Texas Environmental Taxation Project

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Improving Environmental Responsibility in Texas: Opportunities for Tax and Fee Reform

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Prepared by:

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CHAPTER 1:
ENVIRONMENTAL TAX REFORM:
NEW TAX AND ENVIRONMENTAL POLICY OPTIONS FOR TEXAS

"Merely reading the words "tax" and "policy" in the same sentence can cause a person's eyes to glaze."[1]

Maybe the only thing more obscure to most Americans than environmental policy is tax policy. Both arenas are characterized by excruciating detail and endless debate about the effects of various tweaks in the system. But, in both arenas, the results of policy decisions have a direct day-to-day impact on our lives. We either breathe clean air or we're subject to endless "ozone action days"; we either have a little money left to spend or invest after the tax man takes his share, or we're barely able to make ends meets.

This report discusses opportunities to reform the tax system in Texas in ways that would both help protect the environment and public health and—potentially—begin to address some of the fundamental problems with the Texas tax system. This type of reform has begun to be labeled "environmental tax shifting." At the core, an environmental tax shift is a reform of a current tax or fee policy in a way that imposes higher costs on environmentally detrimental products or activities, but lowers tax on income, families and work. It is a way of using tax policy to generate revenue for necessary government services in a manner that—at the same time—provides economic signals that will help to reduce pollution or discourage unsustainable exploitation of natural resources.

Environmental tax shifting is essentially just a variation of a very well-established practice: using the tax code (and related fees) to provide economic incentives or disincentives for certain behaviors or activities. Of course, some of these tax policies are designed with broad public policy goals in mind, while others are basically designed to provide special tax treatment for special interests groups with good lobbyists.

The Texas tax code sends signals to virtually all of its residents old enough to care about money. Which resources and activities we tax and which resources we choose to exempt from taxes reflect not only the need to raise revenue but also what values society places on these resources. For instance, the state taxes cigarettes at 41 cents per pack to raise revenue and discourage smoking as an activity. Unfortunately, in many other areas, including protection of the environment, the Texas tax code sends the wrong signals.

In the example above, the taxes on cigarettes raise the price per pack making them more expensive vis-à-vis other consumer goods. The tax may affect behavior because it presents consumers with a choice: consume the same number of cigarettes and pay higher prices, or smoke fewer cigarettes to avoid paying the tax. In this case, the government is promoting the goals of reducing tobacco consumption, improving public health and

[1] Alan Durning, *Tax Shift: How to Help the Economy, Improve the Environment and Get the Tax Man Off Our Backs,* quoted in "Alan Thein Durning: Environmental Tax Crusader", in *E: the Environmental Magazine*, March/April 1999, p. 13.

raising revenue without requiring individuals to smoke less or banning the sale of cigarettes.

Unfortunately, this is not the case for many environmental taxes. For instance, while the state of Texas levies fees for air emissions, wastewater discharges, and hazardous waste generation to support inspection and enforcement programs in the Texas Natural Resource Conservation Commission (TNRCC), it caps many of these fees to provide "volume discount" to large polluters. Essentially, the caps allow large industries to generate more pollutants because emissions over the cap are "free."[2] These capped fees create revenue losses for the state and disincentives for industries to achieve pollution reduction—hardly values we wish the tax code to reflect.

In theory, environmental tax reform could be used on a broad scale as part of a complete overhaul of the Texas tax system. Many legislative committees, state leaders and public policy organizations have documented and recognized the inherent flaws in the Texas tax system. These problems (which are discussed in more detail in Chapter 2) include (but are not limited to):

- Due to the lack of a state personal or corporate income tax, heavy reliance on a sales tax to generate revenue—a policy which imposes disproportionately high burdens on poor and low-income taxpayers;
- An inequitable and precarious school funding system that is tied primarily to local property tax revenues; and
- Relatively heavy reliance on a volatile franchise tax that is highly sensitive to economic downturns.[3]

Properly structured environmental tax shifts could be used to generate new revenue, which could, in turn, be used to allow some reduction of the sales tax or local property tax burdens. At the same time, the environmental taxes would send the appropriate economic signals for reducing pollution or other behavior benefiting the environment and public health.

But we have a long way to go in educating the public about the possible benefits of an environmental tax shift. As the results of a recent focus group in Houston show, Texans are generally interested in the concept of using the tax system to change behavior, but they are also wary of the complexity, potential for corruption, and the difficulty in assuring money raised by environmental tax shifting is spent properly.[4] **This report is intended to be a first step in generating public debate about the role environmental tax shifting could have in Texas.** Our state faces both enormous environmental

[2] Emissions over the cap result in a lower price per ton on average, considering total emissions. See section: Statutory Fee Caps on p. 31 for further explanation.
[3] Dick Lavine, "Betting Against the Future: The Inadequacy of the Texas Tax System," Austin: Center for Public Policy Priorities, 21 October 1998.
[4] LGD Insight, *Attitudes Toward Environmental Tax Shift Proposals: Report Findings from Focus Groups Conducted in Chicago and Houston*, October 1999.

challenges and a need to reform our tax system to better meet future needs without imposing undue burdens on particular segments of our society.

We recognize, as do many others interested in environmental tax shifts, that time is needed to research and model the potential effects of environmental tax shifts,[5] to bring these options into the realm of public discussion and debate and to build enough consensus to ensure that such reforms are politically viable.

Nevertheless, as this report demonstrates, there are both longer-term **and** short-term reforms that could benefit the Texas environment while at the same time providing the revenues the state needs to meet the needs of its residents. As Texans grapple with how we will manage our state and protect our quality of life in the 21st century, now is an appropriate time to begin examining these options.

[5] Alan Durning interview in *E: The Environmental Magazine*, supra.

CHAPTER 2
THE TEXAS REVENUE AND TAX SYSTEM: POSSIBILITITES FOR REFORM

Introduction

This chapter provides an overview of how government revenue is generated in Texas, with a particular focus on state taxes. The tax system is the state's main source of general revenue. Together with federal dollars, tax collections account for more than three-quarters of the state budget. The Texas tax system, however, is highly dependent on the sales tax because Texas lacks a state income tax and state property tax. As noted in Chapter 1, many studies and several state leaders have recognized the need to diversify and stabilize the state's tax system in order to better meet revenue needs over the long-term.

Throughout this chapter, we identify broad areas where environmental tax reform might help address some of these concerns and play a role in diversifying the tax base, and provide benefits for the environment. Many of these tax reforms, however, represent *medium- to long-term goals* in terms of overall reform of the state's tax structure. Chapter 4 discusses *more limited and near-term opportunities* for environmental tax and fee reform to benefit the environment and public health.

Overview of Revenue Generation in Texas

Under the existing system, tax collections and federal income account for the largest sources of state revenue. See **Figure 2.1**. In 1998, tax collections totaled $22.6 billion or 52 percent of the state's budget. Federal income contributed another $12.6 billion but the bulk of federal funding is earmarked for specific purposes such as education, transportation, Medicaid, and other health and human services. These federal receipts are thereby limited for general spending. As discussed in more detail below, many of the state tax revenues are dedicated by the state constitution or by statute to particular programs.

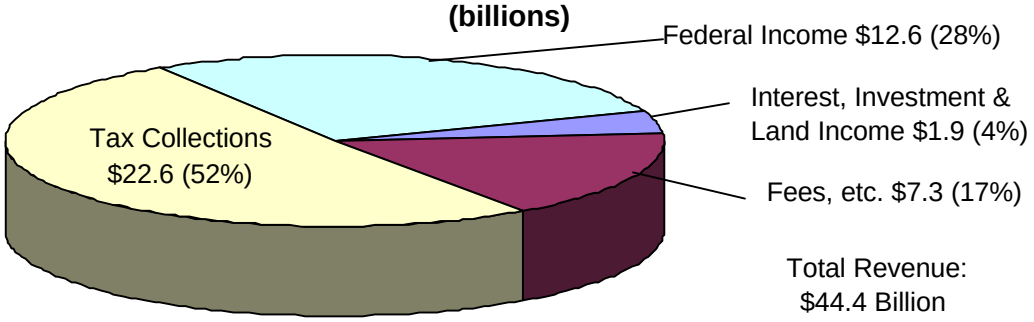
Revenues from fees, licenses and other sources (including the state's tobacco settlement) account for another large source of state income. In 1998, these fees totaled $7.3 billion or 17 percent of the state's revenue. Much of this revenue is also earmarked for specific programs, such as the state's Disproportionate Share Program (totaling $2.4 billion over the 1998-99 biennium), which helps reimburse state and local hospitals for the cost of indigent care.

Other major sources of non-tax revenue include proceeds from the state lottery, investments, interest, and land income. Of these sources, lottery proceeds have become the single largest source of non-tax revenue. In 1998, these earnings amounted to roughly $1.1 billion.[6] More than 52 percent of the gross lottery revenue is returned to players as prizes; after administrative costs, only about 36 percent of the total lottery proceeds are

[6] Texas Comptroller of Public Accounts, *2000-01 Biennial Revenue Estimate*.

available for state spending. Texas lottery revenues are not statutorily dedicated to specific programs, though they are generally used to fund education.

Figure 2.1: Texas State Revenue by Source: FY 1998 (billions)



Source: Office of the Comptroller, *The Texas Tax System*, 17 February 1999.

Interest, investments, and land income are also sources of non-tax revenue. In 1998, these earnings amounted to $1.9 billion. Most of this revenue is also dedicated to specific funds by the state's constitution or by statute. For example, most of the interest and dividend earnings shown in **Figure 2.1** are produced by the Permanent School Fund (PSF) and are dedicated to the Available School Fund (ASF).[7]

Overview of the General Tax Structure in Texas

While many states rely on a model of taxation that is built around the sales, property and income taxes (a model known as the "three-legged stool"), Texas relies primarily on the sales tax and certain fees to generate state revenue. Spreading taxation among these three tax sources allows other states to distribute tax burdens more equitably among households and businesses. These types of state tax systems are also more progressive and the diversity in the tax base helps to ensure more stable revenue collection. The tax base in Texas, on the other hand, centers around consumption taxes such as the sales, motor fuels, and motor vehicle taxes. See **Figure 2.2**. In fact, for the past 30 years, the Texas sales tax has been the states largest tax source and for the past 10 years, the sales tax has generated more revenue than *all other taxes combined*.[8] In 1998, the sales tax raised over 55 percent of Texas's tax revenue ($12.5 billion).

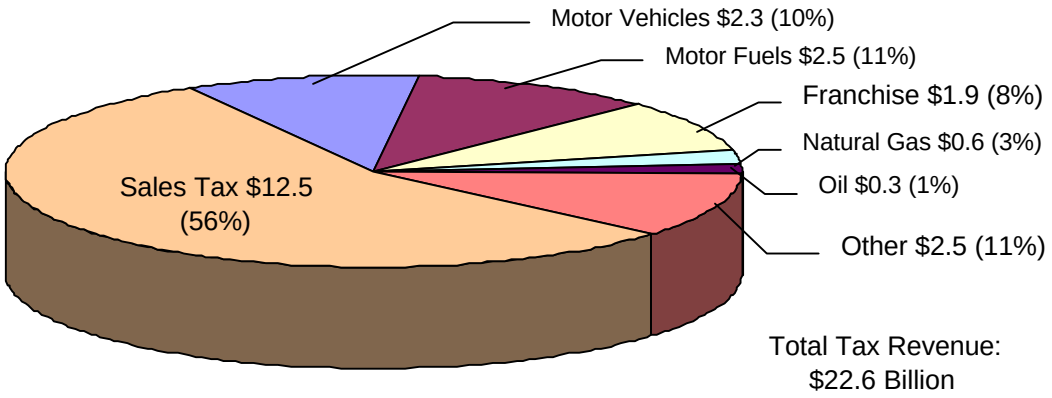
Unlike other states, Texas lacks a personal income tax. Most states rely on personal and corporate income taxes to balance their tax structure. The income tax represents a key progressive tax element. Texas, on the other hand, levies only a corporate income tax known as the Texas Franchise Tax. The franchise tax applies to either a corporation's net

[7] Texas Comptroller of Public Accounts, *2000-01 Biennial Revenue Estimate*.
[8] Texas Alliance for Human Needs, "Tax Issues Made Simple," 1998.

worth or annual profits, depending on which is greater. In 1998, the franchise tax raised $1.9 billion in revenue for the state.

Under Texas law, it is local authorities that levy property taxes, instead of the state. These taxing authorities include city and county governments, school districts, emergency services, navigation districts and several other types of special districts.[9] In 1995, 3,477 local taxing units levied $16.0 billion in property taxes. In total, the property taxes levied by local authorities amount to the largest tax paid for by most Texans. It accounts for more than 40 percent of our combined state and local tax load.

Figure 2.2 : Texas State Tax Revenue: Fiscal Year 1998 (billions)



Source: Texas Comptroller of Public Accounts, *The Texas Tax System*, 17 February 1999.

As a result of imbalances in the current tax system, Texas ranks 49th among states for total revenue generated per capita and 48th for tax revenue generated per capita.[10]

Specific Texas Taxes

The following section discusses taxes specific to Texas in more detail. We present the standard tax rate and tax base for each tax and—when possible—compare the Texas rate with that of other states. We also highlight some of the problems associated with each tax and examine possible solutions that an environmental tax shift may provide over the long term.

The Sales Tax | As noted above, Texas's sales tax is the single largest source of tax revenue for state government. The state sales tax rate is set at 6.25% of the retail sales price of tangible personal property and selected services. Local tax districts may also levy sales taxes, which are limited by law to 2%. The combined maximum sales tax rate

[9] See Sec. 6.02 of Texas Tax Code.
[10] U.S. Bureau of the Census, *State Government Finances: 1997*; and U.S. Bureau of the Census, *State Taxes, 1998*.

of 8.25% is one of the highest in the nation—ranking Texas 4th among states—along with New York and Illinois.[11]

According to the Texas Comptroller, however, "the [sales] tax is limited in scope compared to the total number and kind of transactions in the economy."[12] Several exemptions and exclusions to the sales tax help contribute to its limited scope. These exemptions include grocery foods, prescription drugs, construction labor, professional services, and most utilities. The Comptroller estimates these exemptions cost Texas roughly $19 billion in tax revenue each year.

Some goods with large, negative impacts on the environment are exempt from the sales tax in Texas. For example, pesticides and fertilizers used in production in agricultural production are exempt from the sales tax. According to the Texas Agriculture Statistics Service, in 1995 Texas farm and ranch operators spent approximately $376 million dollars on pesticides. When this is combined with $642 million in fertilizer costs, chemicals represent the single largest yearly input cost for field-crop production.[13] Texas loses an estimated $62 million in annual revenue from this exemption.[14] Moreover, from an environmental perspective, the exemption provides a tax break for using products with a high potential for water pollution and other adverse environmental and public health effects.

The Motor Fuels Taxes | Following the sales tax, motor fuels taxes account for the second largest source of state tax revenue in Texas. The motor fuels tax is a tax on consumption of gasoline and diesel fuel and is primarily paid by Texans. In 1998, Texans paid a rate of 20 cents/gallon for gasoline and 20 cents/gallon for diesel fuel. Texans pay slightly higher rates than the U.S. average of 18.89 cents/gallon, and more than consumers in 25 other states.[15]

In total, fuel taxes raised $2.5 billion in state revenue for 1998. By provision of the Texas Constitution, 75 percent of this revenue must be earmarked for road and highway construction under the State Highway Fund. The remainder is credited to the Available School Fund.[16] Texas's fuel taxes, however, cover only part of the total costs of highway construction. The remainder is covered by federal funds, property taxes, toll roads, bond receipts and appropriations from general funds. For example, in 1996 Texas spent $7.8 billion on highway construction. Of this total, $5.2 billion was generated by fuel and vehicle taxes from both state and local sources. The remainder included $697 million from local property taxes and $1.6 billion from general funds.[17]

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[11] Texas Comptroller of Public Accounts, *The Texas Tax System*, 17 February 1999
[12] Texas Comptroller of Public Accounts *Tax Exemptions & Tax Incidence*.
[13] Texas Agriculture Statistics Service, *Texas Agricultural Statistics 1995* (Austin, TX: TASS, 1995) p. 10
[14] Friends of the Earth, *Fair Agricultural Chemical Taxes (F.A.C.T.)*, (Washington, DC: Friends of the Earth, 1999) p. 5.
[15] Texas Comptroller of Public Accounts, "The Texas Tax System,"
[16] Texas Comptroller of Public Accounts, *2000-01 Biennial Revenue Estimate*.
[17] U.S. Federal Highway Administration, *Highway Statistics 1997*, 1997.

Because the majority of fuel tax revenue funds road construction and maintenance, critics label them as "brown" taxes.[18] Many taxes can be used to discourage resource consumption by making the resource more expensive vis-à-vis other goods. But, when fuel taxes are largely dedicated to road funding, as they are in Texas, they indirectly encourage more driving by providing funding for wider and more numerous roads.

Like the sales tax, exemptions and exclusions limit revenue collection from motor fuels taxes. These tax exemptions are divided among gasoline sold to the federal government, to metropolitan transit authorities (MTAs), to public school districts, and to vehicles used in interstate commerce. In total, these exemptions cost Texas roughly $109 million in annual tax revenue.[19]

A fuel tax increase, without offsetting tax reductions, would only increase the tax burden on the poor and, under the current framework where it is dedicated to the highway fund, increased revenues would only allow more roads to be built. Thus, a properly designed ETS package involving the fuel tax must ensure that offsetting tax reductions provide benefits to low- and middle-income families and must address issues associated with the use of the revenue from the tax.

The Motor Vehicle Tax | The motor vehicle tax is a transaction tax, paid on each purchase of a motor vehicle. Motor vehicles are taxed at 6.25% of the vehicle sales price, less any trade-in value. The Texas motor vehicle tax rate ranks 4th among states and is above the U.S. average rate of 4.8 percent. Car rentals are taxed at 10% of gross rental receipts for cars rented up to 30 days, and 6.25% of car rentals over 30 days.

In total, vehicle taxes amounted to $2.3 billion in 1998, the third largest source of tax revenue for the state government. Together, **motor vehicles and motor fuel taxes account for 21 percent of the state's tax revenue.**

Tax exemptions and exclusions limit revenue collection from motor vehicle taxes. There are nine classes of motor vehicle tax exemptions, each based on the status of the purchaser or the intended use of the vehicle. Many of these exemptions support laudable causes including driver training vehicles, fire trucks and emergency medical service (EMS) vehicles, vehicles used for religious purposes, vehicles sold to licensed child-care facilities, to public agencies, and to two other categories. In 1998, these exemptions amounted to roughly $118 million in annual tax revenue.[20]

A common criticism of motor vehicle taxes is that they tax the *ownership* rather than the use of motor vehicles. Combined with depreciation, insurance, and other fixed costs, the American Automobile Manufacturers Association estimates that the financial burden of

[18] David Morris, "Mapping Environmental Taxes: Obstacles and Opportunities," Minnesotans for an Energy-Efficient Economy, 10 December 1998.
[19] Texas Comptroller of Public Accounts, "Gasoline Tax" Chapter of *Tax Exemptions & Tax Incidence* report.
[20] Texas Comptroller of Public Accounts, "Overview" Chapter of *Tax Exemptions & Tax Incidence* report.

owning a car is more than $4,100 per year.[21] These costs must be paid regardless of how much drivers use their cars.

An environmental tax shift would focus on reducing these costs by encouraging purchases of more fuel-efficient vehicles. One policy option would suggest offering a motor-vehicle-tax rebate for fuel-efficient cars. Another might involve higher taxes for less fuel efficient vehicles. In theory, these shifts could help reverse the trend of declining average efficiency levels of all vehicles due to the rapid growth in market share of sport utility vehicles, vans, minivans, and pickup trucks.[22] Whether that would actually be accomplished, of course, would depend on setting the rebate or higher tax at a level that would make a difference in purchasing patterns.

Franchise Tax | The franchise tax is a privilege tax imposed on every corporation that does business in Texas—including in-state and out-of-state firms. Before 1991, franchise tax liability was based solely on a firm's net worth. The 72nd Legislature modified the tax to include earned surplus. Corporations are now taxed either on their net worth (net taxable capital) or their earned surplus, depending on which is greater. This tax equates to $2.50 per $1,000 of taxable capital or a tax of 4.5% on earned surplus.[23]

In 1998, the franchise tax raised $1.9 billion or 8 percent of the state's tax revenue. The Comptroller, however, predicts that this total will decline in the future. Because franchise tax collections relies on earned surplus for 80 percent of its tax base, the Comptroller points to the volatility in franchise tax revenues. It predicts the rate of growth for the franchise tax will fall off considerably—to 6.1 percent for the coming 2000-01 biennium. Thus, like the sales tax, the franchise tax remains an unstable source of income for the state. According to the Comptroller, "a simple hiccup in the economy can reverberate loudly throughout the franchise tax base."[24]

A properly designed environmental tax shift will have to adjust corporate tax rates. Proponents of an ETS argue corporate taxes should be reduced. In the long run, they believe some of the corporate tax benefits will be shifted to labor as lower taxes increase investments and encourage productivity and increased wages.[25] It is also important to recognize that, politically, *any* successful overall ETS reform will require buy-in from the business community.

Other Taxes | Oil and natural gas production taxes round out the other major sources of state tax revenue. Oil production is taxed at 4.6% of the market value of oil produced in the state. Producers also pay an oil regulation fee of 3/16 of one cent on each barrel of

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[21] American Automobile Manufacturers Association, *Motor Vehicle Facts and Figures*. (Detroit: AAMA, 1996) 58.
[22] U.S. Federal Highway Administration, *Highway Statistics 1997*, 1997.
[23] Texas Comptroller of Public Accounts, "Franchise Tax" Chapter of *Tax Exemptions & Tax Incidence* report.
[24] Texas Comptroller of Public Accounts, *2000-01 Biennial Revenue Estimate*.
[25] M. Jeff Hammond, ed. *Greening the Golden State: A Tax Reform for California's Future*. (San Francisco: Redefining Progress, 1999) 43.

oil. In 1998, these taxes raised $303 million or 1 percent of the state's tax revenue. (**See Chapter 4F** discussion for more details).

However, oil tax collections in Texas have declined over the past decade, and the decline has become particularly pronounced in the last several years. The amount of tax revenue raised in 1998—$303 million—is lower than any preceding year since 1973. The Comptroller attributes the drop-off in tax revenue to declining production and low prices, which were exacerbated by a price slide that started in 1997. In 1998, production fell to 464 million barrels, down from a peak of 1.19 billion barrels in 1972.[26]

Natural gas is taxed at 7.5% of the market value of gas produced in the state. In 1998, revenues from natural gas taxes totaled $624 million or 3 percent of the state's tax revenue. Like oil, however, natural gas tax collections have fallen in recent years. Total revenues from 1998 represent a 6 percent decrease from adjusted fiscal 1997 collections.[27] Natural gas revenues are expected to fall again during the 2000-01 biennium to $1.1 billion, from the $1.2 billion estimated for the 1998-1999 biennium. The decrease is attributed to a decline in natural gas prices because of ample supply and a mild Texas winter.

In Texas, an overall environmental tax shift would have to account for the declining revenues from oil and natural gas taxes. Proponents of an ETS generally encourage states to raise taxes on natural resource extraction or repeal existing tax subsidies for the energy and mining industries. Either method, at least in theory, has the effect of raising more tax revenue. In addition, this type of tax shift could potentially decrease resource consumption by making the resource more expensive. Increased production taxes and elimination of resource exploration and production subsidies is also directed toward accounting for the environmental "costs" of production and use of these non-renewable natural resources.

[26] Texas Comptroller of Public Accounts, *2000-01 Biennial Revenue Estimate*.
[27] Texas Comptroller of Public Accounts, *2000-01 Biennial Revenue Estimate*.

CHAPTER 3
GENERAL TAX PRINCIPLES AND THREE PROBLEMS WITH THE CURRENT TAX SYSTEM

Introduction

Texas has reached the point where systemic problems and imbalances in the current tax system will affect the future ability of the state to provide public services such as health care and education. Spending needs are just not met by Texas's current ability to raise money, without raising tax rates.[28] In general, these systemic problems with the state's tax structure fall into three broad areas:

- Tax Stability and Revenue Growth
- Tax Incidence; and
- Regressivity;

These problems conflict with widely accepted tax principles that a tax system should be fair, stable and balanced (distributed among different types of tax). As the Houston focus group showed, Texans are concerned with tax equity and are frustrated by the amount of taxes they have to pay.[29] The following short Chapter explores the general problems of the current tax system in greater detail. Chapter 4 then concentrates on five additional problems with the state's tax structure that are more accessible and that provide *near-term* opportunities for reform.

Tax Stability and Revenue Growth | Many economists recognize the need of a tax system to provide enough revenue to cover state spending. Likewise, the Comptroller believes that "A 'good' tax system may be the one that embraces firm principles of fairness and stability."[30] As a general rule, stable tax systems that ensure adequate revenue growth should keep up with personal income growth, since personal income growth reflects both inflation and population changes. However, in Texas, revenue collection from the current tax system has not kept up with personal income growth.

In fact, a National Education Association (NEA) study of 50 states looking at revenue growth in proportion to personal income ranked Texas 48th in the nation.[31] Since 1992, personal income has grown by 47.6 percent, while total state tax collections have grown by only 42.8 percent. See **Figure 3.1**. During the same period, state sales tax revenue increased by 45.7 % and school property tax values increased by only 13.0 %.

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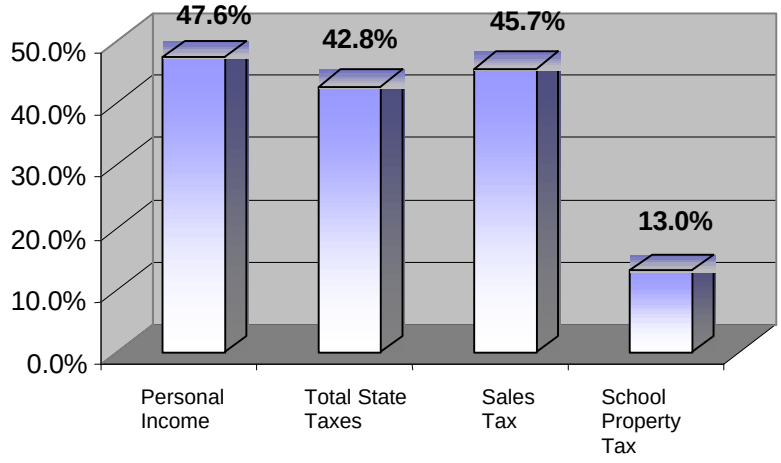
[28] See Dick Lavine, "Betting Against the Future: The Inadequacy of the Texas Tax System," Austin: Center for Public Policy Priorities, 21 October 1998.
[29] LGD Insight, *Attitudes Toward Environmental Tax Shift Proposals*, p. 36.

[30] John Sharp, *Forces of Change: Shaping the Future of Texas* (Austin: Texas Comptroller of Public Accounts, Volume 1, March 1994) 169.
[31] Hal Hovey, *The Outlook for State and Local Finances, The Dangers of Structural Deficits for the Future of Public Education*, National Education Association, 1998.

Figure 3.1 Growth of Tax Revenue Compared to Personal Income: 1992-1997[32]



Source: Dick Lavine, "Betting Against the Future: The Inadequacy of the Texas Tax System," Austin: Center for Public Policy Priorities, 21 October 1998.

If this trend continues, Texas will likely face a revenue deficit in the future. The Center for Public Policy Priorities expects that Texas's anticipated revenue growth, with no change in tax rates or the definition of tax bases, will fall short of the amount necessary to maintain the current level of state and local services.[33] Because we have above average needs in almost all public services—public schools, higher education, welfare, public health, and public safety—in eight years, projected revenues will be 7.8 percent less than necessary to fund anticipated spending. See **Table 3.1**.

Table 3.1 Texas Faces a Possible Structural Revenue Deficit

Rank	State	Revenue Surplus or Shortfall
1st	Iowa	+2.7
8th	New York	+0.3
23rd	California	-2.8
	U.S. Average	**-3.8**
40th	**Texas**	**-7.8**[1]
42nd	Florida	-8.8
50th	Nevada	-18.3

[1] The structural deficit is calculated by dividing the difference between projected spending needs and projected revenue by projected revenue: (135-145.5)/135*100= -7.8
Source: Hal Hovey, *The Outlook for State and Local Finances, The Dangers of Structural Deficits for the Future of Public Education*, National Education Association, 1998.

[32] The Comptroller provides slightly different estimates for the growth of tax collections and personal income based on annual averages. The Comptroller reports personal income grew from $328.223 billion in 1992 to $484.224 billion in 1998 (with an Average Annual Growth of 6.70%) while tax collections grew from $15.849 billion to $22.634 billion in 1998 (with an Average Annual Growth of 6.12%). Texas Comptroller of Public Accounts, *An Overview of the Texas Tax System*, Presented to House Committee on Ways and Means, 17 February 1999.
[33] Dick Lavine, "Betting Against the Future: The Inadequacy of the Texas Tax System," Austin: Center for Public Policy Priorities, 21 October 1998.

Tax Incidence | Overall, Texas taxpayers face a relatively light state tax load in comparison with other states. For instance, Texas ranks 48th among states in tax collections as a percentage of personal income, raising just $52.29 per $1,000 of personal income in 1997. See Table 3.2. The table's figures reflect the general tax trend in Texas. Texans pay no state property or personal income taxes, but pay higher sales and motor fuels taxes than residents of other states.

Table 3.2 State Tax Collections: FY 1997[1]

Tax	Texas ($)	National Average ($)	Texas Rank
Property taxes	0.00	1.54	37th
Sales taxes	42.54	32.93	10th
Alcohol sales	0.98	0.55	9th
Tobacco sales	1.20	1.12	20th
Utilities sales	0.89	1.27	19th
Motor Fuel sales	5.36	4.10	16th
Personal Income taxes	0.00	25.35	44th
Corporate Income taxes	4.29[2]	4.50	27th
Total taxes	**52.29**	**68.78**	**48th**

[1] Taxes per $1,000 of Per Capita Personal Income
[2] Texas charges a Franchise Tax rather than a Corporate Income Tax

Sources: U.S. Census Bureau, *1997 State Government Finance Data*, 1997. U.S. Bureau of Economic Analysis, *Survey of Current Business*, May 1998.

While Texas's overall tax burden places it near the bottom of the 50 states, the national ranking of selected taxes such as the sales tax shows some important imbalances in the current tax system. As **Table 3.2** indicates, Texas households pay a larger share of state tax collections than businesses. For instance, in 1997 the sales tax raised $42.54 per $1,000 of personal income, which ranks 10th among states. In comparison, the Texas franchise tax raised $4.29 per $1,000 of personal income and ranked near the middle of the states—27th overall—for tax incidence. All other taxes amounted to $5.46 per $1,000 of personal income.

Because the state tax system is built around the sales tax, most businesses are able to shift tax changes onto households—whether they are consumers, workers, or owners.[34] Surveying the tax structure in Texas reveals that several other revenue sources are tied to consumption taxes, which businesses may pass onto the household. One solution to reduce household tax burden is to export taxes out of state. For example, more than half the natural gas tax is actually paid by non-Texans who buy our gas to heat their homes in the winter. However, with the notable exception of industrial, gas and mining taxes, the

[34] Texas Comptroller of Public Accounts, *Tax Exemptions and Tax Incidence*.

majority of taxes in Texas are borne by Texans instead. See **Table 3.3**. Adjusting to this household tax imbalance is just one problem associated with fixing a tax system built around consumption taxes.

Table 3.3 Taxes Initially Paid by Business: Distributional Assumptions for Final Tax Incidence

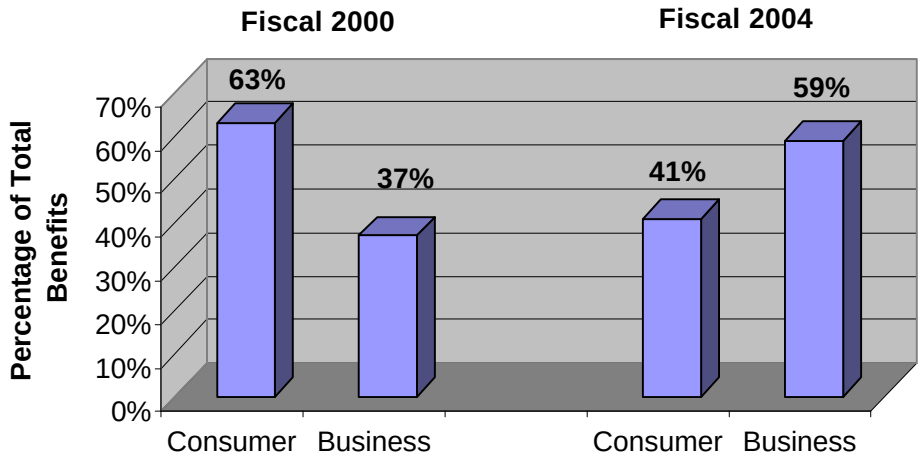
	Borne by Texas Residents				
Tax	**Consumer Share**	**Labor Share**	**Capital Share**	**Exported**	**Total**
Sales and Use Tax	54%	20%	1%	25%	100%
Motor Vehicles Sales and Use Tax	54	20	1	25	100
School Property Tax					
Rental property	86	1	9	4	100
Agricultural property	10	43	13	34	100
Commercial property	58	24	2	16	100
Industrial property	17	52	2	29	100
Utility property	91	5	-	4	100
Mining property	10	38	5	47	100
Gasoline Tax	54	8	1	37	100
Natural Gas Tax	10	28	5	57	100
Franchise Tax					
Agricultural sector	10	44	2	44	100
Mining sector	10	38	3	49	100
Construction sector	90	8	-	2	100
Manufacturing sector	19	55	1	25	100
Utility sector	91	5	-	4	100
Trade sector	64	24	-	12	100
Finance sector	46	20	2	32	100
Services sector	84	9	-	7	100

Source: Texas Comptroller of Public Accounts, *Tax Exemptions and Tax Incidence*.

Moreover, while recent tax breaks ensure that tax collections will remain a small part of personal income, they hardly address the current tax system's imbalance. For example, in the 1999 legislative session, Senator Rodney Ellis (D-Houston) introduced Senate Bill 441 with measures that will cut franchise taxes and state and local sales taxes by up to $2.29 billion through fiscal 2004.[35] Over the life of the bill, businesses will receive 55% of the tax benefits compared to 45% for consumers. In 2004 businesses will receive about 60% of SB 441's total benefits or $374.2 million. See **Figure 3.2**.

[35] Center for Public Policy Priorities, "Tax Bill Benefits Business More than Consumers: SB 441 Starts With Even Split But Business Breaks Grow Faster," *The Policy Page: An Update on State and Federal Action* No. 94, 22 July 1999.

Figure 3.2 Division of SB 441 Benefits Between Consumers and Business



Source: Center of Public Policy Priorities, "SB 441 Starts With Even Split But Business Breaks Grow Faster," 22 July 1999.

A closer look at SB 441 shows that Texas households may benefit from tax cuts on medicine and back-to-school clothes. Consumers receive tax exemptions for over-the-counter drugs and Internet Access as well as an annual three-day "back-to-school" sales tax holiday on purchases of clothing and footwear under $100 per item.[36] Because SB 441 initially reduces the amount of sales tax that consumers pay, it will help distribute the burden of the state's tax system more equitably. However, over time, SB 441 begins to favor business more than consumers. Businesses will enjoy tax cuts on a variety of services including investment, research and development, data processing, and childcare costs.

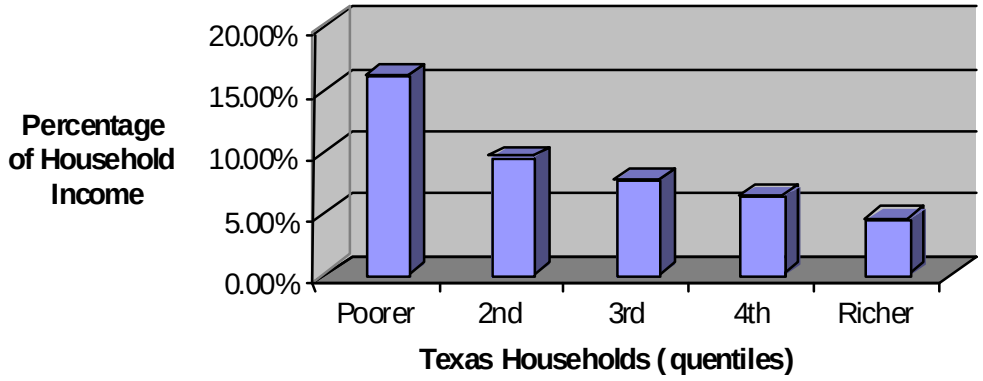
Unfortunately, SB 441 also reduces the amount of revenue available to a state that already suffers from inadequate tax collections. Because of tax exemptions, the state will forgo $2.29 billion over fiscal 1999-2004. Local governments—cities, counties, transit authorities, and special districts—will also loose amounts of revenue up to $67.7 million in fiscal 2000-01 and a total of up to $244.6 million over fiscal 2000-04. These revenue losses are significant in light of predictions that the state will have difficulty providing the current level of public services in the future. (See **Tax Stability and Revenue Growth** discussion).

Regressivity | The distribution of the current tax burden among Texas households causes similar concerns about the tax system's regressivity. Regressivity is an indicator of the percentage of family income that goes to taxes. Based on information in a 1996 survey, the Texas tax system ranks as one of the five most regressive in the nation. Poor families—those in the bottom 20% of the income scale—pay about 16.0% of their income in state and local taxes. See **Figure 3.3**. The richest families (top 1%), on the

[36] Excluding athletic footwear and accessories such as jewelry, handbags, and watches. Center for Public Policy Priorities supra.

other hand, pay just 4.4% of their income in state and local taxes. Thus, poor families pay as much as 3 times the share of their income in state taxes as rich families.[37]

Figure 3.3: Texas Household Tax Incidence: FY 1998



Source: Texas Comptroller of Public Accounts, *Tax Exemptions and Tax Incidence*, 1999.

Distribution of taxes on Texas households emerged as one of the principle concerns of the recent focus group in Houston. According to one participant, "If everybody paid a fair share, you'd come out with the same amount of taxes, except the guy who is struggling to feed his family isn't going to be hurting as much when the guy with a whole bunch of money pays his fair share."[38] People in Houston were concerned that wealthy Texans enjoy loopholes and deductions that make the tax system decidedly unfair. In general, they wanted a fair and more balanced tax system.

Table 3.4 Regressive Taxes in Texas

Tax	Ratio of percentage of taxes paid by low-income families to high-income families
Gasoline Tax	4.3
Sales Tax	3.5
Franchise Tax	3.3
Motor Vehicles Sales Tax	3.2
School Property Tax	2.7
Natural Gas Tax	1.8

Source: Center for Public Policy Priorities, "How to Read the Comptroller's Tax Exemptions and Tax Incidence Report," January 1999.

The sales tax is also a major factor contributing to the tax system's regressivity. Despite exemptions for many household goods, the sales tax inevitably takes a larger share of income from low- and middle-class families making it more regressive. **Table 3.3** shows household incidence for six major state and local taxes. A fair tax would take the same

[37] Center for Public Policy Priorities, "How to Read the Comptroller's *Tax Exemptions and Tax Incidence Report*," January 1999.
[38] LGD Insight, *Attitudes Toward Environmental Tax Shift Proposals*, p. 29.

percentage of income from all families, regardless of income. Its ratio would equal 1.0. The sales tax has a ratio of 3.5 meaning the sales tax takes over three times the percentage of income from lower-income families than the wealthy. An environmental tax shift would help shift the balance of the tax burden from the sales taxes hurting the poor to more diverse sources of income.

The motor fuels tax also bears the problem of being one of the most regressive taxes in the state. It inevitably takes a larger share of income from lower-income families than it does from higher higher-income families. Currently, the gasoline tax takes over four times the percentage of income from poor families than the wealthy. (See **Table 3.4**).

The problems with the Texas tax system -- that it is inadequate, unbalanced and unfair -- may, however, create opportunities for tax reform that can also benefit the environment and public health. For example, like other states, Texas taxes a limited number of natural resources (such as oil and natural gas); the extraction and use of which can adversely affect the environment and public health. In most cases, however, any environmental incentives associated with these taxes are more coincidental than intentional. They were originally adopted with the sole purpose of generating revenue. Yet, when property structured, these taxes can *both* generate revenue and create incentives to reduce resource consumption or generate less pollution. In this way, the tax system would be more fair in terms of equity --less regressive -- and more fair in terms of the environment -- the more you pollute the more you pay.

CHAPTER 4
OPPORTUNITIES FOR NEAR-TERM ENVIRONMENTAL TAX SHIFTING IN TEXAS

A. Introduction

This section provides a summary of the types of environmental tax shifting reform opportunities that exist in Texas. While an environmental tax shift is a long-term goal, the policies discussed here represent *more limited and near-term possibilities* for reform. In general, the problems with the state's tax structure provide opportunities for reform in five broad categories:

- Tax or fee structures that encourage polluting behavior or, conversely, discourage industries from reducing pollution;
- Tax or fee structures that fail to account for the broader environmental or public health costs of polluting activities;
- Tax or fee structures that fail to recognize the link between economic development and resulting environmental or public health consequences;
- Tax or fee structures that lead to inadequately funded natural resource regulatory programs; and
- Tax or fee structures that provide subsidies for natural resource exploitation or polluting activities.

Throughout this section, we provide examples of existing tax and fee structures in Texas that illustrate these problems. Most of our examples focus on the tax or fee structures that apply to polluting activities regulated by the Texas Natural Resource Conservation Commission (TNRCC), the state's primary environmental agency. Others relate to protection of natural resources (including land) or to agriculture. In each case, however, there are opportunities for tax or fee shifts that would provide environmental or public health benefits while addressing various needs for revenue generation.

B. Tax or Fee Structures that Discourage Pollution Reduction or Encourage Polluting Behavior

Various Texas statutes impose fees on emissions of pollutants or generation of waste. These fees are designed primarily to fund regulatory oversight programs at TNRCC. When properly structured, these fees also provide incentives for pollution reduction. However, when they are not properly structured, they can provide disincentives to reduce pollution. When measured against these criteria, the Texas emission fee structure does not fare well.

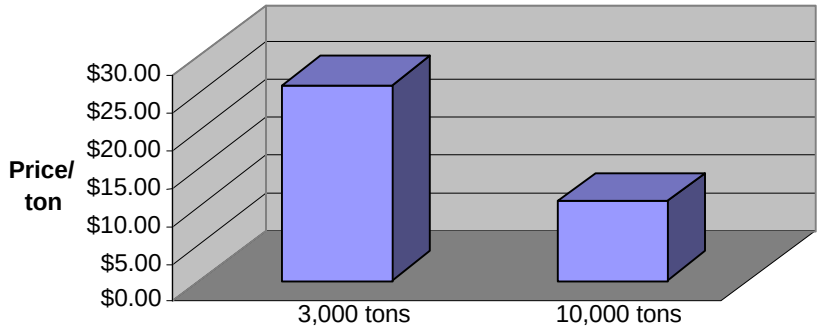
A number of the emission and waste generation fees imposed by Texas statutes are "capped", either in terms of a maximum fee payable by a single entity or in terms of the maximum amount of an entity's emissions that are subject to the fee. For example, the

wastewater inspection fee levied by the TNRCC is capped at $11,000 per year for municipal discharges and $25,000 per year for industrial discharges. Similarly, the hazardous waste generation fee is capped at $50,000 per generator (or, effectively, 25,000 tons at the $2.00/ton fee rate). Fees on emissions of air pollutants are also capped. Air emissions from a facility in excess of 4000 tons of pollutant/year are not subject to the $26/ton air emission fee.

Revenue losses and disincentives to pollution reduction due to these caps are significant. For example, TNRCC estimated in 1997 that the state was losing about $27 million/year due to the 4000 tons/pollutant cap on air emission fees.[39] About 65 facilities emit one or more pollutants in excess of 4000 tons/year, which means they essentially pay less per ton of pollutant than those emitting under 4000 tons/year (i.e. their total fee is averaged over more pollution than those emitting under 4000 tons/year). Consider:

A facility emitting 3000 tons/year of sulfur dioxide would pay a fee of $78,000 at the statutory fee of $26/ton. A facility emitting 10,000 tons/year of sulfur dioxide, however, would pay a total fee of $104,000 (4000 tons/year at $26/ton and 6000 tons/year free), averaging about $10.40/ton of sulfur dioxide pollution. (See **Figure 4.1**)

Figure 4.1 Volume Discount for Air Emissions



The fee cap on hazardous waste generation provides hazardous waste generators with a "volume discount." For example, a facility generating 25,000 tons/year of hazardous waste pays $2.00/ton (reaching the $50,000 fee cap). A facility generating 100,000 tons/year, would pay an average rate of only about $0.50/ton. Based on 1995 data (the most recent available), about 106 facilities generate over 25,000 tons/year of hazardous waste. In total, these generators account for about 99% of the state's hazardous waste generation.

The same pattern holds true for industrial and municipal discharges of wastewater because of the $25,000 per year and $ 11,000 per year fee caps.

Restructuring these fees to eliminate the cap could both (1) generate more revenue to fund under-funded regulatory programs and (2) provide strong incentives for pollution

[39] Letter from Paul Henry, TNRCC, to Tom Smith, Public Citizen, 19 December 1997.

reduction. Depending on the specific discharge patterns/volumes in the various areas, removing the caps would also likely allow the fee/ton to be lower, while still providing for sufficient revenue to fund regulatory oversight. A lower fee per ton would reward those operations that minimize their discharge of pollutants to the environment by lowering their operating costs. This, in turn, could provide opportunities for creation of new jobs, paying higher wages or other investments.

C. Tax or Fee Structures that Fail to Account for the Broader Environmental or Public Health Costs of Products or Activities

The Comptroller estimates that exemptions to the sales tax cost Texas $19 billion in annual revenue. Among the products exempted are several goods with large, negative impacts on the environment. The absence of a sales tax on these items makes their use financially more attractive to consumers and producers. But, these provisions of the tax code exempt potentially polluting activities (e.g. the use of pesticides and fertilizers) from bearing any of the costs of regulating or remedying the adverse environmental or public health costs that may often be associated with their use.

For example, pesticides and fertilizers used in agricultural production are exempt from the state sales tax.[40] Texas loses about $ 62 million per year from the agriculture chemicals exemption. In 1999, chemicals used in forestry production were also exempted from the sales tax.[41] Yet pesticides and fertilizers have been linked to groundwater and surface water contamination in Texas as well as to air pollution and poisoning of agricultural workers.[42]

Various other aspects of timber operations are also exempt from the sales tax, including the first $50,000 of the purchase price of machinery used in commercial timber operations. In 1999, the Comptroller expects these exemptions to amount to $2.4 million in lost revenue for the state.

As has been suggested by the Friends of the Earth, collection of pesticide sales tax revenues could be used to help fund technical assistance and other programs for farmers who want to move away from pesticide use towards more sustainable agricultural practices.[43] In addition, as discussed below, the Texas water quality protection program is severely under-funded, and some revenues from a sales tax on agricultural and forestry pesticides and agricultural fertilizers could be used to provide much needed funding for water quality monitoring, assessment and regulatory oversight.

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[40] Section 151.316 of Texas Tax Code; See also, Friends of the Earth, *Fair Agricultural Taxes: Tax Reform for Sustainable Agriculture* (Washington, D.C. 1999), p. 5.

[41] The exemption for pesticides used in forestry production was added as part of a broad bill to promote private forestry development in the East Texas. The fiscal note for the legislation, **, estimated only ***.

[42] For a full discussion of the impacts of pesticides on water quality in Texas, see Texas Center for Policy Studies, *Pesticides and Texas Water Quality* (Austin, TX: TCPS, January 1999).

[43] Friends of the Earth, op cit, at p. 23.

D. Tax or Fee Structures that Fail to Recognize the Link between Economic Development and Resulting Environmental or Public Health Consequences

Tax and fee instruments, when taken as part of a well designed package of related policies, can play an important part in the development of pollution prevention.[44] However, when these tax or fee structures fail to link economic development and environmental consequences, they can serve as tax boons to polluting industries and result in undesired land-use practices. Two areas where these perverse tax incentives are present in Texas include the Proposition 2 program and some economic development tax abatement programs. Reform of these tax and fee instruments would make economic development more environmentally responsible and provide fiscally strapped local governments with more sources of revenue.

The Proposition 2 program provides property tax exemptions to individuals and corporations for the capital investments they make to comply with federal, state or local environmental laws.[45] Under the program, owners can apply to the Texas Natural Resource Conservation Commission to have pollution control property—a facility, device, or method used to control or reduce pollution—designated for a property-tax exemption from the local property tax assessments. These rules were adopted in 1994 and amended slightly in 1997 and 1999. In effect, they have resulted in a massive giveaway of property tax revenue to large corporations.

With the exception of service stations and convenience stores, which were required to install vapor recovery equipment and overfill/overspill containment devices, most of the applications for Proposition 2 exemptions are from electric utilities, large chemical and agricultural chemical plants, oil refineries, and a variety of manufacturing facilities in Texas (see **Table 4.1**).[46] Examples of the new equipment eligible for a Proposition 2 exemption include a scrubber put on an industrial smokestack to meet rules already established under the Federal Clean Air Act and new equipment used to change a facility's production process to prevent the release of toxic chemicals.

When Proposition 2 was presented to the voters of Texas in November of 1993, supporters argued that without the Prop 2 program industries might prefer locating in another state.[47] Supporters also argued that that such tax breaks would be important for small businesses trying to comply with environmental laws. Opponents, including some state environmental groups as well as local tax assessor associations, argued instead that keeping the environment clean is quite simply a cost of doing business, and businesses—

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[44] J. Andrew Hoerner, "Harnessing the Tax Code for Environmental Protection: A Survey of State Initiatives," *State Tax Notes* (special supplement, 20 April 1999) Vol. 14, No. 16, p. 1211.
[45] Texas Natural Resource Conservation Commission, *Proposition 2 Use Determination for Pollution Control Property Program: Status Report for 11/94-5/99* (Austin, TX: TNRCC, May 15, 1999).
[46] These tax abatements do have limits. For example, under existing rules eligible pollution-control instruments must have been installed after January 1, 1994, and can not be property subject to a tax abatement agreement; thus keeping on the tax rolls any pollution control equipment previously subject to property taxes.
[47] House Research Organization, *1993 Constitutional Amendments: The November 2 Election* (Austin, TX: House Research Organization, August 30, 1993).

especially large corporations—should not be given incentives to merely comply with the law.

Table 4.1 Prop. 2 Applications by Types of Companies, November 1994 – May 1999

Type of Facility	No. of Applications	% of Total
Chemical Plant	1,375	33.7%
Service Station/Convenience Store	603	14.8%
Electric Utility	512	12.6%
Oil Refinery	349	8.6%
Manufacturer	280	6.9%
Natural Gas Plant	208	5.1%
Bulk Storage Facility	146	3.6%
Copper Refinery/Smelter	91	2.2%
Semiconductor Manufacturer	60	1.5%
Agricultural Chemical Plant	55	1.3%
Food Preparation/Processing	54	1.3%
Pulp/Paper Mill	49	1.2%
Mines	40	1%
Cement/Ready-Mix Plants	37	0.9%
Foundry/Steel Mills	37	0.9%
Waste Treatment/Processing Facilities	32	0.8%
Aluminum Manufacturer	27	0.7%
All Others	125	3.1%
Total	**4,077**	**100%**

As **Table 4.1** illustrates, the overwhelming majority (79%) of applications for tax exemptions are from corporations. In fact, over 65 % of the applications are from businesses with 1,000 or more employees. In contrast, small businesses—those with less than 100 employees—accounted for little more than 9 % of the total applications received by TNRCC (see **Table 4.2**).[48] Very few applications from small business have been received by TNRCC despite the existence of clean air regulations, which require these businesses to comply with more stringent environmental laws. In contrast, single plants of large corporations—such as Alcoa (27 applications) in Milam County, ASARCO in El Paso Counties (34 applications), Sterling Chemicals in Galveston (24 applications), and Du Pont at its Sabine River Works Plant in Orange County (16 applications)—applied for and received dozens of property tax exemptions.

Table 4.2 Number of Applications by Size of Companies, Nov. 1994 – May 1999

Company (Size)	No. of Applications	% of Total
1 to 99	380	9.3%
100 to 499	579	14.2%
500 to 999	318	7.8%
1,000 to 1,999	474	11.6%
2,000 or more	2,303	56.5%
Not Listed	23	0.6%
Total	4,077	100%

[48] Information provided by Ronald Hatlett, Proposition 2 Division, Texas Natural Resource Conservation Commission, July 1999

What has the actual effect of this tax give-away been in particular communities? The Texas Comptroller estimates that school districts lost $27 million in 1999 because of Prop 2 exemptions. In 2004, the Comptroller expects this total to increase to $36 million.[49] Overall the state's schools have lost $76 million over the five-and-half years of the program. A look at three industrialized medium-sized counties—Orange, Galveston and El Paso—reveals that the program has favored the large industries while taking a significant amount of property off the tax rolls. While these tax exemptions did not lead to a significant budgetary problem in most years, for certain school districts in certain years, Prop 2 exemptions have had a very real impact on school, county and city budgets.

Under the Prop 2 program the TNRCC has received and approved exemptions on a total of 4,077 applications, resulting in tax abatements that total $5,493,267,617. About 53%—or $2.69 billion—of this total was certified from industrial facilities in only three counties: Harris, Jefferson and Brazoria. (See **Table 4.3**)

Table 4.3. Applications for Prop 2 Exemptions in Top 25 Counties: Nov. 21, 1994 to May 15, 1999

County	No. of Applications	Value	No. with Positive Use Determination	Value
Harris	1,135	$2,000,916,700	1,113	$1,895,661,800
Brazoria	382	$500,040,963	364	$407,601,805
Dallas	266	$28,042,069	265	$27,967,838
Tarrant	199	$18,850,434	199	$18,850,434
Jefferson	119	$390,471,707	116	$386,063,057
El Paso	119	$99,583,528	112	$71,304,317
Nueces	112	$280,459,362	101	$179,867,452
Fort Bend	110	$46,543,445	108	$46,460,945
Travis	102	$176,743,099	96	$150,939,232
Galveston	100	$127,433,774	97	$123,727,511
Smith	69	$46,191,074	63	$45,946,605
Potter	63	$36,884,072	63	$36,884,072
Chambers	62	$122,258,234	59	$121,833,145
Orange	50	$135,950,281	48	$133,310,972
Ector	47	$28,607,521	44	$27,684,551
Denton	43	$4,398,129	43	$4,398,129
Calhoun	40	$124,075,917	33	$114,953,032
Collin	40	$14,087,377	40	$14,087,377
Angelina	38	$18,956,917	38	$18,956,917
Matagorda	33	$39,403,104	32	$39,195,580
Victoria	30	$153,479,637	30	$153,479,637
Ellis	29	$33,491,962	29	$33,491,962
Milam	29	$24,726,260	29	$24,726,260
Montgomery	28	$18,716,451	28	$18,716,451
Wise	27	$7,006,887	26	$7,003,819
Top 25 Counties	3,272	$4,477,307	3,176	$4,103,112,900
All Counties	4,077	$5,493.267,617	3,962	$5,074,625,399
Top 25% of Total	**80.25%**	**81.50%**	**80.16%**	**80.85%**

[49] Texas Comptroller of Public Accounts, "School Property Tax" Chapter of *Tax Exemptions and Tax Incidence* report.

El Paso County

For example, in El Paso County, **more than 75%** of the 112 approved applications were given to three companies: Asarco Incorporated (34 positive use determinations), Phelps Dodge Refining Corporation (32 positive use determinations) and El Paso Electric Company (21 positive use determinations). In terms of the value of these tax exemptions, *these three companies account for 89.8% of the total value of the projects accepted in El Paso County*. **Table 4.4** shows the numbers of tax exemptions for selected companies in El Paso County. The table also shows the resulting tax saving/revenue loss resulting from these exemptions.

A more detailed look at the applications approved by TNRCC in El Paso shows that while all of the projects involve "pollution control," many of them provide other economic benefits to companies as well. Because many of the projects consist of upgrades, the companies are in essence taking "old" property—property in place before Prop 2 went into effect in 1994—off the tax rolls and replacing it with property that will never be taxed. This represents a double tax break for the corporations and a revenue loss for El Paso's schools. For instance, in 1996, Phelps Dodge replaced dozens of its "tank houses" with "modern efficient unicell polymer concrete tanks." The TNRCC awarded Phelps Dodge with a positive use determination of 56% of the total project's value or a tax exemption on $7.05 million worth of property. That same year, TNRCC approved 81% of the value—$9.912 million—of ASARCO's sulfuric acid plant upgrade and maintenance plan.

Water treatment plants and equipment represent the most expensive pollution control equipment, which the TNRCC approved. For example, in 1998 ASARCO constructed a $9.8 million stormwater reuse water project. It received 100% approval by TNRCC (despite the fact that the company benefits from reusing the water). Similarly, in 1995 Phelps Dodge converted one of its ponds ("Pond #3") in its wastewater treatment system to a secondary containment device for about $985,000. Thus, Prop 2 results in property tax exemptions for facility improvements required by other environmental laws and regulations for wastewater discharges.

The overall impact on El Paso county and its school district is a loss of approximately $1.3 million worth of tax revenues for 1994-1998. If all property taxes—schools, county, city, water and emergency districts—are considered, then nearly $2 million was lost over the five-year period. Again, while this is a small amount of total expenditures, the large tax exemption approvals for large corporations did have an impact on the budget of the El Paso Independent School District. (See **Table 4.5**)

Table 4.4. Selected El Paso County Positive Use Determinations by Company, Year and Value, 1994 -1998

Company Name	1994	1995	1996	1997	1998	Total
Asarco	3 $797,000	5 $900,000	6 $10,596,146	9 $2,035,000	11 $12,828,000	34 $27,156,146
Phelps Dodge	2 $4,529,000	3 $377,855	6 $10,486,288	16 $13,993,631	5 $1,476,000	32 $30,862,774
El Paso Electric	3 $14,373	7 $5,279,520	3 $208,177	3 $355,673	6 $149,900	21 $6,007,643
Prewash & Pressing Inc.	1 $787,522	1 $1,138,463				2 $1,925,985
Border Steel Mills	1 $337,628	1 $55,984				2 $393,612
Dal-Tile Co.		1 $468,382				1 $468,382
Mountain Pass Canning Co.		1 $199,900	1 $100			2 $200,000
Associated Milk Prod.		1 $433,837				1 $443,837
E-Z Serve Convenience		1 $3,601				1 $3,601
The Lee Co.		1 $14,650				1 $14,650
International Garment Processors		1 $111,619		2 $495,446		3 $607,065
Shell Odessa Refining			1 $550,000			1 $550,000
Isomedix Operations			1 $517,237			1 $517,237
Dick Poe Motors			1 $502,410			1 $502,410
American Grament Finishers			1 $753,590			1 $753,590
Leviton Man.				1 $320,400		1 $320,400
Anthony Foods				3 $57,012		3 $57,012
Casa Collision Center				1 $466,357		1 $466,357
Bergen Southwest Steel					1 $47,979	1 $47,979
Total	**9 $6,465,523**	**23 $8,993,811**	**20 $23,613,948**	**35 $17,723,519**	**23 $14,501,879**	**110 $71,298,680**

Table 4.5 Revenue Loss for El Paso County and Schools Resulting from Prop 2 Exemptions

Year	1994	1995	1996	1997	1998	Total
Estimated Lost County Taxes*	$19,746	$25,214	$72,117	$55,829	$45,681	$218,586
Estimated Lost School Taxes	$97,751	$127,997	$352,217	$260,236	$212,888	$1,051,098
Estimated Lost County and School Taxes	$117,497	$153,211	$424,334	$316,065	$258,569	$1,269,675

Note: *Estimated lost school taxes were calculated by averaging the tax rate of all school districts for each year within the county and applying the average rate to each appropriate year.

Orange County

As in El Paso County, companies in Orange County—principally Du Pont, Chevron Chemical Co, Bridgestone/Firestone, and Cargill Inc. (North Star Steel Texas)—took full advantage of the Prop 2 program to install pollution control equipment and upgrade their plants. In the process of installing this equipment each company received two tax breaks—once on the replaced equipment and once on the new equipment. Thus far, applicants in Orange County have been chemical, paper or steel plants, or pipeline facilities, rather than the small auto repair, gas stations, dry cleaners and other "small" businesses the law was designed to help. As **Table 4.6** demonstrates, Du Pont's Sabine River Works Plant, leads the list of companies with 16 applications worth $80 million. Chevron Chemical Company received the second largest total of tax exemptions worth $22.9 million. The two plants accounted for more than 50% of total applications, and more than 75% of the total value of the pollution control projects.

Once again, a closer look at the actual applications shows that while some projects were without doubt strictly pollution control equipment designed to reduce emissions or spills, others were part of a productive process that makes the company more efficient and profitable. For example, in 1996 Chevron Chemical Co. installed a Solvent Recovery System worth $8,000,000. The system allowed "for the recycle of a major hazardous waste stream leaving this facility." While the recycling of the solvent is a laudable environmental goal, it clearly allows the company to reduce payments on solvent treatment and disposal fees, while providing a (recycled) input into their production process. Similarly, in 1994 Du Pont replaced its once-through cooling water tower with a facility allowing the company to recycle the cooling water. In the words of the company, this project "prevents fishkills." The $8.95 million facility meets the pollution control environmental requirement. It also helps Du Pont increase the efficiency of its Sabine River Works plant.

Table 4.6 Orange County Positive Use Determinations by Company, Year and Value, 1994 -1999

Company Name	1994	1995	1996	1997	1998	1999 (through July)	Total
Du Pont Sabine River Works	8 $40,278,380			7 $25,727,000	1 $14,000,000		16 $80,005,380
Chevron Chemical Co.	4 $4,854,650	1 $639,300	2 $14,000,000			5 $3,367,500	12 $22,861,450
Du Pont Victoria		1 $4,039,000					1 $4,039,000
Bridgestone/ Firestone	1 $3,970,900		2 $95,000	3 $1,310,028	1 $288,818		7 $5,664,746
Miles Inc.	1 $5,650,000						1 $5,650,000
JM Huber Co.	2 $220,269						2 $220,269
Ausimont USA	1 $3,718,867						1 $3,718,867
North Star Steel Texas/ Cargill Inc.	1 $4,028,000	2 $152,416	1 $492,000				4 $4,672,416
Engineered Carbons		4 $2,031,811					3 $2,031,811
Inland Container			1 $2,434,865				1 $2,434,865
TE Products Pipeline Co.		1 $1,415,000		1 $166,669			2 $1,581,669
AlliedSignal				1 $1,525,000			1 $1,525,000
Bayer Corporation					1 $2,273,000		1 $,2,273,000
TOTAL	**18 $62,721,066**	**9 $8,277,527**	**6 $17,021,864**	**12 $28,728,697**	**3 $16,561,818**	**5 $3,367,500**	**53 $136,678,473**

The overall effect of the tax exemptions on Orange County is a loss of an estimated $5.8 million in tax revenue. The five school districts in Orange County accounted for over $2.1 million of this loss. (See **Table 4.7**) In general, these revenue losses are relatively small amounts compared to the total county budget. For instance, Orange County only lost 0.7% of its 1998 budget because of the Prop 2 program. However, when nearly $63 million worth of equipment was approved by the TNRCC in 1994, the impact was significant. That year, almost one million dollars (more than two percent of the total school budget) was lost to tax exemptions. Similarly, in 1994 Orange County lost more than two percent of its budget.

The impact is even more significant when we examine the actual school districts where the major companies are located. For example, Du Pont's Sabine River Works plant is located in the City of Orange and pays taxes to the Orange Independent School District. In 1994, the company received tax exemptions on over $40 million worth of equipment.

This revenue loss represented 1.3% of the total county tax levied, 10.8% of the total city tax levied and 24.4% of the total school tax levy. Thus, for the city and school district of Orange in 1994 the impact was extremely significant.

Table 4.7 Revenue Loss for Orange County and Schools Resulting from Prop 2 Exemptions

Year	1994	1995	1996	1997	1998	1999	Total
Estimated Lost School Taxes*	$950,299	$123,633	$256,964	$461,544	$274,808	$55,877	$2,123,125
Estimated Lost County Taxes	$271,833	$35.319	$71,191	$120,178	$72,912	$14,825	$586,258
Estimated Total Lost Taxes	$1,222,132	$158,952	$328,155	$581,722	$347,720	$70,702	$2,709,383

Note: *Estimated lost school taxes were calculated by averaging the tax rate of all school districts for each year within the county and applying the average rate to each appropriate year.

Galveston County

In Galveston County, 33 applications for tax exemptions approved by TNRCC were from a utility giant—Houston Industries Inc.'s (previously called Houston, Lighting & Power). While Houston Industries received the most approvals, most of the revenue loss occurred from tax exemptions the TNRCC approved for three large chemical companies (Sterling Chemicals, Amoco Chemical Co. and Union Carbide) and three refineries (Amoco Oil Col, Phibro Energy and Marathon Oil). **Table 4.8** shows the value and number of positive use determinations by company and year in Galveston County.

As in Orange County, the overall effect of the tax exemptions and lost tax revenue to political subdivisions and school districts in Galveston County was relatively small--about $2.5 million over the five years to school districts and the County. Nonetheless, for two years (1995 and 1996), the impact on local school districts, cities and the county was significant. For example, the estimated lost revenue to schools was $585,002 and $613,262 in 1995 and 1996 respectively. Because most of the companies that received positive use determinations are located in Texas City, virtually all of the lost revenue came out of the Texas City Independent School District. Thus, the Texas City ISD lost approximately $510,618 in 1995 and $540,012 in 1996 -- about 2% of the tax levy for those years for the district. As **Table 4.9** illustrates, the City of Texas City lost about one percent of the value of its tax levy each year because of these exemptions.

Table 4.8 Galveston County Positive Use Determinations by Company, Year and Value, 1994 -1998

Company Name	1994	1995	1996	1997	1998	Total
Houston Industries inc.	7 $1,550,758	3 $242,600	5 $1,296,981	7 $156,102	11 $1,748,809	33 $4,995,250
Sterling Chemicals	5 $4,342,800	4 $1,690,000	11 $7,464,100	2 $2,030,000	2 $670,000	24 $16,196,900
Coastal Mart	1 $42,744					1 $42,744
Amoco Oil Co.	2 $20,650,000	2 $17,770,000				4 $38,420,000
Amoco Chemical Co.		2 $8,824,000			1 $3,684,000	3 $12,508,000
Phibro Energy	4 $5,305,000	5 $4,199,000				9 $9,504,000
Union Carbide	1 $1,350,000		5 $16,220,960			6 $17,570,960
Tejas Gas Storage Co.	1 $436,440					1 $436,440
Houston Pipeline Co.		1 $38,663				1 $38,663
Motco Trust (Superfund site)		1 $3,200,000				1 $3,200,000
Stan Trans Inc.		1 $1,519,525				1 $1,519,525
Free-Port McMoran		1 $175,200				1 $175,200
Marathon Oil			2 $8,745,000		1 $260,000	3 $9,005,000
Praxair Hydrogen Supply			1 $1,752,363			1 $1,752,363
Basis Petroleum			2 $1,771,150			2 $1,771,150
Baytank Inc.			1 $2,066,600			1 $2,066,600
Groendyke Transport			1 $47,216			1 $47,216
Celanese ltd.					3 $859,500	3 $859,500
ODFJell Terminals					1 $3,618,000	1 $3,618,000
TOTAL	**21 $33,677,742**	**20 $37,658,988**	**28 $39,364,370**	**9 $2,186,102**	**19 $10,840,309**	**97 $123,727,511**

Table 4.9 Revenue Loss for Galveston County and Schools Resulting from Prop 2 Exemptions

Year	1994	1995	1996	1997	1998	Total
Estimated Lost School Taxes*	$525,238	$585,002	$613,262	$34,362	$173,586	$1,931,450
Estimated Lost County Taxes	$154,379	$141,820	$198,987	$11,149.	$55,286	$561,620
Estimated School and County Lost Taxes	$679,617	$726,822	$812,249	$45,511	$228,872	$2,493,070

Note: *Estimated lost school taxes were calculated by averaging the tax rate of all school districts for each year within the county and applying the average rate to each appropriate year.

State and Local Tax Abatement Programs

State and local tax abatement programs provide property tax exemptions to businesses that are willing to invest in depressed areas—urban or rural areas of high unemployment and poverty. Tax incentives are offered by both state and local governments through the Texas enterprise zone program (handled by the state) and the reinvestment zone program (handled by municipalities). To qualify for tax abatements, these depressed areas (zones) must meet certain size and distress criteria such as high unemployment rates or significant population loss during the most recent 6 years for the state's enterprise zone program.[50] Areas must also meet other distress factors including poverty, deteriorating structures, tax arrearages, low income, or substantial loss of business. However, in assessing and developing tax abatement programs, neither the legislature nor other public officials pay attention to environmental and natural resource management issues, including potential contamination impacts, environmental compliance and energy and water use.

Instead, the state and municipalities offer businesses throughout Texas tax exemptions based on their economic qualifications. Under the state's enterprise zone program, a business must be active in a distressed area and hire at least 25% of its new employees from residents living in the distressed area to be eligible for tax abatements.[51] Once eligible, businesses may receive refunds and exemptions from the state sales or use taxes. These refunds cover machinery and equipment, labor, building materials, and electricity and natural gas purchased for use in the enterprise zone. Businesses receive refunds based on $2,000 for each permanent job the project creates, with a maximum refund of $1.25 million dollars ($250,000 per year over the normal five-year period).[52] They are also eligible for a franchise tax deduction worth 50 percent of the capital investment or 5 percent of the company's earned surplus made in the enterprise zone. Businesses located

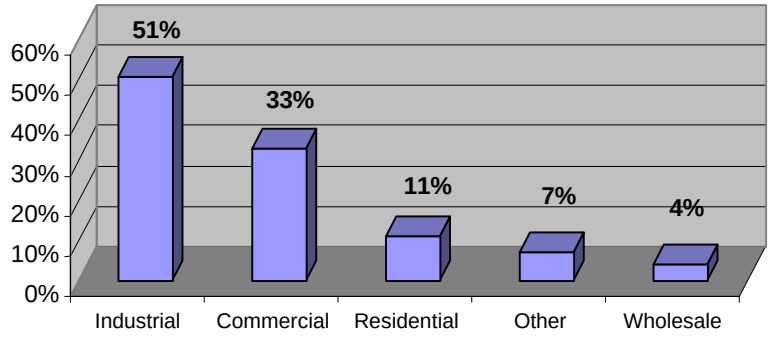
[50] Texas Department of Economic Development, "Texas Enterprise Zone Program," 1998.
[51] Texas Department of Economic Development, "Enterprise Zone Program Rules," 1998.
[52] Texas Department of Economic Development, "Texas Enterprise Zone Program," 1998.

in enterprise zones are also eligible for benefits designated under the local reinvestment zone program.

From 1988, when the program began, through 1997, the state designated 303 enterprise zones. Businesses in these zones pledged to create or retain more than 56,000 jobs and to invest $7.5 billion in their respective communities.[53] During this period, however, some zones expired or withdrew from the program and many companies either went out of business or completed the term of their benefits. As of fiscal 1997, 178 enterprise zones remained active and supported 214 projects from active businesses.

The local reinvestment zone program emphasizes similar economic considerations. For example, the local program requires businesses to own property and locate a new business, or expand and modernize an existing business in the zone; increase the appraised value of their property by $4 million or increase payroll by $3 million; and certify to the Comptroller that the business remains in compliance with all terms of the program.[54] Businesses may then receive ad valorem property tax abatements on a portion of the value of real and/or tangible personal property located in these zones, for a period of up to 10 years.[55] These rules, however, do not place any burden on local governments to consider the environmental impacts of their development activities, including air and water contamination, environmental compliance and water and energy use. Historically, the tax abatement rules have resulted in large tax-breaks for corporations and have primarily benefited industrial projects. (See **Figure 4.2**)[56]

Figure 4.2 Projects Receiving Tax Abatement in Reinvestment Zones

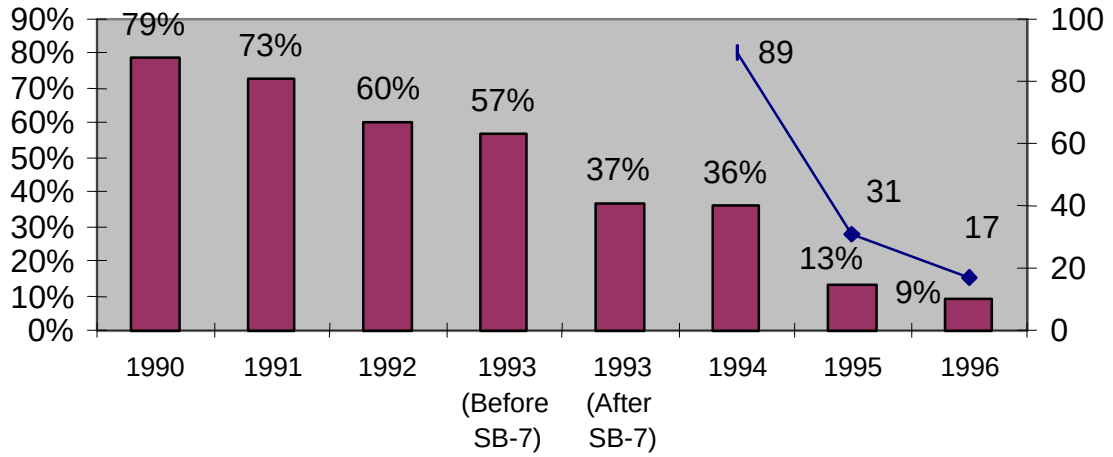


Source: Texas Department of Commerce, *Reinvestment Zones & Tax Abatements*. p. 3.6.

[53] Texas Comptroller of Public Accounts, "In the Zone: Sorting out Texas' Economic Development Districts," *Fiscal Notes* (Jan/Feb 1998) 6.
[54] Texas Department of Commerce, *Reinvestment Zones & Tax Abatements*. (Austin: Business Development Division, 1997) p. 1.5
[55] See Chapter 312 of the Texas Tax Code.
[56] Of the 1,430 tax abatements on record, 1,102 respondents specified the type of projects that would be receiving tax abatements. Shares do not total to 100 percent because some respondents indicated more than one type of project per tax abatement.

Other tax authorities (such as school districts, utility districts, emergency services, and navigation districts) may also participate in issuing property tax abatements. However, the largest local tax authorities in Texas—Independent School Districts (ISDs)—have steadily withdrawn their participation in the tax abatement programs.[57] (See **Figure 4.3**) The decline is partly in response to legislative changes in the state's school finance formula (SB-7 passed in 1993) that made school district participation in tax abatement programs more expensive in terms of lost state aid. As a result, the total number of ISDs participating in new tax abatements dropped from 89 in 1994 to 17 in 1996; currently, ISDs participate in only 9 percent of the total new tax abatement programs.

Figure 4.3 ISD Participation in New Tax Abatements



Note: Bars and corresponding percentages represent ISD participation *rates*, while line and corresponding values represent *number* of ISD agreements.
Source: Texas Department of Commerce, *Reinvestment Zones & Tax Abatements*. p. 3.3.

From 1981 through 1996, local governments created nearly 1,200 reinvestment zones in Texas. Not every designated zone has entered into a tax abatement agreement. 122 of the zones created since 1981 reported inactive. Nevertheless, most zones remain active and in 1996, local governments reached 191 tax abatement agreements with businesses. According to the Comptroller, 93 Texas counties abated taxes on property worth $10.4 billion; 158 school districts abated taxes on property worth $9.4 billion; and 127 cities abated taxes on property worth $3.3 billion. Brazoria, Harris, Calhoun, Jefferson and Jackson counties reported the largest tax abatements.[58]

Given the emphasis placed on economic development in Texas, the state's economic development policy may be one of the most effective arenas in which to engage Texas's environmental and public health problems. However, current legislation and rules governing state and local tax abatement programs generally fail to incorporate environmental considerations in a meaningful and consistent manner. This approach fails

[57] Texas Department of Commerce, *Reinvestment Zones and Tax Abatements*, p. 3.3.
[58] Texas Comptroller of Public Accounts, "In the Zone: Sorting out Texas' Economic Development Districts," *Fiscal Notes* (Jan/Feb 1998) 7.

to recognize the link between economic development and resulting environmental or public health consequences such as air, land and water pollution and overuse of energy and water.

Supporters of enterprise zones argue that reducing taxes, relieving regulation, and eliminating other "government imposed barriers" in depressed neighborhoods will result in an infusion of capital and jobs to these areas.[59] Tax abatements, they believe, will not only encourage businesses to relocate in the enterprise zones, but they will also create net gains for investment and jobs. While tax abatement programs have undoubtedly created jobs—an estimated 18,617 in 1996—these programs have neglected environmental management in areas that need it most. As one liberal congressional supporter of enterprise zone legislation stated: "It's going to take more than a tax incentive to cause people to go into a bombed out economic disaster area and believe they can make a buck."[60] To entice businesses, state and local governments have removed regulatory barriers and reduced utility rates for businesses willing to locate in reinvestment zones. As part of a regulatory system, which currently emphasizes after-the-fact environmental regulation, these incentives discourage environmental and natural resource management. Opportunities to tackle environmental and public health problems should be confronted at the front end of economic development planning rather than coping after-the-fact.

E. Tax or fee structures that Lead to Inadequately Funded Natural Resource Regulatory Programs

Over the last decade, the Texas legislature has shifted from funding environmental protection with general revenue to a "fee funding" approach. However, this transition has resulted in some serious flaws in the funding of several state agencies. Fee structures for the Texas Natural Resource Conservation Commission (TNRCC) and Texas Parks and Wildlife Department (TPWD) often have caps or fees are tied to very narrow aspects of these agencies' operations, effectively limiting their revenue growth. Overall, this funding structure has led to Texas ranking 46th in the nation for per capita spending on environmental protection.[61] Reform to the tax or fee structures of these agencies would increase their budgets. It would also allow Texas to adequately fund natural resource protection programs that are currently hobbled by revenue and personnel shortages.

For example, 80% of the costs of operating the TNRCC is derived from fees paid by various regulated entities and fees on various consumer products (i.e. petroleum, lead acid batteries and tires). TNRCC now receives only about 6 % of its funding from general revenue funds.[62] Similarly, the TPWD receives its funding from fees levied on

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[59] Sar A. Levitan and Elizabeth I. Miller, *Enterprise Zones: A Promise Based on Rhetoric*. (Washington, DC: George Washington University, Center for Social Policy Studies, March 1992) p. 2.
[60] Charles Rangel, Hearings before the U.S. Congress, House Ways and Means Committee, "Administration's Enterprise Zone Proposal and HR.B, The Enerprise Zone Improvement Act of 1989" (Washington: Government Printing Office 17 October 1989) 79.
[61] Council on State Governments, *Resource Guide to State Environmental Management*, p. 33 (1996). This figure includes spending on fish and wildlife and pesticides, budgets which are not generally administered by the TNRCC.
[62] TNRCC, *Summary of Recommended FY 2000 Operating Budget* (August 13, 1999), p. 7.

various activities (i.e. licenses, dedicated sales tax, and park entrance fees) and from dedicated funds. In general this shift to fee funding in Texas has been made over the course of several years, with the fee structure of these agencies being established in a piecemeal fashion one legislative session at a time.

The result of piecemeal construction of the revenue sources for these agencies is that they are inadequately funded to meet their mandates to protect and serve the environment. For example, recent TNRCC reports as well as position papers from the regulated community and the public interest community identify problems with the current tax and fee structures. Early Sunset comments—from both the regulated industry and the public interest community—have focused on the need to address problems with the fee funding structure. The TNRCC has also recognized the need to reform its fee funding structure. In its *Strategic Plan for Fiscal Years 1999-2003,*[63] after discussing problems with its fee structure the agency concludes:

"The current fragmented funding structure of the TNRCC is not consistent with the agency's role as the consolidated, comprehensive state agency for environmental quality.

The existence of numerous dedicated funding sources impedes the ability of the agency and the Legislature to allocate funds to address the environmental priorities and needs of Texas.

Improvements are needed in the TNRCC funding structure to increase flexibility in spending authority by broadening the use of fee revenues, balance the dependence on pollution-based fees with more stable fee assessments, improve the equity of fee assessment rates between the smallest and largest operators, and simply the overall financial structure.

Changes such as these would give the Legislature the ability to better match resources with priority needs and more fairly assess the costs of environmental programs to regulated entities and the public."

Yet, to date the legislature has not taken a comprehensive look at the agency's fee structure to determine whether it needs to be updated or reformed. In part, the legislature—particularly the finance and appropriations committees—is not inclined to conduct such a review because it would raise the issue of excess fee revenue being used to certify a balanced budget.[64] If this excess fee revenue were not available to the General Revenue Fund, the state would be faced with finding other ways to generate that revenue

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[63] Texas Natural Resource Conservation Commission, *Strategic Plan for Fiscal Years 1999-2003, Vol. I (TNRCC: Austin, Texas, report No. SFR-35A/98, June 1998), pp. 24-25.*

[64] In some areas, however, the fee revenue collected substantially exceeds the costs of the TNRCC program to which the fee is tied. (See discussion of air emission fees and petroleum product delivery fees, below). In these instances, much of the "excess" revenue stays in the state's General Revenue Fund, helping legislators to certify that the overall state budget will be balanced. Even the water quality program, which is chronically under-funded, has recently had about a $ 6 million balance that has not been appropriated to the agency.

or cutting the budget to adjust to the lower revenue, neither of which would likely provide politically attractive choices.

Texas has reached the point where changes in the fee funding structure are critical if the TNRCC is going to be able to adequately protect the public health and the natural resources into the next century. In most of the core TNRCC program areas, there will be an increased number of entities requiring permitting, inspection and enforcement, and some of these programs—particularly water quality protection—are already substantially under-funded. Moreover, as TNRCC moves to a more "multi-media" and strategic approach to pollution control, maintaining the narrow targeting of fee revenue to certain program areas will be less feasible.

Major TNRCC Fees

This sub-section reviews the major core program fees authorized by statute to fund TNRCC operations. For each account, **Table 4.10** identifies the fees that are generally deposited to that account, the level and structure of the fee and the estimated amount of revenue generated by the fee in FY 1999 and FY 2000. **Table 4.10** also highlights particular problems with various fees. The discussion is organized by Account/Program designation, focused on the following six major accounts:

- Clean Air Account 151
- Water Resource Management Account 153
- Waste Management Account 549
- Petroleum Storage Tank Account 665
- Solid Waste Disposal Fee Account 5000
- Battery Fee/Remediation Account 550

TABLE 4.10 MAJOR TNRCC ACCOUNTS AND FEES (M is millions of dollars)

TNRCC Account	Fee components	Fee Structure	FY 99 Est. revenue[65]	FY 00 Est. revenue	Notes
Clean Air Account 151	Permit and Permit amendment fees (TX H&S Code 382.062)	0.15% of project capital cost, $450 min. fee; $80,000 max.; 0.5% of capital cost if PSD* project; fee to be used for air quality permitting and enforcement	$5.44 M	$4.95 M	
	Air Emission Fees (TX H&S Code 382.0621)	Annual fee of $26/ton for emissions less than 4000 tons per pollutant per year; fee to be used for federal operating permit program and related air quality activities; entities pay *higher* of this or the inspection fee, but not both.	$37.552 M	$36.29 M	TNRCC estimated in late 1997 that removal of the 4000 tpy/pollutant cap would result in an additional $27 million in revenue.
	Air Inspection Fee (TX H&S Code 382.062)	Annual inspection fee based on entity's SIC[66] code; min. is $625, max. is $18,750; entities pay *higher* of this or the air emissions fee, but not both; fee to be used to cover air enforcement program costs.	$4.493 M	$4.774 M	
	Motor Vehicle Inspection Fee (TX H&S Code 382.0622)	$2.00/vehicle inspection sticker; revenue used to "safeguard" the air resources of the state	$34.889 M	$27.912 M	Earlier FY 99 estimate was $25.8 M

[65] From data provided by TNRCC to Texas Center for Policy Studies on August 13, 1999. Actual FY '99 revenue collection figures should be available by October 1999.

[66] SIC is "Standard Industrial Code", a standard national system for classifying industries.

TNRCC Account	Fee components	Fee Structure	FY 99 Est. revenue[65]	FY 00 Est. revenue	Notes
	Motor Vehicle Emission Test Fee (TX H&S Code 382.037)	$13/ vehicle emission test fee of which $0.44 goes to TNRCC for vehicle I/M program	$2.81 M	$1.605 M	Remainder goes to test contractor ($11.25) and TX DPS; earlier FY 99 estimate was $1.488 M.
	Permit Renewal Fee (TX H&S Code 382.062)	Based on "aggregate emissions rate" but lower rate/ton for higher total emissions; Min. is $300; max. is $10,000	$0.493 M	$0.250 M	
	Total annual estimated revenue for Account 151		**$85.677 M**	**$75.783 M**	In past years, the legislature has not appropriated all this fee revenue to TNRCC. In FY 98/99, Acct. 151 had about $19 million in unappropriated fee revenue.

TNRCC Account	Fee components	Fee Structure	FY 99 Est. revenue[67]	FY 00 Est. revenue	Notes
Water Resource Management Account 153	Regional Water Quality Assessment (TX Water Code, 26.0135)	Fees range from $0.0007 per acre-ft/yr to $0.22 per acre-ft/year, depending on type and amount of water right and type of use; fees on wastewater discharge related to volume of discharge and amount of conventional pollutants in discharge and capped at $40,000.[68]	$5.1 M	$5.284 M	Irrigation water rights exempt from water rights fee; toxic pollutants not included in calculating wastewater fee.

[67] From data provided by TNRCC to Texas Center for Policy Studies on August 13, 1999. Actual FY '99 revenue collection figures should be available by October 1999.

[68] If facility has both water rights permits and wastewater permits, it only pays wastewater fee; used for Clean Rivers program.

	Waste[water] Treatment Inspection Fee (TX Water Code 26.0291)	Annual fee based on "pollutant potential", volume and loading of conventional pollutants; max. for municipal is $ 11,000; max for industrial is $25,000; used for water quality permitting and enforcement	$10.1 M	$11.084 M	Industrial discharge fee revenue would be increased by about 20% by removing $ 25,000 cap.
	On-Site Sewage Facility Application Fee (TX H&S Code 366.058)	$200 to $400 one-time permit fee for permitting program	$0.461 M	$0.446 M	Directed to on-site sewage facility activities
	Water Quality and Water Use Permit Application Fees (TX Water Code 5.235(e))	$100 to $ 2,000; one-time fee for water rights permitting	$1.04 M	$1.285 M	
	Plumbing Fixture Inspection Fee (TX H&S Code 372.002(d))	$ 50 initial; for certification of water-saving fixtures	$0.070 M	$0.064 M	
	Edwards Aquifer Application Fees (TX Water Code 26.0461)	$100-$5,000 based on acreage, sewage system, linear feet of pipe; for review of applications for development over Edwards Aquifer	$1.22M	$1.272 M	
	Utility Regulatory Assessments (TX Water Code 5.235(n))	Annual fee based of from 0.5% to 1% of total utility charge, depending on type of entity; for regulation of various districts and utilities	$2.559 M	$2.844 M	
	Bond Issue Application and Proceeds Fees (TX Water Code 5.235(f))	$700 max. plus cost of notice and 0.25% of bond issue principal; review bond applications	$0.543 M	$0.696 M	

	Public Health Service Fee (TX H&S Code 341.141)	$75 min. plus amount based on # of connections and other system factors; for public drinking water programs.	$3.5 M	$3.488 M	See HB 1 riders.
	Total Annual Estimated Revenue for Account 153		**$24.593 M**	**$26.463 M**	In past years, this account has had about a $ 6M balance

TNRCC Account	**Fee components**	**Fee Structure**	**FY 99 Est. revenue**[69]	**FY 00 Est. revenue**	**Notes**
Waste Management Account 549	Industrial solid waste and hazardous waste permit application fee (TX H&S Code 361.137)	One-time fee of $2,000 to $50,000, depending on size and complexity; intended to recover costs of processing applications	$0.362M	$0.194 M	Rider # 4 of HB 1 limits TNRCC appropriations of this to $75,000 per year
	Hazardous and Non-Hazardous Waste Generation Fee (TX H&S Code 361.134)	Annual Fee; $0.50/ton on Class I non-hazardous with $10,000 max.; $2.00/ton on hazardous with $50,000 max; used for waste program	$5.330 M	$4.87 M	
	Hazardous and non-hazardous waste facility fee (TX H&S Code 361.135)	Annual fee for treatment, storage and disposal facilities based on permitted capacity, type of waste and type of facility; max fee for hazardous waste facility $25,000; max. fee for non-hazardous waste facility is $5,000 for waste program	$2.306 M	$2.033 M	

[69] From data provided by TNRCC to Texas Center for Policy Studies on August 13, 1999. Actual FY '99 revenue collection figures should be available by October 1999.

	Hazardous Waste Management Fee (TX H&S Code 361.136(b)(1)(A)(d))	Annual assessment on hazardous waste treatment, storage and disposal facilities; ranges from $2 to $37.50/ton depending on type of facility, method of management and source of waste; commercial facility fee greater than non-commercial; higher fees on waste from out-of-state; Max fee is $40/ton on landfilled, in-state waste; fund capped at $16 million/yr; for waste program (See Note)	$7.214M	$7.76 M (approx.)	Revenue estimate reflects deduction of 25% of the fee paid by commercial hazardous waste facilities that goes to counties in which the commercial facilities are located. Revenue estimate also reflects ½ of the remainder of the commercial hazardous waste fees and non-commercial fees total that goes to the Hazardous and Solid Waste Remediation Fund 550. (The total amount of revenue from this fee is about $14.4 M for FY 99).
	Toxic Chemical Release Reporting Fee (TX H&S Code 370.008)	Annual fee on TRI report; $25/report; $250 maximum per facility; for processing TRI reports	$0.11 M	$ 0.065 M	
	Underground/Aboveground (UST/AST) Storage Tank Registration (TX Water Code 26.358(f))	$25/AST tank; $50/UST tank; annual fee; to be used for corrective action and AST/UST program elements	$3.887 M	$3.204 M	
	Radioactive License and Registration Fees (TX H&S Code 401.301)	$8,500 to $28,900 annual fee on disposal or processing facilities to be used for radioactive waste licensing, monitoring and implementing radioactive waste regulatory program	$0.037 M	$0.038 M	Fees on radioactive waste generation and radioactive materials use are set under TX H&S Code 402.2721.

	Voluntary Clean-up Fee (TX H&S Code 361.604)	$1,000 initial one-time fee for application; TNRCC authorized to periodically bill for staff time spent on processing application; to be used for VCP applications processing.	$ 0.782 M	$0.978 M	
	One-half of revenue from Solid Waste Disposal Account 5000 (see below)	Used for a variety of municipal solid waste activities at TNRCC	$14.53 M	$13.55 M	
	Total Estimated Revenue for Account 549		**$ 34.56 M**	**$32.69 M**	In past sessions, this account has also received about $6.5 M transfer from the Petroleum Storage Tank Remediation Account 655

TNRCC Account	**Fee components**	**Fee Structure**	**FY 99 Est. revenue**[70]	**FY 00 Est. revenue**	**Notes**
Petroleum Storage Tank Remediation Account 655	Petroleum Product Delivery Fee	A fee, based on receiving tank capacity, is assessed on the delivery of a petroleum product removed from a bulk storage facility for distribution or sale within Texas; the average fee has been $0.012 per gallon, but will decrease by 25% in FY 00. Fund capped at $125 million, money used to administer PST remediation program, including reimbursement of eligible owners and operators, etc.	$ 155.2 M	$ 117 M	In past sessions, fees from this account have not been fully appropriated to TNRCC; the unappropirated account balance in recent years has been over $25M; Legislature appropriated $ 138 million from fund to TNRCC for FY 00; fee extended to February 28, 2002.
	Total estimated revenue for Acct. 665		**$ 155.2 M**	**$ 117 M**	

[70] From data provided by TNRCC to Texas Center for Policy Studies on August 13, 1999. Actual FY '99 revenue collection figures should be available by October 1999.

TNRCC Account	Fee components	Fee Structure	FY 99 Est. revenue[71]	FY 00 Est. revenue	Notes
Solid Waste Disposal Fee Account 5000	Municipal Solid Waste Disposal Fees (TX H&S Code 361.013(a))	Fee assessed quarterly on municipal solid waste disposal, treatment and processing facilities; for waste disposed at landfill, rate is $1.25/ton or between $0.25 and 0.40/cubic yard; rate for other facilities is $0.625/ton or between $0.125 to $0.20 per cubic yard; various refunds available for composting yard waste; used for local grants and municipal solid waste program	$28.32 M, ½ of which goes to Acct. 549, so revenue is actually $14.16M	$13.06 M	The revenue from this and other fees remaining in this account (after transfer of ½ to Acct 549) is dedicated to local and regional solid waste planning and projects.
	Various Sludge Hauler and Registration Fees (TX H&S Code 361.013(a))	Annual fees ranging from $10 to $500/yr; see note on MSW fee for use.	$0.411 M generated; $0.206M remains in this account	$0.35 M	
	Various Sludge/Beneficial Use Fees (TX H&S Code 361.013(a))	$0.20 to $1.00/dry ton; see note on MSW fee for use.	$0.333 M generated; $0.167 M remains in this account	$0.14 M	
	Solid Waste Permit Fee (TX H&S Code 361.137)	One-time permit application fee of between $2,000 to $50,000; see note on MSW fee for use.	$0.006 M generated; $0.003M remains in this account	$0.003 M	
	Total annual revenue estimated for Account 5000		**$14.53M**	**$13.55M**	

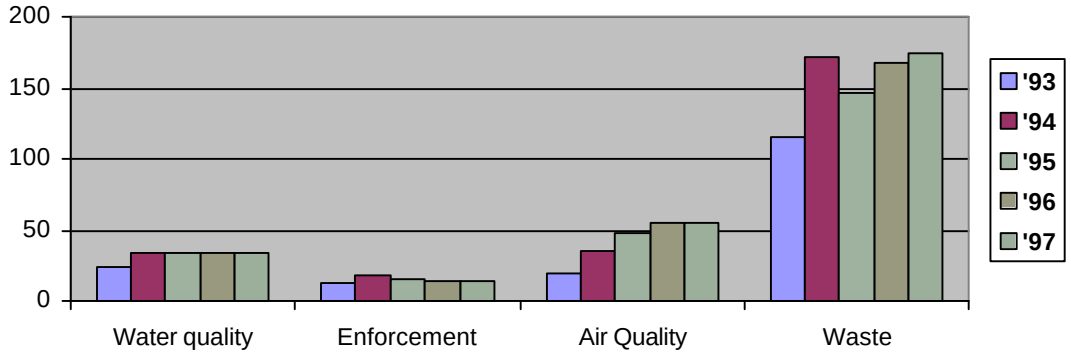
[71] From data provided by TNRCC to Texas Center for Policy Studies on August 13, 1999. Actual FY '99 revenue collection figures should be available by October 1999.

TNRCC Account	Fee components	Fee Structure	FY 99 Est. revenue[72]	FY 00 Est. revenue	Notes
Remediation Fee Fund 550	Fee on purchase of lead-acid batteries plus account interest (TX H&S Code 361.138(b)); used for clean-up of industrial/hazardous waste sites and state superfund program.	$2.00 to $3.00 per battery	$20.537 M	$14.95 M	
	½ hazardous/non-hazardous waste management fee, minus the 25% of the commercial fee that goes to counties (see discussion under Acct. 549)		$7.214 M	$7.76 M (approx.)	
	Interest on Fund 550			$3.353 M	
	Total annual revenue for Acct. 550			**$26.06 M**	

[72] From data provided by TNRCC to Texas Center for Policy Studies on August 13, 1999. Actual FY '99 revenue collection figures should be available by October 1999.

As we noted above, Texas ranks quite low among the 50 states in environmental spending, especially with regard to water resources protection. Funding for most of the core TNRCC programs has declined or held steady between 1995 and 1997, after increasing between 1993 and 1995. (See **Figure 4.4** and **Table 4.11**). This levelling-off of funding has occurred even as the state has been experiencing rapid population growth (with associated environmental pressures), as well as increased industrial activity associated with a strong economy.

Figure 4.4 TNRCC Budget Trends: FY 93 to FY 97 (Millions)[73]



As **Table 4.11** illustrates below, the budget of the TNRCC has not grown over the last four years despite rapid population growth and industrial expansion that has increased stress on our natural resources. Texas now ranks 47th among states for spending on water resources and water quality on a per capita basis. Similarly, the state ranks 46th for per capita spending on drinking water. Texas ranks better on per capita spending for air quality (17th), hazardous waste (15th) and municipal solid waste (19th).[74] These programs generally have a more suitable fee structure than water quality. Overall, however, the lack of adequate resources made available to the TNRCC has resulted in serious air and water quality problems. (*Texas ranks number 1 in toxic air pollution emissions, number 1 in emissions of smog-forming nitrogen oxide and volatile organic emissions, and number 1 in the number of facilities receiving hazardous waste*).[75]

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[73] Notes to Figure 3.2: Waste Category does not include petroleum storage tank funding, which ranged from about $62-65 million/year in FY 94/95 to $106 million in FY 96/97. Some enforcement activities included in air and water budgets (see Table 3.12 below). In FY 94, the agency was appropriated $19.6 million for enforcement, but reported expenditures of only $18.5 million. In FY 95, the enforcement appropriation was $18.5 million, but the agency reported budgeting only $15.1 million. The FY 96 and FY 97enforcement figure includes about $1.27 million/year for occupational licensing that does not appear to be included in the FY 94/95 figures. Sources: Appropriations Bills for FY 94/95 biennium and FY 96/97 biennium and TNRCC, *Overview Strategic Planning and Appropriations*, June 1995, page 33.

[74] Per capita spending figures were calculated with the most recent data available. 1996 state spending figures were used form the Council of State Governments, *Resource Guide to State Environmental Management*, 5th Edition (1999). 1997 state population figures were taken from the U.S. Census Bureau, *State Population Estimates and Demographic Components of Population Change: July 1,1997 to July 1, 1998* (1998).

[75] Texas Center for Policy Studies, *The Lone Star Ranking: Texas' National Ranking for Key Environmental Indicators*, Public Interest Sunset Working Group Issue Paper No. 1 (Fall 1999).

Table 4.11 TNRC Core Function Budget Trends: FY 94-FY 97 (Millions $)

Core Function	FY 94	FY 95	FY 96	FY 97
Waste Permitting/ Regulation	12.07	12.11	8.91	8.91
Water Pollution Control[1]	23.9	23.9	22.4	22.4
Safe Drinking Water	6.024	6.043	6.026	6.026
Water Utilities	2.929	2.923	1.755	1.755
Enforcement (waste, spills, enforcement support)	19.6	18.5	13.1	13.1
Air Enforcement	7.04	9.04	12.8	14.6
Air Permitting	16.0	20.5	17.5	16.0
Air Quality Monitoring	11.8	10.8	9.7	9.6
Air Quality Planning[2]	12.4	10.3	14.6	14.1

[1] Includes permitting, some enforcement budget and water quality planning, including CCMPs.
[2] Includes mobile source emission program.
Source*: Appropriations Bills for 1994/1995 and 1996/1997 Bienniums.*

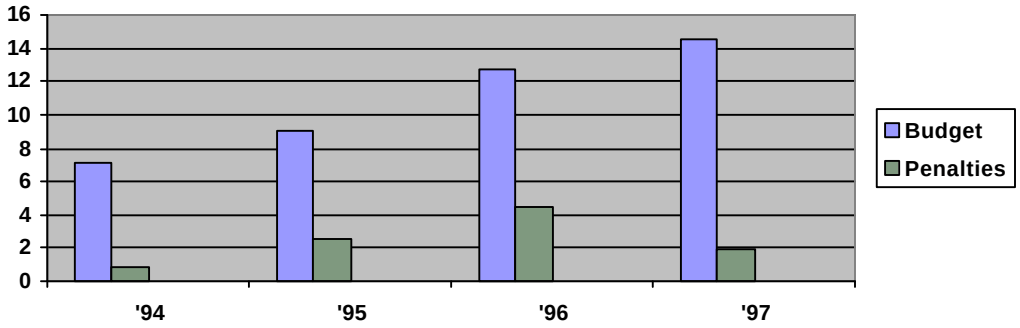
Table 4.12 Appropriations in Core TNRCC Program Areas: FY 98 to FY 01 (Millions)

Area	FY 98	FY 99	FY 00	FY 01
Air Quality Permitting	11.55	11.55	11.6	11.2
Water Resources Permitting[1]	6.92	~10	12.00[2]	13.00[2]
Waste Permitting	10.4	10.4	9.46	9.47
Air Quality Assessment & Planning	27.15	26.31	31.2[3]	29.8[3]
Water Assessment & Planning	18.8	14.7	25.7[4]	24.8[4]
Waste Assessment & Planning	12.9	12.8	13.7	13.7
Pollution Prevention & Recycling	2.97	2.46	3.87	3.87
Safe Drinking Water	7.63	7.15	9.67	8.67
Water Utilities Oversight	2.73	2.64	2.38	2.38
Enforcement & Compliance	38.9	28.0	47.3[5]	47.2[5]

[1] Includes water rights permitting. Increase associated with NPDES authorization: FY 98 to FY 00.
[2] Includes NPDES stormwater permitting.
[3] FY 00 does not include approximately $ 36 M appropriated for Tejas settlement. Additional funding over FY 98 to FY 99 for air quality planning and grants to local governments not included. (See **Table 4.15**).
[4] Includes additional appropriations for TMDLs. Also, water availability monitoring and national estuary programs included. (See **Table 4.15**).
[5] Includes additional funds for data base improvements, stormwater program, some air quality related activities and moving technical assistance and small business assistance personnel from Austin to the field offices.

There have been some exceptions to these trends. Funding for the TNRCC's program to cleanup petroleum storage tanks increased between 1994 and1997. Funding for air quality programs also increased, primarily because the TNRCC began implementation of the operating permit program required by Title V of the Federal Clean Air Act. Funding for air quality enforcement increased as well. **Figure 4.5** compares air quality enforcement penalties with appropriations for air quality enforcement.

Figure 4.5. Comparison of Air Enforcement Funding and Air Quality Penalties: FY 94 to FY 97 (Millions)[76]



Unfortunately, it is very difficult to track funding trends by core function of the TNRCC's programs from the period of 1993 to 2001 because the agency significantly changed the structure of its budget request after FY 1997. Compare **Table 4.11** and **Table 4.12**, the discrepancies result from TNRCC using different goals and more aggregated figures. Nevertheless, TNRCC's own legislative appropriations request (LAR) for the 2000-2001 biennium provides examples of how funding constraints have forced the agency to reduce oversight of regulated facilities (See **Table 4.13**).

As **Table 4.13** illustrates, the agency characterizes its approach to dealing with funding constraints by using euphemisms such as "streamlining", "flexibility" and "prioritizing." These terms are intended to invoke an image of increased government efficiency. In reality, however, many of these changes have had the effect of reducing regulatory oversight and enforcement. For example, as **Table 4.14** illustrates, the agency did not meet many of its inspection and enforcement performance goals for FY 98, based on the appropriations bill and FY 98 reported data:

The "streamlining" and "flexibility" changes in permitting often cut affected citizens out of the permitting process through increased use of exemptions, registrations and general permits. This type of streamlining eliminates the ability of neighbors of a potentially polluting facility to request a permit hearing or otherwise have a meaningful opportunity for input before the facility is authorized to operate or expand.

[76] "Penalties" is total penalties assessed in the air program through administrative penalty orders. Sources: (1) Appropriations bills for FY 94/95 and FY 96/97; (2) TNRCC, "TNRCC Posts Record Enforcement Numbers" and accompanying data, September 23, 1996; *TNRCC Annual Enforcement Report* for FY 97.

Table 4.13 Examples of Budget Constraints Leading to TNRCC's Reduced Oversight of Regulated Facilities[77]

Program	Impacts of Budget Constraints
Air Quality Permitting	"To partially offset [the] expected increases in workload, the NSR [New Source Review] program will implement further **streamlining** in order to **shift resources** to provide the maximum available resources to areas of **greatest need**, including the identification of a de minimus level below which it can be safely determined that preconstruction **permitting review is not required**." (page III-4)
Waste Facility Permitting	TNRCC states that its permitting and facility review workload has increased significantly due to various factors (page III-13). To address these factors, the agency has taken and is taking several actions, including: • " Permitting **flexibility**—the industrial and hazardous waste permitting program has initiated review of the permitting process in order to identify areas for **regulatory reform** which may introduce more simplicity, clarity, common sense or **flexibility** into the permitting process. Results involve: ❑ **reduction in permit modification requirements**; ❑ **changes in state rules/statutes where they exceed federal requirements**; ❑ **reduced** submittal of permit/compliance plan application materials; ❑ development of permit modules to **expedite permit review**; ❑ input from the **regulated community**; and ❑ ongoing efforts by the TNRCC and EPA to further **streamline** and provide **flexibility** in the corrective action [pollution clean-up] process. • The Radioactive Waste Program's current funding source . . .is insufficient to fully fund the program, so the agency **prioritizes by risk**. Currently this fund provides **only 9 percent** of the needed allocation to administer this program. Another stable funding source needs to be identified to address the remaining 91 percent. • The "20 Points of Light" initiative implemented by the TNRCC, in cooperation with the regulated community of waste disposal well operators, is increasing **flexibility and streamlining** of program implementation. • The TNRCC MSW Permits Program is developing more **streamlined regulations** for permitting and modifying of municipal solid waste facilities, which may help alleviate some of the permitting backlog." (page III-14).
Water Utilities Oversight (does not include drinking water quality regulation)	"Water and sewer utility service providers are monopolies in the area where they provide services. In order to ensure that customers have adequate utility services available at reasonable rates, state laws provide for regulatory oversight of various aspects of water and sewer utilities." (page III-46). "While rules changes **exempting small utilities from regulatory oversight** have helped somewhat, keeping up with increased demand for CCNs, rate reviews and technical assistance has become increasingly challenging in light of funding and staff reductions in recent years." (page III-47).
Inspection and Enforcement *(Note: the LAR fails to provide specifics about the very low inspection rates that are occurring in several TNRCC programs).*	"Inspection and enforcement activities are resource intensive. The size of Texas requires extensive travel to conduct inspections and coordinate enforcement activities. Population and business growth have also increased demands upon the agency in pursuing its mission…travel limitations have limited TNRCC's ability to conduct inspections. It is expected that travel restrictions will continue to affect TNRCC's inspection ability…" (p. IV-5) "**Agency resources for compliance monitoring and enforcement continue to be lacking** and therefore careful **prioritization and streamlining** are increasingly necessary."

[77] From Texas Natural Resource Conservation Commission, *Legislative Appropriations Request for Fiscal Years 2000 and 2001* (TNRCC: Austin, Texas, August 21, 1998, Report No. SFR-37/00).

Table 4.14 TNRCC Inspection and Enforcement Goals: FY 98

Performance Measure	FY 98 Budget Target	FY 98 Actual[78]
Number of Air Facilities Inspected	4,449	16,483[1]
Number of Regulated Water Facilities Inspected	7,200	5031[2]
Number of CAFO Inspections	700	464
Number of MSW Facilities Inspected	1,704	1,440
Number of ISW/HW Facilities Inspected	1,100	884
Number of PST Inspections	6,700	6,343
Number of Air Program Administrative Orders	225	178
Number of Water Program Administrative Orders	447	211[3]
Number of Waste Program Administrative Orders	190	136

[1]Includes inspections by local government programs in Houston, El Paso and DFW areas.
[2]Includes drinking water and wastewater discharge facilities.
[3]Includes wastewater, drinking water and CAFO orders.

In 1998 testimony to the Texas Senate Finance Committee, former TNRCC Executive Director Dan Pearson was candid about the agency's funding needs that were not met in the FY 98-99 biennium, telling the committee:

"Under-funded activities included: significant reductions for the Superfund program; funding to address TMDLs—or the assessment of troubled streams in Texas; funding to address problems that result from closed landfills; funding to match a federal grant for additional hazardous waste permitting and inspections; and funding to inspect additional public drinking water systems and wastewater plants, which was of particular interest. Today, only 66% of drinking water systems are being inspected each year and only 30% of wastewater plants.[79]

Water Quality Program.

The water quality program is one of the TNRCC core functions that has been most damaged by under-funding over the last few years. The lack of funding has resulted in reduced inspection rates and greatly reduced monitoring of water quality, as well as an inability to implement new programs—such as the total maximum daily load (TMDL) effort. TMDLs are designed to address on-going water pollution, especially from non-point sources such as urban run-off and agricultural operations. The level of resources available to adequately implement the federal wastewater discharge permitting program (NPDES) recently delegated to the state has also been questioned.

The current fee structure is partly to blame for the problems in the TNRCC's water quality program. Fee revenue for the permitting and enforcement activities of the water quality program comes primarily from the wastewater treatment inspection fee. This fee,

[78] TNRCC FY 98 Annual Enforcement Report (available on-line at TNRCC website)
[79] Dan Pearson, TNRCC Executive Director Senate Finance Subcommittee Hearing, February 24, 1998, p. 3.

however, was capped at $11,000 per facility. Therefore, the water quality program depends much more heavily on general revenue than any of the other core TNRCC programs. Approximately 40 percent of the water quality permitting, assessment and enforcement program was supplied by general revenue in FY 99.

Because the water quality fee is capped, it results in a lower fee per ton of pollutant emitted than the fee used to support the air and waste programs. According to TNRCC, fees for air pollutants are about $26/ton; a ton of waste deposited in a commercial hazardous waste landfill is usually assessed at about $ 30/ton; but traditional pollutants in wastewater discharges may be assessed at less than $ 1/ton.[80]

In FY 99, the maximum fee for industrial discharge facilities was increased to $ 25,000. This increase was designed to pay for 44 new full-time TNRCC employees for implementation of the NPDES program. This fee increase is an encouraging sign. Nevertheless, the TNRCC needs to move forward with tax reforms that will adequately fun core programs—such as the water quality and assessment program—in the future.

Changes for the 2000-2001 Biennium. Along these lines, the 1999 Texas Legislature did appropriate TNRCC certain additional program funds for the 2000-2001 biennium, as compared to the TNRCC's funding levels for FY 98 and 99. In particular, the Legislature provided new funding for TMDLs and air quality planning (but NO new employees to go with the funding). However, other programs have a decreased level of support. **Table 4.15** compares appropriations in key core program areas and the one program where there is widespread acknowledgement of under-funding—water quality enforcement—the legislature did not fulfill TNRCC's request for an additional $8.7 million over the biennium.

Table 4.15 Legislative Response to Key TNRCC "Exceptional Item" Requests for FY 2000-01 Biennium

Area	Request	Legislative Response
NPDES Stormwater Permitting	$2.3 million for the biennium and 35 FTEs (full time employees)	$2.3 million appropriated, but not clear about FTEs
TMDL Program	$11.1 million, with 17 FTEs	$8 million with zero FTEs
Air Quality Standards Implementation	$12.8 million, with 27 FTEs	About $8 million, with zero FTEs
Water Quality Improvement	$8.7 million with 36 FTEs, including $3.1 for water availability modeling (planning)	$3.13 million, with zero FTEs ; to be used for water availability modeling
Grants to local governments for air quality/attainment	$1.605 plus possible $1 million more	$1.605 plus possible $1 million more
National Estuary Program	$6 million	$5.4 million
Central Registry/single facility ID project	$2.26 million	$2.26 million
Compliance and Enforcement Data Base	$3.2 million	$3.2 million
Office of Water and Office of Waste Data Base Consolidation	$1.6 million	$1.6 million

[80] TNRCC Regulatory Forum Handout, "TNRCC Funding Structure", March 13, 1998, available at http://www.tnrcc.state.tx.us/oprd/forum/980313/fundbrf.html.

Texas Parks and Wildlife Department

The Texas Parks and Wildlife Department faces similar revenue constraints as the TNRCC, in part, due to limitations in its current fee funding structure. In 1993, the Legislature changed the basic sources of general revenue available for TPWD. It moved away from subsidizing state and local parks with a 2-cent tax on the sale of cigarettes to a draw from the general sales tax revenue attributed to sporting goods instead.[81] The intent of the Legislature in switching the TPWD's source of revenue was to provide a revenue base that would coincide with the department's various outdoor objectives. Another major objective was to switch from the decreasing source of revenue provided by the cigarette tax to the increasing revenue source provided by sales taxes attributed to sporting goods. This draw, however, is capped at $32 million and rules govern the distribution of the revenue.

The rules that govern the distribution of the $32 million to the TPWD are set as follows: (1) the first $27 million is split 50/50 between the State Park Account and the Recreation and Parks Account [Local Parks Fund]; (2) for amounts above $27 million, 40 percent is distributed to the State Park Account, 40 percent to the Recreation and Parks Account, and 20 percent to the Capitol Account, which the TPWD may utilize according to the Parks and Wildlife Commission's wishes.[82] These rules result in the distribution of $15.5 million to the State Park Account (0064), $15.5 million to the Recreation and Parks Account, which is a separate account in the general revenue fund (0001), and $1 million to the Capitol Account (also in the general revenue fund). See **Table 4.16**. In 1998, sporting goods sales raised $62.1 million in tax revenue, as a result of the cap, the Parks and Wildlife Department received approximately 51% percent of the tax revenue generated by sporting goods sales.

As **Table 4.16** demonstrates, the tax revenue attributed to sporting goods sales is only one source of funding for TPWD, whose revenues in fiscal 1998 totaled $203 million. By far, the agency receives most of its revenue from user fees. In 1998, fees accounted for $97.6 million of the total revenues.[83] Most fees were collected in the Game, Fish, and Water Safety account (0009) and pay for (*get Parks and Wildlife figures*). Nevertheless, for certain divisions in certain years, fees have not adequately supported the operations of the agency and the general revenue cap has had a real impact on TPWD's budget.

Recently, the State Parks Division of TPWD received attention because of its under-funding. The State Parks Division consists of a headquarters based in Austin, eight regional offices and 123 state parks. According to the State Auditor, the Parks Division faced an annual operating shortfall of $10.1 million in 1997. See **Table 4.17**. Available

[81] Tax revenue excludes general footwear and apparel. From a primer provided by Texas Parks and Wildlife Department, "Sales Tax Attributable to Sporting Goods," p. 1.
[82] The direction for the disposition of proceeds form the General Sales Tax is found in Section 151.801 of the Tax Code. TPWD, op cit at p. 1.
[83] Texas Parks and Wildlife Department, *Self Evaluation Report* for Sunset Review (August, 1999) 41-50.

resources of $41.4 million covered only 80 percent of the $51.5 million needed to run the state park system.[84].

Table 4.16 Sources of Revenue for Texas Parks and Wildlife: FY 98 (Actual)

Source	Amount
General Revenue (0001)	$22,657,451
Game, Fish and Water Safety (0009)	$104,645,535
State Parks (0064)	$41,168,749
State Land and Water Conservation (0223)	$1,181,997
Texas Park Development Fund (0408)	$122,958
Texas Recreation and Parks Open Space (0467)	$18,439,344
Non-game and Endangered Species Conservation (0506)	$388,071
Lifetime License Endowment (0544)	$407,670
Artificial Reef (0679)	$318,380
State Parks Endowment Trust Account (0885)	$37,470
Park Fee Trust Account (0965)	$11,738
Texas Parks and Wildlife Capital (5004)	$1,09,073
Big Bend National Park (5030)	$14,155
Shrimp License Buyback (5023)	$194,305
TPFA Building P&W Project (7503) U/F (7503)	$11,749,662
Operation Game Thief Account (9999) U/F (0967)	$200,169
Grazing Lease Account (9999) U/F (0967)	$128,228
Local Park Bank Accounts (9999) U/F (0968)	$540,899
Educational Outreach (9999) U/F (0971)	$143,729
Total	**$203,399583**

Source: Texas Parks and Wildlife Department, *Self Evaluation Report* for Sunset Review (August, 1999) 35.

As **Table 4.17** illustrates, sporting goods taxes raised 37 percent of the Parks Division's revenue. The 1997 revenue shortfall is consistent with the historical trend of park-system funding. From 1993 to 1997, field operating expenditures (regional and park) fell from $26.5 million to $26 million, or 1.9 percent despite the addition of new parks and facilities to the parks system. As a result, Parks and Wildlife management responded to the revenue shortfall by cutting some core services at existing parks. TPWD differed basic maintenance, limited equipment replacement, and reduced staff at the parks. For example, the number of field employees reached a five-year low in fiscal year 1998 with 941 classified and hourly employees.

[84] State Auditor's Office, "An Audit Report on the Texas Parks and Wildlife Department's Management of the State Park System." Report # 99-002, September 1998.

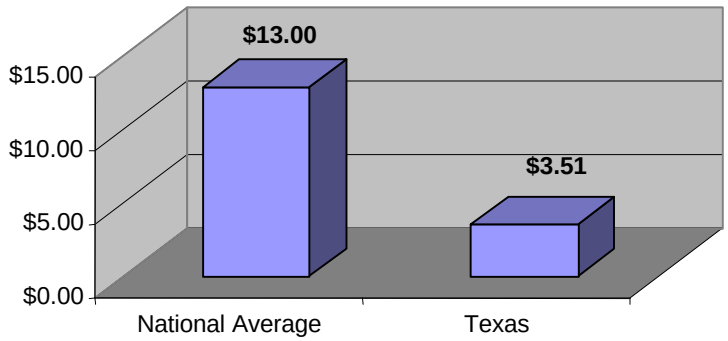
Table 4.17 Park System Revenues and Expenditures for Fiscal Year 1997

Revenues	
Fees	$ 19,954,195
Sporting Goods Tax	15,500,000
Texas Conservation Passport Sales	1,650,000
Value of Volunteer & Inmate Labor	4,339,000
Total Revenue	$ 41,443,195
Costs	
Special	$ 523,008
Operating	26,045,745
Division Support Services	7,943,653
Agency Wide Support Services	9,712,453
Equipment Replacement	500,000
Annual Preventive Maintenance	2,500,000
Value of Volunteer and Inmate Labor	4,339,000
Total Cost to Operate the Park System	$ 51,563,859
Difference	**($ 10,120,644)**

Source: State Auditor's Office, "An Audit Report on the Texas Parks and Wildlife Department's Management of the State Park System," September 1998, 6.

By most objective criteria, Texas lags considerably behind other states in its investments in parks, recreation and conservation opportunities. Texas currently ranks 48th in the nation for per capita spending on state parks and recreation.[85] In 1996, the state fell 77 % below the national average, spending only $3.51 per capita. (See **Figure 4.6**) This funding shortage has affected state park infrastructure as well. As the State Auditor recognizes, steady reduction in routine maintenance of state parks has contributed to an estimated backlog of $123 million in major repair needs at the parks.[86]

Figure 4.6 Government Spending on All Parks



Source: Institute of Renewable Resources, *Texas Outdoors: A Vision for the Future*. (College Station: Texas A & M University, Agriculture Program, 1998) 7.

[85] Texas Comptroller of Public Accounts, "Where We Stand," October 1998.
[86] State Auditor's Office, "An Audit Report on the Texas Parks and Wildlife Department's Management of the State Park System," September 1998, 3.

The National Association of State Park Directors ranked Texas 28th in land area devoted to parkland (2.0 acres/square mile of state land in 1995).[87] In total, Texas has 4,051,936 acres of parkland managed by federal (56% of the total) and state agencies (32% of the total) as well as local and commercial operations. Parkland accounts for 2.4 percent of the total area of the state.[88] The amount of parkland in the state requires significant supervision and maintenance, yet Texas devotes few resources to the park system.

Despite these problems, efforts to secure adequate funding for the Parks and Wildlife Department have consistently met legislative rejection. In response to the steady revenue shortfall and the recommendations of a 1995 State Auditor's report, the Legislature authorized $60 million in bond revenue in 1997 to meet critical infrastructure repair needs of the Parks and Wildlife Department. TPWD plans to issue the $60 million in bonds in four separate issues (one issue per year beginning in 1998). However, $60 million in bond revenue only begins to cover the estimated backlog of $123 million in major repair needs at the parks. In recent years, TPWD has increased its fees to secure more revenue, but as the State Auditor points out, the Department may have reached the upper limits of at least some of its customers' willingness to pay increased fees.[89]

A piecemeal approach to fixing these problems is not practical and will not support the future needs of the state parks system. Instead, we recommend the Parks and Wildlife Department find new sources of funding --including lifting the cap on the sporting goods sales tax -- and the Legislature increase total appropriations to the State Park System to cover operational shortfalls and unmet annual maintenance needs.

F. Tax or fee structures that provide subsidies for natural resource exploitation or polluting activities

Extractive industries have historically been associated with severe environmental impacts in Texas such as groundwater contamination and air pollution yet, except in the case of oil production, these industries enjoy tax preferences that are rarely available to other businesses. Inevitably, the energy and mining industries are associated with depletion of the state's natural resource stocks. Texas has adopted severance taxes or other resource extraction charges as a base for funding various regulatory activities by the Railroad Commission. In the main, however, these fees do not account for the true cost of resource extraction. Thus, extractive industries such as coal enjoy subsidies resulting from the lack of severance taxes or other fees on their natural resource exploitation or polluting actives.

Table 4.18 provides a summary of the severance taxes on natural resource extraction in Texas. Crude oil production is taxed either at 4.6% of market value, or at 4.6 cents per barrel of 42 standard gallons of oil, whichever yields the greater amount of revenue. In

[87] Texas Comptroller of Public Accounts, "Where We Stand," October 1998.
[88] Texas Parks and Wildlife Department, *1995 Texas Outdoor Recreation Plan* (March 1997), 43.
[89] State Auditor's Office, "An Audit Report on the Texas Parks and Wildlife Department's Management of the State Park System," September 1998, 4.

addition to this severance tax, a 5/16 of one-cent production fee designated for the Oil Field Cleanup Program is assessed on each barrel of 42 standard gallons. Producers of natural gas, on the other hand, must pay a severance tax of 7.5 percent of the market value of the gas produced and saved within the state. In addition, the state assesses an oil-field clean-up fee of 1/30th of 1 cent for each 1,000 cubic feet of gas saved.

Table 4.18 Severance Taxes on Natural Resource Extraction in Texas

Fuel Type	Tax
Crude Oil Production Occupation Tax (Severance Tax)	4.6 % of market value of oil produced within state or tax of 4.6 cents per barrel of 42 standard gallons of oil; or 2.3% of market value for approved recovery projects.
Crude Petroleum Regulatory Tax	3/16th of 1 cent assessed on each 42-gallon barrel.
Natural Gas Production Occupation Tax (Severance Tax)	7.5 percent of market value of gas produced and saved within the state
Coal or Lignite Production Occupation Tax	None

Source: For Crude Oil, Texas Tax Code Section 202.052; For Natural Gas, Texas Tax Code Section 201.052.

Oil and gas producers must also pay an annual financial security, a sliding scale fee for drilling permit applications which ranges from $100 to $200 depending upon the depth of the well (an additional $50 fee is required to "expedite" the permit). Fees (both $100) are also required for each application to extend the time to plug a well, as well as to reconnect an oil lease or gas well after it has been severed or sealed. All of these fees, as well as annual fees for hualers of oil and gas waste such as produced salt water, fees for the discharge to surface water, a hazardous waste generation fee and the previously mentioned production clean-up fees on oil and gas producers are collected and deposited in the Oil Field Cleanup Program.[90] Additionally, Railroad Commission administrative penalties and reimbursements, Attorney General's Office civil penalties and reimbursements, proceeds from the sale of equipment, interest, contributions and donations are deposited in the Oil Field Cleanup Fund. The oil and gas production fees have made up between 20 and 30 percent of the total revenue flowing to the Oil Field Cleanup Program over the last five years.[91]

Despite the myriad of fees assessed on the oil and gas industry, the costs of oil waste clean-up and groundwater contamination have often been greater than the amount of fees raised from the industry. The Railroad Commission recently reported 77 cases of groundwater contamination from oil and gas activities in 49 different counties, which had yet to be cleaned up, including 12 new cases in 1997. These cases included facilities covered under "Rule 8" such as surface storage and disposal of oil and gas wastes, injection waste facilities, and brine retention facilities.[92] In addition, there have been several contamination cases involving the injection of oil and gas waste in injection wells. While the responsible party is required to pay clean-up costs, in many cases the

[90] John Tintera, Oil and Gas Division, Railroad Commission of Texas, response to letter submitted by TCPS, November 19, 1999.
[91] Ibid.
[92] Texas Groundwater Protection Committee, *Joint Groundwater Monitoring and Contamination Report--1996*, 73.

Railroad Commission can not find a responsible party, and most use state funds to clean up the groundwater and soil contamination at the site.

To deal with the problems of contamination of the oil and gas industry—either from mining or its use—the Texas legislature has had to create specific clean-up fees:

- In 1984, the Texas legislature created an Abandoned Well Plugging Fund, which had spent approximately $54 million to plug 12,588 abandoned wells through FY 1997.[93,94] Another 2,730 wells were plugged in FY 1998 and 1999.[95] Currently, Texas Railroad Commission records indicate that 522,713 wells have been plugged, and 22,968 abandoned wells remain inactive and in violation of the commission's plugging rule.[96] Abandoned oil wells are channels for the upward movement of brine—salt water often found in oil-bearing zones—and they are paths to contamination by oil and gas, drilling fluids, and other contaminants. Salt water from these abandoned oil wells has already polluted the upper portions of the Colorado River.[97] The TNRCC and Railroad Commission have jointly dedicated $2.6 million to plug 171 identified wells in the Upper Colorado River Basin to deal with the problems of saline seeps in the basin.[98]

- In 1989, the Texas legislature created a reimbursement fund supported by fees on petroleum cargo tankers at bulk stations. Collected by the Texas Comptroller of Public Accounts, the fee—charged according to the size of the cargo truck—enables the state to assume most of the cleanup costs of leaking petroleum storage tanks.[99] When the party responsible for contamination is unwilling or unable to pay or cannot be located, the fund can be used to pay for clean up. From 1990 to 1993, almost $200 million from this fund was spent on petroleum-storage-tank clean up, but fee revenue was not sufficient to pay for all necessary cleanups.[100,101] In 1995, the Texas

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[93] Richard Ginn, Texas Railroad Commission, letter to Texas Center for Policy Studies, 30 January 1998.

[94] An estimated 1.5 million holes have been drilled in this century for oil- and gas-related activities. Currently, 281,981 oil wells and 73,151 gas wells across the state are registered with the Railroad Commission, and about 124,000 of these are not currently producing. Texas Water Development Board, *Water for Texas 1990*, pp. 1–9. And Richard Ginn, letter to Texas Center for Policy Studies, 30 January 1998.

[95] John Tintera, Oil and Gas Division, Railroad Commission of Texas, response to letter submitted by TCPS, November 19, 1999.

[96] Richard Ginn, Texas Railroad Commission, letter to Texas Center for Policy Studies, 30 January 1998.

[97] Robert Bryce, "More Precious than Oil," *Texas Monthly*, February 1991, 108.

[98] John Tintera, Oil and Gas Division, Railroad Commission of Texas, response to letter submitted by TCPS, November 19, 1999.

[99] There are some 155,000 underground and 20,000 aboveground storage tanks registered with the TNRCC. Texas Groundwater Protection Committee, *Joint Groundwater Monitoring and Contamination Report--1966*, 57.

[100] To date, 1,624 of the 7,131 documented cases (about 22 percent) have been successfully cleaned up. Tom Lewis, Petroleum Storage Tank Division, TNRCC, interview by Texas Center for Policy Studies, February 1994.

[101] Dan Neal, Reimbursements Section, Petroleum Storage Tank Division, TNRCC, interview by Texas Center for Policy Studies, 21 January 1998. According to Neal, any owner of a petroleum storage tank can make a claim to the fund, although an initial deduction of approximately 15 percent of the cleanup costs is not eligible for reimbursement. The TNRCC will cover most costs of cleanup, although the agency will fund the required clean-up only to appropriate health-based levels. If an

Legislature doubled the fee. In fiscal 1996, an additional $71 million was spent on cleanup and $52 million more was spent in fiscal 1997.[102]

- In 1991, the Texas legislature created the Oil Field Cleanup Fund, which incorporated the Abandoned Well Plugging Fund as well as wider site remediation for spills and abandoned oil and gas fields and administration and enforcement of permits, orders and ruels. The cleanup regulatory fees assessed on oil and gas production have provided between 20 and 30 percent of the total revenue collected over the last five years, with other permit and financial security fees, as well as Railroad Commission and Attorney General's Office penalties and reimbursements making up the lion's share of the fund. Between FY 1994 and 1999, $77.9 million in revenues were collected, while $72.9 million was spent. Approximately $41 million of this total was used to clean up waste sites or plug wells during this period, with the rest providing revenue for enforcement, administration and other RCT expenses.

- Early in 1999, the Texas legislature enacted a severance tax break (SB 290) for the oil and gas industry, which was suffering from low oil prices. The exemption which expired September 1, 1999—was triggered only when at least three consecutive months of low prices occurred and was capped at $45 million.[103] The exemption covered about 80 percent of oil wells in the state. The severance tax exemption was intended to keep small producing wells afloat while oil and gas prices were low. However, because the tax relief was only in effect as long as oil prices remained below a specified "trigger" level, it expired early in April, producing a revenue loss of $16 million. Opponents of SB 290 argued that the price of oil and gas should reflect its true cost—which the severance tax is in part designed to cover—and that if an emergency measure were needed, then the tax should be deferred, not eliminated.

Other Extraction Taxes

Unlike oil and gas production, which require a severance tax in Texas, there is no fee on the market value of coal. The absence of a severance tax encourages the use of coal as a basic fuel in Texas, despite its high environmental costs. **See Figure 4.7**. Texas does charge a permit fee for coal mining sites, which will be at least $5,000 for a new permit, $3,000 for a renewal and $500 for revising a permit. In addition, the Railroad Commission, which regulates the industry, assesses an annual fee per each acre of land from which coal is extracted. The amount can not exceed $120 per acre.

While there is no state clean up or remediation fee in Texas, the federal government does levy a production tax on active coal mining operations in Texas. These revenues support

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owner wishes to clean up to higher-quality levels, however, for liability or other reasons, that cost can not be reimbursed. In addition, there is an insurance deductible that the TNRCC will not cover, which has worked out to about 15 percent of clean-up costs.

[102] Dan Neal, Reimbursements Section, Petroleum Storage Tank Division, TNRCC, interview by Texas Center for Policy Studies, 21 January 1998.

[103] To qualify for the exemption, wells had to produce less than an average of 15 barrels of oil or 90,000 cubic feet of gas per day between October 1 and December 21, 1998. House Research Organization.

the Abandoned Mine Land Program, run by the Railroad Commission of Texas. Through 1998, the program had reclaimed 1,869 acres of abandoned surface mines, closed 264 abandoned mine openings and spent $15.1 million in federal funds during the reclamation activities. It is important to note that the coal production tax is used to reclaim not only coal mining sites, but uranium and hard rock mines as well.[104]

Coal mining has been common in Texas, the largest coal consumer in the nation. As of early 1997, there were 11 companies mining 25 different sites, while 2 other sites had closed and were being cleaned up. While the Railroad Commission requires that companies monitor groundwater quarterly for some basic parameters, such as fluoride, nitrates, and magnesium, companies are required to monitor for trace metals, such as lead, arsenic, mercury, and selenium, only once per year. There have been no confirmed cases of groundwater contamination from coal- or uranium-mining activities under Railroad Commission jurisdiction. However, the major groundwater impact has been the draw down of localized aquifers. Once the mined areas and localized aquifers are re-saturated through precipitation, adjacent aquifers and stream flows could be impacted by the mining activities.[105]

Similarly, uranium mines do not pay a severance tax in Texas. The state only assesses a small permit fee ($400 for a new permit, $200 for a renewal permit) and an approval fee ($10 per acres of land). While no uranium strip-mines are currently operating in Texas, three companies are involved in reclamation projects at five different uranium mining sites.[106] During the operation of mill sites, tailings ponds are used as receptacles for the by-products of the ore process. Upon a facility's closing, the tailing pond is dewatered and surrounded by a clay cap and radon barrier. The tailings pond sites, however, have resulted in groundwater contamination, including one confirmed case at the Chevron facility in 1996.[107]

Currently four tailings and waste sites—where the uranium was milled and extracted from the ore in Karnes and Live Oak counties—are being closed and covered to prevent further contamination of subsurface aquifers or radioactive waste emissions. The Texas Department of Health is supervising three of the tailing sites—run by Chevron, Exxon, and Conoco—with support from the TNRCC. The Department of Energy is supervising clean up of a fourth tailing pond in Falls City, Karnes County, an area that produced and processed uranium for the defense industry.[108] The Department of Energy site has cost about $35 million, 90 percent of which has been covered by the federal government.[109]

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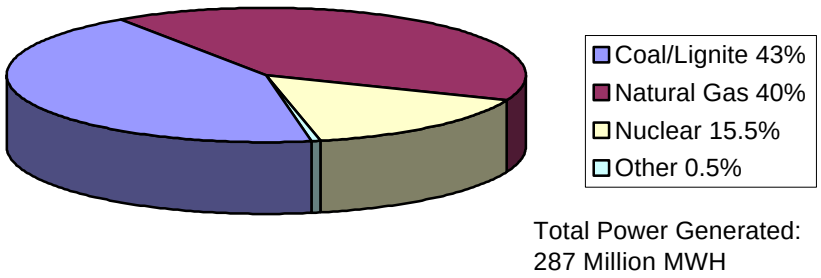
[104] Information from Railroad Commission of Texas, website, November 12, 1999.
[105]Texas Groundwater Protection Committee, *Joint Groundwater Monitoring and Contamination Report--1996*, 76.
[106]TNRCC, *Joint Groundwater Monitoring and Contamination Report, 1993*, 52.
[107]TNRCC, *Joint Groundwater Monitoring and Contamination Report--1996*, Table 1.
[108]Etter, interview with Texas Center for Policy Studies.
[109]Richard Ratliff, Bureau of Radiation Control, Texas Department of Health, letter to Texas Center for Policy Studies, November 1997.

Electricity and Air Emissions

No state uses or produces more electricity than Texas. Texans used 23 percent more electricity than California in 1996 (using 248 million-megawatt hours of electricity).[110] Utilities furnished about 77 percent of the state's electricity, while municipalities, river authorities and cooperatives companies contributed another 15 percent. Non-utility industrial co-generation plants make up the rest.

Coal is the major source of energy for utility electricity in Texas. For instance, in 1998 burning coal or lignite—a low-grade form of coal—produced about 43 percent of utility electricity. About 90 million tons of coal and lignite are burned each year at Texas power plants. Half of the coal and lignite comes from Texas, while the rest comes from Wyoming.[111] Figure 3.6 shows Texas Utilities' Energy Mix—coal and lignite, natural gas, nuclear power, and to a lesser extent, renewables and hydroelectric power provide the state's energy.

Figure 4.7 Texas Utility's Energy Mix, 1998



Note: Electricity from co-generation from industrial plants is not included. Renewables (0.1 percent) and hydroelectric (0.4 percent) make up less than one percent of total energy mix.
Source: Public Utilities Commission, *1999 Annual Update of Generating Electric Utility Data.*

It is important to note that the mix of sources of electricity generation has changed over time. In 1977, natural gas accounted for 86 percent of the fuel use in Texas. However, following passage of the Powerplant and Industrial Fuel Use Act in 1978—which phased out the use of natural gas due to a perceived shortage in natural gas—Texas power plants began to increase their use of coal and lignite to produce the state's electricity.

Not surprisingly, the increasing use of coal and other fossil fuels has led to major environmental quality problems, including water pollution, scarring of the land and solid waste pollution. The acidification of several lakes in East Texas, as well as the presence of selenium and mercury in fish, sediment and water columns has been linked to coal-fired power plants. Of more concern is the effect of coal-powered power plants on air quality. For example, during 1997, the sixteen major electric generating plants in Texas that use coal or lignite as fuel produced 64% of the nitrogen oxide emissions of power

[110] Public Utility Commission of Texas (PUC), *1996 Annual Report* (April 1997), 17.
[111] Public Utilities Commission, *1998 Annual Report* (December 1998), 15.

plants and approximately 28% of all nitrogen oxide emissions from all major industrial sources in Texas.[112]

Tax policy and subsidies have played a role in the development of fossil fuel-generated electricity in Texas. Coal power plants are subsidized in three different ways. First, as previously mentioned, there is no severance tax on coal or lignite production in Texas. Just as the presence of a tax can influence behavior, the absence of a tax can also influence behavior. While natural gas producers must pay a 7.5 percent market value severance tax to the state of Texas, coal producers in Texas pay no severance taxes. Many of the utilities such as Texas Utilities own their own mines.

The severance tax on natural gas acts as a disincentive to the use of natural gas compared to the use of coal produced within the state of Texas. Natural gas is a much cleaner fuel environmentally than coal or lignite, and new natural gas-fired plants are much more efficient and economical. However, companies such as Monticello receive a subsidy on the use of coal because of the absence of a severance tax. For example, Monticello generated 11,704,113 Megawatt hours by burning coal in 1996.[113] If the company had used natural gas instead, the state would have collected approximately $11,322,477 in severance taxes. This cost would have been passed onto Monticello had it used natural gas instead of lignite.

Second, because of the existing cap on emission fees, large coal-fired power plants have enjoyed a "volume discount" on criteria emission fees for many years. Under TNRCC regulations, industries (including utilities) are charged $26 per ton of criteria pollutant (nitrogen oxides, lead, sulfur dioxide, volatile organic compounds, carbon monoxide and particulate matter less than 10 microns). However, this per ton fee is capped at 4,000 tons for any single pollutant, meaning emissions of criteria pollutant above that total is "free." This has led to a subsidy to large-polluting industries, including the electric utilities. See **Table 4.19**. In fact, the 12 most-polluting power plants in the state received a discount or subsidy from emission fees of $18.5 million, based upon their 1997 Emissions Inventory. Interestingly, because of the way the emission fee is assessed, Harrington Power Plant, the ninth most polluting power plant in the state, actually paid more in emission fees than Martin Lake Power Plant, the most polluting power plant in the state, even though Martin Lake emitted 90,000 more tons of criteria pollutants.

[112] Texas Natural Resource Conservation Commission, *1997 Emissions Inventory.*
[113] Calculation assumes 1000 Btu per cf of natural gas and heat rating for natural gas-fired generation of 7000 Btu per kWh. Information from Bruce Biewald, Synapse Energy Economics, 28 September 1998.

Table 4.19 Top Polluting Power Plants in Texas and Resulting Emission Fees and Subsidies

Plant and Utility	Source of Power	Total 1997 Emissions (total tons)	1997 Emissions counted for fee	Estimated Fees Paid	Amount that would have been paid without cap	Subsidy from cap on emissions fee
Martin Lake, Texas Utilities	Lignite	139,022	10,984	285,584	3,614,572	3,328,988
Monticello, Texas Utilities	Lignite	127,306	13,997	363,922	3,309,956	2,946,034
WA Parish, Houston Industries	Coal	103,272	11,903	309,478	2,685,072	2,375,594
Big Brown, Texas Utilities	Lignite	95,743	9,603	249,678	2,489,318	2,239,640
Limestone, Houston Industries	Lignite	63,412	9,245	240,370	1,648,712	1,408,342
Welsh, SWP	Coal	51,773	10,090	262,340	1,346,098	1,083,758
Sommers-Deely-Spruce, City Public Services	Coal	51,603	10,986	285,636	1,341,678	1,056,042
Seymour, Lower Colorado River Authority	Coal	47,878	11,160	290,160	1,244,828	954,668
Harrington, SPS	Coal	47,791	11,491	298,766	1,242,566	943,800
Tolk, SPS	Coal	43,041	10,365	269,490	1,119,066	849,576
Sandow, Texas Utilities	Lignite	38,908	9,545	248,170	1,011,608	763,438
Pirkey, SWP	Lignite	32,014	9,114	236,964	832,364	595,400
Totals of Top 12		**841,765**	**128,483**	**3,340,558**	**21,885,890**	**18,545,332**

Source: Texas Natural Resource Conservation Commission, *1997 Emissions Inventory*.

Third, the "grandfathering" of most of the state's coal-fired power plants has meant they have not had to install expensive air pollution control equipment to comply with the Texas Clean Air Act in 1972. These industries have been "grandfathered" from seeking an air quality-operating permit, which means that some of the most rigorous pollution control requirements have not been applied to them. While this is not a tax subsidy per se, it favors the continued use of these plants by making the cost of producing electricity cheaper for these highly polluting utilities. For example, one study estimated the annual cost of meeting equivalent plant standards for three grandfathered units of the Monticello Power Plant, owned by Texas Utilities, would be $66.4 million.[114] Essentially, Monticello and other grandfathered power plants are receiving a regulation subsidy, in addition to the severance tax and emission fee subsidies. See **Table 4.20**. As discussed below, passage of Senate Bill 7 in 1999 will help end at least some of these subsidies by 2003.

[114] Bruce Biewald, "Synapse Energy Economics," Report for National Association of Regulatory Utility Commissioners, Sept. 28, 1998.

Table 4.20 Total Annual Subsidies of Monticello Power Plant, Texas Utilities

Plant	Subsidy from Emissions Fees (1997)	Severance Tax on Equivalent Natural Gas	Estimated Annual Cost to Meet "New Plant" Standards	Total Subsidies
Monticello, Texas Utilities	2,946,034	11,322,477	66,483,213	80,751,724

Source: Bruce Biewald, "Synapse Energy Economics," Report for National Association of Regulatory Utility Commissioners, Sept. 28, 1998.

Electric Restructuring and Deregulation

Until the 1970s, municipalities regulated most power plants in Texas by setting rates and granting franchises. In 1975, the Texas legislature created the Public Utility Commission to ensure adequate power supply and set affordable rates. Electric utilities operated strictly as monopolies until 1995 and were guaranteed a regulated income in return for an obligation to serve their customers regardless of cost.

In 1995, amendments to the Public Utility Regulatory Act partially opened the wholesale electric market to competition. Since that time, exempt wholesale generators (EWGs) can sell electricity to regulated electric utilities and power brokers can buy and sell wholesale electricity. In this way, a power plant that is short on capacity but does not want to build new capacity can purchase new power.

In addition, that same year, each generating electric utility was required to go through a detailed planning process, known as integrated resource planning (IRP). Through this process, utilities must work to develop a mix of electricity sources, possibly including solar, wind, natural gas and co-generation. Before a new plant can be built, the utility must put out that new capacity out to bid, including both demand-side (i.e. conservation measures) and supply-side management. In addition, the IRP process requires public input, including looking at environmentally-friendly choices like solar and wind power.

In 1999, the legislature passed Senate Bill 7, which restructures and deregulates the electric utility industry, providing retail competition in power generation and customer choice of electricity providers beginning January 1, 2002. Electric cooperatives, river authorities and municipal-owned utilities are specifically exempted from the competition, unless they choose to enter the market. By January 1, 2002, utilities must separate their activities into a power generating company, a retail electricity provider and a transmission and distribution (T & D) utility. Transmission and distribution utilities remain regulated by the Public Utilities Commission, while the others are opened to competition.

Deregulation and restructuring of the electric utility industry has significant tax and environmental consequences. For one, utilities that are not competitive may lose out. For local governments and counties who depend upon property taxes from these utilities, the loss of a utility and therefore its property tax revenue is potentially very significant. From an environmental perspective, one of the major issues is what types of plants are favored

by competition. For example, because grandfathered coal plants have not had to make the same amount of investments in air pollution equipment, they are potentially favored in a competitive market as other plants—or new plants—continue to have to make major investments to keep up with new regulations. In addition, coal plants are cheaper to run overall than cleaner natural gas plants or renewable resources. The Texas Natural Resource Conservation Commission and Public Utility Commission estimated in 1998 that competition would lead to an increase statewide of between 4.0% and 8.3% in nitrogen oxide emissions due to increased production at coal and lignite-fired plants.[115]

Under Senate Bill 7, utility rates are frozen until 2002. After that, there will be a rate cut for customers of 6 percent, which will remain the price for the next five years, except for price fluctuations. This "price to beat" is the maximum that can be charged to customers. To encourage competition, all retail providers must sell at least five percent of their energy to residential customers. Those retail providers who do not wish to sell to residential customers must pay into a system benefit fund. All customers will pay a fee on their electric bill into the system benefit fund as well. The funds are then used to lower electric rates for low-income people, to set up education programs and to reimburse school districts for property-tax losses due to restructuring. By setting the default "price to beat" and encouraging competition, Texas' system is less likely than other states to favor current service providers at the expense of potential renewable sources of energy. In addition, the system benefits fund will raise between $100 million and $180 million to help low-income customers, which should make electricity more equitable.

In addition, both the 1995 legislation and SB 7 specifically encourage the use of renewable energy. SB 7 requires the phasing in of 2,000 megawatts of generating capacity (about 3 percent of the total) by 2009. Through the integrated resource planning requirements of the 1995 legislation, utilities have sought public input on "alternative" renewable resources. For example, Central and Southwest Corporation is developing a *renewable energy tariff* program, which charges slightly higher rates to develop both a wind turbine farm and solar cells. Both the regulatory requirements to develop renewable resources and the IRP requirements allowing for renewable energy tariffs should help encourage development of renewable resources.

Perhaps the biggest environmental tax issue with respect to electric restructuring is stranded costs. Stranded costs are the historic financial obligations of utilities that are unrecoverable in a competitive market. Thus, stranded costs represent the difference between the book value and market value of utility assets. In Texas, the existence of potential stranded costs is primarily related to the building of two nuclear power plants, with about $5.0 billion in investment costs and debts remaining to be paid off. If utilities that invested in these power plants are allowed to pass the cost on to customers through a flat rate, essentially customers are forced to pay—and subsidize—the decision to invest in these plants.

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[115] TNRCC and PUC, *Electric Restructuring and Air Quality: A Preliminary Analysis of Reductions and Costs of Nitrogen Oxides Controls from Electric Utilities Boilers in Texas*, Austin: PUC and TNRCC, 1998, p. 23.

Similarly, the cost of environmental compliance—such as putting scrubbers on the grandfathered coal plants—is another example of potential stranded cost. By forcing customers to pay for the cost of new air quality compliance costs, businesses are forcing Texans to subsidize a plant that would have otherwise lost out to new and cleaner sources of power.

SB 7 allows utilities to recover 100 percent of their stranded costs by adding a transition cost on residential and business customers. In addition, SB 7 allows utilities to include air pollution control costs incurred before the start of competition as part of their stranded costs. While this represents a "subsidy" to large polluting power plants, most environmental groups felt it was necessary to ensure cleaner air given Texas's reliance on coal for its electricity (It is unlikely that these plants would shut down with or without the subsidy). Moreover, SB 7 requires all grandfathered power plants to apply for air emission permits by September of 2000, or shut down by May 1, 2003, and to reduce their 1997 emissions of nitrous oxides by 50 percent and their 1997 sulfur dioxide emissions by 25 percent. Essentially, in return for allowing the utilities to pass on their air pollution control costs and the nuclear power plants "stranded costs," the utilities are being forced to lower their emissions.

VI. CONCLUSIONS

This brief report provides an overview of the current state tax system in Texas, in the process identifying three severe problems -- the state tax structure is regressive, with the bulk of taxes passed onto the low and middle-income resident and through the sales tax, unstable, providing inadequate revenue growth and the overall tax incidence is low, with an unbalanced structure dependent upon the sales tax. For fundamental tax reform to occur in Texas, these problems must be alleviated. This report, however, does not lay out a blueprint for how to overhaul the state's tax structure, but attempts to identify opportunities for environmental tax reform which will encourage pollution prevention while helping to fund environmental oversight and protection. It is important to note that the report attempts to identify opportunities for environmental tax reform which will not exacerbate the three fundamental problems previously mentioned. Other environmental tax reforms advocated in other states – such as additional gasoline taxes or a carbon tax on carbon dioxide emissions – have not been explored in this report because such taxes tend to be regressive. Without fundamental reforms in the present tax structure – such as offsetting added gasoline or carbon taxes with reductions in sales tax or a progressive state income tax -- such taxes in Texas would likely have negative impacts on low and medium-income Texans.

The bulk of the report -- Chapter IV -- provides examples of environmental tax and fee reform opportunities that presently exist in Texas. The problems with the state's tax structure provide near or medium-term opportunities for reform in five broad categories:

- Tax or fee structures that encourage polluting behavior or, conversely, discourage industries from reducing pollution;
- Tax or fee structures that fail to account for the broader environmental or public health costs of polluting activities;
- Tax or fee structures that fail to recognize the link between economic development and resulting environmental or public health consequences;
- Tax or fee structures that lead to inadequately funded natural resource regulatory programs; and
- Tax or fee structures that provide subsidies for natural resource exploitation or polluting activities.

In this report, we illustrate existing tax and fee structures in Texas that exemplify these problems. In each case, there are opportunities for tax or fee reform that would provide environmental or public health benefits while addressing various needs for revenue generation. A brief summary of these opportunities follows:

Tax or fee structures that encourage polluting behavior or, conversely, discourage industries from reducing pollution

Specific Problems: A number of the emission fees and waste generation fees imposed by Texas statutes are capped, either in terms of a maximum fee payable by one entity or in terms of the maximum amount of an entity's emissions that are subject to the fee.

Specific Recommendations: Restructuring these fees to eliminate the cap could both (1) generate more revenue to fund under-funded regulatory programs and (2) provide strong incentives for pollution reduction. Depending on the specific discharge patterns/volumes in the various areas, removing the caps would also likely allow the fee/ton to be lower, while still providing for sufficient revenue to fund regulatory oversight. A lower fee per ton would reward those operations that minimize their discharge of pollutants to the environment by lowering their operating costs. This, in turn, could provide opportunities for creation of new jobs, paying higher wages or other investments.

Tax or fee structures that fail to account for the broader environmental or public health costs of polluting activities

Specific Problems: Exemptions to sales tax cost Texas some $19 billion every year. Some of the products exempted include goods with large, negative impacts on the environment. The exemptions provide a disincentive to sustainable resource use and pollution prevention.

Specific Recommendations: The sales tax exemption on pesticides and fertilizers and some aspects of timber operations should be eliminated. A program could be designed to use the resulting revenues to help farmers and timber operators end their dependence on pesticides while also helping to support a pesticide use reporting system. As pesticide use declined, so would the revenues.

Tax or fee structures that fail to recognize the link between economic development and resulting environmental or public health consequences

Specific Problems: Property tax incentives offered under the "Prop 2" program – which exempts property tax on all pollution control equipment – as well as some economic development tax abatement programs discourage pollution prevention and sustainable industrial production. The Prop 2 program, for example, has exempted more than $5 billion from the property tax rolls, in the process affecting some school districts in industrialized areas. Meanwhile, the economic tax abatement program fail to distinguish between jobs which pollute and jobs which don't.

Specific Solutions: Modify the Prop 2 program to reward companies with strong pollution prevention activities, allowing them to take pollution control equipment off the tax rolls which goes beyond the law in complying with environmental regulations, laws and statutes, but keeping that equipment which is merely in place to comply with the law on the tax rolls. Tailor economic development tax abatement programs to specifically reward clean industries and make environmental performance part of the criteria for qualifying for tax abatements.

Tax or fee structures that lead to inadequately funded natural resource regulatory programs

Specific Problems: The Texas legislature has shifted from funding environmental protection with general revenues to a "fee funding" approach. However, fee structures for the Texas Natural Resource Conservation Commission (TNRCC) and Texas Parks and Wildlife Department (TPWD) often have caps or fees tied to very narrow aspects of these agencies' operations, limiting their revenue growth and ability to protect wildlife, public health and the environment. In fact, this funding structure has led to a situation in which in 1996, Texas ranked 46th in the nation for per capita spending on the environment.

Specific Recommendations: Reform of the tax or fee structures of the TNRCC and TPWD would increase their budgets and allow them greater flexibility to shift monies to programs on an on-needed basis. Revenues would be tied partially to pollution prevention, so that as pollution -- and the need for oversight – decreased, so would revenues.

The following principles should guide reform of TNRCC's fee structure:

1. **Adequately fund all core programs** (permitting, enforcement and necessary monitoring of and reporting on environmental quality, as well as effective pollution prevention efforts). This may mean having the agency provide more detailed information to the public about staffing levels and workloads in order to better evaluate funding requests. In addition, it may mean cutting back on free "services" to the regulated industry, such as conferences or technical assistance programs. Without adequate funding, however, core programs will continue to suffer and the agency will take more steps that reduce regulatory oversight and enforcement, reduce public participation in permitting and reduce efforts to monitor the quality of the Texas environment.
2. **Environmental fees should be used for TNRCC programs, not to balance the state budget.** The use of "excess" revenue from various environmental fees should be used to adequately fund all core programs, not to certify that the state budget is balanced. This will require modification of underlying statutes in most cases. The fee revenue in "excess" of specific program needs for which the fee is designed to support could be put in one TNRCC fund and used for core permitting, enforcement or environmental monitoring programs.
3. **Fees should be restructured to provide incentives for pollution reduction and avoid disproportionate impacts on smaller entities.** The fees supporting various TNRCC programs should be restructured to eliminate caps that result in smaller polluters paying a higher fee per ton of pollutant emitted or generated. These fees should be restructured in a manner that generates equal or, where necessary, more revenue to fund core TNRCC functions, but that imposes a higher fee per ton of pollutant emitted above a certain threshold and that does not exempt large amounts of emissions from fees.

4. **Existing exemptions should be eliminated and the revenue directed toward appropriate TNRCC programs.**
5. **Any effort to give TNRCC increased flexibility to use fee revenue to respond to emerging needs or to shift among programs must be accompanied by improved accountability in budgeting and reporting.**

Specific Reform Suggestions

1. **Address Funding Deficiencies in the Water Quality Program**. There is sufficient evidence that TNRCC's water quality program is substantially under-funded and that the state's water quality may be suffering as a result. The legislature should address this issue by increasing the caps on the wastewater inspection fee or by restructuring the fee (combining it with the Clean Rivers fee) in a manner that eliminates disproportionate burdens on smaller dischargers and encourages pollution reduction, while generating greater amounts of revenue for the water quality program. Alternatively, the legislature could also address funding deficiencies in this program by (1) appropriating the full amount of fee revenue generated to TNRCC instead of leaving almost $ 6 million in the General Revenue sub-account and/or (2) providing for more flexibility in the use of other fees that generate revenue in excess of program needs.
2. **Reform Annual Fees for Air Emissions, Wastewater Discharges and Hazardous Waste Generation to Provide Incentives for Pollution Reduction and Eliminate "Volume Discount"**. The legislature should revise these fees in a manner that generates the same or, where necessary, greater revenue, but that imposes a higher fee per ton of pollutant emitted above a certain threshold, or at least subjects all emissions to the fee. Appropriate reforms will not reduce revenue for specific programs, but could actually reduce fees for smaller entities and those emitting less pollution. In order to accomplish such reform, the Sunset Advisory Commission and the legislature will need a significant amount of information from TNRCC on what entities are paying how much per ton under the current fee structures.
3. **Revise the Public Water System Fee and the Air Permit Renewal Fee** to eliminate disproportionate burdens on smaller entities.
4. **Eliminate the sales tax exemptions for pesticides and fertilizers,** or subject sale of these pollutants to a small fee, with revenue dedicated to TNRCC's water quality protection and drinking water programs and to providing assistance to farmers and ranchers to reduce the use of pesticides and fertilizers (through TDA or another appropriate entity).
5. **Ensure that discharge of toxic pollutants into waterways is factored appropriately into the wastewater inspection fee and the regional water quality assessment (Clean Rivers) fee**.
6. **Ensure that aquaculture operations pay a fair share of fees for the water quality protection program**.
7. **Revise underlying fee statutes to provide necessary flexibility in use of fee revenues, but accompany any increased flexibility with greater requirements for transparency and accountability in TNRCC budgeting and reporting**.

The Texas Parks and Wildlife Department faces similar revenue constraints as the TNRCC, in part, due to limitations in its current fee structure. One of its main sources of funding is the sales tax attributed to sporting goods, with user fees on various activities making up the rest of department revenues. However, this draw (from the sporting goods tax) is capped at $32 million, even though in 1998 the sales tax attributed to sporting goods raised $62 million. In fact, the shortfall for running the State Parks Division was over $10 million in 1997. By lifting the sporting goods sales tax cap, the Texas Parks and Wildlife Department could better support both state and local parks and begin to address some of the major repair needs at the parks, estimated to be $123 million.

Tax or fee structures that provide subsidies for natural resource exploitation or polluting activities

Specific Problems: Both the mining and extractive industries in Texas – including the oil and gas industry, coal and uranium mining – as well as the industries which produce electricity have been historically associated with severe environmental impacts, yet the fee and tax structure in place do not account for the true cost of resource extraction and energy use. For example, there is no state severance tax for coal or lignite production in Texas, nor for uranium mining.

In the electricity-producing business, utilities, particularly large, "grandfathered" coal and lignite-burning power plants, have enjoyed substantial subsidies and benefits. While natural gas power plants must assume the cost of a natural gas severance tax, coal and lignite-fired plants do not have any severance tax to pay off. Secondly, because of the existing cap on criteria pollutant emissions, large power plants enjoy a substantial "volume discount" on emission fees. Finally, because many of the largest plants are "grandfathered" under federal and state clean air act regulations, they do not have to install the same costly air pollution control equipment as do modern plants. The electric deregulation bill passed in 1999 should help limit some of the effect of this last subsidy by requiring power plants to cut nitrogen oxide and sulfur dioxide emissions substantially by 2003. While this bill also allows utilities to pass their "stranded" costs – such as investment in nuclear power plants and clean-up of air emissions – onto consumers, this compromise was necessary to ensure clean-up of existing grandfathered plants.

Specific Recommendations: In order to make the cost of doing business for the extractive and energy producing industries reflect the true cost on public health and the environment, the State of Texas should adopt the following measures:

- Institute a reasonable state severance tax on coal and uranium production;
- End the volume discount on criteria emission fees; and
- End the "grandfathered" provisions which allow older plants to be exempt from modern air pollution control equipment, requiring even deeper cuts after plants meet their 2003 obligations.

While it may not be possible to implement all of these recommendations in Texas at present, it is our belief that all of them are well worth exploring if Texas is to take its place as a leader in environmental tax reform. By enacting some or all of these recommendations, Texas will begin to adequately fund our state environmental protection agencies and programs, while improving the environmental responsibility of industries and businesses operating in Texas.