

Water Quality - Challenges and Opportunities: An Overview of the Regulatory Protection Mechanisms in the State of Texas

By Emily Willms Rogers¹

Associate with Bickerstaff, Heath, Smiley, Pollan, Kever & McDaniel

I. Overview

This paper examines the methods for protecting surface and ground water quality in the State of Texas and describes the basic regulatory schemes used to protect the state's water resources.

A. “Water in the State”

In Texas, both ground water and surface water are defined as “waters in the state.”² *See* TEX. WATER CODE ANN. § 26.001(5) (Vernon 2000). To protect these waters, Texas prohibits discharges of industrial, agricultural, recreational, and municipal waste, including sewage, into or adjacent to waters in the state without authorization from the Texas Natural

¹ Emily Willms Rogers is an associate at the Austin law firm of Bickerstaff, Heath, Smiley, Pollan, Kever and McDaniel, L.L.P., where she practices in the areas of water, environmental, and administrative law. Ms. Rogers received her B.A. degree from the University of Texas at Austin, her M.A. degree from Southwest Texas State University, and her J.D. from the University of Houston Law Center. She is a former attorney with the Environmental Law Division of the Texas Natural Resource Conservation Commission. Ms. Rogers would like to thank Joe Will Ross, Summer 2001 Law Clerk with Bickerstaff, Heath, Smiley, Pollan, Kever and McDaniel, L.L.P., for his assistance with this paper.

² “Water” or “water in the state” means groundwater, percolating or otherwise, lakes, bays, ponds, impounding reservoirs, springs, rivers, streams, creeks, estuaries, wetlands, marshes, inlets, canals, the Gulf of Mexico, inside the territorial limits of the state, and all other bodies of surface water, natural or artificial, inland or coastal, fresh or salt, navigable or non-navigable, and including the beds and banks of all watercourses and bodies of surface water, that are wholly or partially inside or bordering the state or inside the jurisdiction of the state. *See* TEX. WATER CODE ANN. § 26.001(5) (Vernon 2000).

Resource Conservation Commission. *See* TEX. WATER CODE ANN. § 26.121(a)(1) (Vernon 2000).

The regulatory methods for protecting state water include issuing permits, enforcing actions against persons who illegally discharge, and implementing special programs, like the Clean Rivers program, to facilitate water quality assessment and protection. *See* TEX. WATER CODE ANN. § 26.0135 (Vernon 2000) (Watershed monitoring and assessment of water quality).

B. Surface Water Quality Protection

The regulatory scheme for protecting surface water quality is a more straight-forward regulatory program than the regulatory scheme of protecting groundwater. The surface water quality program involves issuing permits for discharges to ensure water quality protection and enforcing those permitting requirements.

Because Texas prohibits discharges “into and adjacent to” waters in the state, Texas’ surface water discharge permitting program has two types of permits: the discharge permit, and the “no-discharge” permit. A discharge permit is issued for point source discharges of pollutants directly into a lake, river, or stream. A “no-discharge” permit is issued to facilities disposing of pollutants “adjacent to” waters in the state like through irrigation, evaporation ponds, or some similar means.

Texas also uses general permits to regulate discharges into and adjacent to waters in the state. A general permit controls the discharge of a class or type of activity. *See* 30 TEX. ADMIN. CODE § 205.1 (2001) (TNRCC, General Permits for Waste Discharges). Anyone meeting the requirements of the general permit can operate and discharge under it simply by

submitting to the Commission a notice of intent to operate under the permit and complying with the provisions of the permit. *See* 30 TEX. ADMIN. CODE § 205.4 (2001).

When the United States Environmental Protection Agency (EPA) approved the Texas Natural Resource Conservation Commission's (TNRCC) application to assume administration of the National Pollutant Discharge Elimination System (NPDES) under section 402(b) of the federal Clean Water Act, the Texas discharge permitting program combined both the federal and state permitting programs. *See* 33 U.S.C. § 1342 (1986 & Supp. 2000); State Program Requirements, 63 Fed. Reg. 51,164 (Sept. 24, 1998). However, because the NPDES program does not regulate no-discharge-type facilities, Texas' program is a bifurcated program issuing: (1) Texas Pollutant Discharge Elimination System (TPDES) permits, which include federal Clean Water Act requirements; and (2) no-discharge permits, which authorize discharges adjacent to waters in the state or discharges into waters in the state that are not considered "waters of the United States."³ Examples would include discharges into isolated

³ *See* 33 CFR § 328.3(a) (2001) (Definitions): (a) The term "waters of the United States" means

- (1) All waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;
- (2) All interstate waters including interstate wetlands;
- (3) All other waters such as interstate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could affect interstate or foreign commerce including any such waters:
 - (i) Which are or could be used by interstate or foreign travelers for recreational or other purposes; or
 - (ii) From which fish or shellfish are or could be taken and sold interstate or foreign commerce; or
 - (iii) Which are used or could be used for industrial purpose by industries in interstate commerce;
- (4) All impoundments of waters otherwise defined as waters of the United States under the definition;
- (5) Tributaries of waters identified in paragraphs (a)(1)-(4) of this section;
- (6) The territorial seas;
- (7) Wetlands adjacent to waters (other than waters that are themselves wetlands) identified in

playa lakes that are not considered U.S. waters. *See Solid Waste Agency of N. Cook County v. United States Army Corps of Engineers*, 531 U.S. 159 (2001) (holding that an abandoned sand and gravel pit that provided habitat for migratory birds was not a “waters of the United States” as defined in 33 C.F.R. § 328.3(a)(3)).

However, there are several of types of discharges over which TNRCC does not have jurisdiction, and thus, the EPA has retained NPDES authority. The EPA retains NPDES jurisdiction over discharges associated with exploration, production, or development of oil and gas. In Texas, the Texas Railroad Commission (RRC) is responsible for regulating these sources of pollutants and to date the RRC has not sought NPDES authorization. *See TEX. WATER CODE ANN. §§ 26.011, 26.131* (Vernon 2000). The EPA also retains authority over some concentrated animal feeding operations (CAFO) that discharge into certain playas. *See TEX. WATER CODE ANN. § 26.048(b)* (Vernon 2000) (prohibiting regulation of CAFOs discharging into playa lakes before 1993); State Program Requirements, 63 Fed. Reg. at 51164-65. If the playa lake is a water of the United States and the TNRCC is prohibited by law from regulating it under section 26.048 of the Texas Water Code, then the CAFO remains under the EPA’s NPDES permitting authority. *See State Program Requirements*, 63 Fed. Reg. at 51165.

paragraphs (a)(1)-(6) of this section.

(8) Waters of the United States *do not* include prior converted cropland. Notwithstanding the determination of an area’s status as prior converted cropland by any other federal agency, for the purposes of the Clean Water Act, the final authority regarding Clean Water Act jurisdiction remains with the EPA. [Emphasis added].

Waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of CWA (other than cooling ponds as defined in 40 CFR 123.11(m) which also meet the criteria of this definition) *are not* waters of the United States. [Emphasis added].

C. Groundwater Quality Protection

Unlike the surface water quality program, there is no single permitting program to protect groundwater quality. Rather, groundwater is protected through several regulatory programs designed to ensure pollutants do not contaminate groundwater, like the petroleum storage tank program, the industrial and hazardous waste permitting program, and the municipal solid waste permitting program. *See* discussion *infra* Part III. Also, groundwater districts have authority to protect groundwater quality. *See* TEX. WATER CODE ANN. § 36.102 (Vernon 2000). Additionally, like surface water, groundwater is protected through enforcement. *See* TEX. WATER CODE ANN. § 26.121(a) (Vernon 2000).

II. Surface Water Quality Protection

As previously described, Texas protects surface water quality primarily through a permitting and enforcement regulatory scheme.

A. Permitting

1. Texas Pollutant Discharge Elimination System Program

On September 14, 1998, the TNRCC assumed responsibility from the EPA for the TPDES program. *See* State Program Requirements, 63 Fed. Reg. at 51,164. This assumption was the culmination of nearly twenty years of work on the part of Texas, which included numerous agency rulemakings and Texas legislative action.⁴ Permits issued under this program regulate “point source” discharges of pollutants into waters of the United States. *See* 33 U.S.C. §§ 1311(a), 1362(12), 1362(14) (1986 & Supp. 2000).

⁴ Many of the statutes in the Texas Water Code have two versions: (1) sections effective until delegation of NPDES permit authority; and (2) sections effective upon delegation of NPDES permit authority. The sections “effective upon delegation” represent the legislative changes in Texas’ state permitting program to effectuate authorization of the NPDES program.

a. *Water Quality Standards*

The issuance of a TPDES permit begins with Texas' water quality standards. No permit may be issued that does not protect instream uses as defined by the water quality standards. *See* 40 C.F.R. § 122.4(i) (2000). The water quality standards establish water quality goals for a particular water body by designating the use or uses of that water body, like aquatic life use, contact recreational use, and public water supply use. *See* 40 C.F.R. § 130.3 (2000). The standards then establish criteria, both numerical and narrative, necessary to protect those uses. *See id.* A proposed discharge will be evaluated against the water quality standards to set the effluent limitations in the permit to ensure that the designated uses are met. Effluent limitations are expressed as a loading of a pollutant or as a concentration of a pollutant. *See* TNRCC Document, *Water Quality Management Program Continuing Planning Process*, Series 6, pg. 38 (Aug. 1999) [hereinafter *Continuing Planning Process*]. When technology-based effluent limitations are not sufficient to adequately protect water quality as designated by the surface water quality standards, then water-quality-based effluent limitations, as derived using the TNRCC's Implementation Procedures, are placed in the permit. *See* TNRCC Document, *Procedures to Implement the Texas Surface Water Quality Standards*, RG-194 (Nov. 2000).

An integral part of the state's water quality standards is its antidegradation policy. *See* 33 U.S.C. § 1313(d)(4)(B) (2000); 40 C.F.R. § 131.12 (2000). Essentially, the antidegradation policy prohibits the issuance of an amendment of a permit that would reduce the water quality necessary to protect the attained use.

The antidegradation policy is divided into three levels of protection. Tier 1 is an absolute floor providing protection for the “existing uses” of a water body. *See* 40 C.F.R. § 131.12(a)(1) (2000). An existing use is usually established by demonstrating that fishing, swimming, or other uses have actually occurred since November 28, 1975. Tier 2 applies to waters whose quality exceeds that which is necessary to protect the existing uses. In such instances, water quality may not be lowered below that which is necessary to protect the “fishable/swimmable” use unless the applicable public participation, intergovernmental review, and baseline control requirements have been met.⁵ *See* 40 C.F.R. § 131.2(a)(2) (2000). Finally, Tier 3 applies to waters designated as Outstanding National Water Resources and affords the highest level of protection under the antidegradation policy. *See* 40 C.F.R. § 131.12(a)(3) (2000).

b. *Clean Water Act Section 303(d) List, Total Maximum Daily Loads and the Water Quality Management Plan*

A water body not meeting water quality standards necessary to protect its designated uses will be listed on the state’s Clean Water Act section 303(d) list. *See* 33 U.S.C. § 1313(d) (2000). This list is essentially an inventory and priority ranking of water quality limited segments. A water quality limited segment is “any segment where it is known that water quality does not meet applicable water quality standards, and/or is not expected to meet applicable water quality standards, even after the application of technology-based effluent limitations” *See* 40 C.F.R. § 130.2(j) (2000).

⁵Additionally, antibacksliding will prohibit a permittee from lowering the effluent limitations contained in its permit. *See* 33 U.S.C. § 1342 (2000). However, this prohibition is not absolute. The TNRC may lower effluent limitations, if certain criteria are met. *See id.*

Total maximum daily loads (TMDL) are or will be prepared for each of these listed segments. A TMDL sets a loading allocation for the particular pollutant of concern that will ensure attainment of the designated use of the water body. For example, if the designated use of a particular stream segment is aquatic life use and the pollutant of concern is dissolved oxygen, a total loading of dissolved oxygen will be set for the stream to ensure that aquatic life is protected. The TMDL will allocate the pollutant loads between the different contributing sources, like point sources, *e.g.*, the wastewater discharge permittees, the non-point sources, and natural or background sources. If possible, a TMDL for a section 303(d) listed segment will normally incorporate a loading allocation for existing dischargers and will specify loading allocations for future growth. *See Continuing Planning Process* at pg. 41. Each TMDL, when adopted, is incorporated into the Texas Water Quality Management Plan, which is updated quarterly by the TNRCC. *See* 40 C.F.R. § 130.6 (2000).

The Water Quality Management Plan (WQMP) is a planning document designed to provide long-range planning and technical data for water quality management activities in Texas. The document, or group of documents as is the case in Texas, includes: TMDLs, effluent limitations and compliance schedules, identification of municipal and industrial waste treatment works, nonpoint source management and control information, and information regarding the dredge and fill program, among others. *See* 40 C.F.R. § 130.6(c) (2000). Any TPDES permit issued by the TNRCC must be consistent with the WQMP, and existing facilities may have compliance schedules included in their permits to ensure WQMP consistency. *See* 40 C.F.R. §§ 122.4(g), 130.6(f) (2000).

When a TMDL is not yet completed for a section 303(d) listed segment, the TNRCC may not issue a permit for a new discharger unless the TNRCC can ensure the TPDES permit will be consistent with 40 C.F.R. § 122.4(i). The TNRCC has identified instances when acceptable loading increases may be approved before a TMDL is completed: (1) an effluent limitation that meets the water quality standard for the pollutant of concern prior to any dilution in the water body; (2) a loading increase for a pollutant which can be demonstrated not to exceed the water quality standard in the area of the water body affected by the discharge; (3) where a water body is not meeting a water quality standard, a loading increase that will not further raise the in-stream pollutant concentration in the water column or will not result in greater bioaccumulation when such a condition is the focus of TMDL; or (4) some reduction in the permitted loading of the pollutant that would later be revised based upon a TMDL. *See Continuing Planning Process* at pg. 41-42.

2. “No-Discharge” Permits

Under section 26.121(a) of the Texas Water Code, any discharge adjacent to a water in the state also requires a permit from the TNRCC. These “no-discharge” permits are typically issued to facilities that propose to dispose of wastewater by irrigation or by evaporation. Because these facilities are not discharging into a surface water body, the discharge effluent is not required to meet water quality standards or be consistent with the state’s WQMP. However, depending on the type and location of the facility, many of these facilities are required to treat the wastewater before disposal. *See* TEX. ADMIN. CODE § 309.1 (2001) (TNRCC, Domestic Wastewater Effluent Limitation and Plant Siting). Also, these

permits often contain management practices designed to ensure the effluent will not be discharged into the groundwater or a nearby creek, lake or stream.

For “no-discharge” permits, groundwater evaluations are typically prepared by the Groundwater Protection Team. To evaluate the possible affect the proposed facility might have on groundwater, the Groundwater Team usually reviews any report prepared by the applicant, water well records maintained by the Texas Water Development Board, and other data concerning the soils and groundwater in the area. These evaluations usually do not involve a TNRCC site inspection.

3. General Permits

Texas also has authority to issue general permits that authorize a discharge according to discharge categories. In contrast to an individual permit, many separate facilities can seek to be authorized under a general permit. The permitting process for a general permit applicant is far less rigorous than for an applicant applying for individual permits. To be authorized to discharge under a general permit, the facility usually needs to submit to the TNRCC a notice of intent (NOI) to operate under the permit, and then is required to follow the guidelines and restrictions described in the general permit. *See* 30 TEX. ADMIN. CODE § 205.3 (2001) (TNRCC, General Permits for Waste Discharges).

To issue a general permit for the entire state, the category of dischargers must discharge stormwater or must be (1) engaged in the same or substantially similar types of operations; (2) discharging the same types of waste; (3) subject to the same requirements regarding effluent limitations or operating conditions; (4) subject to the same monitoring requirements; and (5) in the commission’s opinion, more appropriately regulated under a

general permit than under individual permits. *See* TEX. WATER. CODE ANN. §§ 26.040(a)(1)-(5) (Vernon 2000); 30 TEX. ADMIN. CODE § 205.2 (2001). A discharge may be more appropriately regulated through a general permit if it can be readily enforced and monitored, and will not cause significant adverse effects on water quality. *See* TEX. WATER CODE ANN. § 26.040(a)(5) (Vernon 2000).

When the TNRCC received TPDES authorization, it assumed ministerial and enforcement authority over several EPA general permits, the most notable of which included the EPA's expired concentrated animal feeding operation (CAFO) permit, the stormwater construction general permit, and the multisector industrial general permit. *See* State Program Requirements, 63 Fed. Reg. at 51165. The TNRCC has replaced the EPA's CAFO permit with its own general permit. *See* 30 TEX. ADMIN. CODE §§ 321.31-321.47 (2001) (TNRCC, Control of Certain Activities by Rule). On May 23, 2001, the TNRCC also adopted a new multi-sector industrial stormwater general permit.

4. Other Types of Permits

a. *404 Permits.*

One of the more controversial permits used to protect water quality is the section 404 of the federal Clean Water Act permit. *See* 33 U.S.C. § 1344 (2000). These permits are typically associated with dredging and filling wetlands.⁶ It is administered by the Army Corps

⁶ The controversy with these permits stem from questions concerning the United States' authority to regulate certain isolated water bodies, like wetlands, where there is a questionable "commerce clause" connection. *See Solid Waste Agency of N. Cook County*, 531 U.S. at 159 (stating that an abandoned sand and gravel pit that occasionally held water was not a wetland, and thus did not require a § 404 permit prior to placing fill material); *United States v. Riverside Bayview Homes, Inc.*, 474 U.S. 121 (1985) (holding that filling dredged material into wetlands adjacent to a "waters of the United States" required the issuance of a permit from the Army Corps of Engineers prior to placing the fill material).

of Engineers, unless a state has assumed responsibility for its administration. To date, Texas has not assumed authorization over this portion of the Clean Water Act.

Section 404 of the Clean Water Act requires persons to obtain permits for discharges of dredge and fill material into navigable waters, including discharges into wetlands. *See Solid Waste Agency of N. Cook County*, 531 U.S. at 159; 33 C.F.R. § 323.3 (2001).

The permitting process for section 404 permits is two-fold: authorization from the Corps and certification from the State of Texas. Before any permit is issued authorizing a discharge under the Clean Water Act, the permittee is required to obtain a certification from the state that the discharge meets water quality standards. *See Clean Water Act of 1972 § 401*, 33 U.S.C. § 1341(a)(1) (2000). To facilitate this certification process, the TNRCC has adopted rules and entered a Memorandum of Agreement (MOA) with the U.S. Army Corps of Engineers. *See 30 TEX. ADMIN. CODE § 279* (2001) (TNRCC, Water Quality Certification); Memorandum of Agreement Between the U.S. Army Corps of Engineers and the TNRCC on Section 401 Certification Procedures, (Aug. 17, 2000), *available at* <http://www.swg.usace.army.mil/reg/data/memo.htm>. The rules and the MOA are intended to streamline the process and eliminate duplicative reviews by the two governmental entities.

The specific permitting requirements and an examination of what is considered to be “navigable waters” are topics which require far more attention than that which is provided here. Below is a short list of cases and rules that could help a person better understand the section 404 permitting process:

1. *Solid Waste Agency of N. Cook County v. United States Army Corps of Engineers*, 531 U.S. 159 (2001);
2. *United States v. Riverside Bayview Homes, Inc.*, 474 U.S. 121 (1985);
3. 33 C.F.R. Part 323 (2001) (Permits for Discharges of Dredged or Fill Material into Waters of the United States);
4. 30 TEX. ADMIN. CODE Chapter 279 (2001) (TNRCC, Water Quality Certification).

B. Enforcement

Water quality is also protected through enforcement of TNRCC permitting requirements. The TNRCC and EPA are the primary enforcement entities in the State of Texas. However, local governments, under section 7.351 of the Texas Water Code, have authority to enforce and protect water quality within their respective jurisdictions as well. *See* TEX. WATER CODE ANN. § 7.351 (Vernon 2000).

Section 26.121 of the Texas Water Code prohibits any discharges into waters of the state without authorization by the TNRCC. *See* TEX. WATER CODE ANN. § 26.121 (Vernon 2000). This statutory provision is used to enforce against a person who is authorized to discharge, but who violates the permit's effluent limits, or a person who discharges without a permit.

The Commission has authority to assess administrative, civil, and criminal penalties against violators of the Texas Water Code.⁷

⁷ It should be noted that there are defenses to violations of the Texas Water Code like the act of God defense. *See* TEX. WATER CODE ANN. §§ 7.251-7.252 (Vernon 2000). Additionally, in certain instances bypasses of facilities are allowed. For example, the TNRCC may not enforce against a permittee if the bypass of untreated or partially treated wastewater was unavoidable to prevent loss of life, personal injury, or severe property damage, there was no feasible alternative to the bypass, and the permittee properly notified the TNRCC in accordance with the rules. *See* 30 TEX. ADMIN. CODE § 305.535 (2001) (TNRCC, Consolidated Permits).

1. Administrative Penalties

The Commission may assess administrative penalties if a person violates the Water Code, a rule or order issued under the Commission's Water Code authority, or a permit issued by the Commission.

Administrative penalties usually begin with a violation discovered during an annual or surprise inspection by the TNRCC or revealed through effluent discharge reports submitted to the TNRCC by the permittee. A notice of the violation is then sent to the person with recommended penalties. *See* TEX. WATER CODE ANN. §§ 7.054-7.055 (Vernon 2000). The penalty is determined by using the factors described in section 7.053 of the Texas Water Code.⁸ The person can either accept the penalty or request a hearing. If the person agrees to the penalty, the TNRCC will enter an agreed order. If the person fails to respond, the TNRCC will enter a default order. *See* TEX. WATER CODE ANN. § 7.057 (Vernon 2000).

If a hearing is requested, the Commission will order a hearing and refer the matter to the State Office of Administrative Hearings. *See* TEX. WATER CODE ANN. § 7.058 (Vernon 2000); 30 TEX. ADMIN. CODE § 80.6 (2001) (TNRCC, Contested Case Hearings). Challenging the Commission's assessed penalty through an administrative hearing is a viable

⁸ Those factors include the following: (1) the nature, circumstance, extent, duration, and gravity of the prohibited act, which special emphasis on the impairment of existing water rights or the hazard or potential hazard created to the health and safety of the public; (2) the impact of the violation on an affected permit, a receiving stream or underground water reservoir, instream uses, water quality, aquatic and wildlife habitat, and beneficial freshwater inflows to bays and estuaries; (3) the history and extent of previous violations of the alleged violator; (4) the degree of culpability of the alleged violator; (5) the violator's demonstrated good faith; (6) economic benefit gained from the violation; (7) the amount necessary to deter future violations; and (8) any other matters that justice may require. TEX. WATER CODE ANN. § 7.053 (Vernon 2000).

option only if the penalty is substantial. If the penalty is only a few thousand dollars, the cost of the hearing is likely to exceed the penalty itself.

The Commission may also compromise, modify, or remit an administrative penalty, including allowing the person to contribute to supplemental environmental projects (SEP), as approved by the Commission. See TEX. WATER CODE ANN. § 7.067 (Vernon 2000). A SEP is a project that “prevents pollution, reduces the amount of pollutants reaching the environment, enhances the quality of the environment, or contributes to public awareness of environmental matter.” See TEX. WATER CODE ANN. § 7.067(b) (Vernon 2000). However, an SEP cannot be used to bring the person into compliance with environmental law or to remediate environmental harm caused by the alleged violations. See TEX. WATER CODE ANN. § 7.067(a) (Vernon 2000).

2. Civil and Criminal Penalties

If assessing administrative penalties is not a viable or practical option, civil and criminal penalties are also available.

If civil penalties are a more appropriate means to enforce against a person, the TNRCC will request the Attorney General to institute a suit in the name of the State for injunctive relief. See TEX. WATER CODE ANN. § 7.105 (Vernon 2000). Criminal penalties might be sought if the violations were intentional or reckless. See TEX. WATER CODE ANN. § 7.141 (Vernon 2000). These environmental offenses are punishable by a fine or confinement. See TEX. WATER CODE ANN. § 7.187 (Vernon 2000).

3. Local Government Enforcement of the Water Code

Local governments⁹ also have authority to enforce the Water Code through civil suits. *See* TEX. WATER CODE ANN. § 7.351 (Vernon 2000). To enforce Chapter 26 of the Texas Water Code, the local government must first pass a resolution authorizing the exercise of the power. *See* TEX. WATER CODE ANN. § 7.352 (Vernon 2000). After this action is taken, the local government, by its own attorney, may institute a civil suit for injunctive relief or civil penalties in the same manner as the TNRCC. For all of these actions, the TNRCC is a necessary party. *See* TEX. WATER CODE ANN. § 7.353 (Vernon 2000). This local government authority to enforce against violators who violate or threaten to violate Chapter 26 of the Texas Water Code, a rule, order, or a permit of the Commission provides another level of protection of water quality in addition to TNRCC enforcement.

4. Audit Privilege Act

As outlined above, Texas primarily uses the traditional permitting and enforcement methods to protect water quality. However, the Texas Legislature has also implemented non-traditional means to regulate and protect the environment. One of those methods is the Texas Environmental, Health and Safety Audit Privilege Act. *See* TEX. REV. CIV. STAT. ANN. art. 4447cc (Vernon Supp. 2001). The Audit Act provides incentives for regulated entities to conduct voluntary audits of their compliance with environmental, health, and safety regulations and to implement corrective action. There are two primary incentives: (1) limited evidentiary privilege over certain information gathered in a voluntary self-audit; and

⁹ “Local government” means “an incorporated city, a county, a river authority, or a water district or authority acting under Article III, Section 52, or Article XVI, Section 59 of the Texas Constitution.” TEX. WATER CODE ANN. § 26.001(18) (Vernon 2000).

(2) immunity from administrative and civil penalties for certain disclosed violation found during an audit. *See* TEX. REV. CIV. STAT. ANN. art. 4447cc, §§ 5(b), 10 (Vernon Supp. 2001).

III. Groundwater Quality Protection

Unlike surface water quality protection, groundwater quality is protected through a myriad of programs. Many of the programs are under the jurisdiction of the TNRCC. However, groundwater districts, counties, and municipalities have some authority over groundwater quality protection as well.

A. TNRCC Programs

In the TNRCC regulatory scheme, groundwater protection does not have its own regulatory program, like surface water discharges, and municipal and industrial solid waste disposal. Rather, groundwater is protected through the implementation of these programs. For example, as previously mentioned, when issuing a “no-discharge” permit, the TNRCC will conduct a groundwater impact evaluation. This evaluation will recommend controls or limitations designed to protect water quality of the groundwater. *See, e.g.*, 30 TEX. ADMIN. CODE §§ 309.12, 309.20 (2001) (TNRCC, Domestic Wastewater Effluent Limitation and Plant Siting). Also, the design of any holding pond must be such that the effluent will be contained and will not seep into the groundwater. *See* 30 TEX. ADMIN. CODE § 317.4(j) (2001) (TNRCC, Design Criteria for Sewage Systems) (describing design of liners for holding ponds). The TNRCC has also conducted groundwater impact evaluations for surface water discharges if there is a possibility that the creek or river directly recharges the groundwater. *See, e.g.*, Texas Natural Resource Conservation Commission Groundwater Impact

Evaluation, AquaSource Development Company's Application for Proposed Flying "M" Ranch Wastewater Treatment Facility, proposed TPDES Permit No. 14164-001. However, such evaluations for surface water discharges are rare.

In the area of municipal and industrial waste disposal, groundwater protection is also considered during the permitting process. The facilities' liner must be sufficient to protect against seepage to the groundwater. *See, e.g.*, 30 TEX. ADMIN. CODE §§ 330.200, 330.202-.203, 330.205 (2001) (TNRCC, Municipal Solid Waste), 335.168 (2001) (TNRCC, Industrial Solid Waste and Municipal Hazardous Waste) (describing liner requirements).

Also, the applicant must ensure the disposal area is stable and without recent faults to protect against groundwater contamination. *See, e.g.*, TEX. ADMIN. CODE §§ 330.303-.305, & 335.203-.204 (2001). The applicant might also be required to install groundwater monitoring wells to detect any migration of pollutants from the facility to the groundwater. *See, e.g.*, 30 TEX. ADMIN. CODE §§ 330.200-.242, 335.163-.165 (2001).

The TNRCC's underground and above-ground storage tank program provides protection for groundwater quality as well. *See* TEX. WATER CODE ANN. § 26.341 (Vernon 2000). The Legislature, upon creating the TNRCC's above-ground or underground storage tank program (also known as the petroleum storage tank (PST) program) found that leaking underground tanks storing hazardous or toxic substances caused and continue to cause "serious groundwater contamination problems" in Texas. *See id.*

In order to remediate existing contamination and prevent future contamination, the PST program requires registration of underground and above-ground storage tanks and establishes release or leak detection standards, and reporting requirements. *See* TEX. WATER

CODE ANN. §§ 26.346, 26.3475 - 26.3512 (Vernon 2000). Additionally, the program regulates and oversees groundwater and soil contamination remediation and pursues cost-recovery from those liable for the contamination. *See id.* Each owner and operator of an underground or above-ground storage tank is responsible for taking all corrective action in accordance with the TNRCC's rules to address a release or threatened release including remediating groundwater if necessary. *See* TEX. WATER CODE ANN. § 26.3513(b) (Vernon 2000).

The PST program excludes from its regulation on-site septic systems. Nevertheless, on-site sewage facilities are regulated by the TNRCC under Texas Health and Safety Code Chapters 341 and 366, and Texas Water Code Chapter 26. The TNRCC's rules implementing its statutory are found in chapter 285 of Title 30 of the Texas Administrative Code. The TNRCC has established installation standards for these on-site systems, and requires all on-site systems to be installed by a TNRCC licensed installer. *See* TEX. HEALTH & SAFETY CODE ANN. § 366.071 (Vernon 2000). Before constructing and installing a septic system, the person must obtain a permit from the TNRCC or the authorized agents with some exceptions.¹⁰ *See* TEX. HEALTH & SAFETY CODE ANN. §§ 366.031, .051, .052, .053, .054 (Vernon 2000). The TNRCC and the authorized agent also have authority to enforce against installers and permit holders of on-site systems. Violations include failing to install the system in accordance with TNRCC standards, failing to obtain a permit to construct, install, or operate an on-site system, causing nuisances, and allowing wastes to discharge into water in the state. *See* TEX. HEALTH & SAFETY CODE ANN. §§ 341.011, 341.012, 366.004 (Vernon

¹⁰ Authorized agents are usually counties. However, any local government may become an authorized agent of the requirements of Texas Health and Safety Code § 366.031 are met.

2000); TEX. WATER CODE ANN. § 26.121 (Vernon 2000). Enforcement could include both civil and administrative penalties. *See* TEX. HEALTH & SAFETY CODE §§ 366.092 - .0921, 361.0924 (Vernon 2000); TEX. WATER CODE ANN. §§ 7.051-.052, 7.101-.102 (Vernon 2000).

The TNRCC has also adopted special rules to protect the water quality of the Edwards Aquifer and the surface streams it feeds. *See* 30 TEX. ADMIN. CODE §§ 213.1-213.28 (2001) (TNRCC, Edwards Aquifer). The rules apply to the Edwards Aquifer in Kinney, Uvalde, Medina, Bexar, Comal, Hays, Travis, and Williamson Counties. *See* 30 TEX. ADMIN. CODE §§ 213.2, 213.3(8) (2001). The rules regulate certain activities, including construction activities, sewage disposal, and underground and above-ground storage tanks over the contributing, transition, and recharge zones of the Aquifer. *See* 30 TEX. ADMIN. CODE §§ 213.1, 213.2, 213.3(26), 213.20 (2001). Certain activities are prohibited all together. Those activities include waste disposal wells, CAFOs, land disposal of toxic and hazardous waste, sewage holding tanks, and new Type 1 municipal solid waste landfills. *See* 30 TEX. ADMIN. CODE § 213.8 (2001). Other activities are permitted, but must be accompanied by one or more plans that ensure existing water quality of the Aquifer is not degraded, and that protect the water for public use and for the propagation and protection of aquatic life. *See* 30 TEX. ADMIN. CODE § 213.1(1) (2001). Under these rules, the TNRCC requires that any person proposing to construct, install, or otherwise engage in one of the activities regulated¹¹ by the Edwards Aquifer rules, the person must file an application and

¹¹ *See* 30 TEX. ADMIN. CODE § 213.3(26) (2001) for the definition of “regulated activity.”

obtain approval from the TNRCC or authorized agent.¹² The plan generally contains temporary and permanent best management practices (BMPs) to ensure the activity does not impair recharge features or impair the quality of the water entering the aquifer. The contents of these plans will vary depending on the location (contributing, transition, or recharge zones), and the type (subdivision development, sanitary sewage system, PST) of activity. *See* 30 TEX. ADMIN. CODE §§ 213.5, 213.24 (2001). To ensure that the permanent BMPs remain in place, the plan submitted with the application must also be deed recorded after approval by the TNRCC or authorized agency. *See* 30 TEX. ADMIN. CODE § 213.4(g) (2001).

All of these permitting programs, along with enforcement of those programs, are the means by which the TNRCC protects groundwater quality.

B. Other Groundwater Quality Programs

In addition to TNRCC programs and enforcement authority, groundwater quality may also be protected by groundwater districts. For example, the Edwards Aquifer Authority (EAA) is authorized to close wasteful wells.¹³ A wasteful well would include wells that serve as a conduit for pollution, salt water, or other “deleterious matter admitted from another stratum or from the surface of the ground.” *See* Edwards Aquifer Act § 1.03(21)(D). The EAA may also seek administrative, civil, or injunctive relief against a person polluting or contributing to pollution of the aquifer. *See* Edwards Aquifer Act §§ 1.35(d), 1.37, 1.39,

¹² Local governments may assume authority over this program. *See* 30 TEX. ADMIN. CODE § 213.4(5) (2001).

¹³ *See* Edwards Aquifer Act, 73d Leg., R.S., ch. 626, § 1.11(d)(8), 1993 Tex. Gen. Laws 2350, *see* Section 1.11(d)(8) of the Edwards Aquifer Act, Act of May 30, 1993, 73d Leg., R.S., ch. 626, 1993 Tex. Gen. Laws 2350, *amended by* Act of May 29, 1995, 74th Leg., R.S., ch. 261, 1995 Tex. Gen. Laws 2505, *and* Act of May 16, 1995, 74th Leg., R.S., ch. 524, 1995 Tex. Gen. Laws 3280, *and* Act of May 6, 1999, 76th Leg., R.S., ch. 163, 1999 Tex. Gen. Laws 634 [hereinafter “Edwards Aquifer Act”].

1.40. In addition to protecting water quality of the groundwater through these traditional enforcement methods, the EAA also has authority to protect water quality of the Aquifer by regulating the withdrawals from the Aquifer. *See* Edwards Aquifer Act § 1.14(a).

Specifically the Edwards Aquifer Act provides:

Authorizations to withdraw water from the aquifer and all authorizations and rights to make a withdrawal under the Act shall be limited in accordance with this section to: (1) protect the water quality to the aquifer,

Edwards Aquifer Act § 1.14(1).

Other groundwater districts created either by the legislature or the TNRCC have similar authority to protect groundwater quality. Section 36.101 of the Texas Water Code provides districts with authority to “make and enforce rules to provide for conserving, preserving, protecting, and recharging of the groundwater . . . in order to control subsidence or prevent waste” TEX. WATER CODE ANN. § 36.101(a) (Vernon 2000). Waste includes pollution. *See* TEX. WATER CODE ANN. § 36.001(8)(D) (Vernon 2000).

The Legislature further clarified groundwater districts’ authority during this last legislative session by adding the authority to prevent degradation of water quality. *See* Act of May 31, 2001, 77th Leg., R.S., S.B. 2, § 2.44 (to be codified at TEX. WATER CODE ANN. § 36.101(a)) [hereinafter “Senate Bill 2”].¹⁴ Under Senate Bill 2, the districts also have the authority to prevent degradation of water quality by regulating the spacing and pumping capacity of each well. *See* Senate Bill 2, § 2.50 (to be codified at TEX. WATER CODE ANN. § 36.116). The districts have authority to enforce their rules by injunction or mandatory

¹⁴ As of the date of this paper, Senate Bill 2 has not been signed by the Governor.

injunction, or with civil penalties. *See* TEX. WATER CODE ANN. § 36.102, as amended by Senate Bill 2, § 2.45 (to be codified at TEX. WATER CODE ANN. § 36.102). However, there is some question whether a district would be able to revoke a person's permit for such violations. *See South Plains Lamesa R.R. Ltd. v. High Plains Underground Water Conservation Dist.*, 2001 WL 387386, at *7 (Tex.App.-- Amarillo, April 17, 2001).

In addition to this authority to adopt rules to protect water quality, districts are required to develop a comprehensive management plan which addresses, among other things, controlling and preventing groundwater waste, including pollution. *See* TEX. WATER CODE ANN. § 36.1071(a)(2) (Vernon 2000). For any permit issued for drilling, equipping, or completing wells, the district is to consider whether the proposed use of the water is consistent with the district's comprehensive management plan. *See* TEX. WATER CODE ANN. § 36.113(d)(4) (Vernon 2000). Additionally, applicants are required to agree to avoid waste and to use "reasonable diligence" to protect groundwater quality. *See* TEX. WATER CODE ANN. § 36.113(d)(5)(6) (Vernon 2000).

IV. Conclusion

As seen from the overview of programs regulating surface and groundwater quality, there are many ways the State of Texas and the United States have tried to protect water quality. Knowing these different programs is important not only to permittees, but to local governments, citizen groups, and the attorneys representing these entities.