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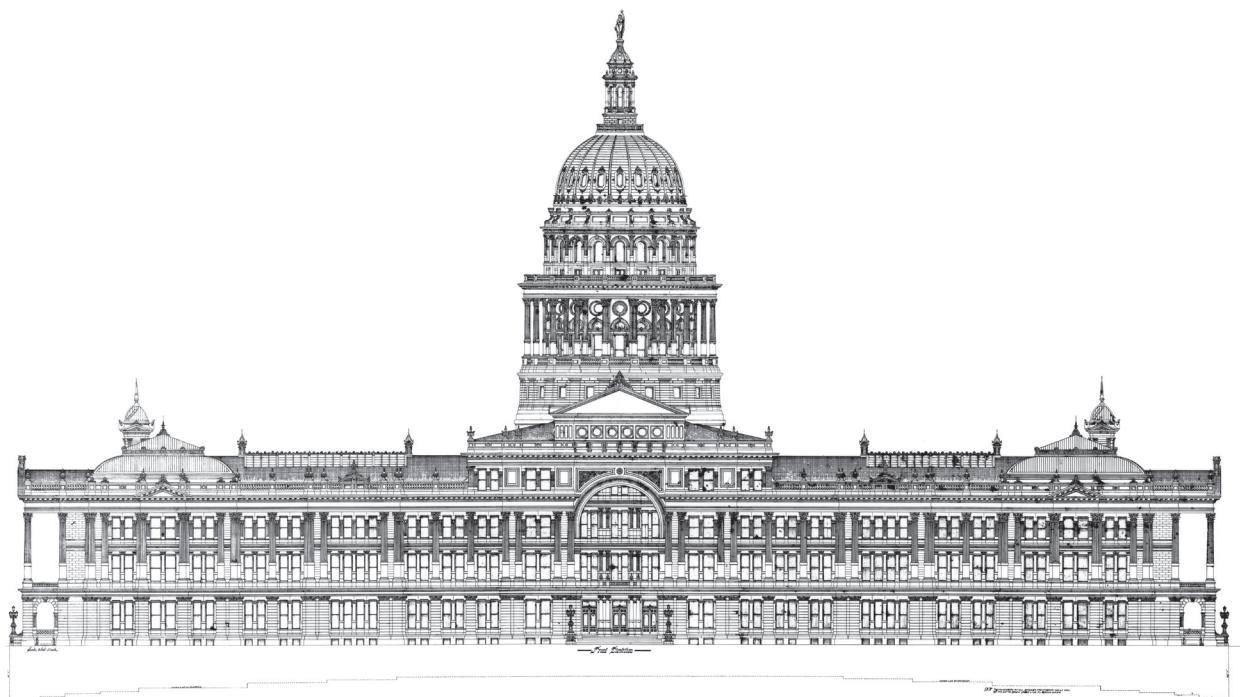
# INTERIM REPORT

## TO THE

# 82ND TEXAS LEGISLATURE

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*House Committee on*  
ENVIRONMENTAL REGULATION  
December 2010



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**HOUSE COMMITTEE ON ENVIRONMENTAL REGULATION  
TEXAS HOUSE OF REPRESENTATIVES  
INTERIM REPORT 2010**

**A REPORT TO THE  
HOUSE OF REPRESENTATIVES  
82ND TEXAS LEGISLATURE**

**REPRESENTATIVE BYRON COOK  
CHAIRMAN**

**COMMITTEE CLERK  
AMANDA FLORES**

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Committee On  
Environmental Regulation

December 6, 2010

Representative Byron Cook  
Chairman

P.O. Box 2910  
Austin, Texas 78768-2910

The Honorable Joe Straus  
Speaker, Texas House of Representatives  
Members of the Texas House of Representatives  
Texas State Capitol, Rm. 2W.13  
Austin, Texas 78701

Dear Mr. Speaker and Fellow Members:

The Committee on Environmental Regulation of the Eighty-first Legislature hereby submits its interim report for consideration by the Eighty-second Legislature.

Respectfully submitted,

A handwritten signature of Representative Byron Cook in black ink.

Representative Byron Cook

A handwritten signature of Warren Chisum in black ink.

Warren Chisum, Vice Chairman

\_\_\_\_\_  
Lon Burnam

\_\_\_\_\_  
Jim Dunnam

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Jessica Farrar

A handwritten signature of Kelly Hancock in black ink.

Kelly Hancock

A handwritten signature of Ken Legler in black ink.

Ken Legler

\_\_\_\_\_  
Marc Veasey

A handwritten signature of Randy Weber in black ink.

Randy Weber

Warren Chisum  
Vice-Chairman

Members: Lon Burnam, Jim Dunnam, Jessica Farrar, Kelly Hancock, Ken Legler, Marc Veasey and Randy Weber



RANDY WEBER  
TEXAS HOUSE OF REPRESENTATIVES

November 29, 2010

The Honorable Joe Strauss  
Speaker, Texas House of Representatives  
Texas State Capitol, Room 2W.13  
PO Box 2910  
Austin, Texas 78768

Dear Speaker Strauss:

As a Member of the House Committee on Environmental Regulations, I commend Chairman Cook, Committee Clerk Amanda Flores, and the committee members for all the hard work put forth to complete the interim report. For this reason, I have signed the report. However, it contains a recommendation that I cannot completely support.

Regarding Scrap Metal Recycling, the report suggests that Senate Bill (SB) 1154, passed during the 80th Legislative Session, "did not fully address all of the issues related to scrap metal recycling." The conclusion then is that we need additional regulations "that provide law enforcement with the tools necessary" to fully combat metal theft.

However, SB 1154 empowered the Texas Department of Public Safety (DPS) to establish a statewide reporting system complete with a fee structure, and to develop registration and certification procedures. It also allowed DPS to levy sanctions, penalties and fees for non-compliance. Despite its far-reaching implications, only 15 percent of metal recyclers are currently adhering to the law.

Without legitimate enforcement, no law can be effective. It is my opinion that the state is better served by seeking ways in which DPS may fully utilize the current law, rather than to propose additional regulations.

Sincerely,

A handwritten signature in black ink that reads "Randy K. Weber".  
Randy Weber  
State Representative  
Member, House Committee on Environmental Regulations

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## **INTRODUCTION**

On February 12, 2009, Texas House Speaker Joe Straus, in accordance with House Rule 1, appointed nine members to the House Committee on Environmental Regulation (the Committee): Byron Cook, Chairman; Warren Chisum, Vice Chairman; Lon Burnam; Jim Dunnam; Jessica Farrar; Kelly Hancock; Ken Legler; Marc Veasey; and Randy Weber.<sup>1</sup>

Under House Rule 3, Section 13, the Committee has jurisdiction over matters pertaining to:

- 1) air, land and water pollution, including the environmental regulation of industrial development;
- 2) the regulation of waste disposal;
- 3) environmental matters that are regulated by the Department of State Health Services or the Texas Commission on Environmental Quality (TCEQ);
- 4) oversight of the TCEQ as it relates to environmental regulation; and
- 5) the following state agencies: the Texas Low-Level Radioactive Waste Disposal Compact Commission and the board of the Texas Environmental Education Partnership Fund.<sup>2</sup>

In November 2009, Speaker Straus released interim charges, which list specific topics for the Committee to study prior to the 82nd Legislative Session. A diverse group of witnesses were invited to provide testimony related to the interim charges at three public hearings.

The first, on February 25, 2010, was held in Houston and focused on air quality issues, including ground-level ozone, particulate matter and toxic air pollutants. On June 28, 2010, during the second hearing, witnesses provided testimony related to recycling and Supplemental Environmental Projects. The final interim hearing was on September 30, 2010 and examined the impact federal climate change initiatives and changes to the state's permitting programs will have on Texas.

Having completed its study on the issues included in the charges assigned by Speaker Straus, the Committee has adopted the following report.

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## **INTERIM CHARGES**

- 1) Examine the regulation of air quality in the areas of permitting new and modified sources, public participation and enforcement. Consider data and proposed federal standards and rules as they relate to the State Implementation Plan.
- 2) Survey existing recycling programs and suggest needed improvements.
- 3) Monitor federal legislative and regulatory initiatives as they pertain to climate change. Consider Texas' responses to proposals and make recommendations as to any further preparations.
- 4) Study the Texas Commission on Environmental Quality's use of Supplemental Environmental Projects in its enforcement process.
- 5) Monitor the agencies and programs under the Committee's jurisdiction.<sup>3</sup>

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## AIR QUALITY

In 1970, the U.S. Congress passed the Federal Clean Air Act (FCAA), which was the nation's first comprehensive policy to address air pollution. Twenty years later, in 1990, the bill was significantly amended to expand the U.S. Environmental Protection Agency's (EPA's) authority to regulate pollutant emissions.<sup>4</sup>

Under the FCAA, the EPA is required to set National Ambient Air Quality Standards (NAAQSS) for widespread pollutants that are harmful to the public or the environment. The EPA has established two types of NAAQSS, primary and secondary. The primary standards are intended to protect public health, including the health of asthmatics, children, the elderly and other sensitive groups. The secondary standards set limits meant to protect public welfare against adverse effects such as decreased visibility and damage to buildings, animals and vegetation.

Six NAAQSS have been established for common pollutants, called "criteria pollutants", including carbon monoxide, lead, nitrogen dioxide, ozone, particulate matter and sulfur dioxide.<sup>5</sup>

National Ambient Air Quality Standards <sup>6</sup>			
Pollutant	Averaging Period	Primary NAAQS	Secondary NAAQS
Ozone	8-hour	76 ppb	76 ppb
Carbon Monoxide	1-hour	35.5 ppm	-
	8-hour	9.5 ppm	-
Sulfur Dioxide (SO <sub>2</sub> )	1-hour	76 ppb	-
	3-hour	-	550 ppb
Nitrogen Dioxide (NO <sub>2</sub> )	1-hour	101 ppb	-
	Annual	54 ppb	54 ppb
Particulate Matter (10 microns or less) (PM <sub>10</sub> )	24-hour	155 µg/m <sup>3</sup>	155 µg/m <sup>3</sup>
	Annual	51 µg/m <sup>3</sup>	51 µg/m <sup>3</sup>
Particulate Matter (2.5 microns or less) (PM <sub>2.5</sub> )	24-hour	36 µg/m <sup>3</sup>	36 µg/m <sup>3</sup>
	Annual	15.1 µg/m <sup>3</sup>	15.1 µg/m <sup>3</sup>
Lead	3-month	0.16 µg/m <sup>3</sup>	0.16 µg/m <sup>3</sup>
	Quarter	1.55 µg/m <sup>3</sup>	1.55 µg/m <sup>3</sup>

The FCAA specifies that the EPA must reconsider the standards every five years, after completing a review of relevant scientific data.<sup>7</sup> Once a new NAAQS has been set, each state must review their air quality monitoring data to determine if the standard is being attained. If the criteria pollutant concentrations for a particular area are above the standard, then the area is classified as "nonattainment".<sup>8</sup>

Areas classified as nonattainment are subject to increased federal regulation, including the development of a State Implementation Plan (SIP). A SIP outlines how the state intends to bring the area into compliance with federal air quality standards. The plan must provide enforcement mechanisms and be approved by the EPA. If a state's proposed SIP is not approved, the EPA has the authority to implement a Federal Implementation Plan.<sup>9</sup>

The EPA has established timelines for the review of several NAAQSs. Once the standards have been finalized, the TCEQ will consider monitoring data and make recommendations for attainment designations.

EPA's NAAQS Review Schedule <sup>10</sup>						
	2008	2009	2010	2011	2012	2013
<b>Ozone</b>	Promulgation: 03/27/2008 Final Rule: 05/27/2008		<b>Proposed Reconsideration: 01/19/2010 Final Rule: 10/29/2010</b>		Proposed Rule: 06/2012 Final Rule: 03/2013	
<b>Nitrogen Dioxide (NO<sub>2</sub>)</b>		Proposed Rule: 07/15/2009	Final Rule: 02/09/2010			
<b>Sulfur Dioxide (SO<sub>2</sub>)</b>		Proposed Rule: 12/08/2009	Final Rule: 06/02/2010			
<b>Lead</b>	Promulgation: 05/1/2008 Final Rule: 11/12/2008					
<b>Nitrogen Oxides/Sulfur Oxides (NO<sub>x</sub>/SO<sub>x</sub>) (Secondary Level)</b>				Proposed Rule: 07/2011	Final Rule: 03/2012	
<b>Carbon Monoxide (CO)</b>			Proposed Rule: 10/2010	Final Rule: 05/2011		
<b>Particulate Matter (PM)</b>				Proposed Rule: 02/2011 Final Rule: 10/2011		

## Ground-Level Ozone

Ground-level ozone is a chemical composed of three oxygen atoms; it forms in the air when nitrogen oxides (NO<sub>x</sub>) and volatile organic compounds (VOCs) are exposed to sunlight.<sup>11</sup> Ground-level ozone has been classified as a criteria pollutant because in high concentrations it can cause coughing or wheezing, shortness of breath, nausea, headaches and throat and lung irritation. It has also been shown to harm sensitive vegetation through a process called

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oxidation.<sup>12</sup>

The EPA established new standards for ozone in 2008, following a review of over 1,700 scientific studies by the Clean Air Scientific Advisory Committee (CASAC).<sup>13</sup> CASAC is a seven-member board that provides the EPA with independent technical advice about the NAAQSSs.<sup>14</sup>

The 8-hour primary and secondary standards were lowered to 0.075 parts per million (ppm); the previous standards, established in 1997, were 0.08 ppm.<sup>15</sup> After reviewing air quality monitoring data, the TCEQ recommended that seven areas be designated as nonattainment based on the 0.075 ppm standard.

<b>Nonattainment Areas Based on 2008 8-hour Ozone Standards<sup>16</sup></b>	
<b>Area</b>	<b>Counties</b>
Austin	Travis
Beaumont-Port Arthur	Hardin, Jefferson and Orange
Dallas-Fort Worth	Collin, Dallas, Denton, Ellis, Hood, Johnson, Kaufman, Parker, Rockwall and Tarrant
El Paso	El Paso (excluding tribal lands)
Houston-Galveston-Brazoria	Brazoria, Chambers, Fort Bend, Galveston, Harris, Liberty, Montgomery and Waller
San Antonio	Bexar
Tyler	Gregg, Rusk and Smith

Prior to finalizing the nonattainment designations for the 2008 ozone standards, the EPA announced that it would reconsider the 0.075 ppm standard because it is "not as protective as recommended by the EPA's panel of scientific advisors."<sup>17</sup>

On September 16, 2009, the EPA Administrator announced that the 2008 ozone NAAQSSs would be reevaluated. The EPA proposed a range for the new standards; the primary 8-hour standard will be between 0.060 and 0.070 ppm and the secondary standard will be between 7 and 15 ppm-hours. The original date set to finalize the standards was August 31, 2010, but was subsequently postponed until October 29, 2010.<sup>18</sup> On November 1, 2010 the EPA filed a status report in federal appeals court that stated the agency will need to once again delay the finalization of the standards; the latest deadline has been set for December 31, 2010.<sup>19</sup>

After the rule is finalized, the state will have only 120 days to submit their recommendations for attainment designations to the EPA. The designations will be in effect no later than August 2011 and then the TCEQ will have until December 2013 to develop a SIP that demonstrates how nonattainment areas will improve their air quality. Deadlines for compliance with the NAAQSSs will then be established based on the severity of noncompliance.<sup>20</sup>

## **Findings**

The EPA is reinterpreting data to justify the reconsideration of the ozone standards. There have been scientific studies showing a link between ozone and adverse health effects; however, the

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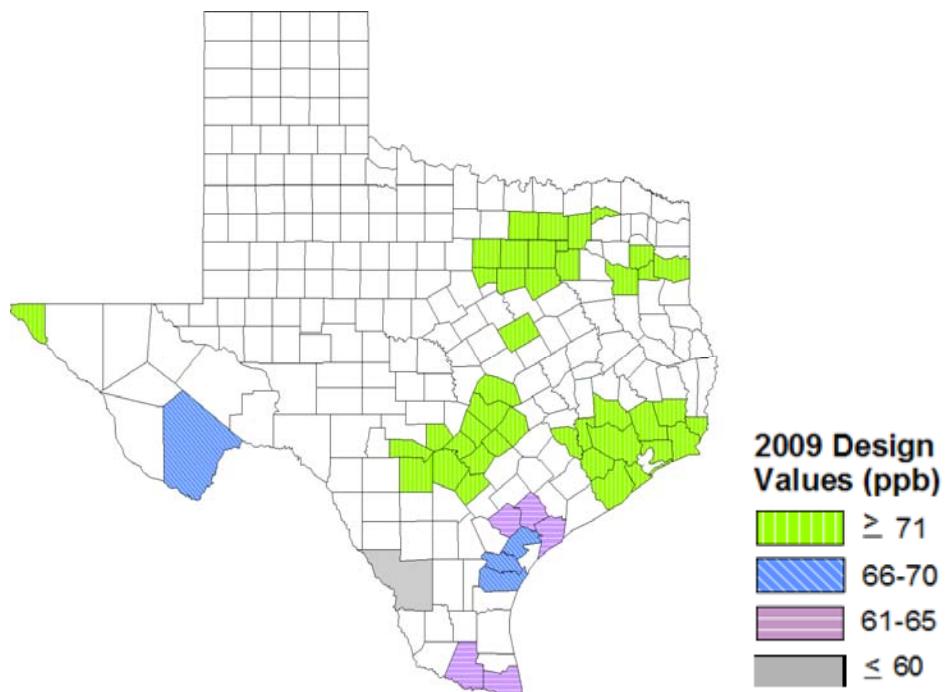
available data does not clearly specify at what levels in the ambient air ozone can become detrimental. The NAAQSS proposed by the EPA do not properly account for the difference between the concentration of ozone measured outdoors and individuals' actual level of exposure. The CASAC ozone review panel even commented that the EPA may be overestimating the effects of ozone by not adequately addressing the issue of personal exposure.

Many of the studies linking ozone to adverse health effects compared ozone monitoring data to mortality and hospitalization information. There was an assumption that the individuals in the studies were outside 8 to 24 hours per day. It is illogical to think that everyone that died or was hospitalized on a high ozone day had recently spent significant amounts of time outside.

Most of the epidemiology studies used by the EPA show no significant health effects due to ozone exposure and some studies can even be interpreted to show that it is health protective. Moreover, time-series studies, used by the EPA, cannot prove causality and do not accurately account for the impact of interactions with other pollutants. Based on currently available information, it is impossible to conclude that ozone caused the observed adverse health effects.

Scientists reviewing studies and making recommendations to the EPA regarding NAAQSS purposely suggest extremely low values because with the scientific data available, it is impossible to set a precise level that guarantees protectiveness. Instead of adopting reasonable standards that provide an ample margin of safety, the EPA has proposed deflated limits, without regard for feasibility or cost.<sup>21</sup>

## 2009 Primary Ozone Design Values by Metropolitan Statistical Area



<b>2009 Primary Ozone Design Values by Metropolitan Statistical Area (MSA)</b>		
<b>MSA</b>	<b>Counties</b>	<b>2009 8-hr Ozone DV (ppm)</b>
Dallas-Fort Worth	Tarrant, Denton, Johnson, Dallas, Parker, Collin, Hood, Rockwall, Ellis, Kaufman and Hunt	0.086
Houston-Galveston-Brazoria	Brazoria, Harris, Galveston and Montgomery	0.084
Beaumont-Port Arthur	Jefferson and Orange	0.077
North East Texas	Gregg, Smith and Harrison	0.075
El Paso	El Paso	0.075
Austin Round Rock	Travis and Hays	0.075
San Antonio	Bexar	0.074
Waco	McLennan	0.072
Corpus Christi	Nueces	0.069
Big Bend*	Brewster	0.066
Victoria	Victoria	0.065
Lower Rio Grande Valley	Cameron	0.062
Laredo	Webb	0.055

\* Brewster County monitor is maintained by the national park service and reported in EPA AQS.

If the EPA sets the NAAQS at 0.070 ppm, eight Metropolitan Statistical Areas (MSAs) will have monitors exceeding the standard. At 0.065 ppm, ten MSAs will have monitored concentrations above the NAAQS. Finally, there are 12 MSAs that would exceed a 0.060 ppm standard.

In addition to the reconsideration of the NAAQS for ozone, the EPA has also proposed new ozone monitoring requirements. All MSAs with populations of 50,000 or more will be required to monitor ozone concentrations. The previous requirement mandated monitoring for areas with a population greater than 350,000.

As a result of the new monitoring requirements, Texas will need ten new monitoring sites: Texarkana, Bryan-College Station, Abilene, Amarillo, Lubbock, Midland, Odessa, San Angelo, Sherman-Denison and Wichita Falls. Each of the ten new monitoring sites is expected to cost \$70,000 to install; the equipment and shelter is \$50,000 and site preparation, including the pad, fencing and electricity is approximately \$20,000. It is estimated that operating each monitor will be between \$30,000 and \$40,000 each year. Half of the funding for the enhanced monitoring requirements will come from the federal Performance Partnership Grant, while the state will be required to cover the remainder of the costs.<sup>22</sup>

## Conclusion

The Texas Legislature should continue to closely examine the EPA's actions regarding ground-level ozone NAAQSSs and provide the TCEQ with the resources necessary to address the expected changes to the standards and monitoring requirements.

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## **Particulate Matter**

Particulate matter (PM), also called particulate pollution, is the term for a mix of solid particles and liquid droplets found in the air. The EPA classifies PM based on size; "fine particles" ( $PM_{2.5}$ ) have diameters smaller than 2.5 micrometers. "Inhalable course particles" ( $PM_{10}$ ) have diameters larger than 2.5 micrometers, but smaller than 10 micrometers. PM can be emitted directly from sources, including construction sites, unpaved roads, fields, smokestacks or fires. However, most PM is formed in the atmosphere from chemicals emitted from sources like power plants, industrial sources and automobiles.<sup>23</sup>

In 1971, the EPA identified PM as a criteria pollutant and set NAAQSs. Since then, the standards have been revised three times. The last occurred in 2006, after a review of the latest scientific evidence linking adverse health and welfare effects to PM exposure.

The 24-hour  $PM_{2.5}$  standard was lowered from  $65 \mu\text{g}/\text{m}^3$  to  $35 \mu\text{g}/\text{m}^3$ . The annual  $PM_{10}$  standard was revoked because new data showed no connection between long-term inhalable course particle exposure and health problems. Moreover, the EPA did not change the 1997 annual  $PM_{2.5}$  standard of  $15 \mu\text{g}/\text{m}^3$  or the 24-hour  $PM_{10}$  standard of  $150 \mu\text{g}/\text{m}^3$ , because they were shown to still be protective.<sup>24</sup>

After the EPA established the 24-hour  $PM_{2.5}$  standard in 2006, Texas evaluated three years of air quality monitoring data and determined all areas of the state were in compliance with the new NAAQS. Although Harris County was classified as an attainment area for PM, when the 2006-2008 data were reviewed one monitor in Harris County violated the annual  $PM_{2.5}$  standard.<sup>25</sup>

### **Findings**

Several projects were initiated to address concerns related to elevated particulate matter concentrations at the Clinton Drive monitor in Harris County. Road projects were completed that reduced emissions from unpaved roads, including installing barriers to prevent trucks from driving on the dirt shoulders of Clinton Drive. Additionally, work yards and parking lots near the monitor were paved and projects were completed to reduce PM from the Clinton rail line and industrial sources in the area.

The initiatives successfully lowered PM concentrations; Harris County air monitoring data from 2009 showed annual  $PM_{2.5}$  concentrations of  $14.1 \mu\text{g}/\text{m}^3$ , which is below the  $15 \mu\text{g}/\text{m}^3$  NAAQS.<sup>26</sup>

In February 2010, Governor Perry sent a letter to the EPA about PM concentrations at the Clinton Drive monitor. The letter, based on public comments and recommendations from the TCEQ commissioners, suggested that Harris County should remain in attainment for the annual  $PM_{2.5}$  standard. In April 2010, the EPA responded in agreement with the state's recommendations.<sup>27</sup>

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## Conclusion

Due to the extensive monitoring in Harris County, the TCEQ was able to identify Clinton Drive as an area of concern. Innovative projects were completed that helped lower PM concentrations and avoid a nonattainment designation that would have led to federal intervention. The TCEQ should continue to closely monitor the state's air quality and address any increases in PM concentrations in a timely manner.

## Toxic Air Pollutants

Toxic air pollutants, also called air toxics and hazardous air pollutants are pollutants that are suspected to cause serious health problems, such as cancer. Unlike criteria pollutants that have federally set standards, it is the state's responsibility to develop and implement plans to help reduce air toxics emissions.<sup>28</sup>

The TCEQ uses Air Monitoring Comparison Values (AMCVs) as guidelines for evaluating monitored concentrations of toxic air pollutants. AMCVs consist of several values, including reference values (ReVs), which are set at levels shown to be protective of health.

The values used for permits, called Effects Screening Levels (ESLs), are different than the ReVs used to evaluate monitoring data. Because the permit process only directly examines a single facility, an extra safety factor is included to account for cumulative exposure. For example, the short-term health-based ReV for benzene is 180 parts per billion (ppb). To derive the ESL the number is reduced by 70 percent to 54 ppb. The buffer between the ReV and the ESL helps to ensure ambient concentrations of toxic air pollutants stay below the ReV.

A new process for reviewing ESLs was finalized in November 2006 after an external scientific peer review and two rounds of public comments. The new procedures allow the limits to adapt quickly to new science and account for the cumulative effects of chemical exposure.<sup>29</sup>

Concentrations of toxic air pollutants are closely monitored throughout the state. Texas has approximately 82 monitoring sites, mostly in urban and industrial areas, which analyze data for 146 different toxic chemicals. Ambient air monitoring data are used to identify pollution sources, evaluate permit applications and identify potential health concerns.<sup>30</sup>

When the monitored concentrations of toxic air pollutants exceed the ESL, or there are other air quality concerns, the TCEQ establishes an Air Pollution Watch List (APWL) area. Concentrations above the ESL do not necessarily mean adverse health effects are expected, but it does trigger a more in-depth review.

The TCEQ focuses additional resources on APWL areas, including

- using stationary, mobile, fence line and area monitoring as well as Reconnaissance Investigations and GasFindIR to identify specific pollution sources;
- appropriately addressing identified pollution sources;
- performing heightened reviews of permit applications; and
- giving priority to facility investigations.

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When the air quality improves in an APWL area, it may be removed from the list, after going through a specific process that involves public comment.<sup>31</sup>

## Findings

There are currently 11 APWL areas in ten Texas counties. The pollutants of interest in these areas include hydrogen sulfide, arsenic, cobalt, nickel, vanadium, propionaldehyde, benzene, styrene and sulfur dioxide. The oldest area is in Bowie and Cass counties and was added to the list in 1999 due to concerns with hydrogen sulfide concentrations. The most recent addition to the APWL was in 2007 because of elevated levels of hydrogen sulfide in Bastrop County.<sup>32</sup> Four areas were removed from the APWL in January 2010.

Current Air Pollution Watch List Areas		
County	Year Added	Pollutant of Interest
Bastrop	2007	hydrogen sulfide
Bowie and Cass	1999	hydrogen sulfide
Brazoria	2005	arsenic, cobalt, nickel and vanadium
Dallas	2004	nickel
El Paso	2004	hydrogen sulfide
Galveston	2001	propionaldehyde
	2003	benzene
	2004	hydrogen sulfide
Harris	2002	styrene
Harris	2000	benzene
Jasper	2003	hydrogen sulfide
Jefferson	2003	sulfur dioxide
	2001	benzene

Areas Removed from the Air Pollution Watch List in January 2010 <sup>33</sup>		
Area	Year Added	Pollutant of Interest
Beaumont	2004	benzene
Corpus Christi	1998	benzene
Texas City	2001	acrolein, butyaldehyde and valeraldehyde
Lynchburg Ferry	2002	benzene

## Conclusion

Extensive air quality monitoring and the development of an innovative process for establishing ESLs has allowed the TCEQ to identify small well-defined geographic areas with elevated levels of a toxic air pollutant. Additional resources and attention are given to these areas of concern, which has lead to air quality improvements. The TCEQ should continue to closely monitor air quality for elevated concentrations of toxic air pollutants and make changes to the APWL as necessary.

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## **PERMITTING**

The Federal Clean Air Act (FCAA) gives states the authority to promulgate rules related to air permit programs.<sup>34</sup> Once these rules are adopted, the Texas Commission on Environmental Quality (TCEQ) must submit them to the U.S. Environmental Protection Agency (EPA) for review as part of the State Implementation Plan (SIP).<sup>35</sup>

The EPA, however, is not always timely in making an approval decision. Currently, there are 64 rule revisions that have been submitted to the EPA, but have not been formally addressed.<sup>36</sup>

Because it can take the EPA as long as 15 years to review a rule, it is common for the TCEQ to implement SIP revisions prior to receiving federal approval. The state issues permits based on the revised rules, but they are not federally enforceable until the EPA makes an approval decision.

Due to the uncertainty caused by permits issued by the TCEQ that are federally unenforceable, several groups filed suit against the EPA. The issue was settled in July 2009, after the plaintiffs agreed to a timeline that requires the EPA to take final action on a number of the pending rules by December 31, 2013.<sup>37</sup>

The EPA has identified four areas of concern within the pending TCEQ rules.

- Public Participation
- Modification of Existing Qualified Facilities
- New Source Review
- Flexible Permits<sup>38</sup>

### **Public Participation**

In 1999, the Texas Legislature passed House Bill (HB) 801, which made modifications to the process for involving the public in permitting decisions.<sup>39</sup> To implement HB 801, the Texas Commission on Environmental Quality (TCEQ) adopted revised rules relating to the manner in which the public is notified about New Source Review (NSR) permits. The public participation rules were submitted to the EPA for review in October 1999 and the TCEQ did not receive a response for almost ten years. In November 2008, the state was notified that the EPA intended to disapprove of portions of the rules.<sup>40</sup>

### **Findings**

The EPA proposed limited disapproval of the public participation rules due to two concerns: the notice requirements for the NSR rule were insufficient and only those named “affected parties”<sup>41</sup> may comment on certain permits.

If the proposal is adopted, formally disapproving of the state’s public participation process, the TCEQ will have 18 months to comply. Texas could face sanctions, such as loss of federal highway funding, if there is not a compliant program by the deadline.

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On June 2, 2010, the TCEQ commissioners adopted rule changes intended to address the EPA's concerns. The rules, which have been in effect for all permit applications received after June 24, 2010, were submitted to the EPA for review on July 2, 2010. The revisions will provide more opportunity for the public to participate in the permitting process.<sup>42</sup>

## Conclusion

The Texas Legislature should support the TCEQ's efforts to address the EPA's limited disapproval of the state's public participation rules by making reasonable rule modifications.

## Qualified Facilities

The "qualified facilities" rules were adopted as a result of Senate Bill (SB) 1126, which passed in 1995 during the 74<sup>th</sup> Legislative Session. The bill amended the Texas Clean Air Act by redefining "modification of existing facility".<sup>43</sup> SB 1126 was intended to streamline the permitting process and provide operational flexibility to well-controlled facilities.<sup>44</sup>

The rules outline specific criteria that must be met in order to make physical or operational changes to a facility without obtaining a permit modification. SB 1126 specifies that a facility qualifies for the expedited permitting process if it:

- has been issued a permit or permit amendment within the last ten years,
- has been exempted from pre-construction permit requirements within the last ten years or
- uses pollution control methods that are at least as effective as the Best Available Control Technology (BACT) required by a permit issued within the last ten years.<sup>45</sup>

Additionally, to qualify, the change may not result in a net increase in air contaminant emissions and may not include the construction of a new facility.

The rules were submitted to the EPA for review in March 1996. Thirteen years later, the TCEQ received an official response. On September 23, 2009, the EPA published a notice regarding their intent to disapprove of Texas' qualified facilities rules.

## Findings

On April 14, 2010, the EPA formally disapproved of the qualified facilities rules and identified several concerns:

- facilities may make modifications without a formal review or notice,
- the rules do not explicitly require a federal applicability review before changes may be made,
- the rules are not clearly limited to changes to minor sources and
- the rules do not specifically require qualified facilities' changes to be permanent and enforceable.

To address the EPA's stated concerns, the TCEQ proposed rule revisions in March 2010, which were adopted on September 15, 2010. The rule changes:

- 
- provide clarification regarding how the qualified facilities program relates to State Minor NSR and Federal NSR criteria,
  - specify that changes made to facilities must comply with federal requirements and
  - establish a mechanism for ensuring that changes made at a qualified facility are encompassed by their permit and are permanently enforceable.

In addition to adopting revised rules, Texas filed a Petition for Review of the qualified facilities rules with the U.S. Court of Appeals, 5<sup>th</sup> Circuit. The TCEQ has always maintained that while not explicitly stated, the qualified facilities program is only applicable to State Minor NSR, does not circumvent Federal NSR requirements and does not violate the approved SIP. In fact, the qualified facilities program has been credited with helping to improve air quality in Texas by encouraging facilities to apply BACT so that they are eligible to participate in the expedited permit modification process.<sup>46</sup>

## Conclusion

If the EPA's disapproval is upheld in court, the state should be prepared to make any revisions necessary to maintain the viability of the qualified facilities program. The legislature should closely monitor activities related to the program because it was implemented as a result of SB 1126 and making the needed changes could require legislative action.

## New Source Review

The Federal New Source Review (NSR) program was created in 1997 when the FCCA was amended. The program established pre-construction permit requirements for new or modified facilities, industrial boilers and power plants. There are three types of NSR permits:

- Prevention of Significant Deterioration (PSD) permits, which are required for new major sources or major sources making major modifications in attainment areas;
- Nonattainment NSR permits, which are needed for new major sources or major sources making major modification in nonattainment areas; and
- Minor Source permits.<sup>47</sup>

In 2002, the EPA revised rules related to the NSR program. In an effort to ensure that the state's rules conformed to the new federal regulations Texas adopted rule changes. The TCEQ submitted the revisions for review in June 2005 and February 2006, but the EPA did not respond until September 2009.

## Findings

In a notice published in the *Federal Register* on September 23, 2009, the EPA outlined several issues regarding Texas' revised NSR rules:

- references to federal BACT were inadvertently eliminated from the TCEQ rules,
- it is difficult to distinguish BACT in the Texas Clean Air Act from BACT for the major source PSD program,

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- the Pollution Control Project (PCP) portion of the EPA's NSR rules was struck down in federal court and the TCEQ's rules do not provide adequate clarity regarding changes made due to the court decision,
  - because of anti-backsliding concerns, the rules need to address the applicability of 1-hour ozone standard requirements in permitting,
  - some requirements for Plant-wide Applicability Limit rules are missing and
  - PCP Standard Permits (SPs) are being misused.

The EPA approved a rule that was adopted by the TCEQ on June 2, 2010 to correct the omitted references to federal BACT rules. On August 31, 2010, the EPA disapproved of the TCEQ's other pending NSR rules.

The TCEQ contends that the current NSR rules do not allow the PCP SP to be used if the project triggers Federal NSR. However, a new PCP SP program that is intended to alleviate the EPA's concerns by explicitly stating that PCP SP may not be used when a NSR permit is required was proposed on August 27, 2010. The proposal, along with other rule revisions necessary to address the issues raised by the EPA, will be considered for adoption in early 2011.

## **Conclusion**

Since the EPA announced their intent to disapprove of Texas' NSR rules, the TCEQ has worked diligently to develop rule changes that maintain the viability of the state's program. The legislature should provide any support necessary for the TCEQ's rulemaking efforts.

## **Flexible Permits**

Flexible permits allow emissions limits to be set for an entire site rather than for individual pieces of equipment. The caps are based on what emissions would be if BACT were applied to every emissions source under the cap. Companies with flexible permits may choose what control technologies to use as long as the overall emissions do not exceed the cap. The program provides operational flexibility and allows facilities to make certain physical changes without obtaining a permit modification.

The TCEQ submitted rules to the EPA for approval in November 1994. The first formal response was in November 2009, when the EPA announced their intent to disapprove of Texas' flexible permit program.

## **Findings**

The EPA disapproved of the flexible permit program even though there have been significant air quality improvements in Texas since the program began.

- Air emissions and pollution concentrations in Texas are at their lowest level in the past 20 years.
- Between 2000 and 2008 statewide NO<sub>x</sub> emissions from industrial point sources decreased by 58 percent.

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- Between 2000 and 2009 the 8-hour ozone design value decreased by 25 percent in the Houston-Galveston-Brazoria area and 16 percent in the Dallas-Fort Worth area.<sup>48</sup>
  - There was a 41.3 percent decrease in toxic air pollutant emissions from all industrial sources between 1998 and 2008.
  - Between 1998 and 2008 Texas saw a 41 percent decrease in fugitive emissions sources.<sup>49</sup>

The flexible permit program has also been credited with helping to eliminate facilities operating without permits in Texas. In 1994, when the first flexible permits were issued, the state had a number of large facilities that were exempt from most state air permitting requirements because they pre-dated the FCAA. Many of these grandfathered facilities opted to get permits because of the operational flexibility the program provides.<sup>50</sup>

The EPA decided to disapprove of flexible permits because the agency believes the permits are difficult to enforce, facilities may be able to avoid NSR and there is insufficient opportunity for public participation.

The TCEQ responded to the EPA's concerns in formal comments submitted on November 23, 2009. The TCEQ is confident that the flexible permit program does not violate the approved SIP. Flexible permits are practically enforceable because they require monitoring and recordkeeping sufficient to demonstrate that emissions are compliant with the cap. If a permit holder has released more pollutants than is allowed, the TCEQ will initiate enforcement action.

Moreover, the program does not allow entities to circumvent NSR. During the processing of a flexible permit application, after BACT and emissions limits are set, the state determines if NSR is appropriate. If NSR is triggered, all the necessary requirements are applied.<sup>51</sup>

On May 25, 2010, the EPA informed several flexible permit holders that they had less than four months to reapply for a permit through the EPA if they wanted to avoid federal enforcement action. In June, the EPA proposed a solution for companies that decide to voluntarily de-flex their permits, which would require the permits to be reopened and for the permit-holders to pay a substantial audit entry fee.<sup>52</sup>

The TCEQ proposed rule changes on June 16, 2010 that, if adopted on December 14, 2010, will make modifications to the flexible permit program intended to address the EPA's concerns. The revised rules will

- explicitly state that federal applicability must be determined prior to considering an application for a flexible permit,
- add references to federal permitting and control requirements,
- add a statement indicating that the flexible permit program may not be used to circumvent NSR requirements and
- specify the types of testing, monitoring and calculations that will be needed to demonstrate compliance.

Disregarding the TCEQ's attempt to alleviate the EPA's concerns through additional rulemaking, the flexible permit program was formally disapproved on July 15, 2010. The EPA has left flexible permit-holders with few options: continue to operate under their flexible permit and risk

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federal enforcement, cease operations or “volunteer” to de-flex their permit through an audit program.

The uncertainty caused by the EPA’s decision to disapprove of the flexible permit program will not only have an effect on permit-holders, but will also impact entire Texas communities. Because there have been no assurances about the future viability of flexible permits, businesses are likely to delay or cancel plans to expand. Some companies may even choose to close their facilities or relocate to other countries.

Because the flexible permit program complies with FCAA requirements and has contributed to air quality improvements throughout the state, a petition for reconsideration of the program was filed with the U.S. Court of Appeals for the Fifth Circuit on July 23, 2010.<sup>53</sup>

## **Conclusion**

The Texas Legislature should support the TCEQ and the Texas Attorney General in their efforts to maintain the viability of Texas’ innovative air permitting program because it provides facilities with operational flexibility, while being environmentally protective.

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## **RECYCLING**

### **Scrap Metal**

Over the past several years, theft related to scrap metal recycling has become a major problem for many Texas communities. Metal from items such as air conditioners, fire hydrants, vehicles and communication wire are being stolen to sell to metal recycling entities.<sup>54</sup>

In 2007, the Texas Legislature passed Senate Bill (SB) 1154, which attempted to address issues related to the scrap metal recycling industry by making a number of changes, including

- authorizing a county, municipality or other political subdivision to pass ordinances related to the scrap metal recycling industry that are more stringent, but do not conflict with the state statute;
- requiring metal recycling entities to register with the Texas Department of Public Safety (DPS);
- requiring metal recycling entities to report all sales of regulated metal to DPS; and
- providing penalties for individuals that violate rules related to metal recycling entities.<sup>55</sup>

Recognizing that SB 1154 did not fully address all of the issues related to scrap metal recycling, several bills were filed during the 81st Legislative Session that, if passed, would have made statutory changes intended to curtail theft.<sup>56</sup>

### **Findings**

An increase in the price of copper has contributed to the rise in metal theft incidents. Demand from foreign markets, like China, has dramatically changed the value of certain metals. In 2006, copper prices rose from approximately \$1.14 to over \$4 a pound, causing a drastic increase in the number of air conditioning units being vandalized for their metal components. Between 2007 and 2010 there have been substantial fluctuations in the price of copper; the number of thefts decreased when prices fell and rose when prices rebounded.<sup>57</sup>

State law currently requires metal recycling entities to register with DPS. However, because there are no real consequences for non-compliance, only about 15 percent of the recycling entities that have been identified are currently registered.<sup>58</sup> It is also required that a report, containing information about the seller and the items sold, be submitted to DPS following each sale, but the majority of entities do not submit reports.<sup>59</sup>

Many municipalities have established their own laws related to scrap metal recycling, which has created a patchwork of rules throughout the state. It has been reported that criminals that steal items in cities with ordinances more stringent than state law often take the stolen property to recycling entities in rural areas to avoid regulation. This practice can make it extremely difficult for law enforcement to investigate crimes and apprehend thieves.

### **Conclusion**

Issues contributing to metal theft should be addressed legislatively during the 82<sup>nd</sup> Legislative

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Session. Additional regulations related to the scrap metal recycling industry need to be enacted that provide law enforcement with the tools necessary to investigate theft incidents, establish appropriate penalties for non-compliant recycling entities and create consistent policies throughout the state.

## Used Electronics

Since the mid-1990's, electronic waste has been the fastest growing component of the solid waste stream.<sup>60</sup> Disposing of electronics is complicated, not only because of the dramatic increase in volume, but also because traditional landfills are inappropriate due to numerous toxic chemicals that are present in many of the products. Mismanagement of used electronics, which can contain lead, nickel, cadmium and mercury, could pose risks to the environment.<sup>61</sup>

Recognizing the need to create a system to safely disposal of electronics, the Texas Legislature passed House Bill (HB) 2714 in 2007, which created a statewide program for recycling used computer equipment. Each manufacturer is responsible for implementing a program to recover and recycle the brands they make. The program must be reasonably convenient, protective of the environment and cannot require the consumer to pay an additional fee at the time of disposal. Examples of acceptable collection strategies include mail-back programs, physical collection sites and collection events.

Under HB 2714, manufacturers are required to provide the Texas Commission on Environmental Quality (TCEQ) with information about their recycling program, post recycling information on their website and include disposal instructions in the packaging when a computer is sold. In addition to maintaining a list of compliant manufacturers, the TCEQ is responsible for educating consumers about computer recycling options.<sup>62</sup>

In 2009, the Texas Legislature attempted to address the need for additional disposal options for other types of electronics by passing HB 821, which established a program to collect and discard unwanted televisions. Like the computer recycling program, the television disposal program was intended to provide consumers with convenient and environmentally safe disposal options.<sup>63</sup> However, the two programs were structured differently because the “take back” approach used in the computer program may be difficult to implement for televisions.

HB 821 passed in the House with a vote of 135 to 11 and in the Senate with a vote of 31 to 0, but the legislation was vetoed by Governor Perry, leaving Texans with few viable options for disposing of unwanted televisions in an environmentally protective manner.<sup>64,65</sup>

## Findings

Since implementation of HB 2714 began on September 1, 2008, 83 manufacturers representing 127 brands have submitted recovery plans to the TCEQ. Information on all of these programs is now available on the TCEQ's website (<http://www.tceq.state.tx.us/assistance/P2Recycle/electronics/manufacturer-list.html>).

There has been a significant rise in the number of computers recycled in Texas since the

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computer recycling program began. Approximately 1.5 million computers are discarded annually; prior to the recycling program only 162,000 computers (10.8 percent of total discarded computers) were recycled. Since the implementation of HB 2714, the number of computers recycled has increased to about 500,000 a year, or 33 percent.<sup>66</sup>

The responsibility of recycling used computers has not been shared equitably among the manufacturers with compliant recovery plans. In 2009, 15,247,207 pounds of computer equipment was collected in Texas. The Dell Reconnect program was responsible for collecting 12,923,787 pounds, almost 85 percent of the computers recycled in the state.<sup>67</sup>

The Dell Reconnect program has been extremely successful because of its innovative partnerships that have created a network of locations throughout the state where used computer equipment can be dropped off. Through the Reconnect program, Dell computer equipment may be taken to all Staples, Inc. locations for recycling and any computer brand may be discarded at Goodwill Industries International, Inc. stores around Texas.<sup>68</sup>

The TCEQ's Small Business and Environmental Assistance Division has been actively trying to raise awareness about the computer recycling program.

- Staff has given presentations to representatives from government, industry, non-profit entities as well as the public.
- Print ads, web banner ads, an informational flyer and other promotional materials have been developed and may be downloaded for free from the TCEQ website.
- Ten articles about the computer recycling program have been featured in newspapers, magazines and agency publications.
- Two public service announcements have been created; one is featured on the TCEQ's website and the other has been aired on radio stations throughout the state.
- Staff has contacted over 70 cities to ensure local governments are aware of the program and to provide information about how to publicize computer recycling in their area.<sup>69</sup>

Texans were left with very few options for disposing of their unwanted televisions because Governor Perry vetoed HB 821. A number of manufacturers, including Best Buy, Panasonic, Sharp, Toshiba, Samsung, Sony and Wal-Mart have established reclamation programs voluntarily. However, the state does not have a comprehensive approach to television disposal.

## **Conclusion**

Moving forward, the TCEQ should concentrate on increasing the computer recycling rate by working with manufacturers, local governments, other state agencies and non-profit organizations to continue to raise public awareness about the computer take back program.

Because of the lack of viable television recycling options, the Texas Legislature should once again pass legislation that creates a comprehensive, convenient and environmentally protective program to dispose of unwanted televisions.

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## **Mattresses**

Presently, there are not state or federal regulations that specifically address the disposal or recycling of mattresses. However, there are several Texas statutes that reference using recycled and renovated materials in mattresses.

According to the Health and Safety Code, Chapter 345, "recycled material" is composed of recycled material or derived from post-consumer or industrial waste. All mattresses that are manufactured from secondhand or recycled material must be labeled as such.<sup>70</sup>

### **Findings**

In the United States, it is estimated that 30 million mattresses and box springs are disposed of each year.<sup>71</sup> Despite containing materials that can be recycled, most go to landfills. Recycling is not economically viable in most situations because the materials can be difficult to recover and the price is often volatile.<sup>72</sup>

Technology has been developed that makes recycling used bedding feasible; newly designed machines are able to break down mattresses into their basic components. After processing, the post-consumer materials can be reformed into new mattresses that meet stringent hygiene standards. It is similar to the idea of taking an old plastic water bottle and recycling it to make a new plastic water bottle. Use of this technology could keep many discarded mattresses out of landfills as well as decrease the amount of virgin resources required for manufacturing.<sup>73</sup>

Current Texas law does not allow manufacturers to fully utilize the available technology. Labeling provisions prohibit a new mattress made from recycled material to be labeled as "New".<sup>74</sup> However, labeling new mattresses made from recycled material as "Secondhand/Recycled" is not always appropriate. The quality of secondhand bedding varies greatly, including used mattresses that have simply been disinfected and recovered.<sup>75</sup>

A new "Green Mattress" labeling category could be created for new mattresses made from post-consumer materials. However, if a new labeling category was created, it would necessitate the development of an additional license for green mattress manufacturers.<sup>76</sup>

### **Conclusion**

The legislature should continue to evaluate the current mattress labeling statutes and consider making revisions to reflect the existing technology. "Green Mattress" labels would allow mattress manufacturers to fully utilize the available recycling technology, but could be resource intensive because of the need to develop additional licensing requirements.

## **Plastic, Aluminum and Glass**

Significantly increasing the recycling rate for commodities that are common in households such as plastic, aluminum and glass could have a positive impact on Texas' overall recycling rate.

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Two types of plastic are commonly recycled, polyethylene terephthalate (PET) and high-density polyethylene (HDPE). PET is made from plastic resin and polyester; it is frequently used for soft drink and water bottles.<sup>77</sup> PET plastic water bottles are 100 percent recyclable and are the single most recycled object in curbside recycling programs.<sup>78</sup> HDPE is made from petroleum products, is stronger than PET and is typically used for milk containers, laundry detergent bottles, tables and chairs.

There are 53 recycling facilities in Texas that accept plastics. The market for recycled plastic increased steadily in 2009, but has begun to level off. Most of the plastic recycled in the U.S. is exported to China.<sup>79</sup>

The majority of recycled aluminum comes from used beverage containers and is processed and made into new beverage containers. Aluminum cans manufactured today contain 68 percent recycled content. Using recycled aluminum reduces the amount of energy needed for production by 95 percent.<sup>80</sup> There are 64 recycling facilities throughout the state that accept aluminum cans. The market is strong; the value dropped in late 2009, but has rebounded in 2010.<sup>81</sup>

The supply of recycled glass has increased in recent years because of curbside recycling programs. However, the market for recycled glass is not as good as it is for recycled plastic or aluminum. Only 28 facilities in the state accept glass. Contamination from metal, gravel and dirt frequently occurs during collection, processing and transit.<sup>82</sup> Broken glass can also contaminate other materials and damage the floors of recycling facilities. Moreover, injuries are common during processing; approximately 80 percent of the workplace injuries reported during recycling are caused by glass.<sup>83</sup>

## **Findings**

Several strategies to increase the recycling rate have been presented to the Committee, including targeting commercial waste producers, establishing a bottle deposit program and concentrating resources on community-based curbside recycling programs.

Commercial solid waste makes up about 30 percent of the municipal solid waste landfilled annually, however, there are only two recycling programs targeting commercial waste producers: the Site Assistance Visit Program and the Resource Exchange Network for Eliminating Waste Program.<sup>84</sup>

The Site Assistance Visit Program helps companies comply with Pollution Prevention requirements for source reduction and waste minimization. The TCEQ provides technical assistance that allows facilities to reduce waste and increase recycling. In 2010, 751 companies submitted their Pollution Prevention Annual Progress Reports; there was a 27 percent average reported waste minimization.<sup>85</sup>

The TCEQ has established a system for entities to sell, donate or exchange surplus materials to users that will reclaim them. The Resource Exchange Network for Eliminating Waste program reduces waste and encourages the reuse of materials. The program can also provide economic benefits by reducing disposal costs and in some cases, selling material that would otherwise be

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waste.<sup>86</sup>

It has been suggested that additional recycling resources should focus on commercial waste producers, including sports stadiums, restaurants and bars.

Eleven states currently have some form of beverage container deposit system. In most of these states, manufacturers pay a fee for each container sold and consumers are given a portion of that fee when the container is returned for recycling. The remainder of the fee is often used to administer the program.

Deposit programs provide a financial incentive for consumers to recycle, but several issues related to this type of recycling program need to be addressed prior to being considered in Texas. The costs associated with paying deposit fees and establishing the needed recycling infrastructure, which would be incurred by manufacturers, retailers and distributors, will likely be passed to the consumers. Moreover, to administer a recycling program specifically for beverage containers resources could potentially be diverted from existing municipal recycling programs.<sup>87</sup>

Community-based, curbside recycling programs have become increasingly popular. These programs allow all household recyclable waste to be placed in one container that is collected at people's curbs, similar to the way other solid waste is collected. Increasing the number of municipalities with curbside programs could significantly increase the overall statewide recycling rate because they allow individuals to conveniently recycle numerous products.<sup>88</sup>

Expanding community-based programs could be difficult, however, because they can have substantial start-up and operating costs. Bins are about \$60 per household; implementing curbside recycling in all of Texas' 7.27 million single-family homes would cost approximately \$437 million. Because of the volatile market, the revenue from selling recycled material will probably not be sufficient to fund a statewide, curbside program.<sup>89</sup>

## **Conclusion**

The legislature should continue to examine potential strategies to increase the state's recycling rate. Commercial recycling, beverage deposit and curbside recycling programs have the potential to increase the overall recycling rate. Unfortunately, these strategies also have significant possible complications. Because of the uncertainty and probable costs related to statewide deposit and curbside recycling programs, the legislature should review the suggested strategies further prior to taking action.

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## FEDERAL CLIMATE CHANGE INITIATIVES

Since the mid-1990's, several initiatives focused on climate change have been proposed. Entities from various sectors of government have looked at the issue, including international organizations, the U.S. Congress, the Supreme Court, the Environmental Protection Agency (EPA) and state and local governments.

The Kyoto Protocol is an international agreement, adopted on December 11, 1997, which established targets for greenhouse gas (GHG) reductions. The measure calls on 37 industrialized nations to decrease emissions by an average of five percent of their 1990 levels by 2012.<sup>90</sup> While the U.S. initially showed support for the protocol, Congress has never ratified the measure.<sup>91</sup>

The American Clean Energy and Security Act of 2009, also known as the Waxman Markey bill, is one of several measures relating to climate change that has been considered by the U.S. Congress. The legislation would establish a cap and trade system, which sets limits on the amount of GHGs that can be emitted and allows companies to buy and sell permits to emit these gases. The measure was introduced in the U.S. House on May 15, 2009, and received an affirmative vote on June 26, 2009, but has subsequently been left pending in the Senate.<sup>92</sup>

Issues related to climate change have also received attention from the U.S. Supreme Court; in *Massachusetts V. EPA*, the court assessed whether the Federal Clean Air Act (FCAA) mandated that the EPA regulate GHGs from new vehicles. The Supreme Court's decision had three primary components.

- Damage due to climate change is exacerbated by GHG emissions from vehicles.
- The definition of "air pollutant" in the FCAA is broad and therefore, GHGs should be considered an air pollutant.
- The EPA must regulate GHGs unless the EPA determines that GHGs do not endanger public health or welfare, or there is insufficient evidence to make an endangerment finding.<sup>93</sup>

Following the Supreme Court decision, the EPA proposed several rulemaking initiatives intended to address climate change through the regulation of GHG emissions.

- Final Mandatory GHG Reporting Rule
- EPA Endangerment Finding
- Light-Duty Vehicle GHG Emissions and Corporate Average Fuel Economy (CAFE) Standards
- Reconsideration of Former Administrator Johnson's Memo on Pollutants Covered under Prevention of Significant Deterioration (PSD) Permit Program
- PSD and Title V GHG Tailoring Rule

### Findings

The state has already implemented initiatives intended to decrease carbon dioxide emissions. With currently available technology, the most efficient way to reduce GHGs is through the development of energy efficient and alternative energy technologies. Texas is a global leader in

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alternative energy, producing more wind power than any other state and all but four countries.

Since 2004, the state has reduced emissions from energy production more than any other state. On a per capita basis, emissions from electric generators in Texas fell by four percent between 2004 and 2007. During the same period, nationwide emissions increased by 0.7 percent. The decrease in emissions observed in Texas can be attributed to an increase in energy production from natural gas and wind as well as less reliance on coal.

It is inappropriate for the EPA to control GHG emissions under the FCAA because of the unique nature of the chemicals. Unlike other pollutants, the concentrations of GHGs are consistent throughout the world. PSD, National Ambient Air Quality Standards (NAAQSs) and other FCAA requirements assume that some geographic areas have higher levels of a criteria pollutant than others. Areas with concentrations above the standards, nonattainment areas, have heightened regulatory requirements. It would be unreasonable to establish a NAAQS for an ever-present global pollutant.

However, without a NAAQS, the basic purpose of the PSD permitting program, to assist with maintaining the standard, cannot be implemented. FCAA and PSD requirements assume that a NAAQS has been established for pollutants being regulated, but because it would be inappropriate, a standard has not been set for GHGs.

The system the EPA has created to regulate GHGs will prevent existing facilities from receiving authorization for modifications in a timely, lawful and environmentally protective manner. Without a manageable permitting program, manufacturers' ability to expand will be stagnated, which will prevent economic growth. The EPA's GHG permitting program has the potential to negatively impact the economy and will be unlikely to produce a measureable environmental impact.

## **Conclusion**

Because of the potential detrimental impact of the EPA's GHG permitting rules, the Texas Legislature should support the opposition of the rules by the Texas Commission on Environmental Quality (TCEQ) and the Texas Attorney General.

## **Final Mandatory Greenhouse Gas Reporting Rule**

The Mandatory Greenhouse Gas Reporting Rule was adopted on September 22, 2009 and requires certain entities to submit an emissions report to the EPA annually. The rule covers suppliers of fossil fuels and industrial GHGs, manufacturers of certain vehicles and facilities that emit more than 25,000 tons of GHGs per year. Data collection began in January 2010 and the first emissions reports are due in March 2011.

Rule revisions were proposed on March 22, 2010 that, if adopted, would expand the mandatory reporting requirements to include oil and natural gas industries that emit fluorinated GHGs and facilities that inject and store carbon dioxide underground for the purposes of geologic sequestration or enhanced oil and gas recovery.<sup>94</sup>

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## EPA Endangerment Finding

On December 7, 2009, the EPA finalized two findings under the FCAA that relate to GHG emissions and climate change. The Endangerment Finding identifies six GHGs that threaten public health and welfare. The Cause and Contribute Finding specifies that GHG emissions from new motor vehicles contribute to the threat to public health and welfare.<sup>95</sup> The six GHGs named in the Endangerment Finding are carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs) and sulfur hexafluoride (SF<sub>6</sub>).

### **Findings**

The EPA's Endangerment Finding does not directly regulate GHGs, but it provides a foundation for adopting GHG regulations under the FCAA. According to the EPA, the findings necessitate the adoption of the Light-Duty Vehicle GHG Emission and CAFE Standards. The agency believes that the vehicle regulations then make the implementation of GHG emissions limits for stationary sources necessary.

After the EPA released their Endangerment Finding, the Governor and the TCEQ submitted comments outlining specific concerns and recommending that the EPA not finalize the finding. The issues raised included, apprehension about questionable science used to support climate change theories, the inappropriate use of the FCAA to regulate GHGs and the potential for regulations to have significant negative impacts on the state's economy. The EPA's response to the TCEQ's comments has done little to alleviate Texas' concerns.

On February 2010, the Texas Attorney General filed a petition for the EPA to reconsider the Endangerment Finding on behalf of the Governor, Commissioner of Agriculture, Commissioner of the General Land Office, the TCEQ and the Chairman of the Public Utility Commission. On July 29, 2010, the EPA denied the petition to reconsider the Endangerment Finding.

The Attorney General also filed a petition for a review of the finding with the U.S. Court of Appeals for the D.C. Circuit. In the petition, Texas argues that the EPA's finding is based on flawed and legally unsupportable evidence from non-EPA scientists; the actions are still pending. Similar petitions were filed by several other organizations and states.<sup>96</sup>

### **Conclusion**

Because the Endangerment Finding has been used as the foundation for GHG regulations under the FCAA, which is inappropriate and has potential negative economic consequences, the Texas Legislature should support the efforts of the TCEQ and the Texas Attorney General to oppose the finding.

## **Light-Duty Vehicle GHG Emissions and CAFE Standards**

On April 1, 2010, the EPA and the U.S. Department of Transportation's National Highway Traffic Safety Administration (NHTSA) finalized a joint rule establishing a program to reduce GHG emissions and improve fuel economy for new cars and trucks sold in the U.S.<sup>97</sup>

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The Light-Duty Vehicle GHG Emissions and CAFE Standards will place additional regulations on new passenger cars, light-duty trucks and medium-duty passenger vehicles with model years 2012 through 2016. The rules apply fuel economy requirements under the NHTSA's CAFE program and GHG emissions requirements under the FCAA. Under the program, manufacturers will need to meet an estimated combined average emission level of 250 grams of carbon dioxide per mile and 34.1 miles per gallon for the 2016 model year.<sup>98</sup>

### **Findings**

The TCEQ has concerns about the adoption of the Light-Duty Vehicle GHG Emissions and CAFE Standards because the FCAA is inappropriate for regulating GHGs. On July 6, 2010, Texas, along with Alabama, South Carolina, South Dakota, Nebraska, North Dakota, Virginia and Mississippi filed a Petition for Review of the rule in the U.S. Court of Appeals for the D.C. Circuit.

### **Conclusion**

According to the EPA, the implementation of the Light-Duty Vehicle GHG Emissions and CAFE Standards triggers the regulation of GHGs from stationary sources under the FCAA, which could have a detrimental impact on the state. Therefore, the Texas Legislature should monitor actions related the Texas Attorney's General Petition for Review.

## **Reconsideration of EPA Memo on Pollutants Covered under PSD**

The "Johnson Memo" was issued by EPA Administrator Stephen L. Johnson on December 18, 2008 and addressed when pollutants need to be regulated under the FCAA PSD permit program. The memo specified that a final national rule that requires the control of a pollutant, like the light-duty vehicle rule, triggers PSD permitting requirements.

Therefore, according to the EPA, the promulgation of the Light-Duty Vehicle GHG Emissions and CAFE Standards prompts PSD New Source Review (NSR) and Title V permitting for GHG emissions. Because of the memo, PSD requirements will begin in January 2011 when 2012 model year vehicles will first be sold in the U.S.

### **Findings**

The TCEQ has expressed adamant opposition to the EPA's Johnson Memo because the agency does not agree with the EPA's interpretation of the FCAA. Because of the interconnected nature of the system created for implementing GHG regulations, there will be inadequate opportunity to evaluate and effectively comment on the proposals.

Texas petitioned the EPA to reconsider the Johnson Memo on June 1, 2010. At the same time several states, including Texas, Alabama, South Carolina, South Dakota, Nebraska, North Dakota, Virginia and Mississippi filed a Petition for Review of the memo in the U.S. Court of Appeals for the D.C. Circuit.

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On August 30, 2010, Texas filed a request, asking the EPA to delay the effectiveness of the Endangerment Finding, the Johnson Memo and the light-duty vehicle rule until the pending petitions filed with the U.S. Court of Appeals are resolved.<sup>99</sup>

## **Conclusion**

Because of the enormous impact the Johnson Memo may have on the way pollutants are regulated, the Texas Legislature should support the state's opposition to the memo.

## **PSD and Title V GHG Tailoring Rule**

On May 13, 2010, the EPA finalized "The Tailoring Rule", which will result in the regulation of GHGs from certain stationary sources. The rule "tailors" the GHG requirements of the FCAA to specify the facilities that will be required to obtain pre-construction and operating permits.

Under the rule, unique emissions thresholds are set for GHGs in an attempt to shield smaller emissions sources from being regulated. The implementation of the rule has been divided into three distinct steps.

The first step will begin on January 2, 2011 and will only apply to sources that are currently subject to the PSD permitting program. Facilities that are newly constructed or modified in a way that significantly increases emissions of a pollutant other than GHGs will be required to obtain PSD and Title V permits for GHGs. Best Available Control Technology will need to be determined for all sources that increase GHG emissions by 75,000 tons per year or more. During step one of implementation, no facility will be subject to FCAA permitting requirements solely based on GHG emissions.

Step two of the Tailoring Rule will go into effect on July 1, 2011. PSD permits will be required for all newly constructed facilities that emit at least 100,000 tons of GHG per year and all modifications that increase GHG emissions by 75,000 tons per year, even if a permit would not be necessary based on the emissions of other pollutants. Title V permits will be required for sources that emit at least 100,000 tons per year of GHG, even if permitting requirements would not apply based on emissions of other pollutants. The EPA estimates that 550 new Title V permits and 900 additional PSD permits will be necessary each year as a result of the Tailoring Rule.<sup>100</sup>

During the final step of implementation, the EPA will undergo additional rulemaking, which will begin in 2011 and conclude no later than July 1, 2012. The proposed rules will attempt to streamline the process for GHG permitting and may reduce the threshold for GHG emissions to as low as 50,000 tons per year. If the limit for GHG emissions is lowered, numerous smaller pollution sources will be required to obtain PSD and Title V permits.<sup>101</sup>

## **Findings**

The statutory definition of a major source under the FCAA is a source that emits 100 or 250 tons

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per year of an air pollutant. The elected officials that originally passed the legislation could have never intended for the EPA to rewrite the meaning of the FCAA in order to implement the Tailoring Rule. The EPA's interpretation of the definition of major source is unlikely to survive legal challenges.

The Tailoring Rule also violates the intent of the FCAA by unilaterally applying changes in federal rules to the states by amending their PSD State Implementation Plans (SIPs). The EPA may approve or disapprove a state's plan, but making modifications to a SIP is not authorized in statute. The EPA is trying to ignore the authority given to states and their legislatures to implement permitting rules under the FCAA.

The EPA requested that states submit a letter by August 2, 2010, indicating whether it is prepared to implement the Tailoring Rule on January 2, 2011. If statutory changes are required prior to regulating GHGs, the EPA wanted an estimate of when the state will revise SIPs to enable the permitting of GHGs. The EPA intends to implement a Federal Implementation Plan for any state that will not be ready to implement the Tailoring Rule in January 2011.

Responding to the EPA's request, the Texas Attorney General and Chairman of the TCEQ sent a letter stating that Texas does not intend to implement the Tailoring Rule because the agency does not have the statutory authority to do so. PSD permits for GHG emissions will not be required by the TCEQ until appropriate rules and regulations have been revised and incorporated in the Texas SIP, as required by state laws relating to the TCEQ's authority.

Texas filed a Petition for Review of the Tailoring Rule in the D.C. Circuit Court of Appeals. On August 19, 2010, the state submitted a request to the EPA to stay the Tailoring Rule.<sup>102</sup>

## **Conclusion**

Because of the unanswered questions about appropriateness of using the FCAA to regulate GHGs, the Texas Legislature should wait until the pending request for review has been resolved in federal court before making the statutory changes necessary for the TCEQ to begin permitting GHG emissions.

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## SUPPLEMENTAL ENVIRONMENTAL PROJECTS

As the state agency responsible for enforcing environmental laws, The Texas Commission on Environmental Quality (TCEQ) assesses penalties to entities that have broken those laws.<sup>103</sup> A plant or facility found in violation has two options for settling an enforcement action; respondents may pay a fine or complete a Supplemental Environmental Project (SEP).

Monetary fines are paid to the General Revenue Fund and are not specifically directed toward environmental remediation. However, SEPs allow entities to comply with the enforcement process while improving the quality of the air, water or land in their communities.<sup>104</sup> A SEP is an environmental enhancement project, approved by the TCEQ, which may be used in an enforcement matter to offset an administrative or civil penalty.<sup>105</sup>

A SEP:

- prevents pollution,
- reduces the amount of pollutants reaching the environment,
- enhances the quality of the environment or
- contributes to the public awareness of environmental matters.<sup>106</sup>

There are two types of SEPs, custom and pre-approved. Custom SEPs are performed by the respondent, the entity named in the enforcement action. These are generally unique projects, created specifically for the settlement of a single enforcement matter. Custom SEPs take longer to develop and complete than pre-approved SEPs and require additional resources for planning, implementation, controlling, managing, follow-up reporting and financial accounting.

Unlike custom SEPs, pre-approved SEPs are performed on behalf of the respondent by a third party. These projects are completed by non-profit organizations or governmental entities that have entered into an agreement with the TCEQ to receive and administer SEP contributions from respondents. All pre-approved SEPs have been reviewed and endorsed by the Pre-approved SEP List Panel.

Specific examples of projects that the TCEQ has approved include, but are not limited to

- cleanups of illegal waste dump sites and/or tire dump sites,
- community household hazardous waste and tire collections,
- wetlands and habitat restoration and establishment of nature preserves,
- erosion control,
- provision of drinking water or wastewater systems for colonias,
- funding for low-income families to install on-site wastewater treatment facilities or to pay for connection to municipal sewer treatment systems,
- funding for retrofitting or replacement of diesel buses to "clean-technology" and purchasing alternative-fueled equipment to replace older more polluting diesel and gasoline powered equipment,
- conducting home energy audits and weatherizing homes for low-income residents and
- cleanup of bays and watersheds.<sup>107</sup>

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The amount of credit received in return for performing an environmental project is called an "offset". It is based on characteristics of the respondent (either for-profit, non-profit or governmental) and on the environmental benefits expected as a result of the project (direct, indirect or mixed).<sup>108</sup>

Allowable Offsets			
	Direct Benefit	Mixed Benefit	Indirect Benefit
<b>Corporations</b>	Up to 50% Offset	Up to 50% Offset	Up to 33% Offset
<b>Non-Profits/ Governmental Agencies</b>	Up to 100% Offset	Up to 50% Offset	Up to 33% Offset

## Findings

While the number of SEPs performed annually has increased significantly since 2004, the percentage of total penalties directed toward SEPs has remained constant. In 2004, 90 SEPs were approved, by 2009 the number of approved SEPs increased to 282. However, the percentage of SEPs compared to the total number of enforcement orders has remained under 20 percent.

Total Orders vs. SEPs Approved							
	2004	2005	2006	2007	2008	2009	2010*
<b>Total Orders Issued</b>	762	1159	1532	1383	1624	1756	999
<b>SEPs Approved</b>	90	117	174	149	297	282	150
<b>Percent of Total</b>	12%	10%	11%	11%	18%	16%	14%

\* FY 2010 Figures current through end of April 2010

The TCEQ has observed numerous positive outcomes as a result of SEPs, including

- benefits to the environment,
- benefits to communities by providing pollution reduction and pollution prevention that protects public health,
- the provision of environmental justice in low-income or underserved communities,
- the generation of goodwill and provision of a positive outcome from enforcement matters and
- reductions in enforcement processing and litigation costs to the public.<sup>109</sup>

Despite the benefits of SEPs, there are several challenges preventing more respondents from participating.

Because industrial facilities are not evenly distributed throughout the state, most violations occur in the Southeast Texas coastal region. The TCEQ requires that nearly all projects be performed in the county where the violation occurred. Subsequently, the projects are concentrated in a single area of the state. Since 2005, 71 percent of SEP dollars went to fund projects in only 23 of Texas' 254 counties.

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While the SEP program is active in some areas of the state, a lack of third-party administrators and limited available projects have prevented respondents in other areas from participating. In sparsely populated regions, including the southwest and panhandle there are not enough projects. Some areas do not have any available projects. Respondents willing to contribute funds to SEPs are limited by the lack of approved projects.<sup>110</sup>

## **Conclusion**

The Texas Legislature should consider implementing policies to increase the percentage of total enforcement orders that are settled by the completion of environmental projects.

Ways to streamline the process for implementing a SEP should be developed. It currently requires more time and resources for a respondent to complete a SEP than to pay a fine. A less cumbersome process could encourage more respondents to participate in the program.

Revisions to the policy that specifies projects need to be completed in the area where the violation occurred should be considered. This policy has limited the use of SEPs to a small region of Texas. Innovative projects that would have a statewide impact on environmental quality could be developed if there was more program flexibility.

Finally, the TCEQ should develop relationships with non-profits and governmental entities that could become third-party administrators. Increasing outreach to areas of the state that are not currently participating in the SEP program could significantly increase the availability of projects. Having additional pre-approved SEP options is likely to encourage more respondents to resolve an enforcement action through the completion of a SEP instead of paying a fine.

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