reuse**

Short Definition: The percentage of voluntary and brownfield properties/sites returned to a productive use within a community.
Purpose/Importance: This percentage provides a measure of the overall efficiency of the VCP to meet the goals of applicants in receiving certificates of completion. The percentage derived is indicative of the trend of the willingness of site owners/operators and prospective purchasers to voluntarily address their contaminated sites through the VCP and the adequacy of the VCP in meeting the review deadlines necessary for completing property transactions.
Source/Collection of Data: From information collected in a database, adding the total number of certificates of completion issued throughout the fiscal year and the total number of VCP applications submitted by site owners/operators and prospective purchasers throughout the fiscal year.
Method of Calculation: The percentage is obtained by dividing the total number of VCP certificates of completion issued during the fiscal year by the total number of VCP applications received during the fiscal year, multiplied by 100.
Data Limitations: TNRCC has no control over the number of site owners/operators and prospective purchasers who voluntarily enter the VCP since their choice controls the number of sites which enter the VCP and the completion of the tasks necessary for issuance of a certificate of completion.
Calculation Type: Non-cumulative.
New Measure: No.
Desired Performance: Above projections.

Output 03–01–01.01	Number of petroleum storage tank self certifications processed

Short Definition: Number of petroleum storage self-certifications processed.
Purpose/Importance: The measure reflects agency workload in processing PST self-certifications.
Source/Collection of Data: Using an automated agency system (TRACS and PDOX files) maintained by Registration, Review, and Reporting Division, this measure will track the number of owner/operator self-certifications processed in Texas each year.
Method of Calculation: The automated agency systems will be queried for the number of self certifications processed.
Data Limitations: None identified.
Calculation Type: Cumulative.
New Measure: No.
Desired Performance: Near projections.

Output 03–01–01.02	Number of emergency response actions at petroleum storage tank sites

Short Definition: The number of leaking petroleum storage tank sites to which a state lead contractor is dispatched to address an immediate threat to human health/safety (i.e., an explosion or fire hazard, vapor impacts to buildings, or surface water impacts).
Purpose/Importance: This measure provides an indication of the number of leaking petroleum storage tank sites which have an emergency situation requiring action by the agency to protect human health/safety.
Source/Collection of Data: Using an agency database maintained by the Remediation Division, the number of leaking petroleum storage tank sites to which a state lead contractor is dispatched to address an emergency situation is tracked.
Method of Calculation: At the end of each quarter the database is used to arrive at a total number of sites to which a state lead contractor was dispatched to address an emergency situation during that quarter. The total for each quarter is added to the total for any previous quarters during that fiscal year to come up with a cumulative total of sites addressed during that fiscal year.
Data Limitations: Because most leaking petroleum storage tank emergency situations are reported by fire marshals, communities and or the agency's regional offices, the number of sites which will require emergency response actions is unpredictable.
Calculation Type: Cumulative.
New Measure: No.
Desired Performance: Below projections.

Output 03–01–01.03	Number of Petroleum Storage Tank Reimbursement applications processed

Short Definition: Number of Petroleum Storage Tank Remediation Fund reimbursement applications processed.
Purpose/Importance: This measure reflects agency workload in processing applications for reimbursements for petroleum storage tank remediation.
Source/Collection of Data: Using an automated agency system and manual computations conducted by the Registration, Review and Reporting Division, this measure will report the number of Petroleum Storage Tank Remediation Fund reimbursement applications processed. Staff enter new applications into the reimbursement process database. As applications are processed, staff update the database to indicate where the application is in the review process. When the application processing is complete a fund payment report is mailed to the applicant. For the reporting period, the number of fund payment reports mailed are calculated from the database and reported.
Method of Calculation: Automated agency systems maintained by the Registration, Review, and Reporting Division will be queried to obtain the number of mailed fund payment reports mailed.

Data Limitations: None identified.
Calculation Type: Cumulative.
New Measure: No.
Desired Performance: Near projections.

Output 03–01–01.04	**Number of petroleum storage tank cleanups completed**

Short Definition: The number of leaking petroleum storage tank sites at which no further corrective action is required.
Purpose/Importance: This measure provides an indication of the agency's efforts to clean up leaking petroleum storage tank sites during the reporting period.
Source/Collection of Data: Using an agency database maintained by the Remediation Division, the number of leaking petroleum storage tank sites issued "no further action" letters during the reporting period is calculated.
Data Limitations: Most "no further action" letters are issued upon a written request from responsible parties and the agency does not control when these requests are submitted. Therefore, since the number of these letters issued during a reporting period is primarily determined by the number submitted by the responsible parties, the reported number may represent fewer sites than which would otherwise actually qualify for "no further action" status.
Calculation Type: Cumulative.
New Measure: No.
Desired Performance: Above projections.

Efficiency 03–01–01.01	**Average time (days) to review and respond to remedial action plans**

Short Definition: This measure provides the average number of days for the agency to review and respond to remedial action plans over the reporting period.
Purpose/Importance: House Bill 2587, 74th Legislature, 1995 mandates that agency review and response time for remedial action plans not exceed 30 days.
Source/Collection of Data: Using an agency database maintained by the Remediation Division, the number of remedial action plans received is tracked, the number of days to review and respond to each plan is recorded, and the average review/response time is calculated for the reporting period.
Data Limitations: None identified.
Calculation Type: Non-cumulative.
New Measure: No.
Desired Performance: Near or below projections.

Efficiency 03–01–01.02	**Average time (days) to review and respond to risk-based site assessments**

Short Definition: This measure provides the average number of days for the agency to review and respond to risk-based site assessment reports over the reporting period.
Purpose/Importance: House Bill 2587, 74th Legislature, 1995 mandates that agency review and response time for risk-based site assessment reports not exceed 30 days.
Source/Collection of Data: Using an agency database maintained by the Remediation Division, the number of risk-based site assessment reports received is tracked, the number of days to review and respond to each report is recorded, and the average review/response time is calculated for the reporting period.
Data Limitations: None identified.
Calculation Type: Non-cumulative.
New Measure: No.
Desired Performance: Near or below projections.

PERFORMANCE MEASURES AND DEFINITIONS — FISCAL YEAR 2003

(The performance measures and definitions below have not received formal approval from the LBB/GOBP at the time of this printing.)

Efficiency 03–01–01.03	**Average time (days) to process Petroleum Storage Tank Remediation Fund reimbursement claims**

Short Definition: The average number of days it takes to process Petroleum Storage Tank Remediation Fund reimbursement claims.
Purpose/Importance: This measure reflects how efficiently and quickly the agency processes claims for reimbursements from the Petroleum Storage Tank Remediation Fund.
Source/Collection of Data: Using manual calculations and automated information maintained by the Registration, Review, and Reporting Division, this measure will report the sum of the time from receipt of all applications to the mailing of the Fund Payment Report, divided by the number of Fund Payments Reports mailed. Staff enter new applications including the date received into the reimbursement process database. As applications are processed, staff update the database to indicate where the application is in the review process. When the application processing is complete a fund payment report is mailed to the applicant.
Method of Calculation: Using manual calculations and automated information maintained by the Registration, Review, and Reporting Division, this measure will report the sum of the time from receipt of all applications to the mailing of the Fund Payment Report, divided by the number of Fund Payments Reports mailed. The number of days to complete the processing of an application is determined by calculating the number of days between the application received date and the date the fund payment report is mailed, for each application. To determine the average time to process applications, the sum of the number of days required process the applications is divided by the number of applications process during the reporting period.
Data Limitations: None identified.
Calculation Type: Non-cumulative.
New Measure: No.
Desired Performance: Near or below projections.

Explanatory 03–01–01.01	**Average cost per petroleum storage tank cleanup**

Short Definition: Average cost for cleanup of petroleum storage tank sites.
Purpose/Importance: This measure reflects the average amount of reimbursement for each petroleum storage tank site.
Source/Collection of Data: This measure will be calculated by reporting on the average amount of reimbursement for each petroleum storage tank site in the cleanup process by dividing the total amount paid in reimbursements for petroleum storage tank cleanups by the total number of reimbursements processed. This information is maintained on a Registration, Review, and Reporting Division database. Staff enter new applications including the requested amount into the reimbursement process database. As applications are processed, staff update the database to indicate where the application is in the review process. When the application processing is complete a fund payment report is mailed to the applicant. The amount paid to the applicant is listed in the database.
Method of Calculation: A Registration, Review, and Reporting Division database will be queried for and the total amount paid in reimbursements for petroleum storage tank cleanups will be divided by the total number of reimbursements processed. To determine the average cost to cleanup a petroleum storage tank site a calculation is performed on the database to determine the amount paid on each storage tank site. The average is calculated by divided the sum of the amounts paid on each site by the number of sites on which a payment was made.
Data Limitations: None identified.
Calculation Type: Non-cumulative.
New Measure: No.
Desired Performance: Near projections.

PERFORMANCE MEASURES AND DEFINITIONS — FISCAL YEAR 2003

(The performance measures and definitions below have not received formal approval from the LBB/GOBP at the time of this printing.)

Output 03–01–02.01	**Immediate response actions conducted to protect human health and environment**

Short Definition: Emergency (immediate) response actions conducted to protect human health and environment.
Purpose/Importance: Reflects the number of removal actions conducted to protect human health and the environment.
Source/Collection of Data: Using an automated system maintained by the Remediation Division of the Office of Permitting, Remediation, and Registration, this measure will report the total number of incidents where removal actions were conducted to protect human health and the environment.
Data Limitations: None identified.
Calculation Type: Cumulative.
New Measure: No.
Desired Performance: Near projections.

Output 03–01–02.02	**Number of Superfund site assessments**

Short Definition: The number of potential Superfund sites that have undergone an eligibility assessment for either the state or federal Superfund program.
Purpose/Importance: This measure provides an indication of the agency's efforts to prioritize contaminated sites for assessment under the Superfund program during the reporting period.
Source/Collection of Data: Using an agency database maintained by the Remediation Division, the number of Superfund program eligibility assessments performed are tracked by completion date.
Method of Calculation: At the end of each quarter the database is used to arrive at a total number of Superfund program eligibility assessments performed during that quarter. The total for each quarter is added to the total for any previous quarters during that fiscal year to come up with a cumulative total of eligibility assessments performed during that fiscal year.
Data Limitations: Eligibility assessments are conducted on sites referred to us by various entities (consisting of but not limited to the U.S. Environmental Protection Agency, TNRCC Enforcement, and the State Attorney General's Office). Depending on the number of sites that are waiting for an eligibility assessment at any given time, the number of eligibility assessments that are performed each quarter is dependent on the number of referrals received.
Calculation Type: Cumulative.
New Measure: No.
Desired Performance: Above projections is desired if there is a backlog of eligibility assessments to be performed. Otherwise a lower than target number would be desired indicating fewer referrals to the Superfund program.

Output 03–01–02.03	**Number of voluntary and brownfield cleanups completed**

Short Definition: The number of voluntary cleanup and brownfields sites which have completed necessary response actions through either the removal, decontamination, or control of contamination to levels which are protective of human health and the environment.
Purpose/Importance: Upon completion of response action(s), a certificate of completion is given to the applicant which states that all non-responsible parties are released from all liability to the state for any past contamination. This liability protection provides significant incentives for both site owners/operators and prospective purchasers to voluntarily bring contaminated sites into the Voluntary Cleanup Program and complete necessary cleanups.
Source/Collection of Data: Site owners/operators or prospective purchasers voluntarily submit an application and an agreement to the VCP. VCP personnel evaluate the site's eligibility to remain in the VCP and review the applicant's goals for site cleanup, including their schedule for conducting necessary site investigation and cleanup. Upon completion of site cleanup, VCP staff approve a final report based upon the applicant's meeting all of the necessary

regulatory standards for the site. Once it has been determined that the site is protective of human health and the environment, a certificate of completion is issued to the applicant. The number of certificates of completion issued each quarter is reported in this performance measure.
Data Limitations: TNRCC has no control over the number of site owners/operators and prospective purchasers who voluntarily enter the VCP since their choice controls the number of sites which enter the VCP and the completion of the tasks necessary for issuance of a certificate of completion.
Calculation Type: Cumulative
New Measure: No
Desired Performance: Above projections

Output 03–01–02.04	**Number of Superfund evaluations underway**

Short Definition: The number of state and federal Superfund sites undergoing evaluation.
Purpose/Importance: Reflects the number of state and federal Superfund sites that are undergoing the evaluation phase of the Superfund process.
Source/Collection of Data: Using an automated agency system maintained by the Remediation Division of the Office of Permitting, Remediation, and Registration, the number of state and federal Superfund sites undergoing the evaluation phase of the Superfund process.
Method of Calculation: Database query.
Data Limitations: The agency has limited control over the federal Superfund program listings, progression of federal site cleanups and deletions. The progression of sites through the federal Superfund program is directly related to federal funding issues, scheduling, and the final approval of submittals, which are reviewed by the U.S. Environmental Protection Agency. Department of Defense (DOD) and Department of Energy (DOE) funding issues that are beyond the TNRCC's control also effect the progress of Superfund sites which are federal facilities. Additionally, the agency cannot accurately predict how many federal sites will be discovered and added to the program during any given year. Since Superfund sites are abandoned or inactive sites, each site is unique and has inherent unknowns (i.e., the nature and extent of the contamination problems) to be investigated before a remedy can be formulated. Since the program is required to investigate the nature and extent of the contamination for each site, there is not an accurate way of predicting when a site will move from an evaluation phase to a cleanup phase.
Calculation Type: Non-cumulative.
New Measure: No
Desired Performance: Near projections.

Output 03–01–02.05	**Number of Superfund cleanups underway**

Short Definition: The number of state and federal Superfund sites undergoing cleanup.
Purpose/Importance: Reflects the total number of state and federal Superfund sites that are in the cleanup phase.
Source/Collection of Data: Using an automated agency system maintained by the Remediation Division of the Office of Permitting, Remediation, and Registration, the number of state and federal Superfund sites undergoing the cleanup phase of the Superfund process.
Method of Calculation: Database query.
Data Limitations: The agency has limited control over the federal Superfund program listings, progression of federal site cleanups and deletions. The progression of sites through the federal Superfund program is directly related to federal funding issues, scheduling, and the final approval of submittals, which are reviewed by the U.S. Environmental Protection Agency. Department of Defense (DOD) and Department of Energy (DOE) funding issues that are beyond the TNRCC's control also effect the progress of Superfund sites which are federal facilities. Additionally, the agency cannot accurately predict how many federal sites will be discovered and added to the program during any given year.

Since Superfund sites are abandoned or inactive sites, each site is unique and has inherent unknowns which may be discovered during the cleanup phase (i.e., unanticipated groundwater impacts or increased soil impacts not revealed in the evaluation phase). Since the program is required to address soil and groundwater contamination concerns for each site, accurately predicting when a site will progress from the cleanup phase to cleanup completion is difficult. **(971)**
Calculation Type: Non-cumulative.
New Measure: No.
Desired Performance: Near projections.

Output 03–01–02.06	**Number of Superfund cleanups completed**

Short Definition: The number of state and federal Superfund sites that were cleaned up during a reporting period that no longer pose an unacceptable risk to human health or the environment.
Purpose/Importance: Reflects the number of state and federal Superfund site cleanups completed during a reporting period.
Source/Collection of Data: Using an automated agency system maintained by the Remediation Division of the Office of Permitting, Remediation, and Registration, the number of state and federal Superfund sites attaining cleanup completion status in a reporting period.
Method of Calculation: Database query.
Data Limitations: The agency has limited control over the federal Superfund program listings, progression of federal site cleanups and deletions. The progression of sites through the federal Superfund program is directly related to federal funding issues, scheduling, and the final approval of submittals, which are reviewed by the U.S. Environmental Protection Agency. Department of Defense (DOD) and Department of Energy (DOE) funding issues that are beyond the TNRCC's control also effect the progress of Superfund sites which are federal facilities. Since Superfund sites are abandoned or inactive sites, each site is unique and has inherent unknowns which may delay attainment of the projected cleanup completion date.
Calculation Type: Cumulative.
New Measure: No.
Desired Performance: Near projections.

Efficiency 03–01–02.01	**Average time (days) for immediate response actions**

Short Definition: Average time (days) for emergency (immediate) response actions.
Purpose/Importance: Reflects average time required to complete immediate response actions.
Source/Collection of Data: Using a manual calculation of data tracked by the Remediation Division of the Office of Permitting, Remediation, and Registration, this measure will report the total number of days for response times divided by the number of incidents where removal actions were conducted to protect human health and the environment. Response time is counted from the beginning of contracted action until completion of the cleanup.
Data Limitations: Under review.
Calculation Type: Non-cumulative.
New Measure: No.
Desired Performance: Near projections.

Explanatory 03–01–02.01	**Number of potential Superfund sites to be assessed**

Short Definition: The number of potential Superfund sites that have not undergone an eligibility assessment for either the state or federal Superfund program.
Purpose/Importance: This measure provides an indication of the agency's efforts to prioritize contaminated sites for

assessment under the Superfund program during the reporting period.
Source/Collection of Data: Using an agency database maintained by the Remediation Division, the number of Superfund program eligibility assessments performed are tracked by completion date.
Method of Calculation: At the end of each quarter the database is used to arrive at a total number of Superfund program eligibility assessments performed during that quarter. The total for each quarter is added to the total for any previous quarters during that fiscal year to come up with a cumulative total of eligibility assessments performed during that fiscal year.
Data Limitations: Eligibility assessments are conducted on sites referred to us by various entities (consisting of but not limited to the U.S. Environmental Protection Agency, TNRCC Enforcement, and the State Attorney General's Office). Depending on the number of sites that are waiting for an eligibility assessment at any given time, the number of eligibility assessments that are performed each quarter is dependent on the number of referrals received.
Calculation Type: Cumulative.
New Measure: No.
Desired Performance: Above projections is desired if there is a backlog of eligibility assessments to be performed. Otherwise, a lower than target number would be desired indicating fewer referrals to the Superfund program.

Explanatory 03–01–02.02	**Number of federal Superfund sites**

Short Definition: Number of federal Superfund sites.
Purpose/Importance: Reflects the number of federal Superfund sites.
Source/Collection of Data: Using an automated agency system maintained by the Remediation Division of the Office of Permitting, Remediation, and Registration, the number of federal Superfund sites for which minimum hazard ranking scores have been determined and have been proposed for the National Priorities List (NPL) since program inception.
Method of Calculation: Database query.
Data Limitations: None identified.
Calculation Type: Cumulative.
New Measure: No.
Desired Performance: Near projections.

Explanatory 03–01–02.03	**Number of state Superfund sites**

Short Definition: Number of state Superfund sites.
Purpose/Importance: Reflects the number of state Superfund sites.
Source/Collection of Data: Using an automated agency system maintained by the Remediation Division of the Office of Permitting, Remediation, and Registration, the number of state Superfund sites for which minimum hazard ranking scores have been determined and have been proposed for the State Registry since program inception.
Method of Calculation: Database query.
Data Limitations: None identified.
Calculation Type: Cumulative.
New Measure: No.
Desired Performance: Near projections.

TEXAS NATURAL RESOURCE CONSERVATION COMMISSION

APPENDIX E
WORKFORCE PLAN
FISCAL YEARS 2003—2007

I. Agency Overview

In 1993, the Texas Natural Resource Conservation Commission (TNRCC) was created by the Texas State Legislature to implement state and federal environmental and regulatory laws. Creation of the TNRCC incorporated the functions of several entities, including the former Texas Water Commission and the Texas Air Board, and brought together—for the first time—regulatory programs for air, water, and waste. On September 1, 1993, the TNRCC began operations to protect public health and conserve natural resources for future generations of Texans.

The agency consists of approximately 3,000 employees, 16 regional offices, and a total budget for fiscal year 2002 of $420.4 million. The TNRCC is funded primarily by fee revenues. For the 2002-2003 biennium, the 77th Legislature initially appropriated $998.7 million to the agency. (Because of a recent court decision, approximately $172.2 million of projected fee revenue for 2002-2003 will not be collected or available for appropriation.) In addition to fee revenue appropriated for the 2002-2003 biennium, the TNRCC was appropriated $77.1 million in federal funds, $63.6 million in General Revenue, and $8.7 million in interagency contracts and appropriated receipts. These other funding sources comprise approximately 15 percent of the agency's total appropriation.

The TNRCC's total operating budget for fiscal year 2002 is $420.4 million. The assessment, permitting, and prevention goal in the agency's budget structure receives the largest share of the 2002 operating budget at 39 percent, within which the air quality assessment and planning strategy constitutes the major component. This strategy contains new programs created by the 77th Legislature, such as the Texas Emissions Reduction Plan (TERP) and the Low-Income Vehicle Repair Assistance (LIRAP) program. The agency's pollution cleanup goal constitutes 37 percent of the budget, while the enforcement and compliance assistance goal uses 12 percent. The remaining 12 percent of the budget covers the agency's indirect administration expenses.

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III. Future Workforce Profile (Demand Analysis)
IV. Gap Analysis
V. Strategy Development

Office Plans
- Office of the Commissioners
- Office of the Executive Director
- Office of Permitting, Remediation, & Registration
- Office of Compliance & Enforcement
- Office of Legal Services
- Office of Administrative Services
- Office of Environmental Policy, Analysis, & Assessment

Agency Mission

The Texas Natural Resource Conservation Commission strives to protect our state's human and natural resources consistent with sustainable economic development. Our goal is clean air, clean water, and the safe management of waste.

Strategic Goals and Objectives

The following goals, objectives and strategies were current for fiscal year 2002. Goals, objectives, and strategies for the strategic planning period covering fiscal years 2003-2007 had not received formal approval from the Legislative Budget Board and the Governor's Office of Budget and Planning at the time of this printing.

Table E-1. TNRCC Goals, Objectives, and Strategies

Goal 1	**Goal 1 — Assessment, Permitting, and Prevention** To protect public health and the environment by accurately assessing environmental conditions; by preventing or minimizing the level of contaminants released to the environment through regulation and permitting of facilities or activities with potential to contribute to pollution levels; by promoting voluntary efforts to prevent pollution; and by assuring the delivery of safe drinking water to Texas citizens at affordable rates.
Objective 1	**OBJECTIVE 01** — To decrease the amount of toxics released and disposed of in Texas by 30 percent by 2007 from the 1992 level through assessing the environment, permitting facilities, and promoting voluntary pollution prevention and recycling. Implement methods for permitting procedures in order to improve customer service
Strategies	**01–01–01 Air Quality Permitting:** Perform complete and timely reviews of applications to release pollutants into the air. **01–01–02 Water Resource Permitting:** Perform complete and timely reviews of applications to utilize the state's water resources or to discharge to the state's waterways. **01–01–03 Waste Management and Permitting:** Perform complete and timely reviews of applications relating to management and disposal of municipal and industrial solid and hazardous waste. **01–01–04 Air Quality Assessment and Planning:** Reduce and prevent air pollution by monitoring and assessing air quality, developing and/or revising plans to address identified air quality problems, and assist in the implementation of approaches to reduce motor vehicle emissions. **01–01–05 Water Resource Assessment and Planning:** Develop plans to ensure an adequate, affordable supply of clean water by monitoring and assessing water quality and availability. **01–01–06 Waste Management Assessment and Planning**: Ensure the proper and safe disposal of pollutants by monitoring the generation, treatment, and storage of solid waste and assessing the capacity of waste disposal facilities; and by providing financial and technical assistance to municipal solid waste planning regions for the development and implementation of waste reduction plans. **01–01–07 Pollution Prevention and Recycling:** Promote voluntary pollution prevention and recycling through a combination of technical assistance and public education and by organizing and promoting voluntary prevention initiatives. **01–01–08 Low Level Radioactive Waste Assessment:** To ensure the proper and safe disposal of low-level radioactive waste.
Objective 2	**OBJECTIVE 02** – To provide 95 percent of Texans served by public drinking water systems with drinking water that meets drinking water standards

Strategies	**01–02–01 Safe Drinking Water:** Ensure the delivery of safe drinking water to all citizens through monitoring and oversight of drinking water sources consistent with the requirements of the Safe Drinking Water Act. **01–02–02 Water Utilities Oversight:** Provide regulatory oversight of water and sewer utilities to ensure that charges to customers are necessary and cost-based, and to promote and ensure adequate customer services.
Goal 2	**Goal 2 — Enforcement and Compliance Assistance** To protect public health and the environment by administering enforcement programs that promote voluntary compliance with environmental laws and regulations while providing strict, sure, and just enforcement when environmental laws are violated.
Objective 1	**OBJECTIVE 01** – By fiscal year 2003, to bring 95 percent of all regulated facilities into compliance with state environmental laws and regulations, and to respond appropriately to citizen inquiries and complaints.
Strategies	**02–01–01 Field Inspections and Complaint Response:** Promote compliance with environmental laws and regulations by conducting field inspections and responding to citizen complaints. **02–01–02 Enforcement and Compliance Support:** Maximize voluntary compliance with environmental laws and regulations by providing educational outreach and assistance to businesses and units of local governments; and assure compliance with environmental laws and regulations by taking swift, sure and just enforcement actions to address violation situations. **02–01–03 Occupational Licensing:** Establish and maintain occupational certification programs to ensure compliance with statutes and regulations that protect public health and the environment.
Goal 3	**Goal 3 — Pollution Cleanup** To protect public health and the environment by identifying, assessing, and prioritizing contaminated sites, and by assuring timely and cost-effective cleanup based on good science and current risk factors.
Objective 1	**OBJECTIVE 01** – By fiscal year 2003, to identify, assess and clean up 80 percent of the known sites contaminated by hazardous materials and petroleum from leaking storage tanks.
Strategies	**03–01–01 Storage Tank Administration:** Regulate the installation and operation of underground storage tanks and administer a program to identify and remediate sites contaminated by leaking storage tanks. **03–01–02 Storage Tank Cleanup:** Provide prompt and appropriate reimbursement to contractors and owners for the cost of remediating sites contaminated by leaking storage tanks. **03–01–03 Hazardous Materials Cleanup:** Aggressively pursue the investigation, design and cleanup of federal and state Superfund sites; and facilitate voluntary cleanup activities at other sites and respond immediately to spills which threaten human health and environment.
Goal 4	**Goal 4 — Indirect Administration** To provide the essential infrastructure required to maintain an agency's day-to-day operations and guarantee internal and external customers to the TNRCC the ability to conduct business in the most efficient manner for the state of Texas.
Objective 1	**OBJECTIVE** —To provide the essential infrastructure required to maintain an agency's day-to-day operations and guarantee internal and external customers to the TNRCC the ability to conduct business in the most efficient manner for the state of Texas.

Strategies	**04–01–01 Central Administration:** To provide the essential infrastructure required to maintain an agency's day-to-day operations and guarantee internal and external customers to the TNRCC the ability to conduct business in the most efficient manner for the state of Texas. **04–01–02 Information Resources:** Provide all information technologies within TNRCC to maximize the flow of data, processes, and information to meet the strategic and operational objectives with the essential infrastructure required for the deliver of high-quality effective services to TNRCC employees, programs, customers, and the public. **04–01–03 Other Support Services:** To provide efficient and effective facilities, reproduction, plant management, and other operational support to agency personnel and programs through the use of current technology and highly skilled workforce.

Anticipated Changes in Strategies

The TNRCC does not expect significant changes in its primary programs and critical functions during the next five years, with the exception of the Petroleum Storage Tank Reimbursement Program, which is scheduled to end on September 1, 2006.

Depending upon approval from the Governor's Office of Budget and Planning and the Legislative Budget Board, some strategies contained in the agency's strategic planning and budget structure may be consolidated.

The strategies that may be combined include:

- Safe Drinking Water (01-02-01) and Utilities Oversight (01-02-02); and
- Storage Tank Administration (03-01-01) and Storage Tank Cleanup (03-01-02).

Agency Structure

The mission of the TNRCC is carried out under the direction of three full-time commissioners who are appointed by the governor. The commissioners are appointed for six-year terms with the consent of the Senate and provide oversight to the seven offices of the TNRCC. The offices, as identified below, are each responsible for performing unique functions within the agency, and each office has its own workforce needs and considerations.

Table E-2. Agency Structure

Office	Composition and Role in the Agency
Office of the Commissioners (Commissioners)	Includes seven divisions: Office of the General Counsel, Office of Public Assistance, Office of Public Interest Counsel, Alternative Dispute Resolution, Internal Audit, Office of the Chief Clerk, and Office of the Commissioners. Provides oversight to and establishes the direction of the agency; makes final determinations on contested case permitting and enforcement matters.
Office of the Executive Director (Executive)	Includes four divisions: Executive Director's Division, Agency Communications, Small Business and Environmental Assistance, and Intergovernmental Relations. Implements commission policies; makes recommendations to the commissioners about contested permitting and enforcement matters; and approves uncontested permit applications and registrations.
Office of Administrative Services (OAS)	Includes six divisions: Chief Financial Officer, Budget and Planning, Financial Administration, Information Resources, Human Resources and Staff Development, and Support Services. Provides service and support to internal and external customers; provides the essential infrastructure required to maintain business operations; and provides internal and external customers with the ability to conduct their business.
Office of Compliance and Enforcement (OCE)	Includes four divisions: Enforcement, Field Operations, Monitoring Operations, and Compliance Support, as well as 16 regional offices, two special project offices, and two laboratories. Maintains certification, licensing, and registration programs; monitors and analyzes air and water quality and reports information to the public; determines facility compliance; and enforces compliance with state environmental laws.
Office of Legal Services (OLS)	Includes three divisions: Environmental Law, Litigation, and General Law. Provides legal counsel and support to the executive director, program areas and, in conjunction with the Office of General Counsel and the Office of the Public Interest Counsel, the Commissioners.
Office of Environmental Policy, Analysis and Assessment (OEPAA)	Includes three divisions: Strategic Assessments, Policy and Regulations, and Technical Analysis. Conducts strategic environmental analysis and assessment; coordinates agency policy development and rule making; coordinates border affairs; and conducts technical analysis of data to support these functions.
Office of Permitting, Remediation and Registration (OPRR)	Includes six divisions: Air Permits, Registration, Review and Reporting, Remediation, Waste Permits, Water Quality, and Water Supply. Also includes four specialized programs: Bankruptcy, Information Technology, Toxicology and Risk Assessment, and Low-Level Radioactive Waste. Implements environmentally protective programs required by federal and state laws and regulations governing permitting for air, water, and waste programs; oversees investigation and cleanup of hazardous pollutants released into the environment.

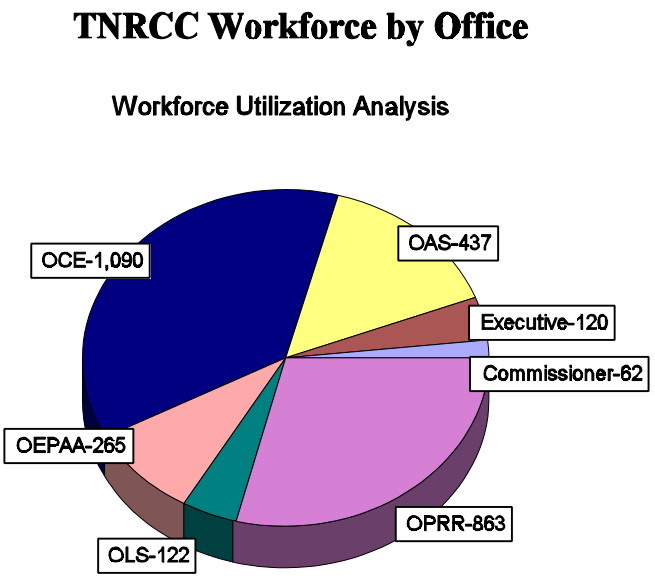
Workforce Profile by Office

As of February 28, 2002, the TNRCC employed a total of 2,959 employees. The following chart profiles the agency workforce grouped by office. The chart provides an actual headcount of employees (not FTEs) and does not include contractors or temporary personnel.

Figure E-1. TNRCC Workforce Use By Office

Legend
Commissioner - Office of the Commissioners
Executive - Office of the Executive Director
OAS - Office of Administrative Services
OCE - Office of Compliance and Enforcement
OLS - Office of Legal Services
OEPAA - Office of Environmental Policy, Analysis, and Assessment
OPRR - Office of Permitting, Remediation, and Registration

Data captured 2/28/2002 from Human Resources Information System.



II. Current Workforce Profile (Supply Analysis)

Critical Workforce Skills

The TNRCC carries out its mission through broad and diverse activities. These activities require that employees demonstrate a high level of proficiency in a variety of critical skills. Without these skills, the TNRCC could not effectively and consistently provide its services and products. The following chart depicts sets of critical "skill clusters" that are currently available within the seven offices of the agency.

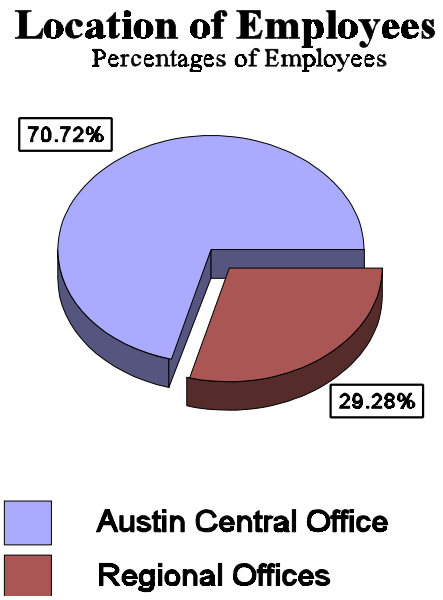
Table E-3. Critical Workforce Skills

Critical Workforce Skill Clusters
1. Problem-solving Analysis Critical thinking Decision making Innovation
2. Information Management Database development, management, and integration Software proficiency Web development and maintenance Graphic design Electronic reporting
3. Technical Knowledge* Litigation skills Local, state, and federal laws, rules, and regulations Agency policies, procedures, and programs Policy analysis and development Statistical analysis Regulation analysis and development Financial administration Environmental knowledge (science; engineering; and air, water, and waste programs) Technical analysis * Specific skills listed in this cluster may be unique to a certain office.
4. Project Management Organizing Planning Managing multiple priorities Research Quality analysis and process improvement Coordination
5. Communication Written—composition and editing Verbal—public speaking and presentation Interpersonal—customer service Marketing and public relations
6. Management/Leadership Performance management Strategic planning Training Mentoring Facilitation Contract management Grant management Financial management Delegation
7. Administrative Support Word processing Fiscal document development Inventory management

Workforce Demographics

The TNRCC continues to be tasked with additional responsibilities, requiring the agency to increase processing efficiencies to maintain the number of full-time equivalent (FTE) positions within the legislative cap. The TNRCC is authorized in fiscal year 2002 to employ 3,042 FTEs located in the Austin central office and in 16 regional offices throughout the state.

Figure E-2. Location of Employees



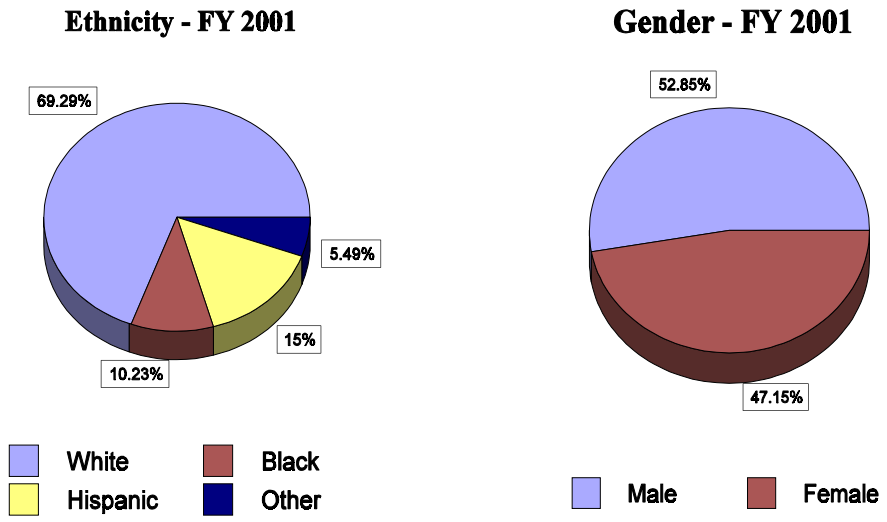
Data captured 1/31/2002
from the Human Resources Information System

Equal Employment Opportunity

The TNRCC provides equal employment opportunities to all employees and qualified applicants regardless of race, color, national origin, sex, sexual orientation, age, disability, or veteran status. The agency aggressively seeks to identify and recruit a diverse workforce. In addition, all employees are provided equal employment opportunity (EEO) training to make them aware of state and federal employment laws and regulations.

The following charts profile the agency's workforce during fiscal year (FY) 2001. Blacks and Hispanics made up more than 25 percent of the agency's workforce, with other ethnic groups comprising over 5 percent. The TNRCC workforce was 52.85 percent male and 47.15 percent female.

Figure E-3. Agency Ethnicity and Gender



The TNRCC workforce is comprised of six employee categories, as established by the Equal Employment Opportunity Commission (EEOC). These classifications are: official/administrator, professional, technical, paraprofessional, administrative support, and service/maintenance.
The following table provides an analysis of the agency's workforce compared to the hiring goals defined by the Texas Commission on Human Rights (TCHR). The EEOC column represents the TCHR goals for percentages of Blacks, Hispanics, and females within the statewide civilian workforce.

Table E-4. 2001 TNRCC Actual Workforce Compared to Hiring Goals

EEO Job Category		Black		Hispanic		Female
	EEOC	TNRCC	EEOC	TNRCC	EEOC	TNRCC
Official/Administrator	7.00%	9.33%	11.00%	12.44%	31.00%	29.78%
Professional	9.00%	8.36%	10.00%	13.13%	47.00%	44.17%
Technical	14.00%	18.28%	18.00%	15.05%	39.00%	31.18%
Para-Professional	18.00%	23.48%	31.00%	26.09%	56.00%	89.57%
Administrative Support	19.00%	21.86%	27.00%	30.77%	80.00%	83.00%
Service/Maintenance	18.00%	8.33%	44.00%	41.67%	26.00%	8.33%

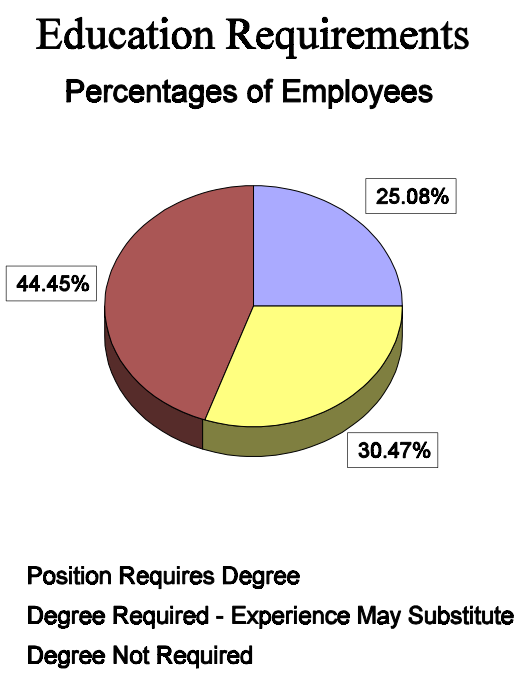
Workforce Qualifications

To implement, enforce, and manage the state's permitting and regulatory programs for air, water, and waste, the TNRCC employs a highly qualified workforce.

Approximately 25 percent of the agency's staff are in a position for which a degree is required. Another 44.45 percent are in a position for which a degree is required or previous experience in the subject area may be substituted for the degree. The standard substitution allowed is one year of experience for 30 semester hours of the required education. Employees in positions not requiring a degree comprise 30.47 percent of the agency's workforce.

Figure E-4. Education Requirements for TNRCC Employees

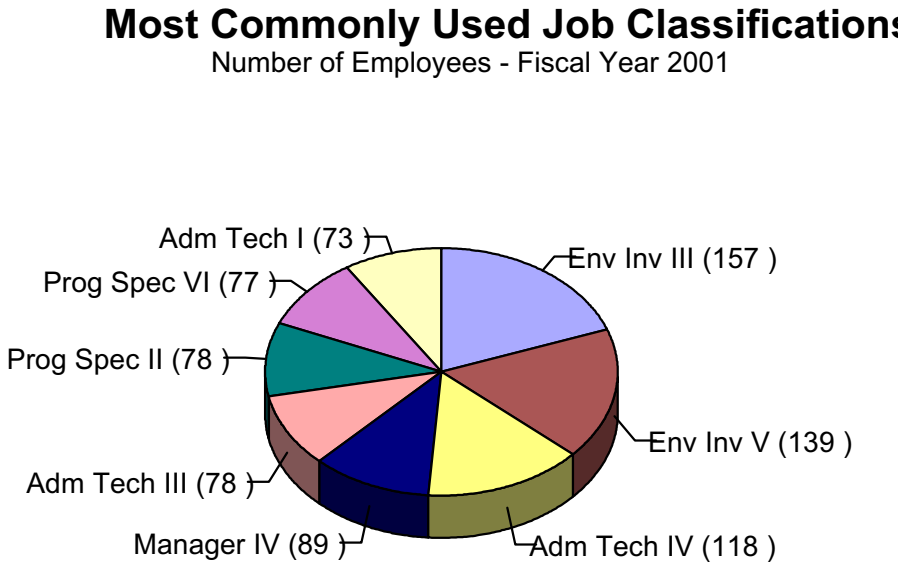
Data captured 1/31/2002 from the Human Resources Information System.



Workforce Profile by Job Classification

Although approximately 89 percent of the agency's employees are categorized as professional and para-professional, the work completed by TNRCC employees is diverse, requiring the use of over 300 job classification titles and subtitles. The following chart depicts the job classifications most commonly used by the TNRCC during FY 2001.

Figure E-5. Most Commonly Used Job Classifications



Legend
Adm Tech I - Administrative Technician I
Adm Tech III - Administrative Technician III
Adm Tech IV - Administrative Technician IV
Prog Spec II - Program Specialist II
Prog Spec VI - Program Specialist VI
Env Inv III - Environmental Investigator III (Subspecification of the Natural Resources Specialist classification)
Env Inv V - Environmental Investigator V (Subspecification of the Natural Resources Specialist classification)
Manager IV - Manager IV

The TNRCC also relies on an average of 100 contractor FTEs per year to perform vital functions relating to information technology and administrative and technical program support. Contract staff offer service that is important to the work of the TNRCC when agency staff lack the proficiency in some skills and do not have the required background or expertise to complete work in certain strategic areas. In addition, the TNRCC may also defer particular types of analysis to contractors who will be better equipped to perform such analyses. The commissioning of contract workers is consistently based on a cost/benefit analysis, with a focus on the expected return on investment.

Employee Turnover

With a turnover rate of 14.64 percent during fiscal year 2001, the TNRCC continues to explore avenues to improve staff retention. The agency is actively involved in efforts to recruit and retain qualified

employees through various endeavors. Twenty-four career ladders have been established, and approximately 80 percent of agency employees are on a career ladder. In addition, the agency is committed to developing employees and to encouraging employee initiative in professional growth. Specifically, employees are provided individual job descriptions for their respective position and annually receive developmental feedback as part of the agency's performance management program. Furthermore, employee training and professional development courses are made available through the Human Resources and Staff Development Division (HRSD).

The following chart depicts turnover for FY 2001 by office.

Table E-5. TNRCC Office Turnover for FY 2001

Office	FY 01 Total Workforce as of 8/31/01	*FY 01 Total Separations	FY 01 Turnover
Commissioners	62	10	16.13%
Executive	123	13	10.57%
OAS	438	78	17.81%
OCE	1076	119	11.06%
OEPAA	254	47	18.50%
OLS	117	33	28.21%
OPRR	831	133	16.01%

*Includes both voluntary and involuntary separations

Legend
Commissioner - Commissioner's Office
Executive - Office of the Executive Director
OAS - Office of Administrative Services
OCE - Office of Compliance and Enforcement
OEPAA - Office of Environmental Policy, Analysis, and Assessment
OPRR - Office of Permitting, Remediation, and Registration
Data source: Human Resources Information System

In an effort to identify trends and develop remedies to address issues connected with turnover, the TNRCC uses an internal exit interview system. The exit interview provides separating employees an opportunity to state their reason for leaving the agency. The agency also directs exiting employees to complete the online exit interview provided by the State Auditor's Office (SAO). Data retrieved from the online interview is especially useful to the agency because of the anonymity provided to separating employees. Reports generated from the SAO system indicate that although many employees leave the agency to obtain a salary increase, other factors are noted as impacting turnover. Additional reasons include "dissatisfaction with supervisor," "lack of opportunity for advancement," and "dislike/unsuitable for assigned tasks."

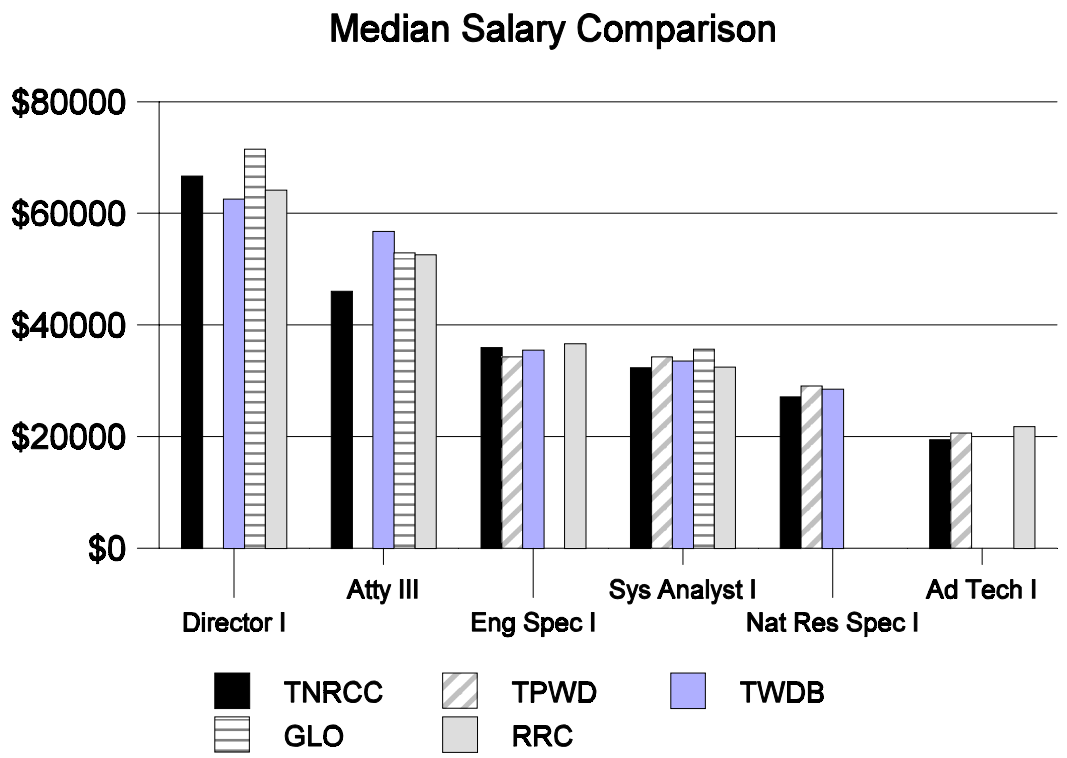
TNRCC Salaries

Some employees who separate from the TNRCC indicate they are leaving the agency to obtain a salary increase. These employees relocate to positions in other state agencies, as well as to private industry or other public sector entities. In March of 2002, the TNRCC compared the agency's salaries with those of other agencies by extracting data from the SAO Human Resources Analysis System (HRAS), an analytical tool that contains state agency data.

The comparison was based on median salary of each job title within 18 widely used job classifications.

For example, the review of the Director classification included a comparison by agency for Director I through Director V. The agencies included in the comparison were those categorized by the SAO as natural resource agencies. The chart below is reflective of the findings that TNRCC salaries are frequently lower than those of the other agencies. In this illustration, TNRCC salaries are lower in four of the six classifications: Administrative Technician I, Natural Resources Specialist I, Systems Analyst I, and Attorney III. TNRCC salaries are below the highest median salary in the Director I and Engineering Specialist I classifications.

Figure E-6. Median Salary Comparison of Texas Agencies



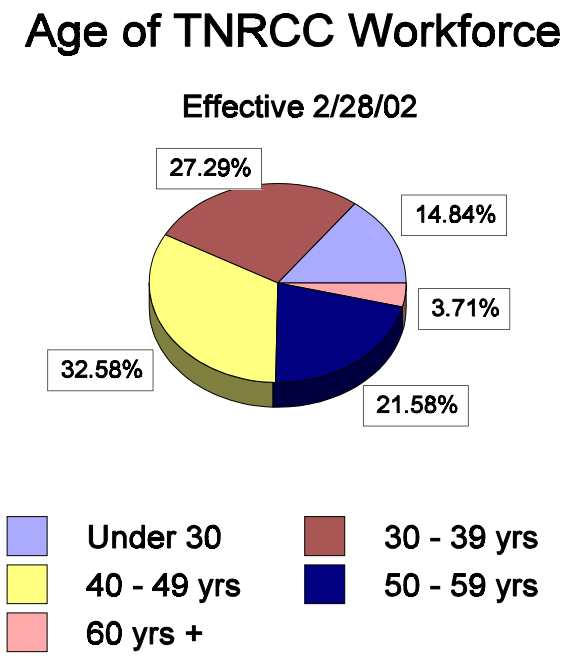
Legend
TNRCC - Texas Natural Resource Conservation Commission
TPWD - Texas Parks and Wildlife Department
TWDB - Texas Water Development Board
GLO - General Land Office and Veterans Land Board
RRC - Railroad Commission

Data Source: Human Resources Analysis System (HRAS), State Auditor's Office. Data effective 1/28/200.

Employee Age and Tenure

The TNRCC maintains demographic data on employee age and tenure and recognizes a trend in the aging of the agency's workforce. The following chart provides an analysis of the TNRCC workforce by age. More than 25 percent of the agency's employees are at least 50 years of age, and another 32.58 percent are at least 40. The average age of TNRCC employees is 41.76 years, and average state service of TNRCC employees is 9.52 years.

Figure E-7. The Age Distribution of the TNRCC Workforce



Retirement

The TNRCC projects that 290 of the agency's employees will become eligible for retirement by the end of FY 2005. This projected retirement rate is based on data provided by the Employees Retirement System. Retirement of approximately 9.5 percent of the agency's workforce could critically impact the agency through loss of organizational experience as well as dilution of technical and institutional knowledge. The following table illustrates the numbers of employees who retired during the last two fiscal years and provides their respective job classification. The number of retirees increased from 49 in FY 2000 to 58 in FY 2001.

Table E-6. Classification of Employees Who Retired from TNRCC

Job Title	Number of Retirees FY2000	Number of Retirees FY2001
Accountant II		1
Accountant VI	1	1
Administrative Technician I	1	1
Administrative Technician II		1
Administrative Technician III	5	1
Administrative Technician IV	2	3
Budget Analyst IV		1
Chemist V	1	1
Commissioner		1
Database Administrator I		1

Job Title	Number of Retirees FY2000	Number of Retirees FY2001
Director IV		2
Engineer III	1	
Engineer IV	1	1
Engineer V	2	
Engineer VI	1	2
Engineering Specialist III	1	1
Engineering Specialist IV	3	4
Engineering Specialist V	1	1
Executive Assistant I		2
Executive Assistant II		1
Geologist IV	1	
Hydrologist IV		2
Inventory Coordinator II	1	
Investigator VI	2	4
Investigator VII		1
Librarian III	1	
Manager III	6	3
Manager V		3
Natural Resources Specialist I	1	
Natural Resources Specialist IV	2	
Natural Resources Specialist V	5	3
Program Administrator IV		1
Program Administrator V	1	1
Program Specialist I	1	
Program Specialist II		1
Program Specialist III		3
Program Specialist IV	3	2
Program Specialist V	2	
Program Specialist VI	2	
Purchaser IV		1
Systems Analyst IV		1
Systems Support Specialist III		1

Job Title	Number of Retirees FY2000	Number of Retirees FY2001
Systems Support Specialist IV		3
Training Specialist IV	1	2
Total	**49**	**58**

Data captured as of 1/31/02

III. Future Workforce Profile (Demand Analysis)

Critical Functions

The TNRCC does not expect significant changes in its primary programs and critical functions during the next five years with one exception. The Petroleum Storage Tank Reimbursement Program is scheduled to end on September 1, 2006.

Expected Workforce Changes

Several factors have the potential to impact the agency's ability to attract and retain a highly qualified workforce and to provide timely and effective delivery of services and products. These include:

- Environmental factors
- Political and economic indicators
  - Legislative mandates
  - Sunset review
  - Changes in federal and state laws and regulations
- Emerging technologies
- Employee retention
- Employee retirement
- Agency reorganizations
- Career ladder structure

Environmental Factors

Texas in one of the fastest-growing states in the nation. The state experienced an increase of nearly 2.8 million people from 1990 to 1998. Demographic projections indicate Texas' population will increase by 100 percent between 1990 and 2030. As the state population continues to increase, there will be a significant impact on the natural resources and an increasing demand for TNRCC services.

- Site-specific studies indicate that 39 percent of the 368 multi-use bodies of water in Texas currently do not meet, or are not likely to meet, water quality standards and are therefore considered threatened or impaired.
- Texas ranks first in the nation in overall releases and disposal of toxics reported to the Toxics Release Inventory.
- Texas was ranked number one in hazardous waste generation in the State Summary Analysis of The National Biennial Resource Conservation Recovery Act (RCRA) Hazardous Waste Report, based on 1997 data.
- Texas has nine nonattainment and near-nonattainment areas and is required to implement revisions to the Clean Air State Implementation Plan (SIP) to meet federal standards by 2007.

Political and Economic Indicators

The political and economic environment have considerable impact on the work of state agencies, and

forecasting in these areas provides insight into their projected influence during the next five years.

- The legislatively mandated FTE cap may continue to hinder the agency's ability to effectively carry out its mission, since sufficient human capital may not be consistently available to meet expected demands.
- Employee workloads are expected to increase without the benefit of increased resources. Employees will be required to "do more with less."
- The agency may continue to be hampered by a cap on travel expenses which may adversely impact it's ability to fully monitor or audit many of the program areas within its jurisdiction.
- The agency has been tasked by the Legislature to develop a "strategically directed regulatory structure" to promote performance-based regulation.
- New or increased legislative requirements may impact the numbers of staff required to ensure compliance with requirements.
- Changes in federal and state laws and regulations have the potential to change agency responsibilities, as well as add or eliminate oversight of specific agency programs
- Continued downsizing of federal government will potentially shift additional responsibilities to state and local government entities.
- Gross national product (GNP) and inflation; increased costs are passed to the service provider.
- The State's available resources are not expected to match the increasing demands for services over the next five years, resulting in tighter budgets for the agency.
- A significant portion of funding for some programs is provided through federal grants from the Environmental Protection Agency. If federal funding is reallocated and does not remain consistent, the agency may be required to reestablish priorities.
- Unfunded legislative mandates and requirements resulting from the Sunset review have potential to impact the agency's resources.
- Homeland security requires additional resources to develop, test, and implement business recovery operations.
- Poor economic conditions can result in greater noncompliance with agency regulations and an increase in environmental crimes. This requires the agency to expend more resources on enforcement.
- When the economic conditions are favorable, the agency experiences a higher demand for permitting, licensing, and field services related to permitting and public information services.

Emerging Technologies

The agency expects increased challenges in responding to the demands for information management and technology-based services. Advances in technology and knowledge related to environmental issues is expected to accelerate. Handling this increased level of complex information will require more sophisticated skills in data evaluation, agency decision making, and well-developed internal and external communication strategies. The miniaturization of equipment and improved wireless communication will encourage the development of information networks and increased customer demands for the availability of 24-hour access to electronic services and information.

The resulting change in customer expectations will impact the agency across offices and programs in the following areas:

- Increasing customer demand for accurate and timely data, requiring the design, development, and successful implementation of integrated databases.
- Customer demands for consulting and training on use of electronic information.
- Continued difficulty in communicating with customers since agency standard software is not fully compatible with the industry standard.
- Budgetary burden on the agency to purchase hardware and software for escalating technological advances.
- Web development and maintenance.
- Electronic collection and reporting of data, rendering "manual processing" of data as an obsolete function.

- Increased need to ensure security of intellectual property.
- Higher employee stress levels resulting from the capability to work anytime and anywhere.
- Demands for higher levels of skills in area of technology, including software proficiency, data management, and technical writing.

Employee Retention
The TNRCC expects employee retention to continue to be a major concern. The issue of job satisfaction involves many factors, and the TNRCC has identified several critical issues that affect turnover:

Salary Administration
The TNRCC's ability to attract, recruit, and retain a qualified workforce is adversely impacted by agency salaries that are not competitive.

- TNRCC salaries are not market competitive when compared to the private sector and, in some cases, other state agencies.
- Budgetary constraints sometimes limit agency management from recognizing meritorious performance beyond the scope of conservative and occasional one-time merit increases.
- Employees are increasingly dissatisfied with the health benefits package.
- Marginal salary differences do not act as an incentive for employees to apply for high-level leadership (both management and technical) positions.
- Outsourcing functions do not relieve agency management of the oversight process and ownership of deliverables and final products.
- The agency's extensive training program is used by entry-level employees to build skills and later transfer to other organizations for salary increases.

Work Environment
When employers must compete for employee skills, issues related to work environment and organizational culture become increasingly important. Employees will continue to demand flexible workplace options such as: compressed or nontraditional work schedules, part-time work, job sharing, and telecommuting (agency telework program).

Career Ladders
Although the development of career ladders have increased employee retention by offering established opportunities for advancement, there exists limited opportunity for advancement at the top of the agency's career ladder structure. Also, career ladders are not available for 20 percent of the agency's nonmanagement classifications. Further, critical skill levels are rapidly diluted by the requirement that supervisors hire at the entry level unless an exception is granted.

Employee Retirement
The projected retirement of up to 9.5 percent of the agency's employees by FY 2005 is expected to result in a significant loss of organizational experience as well as technical and institutional knowledge. In some cases, the agency will be required to hire at entry levels of the career ladder to replace employees in key positions that dictate specific technical and scientific expertise to fully execute the agency's mission.

Agency Reorganizations
The TNRCC has historically undertaken frequent reorganizations that impact the agency's internal infrastructure. These reorganizations diminish the effectiveness and continuity of service delivery as employees are required to reassess roles, refocus energies, and draw upon, or learn, new sets of skills. An increased focus on change management is important to assist employees during this transition process in order to maintain job satisfaction levels and retain employees.

Number of Employees
The demands for TNRCC services are expected to continue to increase, and the agency may at times require additional manpower to meet these demands. Office requests for additional FTEs will

consistently be evaluated against the agency's authorized FTE cap. In addition, each office intends to implement strategies to increase processing efficiencies, share resources, and further develop staff to maximize the potential of current employees.

Future Workforce Skills Needed

The critical skill clusters required to carry out the agency's mission are not expected to change. However, increased proficiency levels (from familiarity to mastery) of most skills will be required to more efficiently meet the increasing demands.

IV. Gap Analysis

Anticipated Surplus or Shortage of Workers and Skills

The TNRCC conducted the agency's workforce analysis by office, and each office workgroup identified gaps in the workforce supply and demand specific to their respective office. The office gap analysis charts are included in this workforce plan in their entirety. Across the various offices, several themes emerged related to gaps between the agency's current workforce supply and the anticipated future demand.

- The TNRCC continues to struggle with a shortage of the numbers of FTEs required to meet the demands of an increasing workload.
- Proficiency levels of critical skills will continue to be diluted through turnover, retirement, and the requirement to hire at entry level of the career ladder.
- The projected retirement of up to 9.5 percent of the agency's employees over the next four years is expected to result in a significant loss of organizational experience, as well as technical and institutional knowledge.
- Loss of senior staff decreases the agency's ability to address highly complex environmental issues, often creating delays in responding to the regulated community.
- The agency does not anticipate a shortage of applicants who meet basic qualifications. However, the agency may be unable to recruit and retain a workforce with proficiency in critical workforce skills sufficient to meet the increasing customer demands.
- The future workforce of the TNRCC must have a higher level of proficiency in the critical skills to be able to effectively carry out the agency's mission.
- The agency anticipates the same or increased rates of turnover (contingent upon economic recovery among private industry employers).
- Overall, the agency's current employees possess the critical skills required to perform their job functions. However, not all employees demonstrate the required levels of proficiency in those skills.
- Inadequate skill levels impact employee morale, confidence, and performance.

The expectation that the agency will "do more with less" perpetuates two cycles of turnover. The first cycle (Figure E-8) involves hiring employees at entry levels, engaging in accelerated employee training and development, escalating employee frustration levels due to performance deficiencies, subsequent employee separation from the agency, and a return to dilution of skill proficiency. A second cycle involves hiring employees at a noncompetitive salary, engaging in accelerated employee development training, employee achievement of marketable skills, employee separation from the agency to seek increased compensation, and a return to dilution of skill proficiency.

Figure E-8. Dilution Cycle of Critical Skills by Hiring at Entry Level

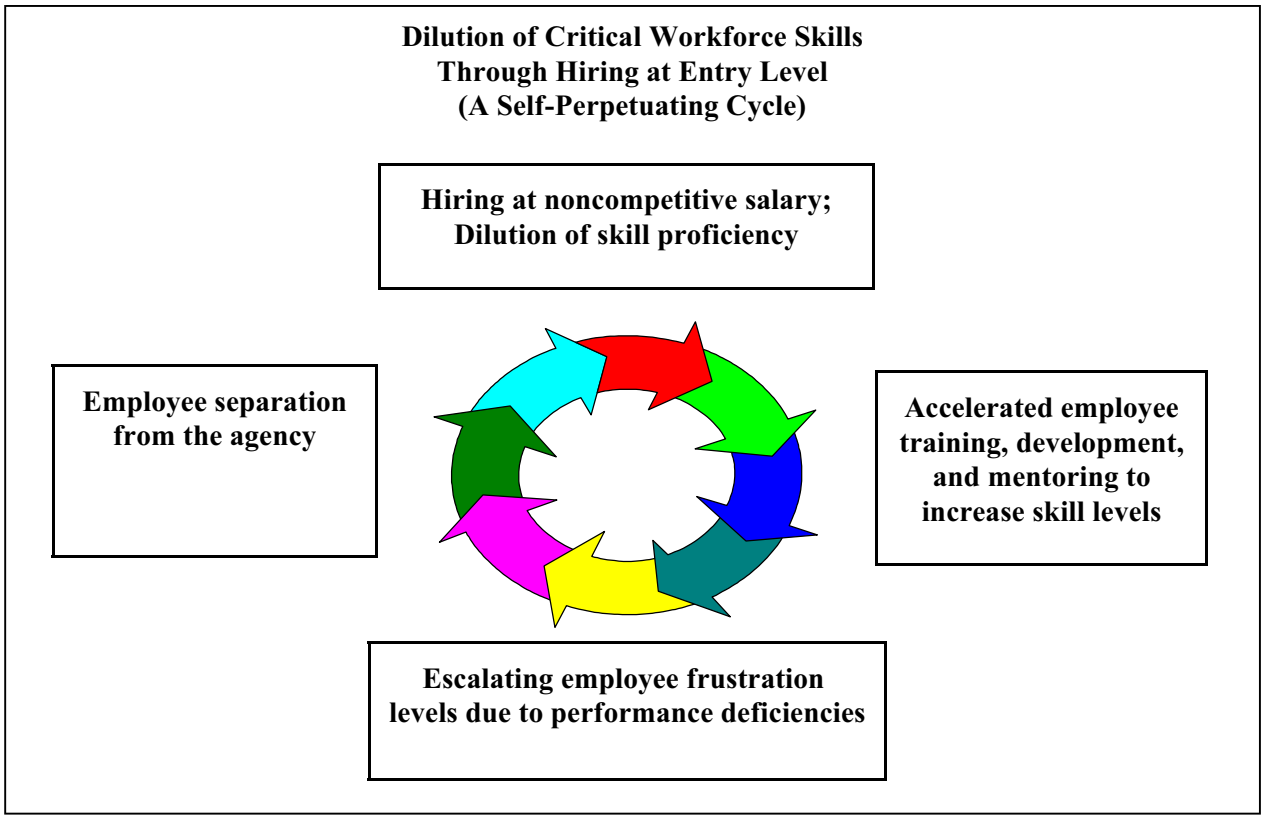
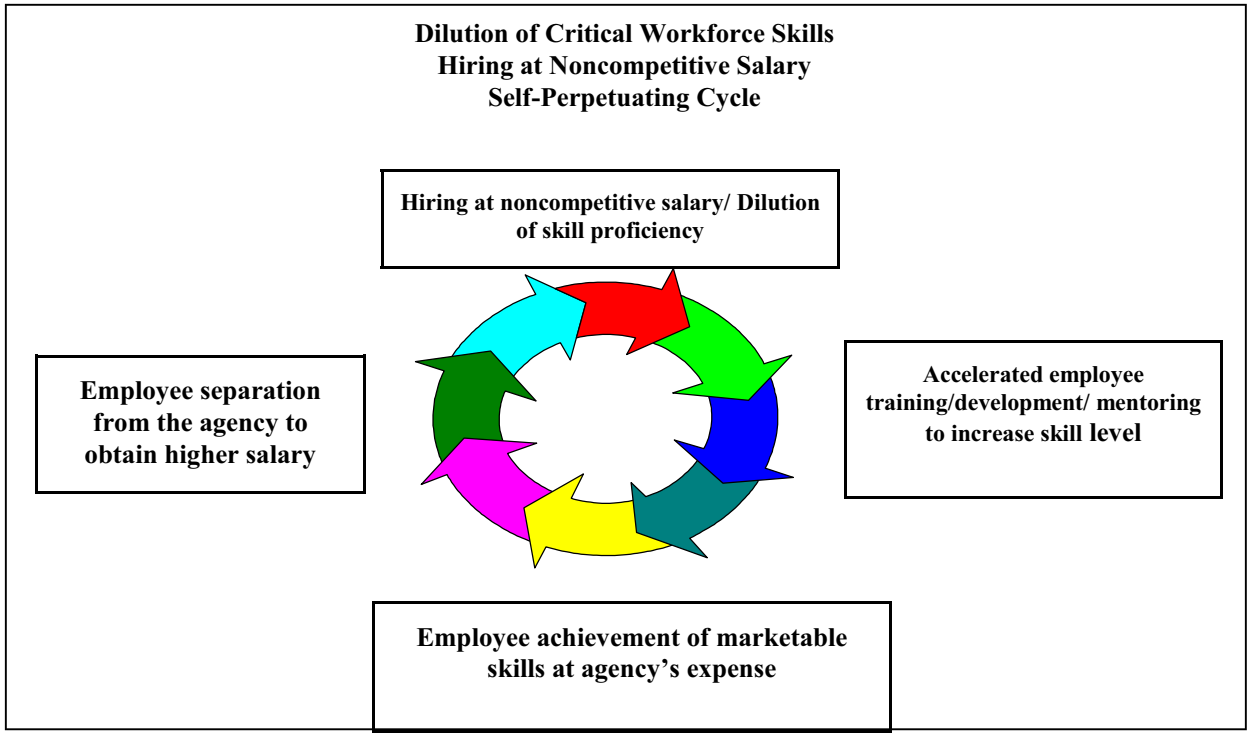


Figure E-9. Dilution Cycle of Critical Skills at Noncompetitive Salary



V. Strategy Development

As previously indicated, the TNRCC conducted the agency's workforce analysis by office. Each office workgroup developed strategies for addressing gaps in the workforce supply and demand specific to their office. Each workgroup also developed action plans that will be implemented at the office level.

Some of the strategies have already been implemented, and offices will continue pursuing the related course of action. Some strategies are presented as recommendations and may require changes to policies and procedures, executive approval, or legislative changes related to budget allocation. The office strategies are included in this workforce plan in their entirety.

Across the offices, several themes emerged related to addressing the gap between workforce supply and demand. The following overview of themes, goals, and action steps provides insight into the agency's initial plans for ensuring a competent and well-trained workforce is available.

Recommended Actions Requiring Executive Management Approval

Building Skills:

- Periodically review agency priorities throughout program areas to reallocate resources and skills to address critical needs.
- Phase out single media expertise (air, water, waste).
- Enhance agency sponsorship of employee participation in certification courses.
- Develop and implement a mentoring program to facilitate transfer of historical and institutional knowledge.

Enabling Advancement:

- Increase allocation of funds for merit increases to non-career ladder classifications.
- Restructure career ladder progression and related policies to:
  – enable hiring above entry level,
  – enable employee growth and development at the top of the career ladders, and

– provide career ladders for additional classifications throughout the agency.
- Provide enhanced recognition/reward programs for high achievers.

Providing Flexibility:
- Provide increased workplace flexibility through compressed workweek, telecommuting, and part-time work.
- Request additional FTEs as dictated by fluctuating priorities and workloads.
- Increase use of part-time FTEs.

Attracting a Workforce:
- Develop and implement a high-level public relations campaign to market the agency and state employment, thus increasing agency visibility in the labor market.

Hiring and Recruitment
- Coordinate with the HRSDD to identify additional innovative recruitment strategies.
- Actively engage hiring managers at the office or program level in recruitment efforts to obtain required levels of specific skills in new hires.
- Market state and agency benefits at recruitment events.
- Increase advertising through electronic media to continue to attract a diverse labor pool.

Employee Retention
- Promote a positive work environment and organizational culture by emphasizing "quality of life" and "family friendly" programs.
- Ensure employee orientation to the organization beyond existing agency orientation programs.

Employee and Skill Development
- Provide targeted training for career development.
- Provide "state of the science" education to staff.
- Provide "just-in-time" technical training.
- Develop functional cross-media (multimedia) expertise and flexibility.
- Share employee resources between programs.
- Revise job performance standards and plans to include skill development tasks and expected outcomes.
- Provide team building events.
- Develop and refine internal office training teams.
- Develop annual training plans for all staff.
- Identify and develop employees interested in leadership and management positions.
- Identify and develop employees interested in developing a generalist expertise in their roles.

Contract workers
- Contract advanced skills to address increasing federal and state regulatory requirements.
- Contract short term projects.

Workload
- Develop administrative support staff to assume higher level technical responsibilities in their respective offices.
- Develop integrated databases to manage information.
- Increase process efficiencies.
- Matrix management.
- Increase use of interns.

TNRCC
OFFICE PLANS

Each office of the TRNCC provided input to the agency's workforce plan by developing an individual office workforce plan. The following documents reflect the perspective of each office and provide strategies to address the workforce issues specific to each office.

OFFICE OF THE COMMISSIONERS

I. Overview

Three full-time commissioners are appointed by the Governor to establish overall agency direction and policy and to make final determinations on contested permitting and enforcement matters. They are appointed for six-year terms with the consent of the Senate. The following offices report directly to the commissioners: General Counsel, Alternative Dispute Resolution, Chief Clerk, Internal Audit, Public Assistance, and the Public Interest Counsel. These offices are diverse and each has its own workforce needs and considerations.

Key Economic and Environmental Factors

- Budget allocation and the legislative cap on the number of full-time equivalent (FTE) employees; Economic conditions such as these drive the number of permit applications and registration applications, including amendments and modifications.
- Legislative mandates and directives determine workforce resource allocation.

Key Issues and Challenges

- Inability to obtain additional or higher skilled FTEs may impact service effectiveness and determine whether deliverables are met.
- Anticipated increase in number and complexity of litigation proceedings.
- Management of increasingly complex data.
- Management of increasing workloads and multiple priorities.

Long Range Business Plans

- Recommend regulatory changes to support the development of other long range business plans.
- Resolve the majority of contested cases to prevent the need to litigate applications in contested hearings.
- Expand the use of alternative dispute resolution (ADR) mediation.

II. Current Workforce Profile (Supply Analysis)

Table E-7. Critical Workforce Skills and Their Availability Within Current Workforce

Critical Workforce Skills	Available Level of Proficiency
Legal research and writing	Level 3, Mastery
General legal and litigation	Level 3, Mastery
Critical thinking/problem solving	Level 3, Mastery
Knowledge of agency rules and processes	Level 3, Mastery
Information systems	Level 1, Minimal to Level 2, Proficiency
Project management/organization	Level 3, Mastery
Communication	Level 2, Proficiency to Level 3, Mastery
Administrative	Level 2, Proficiency to Level 3, Mastery
Interpersonal	Level 2, Proficiency to Level 3, Mastery

Current Workforce in 2007
The needed skills and levels of proficiency required are expected to remain the same through the year 2007. However, proficiency of the available skills may be lower than what is needed due to projected employee turnover.

III. Future Workforce Profile (Demand Analysis)

Critical Functions: Office of the Commissioners

Support Agency Leadership
- Issue all final documents generated by the executive director and the commissioners.
- Draft and review commissioner orders.
- Issue executive director's response to comments.
- Prepare the written commission agendas and manage the meetings.
- Manage and coordinate the executive director's agenda.

Manage Agency Programs
- Maintain service to the programs in issuing required notices.
- Participate in the agency's rule making process.
- Provide support to program and legal staff for public meetings.
- Manage TNRCC's Environmental Equity Program, including Title VI complaints.
- Conduct internal audits.
- Audit information systems.

Provide Public Assistance
- Evaluate and categorize protestant mail and acknowledge letters.
- Respond to citizen phone calls.
- Conduct Customer Service Survey.
- Coordinate and track responses to all letters sent to Commissioners and all letters from elected officials to Executive Director.
- Receive, track, and file all publication documentation and public correspondence related to pending applications.
- Schedule and facilitate public meetings, notice and comment hearings, and rules hearings.
- Maintain the official records of pending commission proceedings while, at all times, making those records available for inspection by the public.

Provide General Counsel and Resolution Services
- Participate in contested case proceedings.
- Participate in the agency's public meetings process.
- Assist with legislative implementation.
- Manage litigation.
- Advise Commissioners on legal and policy issues.
- Mediation of agency contested cases.
- Mediation of other disputes involving the agency.

Expected Workforce Changes
The Office of the Commissioners may require additional staff to respond to new or additional legislative or agency requirements.

IV. Gap Analysis

Anticipated Surplus or Shortage of Workers
The Office of the Commissioners does not anticipate any surplus or shortage of qualified employees, based on the availability of qualified candidates in the labor force. However, the office expects turnover to continue to be an area of concern.

In fiscal year 2000, the Commissioner's Office experienced an attrition rate of 25.4 percent. In fiscal year 2001, the rate was 16.13 percent. Some of the offices that report to the commissioners have experienced greater turnover than others. For example, the average turnover in the Office of the Chief Clerk during the last three fiscal years was 45 percent. If that rate of turnover continues, the office could lose 10 staff through "normal" attrition each year. In addition, two employees are eligible to retire by the year 2006. If this rate of turnover continues over the next five years, the Office of the Chief Clerk could experience a 100 percent turnover twice in five years. Past experience indicates there will continue to be an adequate supply of qualified applicants to fill positions as they are vacated.

Anticipated Surplus or Shortage of Skills
Most of the skills required in the Commissioner's Office are in the professional and administrative categories. Past experience indicates that replacements for both categories will be available when required. However, employee turnover is expected to affect the level of skills available, since newly-hired employees require training to reach the expected level of proficiency.

New Skills Required to Accomplish Office Objectives
- Legal and administrative skills to deal with new technologies
- Technical and consulting skills

V. Strategy Development

Gap	**Some staff are not appropriately classified.**
Goal	Reclassify or promote staff as appropriate.
Rationale	Retention rate may improve if staff are adequately compensated for their skills, knowledge, and work product.
Action Steps	• Recommend promoting all Administrative Technician I staff to the Administrative Technician II level. • Request to hire at the Administrative Technician II level. • Recommend reclassifying at least two key administrative technician positions to the program specialist series.
Gap	**Information systems skills are lacking.**
Goal	Increase proficiency level of information systems skills.
Rationale	Efforts are underway to increase the skill level of current staff, and employees are expected to attain Skill Level 2 by the year 2007. However, the workload will require skills at Level 3 (Mastery).
Action Steps	• Optimize training efforts.

Gap	**An increased level of administrative support skills will be needed to manage the increasing volume and complexity of data.**
Goal	Increase level of administrative support skills to include familiarity with grants and budgets and use of information systems.
Rationale	As permit processing time lines become increasingly tight, support staff may be required to perform some activities that are currently handled by professional staff.
Action Steps	• Initiate process to obtain approval for an additional one-half FTE dedicated to administrative support. • Educate professional staff regarding opportunity to use skills of support staff. • Develop skills of support staff through grant and budget training.
Gap	**Current staff are expected to achieve Skill Level 2 (Proficiency) in auditing information systems during the next five years. However, a Level 4 (Expert) will be needed.**
Goal	Increase skills of staff in auditing information systems to the expert level.
Rationale	Although three staff members are participating in training to become a Certified Information Systems Auditor (CISA), there is no staff member with the required skill level; therefore, current auditors will have limited exposure and ability to become experts in the field.
Action Steps	• Obtain an additional FTE at the requisite classification and salary level to facilitate recruiting the auditing skills required. • Recruit and hire an experienced information systems auditor who has achieved an expert level of the required skills. • Manage the audit plan to ensure each existing auditor has the opportunity to work with the newly hired information systems auditor to increase the related skills.
Gap	**A mastery skill level will be needed in the use of Computer Assisted Auditing Techniques/Tools (CAATs).**
Goal	Develop staff skills (auditors and support staff) in the use of CAATs.
Rationale	TNRCC audit work will increasingly rely on computer generated data. Use of CAATs will be required/expected among both auditors and support staff.
Action Steps	• Identify various needs for CAATs. • Identify CAATs that can fulfill these needs. • Request budget resources sufficient to obtain CAATs. • Obtain required approval from the Information Technology Work Group/Information Technology Steering Committee (ITWG/ITSC). • Purchase CAATs. • Systematically implement the use of CAATs in routine audit work.
Gap	**Additional administrative support skills will need to be integrated into the audit process.**
Goal	Increase administrative support skill level to provide expanded familiarity with auditing, information systems auditing, use of information systems, and CAATs.
Rationale	As auditors are increasingly held accountable for project time lines and outcomes, it will become more efficient and effective to rely on support staff to perform some activities that have traditionally been completed by auditors.

Action Steps	• Obtain approval for an additional one-half FTE administrative support staff. • Identify and use opportunities to integrate support staff into audit projects. • Educate auditors regarding the opportunity to utilize skills of support staff. • Develop skills of support staff through basic audit training course.
Gap	**Shortage of legal and administrative skills to deal with new technologies**.
Goal	Develop the skills of staff to meet new challenges and more efficiently satisfy public interest objectives.
Rationale	More efficient and effective use of existing staff and resources is preferable to creating additional FTEs or increasing funding.
Action Steps	• Determine level of legal and administrative skills needed. • Identify appropriate education and training opportunities to address these needs. • Request necessary budget approval. • Implement a schedule for meeting the training needs.
Gap	**Shortage of technical/consulting skills**.
Goal	Obtain and use outside technical consultants as authorized by House Bill 2912 to carry out the functions of the office.
Rationale	Ensure that the office will be adequately staffed and funded to carry out its statutory functions.
Action Steps	• Determine level of technical consulting skills needed • Identify appropriate opportunities in which to make use of consultants. • Request necessary budget approval. • Implement a process for identifying and hiring needed expertise.
Gap	**Shortage of required skill level among staff mediators.**
Goal	Hire and retain highly qualified professional mediators.
Action Steps	• Acknowledge the unique skills and extensive professional experience needed and raise the grade and pay level to allow recruitment and retention of mediators with the requisite background experience and communication skills to effectively operate as environmental mediators in highly complex and technical cases. • Manage the mediators to ensure that each mediator becomes credentialed in the soon-to-be Texas mediator credentialing program. • Enable mediators to attend advanced mediation training courses when possible.
Gap	**Office of General Counsel-Litigation Management**
Goal	Increase litigation management capabilities.
Rationale	Ever-increasing number and complexity of agency litigation.
Action Steps	• Secure an additional FTE to allow better focus on ongoing litigation and Office of the Attorney General coordination. • Establish a Litigation Management System to track all litigation.

OFFICE OF THE EXECUTIVE DIRECTOR

I. Office Overview

The executive director manages the daily operations of the agency. Five primary office clusters that are organized by function report directly to the executive director and carry out the agency's regulatory and administrative responsibilities. In addition, the executive director directly oversees the divisions of Intergovernmental Relations, Agency Communications, and Small Business and Environmental Assistance.

Major responsibilities include implementing commission policies, making recommendations to the commissioners about contested permitting and enforcement matters, and approving uncontested permit applications and registrations. The office is also responsible for the planning, coordination, and management of the TNRCC's legislative affairs and communications with elected officials, other agencies, and stakeholders concerning legislative issues. The office coordinates the preparation of the Commission's legislative recommendations; communicates significant policy, regulatory ,and procedural initiatives to the state's leadership and legislative offices; manages the agency's participation in each legislative session; and provides assistance to legislative offices on behalf of constituents in their business with the agency.

It is anticipated that the structure and primary functions of the Executive Director's Office will remain basically the same over the next five years; however, some functions and duties may change or expand, as the office continues to address new priorities, streamline existing procedures, focus on problem solving, and increase flexibility in staffing. It is expected that customer demands for services related to information availability, particularly via the Web, will continue to increase. In addition, legislation requiring Web-based information is expected to increase.

Key Economic and Environmental Factors

- The executive director's office is the coordination point at the TNRCC for the news media and handles approximately 1,980 media inquiries per year. The office also establishes agency standards and guidelines for print and Web publishing. Both of these factors influence the agency's public image.
- The nature and extent of legislative requests for TNRCC assistance are affected by changes in economic conditions, as constituents are usually either pressed to address the costs of environmental compliance or are in need of faster responses from the agency for permits and other authorizations.
- Changes in state government budgets have a significant impact on the coordination and management of legislative appropriation issues.
- The office must modify functions, services, and processes to accommodate increasing legislative requirements for distribution of public information.
- Office staff will participate in informing regulated entities of new options, such as use of the Environmental Management Systems (EMS).
- New requirements continue to affect smaller entities, such as boiler requirements in nonattainment areas and storm water permits.
- Site-specific studies have determined that 39 percent of the 368 multi-use bodies of water in Texas do not meet, or are likely not to meet, water quality standards and are therefore considered threatened or impaired.
- Texas ranks first in the nation in overall releases and disposal of toxics reported to the Toxics Release Inventory.
- Texas was ranked number one in hazardous waste generation in the State Summary Analysis of the National Biennial RCRA Hazardous Waste Report (based on 1997 data).

- Texas has nine near nonattainment and nonattainment areas and is required to implement Clean Air State Implementation Plans (SIPs) to meet federal standards by the year 2007.
- Texas's population is expected to increase from 20 million people to 36 million people by 2030, putting increasing pressure on the environment within and around its rapidly expanding urban areas.
- The current high demand for environmental education and assistance is expected to grow substantially in the future.

Key Issues and Challenges

- Implementation of several legislative projects, including addition of public information to the agency's Web site and clarification of an individual's privacy rights in the area of e-mail and information submitted on agency forms.
- Planning and execution of agency name change to Texas Commission on Environmental Quality (TCEQ), as required by Sunset legislation.
- Redesign of agency Web site in anticipation of installing a content management system, and managing the conversion of pages into that system.
- Agency-wide training for Web development and greater emphasis on cross-training efforts to ensure skill levels for all programs.
- Legislatively mandated cap on full-time equivalent (FTE) positions forces outsourcing of tasks that are performed with better turnaround and more accuracy when handled in-house. Constant negotiation with vendors is a drain on staff resources.
- New policy regarding compliance history will drive more businesses and governments to seek TNRCC assistance.
- Continuous increase in demand for compliance assistance, as regulations become increasingly complicated and more regulated entities become aware of TNRCC services via field staff
- Legislative challenge to develop a "strategically directed regulatory structure" to promote performance-based regulation.
- The ED's Office has been directed to create regulatory incentives to promote the use of EMSs by the regulated community.
- Promotion of pollution prevention technical assistance to reduce public exposure of pollutants and contaminants.
- Continue to promote waste reduction and recycling programs.
- Need for shift of five to twenty percent of agency staff toward an assistance function to increase environmental compliance.
- Retention of highly-experienced employees who are nearing retirement, are highly marketable, or are interested in working with another program.
- Continuing problems in retaining qualified staff due to noncompetitive salaries and lack of opportunities for advancement.
- No available internal replacements for highly-experienced staff who are individually responsible for a program.
- Limited ability to promote or provide pay increases to the most highly skilled employees, due to the nature of the personnel advancement system (career ladder).
- Requirement to hire at entry level of career ladder reduces likelihood of obtaining qualified replacements.
- Communicating technical and complex environmental quality and natural resource issues of the agency to the state's leadership, elected officials, and stakeholders.
- Developing effective working relationships with new members of legislature during time of significant turnover in officer holders.

II. Current Workforce Profile (Supply Analysis)

The office currently has 124 filled positions. Of the 115 positions within the divisions, 14 are classified as Officials or Administrators, 68 are classified as Professionals, two are classified as Technical, one is classified as Paraprofessional, and 30 are classified as Administrative Support.

An analysis based on available data and current state retirement rules, indicates that 19 office employees are eligible to retire during the next five years. Projected turnover calculated on previous fiscal year statistics indicate approximately 38 of the current office workforce will voluntarily separate within the next five years.

Critical Workforce Skills

Because of the unique composition of the office, a broad range of skills are required to carry out its functions. Many positions in the office cannot be filled by entry-level staff, and in some cases, positions require a skill-set that is too specialized to allow promoting staff internally, for example, engineer, librarian and editor. A number of positions require specialized technical and program knowledge as well as knowledge of local, state, and federal laws related to program areas. The office is generally able to hire staff when entry level positions are posted. However, once entry level employees become trained and gain experience they often leave to accept positions with higher salaries.

The following broad categories of critical workforce skills are currently available in the office. Specialized skills that exist as subsets of the critical skills are also required for some positions. This includes skills such as interviewing, leadership, training, statistical analysis, and logistical management. Most employees have achieved the level of proficiency required to adequately perform job functions. However, more recently hired employees need continued training to adequately perform their job functions.

Critical Workforce Skills Available in Current Workforce
Program management
Project management
Financial administration
Financial management
Personnel management
Marketing
Internet/technical
Computer skills and software proficiency
Web development and maintenance
Database development and maintenance
Graphics design
Customer service
Knowledge of local, state, and federal laws

Critical Workforce Skills Available in Current Workforce
Library research and cataloging
Quality assurance
Communication
Writing/editing
Planning
Problem solving
Technical/programmatic

Skill and Experience of Current Workforce in 2007
The office anticipates that the skills and skill levels needed in the future will be quite similar to the skills needed today. However, advancements in technology—particularly in Web development, graphics, and general information technology—will require new skills and additional training.

Retirement of employees will present an increased challenge. Substantial work time will be required from remaining senior staff to provide ongoing training and mentoring to lower level positions and new employees.

The office expects the rate of turnover to remain fairly consistent, with the exception of attrition through retirement. Retirement may result in a loss of historical knowledge of various office programs that can only be replaced through many years of experience. In many instances, the office does not have the ability to replace highly skilled, tenured staff with other experienced staff, and will have trouble mentoring replacements beforehand, because there are limited staff.

- The office expects to continue being challenged in recruiting and retaining mission critical skills due to the low salary offered for some professional positions and difficulty in attracting qualified minority applicants for specialized positions.
- The office will need the ability to post positions at a higher level than the entry level as required under the current TNRCC Operating Procedures. The TNRCC career ladder also needs to allow for additional professional growth for employees at the top of the career ladder
- The office should be allowed to keep the Engineer V positions with anticipated attrition rates, to allow for career development for agency staff. With the current hiring and promotion system, hiring and retaining qualified replacements for separating staff is doubtful.
- There is a continuing concern that the workload and schedule constraints imposed by the Legislature during a session can lead to job dissatisfaction and an incentive to look for less stressful positions.

III. Future Workforce Profile (Demand Analysis)

As public concern about environmental issues increases, the demand for functions performed by the office will also increase. Legislation in response to public demand for information has increased and will continue to do so in the future. In particular, the Web is seen as a quick and inexpensive way to make information available, but in reality, constructing and maintaining a coordinated, navigable site is time and resource intensive.

This increase in information dissemination via the Web will not decrease the requests for information in general, but will change the nature of requests. From those who are accessing the Web, questions will be more focused or will involve technical questions on such things as finding and downloading Web resources.

We expect that the news media will become more Web reliant. They will have more focused questions when they call, or they will not call but will take information directly off the Web without seeking clarification from the agency. This will increase the need for proactive, directed communications from the office. This is likely for other audiences as well, increasing the need for clear Web communication.

- As the agency experiences a tightening budget and increased pressure to communicate, the need for technical writers to streamline guidance documents, instead of relying on engineers and other predominate classifications, will become more apparent. Also, the increased need for efficient use of internal communications vehicles may arise. Both of these circumstances would increase demand on office employees.
- The agency will need additional workplace flexibility to accomplish its mission as the state population increases. Programs such as telework and commuting options should help increase employee efficiency.
- Future workers will need the ability to work independently from remote work locations throughout the state with an accountability function built into the management system.

Critical Functions
Primary functions, office structure, and basic critical functions are expected to remain much the same. However, new technology will require additional skills. The office does not anticipate that any programs will be eliminated, but rather expects that new programs may be added and the demand for services will increase.

Expected Workforce Changes
Current workers have the baseline skills needed to do the work of the future. However, new or enhanced skills to address technology advancements and expanded communication functions will become necessary. The office also expect the following changes in the workforce:
- Increased turnover due to retirement of the "baby boomer" age generation.
- Population demographics will impact the workplace dynamics.
- Technology will promote increased worker efficiency.
- The loss of experienced staff due to retirement or separation may require additional focus on training and development.
- Less experienced employees may become overwhelmed by their inability to meet their perceived obligations, with attendant impact on morale and retention.

IV. Gap Analysis

Anticipated Surplus or Shortage of Workers
The office anticipates that there will be no surplus of workers. Past FTE reductions have left the office with minimum staff, and there are noticeable, but not critical, gaps in services. However, without statutory authority to increase the agency's FTE cap, there will be little opportunity to address this shortage. Current workers have the baseline skills needed to do the work of the future, but new or enhanced skills to address technology advancements and any expanded functions will be required.

The Executive Director's office anticipates that the office will be able to manage the skill sets needed during fiscal years 2003—2007. Due to the career ladder staffing, a shortage of technical and compliance assistance employees is anticipated if the demand for services increases significantly. In that case, the office may need to prioritize the types of services and customers it can service.

Anticipated Surplus or Shortage of Skills
The office did not identify any surplus of skill levels. However, skills related to single environmental media expertise (air, water, and waste) are expected to become obsolete. Workers need to be skilled in all aspects of environmental management. Skills related to manual processing, such as preparation of purchase vouchers, travel authorizations, and contracts, will become obsolete as technological advances increase. Any new skills needed in the future that are related to advances in technology cannot be quantified at this time.

The office anticipates a shortage of skills in the following areas:
- Information technology, Web usability, navigation, indexing.
- Technical (if required to post at entry level).
- Educational event coordination.
- Registration.
- Teaching in the area of the Environmental Sciences Program.
- Multi-disciplinary skills.
- Manual preparation of purchase vouchers, travel authorizations, and contracts will become obsolete with improved computer technology. Staff will need to be trained to handle more Internet-based applications.
- The ability to construct and maintain online transaction and information activities will be required for all programs.

V. Strategy Development

Gap	**Possible loss through retirement of long-term, highly experienced employees.**
Goal	Ensure that knowledge loss is kept as low as possible.
Rationale	The office provides a variety of services to the agency and many are related to communications. The high success rate is related to the experience of staff in dealing with all parts of the agency, with agency and state procedures, and with vendors.
Action Steps	• Continue to capture procedures and knowledge on T-Net pages to pass down to future employees. • Consult with HRSD regarding employees who wish to retire, but then return to the agency.
Gap	**The office is able to attract entry level employees, but has difficulty in retaining a qualified workforce.**
Goal	Ensure the office has a high-quality, diverse workforce.
Rationale	The office needs to recruit and retain a skilled workforce so that the agency provides timely, accurate information and services.
Action Steps	• Recommend a review of selected career ladders to determine if entry level salaries or time in grade requirements need to be adjusted based on turnover statistics and employee feedback. • Recommend a review of the agency's Merit and Promotion Policy to ensure that managers have the flexibility to reward meritorious work.

Gap	**The office experiences difficulty in attracting qualified minority candidates for posted positions.**
Goal	Recruit minority candidates for office positions.
Rationale	Some positions of the office require highly specialized skills. These functions fall outside the predominate classifications that are targeted by agency efforts to recruit minorities.
Action Steps	• Explore with HRSD what vehicles can be used to recruit qualified minority applicants with specialized skill sets.
Gap	**The office is able to attract employees, but has difficulty in retaining a qualified workforce**.
Goal	Ensure the office retains a high-quality, diversified workforce.
Rationale	The office needs to recruit and retain a workforce of highly skilled staff. We must develop programs and strategies to meet the workforce requirements.
Action Steps	• Recommend review of the agency's Merit and Promotion Policy to ensure that managers have the flexibility to reward meritorious work. • Consider cross-training for major agency programs to strengthen employee performance and provide the potential for career development and advancement. • Establish an agency leadership training program that creates a diverse pool of candidates who are adequately prepared to fill projected leadership positions. • Develop methods to promote our total employment package to make certain the agency's state employment benefits are appropriately valued. This is especially important in a declining economy. • Emphasize "quality of life" and "family friendly" issues (such as flex hours and telecommuting) that make the workplace more attractive and accommodating in order to attract, retain, and motivate a productive workforce. • Optimize the utilization of internship programs to increase workforce resources and flexibility and achieve more efficient use of resources.
Gap	**Career Ladder Barriers to Professional Development**.
Goal	TNRCC should review the career ladder system to address professional development for staff at the "top of the career ladder" to support retention.
Rationale	Staff need professional development and leadership opportunities to handle complex environmental issues.
Action Steps	• Recommend establishing an agency task force to review career ladder barriers. • Work with the agency Training Academy to provide continued education opportunities. • Establish leadership development programs to grow new leaders.
Gap	**Performance planning is not tied to environmental quality goods.**
Goal	The TNRCC should revise employee performance plans to address environmental improvements.

Rationale	Agency performance metrics are based on traditional performance measures, i.e. number of permits issued. This should be more oriented towards performance-based metrics, i.e. amount of pollution reductions achieved via permitting.
Action Steps	• Recommend establishment of an agency Environmental Management System. • Integrate performance based measures into employee performance plans. • Reward employees based on environmental results.
Gap	**Many programs are run by only one, highly experienced individual, who is prone to depart for retirement or other employment opportunities.**
Goal	To develop personnel, training, and compensation procedures and assign sufficient resources to assure the continuity and high performance of these programs.
Rationale	Improved retention, training, and hiring policies will allow maximum benefit to be obtained from currently employed, highly experienced employees.
Action Steps	• Cross-train existing employees. • Recommend increasing salary and other benefits for experienced employees. • Hire additional employees when workload merits. • Include cross-training as an explicit part of the job description and staffing levels. • Recommend permitting overlap between departing and newly hired employees in key positions. • Recommend rotating employees between jobs, allowing them to retain current salaries.
Gap	**It is difficult to obtain qualified new employees to replace highly experienced employees.**
Goal	To develop procedures that will permit the hiring of qualified new employees or to train junior employees for more demanding responsibilities.
Rationale	Hiring, staffing, and training policies should be adopted that will attract qualified new employees, permit junior employees to be trained for more challenging jobs, and maximize the involvement of experience employees in this process.
Action Steps	• Recommend increased ability to hire above entry level. • Recommend allowing early hire of replacement to allow for departing employees to train replacements.
Gap	**Employee skills and effectiveness can be impacted by changes in agency priorities and the work environment.**
Goal	Develop and maintain a competent workforce that can effectively meet the objectives of the office and of the agency.
Rationale	A competent and effective workforce is essential to meeting the needs and expectations of the state's leadership and legislature.

Action Steps	• Continually assess the need for and availability of training opportunities through the annual performance appraisal process. • Develop and maintain office operating policies and procedures for training and development of new staff and reinforcement of existing staff. • Continually assess and evaluate new information technology availability.

OFFICE OF PERMITTING, REMEDIATION, AND REGISTRATION

I. Office Overview

The Office of Permitting, Remediation, and Registration (OPRR) implements environmentally protective programs as required by federal and state laws and regulations governing all aspects of permitting for the air, water, and waste programs. The office also strives to protect human health and the environment by overseeing the investigation and cleanup of hazardous pollutants that are released into the environment. Where possible, the office strives to eliminate barriers to program effectiveness, as well as to increase process efficiencies. The office is dedicated to providing excellent customer service, responsiveness, and accountability to all agency programs and to the public.

The OPRR is responsible for the oversight and management of six divisions and four specialized programs and employs over 900 staff. The six divisions include: Air Permits; Registration, Review and Reporting; Remediation; Waste Permits; Water Quality; and Water Supply. The four specialized programs include: Bankruptcy; Information Technology; Toxicology and Risk Assessment; and Low-Level Radioactive Waste. In addition, the office is responsible for developing and managing an operating budget in excess of $200 million.

Key Environmental, Legislative, and Economic Factors

- Addition of new programs and elimination of old programs.
- Strength of the economy: a moderately strong economy can prompt the filing of more applications (i.e. Certificate of Convenience and Necessity, district creations, bond issues).
- Population fluctuations: As the population increases and existing supplies are allocated, there will be an increase in the number of complex water rights permits. Also as the population increases, the effect of naturally occurring droughts and floods will have a greater impact on Texas' natural resources.
- Anticipated demand for Low Level Radioactive Waste professionals to analyze bill impacts and implement an expected mandate from 78th legislative session to license and regulate a Low Level Radioactive Waste disposal facility.
- Number of full-time equivalent (FTE) positions and funds to implement new legislative mandates.
- Industry driven demands and new regulatory requirements.
- Lack of understanding among employees and the public regarding the agency's mission to enhance and maintain a clean environment in a safe and fiscally responsible manner.
- Need to identify scope, schedule, and costs related to each aspect of the agency's work.
- Overall image of state employment and employees.
- Increased emphasis on cost recovery at sites where remediation is completed.
- Increased need for post-closure operation, maintenance, and oversight.
- The expected volume of claims will decrease slightly as more leaking petroleum storage tank sites move toward closure.
- A shift toward contract and temporary employees promotes an inaccurate perception that the agency is able to get more work done with fewer employees.

Key Issues and Challenges

The recruitment and retention of qualified employees are critical to the ability of the office to effectively carry out its objectives. The state compensation package contributes to the difficulty in attracting and retaining employees with the required levels of competency. Compensation issues include: pay scale not

competitive with that of outside employers (industry, consultants, etc.), insufficient merit dollars, insufficient cost of living increases, and cumbersome and inadequate medical benefits. Doctors frequently refuse to accept new patients with state medical benefits because they pay less than other programs. The following issues are also of primary concern:

Organizational Issues

- Frequent agency reorganizations breed employee unrest and dissatisfaction due to continual change in priorities and potential job displacement.
- Agency culture and attitude of "us against them" (management/employees, program/program, central office/regional offices).

Job Advancement Issues

- Limited opportunity for advancement at the top of career ladders leads to employee separation from agency to obtain advancement.
- Career ladder positions must be posted at the entry level when vacated unless special permission is granted.
- To post or fill a position above entry level requires that merit dollars be used to bridge the financial gap.

Employee Retention Issues

- Because merit dollars must be used to pay a new hire a higher incoming salary, current employees with meritorious performance are penalized by reduced possibilities of receiving a merit increase.
- Disparity of pay at different state agencies.
- Insufficient funding and authority to meet in-state and out-of-state travel requirements.
- Contract and temporary employees require maintenance by managers, thereby reducing the amount of time management can spend on projects. Contractors have minimal sense of ownership, whereas agency employees recognize projects as extensions of their integrity and knowledge.
- Insufficient employee-friendly programs, such as job sharing and part-time work.
- Manner in which agency is marketed to prospective employees should be improved.

Job Performance Issues

- Responsibility is not delegated to the lowest level.
- Minimal to no incentive for employees to take on a leadership role.
- Development training needed for management.

Current and Future Customer Demands

Current Demands

- Providing toxicological and risk assessment support.
- Processing of New Source Review and Title V Operating Permit applications and Emissions Banking and Trading transactions within established time frames.
- Implementation of legislative mandates for grandfathered permitting, compliance history, and public notice regulations.
- Completing initial issuance of Title V Operating Permits on accelerated schedule.
- Permitting actions dealing with maintenance, start-up, shutdown, and marine loading emissions due to rule changes adopted by agency.
- Preparing and distributing reliable information to water right holders and the Regional Water Planning Groups.
- Providing training and technical assistance to the Texas Water Development Board on the water availability models and the water rights permitting.
- Issuing water rights, permits, amendments and changes of ownership.
- Increasing financial, managerial, and technical assessments of water and sewer retail public utilities.

- Meeting the deadlines associated with implementing newly adopted federal requirements to assist public water systems achieve compliance.
- Timely issuance of permits and authorizations that are protective of human health, water quality, and the environment.
- Developing rules, policies, and procedures to serve the regulated community and citizens in an efficient and effective manner.
- Renewal of initial Resource Conservation Recovery Act (RCRA) permits.
- Permitting of combustion units, including conducting a risk assessment.
- Reduce permit processing times as mandated by the executive director.
- Revising agency rules to update and remove obsolete references.
- Evaluating and revising municipal solid waste (MSW) rules.
- Compliance with mandate from 77th Legislature to prioritize and promote Type IX landfill gas registrations.
- Compliance with recent court decision on MSW permits (Tessman Road).
- Providing timely and protective response to threats to human health and the environment from releases of hazardous substances and other pollutants.
- Timely review of applications for cleanup of contaminated sites for redevelopment (brownfields).
- Review (within statutorily mandated time frames) of response plans under the Responsible Party Remediation program.
- Meeting performance measures.
- Reviewing claims for reimbursement of approved scope of work in performing corrective action activities at leaking petroleum storage tank sites.

Future Demands

- Increased multimedia efforts.
- Increased interaction with other state agencies.
- Shift toward evaluation of more monitoring data.
- Shift toward conducting more cumulative reviews.
- Continued efforts to permit routine maintenance, start-up and shutdown emissions.
- Identifying methods to improve the permitting process, including development of additional standard permits and permit by rules.
- Reducing time required for application review.
- Completion of the Water Utilities Database/Water Availability Model/Central Registry database project.
- New and more complex applications for water rights initiated by Regional Water Planning Groups.
- Newly required site-specific studies to determine environmental flow needs.
- Increased consideration of water quality impacts in water rights permitting.
- Implementing and educating water systems on new federal drinking water initiatives.
- Adapting to changing regulatory and political environment.
- Ongoing cycle of renewals for industrial and hazardous waste permits.
- Industry-driven needs.
- New regulatory requirements.
- Addressing mandates from future legislative sessions.
- Possible expansion in reporting, submission, and review of information in electronic formats.
- Retention of knowledgeable staff for review and assistance in permitting matters.
- Timely and protective response to threats to human health and the environment from releases of hazardous substances and other pollutants.
- Timely review of applications for cleanup of contaminated sites for redevelopment (brownfields).
- Meeting performance measures.
- Increased emphasis on cost recovery at sites where remediation is completed.
- Increased need for post-closure operation, maintenance, and oversight.

- Processing of permits within shorter time frame.
- Increasing demands to collect, manage, and report accurate environmental data.
- Expected volume of claims will decrease slightly as more leaking petroleum storage tank sites move toward closure.

Long Range Business Plan

The OPRR will deal with expected changes in customer demands as follows:

- Implementing rule changes to comply with legislation.
- Streamlining procedures to shorten the permitting time frame and maximize staff resources for risk assessments of New Source Review, Operating Permits, and Emissions Banking and Trading.
- Enhancing the efficiency of the TEXRISK Model to increase its accuracy, shorten the permitting time frame, and maximize staff resources.
- Performing quality assurance of data analyses for groundwater samples collected at and around the PANTEX facility.
- Assisting in developing policies to address cumulative exposures.
- Assisting in streamlining mobile monitoring enforcement cases.
- Increasing monitoring by providing toxicological support in identifying appropriate compounds to monitor, assisting in the design of monitoring strategies, and interpreting potential health effects.
- Working to integrate water and waste programs to add regulatory effectiveness and consistency
- Facilitating regulatory implementation of Texas Risk Reduction Program to ensure consistent and expedited application of the rule.
- Continuing appropriate training to maintain highly skilled and diverse workforce.
- Continuing to identify efficiencies in application review process.
- Maintaining water availability models.
- Completing required site-specific instream flow studies.
- Integrating certificate of convenience and necessity and district boundary geographic information system (GIS) data into the Water Utilities Database.
- Monitoring and revising work practices and implementing scientific advancements, technological advancements, and policies.
- Monitoring and revising rules, policies, and procedures as necessary, and implementing scientific and technological advancements.
- Providing advanced training to current staff in order to keep pace with scientific and technological advances, as well as regulatory changes.
- Focusing on the expected needs versus the current needs. The team that will be responsible for issuing the Low Level Radioactive Waste Disposal License needs to possess expertise in geology, engineering, earth sciences, regulations, and communication of public information, as well as health physics. Implementing a Low Level Waste disposal bill on fast track following the 78th legislative session will not allow time for hiring, development, and training of a core group.
- Identifying employee strengths, as well as educational disciplines, in order to use staff on special projects or for short duration activities; for example, if a person is a staff geologist, but has strengths in computer programming, that person may be able to fill in to temporarily assist the Information Resources Division. After setting up a matrix of all skills for all personnel, supervisors will mentor and develop staff to match staff strength and goals with agency needs.
- Electronically transferring and reviewing risk-based cleanup data submitted under the Texas Risk Reduction Program.
- Various data management projects to facilitate broader access to and retrieval of data.
- Privatization of Superfund project management contracting.
- Increased participation in contaminated site redevelopment (brownfields).
- Developing additional methods for automation across programs.
- Gradually decreasing staff as the time draws nearer to September of 2006 (ending date for the reimbursement fund).

- Providing employment training and counseling for worker relocation before and after September 1, 2006 (ending date for the reimbursement fund).

Future Structure and Evolution of OPRR
The OPRR will monitor its workforce and revise its work practices, as necessary, in order to implement new legislation, scientific advancements, technology advancements, and policies. However, the continued expansion of the Federal Safe Drinking Water Act may prompt the need to expand some of the teams in the Public Drinking Water Section of the Water Supply Division. The extent of that growth may eventually prompt the need for creation of another section.

In addition, the team responsible for Low-Level Radioactive Waste licensing may need to increase beyond the four current FTEs. The Petroleum Storage Tank (PST) Remediation program and the Reimbursement Program will sunset—that is, undergo legislative review for continuation—on September 1, 2006. The reimbursement group is scheduled to be dismantled. All other programmatic elements, including the PST administration and technical elements are expected to remain the same.

II. Current Workforce Profile (Supply Analysis)

Critical Workforce Skills
To perform its essential functions, the OPRR requires the following critical workforce skills. All of these skills are available at some level of proficiency in the current workforce.

Critical Workforce Skills
Communication
Problem solving
Project management
Customer service
Information technology
Management/administration
Technical analysis/expertise

Skill and Experience of Current Workforce in 2007
In addition to the critical skills already identified, the current workforce must develop additional competencies in the following areas to be prepared for projected increased responsibilities:
- Additional understanding of rules, policies, and procedures to ensure timely issuance of permits and authorizations that are protective of human health, water quality, and the environment.
- Skill in development of rules, policies, and procedures.
- Scientific knowledge.
- Information technology skills.
- Organizational skills to manage expected workload increases and extremely complex environmental issues.

Number of Employees Eligible to Retire or Voluntarily Separate Within Five Years
Approximately 124 of the 924 current office staff are projected to reach retirement eligibility during the

next five years. Based on an analysis of previous turnover rates, approximately 448 of our current staff may voluntarily separate during those five years.

Effect of Projected Attrition on Employee Skills

The OPRR is committed to providing continuing state-of-the-science education and personal development training for its current staff in order to maintain a highly skilled workforce. However, the overall skill and experience level of the office is expected to decrease as employees separate from the agency due to insufficient compensation. Attrition is expected to seriously affect the availability of knowledge and skills vital to conducting the business of the agency in the following manner:

- Potential loss of essential agency, programmatic, and technical expertise.
- Constant retraining of new employees requires time of management staff and decreases effectiveness.
- New staff have training curve, which increases time required for processing.
- Decrease in productivity of existing staff, who are required to train less experienced and skilled employees.
- Loss of senior staff decreases ability to address highly complex environmental issues, causing a delay in responding to the regulated community.
- New staff may not develop expertise prior to the departure of senior staff, thereby leaving a gap in knowledge and ability.
- Turnover has been especially prevalent among entry-level positions, and time spent rehiring is time intensive for management.

III. Future Workforce Profile (Demand Analysis)

External Trends and Issues

- Increased demand for staff to analyze bill impacts and implement the anticipated bill to license and regulate a Low Level Radioactive Waste disposal facility, effective with the 78th Legislative Session.
- Environmental Protection Agency (EPA) grant commitments and program authorization.
- EPA initiatives.
- Legislative requirements.
- As solid waste facilities such as landfills increase in size, conflicts will arise more often in relation to land use, planning, flow control, public participation and claims of environmental discrimination and racism.
- Increased interest of certain facilities in obtaining registrations rather than permits, will not allow the same opportunity for public participation.
- Increasing interest in the treatment of waste streams, which will require a higher level of sophistication to manage.
- Possible reductions in federal Superfund program will place increased pressure on the state superfund program for protection of Texas citizens.
- Increased need for science and technology skills to maintain the water quality standards with increased population in the state.
- Increased difficulty in retention of qualified staff as economy improves.

Addition of New Programs

The OPRR new programs will include:

- House Bill 2912 Compliance History Review.
- Maintenance, Start-up, Shutdown Emissions Permitting.
- Title V program changes and MACT Standards.
- The Clean Water Act and the Texas Water Code are dynamic and, in general over time, require more regulatory action and oversight. This necessitates new initiatives (such as new and revised rules, policies and practices) and the development of new programs. Storm water, sludge and concentrated animal feeding operation (CAFO) application requirements will add new programs.

- Lower tier authorizations for certain waste management activities.

Elimination of Old Programs

- Senate Bill 766, Voluntary Emissions Reduction Program (Air Permits).
- Reimbursement and Petroleum Storage Tank Remediation Program is due to sunset in September of 2006.

Critical Functions of the Future OPRR workforce

- Ensure the health and welfare of the citizens of Texas by preserving and protecting the quality of the environment.
- Present toxicity information at contested case hearings, public meetings, other public forums, and Commissioners' briefings.
- Provide technical expertise on risk assessment and toxicology related issues to other TNRCC divisions.
- Provide critical toxicological assistance in enforcement actions and emergency response activities.
- Provide critical toxicological assistance in enforcement actions.
- Provide in-depth analyses of emerging environmental and multi-media issues at the national level.
- Provide analysis and support for legislative sessions and implement new legislation.
- Participate in state and federal efforts to better define and assess cumulative environmental exposures.
- Provide state-of-the-science staff development opportunities.
- Provide technical review and assessment of applications.
- Coordinate activities with Office of Compliance and Enforcement (OCE) to ensure permit conditions are enforceable and reasonable from the standpoint of continuous compliance.
- Work cooperatively and in conjunction with the regulated community, environmental groups, public, other TNRCC offices, other state and local agencies, and the EPA.
- Issue individual and general permits, authorizations, and registrations.
- Research, enter, retrieve, and report accurate data in agency databases.
- Permit, license, manage, and administer waste-related programs and requirements for facilities.
- Permit Class1 underground injection control (UIC) and Class III UIC wells, and process authorizations of Class V UIC wells.
- Perform technical analysis of notifications for waste management, submissions from regulated entities, and license applications for disposal and decommissioning of radioactive material waste, including human health dose assessments.
- Provide groundwater protection recommendations for oil and gas wells, Class II disposal wells, enhanced recovery injection wells, cathodic protection wells, and seismic programs through its surface casing program.
- Identify, investigate, and cleanup or restore releases of hazardous substances and pollutants.

Expected Workforce Changes

The OPRR expects the following changes to its workforce:

- Improved communications and customer service.
- Increased use of electronic submission of information.
- Less experienced staff and management due to attrition.
- Loss of institutional knowledge due to attrition.
- Competing priorities (workload/environmental/legal/political).
- Increasing regulatory requirements.
- Demand for quicker issuance of permits, authorizations and registrations.
- Development of project and contract management with outsourcing of permit processing.
- Revisions to rules and regulations requiring programmatic and functional changes.

The OPRR plans to adopt new tasks for its future workforce:

- Determine impact on public health from air emissions for new or modified facilities.
- Codify all air quality regulations that apply to major sources of air permitting.
- Ensure appropriate monitoring techniques are employed.
- Administer Texas Emissions Banking and Trading Program.

Anticipated Changes in Worker Supply and Workload

The OPRR anticipates an increase in the number of employees required to accomplish our mission due to the following factors in workload:

- Increased toxicological support to the agency.
- Implementation of new legislation.
- Increased multimedia and interagency efforts.
- Increased state and federal regulatory and permit processing requirements due to program changes.
- Conducting more cumulative reviews.
- Increased evaluation of more monitoring data.
- Continued moderately strong economy prompting the filing of more applications (Certificate of Convenience and Necessity, district creations, and bond issues).
- Increased demand for new, amended, and renewed wastewater permits.
- Core needs in Low Level Radioactive Waste licensing (LLRW) (for example, the areas of regulations, health physics, hydro geology, civil engineering, and operations management) may need an increase from 4 personnel to approximately 10, within the next 18 months. More LLRW professionals also needed to analyze bill impacts and implement the legislative mandates during the 78th Legislative Session.
- Reducing overall program processing times may require more staff as the commissioners and agency management contemplate lower tier authorizations for certain waste management activities.
- Advances in science and technology.
- The need to develop managers for contractors.
- Electronic reporting and filing of applications. This will create a need for systems analyst positions, rather than administrative technicians positions, to process permitting paperwork.
- Increase in population will increase wastewater discharges and result in need for staff with better science and technology skills.
- More Web-based project management practices and tools may provide increased staff productivity.
- Increase in Internet information requests.
- Cost recovery as Superfund and PST sites are closed out will demand increased resources.
- The Texas Risk Reduction Program rule will lead to an increase in the number of closed out sites where waste is left in place. This will in turn demand more staff for post closure operation and maintenance and to ensure that institutional controls and restrictive covenants are in place. Other workloads and staff needs will remain at current levels with the exception of PST Responsible Party Remediation.

The OPRR expects a decrease in the number of employees (27 staff members) in the Reimbursement Program due to reduced activity as the time draws nearer to the September 2006 sunset deadline.

Impact of Changes

- Reduced emissions of air pollutants and increased compliance with air quality regulations.
- More FTEs will be needed to address increased demand for regulatory approvals and technical assistance.
- Increase in training cost to ensure staff can effectively evaluate more complex applications and projects.

- Possible short term reduced staff productivity due to training and time needed to become familiar with technological advancements.
- Greater emphasis placed on customer service by agency management requires an increase in staff time spent to address customer inquiries.
- Greater emphasis on Internet based information transfer.
- Greater emphasis on data management and geographical information systems.
- If Legislature postpones sunsetting of Reimbursements Program (fund), staff will be required to continue to review claims.

Changes in work practices
Work practices in the OPRR will be monitored and revised to deal with expected changes in customer demands, and to implement scientific advancements, technological advancements, and policies. These changes include:

- More integration of team efforts.
- More targeted technical, management, and administrative training to enhance skills.
- Providing increased toxicological support for all agency activities.
- Implementing scientific and information technology developments.
- Integration and merger of New Source Review and Federal Operating permit processing, review and issuance systems.
- More coordination between divisions.
- Matrix management.
- Offer part-time positions to attract qualified and experienced employees who are beginning their second career.

Critical Skills of the Future Workforce
The critical workforce skills needed by the future OPRR workforce are expected to remain the same. However, additional skills will be needed in hydro geology, environmental engineering, information technology, organization and planning, and specific regulatory expertise. Higher competency levels of computer skills will be needed to support electronic reporting for permitting. Outsourcing of permitting will require project and contract management skills.

IV. Gap Analysis

Anticipated Surplus or Shortage of Employees
If current compensation practices continue, the OPRR expects shortages of employees in the following categories: managers/administrators, clerical staff, toxicologists, fate and transport modelers, probabilistic risk assessors, statisticians, QA/QC chemists, engineers, staff highly skilled in information technology, systems analysts, programmers, financial analysts, hydrology modelers, GIS technicians, public health specialists, geologists, aquatic scientists, auditors, contract management specialists, and experienced professionals, such as engineering and contract management.

Anticipated Surplus or Shortage of Skill Sets
OPRR anticipates a shortage of proficiency in all of the critical skills needed to carry out the functions of the office, unless there are sufficient changes in the compensation package. Of particular concern is the anticipated shortage of engineering expertise, air dispersion modeling expertise, and GIS and computer skills. The office expects a surplus of skills in auditing reimbursement claims, since the supported program is expected to sunset.

New Skills Required to Accomplish Office Objectives
In addition to skills available in the current workforce, the OPRR will require individuals with computer skills and a working knowledge of the program areas. These employees will assess and implement future program needs as the agency progresses towards “paperless” processing of applications and authorizations. Stronger science and technology skills will also be required.

V. Strategy Development

Organizational changes to address projected competency gaps or surpluses
Retention of employees is key to eliminating gaps in the numbers of employees and skill levels needed and those projected to be available. Existing staff may be interested in gaining the necessary knowledge to eliminate the gap in automation skills. Funds may be required to upgrade some of the administrative technicians (clerical staff) to systems analysts to process electronic permit applications.

Plans to Address Projected Workforce Competency Gaps or Surpluses
The OPRR will address any gaps in competencies by reallocation of existing resources, requisitioning of additional resources, and prioritization of projects. The office may outsource some new permitting process to handle shortages. However, this will create a need for project and contract managers. Senior staff can be retained by ensuring that sufficient merit dollars, adequate cost of living increases, and career ladder progressions are made available as awards to deserving employees. Any projected gaps that actually do occur will not be addressed through organizational restructuring, but rather through appropriate state-of-the-art training and successful recruiting strategies when filling vacancies.

Retention Programs
- State-of-the-art training.
- Job sharing to encourage retirees to continue working past retirement date.
- Job sharing to encourage staff that are voluntarily leaving due to family commitments to work part-time.
- Professional development training.
- Increased flexibility to attend college courses.
- Continued support for telecommuting.

Recruitment Plans
The OPRR, in partnership with the HRSD, actively addresses workforce strategies, as appropriate. The office has developed, and uses, several effective recruiting strategies specific to our needs. Over the next three to five years, the office expects a high turnover rate. This will necessitate aggressive recruiting specific to skill shortages, such as the following efforts:
- Develop and implement successful recruiting strategies to address competency gap when filling vacancies
- Participate in recruitment fairs with HRSD using an “express hiring” process to hire immediately.
- Promote the benefits and rewards of working for state government.
- Promote the use of telecommuting program.
- Network with other professionals in the required fields.
- Advertise in professional journals.
- Recruit at professional conferences and through university graduate programs.

Career Development Programs
All current employees will continue to need training to keep abreast of new developments in their respective fields and to learn new areas of expertise required to perform changing job functions.
- State-of-the-art information technology training.
- Provide permit processing training for new hires.
- Enable staff to acquire professional engineering licenses.
- Continue to provide technical training to staff.
- Review all agency career ladders and recommend modifications to improve mobility and eliminate disparity between ladders.
- Provide specific training in areas with competency gaps.

Succession Planning

- Encourage managers and team leaders to delegate projects as appropriate.
- Identify candidates for management positions early and provide well balanced opportunities.
- Develop a management training and/or mentor program for qualified employees.
- Increase cross-training for new and current employees.

Leadership Development

Leadership roles in the OPRR are identified, assessed, and developed through developing knowledge, evaluating performance, and training. The agency must provide incentives through training, professional development, and higher salaries to encourage staff to grow and move into leadership positions.

- Provide participation in Governor's Management Training Program.
- Provide participation in agency leadership skills training.
- Develop leadership mentoring program.
- Provide project management training.
- Provide opportunities for external management training and professional development.
- Develop effective management track to provide training and incentives (monetary and non-monetary) for those going into management.
- Continue to encourage management development through programs such as those provided by Management Concepts, Inc.
- Continue to offer short courses through the agency's Training Academy.
- Customize management courses to reflect agency mission and goals.
- Increase leadership training for new and current employees.
- Provide additional organizational training.
- Provide targeted technical training to keep staff skills current.
- Provide targeted management training to keep management skills current.

Gap	**Current employees lack critical skills.**
Goal	Develop a competent, well trained workforce.
Rationale	The training and development of current employees is critical to the success of the office programs. Current employees have many of the necessary skills at the basic level. The agency needs to ensure that all necessary opportunities for staff development are available.
Action Steps	• Provide targeted training to bring staff skills up to date. • Use mentor programs for career development. • Add specific training needs to employee performance plans. • Promote cross training opportunities. • Routinely monitor progress of both staff, identify problem areas, and address with additional related training (for example, customer service).
Gap	**Office cannot attract and retain the employees needed for the future workforce.**
Goal	Minimize turnover and promote long term development of staff.
Rationale	To recruit and retain qualified workers, the agency must recognize there is a competitive market for good workers. The agency must compete effectively and focus on rewarding exceptional performance, providing a structured approach to staff development, and creating a work environment that fosters employee satisfaction and achievement.

Action Steps	• Pay for performance. • Ensure a positive working environment through management, philosophy, physical work place, and other noncompensatory benefits. • Recognition programs for high achievers. • Provide targeted training for career development. • Allow staff to develop leadership skills through participation in special workgroups, committees and other assignments. • Promote cross training opportunities between programs. • Allow movement between programs. • Improve current entry-level salaries. • Improve current career ladder progression.

OFFICE OF COMPLIANCE AND ENFORCEMENT

I. Office Overview

The Office of Compliance, Enforcement, and Enforcement (OCE) includes four divisions and oversees the agency functions involving enforcement, field operations, monitoring, and compliance support. It encompasses 16 regional offices and two special-project offices, which are strategically located throughout the state, as well as a laboratory in Austin and a laboratory in Houston.

Major responsibilities of the office include:

- Ensuring that violations of state environmental laws are corrected.
- Conducting site visits for compliance determinations at regulated air, water, and waste facilities.
- Responding to citizen inquiries and complaints.
- Developing enforcement actions for violations identified during inspection and complaint investigations.
- Monitoring and analyzing air and water quality within the state and reporting that information to the public.
- Examining and interpreting the causes, nature, and behavior of air and water pollution in Texas.
- Operating central and mobile laboratories based in Austin and a laboratory in Houston that provide analytical services for air, water, and waste samples.
- Forecasting of ground-level ozone concentrations in various Texas cities.
- Maintaining certification, licensing, and registration programs for several environmental occupations. Managing the OSSF program and the landscape irrigation program.
- Overseeing the quality assurance program for federally funded activities and laboratory inspections.
- Implementing the environmental laboratory accreditation and the drinking water laboratory certification programs.

It is anticipated that the office will be structured basically the same during the next five years; however, some functions and duties may change or expand, as the office continues to address new priorities, streamline existing procedures, focus on problem solving, and increase flexibility in staffing. It is expected that customer demands for services related to functions involving enforcement, field operations, monitoring, and compliance support will continue to increase.

Key Economic and Environmental Factors

- The OCE, through its compliance inspection, enforcement programs, compliance assistance activities, and monitoring operations, is the main avenue of access to the TNRCC for the public, as well as the regulated community. There are an estimated 220,000 regulated entities in the state covering large and small business, industries, governmental entities, public drinking water systems, wastewater treatment systems, solid waste treatment, storage and disposal facilities, and individuals.
- Poor economic conditions can result in greater noncompliance with agency regulations and more environmental crimes, which in turn will require the agency to expend more resources on enforcement.
- Poor economic conditions also result in a larger number of bankruptcies. This requires TNRCC to allocate additional resources to work with the State Office of the Attorney General to ensure that environmental issues are addressed, particularly the ability of a bankrupt company to pay for environmental cleanups.
- When economic conditions are favorable, the agency experiences a higher demand for permitting, licensing, field services related to permitting, and public information outreach services.

- The OCE will continue to address issues related to Homeland Security.
- Functions, services, and processes must be modified to accommodate delegated responsibility for new federal programs, to implement new state programs, or to address amendments to existing federal and state statutes or rules.
- A significant portion of funding for the OCE is provided through federal grants from EPA. There is concern that the funding level for the various programs will not remain consistent. If federal funding is reallocated, the OCE may have to reestablish priorities.
- The OCE has experienced problems in retaining qualified staff due in large part to the inability of the state to match private industry salaries.

Key Issues and Challenges

- Develop compliance history rules for definition and use. Compliance status must be considered in certain commission decisions related to authorization to operate process and waste facilities.
- Develop environmental laboratory accreditation and safe drinking water laboratory certification programs.
- Enhance the ability to evaluate upset emissions events and ensure that facilities take appropriate action to reduce emissions from such events and to prevent their recurrence.
- Prioritize investigation activities using annual investigation targeting strategies.
- Continue to enhance response capabilities to citizen complaints.
- Balance need for more and better scientific data on which to base environmental decisions against the requirement to maintain budget and staffing at existing levels.
- Continue to explore new technology for continuous and automated air and water monitoring in order to respond to customer demands for data and to address manpower issues.
- Continue to improve data handling and management capabilities and address database needs in order to support the agency goal of data integration and to provide improved access to data, both internally and externally.
- Respond to increasing demands from customers to move toward performance-based evaluations of their operations. Meeting this demand in a regulatory environment that is very prescriptive will be a significant challenge.
- Current cap on full-time equivalent (FTE) positions does not allow for adequate staff to meet goals and objectives without creating a significant drain on existing staff. Additionally, new restrictions in hiring contractors to augment staff resources will affect our ability to meet goals and objectives.
- Despite efforts to identify alternative training venues, such as train-the-trainer, it is difficult to keep technical staff trained on technology advancements. For example, much of the highly technical and critical training is rarely available in Texas.

II. Current Workforce Profile (Supply Analysis)

The OCE currently has 1,112 filled positions. Of those positions,123 are classified as Officials or Administrators, 776 are classified as Professionals, 24 are classified as Technical, 7 are classified as Paraprofessionals, and 182 are classified as Administrative Support. In addition to the standard office and administrative management and information technology positions, the office has a great number of technically-oriented positions such as: Natural Resources Specialist, Engineer, Engineering Assistant, Engineering Specialist, Engineering Technician, Enforcement Coordinator, Geologist, Hydrologist, Environmental Investigator, Aquatic Scientist, Emissions Evaluator, Modeling and Assessment Assistant and Specialist, and Chemist.

Based on available demographics and current state retirement rules, it is estimated that 200 OCE employees (or approximately 18 percent of the current staff) may be eligible to retire in the next five years. Based on previous fiscal year statistics, it is projected that approximately 600 members (or roughly 50 percent) of the current OCE workforce may voluntarily separate within the next five years.

The OCE management conducted an evaluation of the skills necessary to meet office goals and objectives, both for the present and for the 2003-2007 time period. The results of that evaluation are presented below.

Critical Workforce Skills
Technical/programmatic
Quality assurance
Customer service
Communication
Project management
Database development/maintenance

Skills Available Within Current Workforce

- Analysis shows that the OCE currently has the skill level needed for Officials, Administrators, and Administrative Support.
- Analysis shows that increased skill levels are needed in the Professional, Technical, and Paraprofessional categories.
- A percentage of the Professional, Technical, and Para-Professional positions meet current skill-level needs; however, due to turnover, many positions are still in the learning curve.
- The OCE is able to hire staff in entry-level positions; however, once they become trained and have gained some experience, they quite often leave and take positions in industry, because they are offered salaries much higher than what the agency can offer.
- Some technical staff must also assume such duties as contract manager or grant manager to address critical workload needs.

Skill and Experience of Current Workforce in 2007

- It is anticipated that the skills and skill levels needed in future years will be quite similar to the skills needed today. However, we expect that technology advancements, particularly in monitoring and laboratory instrumentation as well as information technology, will require new skills and additional training.
- It is expected that through various training programs, the current OCE workforce will achieve the skill levels necessary for the future. These training programs will, however, require that more work time of senior staff be devoted to training and mentoring lower-level positions. Also, ongoing training will be needed to maintain efficiencies.
- The OCE anticipates that there will be a need to put greater emphasis on cross-training efforts to ensure skill levels for all programs.
- The OCE expects that turnover will continue at the current rate, and staff will have varying degrees of skill competency as they progress up the career ladder or into higher positions. However, we do not expect the attrition rate to affect our ability to meet goals and objectives.
- There is concern that upcoming retirements may result in a decrease in historical knowledge of various office programs that can only be replaced through many years of experience. In many instances, we do not have the ability to replace highly skilled, tenured staff with other experienced staff.
- Challenges we experience in recruiting and retaining mission-critical skills are: inability of the state to compete with private sector salaries, the geographic location of some higher-level vacancies, the low salary offered for some entry level career ladders, perceived inequitable career ladders, and the inability to provide more challenging work assignments for some high performers due to the need for the work they currently perform.

III. Future Workforce Profile (Demand Analysis)

As the public becomes more aware of environmental issues, the demand for functions performed by, and services provided by, OCE increases dramatically. Staff from OCE are in a position to experience first-hand, primarily through the regional offices, the public's concern about environmental issues and their desire for more and better information about conditions that affect their health and welfare. OCE management evaluated future functional requirements and assessed the ability of the office to address critical needs. The results of this evaluation are presented below.

Critical Functions

- Enforcement of state and federal environmental laws.
- Investigation of sources that are suspected of harming or have the potential to harm the environment.
- Collection, analysis, management, and reporting of scientifically valid environmental data.
- Certification, licensing, and registration of environmental occupations.
- Oversight of agency Quality Assurance Program.
- Implementation of laboratory accreditation and certification programs.

Expected Workforce Changes

- Workforce changes will likely be necessary as the office responds to new legislative mandates.
- Skills needed by the future workforce will be much the same as those required today, however, implementation of new programs and new technology will require additional skills. Consequently, new training programs will be required.
- OCE does not anticipate that any programs will be eliminated, but rather expects that new programs will continue to be added.
- OCE expects that the demand for public accessibility to environmental information via the Internet will continue to increase.
- OCE expects that an increase rather than decrease in employees will be needed in the future as new programs are implemented and the demand for services increases.
- OCE believes that current workers have the baseline skills needed to do the work of the future; however, as previously stated, new training programs to address any gaps and to address technology advancements will be needed.

IV. Gap Analysis

The OCE management conducted a review of current positions, assessed the skill levels of current staff, assessed the skill levels needed for the future, and identified specific areas that need to be addressed. The results of this review are presented below and in the following gap analysis spreadsheet.

Anticipated Surplus or Shortage of Workers

The OCE anticipates that there will be no surplus of workers. There is currently, and will continue to be, a shortage of workers throughout the office; however, without statutory authority to increase the agency's FTE cap, there will be little or no opportunity to address this shortage with additional workers.

Anticipated Surplus or Shortage of Skills

Analysis shows that increased skill levels are needed as follows:

- Professional category: quality assurance, communication, problem solving, and project management.
- Technical category: technical/programmatic, quality assurance, and problem solving.
- Paraprofessional category: technical/programmatic, quality assurance, problem solving, and project management.

- No surplus of skill levels was identified. In addition, no skill levels were identified that will become obsolete or no longer needed.

New Skills Required to Accomplish Office Objectives
OCE anticipates that any new skills needed in the future will be related to technology advancements that cannot be quantified at this time.

V. Strategy Development

After identifying the shortage of workers and skills, the OCE management considered several options. It is anticipated that new and existing workloads will need to be addressed with current staffing levels due to the current FTE cap. The OCE will continue to examine current processes to determine if efficiencies can be realized and used to address manpower needs. The OCE will also address an immediate staffing shortage by hiring contractors. However, new restrictions in hiring contractors that will count against the agency's FTE cap will affect the office's ability to use this option.

To address the identified gaps in skill levels and issues related to staff retention, the OCE has developed the following strategies.

Gap	**Some current OCE employees lack critical workforce skills.**
Goal	Develop a workforce that is competent, skilled, and able to perform mission critical functions.
Rationale	A competent and well-trained workforce is the cornerstone of the TNRCC. OCE management must evaluate the competency level and training needs of each staff member and ensure that skill enhancement and training is provided to address deficiencies and to ensure that career development options are provided.
Action Steps	• Use annual performance appraisal to access skill competency levels and training needs. • Work with the HRSD to identify appropriate training programs for addressing needs and deficiencies. • Develop internal training programs when necessary to address needs and deficiencies. • Institute or expand a mentoring and trainee program whereby experienced staff can assist in training their future replacements. • Consider use of a Training Academy format to provide high intensity, short duration training that would enhance both statewide consistency and employee retention. • Use detailed Standard Operating Procedures to assist in training of new staff and to use as resource guides for experienced staff. • Stay abreast of new technology advancements and arrange for new training programs as needed.
Gap	**The OCE is able to attract entry level employees, but has difficulty in retaining a qualified workforce.**
Goal	Ensure that the OCE has a high-quality, diversified workforce.
Rationale	The OCE needs to recruit and retain a workforce of highly skilled scientific and program support staff. The OCE must work with appropriate HR areas to develop programs and strategies that are needed to meet this workforce goal.

Action Steps	• Recommend review of selected career ladders to determine if entry level salaries or time in grade requirements need to be adjusted based on turnover statistics and employee feedback. • Recommend review of the agency's merit and promotion policy to ensure that managers have the ability to reward meritorious work. • Consider cross-training for major agency programs to strengthen employee performance and provide the potential for career development and advancement. • Consider establishing an agency leadership training program that creates a diverse pool of candidates who are adequately prepared to fill projected leadership positions. • Develop methods to emphasize and publicize our total employment package to make certain our state employment benefits are appropriately valued. This is especially important in a declining economy. • Emphasize "quality of life" and "family friendly" issues (such as flex hours and telecommuting) that make the workplace more attractive and accommodating in order to attract, retain, and motivate a productive workforce. • Optimize the use of intern programs to increase workforce resources and flexibility and achieve more efficient use of resources.

OFFICE OF LEGAL SERVICES

I. Office Overview

Current Clients and Workload Demands
The Office of Legal Services (OLS) strives to provide sound, well-reasoned, effective, and timely legal counsel and support to the executive director, the agency's program areas, and, in conjunction with the Office of General Counsel and the Office of the Public Interest Counsel, to the commissioners. The office ensures that the commission's decisions follow the law; that legal options are fully explored and candidly shared; and that rules developed by the agency comply with statutory authority and are applied consistently.

The OLS is responsible for the oversight and management of three divisions: the Environmental Law Division, the Litigation Division, and the General Law Division. The office provides the following types of support to the various offices of the agency:

- Provides legal counsel on issues related to personnel and employment law, contracts, public information processing and distribution, and records retention.
- Provides legal counsel in all areas of permitting and rule making.
- Represents the executive director in contested permitting matters.
- Negotiates agreed enforcement orders; litigates enforcement actions; and pursues delinquent fee and penalty payments.
- Advises the agency concerning cleanup standards and cost recovery for cleanup costs.
- Coordinates the Supplemental Environmental Projects and Environmental Audits programs.
- Investigates and assembles evidence on environmental crimes, through the Special Investigations Section.

Future Clients and Workload Demands
Current workload demands have risen in past years due to expanding responsibilities and duties of the programs. It is anticipated that the current workload demands should not change dramatically, unless impacted by federal and state legislative proposals or new program initiatives.

Key Economic and Environmental Factors Currently Impacting OLS
The office employs administrative, professional, and managerial staff. During the past several years, applicant pools have been significantly low for all of these staffing positions. Recently, the downturn in the Austin and Central Texas economy has caused an increase in the private sector's unemployment. Because of this increase in unemployment in the private sector, some of the applicant pools for OLS have increased in quantity and quality. This trend may be attributed to the stability that state employment offers versus significantly larger salaries in the private sector.

Key Issues and Challenges Faced by OLS
The biggest challenge faced by the OLS is hiring and retention of employees. The lower salaries offered by state employment, specifically administrative, professional, and managerial positions, create critical hiring and retention issues for the office. Hiring and retention become less problematic during downturns of the local and state economy, however, over the long term (5-10 years) it continues to be a problem. Applicant pools become larger and employees are less likely to seek other employment opportunities when there is job instability in the private sector.

Long-Range Business Plan
The office will continue to provide sound, well-reasoned, effective and timely legal advice and counsel to all client divisions and the agency's policy makers. The office will work in cooperation with its client divisions to provide any necessary legal support to meet the agency's objectives and initiatives in the

most efficient and effective manner. The office will perform its responsibilities in a professional and ethical manner that merits the trust of both internal and external customers.

Forecast of Office Structure
It is anticipated that the structure of the OLS should remain fairly constant over the next five years. Changes can be anticipated because of the initiation of legislative mandates, new programs, or changed directives. Changes may also be anticipated if reorganization of the agency were to occur.

II. Current Workforce Profile (Supply Analysis)

Critical Workforce Skills
The OLS employs licensed attorneys, managers, investigators, certified legal assistants, legal secretaries and administrative staff. All of these skills are currently available within the office workforce. These skills will also be critical for the future workforce. Because the complexity of the regulatory programs often increase, the OLS regularly requires greater sophistication of its attorney workforce.

Critical Workforce Skills
Communication (written and oral)
Computer, word processing, and software
Analysis and problem solving
Legal research
Legal writing
Analysis and interpretation of laws, statutes, and rules
Training
Supervision
Prioritization
Organization
Teamwork
Spelling, editing, grammar

Future Workforce Attrition
The OLS currently has approximately 137 full time positions. Future workforce turnover will depend heavily on the economic conditions in the local area, the ability to increase salaries with merits and promotions, and the improvement of state salary classification system. If economic conditions are prosperous and favorable, turnover will increase and higher numbers of employees may leave to pursue other opportunities. If the economic condition is less favorable, the turnover will decrease and more employees may choose to continue employment with the OLS**.** Salary enhancements and improvements to the state salary classification system will either accelerate or decelerate this trend.

In 1999, 24 employees separated from employment from the OLS; in 2000, 37 separated; and in 2001, 33 separated. It is estimated that 30 people will leave each year for the next five years. It is further estimated that 14 of the current office employees will be eligible for retirement within the next five years.

Even with attrition, the OLS will have the ability to perform its work in a satisfactory manner. The office lost several experienced workers in the past several years. However, the OLS is still able to consistently respond to its demands because the entry level employee who does not leave for other opportunities gains experience and training every year and becomes more skilled as each year passes.

The OLS is addressing attrition in one manner through technology. The office has obtained funding to purchase a document manager and case management system. This system will enable OLS to retain knowledge in a more consistent fashion, which will make the office more efficient and productive.

Retention and Recruitment of Skills and Employees
The OLS has addressed the question of employee retention numerous times in the past several years. Many factors impact retention, such as economic conditions of the local area, salaries of competing employers (i.e. law firms and other state agencies), and benefits offered by competing employers, such as office space, non-monetary perks, and other incentives. Retention is also impacted by internal factors such as salaries, workloads and expectations of employees within the OLS. If salaries are not competitive and/or workloads are too demanding, then the OLS cannot retain employees. Vigorous and specific training can have a two fold effect by increasing job knowledge which will improve job satisfaction (helping retention) but also serve to enhance employee marketability (hurting retention).

The OLS uses various methods to recruit employees. For attorney positions, the OLS frequently attends recruitment seminars held by law schools. For administrative positions and legal assistant positions, the OLS often contacts business schools to let them know of posted positions and uses the local newspaper to run advertisements.

III. Future Workforce Profile (Demand Analysis)

Critical Functions of the OLS
The critical functions of OLS are to provide representation and well-reasoned counsel to its clients. OLS provides legal options for consideration by the agency's policymakers to promote rational, consistent and flexible decision-making. OLS protects and advances its client's legitimate interests by all appropriate means without compromising its duty to provide objective and independent advice. These functions are critical to the agency overall and to the agency's strategic plan.

Expected Workforce Changes
The OLS workforce is predicted to remain relatively consistent since the need for legal advices and counsel will continue notwithstanding changes in the agency's mission, goals, strategies, technology, or work**.** However, the amount of legal advice and counsel and the required full time employees to provide these services may change**.** If the demand for legal advice and counsel increases, OLS will need additional employees. If the demand for legal advice and counsel decreases, the office will need fewer employees. A change in the number of full-time equivalent positions (FTEs) will also be needed if legislative and program demands increase or decrease. There may also be a change in the demands for legal advice if the Legislature or agency were to create new programs or abolish old programs.

Workloads and jobs may be affected by outside factors such as technology and industry changes. OLS workloads should change due to technological advancements which increase the efficiency in the workflow process. It is also predicted that jobs and workloads should not change significantly due to industry changes or economic, social, and political conditions. The actual work produced (legal advice and opinions) should not change because of the technological advances, however, processes and procedures will likely change. Current workers possess the needed skills to do the work required in the future.

IV. Gap Analysis

Anticipated Surplus and Shortages of Skills
According to the OLS Gap Analysis Worksheet, the office currently has some small limited shortages in the following skills. These gaps are attributed to the experience level of our staff and reflective of a career ladder which requires the OLS to hire at entry level.

Professional Area (Attorney Classifications)
- Communication
- Ability to prioritize work
- Organizational skills

Para Professional Area (Legal Assistant Classifications)
- Communication
- Ability to prioritize work
- Legal research

Admin Support Area (Legal Secretary Classifications)
- Communication
- Word processing
- Proofreading and grammar skills

The OLS identified several areas where a surplus of skills existed. These surplus skills will be used to train and mentor others in the specific areas where a surplus existed.

Anticipated Shortage of Employees
In 1999, 24 employees separated from employment from the OLS; in 2000, 37 separated; and in 2001, 33 separated. In fiscal year 2000, the OLS posted and filled 22 positions. In fiscal year 2001 OLS posted and filled 36 positions. It is estimated that 30 employees will leave each year for the next five years. It is estimated that 14 of the current employees will be eligible for retirement within the next five years. This will create a demand for new employees.

New Skills Required to Accomplish Office objectives
The OLS will not need any new skills for future workers.

V. Strategy Development

Internal programs—such as more aggressive and additional recruitment programs, more aggressive training, as well as filling current positions as quickly as possible—would address the shortages of workers and skills.

Gap	Some current OLS employees lack critical skills.
Goal	The goal is to develop a workforce that is competent, skilled, and able to perform necessary and critical functions.
Rationale	In order for the TNRCC to successfully fulfill their mission, a strong, well trained workforce is necessary. The OLS will evaluate training needs of current staff and ensure that training is provided to address shortages of skills. They will also offer training that will advance employees in their career fields.

Action Steps	The OLS will continue to take the following actions: • Sponsor and encourage professionals to attend applicable certified legal education courses for their attorneys and management. • Review each employee's training needs and identify areas where improvement is needed both on an ad hoc basis and managers will work with employees one-on-one to improve specific skills. • Work hand in hand with the Training Academy in order to identify necessary training which would improve the skills of workers. • Develop internal training programs that will improve the skills of workers. • Rely on experienced staff to provide necessary training through mentoring of inexperienced staff. • Use training budgetary dollars to obtain training not just from the agency Training Academy but also from the outside sector.
Gap	**The OLS sometimes cannot attract and retain employees with the skill level needed for the future workforce. Mid-level employees are difficult to retain.**
Goal	The goal is to attract and retain all levels of the workforce from mid-level employees to experienced employees.
Rationale	The OLS needs to recruit and retain a workforce of highly knowledgeable legal staff which includes licensed attorneys, certified legal assistants, and experienced administrative staff. Without a well diversified, knowledgeable staff, OLS will have difficulty performing its required functions within the agency.
Action Steps	• Work hand in hand with Human Resources to recruit qualified and diverse individuals. • Increase the OLS recruitment team to seek out individuals for employment with the OLS. • Ensure that during the interview and recruitment process the hiring managers market the state and agency benefits (i.e. health insurance, life insurance, leave, telecommuting) and advise each applicant of such benefits. The OLS will work closely with Human Resources to build such a marketing technique. • Review salaries, merit and promotion schedules to ensure all avenues of monetary reward are being utilized. • Review and update Career Ladders as needed. • Seek upper management approval to adjust and change salaries and/or requirements of career ladders when it is justified through statistical information and in-put from employees and managers. • Increase and formalize its training team consisting of experience, well skilled workers to mentor and train less experienced workers. • Select a diverse pool of candidates who would possibly be interested in leadership positions. The OLS will help these candidates grow into leadership positions by offering the chance to attend leadership training and courses both through the training academy and outside sector. Training budgetary dollars would need to be used.

OFFICE OF ADMINISTRATIVE SERVICES

I. Office Overview

The Office of Administrative Services (OAS) exists to provide service and support to internal and external customers; to provide the essential infrastructure required to maintain business operations; and to provide internal and external customers of the TNRCC the ability to do their business in the most efficient manner for the State of Texas. These services include: Budget and Financial Administration; Information Technology and Document Management; Human Resources Management and Staff Development; and Physical Facilities and Support Services. The Deputy Director for the OAS serves as the Agency Information Resource Manager for Information Technology Projects and as the Agency Records Management Officer. In addition, this office administers the agency's Historically Underutilized Business (HUB) program.

The OAS houses six divisions with a total of 516 full-time equivalent (FTE) positions office-wide and manages an annual agency-wide operating budget in excess of $424 million.

Key Economic and Environmental Factors
A number of key economic and environmental factors will be effecting the TNRCC and specifically the OAS from 2003 through 2007, including economic, technological, workforce and employment, political, and demographic influences.

Economic Indicators

- *Personal Income*. The percentage change for personal income is expected to rise from 5.9 percent in 2003 to 6.0 percent in the year 2007. This slow rise in income will have an adverse effect on spending.
- *Resident Population.* The percentage change in resident population is expected to rise 1.6 percent in the year 2003 to 1.8 percent in the year 2007. In Texas, the most rapid growth will be seen in the Hispanic population.
- *Unemployment Rate.* The percentage change in the unemployment rate is expected to rise 4.8 percent in the year 2003 to 4.7 percent in the year 2007.
- *Gross National Product (GNP) and Inflation.* The cost of fuel, oil, paper products, and postage is expected to increase slightly over the next five years. OAS is chiefly responsible for providing services that require the purchasing of goods and acquiring services in bulk or gross quantities. Any upward trend in the cost of postage stamps, paper products, fuel, and other general consumables has an adverse affect on the quantity of items the office may purchase for the agency. By the same token, if vendors and contractors must pay a higher cost to conduct their day-to-day business affairs, that increased cost will be passed on to the agency.

Homeland Security

- Since the terrorist attacks of September 11, 2001, all governmental entities in the United States have examined the degree of exposure to assault from unfriendly forces. To this end, personnel from the Risk Management, Safety and Security Section in OAS have participated on agency committees, task forces, and other informal groups whose aim is to improve homeland security at the TNRCC.
- In order to lessen the possibility of disaster at the agency, it has been determined that a Disaster Recovery Plan and Business Continuity Plan must be drafted, implemented, and tested on an annual basis. The resources to achieve this goal do not currently exist within the TNRCC.

- The agency must make provisions to secure the resources needed to undertake a risk assessment of agency business functions, drafting of a business impact analysis of risks, drafting of a business continuity plan, testing of the plan, ongoing maintenance of the continuity plan, and completion of a business recovery operation.

Technological Indicators

- By the year 2005, ready access to voice or video communications anytime, anywhere will be available. The miniaturization of equipment and better wireless communications will encourage development of information networks.
- Full 24-hour access to services and information via the Internet will become the standard.
- Technological changes will have the potential to have far-reaching negative aspects, such as:
    1. Security of intellectual property will become vital;
    2. Breaches in e-mail systems and computer viruses; and
    3. Higher employee stress levels may result from the capability to work anytime, anywhere.

Workforce and Employment Indicators

- Nationwide, 17 million workers will be added to the workforce which is a 12 percent increase. Of that nationwide workforce, 48 percent will be comprised of females as opposed to 46 percent in today's labor force.
- The telecommuting workforce will increase to 3.6 million workers. This workforce has grown 89 percent from 1991 to 1997.
- One negative aspect of these employment indicators is that the pay-for-performance models versus the pay-for-experience models will lead to complaints of pay inequity.
- There will be increased demand and competition for high skilled professionals.
- There will be a projected increase in demand for some of the OAS primary job titles (accountants, purchasers, administrative staff) in the Austin area over the next five years.
- Compensation for state workers continues to lag the market.
- The Texas State Auditor's Office (SAO) determined that the fiscal year 2001 statewide turnover rate for full-time classified employees decreased slightly from fiscal year 2000 to 17.6 percent, possibly due to recent economy downturns and world events.
- The American Institute of Certified Public Accountants reported that accounting enrollments in the 1998-99 Bachelor's and Master's programs dropped 22 percent from the 1995-96 enrollments.
- Based on a projection by the Texas Comptroller of Public Accounts, the number of state government jobs will grow about 1.3 percent a year over the next decade.
- The SAO found in December of 2001 that 21 percent of the employee population were employees with less than 2 years of agency experience, and the turnover rate for this group was 52 percent. Likewise, 43 percent of the state employees were under 40 years old, and this group had a 60 percent turnover rate.
- An SAO report stated that 8 percent of the state's turnover was due to interagency transfers. The accounting, auditing and finance occupational area had a high percentage of interagency transfers.
- The U.S. Department of Labor estimates that turnover cost is approximately one-third of an employee's annual salary.

Political Indicators

- As government decentralization continues, the federal government downsizing will shift additional responsibilities to state and local government entities.
- A requirement will become more prevalent for more extensive cost-benefit analyses on the impact of legislative and regulatory rule implementation.

Demographics

- Texas has been and will continue to be one of the nation's fastest growing states. The demand for government services will continue to increase as the state's population expands.
- The state government's available resources will not match increasing demands, leading to tighter budgets for the next few years.

Key Issues and Challenges

- State and federal legislative impact: Increased regulations and reporting on a shrinking workforce overworks the agency staff.
- Evolving information technology places a budgetary burden on the agency to keep up with an ever-changing environment.
- Salary cap: The agency is not able to provide competitive salaries at a level to retain a competent, experienced workforce.
- Travel cap: The agency is hampered by a cap on travel expenses and cannot fully monitor nor audit many of the program areas within its jurisdiction.
- Continue to implement the Information Strategic Plan (ISP) in conjunction with the Information Technology Workgroup and the Information Technology Steering Committee. Initiate and implement consolidation of agency wide databases (for example, CCEDS and Central Registry).
- Continue to oversee and ensure implementation of approved audit recommendations resulting from the document and records management process review.
- Continue to oversee and ensure the implementation of the agency's Coordination of Diversity Enrichment Program.
- Identify and implement opportunities for staff reduction where business can be more efficiently performed and critical services will not be jeopardized.
- Identify and benchmark successful public- and private-sector HUB programs, and institute a well designed program.
- Oversee and participate in the identification and bench marking of successful public, and private sector staff recruitment and retention programs, and then redesign our own program to incorporate proven methods and practices. In addition, ensure that the TNRCC performs a workforce analysis in its effort to institute appropriate workforce planning.
- Provide the management support and direction to ensure swift identification, procurement and migration to the most cost and performance effective technologies available.
- Provide the direction necessary to ensure proper coordination, development, and implementation of key information technology programs with special emphasis on: TNRCC IT infrastructure and network; Internet and agency Intranet (T-Net); Electronic Data Interchange (EDI); Hardware and Software Inventory; Imaging; and Information Engineering.
- Act as change agent and provide the necessary support to ensure successful implementation of agency-wide information technology standards with regard to all hardware and software purchases and future systems development to ensure consistency with AFIRM document published by the Department of Information Resources.
- Provide timely and accurate analysis of legislation impacting the OAS and its areas of responsibility. Develop implementation plans for passed legislation.
- Ensure implementation of the career ladder program for all professions within the TNRCC.
- In fiscal year (FY) 2000, the office turnover percentage was 21.68 percent. In FY 2001 the turnover rate dropped to 17.81 percent. One of the long-term goals of the office will be to decrease the turnover percentage while retaining a culturally diverse skilled, experienced workforce.
- Oversee the development and implementation of appropriate programs and opportunities that are sensitive to the personal needs of staff while not interfering with the business responsibilities of the agency, such as the TNRCC Employee Recognition Program.
- Continue the integration and automation of the separate financial, budget, and timekeeping systems into one integrated financial system.
- Oversee the development and implementation of the Agency's Business Continuity Plan.

II. Current Workforce Profile (Supply Analysis)

The OAS has a wide and varied workforce. The skills which are critical to necessary to support the agency's mission, goals, and objectives are as diverse as the agency itself. Currently, 45 percent of the OAS workforce are male and 55 percent are female. In the office, 38 percent of the employees belong to minority classes.

- 71 OAS employees will be eligible for retirement within the next five years.
- 93 OAS employees are projected to voluntarily separate within the next five years.

OAS Critical Workforce Skills	
Leadership/organization	Public speaking/presentation
Management/supervisory	Professional development/facilitation
Analytical/problem solving	Communication/customer service
Strategic planning/development	Performance measurement
Information technology/systems management support	Fee billing and revenue stream projecting
Legislative and appropriations	Facilities management and maintenance
Workforce recruitment/retention	Risk management/disaster recovery
Procurement and contract management	Project management
General accounting principles and practices	Knowledge of the Uniform Statewide Accounting System (USAS)
Knowledge of agency, state, and federal rules and regulations	Knowledge of the Uniform Statewide Payroll/Personnel System (USPS)

Skills Available Within Current Workforce
Although the office has a number of vacancies, the OAS has the skills available in the current workforce to meet the agency mission, goals, and objectives. All of the critical skills are available within each category of the current staff; however, the competency level varies among the types of positions. Many employees have achieved proficiency in the critical skills, but mastery is essential, and in many cases, expert-level skills are needed.

Skill and Experience of Current Workforce in 2007
The office must begin now to mentor current staff to replace the employees who will be eligible for retirement in order to maintain the skill level and experience currently available in the office. Mentoring will consist of: coaching, training, cross training, and work experience. If this mentoring relationship is fostered and professional development as well as on the job training is made available, the remaining employees will have the skills and experience in the year 2007 in order to carry out the mission, goals and objectives of the agency.

One challenge facing the office in recruiting and retaining mission critical skills is our ability to ensure the workforce feels valued and challenged professionally. Current employees will continue to develop their skills in line with the changes expected to occur over the next five years. As job requirements evolve, training and experience will help employees adjust to changing requirements.

Continuous staff turnover will affect remaining employees who will be relied on to meet additional work product deadlines and keep up with increased workloads due to unfilled vacancies. This will also cause lower employee morale, as well as stress and tension from an increased workload.

Low pay is the biggest challenge in the office's effort to recruit and retain employees possessing mission critical skills. In some areas, retirements will equal 100 percent turnover, which will place a burden on the remaining staff. Any delays or freezes in the agency's workforce hiring will cause undue hardship on the areas losing staff.

III. Future Workforce Profile (Demand Analysis)

The critical functions which must be performed by the OAS will be budget and financial administration; information technology and document management; human resource management and staff development; and physical facilities and support services. The OAS expects to implement the following changes to the organizational structure of the office:

- Reduce management to staff ratios; improve service to customers.
- Reduce operating costs.
- Enhance operating efficiencies.
- Streamline and diversify the business processes.
- Ensure management and employee accountability.
- Promote the team concept for management and staff.

The critical skills necessary in the future do not differ from current requirements. What will change is the relative importance and level of those skills needed to meet our customers needs. As employees retire or voluntarily separate from the agency, those remaining employees must be relied on as experts to train and mentor new employees.

The OAS anticipates needing the same number of employees because—as certain functions are eliminated, moved or streamlined—those employees will be moved to areas where resources are currently lacking. One example would be the increased reporting requirements for the Biennial Operating Plan.

In previous years, the office reported quarterly on Information Technology projects agency-wide, currently the OAS reports on a minimum of four projects per month. Workloads and jobs may increase as a result of technological advancements. One example would be if the agency were to convert to Microsoft Office as opposed to the Corel Suite.

Currently, the agency does not have resources capable of handling such a transition. This conversion would increase the current workloads of employees. Many of the current workers would have the ability to transition into the work anticipated in the future, if professional development training were provided.

As the industry becomes more technology driven, and traditional borders, both geographic and hierarchical, are eliminated, the agency will need to change with the times and have a workforce which is much more computer literate. One skill that will be needed in the workforce of 2007 is information technology and systems management support. The agency's ability to recruit and retain resources with this skill and experience will be critical for our future success.

Legislative and appropriations decisions made in the upcoming legislative sessions may change the office priorities.

Critical Functions

- Human resource management

- Professional and staff development
- Operating budget
- Support services and facilities and asset management
- Financial and fiscal administration
- Information resources
- Records management
- Strategic planning and appropriations
- Integrations of financial operating systems
- Streamlined fee revenue billings and payments
- Data management

Expected Workforce Changes
As the office's functions become more automated and we are able to provide our customers with additional information, we expect a greater demand for consulting and training on how to use the information. This will require higher-level understanding of financial and accounting concepts. Also, OAS expects increasing demands for accurate and immediate data. Projected growth in the state's population, the resulting demands upon state agencies, and the requirement to adhere to the full-time employee (FTE) cap will invariably increase the workload for existing staff.

The skill level associated with understanding, managing, and using information systems will become increasingly important. There will be increasing demands to provide additional or enhanced services without additional FTE resources in the short term.

- Increased alternatives and options for information technology.
- Increased demand for reporting current agency activities.
- Increasing demands to provide and support more automated systems without additional FTE resources.
- Additional projects as mandated by Senate Bill 187, such as e-Government and TexasOnline.
- Reengineering of the current automated budget system to streamline the workload during budget creation process. (The system is currently under development and should be operational by FY 2004.)
- Development of a Business Continuity Plan. Currently the agency has not allocated the resources to accomplish this function; although additional resources with specific skills will be required in order to accomplish this function.
- One of the greatest potential challenges the office faces is the disruption or lack of continuity that would be generated by retirement of any member of the HRSD management team. We anticipate a 100 percent turnover among these staff, resulting in a significant loss of institutional knowledge and experience.

IV. Gap Analysis

The OAS anticipates continued growth in the services demanded of the office. It also anticipates that FTEs may not keep up with the growth in the near term. As vacancies occur, it will be easier to fill those positions with well qualified candidates in the near term and more difficult in the longer term.

The office analysis did not identify any areas of surplus skills. There is a need for higher proficiency in most of the critical skills. These gaps are primarily the result of the changing operational environment and turnover of staff. The most significant gaps exist in information technology skills and technical job knowledge.

Anticipated Surplus or Shortage of Workers
OAS anticipates the following shortages of workers:

- Accountants in the Financial Administration Division.

- Positions in the Support Services Division for business continuity plan implementation (2).
- Positions in the Information Resources Division due to anticipated retirements (26).

Anticipated Surplus or Shortage of Skills
OAS anticipates shortages of the following skills:
- Information technology.
- Technical job knowledge.
- Agency space-planning activities.
- Incident command (directs during emergency or catastrophic event).
- Risk assessment for agency business functions.
- Business impact analysis of risks.
- Business continuity planning, testing, maintenance.
- Business recovery operations.
- Ingres 4GL, Windows 4GL, C programming, microfocus COBOL, Cool:Gen Toolset, Web-based XML, Java, and Javascript.
- Data management and interactive database development.
- Human resources generalist.
- Needed proficiency level in all critical skills categories.
- Proficiency level 2-3 in the data management skills area .
- Proficiency in project management skills area for all categories of positions.
- Proficiency in problem solving and analytical skills area for all categories of positions.
- Enhanced leadership skills must be developed for all categories of positions, except within the administrative support category.

V. Strategy Development

Gap	**Improved information system and technology skills are needed to meet the changing work environment and customer demands.**
Goal	Develop additional expertise in the understanding, development, management, and use of information systems and technology.
Rationale	In order to improve efficiency and effectiveness, the Financial Administration Division is transitioning to a variety of new information processing, data extraction, and reporting systems. It is necessary to develop additional skills and expertise in information systems and technology in order to design and implement these systems as smoothly as possible and to use them to their maximum advantage.
Action Steps	• Provide a wider range of training opportunities to include more information technology training to a wide cross-section of the staff. • Develop expert user groups associated with the major technology functions to facilitate learning and provide cross-training opportunities to ensure the development and maintenance of institutional knowledge. • Restructure job responsibilities to provide dedicated time to pursuing additional knowledge and expertise with these systems. • Modify job descriptions and qualifications to recruit new staff with skills and expertise in information technology.

Gap	**Current employees skill levels associated with job knowledge need to be raised.**
Goal	Raise the level of skills and expertise of employees to the levels necessary to provide the higher level of service needed by customers.
Rationale	Over the next five years the growing demands for services, limited FTEs, and limited resources will make it imperative that the office maximize the benefit derived from the staff. Higher levels of knowledge and skills will be one of the prime mechanisms for the office to meet the challenge.
Action Steps	• Develop formal cross-training relationships to encourage wider knowledge of the critical functions, the retention of institutional knowledge, and succession planning. • Work with Human Resources to develop programs and mechanisms to encourage employee retention. • Use pay incentives where appropriate to attract and retain staff. • Develop annual training plans to formalize development needs for all staff.
Gap	**Current employees lack critical skills.**
Goal	Develop a competent and well-trained workforce.
Rationale	Since there are so few staff with TNRCC experience and knowledge, management must carefully use this personnel in the training of other staff. Time for training classes to strengthen other skills must be scheduled and supported by management.
Action Steps	• Scheduled online training • Cross-training: Assign a leader and co-leader to a project. This allows cross-training during a project. • Document procedures: This is a learning process during the documentation. It also allows a process to be evaluated and streamlined during the process. Becomes a reference tool. • Mentoring: New and inexperienced staff need to be paired with senior staff in order to foster teamwork, cooperation, and communication.
Gap	**Office cannot attract and retain the employees needed for the future workforce.**
Goal	To retain experienced knowledgeable employees.
Rationale	Retain staff by providing an acceptable and functional work environment through rewarding exceptional performance and providing a structured approach to staff development.
Action Steps	• Use pay incentives, where appropriate, to attract and retain staff. • Train backup personnel. • Conduct team-building events. • Encourage cross-training. • Offer career ladder promotions. • Advertise through electronic media and participate in job fairs.
Gap	**Retain and foster development of current employees**.
Goal	A satisfied employee means a lower turnover.

Rationale	The State Auditor's Office cites that employees who are more likely to leave their particular agencies are: "employees who are not oriented to their organization, who perceive a lack of communication, or who do not receive coaching and feedback for career growth." (December 2001)
Action Steps	• Create a mentor program between the experienced and new employees. • Cross-train employees in their actual job duties and their supervisor's duties. • Provide training in government, legislative, and career growth development. • Involve employees in office strategic planning sessions. • Improve the merit, promotion, and career ladder systems.
Gap	**Attract potential employees**.
Goal	Provide an innovative and pleasant workplace.
Rationale	The agency must have the right workers to service the citizens and their environmental needs. Employees of today are selective of where they want to work. The office must remain on the competitive edge in attracting and retaining the right employees.
Action Steps	• Recommend to revamp the agency's human resource practices to reflect the vast flexibility offered by its private enterprise counterparts, without giving up the accountability demanded of a government entity. • Pay wages that are competitive with market rates. • Recruit and hire a more diverse workforce — more people of color, older workers, women, and people with disabilities. • Recommend promoting work-life balance programs, such as the TNRCC Telework Program. • Recommend developing an employee loyalty program where employees are valued for their tenure and indispensable work at the commission, such as reserved parking, special recognitions, incentives and benefits.
Gap	**Train employees**.
Goal	Trained employees contribute to a streamlined and efficient workforce and customer service.
Rationale	With the modern technological advancements, the agency's internal and external customers will demand faster, accurate data to assist in their decision making processes.
Action Steps	• Train employees in the critical skills needed to perform their jobs. • Train employees in computer skills critical to project management functions, such as database management. • Involve employees in financial system development decision making processes. • Encourage and pay for memberships in various professional societies, so that employees can stay abreast with their colleagues in the private and public sectors. • Promote and support computer user groups, for example, Microsoft Excel user groups.

Gap	**Current employees lack data management skills in use of interactive databases.**
Goal	Transition from use of multiple human resource information systems to a single, interactive HRIS database.
Rationale	All HRSD staff need proficiency in technology that supports efficiencies. Use of a single database system would enhance service delivery in every program area and would increase integrity of data, while decreasing the possibility of redundancy and error.
Action Steps	• Identify product. • Recommend and obtain approval to purchase. • Include as budget recommendation for fiscal year 2004. • Develop, test, and implement. • Provide training for staff.
Gap	**The office lacks critical human resource generalist skills.**
Goal	Initiate gradual transition to add one or two human resource generalist positions that will become primary points of contact for coordinating delivery of products and services between offices and teams of specialists.
Rationale	Increase credibility and visibility within the agency and assist agency personnel in meeting strategic objectives.
Action Steps	• Develop pilot program to test use of generalist position. • Develop criteria to identify current staff qualified for transition. • Match with office and program area to test pilot. • Implement, monitor, and evaluate effectiveness.
Gap	**Potential loss of skill sets through possible 100 percent retirement of HRSD management staff**.
Goal	Provide continuous delivery of HRSD services in all functional areas.
Rationale	HRSD and the agency will lose the combined state experience and institutional knowledge of staff in key positions. Development of qualified internal staff will provide replacements who are equipped to continue delivery of services.
Action Steps	• Identify HRSD staff who meet minimum qualifications for management positions. • Develop criteria and readiness ratings to further distinguish staff who are qualified for management role. • Develop action plan. • Use opportunities to mentor, coach, and facilitate development.
Gap	**Acquire new skills needed in various areas to accomplish office objectives.**
Goal	To hire and retain workers with skills necessary to perform job duties at competency and proficiency levels needed.
Rationale	The agency must have the right workers to service the citizens and their environmental needs. Employees of today are selective of where they want to work. The agency must remain on the competitive edge in attracting and retaining the right employees.

Action Steps	• Recommend altering or tailoring recruitment programs to specifically target these new skill areas. • Initiate retention program now analyzing current market for new skills in the workforce (i.e. current salary to hire staff and what it will take to retain those employees). • Initiate professional development plan to assist in bringing employees at lower proficiency levels up to the professional and expert competency levels.

OFFICE OF ENVIRONMENTAL POLICY, ANALYSIS, AND ASSESSMENT

I. Office Overview

The Office of Environmental Policy, Analysis, and Assessment (OEPAA) has four major functions: strategic environmental analysis and assessment; the coordination of all agency policy development and rule making; the coordination of border affairs; and the technical analysis of data to support these functions. The office also handles special projects having agency-wide impact.

As the economy expands, imposing increasing demands on air, water, and land resources, the complexity of the analyses and research that must be conducted increases exponentially. Public expectations are that the technical and scientific basis upon which the commission makes its decisions are precise and completely definitive. Therefore, analyses must be precise, and the margin for error and allowance for variables and unknowns is scrutinized closely. Additionally, the office utilizes new avenues to improve the quality of analyses and obtain the best information possible.

OEPAA attempts to predict the need for future office skills and knowledge requirements and to institute a means to meet those needs. However, some issues remain unknown, and the office expects to face unanticipated and unmet needs.

OEPPA attempted to look at skills based on averages. The office will need to replace current resources that are at the top of the rating chart, and doing so will require extra effort to meet the continuing need for the level of skill and expertise. Capturing this need properly is a challenge.

Key Factors, Issues, and Challenges

- Responding to new and more rigorous standards and requirements adopted at the federal level will continue to add challenges, and new skills and abilities will need to be developed and honed.
- Improvements in the economy will create a challenge to the ability to attract new staff and to retain staff that the office invested in as part of an effort to meet future workforce needs.
- It is difficult to dedicate staff time to efforts to continually improve skills when the workload in many areas is overwhelming and staff are already working long hours just to meet schedules.

II. Current Workforce Profile (Supply Analysis)

OEPAA activities are generally at the cutting edge of policy and regulatory decision making and influence the long-term, strategic directions of the agency. Furthermore, the outcome of much of the work performed has significant impact, not only on internal processes and decisions, but also directly affects the activities and resources of other state, local, and international governmental organizations, industries, and private citizens.

The following is an analysis of the skills considered to be most critical to successfully completing that mission.

Critical Workforce Skills and Definitions
Communication
Problem solving
Project management
Customer service
Data management
Contract management
Research and assessment
Engineering and technical evaluation
Policy analysis and development
Regulatory analysis and development
Coordination
Science development
Science evaluation
Technical knowledge
Administrative support

Skills Available Within Current Workforce

- Official/Administrative and Professional
  The staff in these two categories have the majority of the skills needed to meet anticipated needs. Analysis shows, however, that increased skill levels are needed in the contract management category to manage the large number and diversity of contract services within OEPAA.

- Technical
  A large percentage of OEPAA staff in this category meet current skill level needs. Analysis does show that increased skills levels are needed as follows:
  - Staff have a mixture of experience and skills in problem solving that range from minimal to mastery levels. New staff (entry level) generally have a lower skill level due to lack of experience.
  - Some technical staff have had to assume duties in contact and grant management to address critical workload needs. They were originally hired based on technical skills necessary to perform other tasks, not necessarily those skills necessary in managing contracts.
  - Some staff are in the middle of a learning curve in research and assessment skills, particularly in the statistical analysis arena.
  - Due to high turnover in recent years, existing staff are either highly skilled senior staff or minimally skilled new staff in engineering and technical evaluation skills.

- Administrative Support
  Analysis shows that OEPAA currently has the skill level needed for administrative support functions.

There is a continuing need to strive for exceptional customer service in all categories.

Skill and Experience of Current Workforce in 2007

- The skills and skill levels needed in future years will be similar to the needs of today. Through various training programs and strategies, the current workforce in the year 2007 is expected to achieve required levels of proficiency in the majority of the skills necessary to meet office goals and objectives.
- The 2001 attrition rate for OEPAA staff was 18.5 percent. As a result, significant attention will be needed to recruit skilled individuals and train entry-level staff.
- It may prove difficult to replace the critical skills, extensive agency experience, and historical knowledge of retiring staff. A significant number in OEPAA are highly skilled, tenured staff.
- The office expects that advancements in the areas regarding geographical information systems (GIS) and information technology (ColdFusion and CoolGen) will require new skills and additional training. The same holds true in skills associated with engineering, data visualization, and web-enabling data and information activities. The turnover rate for staff with these skills is expected to be high. The office anticipates challenges in retaining staff with these skills due to the inability to compete with private sector salaries.
- Contract management will continue to be a critical requirement of many professional and technical staff responsibilities, as long as agency workload exceeds current in-house staffing capabilities. If this outsourcing approach continues, revised job descriptions, specialized training, and other support activities will be needed to provide more effective management of the contracts to achieve desired results and ensure fiscal accountability.
- The need for administrative support will be driven by the needs of the office. A workload increase for the office will directly influence staffing for the administrative area. If staff shortages mandate that the office outsource more critical projects, an increase in administrative contract staff might be required.

III. Future Workforce Profile (Demand Analysis)

The demands on the workforce will increase as social, economic, and political factors continue to influence the activities of OEPAA. The office expects to address the complex issues of conducting comprehensive assessments of environmental conditions and the interactions of all related factors; of developing innovative, non-regulatory strategies to resolve environmental problems; and of achieving long-term, sustainable conditions for both a healthy environment and a strong economy.

Advances in technology and knowledge related to environmental issues continue to accelerate. More sophisticated skills will be required to effectively evaluate the implications of this increased level of information on agency decision making and to develop and communicate long-term strategies to address current and emerging challenges.

Critical Functions

The critical functions of OEPAA are likely to become more complex. The office is charged with the duties of strategic environmental analysis and assessment; the coordination of all agency policy development and rule making; the coordination of border affairs; and the technical analysis of data to support these functions. The challenge will be to face unanticipated and unexpected needs.

Expected Workforce Changes

- Emerging environmental issues, such as the 8-hour ozone standard, on-and off-road mobile source emissions reductions, non-point source water pollution controls, TMDL development and implementation, global warming, air toxics assessments, and groundwater quality protection, are

expected to receive greater emphasis in the future which may require additional subject matter expertise.

- A strong desire by many stakeholders to address environmental problems of the border region with increased cross-border cooperation is likely to increase the workload.
- The heightened awareness of environmental problems and its link to a healthy economy, and the emphasis on identifying private sector solutions may increase the level of staff competency needed to meet management and stakeholder expectations.
- Existing staff skill levels may need to be shifted to improve our ability to develop broad-based, innovative strategies that combine flexibility and incentives with performance-based standards and effective enforcement.
- OEPAA expects an increase in employees will be needed in the future as new programs are implemented and the demand for services increases.

IV. Gap Analysis

A review of the skills and assessment of the skill levels found in our current workforce are as follows:

Anticipated Surplus or Shortage of Workers

- OEPAA anticipates that there will be no surplus of workers.
- There is currently, and will continue to be, a shortage of workers within the office in the areas related to air, water and waste pollution control. New and developing technologies for monitoring, modeling, assessment, and communication will result in greater demand for staff with critical education, training, and experience with the new and developing technologies.
- The additional workload demands that will arise due to the designation of nonattainment areas under the new 8-hour federal ozone standard will result in a shortage of employees in the SIP Development section.
- The additional workload demands that will arise due to the expanding implementation schedule of the TMDL program will result in a shortage of employees in the TMDL section.
- Responsibilities added to the Border Affairs section, including the preparation of the "State of the Rio Grande" report, have had a significant impact on the workload. The new, priority tasks are being accomplished only by: relying to a large degree on staff provided under the contract with the University of Texas; delaying the implementation of several tasks under the Environmental Protection Agency (EPA) grant; and overrunning deadlines for TNRCC administrative functions.
- Without changes in the current cap on full-time equivalent (FTE) positions, there will be no opportunity to address the shortage of skills with additional workers. We will become more dependent upon contracting for services to achieve legislative mandates and additional work demands.

Anticipated Surplus or Shortage of Skills

- The greatest potential for gaps in future staff skill levels appear to be in the areas of communication; problem solving; project, data and, contract management; research and assessment; engineering and technical evaluation; policy analysis and development; science evaluation; and technical knowledge.
- No surplus of skill levels was identified.

New Skills Required to Accomplish Office Objectives

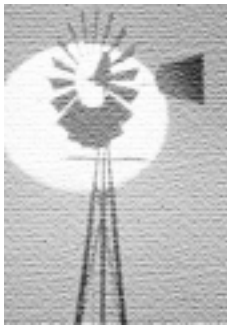
There will be an increased need for Information Technology skills. An emphasis on Web-based communication and electronic reporting will require new skills to be developed. Modeling efforts require a continual upgrading of skill sets as new and enhanced models are developed. Specialized skills may be

necessary in the future to adequately perform research and assessment, science evaluation, and other technical analyses.

V. Strategy Development

Gap	**Critical workforce skills may not meet future demands.**
Goal	Develop and maintain a skilled workforce to perform critical mission functions.
Rationale	Management must evaluate the skills and skill levels of the OEPAA workforce to ensure training and career development opportunities are provided to address the deficiencies.
Action Steps	• Develop and implement a mentoring program. • Provide opportunities for staff at various skill levels to participate in challenging situations. • Provide opportunities for staff to attend conferences, workshops, workgroups and agency training programs. Plan for new training programs as needed. • Explore ways to increase the skill base of employees by assigning them temporarily to other programs to gain knowledge. • Develop working arrangements with other offices for resource sharing to obtain necessary skills. • Revise job performance standards and plans to include skill development tasks and expected outcomes.
Gap	**Recruiting and maintaining a skilled, diverse workforce to meet future demands**.
Goal	Ensure that OEPAA has a skilled, diverse workforce.
Rationale	The office must utilize every opportunity available to identify and encourage staff with critical skills to remain and to recruit highly skilled, diverse individuals.
Action Steps	• Recommend the development of retention strategies involving the provision of promotion and salary enhancement opportunities for all staff, including career ladder and non-career ladder positions. • Establish funding for salary enhancements from salary savings from vacated positions. Explore opportunities to provide additional path positions above the top of the career ladder. • Provide regular recognition of accomplishments. • Provide training opportunities for staff to enhance job performance to increase career advancement opportunities. Develop mechanisms to train existing staff to fill skill gaps left by retirement. • Work with the HRSD Division to identify innovative strategies that could be used to employ individuals. Engage in active recruitment efforts by identifying potential candidates with necessary skills, experience and knowledge. • Provide appropriate incentives, work environment, and employee recognition that encourages candidates to seek employment. • Use internship programs to increase workforce resources.

Gap	**Inadequate number and skill level of staff to meet future demands**.
Goal	Use contract services to provide certain advanced skills necessary to address increasing federal and state regulatory requirements.
Rationale	Contract services may have existing pools of expertise that cannot be permanently maintained within the agency's workforce, but that can be available to address short-term, specialized needs.
Action Steps	• Identify specific tasks or services, and the associated skills, that may be best suited for contract support. • Identify and secure funding sources for contract services • Develop specific or template contract documents • Coordinate with OAS to process and secure contract services. • Establish the contact management structure within the office, including adequate training, oversight, tracking tools, and other support functions • Revise job descriptions and expectations, as well as recruiting and selection practices, to attract and retain staff with appropriate skills and experience.
Gap	**Critical advanced skills may not support growing management and stakeholder expectations**.
Goal	Recommend periodically prioritizing agency strategies and office activities to focus resources and skills on the most critical needs of the state.
Rationale	Effective prioritization can provide for the most effective and efficient use of limited staff resources and skills and allows targeted staff development and recruitment. Such focus avoids the need to maintain advanced skills and expertise in every area.
Action Steps	• Use strategic environmental assessment processes to analyze, identify, and prioritize the issues and strategies most critical to protecting human health and the environment. • Identify and develop the skills within the current and future workforces that will be required to address those priority issues throughout a defined planning period. • Develop cross-media expertise and flexibility to enable staff to apply broad-based skills, as well as specific knowledge, to prioritized issue and directions. • Develop and maintain sources of subject matter expertise and information regarding non-priority issues that can be readily available as a contingency to address unexpected, or non-routine, demands.



APPENDIX F
SURVEY OF ORGANIZATIONAL EXCELLENCE

Results Overview for 2002

The Survey of Organizational Excellence (SOE) was developed in 1979 in response to gubernatorial concerns regarding how Texas state employees viewed working for the state. The survey has evolved into both an empowerment and accountability tool that can enable both private organizations and public agencies to meet the challenges of the future. Efforts of comparable size and comprehensiveness have not been identified at either the federal or state level. The SOE is credited as being one of the elements cited by the Legislature in considering and approving a 4 percent increase for state employee salaries.

This year's TNRCC SOE results show a significant improvement over previous years. Employees' perceptions reflect a positive change regarding the dimensions of the TNRCC workplace environment. Scores show a consistent and dramatic increase from previous scores on matters ranging from the agency's response rate to the employees' perceptions concerning the effectiveness of their supervisors and teams. In the 2002 SOE, 85 percent of the constructs, or elements to be measured, reflect an increase in score—some by as much as 68 and 69 points.

The TNRCC's participation and use of the results of previous SOEs were cited as reasons for the TNRCC being given the Texas Star Award by Governor Rick Perry. The award recognizes the agency's distinctive and measurable success in providing services to Texans.

Detailed Results Analysis

Constructs are scored from 100 to 500, with 300 points indicating the neutral midpoint. Scores below 300 indicate more negative feelings about the issue from the employees. Scores above 300 indicate more positive feelings about the issue from the employees. When interpreting the SOE data, any construct (or individual question) that receives a 200 or below should be of significant concern for the organization. It should be noted that the TNRCC employees have never rated any construct at or below 200 over the course of SOE testing.

Table F-1 represents the TNRCC construct, or element, scores sorted by workplace dimension for each of the four times the agency has participated in the survey.

Response Rate

For this survey, TNRCC management set a goal of achieving a 60 percent response rate. Not only did the agency meet the targeted goal, but it exceeded it by 5 percent. At 65 percent, the response rate is considered high. High rates mean that employees have an investment in the organization, want to see the organization improve, and generally have a sense of responsibility to the organization.

Online vs. Hard Copy Responses

The SOE survey is moving towards conducting all of the surveys online, instead of by mailing out hard copies. Online surveys offer many advantages over the traditional hard-copy survey, including lower cost to the agency organization, as well as providing rapid results so that interventions can be made while the issues are still current. Of all employees who took the survey, 99 percent responded online.

Results Analysis by Constructs/Elements

The survey assessment is a framework, which at the highest level, consists of five workplace

Table F-1

Survey Results by Workforce Dimension

Workplace Dimension	Survey Constructs by Dimension	TNRCC Scores			
		1996	1998	2000	2002
Work Group	**Fairness**	283	280	275	**344**
	Diversity	303	307	306	**337**
	Supervisor Effectiveness	255	259	261	**312**
	Team Effectiveness	276	276	278	**311**
Accommodations	**Physical Environment**	322	324	328	**355**
	Employee Development	328	323	331	**361**
	Benefits	351	349	340	**353**
	Fair Pay	279	271	252	213
Organizational Features	**Change Oriented**	291	291	286	**315**
	Holographic	284	284	283	**322**
	Strategic	366	366	366	**362**
	Quality	336	328	323	**359**
	Goal Oriented	294	292	288	**321**
Communication	**External**	339	338	341	**353**
	Internal	278	279	283	297
	Availability	282	276	279	**335**
Personal Demands	**Job Satisfaction**	317	319	317	**340**
	Time and Stress	352	351	344	**339**
	Burnout	287	284	280	**345**
	Empowerment	263	262	262	**330**

NOTE: BOLD indicates 2002/2003 Constructs with raw scores 300 or greater.

dimensions to capture the total work environment—Workgroup, Accommodations, Organizational Features, Information and Personal. Each Workplace Dimension is composed of several survey constructs or elements (see Table F-2) designed to broadly profile areas of strength and concern so that interventions may be targeted appropriately.

Constructs, or elements to be measured, are an analysis of the raw data that reflect a significant positive change on the perception of our employees, as shown below.

Workgroup Dimension

100 percent of the elements reflect a significant increase in score from previous surveys.

Table F-2

Survey Dimensions and Corresponding Constructs/Elements

Dimension	Constructs or Elements
Workgroup	Supervisor Effectiveness, Fairness, Team Effectiveness, Diversity
Accommodations	Fair Pay, Physical Environment, Benefits, Employee Development
Organizational Features	Change Oriented, Goal Oriented, Holographic, Strategic, Quality
Information	Internal, Availability, External
Personal	Job Satisfaction, Time and Stress, Burnout, Empowerment

Accommodation Dimension

75 percent of the elements to be measured reflect significant increases in score, with the only exception being the Fair Pay Construct, which declined from a high of 279 to its current score of 213. This is reflected as an area of concern by the 2002 SOE.

Organizational Features Dimension

80 percent of the elements reflect a significant increase in score from previous surveys. The only exception in this dimension was the Strategic Construct which declined four points from the previous score. However, even with the four-point decline in score, the Strategic Construct is listed as an area of strength for this survey.

Information Dimension

100 percent of the scores reflect an increase from previous surveys. However, even though the Internal Construct reflects a significant increase in score from previous surveys (from a low of 278 to its current 297), the 2002 survey reveals this element as an area of concern.

Personal Dimension

75 percent of the elements to be measured reflect significant increases in score, with the only exception being the Time and Stress Construct, which reflects a continuing modest decline from a high of 352 to its current score of 339. This element is also reflected as an area of concern by the 2002 SOE.

Results Analysis by Questions

Survey constructs, or elements to be measured, are developed from a series of questions. The questions can be divided into four parts, as defined by the UT School of Social Work:

1. Primary Items (59 questions),
2. Compensation Items (16 questions),
3. Organization-Wide Items (11 questions), and
4. TNRCC-Specific Items (20 questions).

Scoring analysis for the questions are as follows:

- Any survey question with an average (mean) score above the neutral midpoint of **3.0** suggests that employees perceive the issue more positively than negatively.
- Scores of **4.0** or higher indicate areas of substantial strength for the organization.
- Conversely, scores below **3.0** are viewed more negatively by employees.
- Questions that receive below a **2.0** should be a significant source of concern for the organization and receive immediate attention.

Primary Items

The Primary Items consist of 59 questions. Of those 59 questions, 53 of them, or 90 percent, reflect an increase in score from the 2000 survey. Another 6 out of the 59 questions, or 10 percent, reflect a decrease in score. There is one question which reflects a score greater than **4.0**. That question posits: **"We know who our customers (those we serve) are."** There are 6 questions which reflect a score that is below **3.0**. However, even though the scores are less the **3.0**, all scores reflect an increase over the 2000 survey. Those questions are as follows:

	Score
People who challenge the status quo are valued.	2.74
The right information gets to the right people at the right time.	2.88
We have an opportunity to participate in the goal setting process.	2.89
I am satisfied with the opportunities I have to evaluate my supervisor's performance.	2.90
Favoritism (special treatment) is not an issue in raises or promotions.	2.91
Decision making and control are given to employees doing the actual work	2.99

*There were no questions which reflected a score less than **2.0** which would have required immediate attention.*

Compensation Items

The next part of the survey consists of the 16 Compensation questions. It is in this part of the survey that the agency did not fare well. Eight of the 16 questions, or 50 percent, reflect a decrease in score. Another 6 of the 16 questions, or 38 percent, reflect an increase in score. There is one question that does reflect a score less than **2.0**:

"My pay keeps up with the cost of living." The eight questions which reflect a decrease in score are as follows:

	Score 2002	Score 2000
I am satisfied with my dental insurance	2.64	2.66
I am satisfied with my retirement	3.39	3.44
I am satisfied with my Employee Assistance Program (EAP)	3.40	3.52
I am satisfied with my medical insurance	3.46	3.69
Benefits can be selected to meet individual needs	3.51	3.55
I am satisfied with my vacation	3.74	3.83
I am satisfied with my holiday benefit	3.82	3.97
I am satisfied with my sick leave	3.91	3.97

There are five questions in the Compensation part of the survey which reflect a score less than 3.0. Those questions are as follows:

	Score
My pay keeps up with the cost of living.	1.97
Salaries are competitive with similar jobs in the community.	2.02
People get paid fairly for the work they do.	2.42
I am satisfied with my dental insurance.	2.64
I am satisfied with my vision insurance.	2.77

Organization-Wide Items

The third category of survey questions involves the Organization-Wide questions. There are 11 questions in this part of the survey. There are 4 of 11 questions that are new to the survey, and all scores were above **3.0**. Also, there were 4 of 11 questions which reflect a decrease in score from the 2000 survey. Those questions are as follows:

	Score
An effort is made to get opinions of people throughout the organization	2.86, down from 3.27
We work well with other organizations.	3.41, down from 3.56
We work well with our governing bodies (legislature, etc.)	3.68, down from 3.75
We work well with the public.	3.61, down from 3.70

There are two questions in this part of the survey that received scores below 3.0. Those questions are as follows:

	Score
Information and knowledge are shared openly within this organization	2.90, up from 2.65
An effort is made to get opinions of people throughout the organization	2.86, down from 3.27

TNRCC-Specific Items

Regarding the 20 questions specific to the TNRCC, 15 out of 20 questions or 75 percent score above **3.0**. Another 5 of the 20 questions or 25 percent score below the **3.0** threshold. Those questions are as follows:

	Score
Management routinely listens to and acts upon employee concerns.	2.88
I have a good chance for promotion.	2.85
Formal recognition programs at the agency give me an incentive to work harder.	2.46
There are security problems at the agency that I worry about.	2.67
Important decisions are communicated throughout all levels of the TNRCC.	2.91

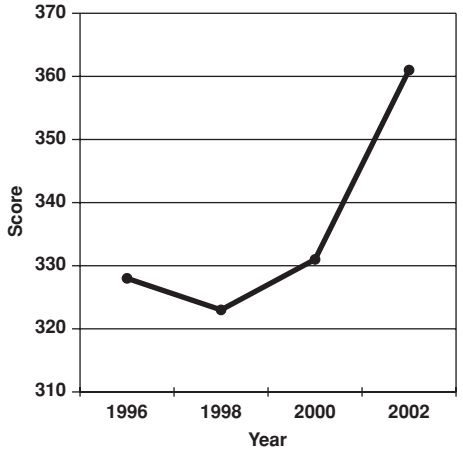
Areas of Strength

There are 18 elements that were above the neutral 300 mark, but there are no elements in which the TNRCC achieved an overall score of 400 or greater. The following five elements: Strategic, Employee Development, Quality, Physical Environment, and External were the TNRCC's highest scoring elements, and identified by the University of Texas as areas of TNRCC strength:

Employee Development

TNRCC Score History:
1996: 328, over 300 points
1998: 323, down 5 points
2000: 331, up 8 points
2002: 361, up 30 points

Figure F-1
Employee Development

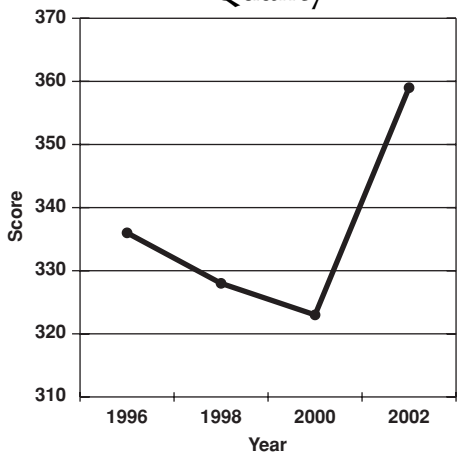


Employee Development is an assessment of the priority given to employees' personal and job growth. Effective training programs and the development of career ladders may be some of the reasons for the high scores. Employees see that there is a substantial investment in providing training and acquiring technology to improve job performance. This was the second highest-scoring element for the current survey.

Quality

TNRCC Score History:
1996: 336, over 300
1998: 328, down 8 points
2000: 323, down 5 more points
2002: 359, up 36 points

Figure F-2
Quality

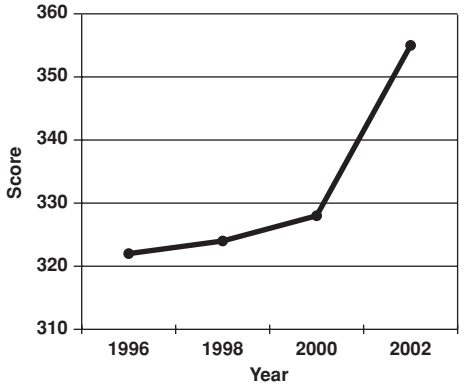


Quality looks at the extent to which employees feel that job demands are realistic, given time and resource limitations, and whether the work environment supports employees in balancing home and work demands.

Physical Environment

TNRCC Score History:
1996: 322, above 300
1998: 324, up 2 points
2000: 328, up another 4 points
2002: 355, up 27 points

Figure F-3
Physical Environment



Physical Environment measures the employees' perceptions of the total work atmosphere and the "feel" of the working environment. This includes: office layout; resources such as desks, telephones, and computers; and other attributes such as parking. Whether the employees feel fear for their personal safety is also addressed.

External

TNRCC Score History:

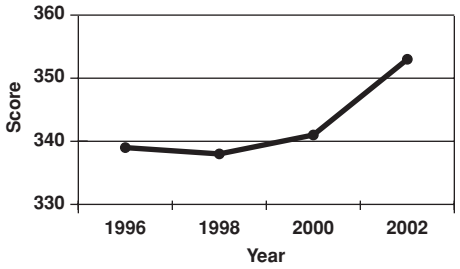
1996: 339, over 300 points

1998: 338, down 1 point

2000: 341, up 3 points

2002: 353, up 12 points

Figure F-4
External



How information flows into and out of the agency is analyzed by this element. How the information is utilized is also a consideration. High scores indicate that employees present a unified, clear, and effective message of the agency's mission.

Strategic

TNRCC Score History:

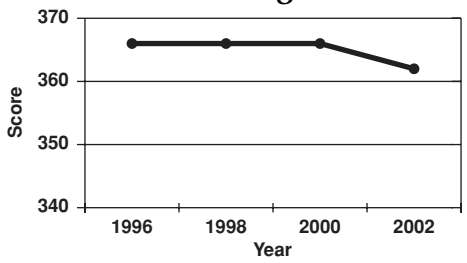
1996: 366, over 300

1998: 366, no change

2000: 366, no change

2002: 362, down 4 points

Figure F-5
Strategic



The Strategic element represents employees' thinking about how the organization responds to external influences that should play a role in defining the agency's mission, vision, services, and products. The higher the score, the more vision the employees feel the agency possesses. This was the highest-scoring element for the TNRCC this year.

Areas of Concern

There are no elements in which TNRCC scored an overall 200 or less, but there are two that are below the neutral 300 mark. The five elements entitled Internal, Team Effectiveness, Supervisor Effectiveness, Change Oriented, and Fair Pay are the TNRCC's lowest-scoring elements, and were identified by the University of Texas as relative areas of concern. They are listed below.

Internal

TNRCC Score History:

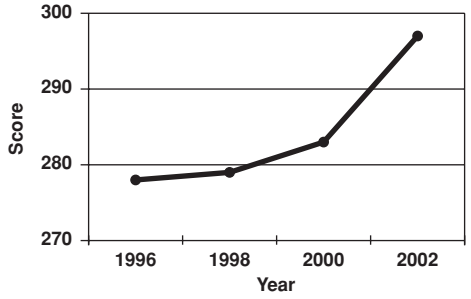
1996: 278, under 300

1998: 279, up 1 point

2000: 283, up 4 points

2002: 297, up 16 points

Figure F-6
Internal



The amount of control employees have over their jobs and the outcome of their work are the primary components this element measures. If the work environment is viewed by employees as supportive and efficient, the scores should be over the neutral 300 point mark. Low scores indicate that employees feel the hierarchy interferes with innovation and progress.

Team Effectiveness

TNRCC Score History:

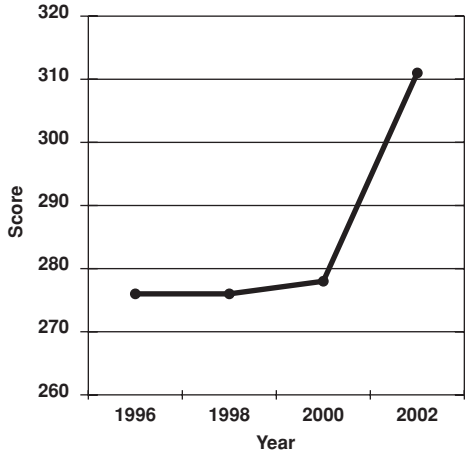
1996: 276, under 300 points

1998: 276, same score

2000: 278, up 2 points

2002: 311, up 33 points

Figure F-7
Team Effectiveness

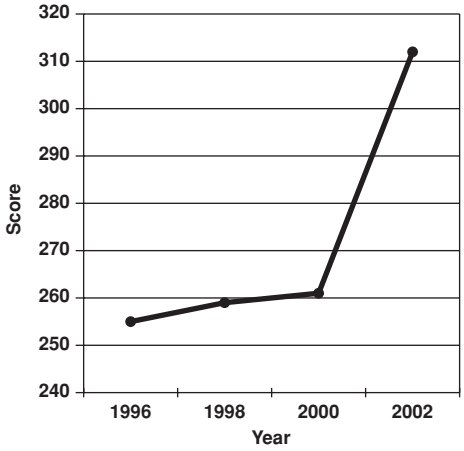


Team Effectiveness refers to the employees' perceptions of how effective their work groups or teams are and how the organizational environment supports cooperation among employees. While this element is one of the lower scores for this survey, when compared to past surveys, it reflects a significant improvement over the past three surveys.

Supervisor Effectiveness

TNRCC Score History:
1996: 255, below 300
1998: 259, up 4 points
2000: 261, up another 2 points
2002: 312, up 51 points

Figure F-8
Supervisor Effectiveness

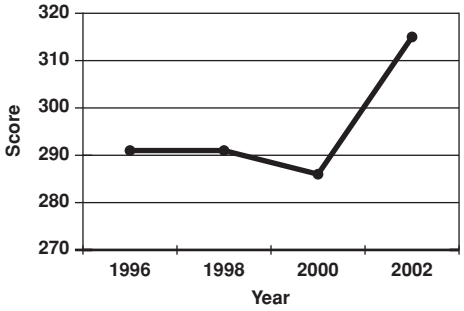


Supervisor Effectiveness explores employee perceptions of issues, such as the quality of communication, leadership, thoroughness, and fairness among supervisors and employees. While this element is still an area of concern for this survey, there has been a significant improvement over the past three surveys.

Change Oriented

TNRCC Score History:
1996: 291, under 300 points
1998: 291, same
2000: 286, down 5 points
2002: 315, up 29 points

Figure F-9
Change Oriented

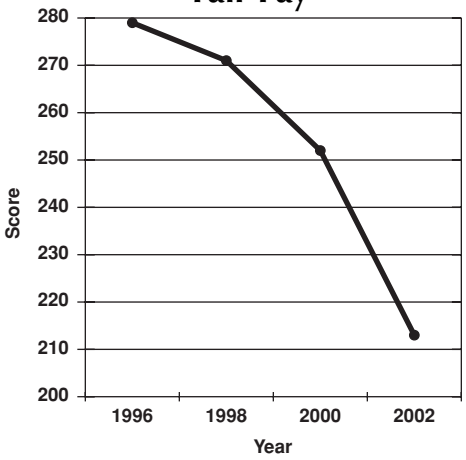


The Change Oriented element is designed to measure the organization's ability to assess changes in the environment and the quality of relations with constituents. Measuring the organization's capability and readiness to change based on new information and ideas is the specific focus of this element.

Fair Pay

TNRCC Score History:
1996: 279, below 300
1998: 271, down 8 points
2000: 252, down another 19 points
2002: 213, down 38 points

Figure F-10
Fair Pay



Fair Pay is defined as "…how well the compensation package holds up when employees compare it with those of similar jobs in other organizations." When the scores for this element are low, it indicates that employees feel they do not have the ability to maintain a standard of living similar to that offered by comparable work in other organizations. This element showed the most decrease in points in this survey from the last survey, as well as being the lowest scoring element this year.

Further Action

The executive management at the TNRCC remains proud of TNRCC's work force and will not take these results to justify the status quo, but rather, to seize the opportunity and continue to make positive and constructive improvements to our agency.

In response to the 2002 SOE results, six areas of concern have been identified for further action. Based upon action guidelines provided in the survey, those areas of concern relate to: Team Effectiveness; Supervisor Effectiveness; Change Oriented, as it relates to the organization; Internal, as it relates to the flow of information and communication within the agency; Strategic, as it relates to how the agency responds to external influence; and Stress Management. As of April 2002, the agency began forming workgroups to address these areas of concern. Six work groups will each focus on one element of concern and develop an action plan to improve agency performance in that area.

APPENDIX G
INFORMATION RESOURCES STRATEGIC PLAN

TNRCC Goals and Objectives

(as stated in the *TNRCC Strategic Plan, Fiscal Years 2001–2005*)

Goal 1. Assessment, permitting, and prevention

To protect public health and the environment by accurately assessing environmental conditions: by preventing or minimizing the level of contaminants released to the environment through regulation and permitting of facilities or activities with potential to contribute to pollution levels; by promoting voluntary efforts to prevent pollution; and by assuring the delivery of safe drinking water to Texas citizens at affordable rates.

Objective 01-01. To decrease the amount of toxins released and disposed of in Texas by 30 percent by 2003 from the 1992 level through assessing the environment, permitting facilities, and promoting voluntary pollution prevention and recycling.

Objective 01-02. To provide 95 percent of Texans served by public drinking water systems with drinking water that meets drinking water standards

Goal 2. Enforcement and compliance assistance

To protect public health and the environment by administering enforcement programs that promote voluntary compliance with environmental laws and regulations while providing strict, sure, and just enforcement when environmental laws are violated.

Objective 02-01. By fiscal year 2003, to bring 95 percent of all regulated facilities into compliance with state environmental laws and regulations and to respond appropriately to citizen inquiries and complaints.

Goal 3. Pollution cleanup

To protect public health and the environment by identifying, assessing and prioritizing contaminated sites, and by assuring timely and cost-effective cleanup based on good science and current risk factors.

Objective 03-01. By fiscal year 2003, to identify, assess, and clean up 80 percent of the known sites contaminated by hazardous materials and petroleum from leaking storage tanks.

Goal 4. Indirect administration

Objective 04-01. To provide the essential infrastructure required to maintain an agency's day to day operations and guarantee internal and external customers to the TNRCC the ability to conduct business in the most efficient manner for the State of Texas.

Objective 04-02. Provide information technologies within TNRCC to maximize the flow of data, processes and information to meet the strategic and operational objectives with the essential infrastructure required for the delivery of high-quality effective services to TNRCC employees, programs customers and the public.

Objective 04-03. To provide efficient and effective facilities, reproduction, plant management and other operational support to agency personnel and programs through the use of current technology and a highly skilled workforce.

1. Information Resources Goals, Objectives, Strategies and Programs Supported

Agency Goal - Strategy	(State) DIR Goal	IR Goal	IR Objective	IR Strategy	Agency Programs Supported
04-01-02 Indirect Administration-Information Resources	1 Transforming Government	Note: All the following TNRCC- IR Goals satisfy DIR GOAL 1 "Transforming Government"			
04-01-02 Indirect Administration-Information Resources	2 Information Management Practices	2-1 To establish and maintain IT best practices related to DIR rules and guidelines.	2-1-1 By 12/31/03 IRD will provide project support services to the agency.	2-1-1-1 Create Project Support Team.	1. Assessment, Permitting and Prevention 2. Enforcement and compliance 3. Pollution cleanup
				2-1-1-2 Apply DIR, PMI, and SEI best practices to all IT projects.	1. Assessment, Permitting and Prevention 2. Enforcement and compliance 3. Pollution cleanup Assessment, permitting, and prevention
04-01-02 Indirect Administration-Information Resources	2 Information Management Practices	2-2 To establish and maintain current agency IT OPPs which are compliant with DIR rules and guidelines.	2-2-1 By Dec. 31, 2003, IRD will have reviewed, edited and compiled 100% of OPPs related to information technology in the agency.	2-2-1-1 Review and edit current OPPs.	1. Assessment, Permitting and Prevention 2. Enforcement and compliance 3. Pollution cleanup
				2-2-1-2 Create OPP change management procedures to include review and update schedule.	1. Assessment, Permitting and Prevention 2. Enforcement and compliance 3. Pollution cleanup
				2-2-1-3 Identify division OPP manager.	1. Assessment, Permitting and Prevention 2. Enforcement and compliance 3. Pollution cleanup

Agency Goal - Strategy	(State) DIR Goal	IR Goal	IR Objective	IR Strategy	Agency Programs Supported
				2-2-1-4 Create standard operating policy and procedure (SOPP) and functional job description (FJD) for OPP manager.	1. Assessment, Permitting and Prevention 2. Enforcement and compliance 3. Pollution cleanup
04-01-02 Indirect Administration-Information Resources	2 Information Management Practices	2-4 To minimize information security vulnerabilities	2-4-1 By January of 2004 a security audit process will be developed.	2-4-1-1 Create and maintain information security audit process	1. Assessment, Permitting and Prevention 2. Enforcement and compliance 3. Pollution cleanup
				2-4-1-2 Create and implement security risk assessment process	1. Assessment, Permitting and Prevention 2. Enforcement and compliance 3. Pollution
			2-4-2 By August of 2004 security audits will be complete.	2-4-2-1 Perform security audits	1. Assessment, Permitting and Prevention 2. Enforcement and compliance 3. Pollution cleanup
04-01-02 Indirect Administration-Information Resources	3 Stewardship of Information	3-1 To ensure recoverable & available data to meet business continuity requirements	3-1-1 By 2004 the agency will be able to recover data from disasters	3-1-1-1 Create , test, and maintain business continuity plan	1. Assessment, Permitting and Prevention 2. Enforcement and compliance 3. Pollution cleanup
04-01-02 Indirect Administration-Information Resources	3 Stewardship of Information	3-2 To improve access to public records	3-2-1 By 2004 all records under the central records purview will be moved to the central records room..	3-2-1-1 Consolidate all physical records in one central location.	1. Assessment, Permitting and Prevention 2. Enforcement and compliance 3. Pollution cleanup
				3-2-1-2 Convert all records on legal size paper to letter size.	1. Assessment, Permitting and Prevention 2. Enforcement and compliance 3. Pollution cleanup
				3-2-1-3 Plan for records consolidation needs via the state funding mechanism. (FY03).	1. Assessment, Permitting and Prevention 2. Enforcement and compliance 3. Pollution cleanup

Agency Goal - Strategy	(State) DIR Goal	IR Goal	IR Objective	IR Strategy	Agency Programs Supported
04-01-02 Indirect Administration-Information Resources	3 Stewardship of Information	3-3 To ensure long-term viability of records	3-3-1 By 2004 all offices of the agency will be in compliance with agency records retention schedule	3-3-1-1 Perform records audit	1. Assessment, Permitting and Prevention 2. Enforcement and compliance 3. Pollution cleanup
				3-3-1-2 Train all agency records liaisons regarding inventory and purge procedures	1. Assessment, Permitting and Prevention 2. Enforcement and compliance 3. Pollution cleanup
				3-3-1-3 Make agency records retention schedule available to agency staff via the agency Intranet.	1. Assessment, Permitting and Prevention 2. Enforcement and compliance 3. Pollution cleanup
				3-3-1-4 Promote current records management training as an agency required course	1. Assessment, Permitting and Prevention 2. Enforcement and compliance 3. Pollution
				3-3-1-5 Conduct annual audit of all electronic file systems to meet record retention schedule	1. Assessment, Permitting and Prevention 2. Enforcement and compliance 3. Pollution cleanup
04-01-02 Indirect Administration-Information Resources	3 Stewardship of Information	3-4 To provide improved and controlled access to agency information to meet DIR guidelines	3-4-1 By August of 2003, access to 90% of agency electronic information systems will have controlled access.	3-4-1-1 Implement an electronic information single sign-on process based on employee roles and responsibilities.	1. Assessment, Permitting and Prevention 2. Enforcement and compliance 3. Pollution cleanup
04-01-02 Indirect Administration-Information Resources	3 Stewardship of Information	3-5 To ensure information systems meet business needs through the use of current technologies.	3-5-1 By August of 2007, 80% of outdated legacy systems maintained by IRD will be replaced or upgraded.	3-5-1-1 Use application development processes which support Web access and facilitate ad hoc reporting	1. Assessment, Permitting and Prevention 2. Enforcement and compliance 3. Pollution cleanup

Agency Goal - Strategy	(State) DIR Goal	IR Goal	IR Objective	IR Strategy	Agency Programs Supported
		3-7 To provide continuous operation capability for information systems.	3-7-1 By August of 2007, the agency will have an on-line backup generator for the computer room.	3-7-1-1 Purchase a backup power generator.	1. Assessment, Permitting and Prevention 2. Enforcement and compliance 3. Pollution cleanup
		3-8 To minimize workstation and server downtime caused by virus attacks.	3-8-1 By January of 2003, 5% or less of agency information systems, workstations and servers are infected by viruses.	3-8-1-1 Create and enforce agency virus protection policies.	1. Assessment, Permitting and Prevention 2. Enforcement and compliance 3. Pollution cleanup
04-01-02 Indirect Administration-Information Resources	4 Access and Participation	4-1 To provide agency staff with telecommuting capability (Telework Program)	4-1-1 By January of 2004, 450 agency employees will be able to telework..	4-1-1-1 Implement agency Virtual Private Network	1. Assessment, Permitting and Prevention 2. Enforcement and compliance 3. Pollution
04-01-02 Indirect Administration-Information Resources	4 Access and Participation	4-2 To enable electronic reporting by regulated entities	4-2-1 By 2004, 80% of high and medium high data flows will be reported electronically.	4-2-1-1 Design, implement, and continuously improve an electronic submittal portal.	1. Assessment, Permitting and Prevention 2. Enforcement and compliance 3. Pollution cleanup
04-01-02 Indirect Administration-Information Resources	4 Access and Participation	4-3 To increase agency participation in Texas On-line	4-3-1 By August of 2003, Event Registration & Storm Water Permit Fees Applications will be implemented byTexas Online.	4-3-1-1 Complete web application development working with Texas On-line and TCEQ program areas.	1. Assessment, Permitting and Prevention 2. Enforcement and compliance 3. Pollution cleanup
04-01-02 Indirect Administration-Information Resources	4 Access and Participation	4-4 To provide the capability for multi-media training via the Internet and agency Intranet	4-4-1 By 2007, 90% of the agency will be able to subscribe to full-motion video simultaneously.	4-4-1-1 Increase network bandwidth to accommodate multi-media technology	1. Assessment, Permitting and Prevention 2. Enforcement and compliance 3. Pollution cleanup
				4-4-1-2 Procure and install Internet broadcast equipment	1. Assessment, Permitting and Prevention 2. Enforcement and compliance 3. Pollution cleanup

Agency Goal - Strategy	(State) DIR Goal	IR Goal	IR Objective	IR Strategy	Agency Programs Supported
		4-5 To automate agency Web site information updates.	4-5-1 By August 2003, all agency offices will have automatic Web content management **capability..**	4-5-1-1 Procure, install and maintain a Web content management system.	1. Assessment, Permitting and Prevention 2. Enforcement and compliance 3. Pollution cleanup
04-01-02 Indirect Administration-Information Resources	4 Access and Participation	4-6 To protect agency data from use for making terroristic threats or for acts of terrorism.	4-7-1 By August of 2003, all data required to support Homeland Security requirements will be in compliance.	4-7-1-1 Coordinate compliance with Homeland Security requirements and specifications by monitoring the types of information available on the agency Web site.	1. Assessment, Permitting and Prevention 2. Enforcement and compliance 3. Pollution cleanup

2. Enterprise Databases and Application

Databases

Database Name	Consolidated Compliance Enforcement Database System (CCEDS)
Database Description	Integrated database to monitor all compliance information.
Database System	Oracle
Estimated Physical Storage Requirements	10 GB
GIS Data Classification	None
Sharing	EPA
Future	Ongoing maintenance and enhancements are planned.

Database Name	Central Registry
Database Description	Common identifiers for the management of facility and site information.
Database System	Oracle
Estimated Physical Storage Requirements	1 GB
GIS Data Classification	None
Sharing	No
Future	Ongoing maintenance and enhancements are planned.

Database Name	**Cost Recovery**
Database Description	Cost and Time Data, by budget category, for work done on grant and non-grant sites; reports sent to EPA
Database System	Paradox/DOS
Estimated Physical Storage Requirements	3.7 Gb
GIS Data Classification	No
Sharing	ILP, ETS, Labor Distribution, USAS, Voluntary Clean Up Program
Future	No major changes anticipated, other than potential conversion to Oracle from Paradox/DOS.

Database Name	**Emergency Response System**
Database Description	Record of all reported spills and many air emissions
Database System	Paradox/DOS
Estimated Physical Storage Requirements	65 Mb
GIS Data Classification	No
Sharing	Texas Dept. of Health, Railroad Commission, General Land Office, Environmental Protection Agency
Future	Is to be replaced by an Oracle database in conjunction with the Consolidated Compliance and Enforcement Database System (CCEDS) development project.

Database Name	Employee Timekeeping System
Database Description	Tracks employee time and leave.
Database System	APPX (proprietary)
Estimated Physical Storage Requirements	2 GB
GIS Data Classification	None
Sharing	No
Future	Agency currently has RFO out for replacement.

Database Name	Legislative Analysis Tracking Information System (LATIS)
Database Description	For recording contact with legislators or associated agencies.
Database System	Oracle
Estimated Physical Storage Requirements	20 MB

Database Name	Legislative Analysis Tracking Information System (LATIS)
GIS Data Classification	None
Sharing	No
Future	Ongoing maintenance enhancements are planned.

Database Name	**Prophecy** - Accounts Receivable
Database Description	Supports billing, cash receipts and receivables functions in Accounting
Database System	Ingres ABF (package software)
Estimated Physical Storage Requirements	16 Gb
GIS Data Classification	None
Sharing	A/R data are manually entered into USAS.
Future	Install upgrade releases from the vendor when available. Planned enhancements include a credit card interface.

Database Name	**Point Source Database (PSDB)**
Database Description	Centralized repository for point source information used by several application systems.
Database System	Oracle
Estimated Physical Storage Requirements	2 gig
GIS Data Classification	This database does contain information usable in a statewide GIS. Specifically, source and perm level latitude/longitude.
Sharing	Under an EPA grant, five air local programs in Houston, Arlington, and El Paso perform investigations within their jurisdictions and enter investigation data into the PSDB.
Future	A re-host to a HP platform is planned.

Database Name	State of Texas Air Reporting System (STARS)
Database Description	Tracks air emissions information.
Database System	Oracle
Estimated Physical Storage Requirements	3 GB
GIS Data Classification	None
Sharing	EPA
Future	Ongoing maintenance and enhancements are planned.

Database Name	**TNRCC Regulatory and Compliance System (TRACS)**
Database Description	Tracking of regulatory and compliance information for the Waste Management and Water Resource Management areas of the TNRCC. Functionality also includes billing and reporting.
Database System	Ingres
Estimated Physical Storage Requirements	22 Gb
GIS Data Classification	Some lat/long data available
Sharing	No
Future	The future of TRACS is currently being evaluated. The recommendations of the ISP Design and Implementation project will address its future.

Database Name	**Title V (TV)**
Database Description	Federal Clean Air Act permit tracking system
Database System	Oracle
Estimated Physical Storage Requirements	3 gig
GIS Data Classification	Some location data is available.
Sharing	No
Future	Ongoing maintenance and enhancements are planned, including possible revisions due to EPA Part 70.

Database Name	Water Availability Model (WAM) Database
Database Description	Tracks water right permits.
Database System	Oracle
Estimated Physical Storage Requirements	10 MB
GIS Data Classification	GPS point stored.
Sharing	No
Future	Ongoing maintenance and enhancements are planned.

Database Name	Water Utilities Database (WUD)
Database Description	Tracks water utilities, districts and sources of drinking water.
Database System	Oracle
Estimated Physical Storage Requirements	3 GB
GIS Data Classification	Location data.
Sharing	EPA
Future	Ongoing maintenance and enhancements are planned.

Database Name	Waste Water Consolidation (WWC)
Database Description	Integrated database to track waste water.
Database System	Oracle
Estimated Physical Storage Requirements	5 GB
GIS Data Classification	None
Sharing	No
Future	Ongoing maintenance and enhancements are planned.

Applications

Application Name	Central Registry (CR)
Application Type	Regulatory - Permitting/ Enforcement /Compliance, Research
Application Description	Foundation project for the TNRCC ISP plan to integrate its data. Establish common identifiers for the management of facility/site information across all programs and environmental media.
Database System	Oracle
Development Language	COOL:Gen
Sharing	
Future	Ongoing maintenance and enhancements are planned.

Application Name	Consolidated Compliance Enforcement Database System (CCEDS)
Application Type	Compliance and Enforcement
Application Description	Consolidation of over 30 databases into one integrated system to monitor all compliance information.
Database System	Oracle
Development Language	COOL:Gen
Sharing	Environmental Protection Agency.
Future	Ongoing maintenance and enhancements are planned.

Application Name	Cost Recovery
Application Type	Financial System, Research
Application Description	Provides cost and time reports for EPA, by budget category, for work done on grant and non-grant sites.
Database System	Paradox
Development Language	PAL
Sharing	ILP, ETS, Labor Distribution, USAS, Voluntary Clean Up Program
Future	Paradox/DOS replacement as part of Fiscal Services System(FSS) re-development.

Application Name	Emergency Response System
Application Type	Spill Reporting, Research
Application Description	Storage and retrieval of information regarding accidental or unscheduled release of pollutants from a permitted source which exceeds the terms of the permit(all reported spills and air emissions.)
Database System	Paradox DOS
Development Language	Paradox DOS with INFORMS front end
Sharing	Texas Dept. of Health, Railroad Commission, General Land Office, Environmental Protection Agency.
Future	Should be migrated/re-engineered in an Oracle Database and prioritized on the DOS to GUI conversion list.

Application Name	Employee Time System (ETS)
Application Type	Human Resources
Application Description	This system stores employee time accounting information which is used by the Labor Distribution System and used to administer the employee leave accrual and expenditure accounting.
Database System	APPX DBMS using standard UNIX IO files
Development Language	Proprietary internal language - Integrated Language Facility (ILF)
Sharing	None
Future	The agency currently has a RFO out for a new timekeeping system. Rewriting the current ETS application in-house has been ruled out by agency management. The expectation is to have the new system fully implemented by 8/31/03.

Application Name	Legislative Contacts (LATIS/Sunset)
Application Type	Web Centric Client Server
Application Description	A system for recording contacts with legislative members or associated agencies. It represents a module of the larger Legislative Analysis Tracking Information System (LATIS). The system will accommodate phone calls, FAXes, e-mails, meetings (with return phone number), and letters. Reports may be generated with the system based on member, unit, employee, issue, date of contact, or elapsed time with no response.
Database System	Oracle 7.3
Development Language	Java 1.1.6
Sharing	None
Future	For use by agency staff in recording all contact with members of the legislature. It is also used to record legislative contacts and contacts with other agencies during the sunset review process.

Application Name	Prophecy - Accounts Receivable
Application Type	Client Server Financial System
Application Description	Supports billing, cash receipts and account receivables functions in the Accounting Section.
Database System	Ingres
Development Language	Ingres ABF (package software with enhancements), C, and Unix Scripts
Sharing	A/R data is sent electronically to USAS.
Future	The database will be updated to Ingres II, functionality for processing Tex Net Data from Comptroller will be added, aunctionality for processing Administrative Penalties will be added, as well as, functionality for archiving the database with the ability to have on-line access.

Application Name	Point Source Database (PSDB)
Application Type	Regulatory - Permitting / Enforcement / Compliance, Research
Application Description	Centralized repository for point source information used by several application systems.
Database System	Oracle
Development Language	MicroFocus COBOL, Unix Korn Shell, SQL
Sharing	Data is extracted and reported to the National Emissions Data System (NEDS) and the Compliance Data System(CDS) as well as the EPA.
Future	The agency is in process of migrating this application to an HP UNIX platform. Ongoing maintenance and enhancements are planned.

Application Name	State of Texas Air Reporting System (STARS)
Application Type	
Application Description	STARS system was designed to store all emissions inventory data from point sources. Ultimately system will allow for electronic submission for most of the point source data.
Database System	Oracle
Development Language	COOL:Gen
Sharing	
Future	Ongoing maintenance and enhancements are planned.

Application Name	TNRCC Regulatory and Compliance System (TRACS)
Application Type	Regulatory - Permitting / Registration, Research
Application Description	Petroleum Storage Tank and Industrial Hazardous Waste registrations, Surface Water Quality Monitoring, Water Quality and Waste Water Permitting/Reporting. This includes facility and owner transfers, fee assessments, billing and reporting.
Database System	Ingres
Development Language	Ingres Windows 4GL, Ingres Report Writer, C, Natural Language
Sharing	Read only access is also provided to Fiscal, Responsible Party Remediation, and Enforcement Sections, as well as, all 16 regional offices.
Future	The future of TRACS is currently being evaluated. The recommendations of the ISP Design and Implementation project will address its future. Billing and reporting from the various TRACS applications are being analyzed for inclusion in the various ISP associated projects.

Application Name	Title V (TV)
Application Type	Permitting
Application Description	The FCAA Information Management System is a computerized system that supports the TNRCC implementation of the **Federal Operating Permits Program (Title V)** mandated by the Federal Clean Air Act Amendments of 1990. The program will codify all applicable state and federal air pollution requirements for a site into a single operating permit. The system will also provide permit information to the public, EPA, local air pollution programs, and others. Additional functionality or modifications may be required pending the outcome of the EPA's Part 70 Revisions to the Federal Clean Air Act.
Database System	Oracle
Development Language	COOL:Gen
Sharing	
Future	Ongoing maintenance enhancements are planned.

Application Name	Water Availability Model (WAM)
Application Type	Permitting
Application Description	Development of Texas River Basins models to determine water availability to issue permits.
Database System	Oracle
Development Language	COOL:Gen
Sharing	
Future	Ongoing maintenance enhancements are planned.

Application Name	Water Utilities Database (WUD)
Application Type	Enforcement
Application Description	An integrated database application for the Water Utilities Division (WUD) of the Texas Natural Resource Conservation Commission (TNRCC), which will: A. Allow data sharing among the functional areas of the WUD as well as with the rest of the agency, B. Re-engineer the data and business processes to more efficiently meet the current business requirements, C. Develop new business systems to meet the requirements of legislative mandates, and D. Provide data tracking and reporting systems that meet the requirements of the Safe Drinking Water Act (SDWA) National Primary Drinking Water Regulations as agreed to in the State/EPA primacy designation.
Database System	Oracle
Development Language	COOL:Gen
Sharing	Environmental Protection Agency.
Future	Ongoing maintenance and enhancements are planned.

Application Name	Waste Water Consolidation (WWC)
Application Type	Permitting
Application Description	Consolidation of 380 databases in the former office of Waste Management and Office of Water Resources Management.
Database System	Oracle
Development Language	COOL:Gen, Visual Basic, Crystal Reports, ColdFusion
Sharing	
Future	Ongoing maintenance and enhancements are planned.

Application Name	Watermaster Water Accounting & Assessment Billing
Application Type	Regulatory / Permitting
Application Description	Maintains water accounts and owners, tracks water usage, supports assessment fee billing; uses/maintains detailed water rights to support its primary functions.
Database System	PC/Focus
Development Language	PC/Focus
Sharing	
Future	Is to be replaced by a Cool:Gen/Oracle application co-sponsored by Office of Permitting & Office of Compliance & Enforcement.

3. Information Resources Management, Organizations, Policies and Practices

Setting IT Priorities, Planning, and Resource Allocation

Information Technology (IT) planning for the agency is performed by the IT Steering Committee, with the support of the IT Work Group. The Steering Committee consists of the Deputy Executive Director and the Deputy Directors of each Office (one of whom is the agency's Information Resource Manager [IRM]). It sets the strategic direction for our agency IT philosophy and all IT projects to support the agency's regulatory, environmental, and administrative programs.

Following the priorities identified by the Steering Committee, the Work Group, consisting of the IRM, representatives from each office and the Information Resources (IR) Division, approves IT standards, allocates resources for application maintenance, performs research, and makes recommendations to the Steering Committee. The IRM, the Work Group and the IR Division work together to direct the use of information technologies to support the missions of all parts of the agency.

The development of an Information Strategy Plan (ISP) in June 1995 set the direction for TNRCC's IT initiatives. The ISP provided a thorough assessment of the agency's information needs and recommendations for strategic direction. It addressed the need for integrating the data from different programs into a comprehensive picture of the environment in Texas. To achieve this goal, the Information Strategy Plan Design and Implementation project is currently underway, beginning with the development of the Central Registry system. Currently, data identifying regulated entities from legacy systems is being integrated into the production of the Central Registry, and the Consolidated Compliance and Enforcement Database System is in limited production release.

Information Technology Steering Committee

ITSC Mission Statement

The Information Technology Steering Committee (ITSC) is committed to the gathering of appropriate data and recommendations to ensure timely decision making with regard to information technology which will promote the effective implementation of agency and state goals and the subsequent communication of said decisions to effect appropriate change management and successful implementation.

Information Technology Steering Committee (ITSC) Charge

The ITSC will:

Determine the vision and applicable path for achievement with regards to information technology at the TNRCC.
Set agency information technology priorities.
Communicate information technology decisions.
Conduct, record and communicate the findings of scheduled meetings following established rules of order regarding the proceedings and a set pre-determined and published agenda.

The ITSC shall serve as the centralized information technology decision making body. The ITSC is empowered to determine strategy and define results. The ITSC is furthered empowered to delegate its responsibility of identifying courses of action up to the final decision making process which alone rests with the ITSC and can only be reversed by the Executive Director or Commission. The ITSC will consult with the Executive Director and Commission for major strategy decisions or direction changes.

Steering Committee Membership

Chairman: Deputy Executive Director
Voting Members:
Commissioner's Office Designee
Deputy Director, Office of Administrative Services
Deputy Director, Office of Compliance and Enforcement
Deputy Director, Office of Legal Services
Deputy Director, Office of Permitting, Remediation, & Registration
Deputy Director, Office of Environmental Policy, Analysis, & Assessment
Chief Financial Officer

Ex-Officio non-voting member: Director, Internal Audit
Technical Advisors & Subject Matter Experts as appropriate
An ITSC member may assign a designee to temporarily act on their behalf, at a meeting, but not to exceed three meetings per year.

Information Technology Work Group

Goal

The ITWG is created to provide the agency a resource dedicated to institutionalizing an agency-wide perspective on the management of Information Technology (IT). The Information Resources Manager, who is also the ITWG Chair, is responsible for assuring and communicating to agency staff the agency's strategic IT direction. The ITWG shall support the Information Technology Steering Committee (ITSC) in its decision-making process by providing briefs on IT issues, projects, and budgets.

IT Work Group Membership

Chairman: Office of Administrative Services (OAS) Deputy, or Deputy's designated representative
Voting Members:
Information Strategy Plan Manager
Information Resources Division (IRD) Director
Each agency office IT Manager (or Office Deputy's designated representative)

(Each Deputy may appoint up to one additional member when IT related work loads require additional representation).
Non-Voting Members:
Information Resources Division Section Managers
Internal Audit Representative

Subcommittees

The ITWG with the chair's approval has the authority to establish and require reports from subcommittees as necessary to address on-going and/or specific IT related issues.

Meetings

ITWG meetings will occur bi-weekly or as requested by a voting ITWG member. Each meeting will be documented on the agency's internal web site in a standard format. It is the responsibility of each voting member to stay informed about meeting dates, times and agendas. Members may invite subject-matter experts or other interested parties to meetings.

Members are responsible for recognizing their invitee as a participant in the relevant discussion. ITWG meetings occur when a meeting is called and a quorum is present. A quorum is comprised of the Chair, or the chair designee, and six voting members or their designee.

Procedural Guidelines

Calling and Chairing a meeting (rules of procedures)
Membership List
Format for Recommendations/Reports to ITSC

Responsibilities

Executive Management authorizes the ITWG members to represent their respective area/office at ITWG meetings and sub committee meetings. Members are required to communicate to the ITWG and back to their respective area/office when conducting the following activities as they relate to IT issues, IT projects, and IT budgets.

1. Provide recommendations on IT/ISP issues to ITSC.

2. The ITWG shall establish standard report formats and processes, for approval by the ITSC, for all IT-related activities within the agency.

3. The ITWG shall monitor the progress of all IT-related activities within the agency by use of approved standard reports and report monthly to the ITSC any potential areas of concern and a complete history of current projects, and their status.

4. The ITWG shall establish the priority, for approval by the ITSC, of IT-related activities within the agency, or act as the approval body for those activities so delegated by the ITSC in conjunction with the IRM of the agency. Currently the ITWG has been delegated the authority to:

   a. Approve and Prioritize legacy system maintenance work.
   b. Monitor and enforce the selection of standard Commercial Off-The-Shelf Software packages (COTSS) that do not represent a strategy change in the development practices of the agency's information systems.

5. The ITWG shall be a forum for discussion of issues relating to the agency ISP implementations and other

IT issues and prepare, prior to the end of each Fiscal Year and as required by need or legislative statute, the following annual reports for the ITSC:

a. Planned IT expenditure plans for the next fiscal year.
b. Actual versus planned IT expenditure reports for the ending current fiscal year.
c. Strategic IT data system development architecture proposals.
d. Biennial Operating Plans and revisions.
e. Legislative Appropriation Request (LAR) Capital budgets associated with IT needs.
f. Status of current year projects. This report should show whether they are complete or incomplete. If status is complete, indicate whether the project was on time and within budget. If not complete or not within budget, specify why.

6. The ITWG Members shall identify all software in use within their respective offices and identify the party or parties responsible for maintaining the software. The OAS IRD assumes responsibility for all software identified as an agency standard.

7. The ITWG members shall bring requests for new IT-related projects to the ITWG on the form provided by ITWG for its project proposal.

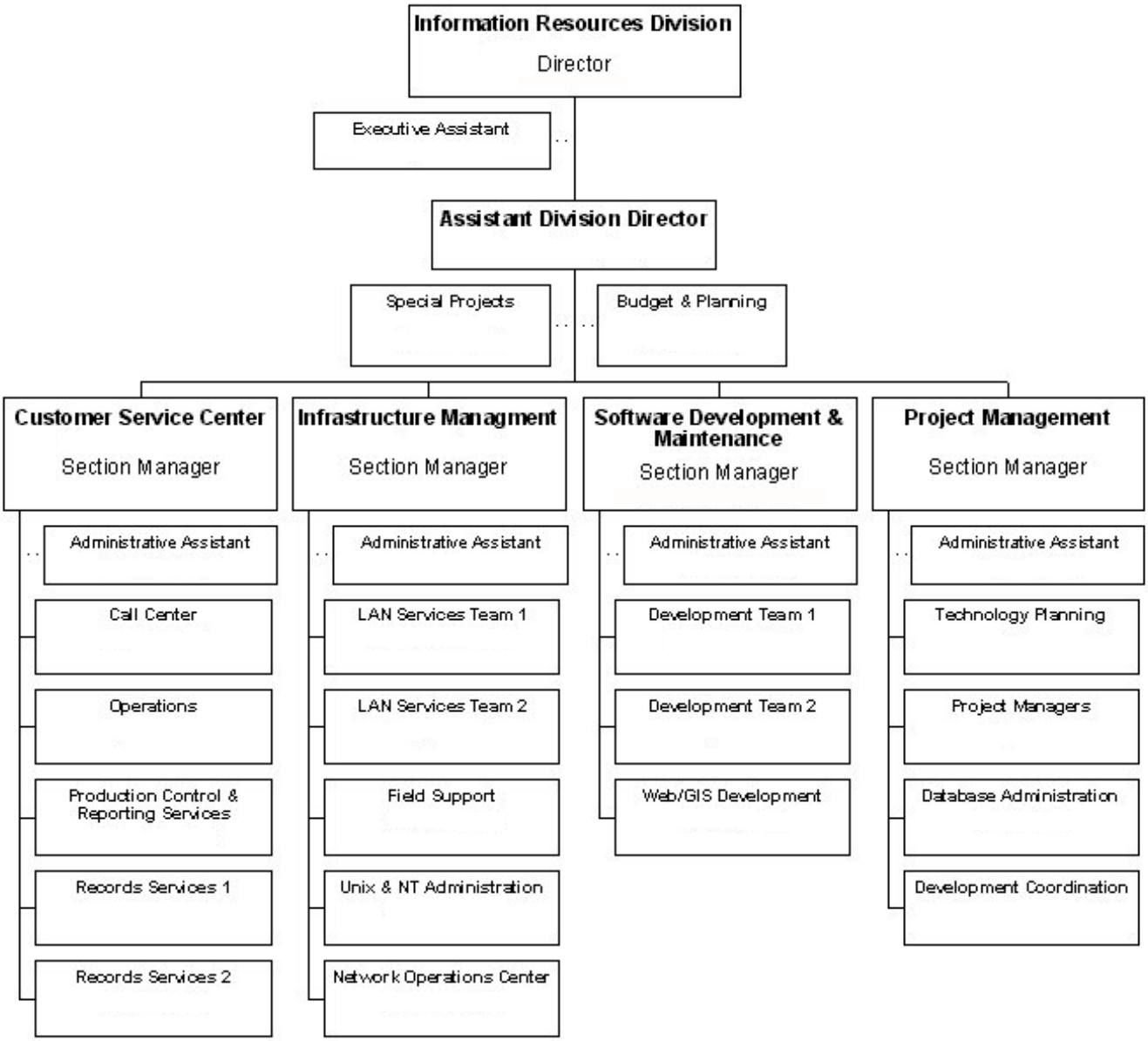
IRM-Information Resources Manager

The Information Resources Manager (IRM) oversees the acquisition and use of technology at TNRCC pursuant to (Information Resources Management Act, 2054.075(b). The IRM duties and responsibilities at TNRCC are assumed by the Director of the Office of Administrative Services.

Information Resources Division

Executive management has assigned the Information Resources Division in the Office of Administrative Services the mission to establish, maintain, and operate the hardware, software, and data communications infrastructure on which all information resources services depend. IRD is also assigned to provide technical support to the agency in the development and use of automated information services and to guide the development of the agency's information systems by establishing the technical architecture and standards profile. In addition, the Information Resources Division provides records services through the central file rooms, and manages requests for agency information from the public.

IT support services are provided by the Information Resources Division through an organizational structure of four sections and eighteen teams.


Information Resources Division
Director
Executive Assistant
Assistant Division Director
Special Projects
Budget & Planning
Customer Service Center
Section Manager
Administrative Assistant
Call Center
Operations
Production Control & Reporting Services
Records Services 1
Records Services 2
Infrastructure Managment
Section Manager
Administrative Assistant
LAN Services Team 1
LAN Services Team 2
Field Support
Unix & NT Administration
Network Operations Center
Software Development & Maintenance
Section Manager
Administrative Assistant
Development Team 1
Development Team 2
Web/GIS Development
Project Management
Section Manager
Administrative Assistant
Technology Planning
Project Managers
Database Administration
Development Coordination

Major Categories of Information Resources Support Services

- Physical Infrastructure Maintenance
- Application Resource Sets Maintenance
  - Enterprise Applications
  - General Purpose Office Automation
- Software Development
- Computer Room Operations
- Data and Configuration Management
- Technical Assistance-Including Call Center Operations
- IT Project Management
- Web Development and Support
- Customer Service Center
- Agency Records Management

Internet and e-Government

Environmental information and information regarding how to conduct business with the agency is currently provided via the Internet. The emphasis of the agency's new Internet effort will be to provide a secure mechanism for all TNRCC customers and environmental partners to obtain and submit data electronically. The TNRCC will use the State of Texas and the United States Environmental Protection Agency (EPA) electronic information security and authentication standards when implementing this goal. The Web interface used will allow the agency to receive information from customers and other environmental agencies, including the electronic transfer of fees. The interface will be a consolidated GIS-based interface which will be easy for agency customers and interested citizens to use. The electronic reporting system will incorporate a common security and archiving system. Some electronic business applications included in this effort will be designed to accept the payment of fees. The Texas On-line payment gateway will be used for handling the fee payments. Links to Texas On-line will be provided on TNRCC's homepage.

Geographical Information System (GIS)

The TNRCC will increase its use of GIS to integrate data concerning several different types of environmental media (air, water, and waste). GIS affords a user-friendly interface through which stakeholders can obtain data on all environmental media through one source. This initiative is sustained and enhanced through the acquisition and use of highly accurate digital ortho-imagery, acquired through cooperative agreements between various Texas and federal agencies.

The TNRCC also plans to expand GIS Internet geographic and topographic displays. Making more browser-based GIS capabilities available will allow TNRCC program areas to improve the accuracy of geo-spatial data layers by identifying and correcting horizontal positional inaccuracies.

The GIS Services Team, in conjunction with the GIS Steering Committee, will guide the implementation of (**OPP 8.11 -- Geographic Information Systems Positional Data**) which establishes the policy and procedures for the collection, management, and use of positional data (geographic coordinates and elevation) at TNRCC. **OPP 8.12 -- Global Positioning System** has been expanded and addresses the implementation of Global Positioning System technology, training, and the role of the GIS Steering Committee in implementing and managing this policy.

TNRCC also participates in the Texas Geographic Information Council. The agency IRM currently serves as the representative on this council with the agency Information Resources Division director designated as alternate.

Quality Assurance Practices

The TNRCC is committed to and has implemented quality assurance practices for use in Information Technology (IT)

projects. Adhering to the Information Resources Management Act, TNRCC's quality assurance practices cover the following areas:

Planning project development - Using DIR's template, all medium and large IT projects complete a project development plan (PDP). Extensive planning feeds the PDP.

Determining the projected benefits of a project -Medium and large IT projects are required to conduct qualitative and quantitative justification in order to determine how TNRCC and its clients will be better served, cost savings, cost effectiveness, and performance objectives and measures.

Developing and implementing management - control processes - In 1999 the TNRCC formed a committee to review and improve its current project management processes. The committee defined what is a small, medium and large projects. A project process flow was developed for each project size which identified the essential steps, quality assurance review points, and management control points. For example, IT projects are required to put in place a Change Control Board to review and approve/disapprove all changes in scope.

Projecting the budget for a project - During the initiation phase TNRCC requires IT projects to develop cost estimates. Each project is re-estimated at the end of the scope and analysis phase.

Analyzing the risks of a project - IT projects are required to perform risk analysis. Medium and large projects are required to complete DIR's Initial Risk Assessment Questionnaire. Methods promoted by the Institute of Electronic and Electrical Engineers (IEEE) and Software Quality Institute (SQI) are used to identify risks, develop management strategies for each risk and track the implementation and effectiveness of each management strategy.

Establishing standards by which the effectiveness and efficiency of a project can be evaluated - IT projects develop meaningful performance objectives and measures by which to gauge project effectiveness.

Evaluating and reporting on the project after implementation - All IT projects are required to perform a post project review. A checklist is used to plan, collect, and analyze post project review information. After analyzing the post project review information a follow- through phase is performed to plan how and when new processes are implemented.

Personal Computer Replacement Schedule

Personal computer workstations throughout the agency are on a standard 4-year replacement schedule. TNRCC replaces about one quarter of the agency's workstations each year. A license for the operating system—Microsoft Windows 2000—and a three-year extended warranty are purchased with each system. The vendor installs a standard software image on each machine, tags each machine with an agency inventory control number, and installs the equipment.

TNRCC pays for the installation of the new computers and the surplusing of the replaced computers by utilizing temporary contract workers. The installation and surplus process costs are paid from operating funds. Any computers scheduled to be surplused may not remain in use after the replacement PC has been installed. The same replacement project also purchases new and replacement network printers. Printers are not always installed by contractors, and not all older printers must be surplused, as is the PC requirement.

This PC replacement project represents a standard agency business practice developed over the course of several years. TNRCC began by centralizing the purchasing of personal computer workstations and printers in the Information Resources Division to reduce costs by buying in larger quantities. This step still left the agency with too many issues related to the number of PC configurations in service. Also, it incurred excessive installation costs as parts of the agency with more funding purchased newer computers, and their older computers were moved to replace still older computers for other users, called "trickle-down."

The agency has since centralized the funding, standardized the replacement schedule, restricted the choice of machines, and insisted that replaced machines be surplused. These actions leveled the year-to-year cost, and reduced support costs

by standardizing configurations and eliminating "trickle-down" replacements.

The agency further reduced the setup and installation cost by having the manufacturer install a standard software image and place the inventory control tags. We anticipate automating the inventory of machines needing replacement later this year. Next year, we will consider having the vendor ship computers directly to each regional office, rather than to our Austin warehouse.
As time goes on, all the elements of the agency's information technology architecture that rely on the workstation, most particularly the client portions of our major applications and the support tools that make the environment manageable, require more robust computers and later versions of the operating system. For these reasons the workstations must be replaced periodically, but in a systematic and controlled way that preserves our ability to support the applications that run on them.

Apart from the previous, less-disciplined workstation procurement process, the agency has compared our current method for renewing our workstation inventory with leasing, and with the Seat Management service offered under the DIR's contract with Northrup-Grumman to manage the WTDROC.

The comparison with leasing was researched in 1999. The alternatives researched at that time were three-year straight leases, at the end of which the agency would have no residual interest in the workstation, and would have to enter into a new lease. The purpose was simply to level the annual expenditure for PCs. All the lease offers would have resulted in substantially increased costs. This result agrees with the rule of thumb presented in DIR's Lease Purchase Guidelines at http://www.dir.state.tx.us/oversight/lvp/lsvpur.htm, which states that leasing is not usually cost-effective unless the PC replacement cycle is less than 36 months. Agency management directed staff to discontinue research, and no detailed cost-benefit study was completed.

A cost/benefit analysis was also conducted by the agency using the WTDROC seat maintenance contract for cost comparison. The methodology used in this analysis is detailed in the Agency's FY 2002 Biennial Operating Plan. This seat maintenance comparison analysis shows that the periodic replacement of desktop personal computer workstations is a very cost-effective alternative, which also provides a planned environment within which critical agency applications can be reliably supported.

PC Replacement Process Performance Measures [H-3]
The current process provides a stable, predictable client platform for the deployment of client-server applications. Development project teams have only a limited number of standard client configurations to test. Since replaced workstations may not be kept in the inventory, normally all configurations in service are able to support proposed applications.

The TNRCC Information Strategy Plan recommends that Geographical Information Systems are integral to our ability to manage environmental data. Thus our client platforms must be robust
enough to present a map on a graphical display. A simple teletype interface for character data would not serve. This requires that we manage a complex client platform with its own hardware and software environment.

Each year, the agency specifies one or two configurations of desktop computers. In the past, the ICASE tool set in use by the developers of enterprise applications required a more advanced workstation, so the agency specified two different configurations. As the most commonly-available workstations have increased in power, they are now able to support the development environment, so in future we may have only one configuration.

The agency evaluates the configurations available from vendors with DIR Cooperative Contracts each year, and specify one which is likely to be usable for four years, is in common production and available in the quantity we need, and with the lowest possible costs available given those constraints. Since this project is for single-user workstations, it does not involve shared data or computing resources. It does not offer opportunities for cooperation with other agencies except in carrying out the procurement, which we do through DIR using a Cooperative Contract.
Steps carried out annually:

- Determine the age and configuration of computers to be replaced.
- Survey the agency to list the computers that will be replaced.
- Specify one or two standard configurations.
- Negotiate the price, configuration, and services with vendors selected through a competitive RFO process or having a DIR cooperative contract for personal computer
- Obtain firm orders and funding from program organizations.
- Place the order.
- Take delivery of a sample of each configuration, develop a standard software load, and return the image to the vendor for installation on production units.
- Contract for installation services.
- Schedule the deliveries and installations.
- Monitor the installations.

The agency is moving towards having as many applications as possible use the web browser as the user interface on the client workstation. If this trend is ultimately successful, agency applications might no longer depend on the specifics of the desktop operating system, and the agency could once again consider alternatives. The agency is actively improving our PC replacement process including as previously mentioned, automating the tracking of the PC replacement and surplus inventory, as well as implementing cost saving measures such as having the vendor deliver new computers directly to regional offices.

Procurement

The purchase of all personal computer workstations, servers, network hardware, peripherals and software is centralized in the agency through the coordination efforts of the Information Resources Division. This centralization has afforded the agency savings by the ability to buy in in larger quantities. Consolidated IT purchasing procedures are in place. Current procurement procedures require that the Information Resources Division approve any requests for software and hardware purchased by the agency program areas.

Contracting

Applicable agency policies:

TNRCC Operating Policy and Procedure 2.0-Acquiring Goods and Services

The purpose of this policy is to establish TNRCC procedures for the procurement of goods and services.

TNRCC Operating Policy and Procedure 3.12-Contract Monitoring

"It is the policy of the TNRCC to ensure that all federal and state grants and contracts are developed, processed, tracked, monitored, and evaluated consistently and expeditiously."

TNRCC Operating Policy and Procedure 8.02- Acquisition of Hardware and Software.

Procedures related to information technology service contracts are contained in the TNRCC Administrative Service Coordinator (ASC) Manual. This manual provides step by step instructions on how to acquire information technology service contracts. Once written, the Information Technology Workgroup (ITWG) and the Information Technology Steering Committee (ITSC) review and approve all IT contracts.

TNRCC has also established a service umbrella contract to process all contracted IT related work through a work order process. All work orders also must be approved by the ITWG.

Invoice payments and expenditure tracking are also consolidated in the Information Resources Division.

Contract Monitoring
Each IT contract has an assigned project manager, who directs, monitors and manages the contract. Contract Management Status Reports are given to the agency ITWG and the agency ITSC on a prescribed schedule, based on the size of the contract.

Software License Auditing

The TNRCC is auditing software licenses using purchasing records. A report of all software purchases over the last four years has been compiled and forwarded to each Office, Division, and Section in the agency for verification. An accounting of any software installations, not included on the report, has been requested. Once the verified information is complete, it will be used to populate a database which will serve as a basis for tracking software purchases, licenses, and installations. As new purchases and installations are made, that information will be added to the database.

Software License Management

In addition to the development of a software license tracking database and associated management auditing and reporting functions, the TNRCC is investigating tools to provide remote software metering to enhance software management functions.

Software licensing information will be provided to the directors in the agency, through the Information Technology Work Group (ITWG) representatives, on a quarterly basis to ensure compliance with the agency software policy. The software policy has been revised and is pending approval by Information Resources Division (IRD) Management, prior to being presented to the ITWG for review and comment.

Consolidated IT purchasing procedures are in place. Current procurement procedures require that the Information Resources Division approve any requests for software purchased by the agency program areas. The agency purchasing section has been providing a copy of program area purchase orders to the Software License Manager in IRD for proof of licensing.

Information Security

The agency **Information Protection Operating Policy (OPP 8.7)** and its "Supplement-Standards and Guidelines" were implemented in October 2000. A follow-up on IT security assessment is being coordinated. Risk prioritization assessment, access process review, and an assessment of security policies was begun in mid-March 2002 with assessment completion and resulting implementation to continue into fiscal year (FY) 03.

Disaster Recovery/Business Continuity Planning

An Office of Administrative Services (OAS) Disaster Recovery Plan is being developed as a benchmark for agency wide expansion. Since August of 2001, an OAS team has worked on the plan. The team is currently mapping major business processes with divisions and functional areas within OAS to determine the criticality of process recovery. Those processes determined to be critical will be documented in the recovery plan. Documentation of supporting IT systems is also included in this effort. It is anticipated that the plan will be complete sometime mid-summer of 2002 with implementation and testing in FY 03.

Data Center Operations

TNRCC has one computer room at its Austin headquarters. It includes the database and application servers, file and print servers, web servers, network backbone, high-volume printers, and the backup system. TNRCC also has a few special-purpose departmental servers which are not located in the computer room, performing such functions as air quality data collection, laboratory data collection, air quality modeling, and GIS. Most regional offices have a file server and an application server, to help reduce performance penalties due to running certain services over the wide-area network. The agency has no mainframe computer operations.

The agency has made a comprehensive survey of data flows that could be implemented using Internet technology, and has two pilot e-government implementations underway at the West Texas Data Recovery Operations Center (WTDROC), running through the Texas On-line portal. These projects have incurred considerable implementation delays due to the technical capability of the contractor, and three other proposed pilots are on indefinite hold because the contractor had made no progress in their implementation after many months.

TNRCC continues to seek opportunities to take advantage of WTDROC services. The agency's current strategic initiatives are directed towards the integration of a number of legacy applications and databases following the agency Information Strategic Plan. These projects use a technical architecture not currently offered by WTDROC, and while the integration is underway, there are massive data transfers between systems. It would be difficult and expensive to provide these services over a wide-area network.

The agency's information technology architecture is implemented by adhering to state and national standards as much as possible. As systems mature, and the integration of legacy information is achieved, it is anticipated that it will be practical to locate more of our data center operations in shared facilities such as the WTDROC.

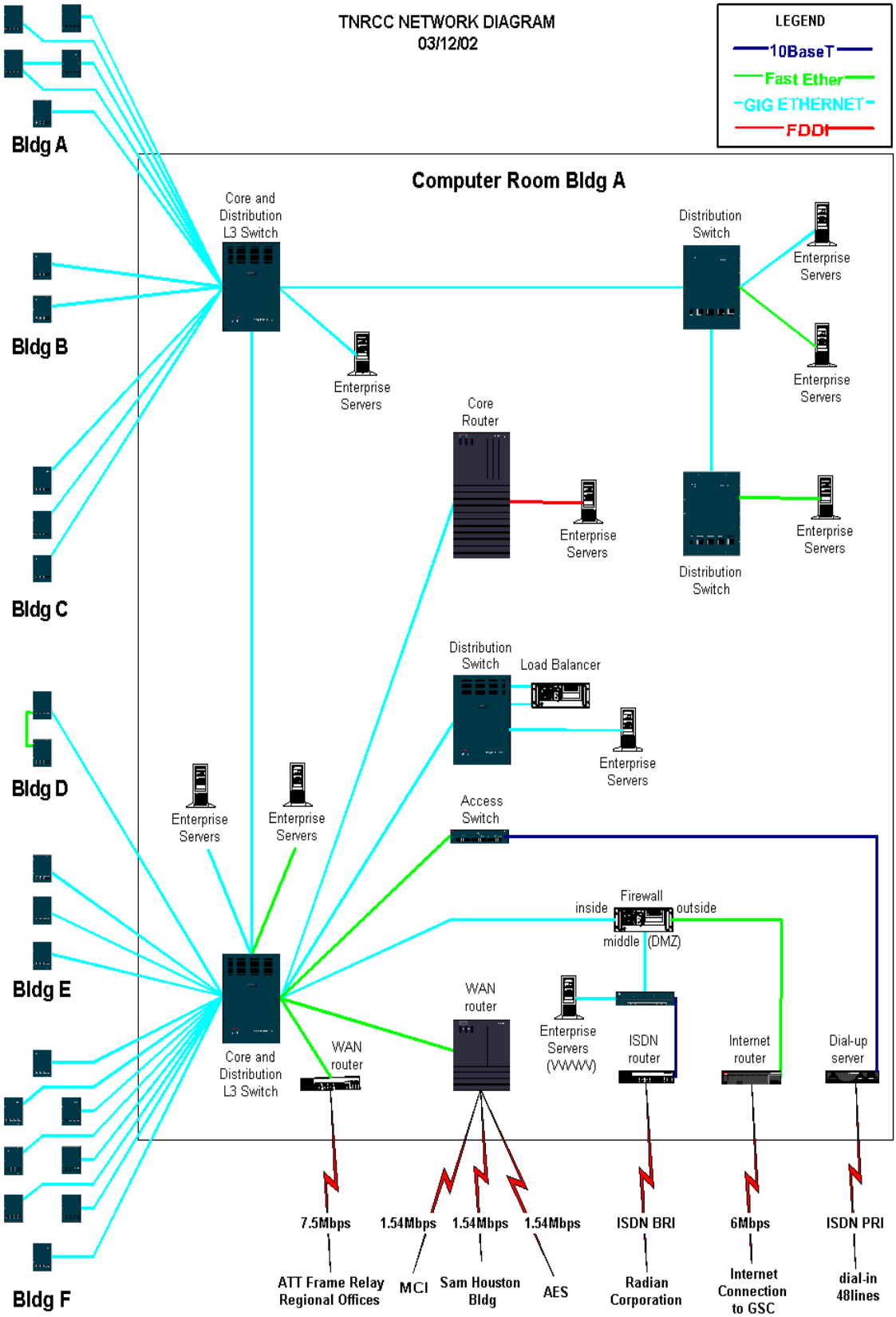
TNRCC considers that the most advantageous service for the agency, and for the state, that the WTDROC could provide would be turnkey application services. The agency participates in the WTDROC user group to assist in defining both infrastructure services and turnkey application services that would be cost-effective for the state, and would provide the agency with services it needs without the necessity of developing or procuring applications essentially similar to those other agencies need.

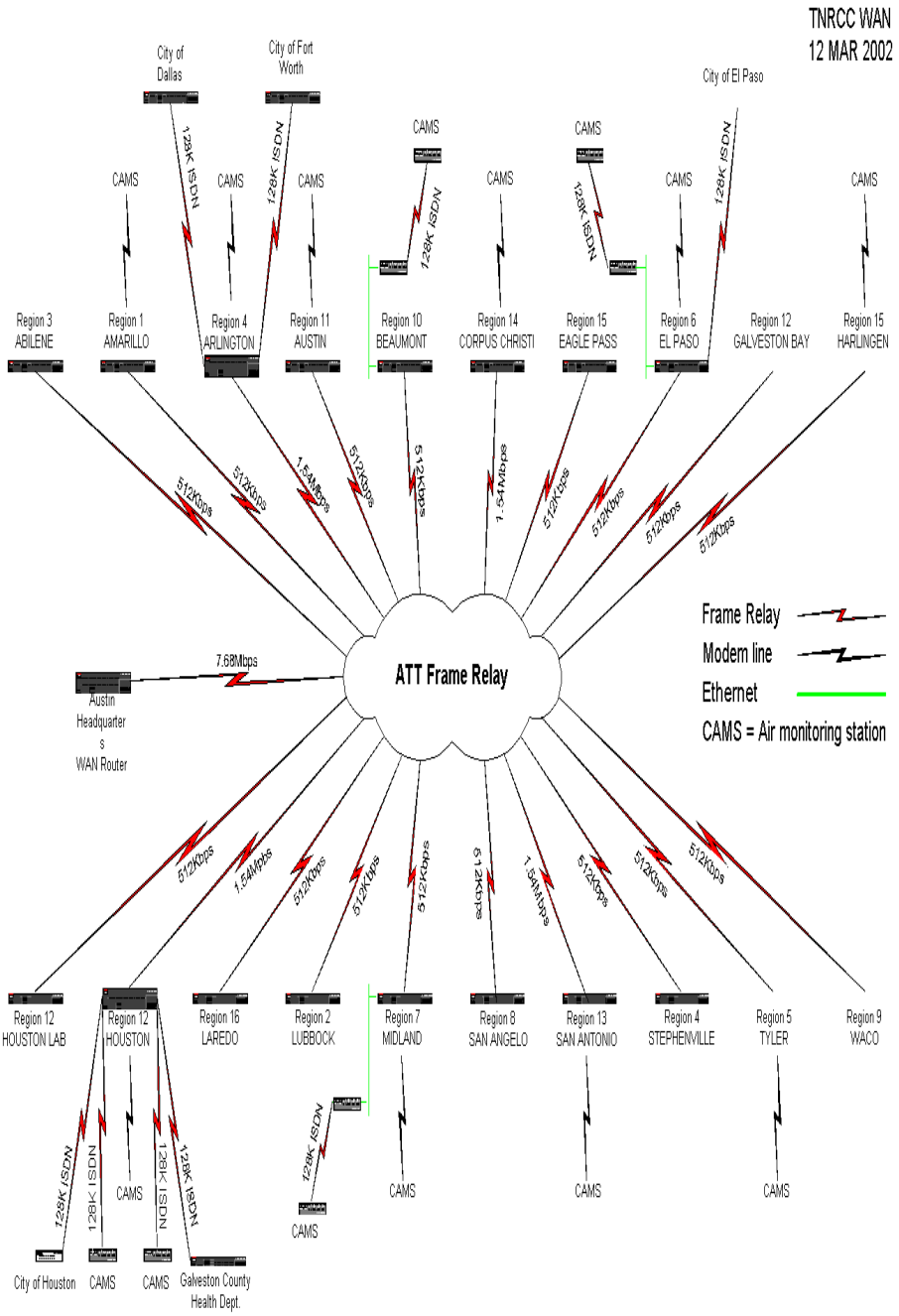
Current Network Configuration

TNRCC's computing environment consists of local area networks (LANs) and client/server-based UNIX systems connected via a wide area network (WAN) through six central campus buildings, sixteen regional offices, and seven satellite offices. The LAN systems are a mixture of Novell, UNIX, and NT file servers connected to approximately 3,485 IBM compatible (Intel-based) desktop computers.

Agency Platforms, Systems and Telecommunications Infrastructure

Category	Type	Operating System	Database Management System	Capacity-Size-Count	Comments/ Descriptive Information
Mainframe	None	None	None	None	N/A
Minicomputer	HP	HPUX	Oracle	N/A	N/A
Network	Router	Cisco IOS	None	28	
Network	Switch	Cisco IOS	None	30 large 75 small	Large supports 200 + users Small supports 24 users
LAN Servers (Central)	Intel Based PC Architecture	Novell 5x	Paradox Access	56	75% of databases are Paradox 25% of databases are Access
	HP	HPUX	Oracle	40	Title V, Magic Total Service Desk, WUD, Central Registry, CCEDS
	IBM	AIX	none	4	TAD
	IBM	AIX	APPX	1	Timex
	Sun	Solaris		2	TSM, MIS PRINT
	SGI	IRIX	none	1	TAD (SIP)
LAN Servers (Remote)	Intel Based PC Architecture	Novell 5x/ WinNT	Paradox	42	Regional Office Core NW/ Remote monitoring stations
	HP	HPUX	Flatfile/Ingres	25	Meteostar (LEADS)/TRACS
	HP	HPUX	Oracle	1	LIMS
	HP	HPUX	Oracle/Ingres	40	TRACS/Prophecy/DBA/ Sysadmin/App admin
LAN Client/Work-stations (Central)	IBM RS 6000	AIX	none	26	TAD
	SGI	IRIX	none	4	TAD
	Intel Based PC Architecture	Windows 95/ NT 4.0/2000	Paradox/Access/ Foxpro	2500	
LANClient/Work-stations (Remote)	Intel Based PC Architecture	Windows 95/ NT 4.0/2000	Paradox	985	
WAN Servers	Mail Servers Novell 5.x	GroupWise	N/A	15	
	Other	Novell, NT,HPUX	N/A	12	WINS,PDC,DHCP,BDC, nismaster, nfs1, nfs2, hptest,
	WEB	HPUX/NT	Oracle/ MySQL	5	WWW,HOME,DSR, SAPPHIRE,E-MAIL3
	DNS	HPUX	None	4	IRGATE,IRGATE2,DSR, Charon
	Listserver, Websense	NT	None	2	
Internet Service Provider (ISP)		Department of Information Resources			
Shared Network		Department of Information Resources			


TNRCC NETWORK DIAGRAM
03/12/02
LEGEND
10BaseT
Fast Ether
GIG ETHERNET
FDDI
Computer Room Bldg A
Bldg A
Bldg B
Bldg C
Bldg D
Bldg E
Bldg F
Core and Distribution L3 Switch
Distribution Switch
Enterprise Servers
Core Router
Distribution Switch
Load Balancer
Access Switch
Firewall
inside
outside
middle (DMZ)
WAN router
Enterprise Servers (WWW)
ISDN router
Internet router
Dial-up server
Core and Distribution L3 Switch
7.5Mbps
1.54Mbps
1.54Mbps
1.54Mbps
ISDN BRI
6Mbps
ISDN PRI
ATT Frame Relay Regional Offices
MCI
Sam Houston Bldg
AES
Radian Corporation
Internet Connection to GSC
dial-in 48lines



Standards

With technology changing so frequently, there is an increased need to conform to industry standards, guidelines, and best practices for software development. The agency continues to use the guidelines in the Architecture Framework for Information Resources Management (AFIRM) published by the Department of Information Resources (DIR) for developing the technical architecture. In addition, the agency has adopted the Project Management Institute (PMI) standards for managing projects. Many of the projects managers have received advanced training and obtained certification in software project management.

The TNRCC continues to use the COOL:Gen integrated computer aided software engineering (I-CASE) tool to support software system development. All of the data models developed with the tool are documented and stored in a single location to ensure standards are followed. This facilitates the reuse of these data models by subsequent projects. Implementing new features and technologies incorporated in the tool such as component based development and middleware for web deployment will continue to require resources and training.