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Bastrop

Blanco

Burnet

Caldwell

Fayette

Hays

Lee

Llano

Travis

Williamson

Counties

June 29, 2007

Mayor Richard E. Greene
Regional Administrator
U. S. Environmental Protection Agency, Region 6
1445 Ross Avenue, Suite 1200 (6RA)
Dallas, Texas 75202

Ms. Kathleen Hartnett White, Chairman
Texas Commission on Environmental Quality
P. O. Box 13087 (MC-100)
12100 Park 35 Circle
Austin, Texas 78711-3087

Dear Mayor Greene and Chairman White:

On behalf of the Clean Air Coalition of elected officials in the Austin—Round Rock Metropolitan Statistical Area (MSA) who have participated in the Early Action Compact (EAC), I am pleased to submit our region's ninth semi-annual EAC report. During the reporting period, November 2006 through April 2007, work was accomplished toward implementation of emission reduction measures in the EAC as adopted into the State Implementation Plan Revision. Information is also included in this report regarding implementation of voluntary measures and progress since the last report was submitted in December 2006.

In conjunction with the EAC commitments to provide public review of progress, efforts were conducted to solicit public review and comment on the draft report. These include presentations to the CLEAN AIR Force Board and Technical Committee, the Early Action Compact Task Force and the Clean Air Coalition. These organizations represent stakeholders from the environmental community, the general public, local employers, and government officials. In addition, the draft document was posted on the CAPCOG web site for three weeks to allow time for review and comment.

Elected officials and staff in central Texas continue to work together with EPA and TCEQ EAC partners on these important regional air quality issues. The participation of staff from both your agencies in the control strategy planning and implementation support activities has been invaluable. On behalf of the region's representatives, we appreciate this opportunity to participate in the development and implementation of air quality improvement measures that are most suitable to our region's needs and resources.

Sincerely,

Betty Voights,
Executive Director

cc: Mayor Will Wynn, Chairman, Clean Air Coalition

Enclosure

9th Semi-Annual

Early Action Compact Progress Report

Austin-Round Rock MSA

Prepared on behalf of the Austin-Round Rock MSA
Clean Air Coalition by:
The Capital Area Council of Governments in coordination with the
Early Action Compact Task Force and the CLEAN AIR Force

Submitted to:
Texas Commission on Environmental Quality
U. S. Environmental Protection Agency, Region VI

June 30, 2007

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EXECUTIVE SUMMARY

In December 2002 local elected officials in the Austin/Round Rock 5-county region along with EPA and the Texas Commission on Environmental Quality (TCEQ) signed an agreement known as the Early Action Compact (EAC) designed to implement measures in the region to improve air quality and prevent the area from becoming nonattainment for the 8-hour ozone standard. This report is the 9th Semi-annual progress report required by the EAC and accounts for EAC activities accomplished during the period ending in April 2007.

During this reporting period the Austin/RR region focused on continued implementation of voluntary and regulatory measures committed to in the EAC State Implementation Plan (SIP) while also accomplishing several technical projects aimed at gaining a better understanding of the ambient levels of ozone in the area, the contributors to local ozone and possible directions for improvement. Following is a brief summary of the technical analysis projects that the area initiated or completed during this reporting period and a summary of implementation efforts for the EAC measures.

Summary of Technical Support Activities

Continued monitoring and assessment of ozone levels

- Relocation of the Pflugerville ozone monitor to the Lake Georgetown location
- Analysis of the airborne sampling and assessment of ozone transport from power plants, industrial facilities and urban areas (Baylor University)
- Issued a work order to U.T. Austin to update the conceptual model for the central Texas area
- Opened a work order with U.T. to analyze VOC samples to be collected in central Austin and upwind and downwind of central Austin

Analysis of new source permit growth - The EAC SIP photochemical model and the 2002 seasonal model were used to assess the impacts on regional ozone from new major point sources to be located northeast of the Austin-RR MSA which have applied for permits

Diesel Study - Initiated new study through Texas Transportation Institute to evaluate the emission reduction impact from diesel additives

Summary of Outreach Programs and Implementation of the EAC Measures

Clean Air Force (CAF) Ads - Radio, TV and newspaper messages encouraged public to participate in ozone reduction activities

Ozone Action Day Alert Program

Ozone Season Kick Off and CAPP Awards at City Hall

Clean Air Partners Program - Development of web based emission reduction reporting tool; two new Clean Air Partners (CAP) recruited (CTRMA and Clean Air Lawn Care)

Clean School Bus Program – Received EPA grant

Enforcement of the Heavy Duty Vehicle Idling Restriction Rule

- 1 warning sent to business owner where idling occurred and the trucking company issued in the Travis County
- Mailed out almost 3000 advisories in May regarding heavy duty idling restrictions

Inspection and Maintenance Program

- Overall failure rate of 6.8% for OBD and TSI in Travis and Williamson Co (7.1% in Austin Area)
    - OBD failure rate (two county average) of 6.0% during this reporting period (6.35% in Austin Area)
    - TSI failure rate (two county average) of 10.0%
- During this reporting period remote sensing program identified more than 90 high emitters in the area, 7 complied (8%) to repair their vehicle

Texas Emission Reduction Program (TERP)

- TCEQ opened a 3rd round of TERP funding for the near nonattainment areas including Austin MSA

Transportation Emission Reduction Measures (TERMS) Program

- Total of 447 TERMS Projects
- More than 2 tons per day of NOx and VOC reduced in 2007

Stage I Vapor Recovery Rule

- TCEQ mailed out 800+ notices advising businesses of the Stage I regulations
- TCEQ organized a workshop to inform gas station management about the rule

Local Voluntary Measures - Up to 90% of all local/voluntary measures fully implemented

- Travis County and COA are using diesel additive for their fleets which will significantly reduce NOx emissions (up to 6%)
- Energy efficiency measures beyond senate Bills 5 and 7
- Commute Solution programs significantly reduce vehicle miles traveled in the Central Texas Area

1. INTRODUCTION

This progress report is intended to fulfill the Austin-Round Rock Metropolitan Statistical Area (A/RR MSA) Early Action Compact (EAC) commitment under Section I. A. 2. Reporting. In order to facilitate self-evaluation and communication with EPA, TCEQ, stakeholders, and the public, the region will assess and report progress towards milestones in a regular, public process, at least every six months, beginning in June 2003. In addition, Section 6.3 of the State Implementation Plan (SIP) Revision adopted by TCEQ in November 2004 requires that: "All signatories and implementing agencies will review EAC activities twice yearly. The semi-annual review will track and document, at a minimum, control strategy implementation and results, monitoring data and future plans. CAPCOG, or its designee, will continue to file reports with the TCEQ and EPA by June 30 and December 31 of each reporting year through the duration of the EAC, or until December 31, 2007. Reporting periods will be May 1 to October 31, and November 1 to April 30, to allow for adequate public notice and comment. CAPCOG has the primary responsibility for report generation, and will provide appropriately detailed technical analysis for all semi-annual review reporting. This report is submitted for the November 2006 to April 2007 reporting period.

During this reporting period the Austin/RR region has successfully maintained progress toward the implementation of emission reduction measures and has met all EAC milestones. This report focuses on control strategy implementation status, ozone monitoring, other technical analysis work, continuing outreach efforts, and future planning goals. EAC continued planning efforts in this period heavily focused on the impacts of emissions from new power plants. Further details on these activities will be provided in subsequent sections of this report.

Background

Local governments, community and business leaders, environmental groups, and interested citizens in Bastrop, Caldwell, Hays, Travis and Williamson Counties (A/RR MSA) have made significant commitments to improve regional air quality. The MSA is acting now to assure attainment and maintenance of the federal 8-hour standard for ground-level ozone. Using the Early Action Compact (EAC) Protocol, the Austin/RR MSA submitted a Clean Air Action Plan (CAAP) to the Texas Commission on Environmental Quality (TCEQ) that provides for clean air sooner, maintains local flexibility, and can defer the effective date of a possible non-attainment designation. The majority of the CAAP emission reduction measures were adopted as a SIP Revision by the TCEQ and EPA approved the Texas SIP revisions associated with the Austin Area EAC on August 19, 2005. EPA received three comments on the proposed rule to approve the Austin Area EAC SIP revisions. All were supportive.

EPA issued the *Protocol for Early Action Compacts Designed to Achieve and Maintain the 8-Hour Ozone Standard* (the Protocol) on June 1, 2002 and revised it in November 2002. The Protocol provides the framework for a voluntary commitment to develop and implement an emission reduction plan that assures attainment of the 8-hour ozone standard by 2007, and maintenance through 2012. On December 18, 2002, the cities of Austin, Bastrop, Elgin, Lockhart, Luling, Round Rock, and San Marcos; the counties of Bastrop, Caldwell, Hays, Travis, and Williamson; TCEQ and EPA, entered into an EAC for the MSA. Based on State Implementation Plan (SIP)-quality science, signatories choose a combination of measures that meet both local needs and emission reduction targets.

The EAC can be accessed at: http://www.capcog.org/CAPCOairquality/eac.htm. This compact committed the region to develop and implement a clean air action plan (a.k.a. EAC) in accordance with the milestones listed in Table 1.1. The milestone due for this reporting period is to provide continued planning for assurance that attainment goals

will be met and to provide implementation support for maximum effectiveness of emission reduction measures.

EAC Milestones	
June 16, 2003	Potential local emission reduction strategies identified and described
November 30, 2003	Initial modeling emissions inventory completed
	Conceptual modeling completed
	Base case modeling completed
December 31, 2003	Future year emissions inventory modeling completed
	Emissions inventory comparison and analysis completed
	Future case modeling completed
January 31, 2004	Attainment maintenance analysis completed
	Schedule for development of further episodes completed
	One or more modeled control cases completed
	Local emission reduction strategies selected
	Submission of preliminary CAAP to TCEQ and EPA
March 31, 2004	Final revisions to modeled control cases completed
	Final revisions to local emission reduction strategies completed
	Final revisions to attainment maintenance analysis completed
	Submission of final CAAP to TCEQ and EPA
December 31, 2004	CAAP incorporated into the SIP; SIP adopted by TCEQ
December 31, 2005	EAC emission reduction strategies implemented no later than this date
December 31, 2007	Attainment of the 8-hour standard
June 30th and December 31st 2003 - 2007	Submission of the semi-annual EAC Progress report to US EPA and TCEQ.

Table 1.1: List of the EAC Milestones

All milestone documents may be found at: http://www.capcog.org/capcoairquality/eac.htm

Should an EAC area miss a milestone at any time during the agreement, including failure to attain the 8-hour standard by 2007, the area will forfeit its participation and rejoin the 8-hour implementation process in progress. The area will be subject to the same requirements and deadlines which would have been effective had they not participated in this program, with no delays or exemptions from EPA rules. During the November 2006 through April 2007 reporting period all of the milestones listed above for the period were met.

2. IMPLEMENTATION STATUS OF EMISSION REDUCTION STRATEGIES

Overview

The A/RR MSA CAAP was submitted to the EPA and TCEQ on March 31, 2004. The CAAP listed 13 "State-assisted Measures" some of which would apply to all jurisdictions in the A/RR MSA. Others will apply only in some of the jurisdictions. The State-assisted Measures would require action by the TCEQ to enable implementation. In addition, a number of Locally Implemented Measures were self-selected by the EAC signatories, with each encouraged to implement at least three in addition to continuing 1-hour O_3 Flex commitments. Jurisdictions could choose to enhance an existing O_3 Flex measure. In this report, O_3 Flex achievements are encompassed by the EAC agreements and are not reported separately. Several other voluntary measures are being implemented by other air quality stakeholders in the region.

TCEQ SIP Revisions and the Resulting Austin Area Early Action Compact

On November 17, 2004, the TCEQ adopted revisions to the State Implementation Plan (SIP) for the Austin Area, San Antonio and Northeast Texas Early Action Compact (EAC) areas and revisions to Chapters 114 and 115 of Title 30 of the Texas Administrative Code (TAC). This SIP Revision was submitted by TCEQ to EPA in December 2004. EPA formally adopted the Austin Area SIP Revisions on August 19, 2005.

The Austin Area Early Action Compact SIP Revision included eight emission reduction measures that require state assistance to implement. Six of the measures required new state rules. Two of these new rules apply statewide; two apply to the Austin and San Antonio Area EAC counties. Measures 4 – 7 below will rely on existing TCEQ resources for enforcement.

Together these measures are conservatively estimated to reduce 4,178 tons per year of NOx emissions and 6,054 tons per year of VOC emissions in the Austin EAC area. These totals do not include additional emission reductions from the many local, voluntary measures each Clean Air Coalition jurisdiction committed to implement, nor do they include emission reduction commitments made by other EAC stakeholders.

These measures commit the region to reduce 5.1 % of the *daily* NOx emissions from mobile and area sources and 10.3% of the *daily* VOC emissions. Annual point source emissions should be reduced by an estimated 12.7%. A summary of all state-assisted EAC measures for the A/RR MSA is shown in Table 2.1a. Table 2.1b shows results from the photochemical modeling and an impact from state assisted measures on future ozone design value in the Austin-Round Rock MSA area. A complete list and updates on the status of the state assisted EAC measures are shown in Appendix A.

Working with US EPA, US DOE, Texas A & M University, the State Energy Conservation Office, the Texas Public Utility Commission, and others, TCEQ staff have quantified and documented estimates of air emissions reductions as a result of EE/RE projects. These estimates are under TCEQ review for consideration in SIP planning and continue to be refined and developed further. Texas A & M, the State Energy Conservation Office, the Texas Public Utility Commission have spent over $1.2 million on this work over the last three years. The TCEQ area and mobile emissions inventory team spent about 0.20 FTEs/year on this effort.

<u>As far as State Assisted Measures Violations from Region 11 - No violations have been reported for November 06 through present.</u>

Emission Reduction Strategy	30 TX Administrative Code	Affected Counties	NOx Reduction (tpd)	VOC Reduction (tpd)	Implementation Date	Enforcement Date	Affected Emission Category	2007 Uncontrolled Emissions (tpd)
Transportation Emission Reduction Measures (TERMS)	N/A	Bastrop	0.72	0.83	See Table 2.4	N/A	On-Road Mobile (NOx)	62.18
		Caldwell						
		Hays						
		Travis					On-Road Mobile (VOC)	33.79
		Williamson						
Vehicle Inspection and Maintenance Program (I/M)	114.80-114.87	Travis	3.22	3.83	1-Sep-05	1-Sep-05	On-Road Mobile (NOx) - HDGV, LDGV, & LDGT	31.12
		Williamson					On-Road Mobile (VOC) - HDGV, LDGV, & LDGT	30.33
Idling Restrictions on Heavy-Duty Vehicle Engines	114.510-114.512, 114.517	Bastrop	0.67	0	30-Aug-05	1-Apr-06	On-Road Mobile - HDGV & HDDV	31.82
		Caldwell						
		Hays						
		Travis						
		Williamson						
Portable Fuel Containers Rule	115.620-115.622, 115.626, 115.627, 115.629	Bastrop	0	0.89	31-Dec-05	31-Dec-05	Area - Portable Fuel Containers (Commercial & Residential)	13.4
		Caldwell						
		Hays						
		Travis						
		Williamson						
Stage I Vapor Recovery Requirement Change	115.221-115.227, 115.229	Bastrop	0	0.16	13-Apr-05	31-Dec-05	Area - Gasoline Service Stations (Phase 1)	10.06
		Caldwell		0.19				
		Hays		0.63				
		Travis		2.83				
		Williamson		1.07				
		Total:	0	4.88				
Degreasing Controls	115.412, 115.413, 115.415-115.417, 115.419	Bastrop	0	5.5	31-Dec-05	31-Dec-05	Area - Degreasing (Cold Cleaning)	9.38
		Caldwell						
		Hays						
		Travis						
		Williamson						
Cut-Back Asphalt	115.510, 115.512, 115.513, 115.515-115.517, 115.519	Bastrop	0	1.03	31-Dec-05	31-Dec-05	Area - Asphalt Applications	2.68
		Caldwell						
		Hays						
		Travis						
		Williamson						
Texas Emission Reduction Plan (TERP)	N/A	Bastrop	2	0	31-Dec-07	N/A	On-Road Mobile - LDDV, LDDT, & HDDV	28.79
		Caldwell						
		Hays						
		Travis					Off-Road Mobile - LDDV, LDDT, & HDDV	24.47
		Williamson						
Power Plant Reductions	N/A	Bastrop (LCRA)	300 tpy	-	31-Dec-05	N/A	Point	1,344 tpy
		Fayette (LCRA & Austin Energy)	972 tpy	-	31-Dec-06		Point	10,494 tpy
		Travis (Austin Energy)	241 tpy	-	30-Jan-04		Point	1,741 tpy
		Travis (UT)	353 tpy	-	31-Dec-06		Point	1,088 tpy
		Total:	1866 tpy	0				

Table 2.1a: List of "quantifiable measures," including 8 state-assisted EAC measures and one locally implemented measure (Power Plant Reductions) for the A/RR MSA. There has been no violation reported of any of the State Assisted Measure from Region 11 for November 06 through present.

Emission Reduction Measure	Monitor Site	1999 design value [ppb_v]	Relative reduction factor	Estimated design value for 2007 [ppb_v]	Attainment of the 8-hour standard?
I/M only	*Audubon*	89	0.944	84.02	Yes
	Murchison	87	0.944	83.13	Yes
All State Assisted Measures (with TERMs) but without I&M in Hays County and without low RVP gasoline	*Audubon*	89	0.937	83.39	Yes
	Murchison	87	0.934	81.26	Yes
TERP only (modeled at 2 tpd reduction)	*Audubon*	89	0.946	84.19	Yes
	Murchison	87	0.947	82.39	Yes
All measures with VOC reductions and no NOx reductions	*Audubon*	89	0.946	84.19	Yes
	Murchison	87	0.945	82.22	Yes
Point Sources Only	*Audubon*	89	0.944	84.02	Yes
	Murchison	87	0.943	82.04	Yes

Table 2.1b: [1]Model Results for Emission Reduction Measures Applied to Base 2007 EI with the September 1999 Episode

State-assisted measures requiring new state rules for implementation:

1. **Vehicle Emission Inspection & Maintenance –** TCEQ adopted new rules to implement a State vehicle emissions inspection and maintenance (I/M) program in EAC Counties that request it. Travis and Williamson Counties, along with the cities of Austin and Round Rock, requested a revised I/M program be implemented in this portion of the MSA. Travis and Williamson Counties also committed to administer associated Low Income Repair and Replacement Assistance Programs (LIRAP), per existing state rules.
   - **Effective Date:** September 1, 2005.
   - **Affected Area / Timeframe:** Travis and Williamson Counties / year round
   - **Estimated Austin Area Reductions:** 3.22 tons per day (tpd) of NOx, 3.88 tpd of VOC
   - **Administrative Code:** Title 30, Subchapter C, Vehicle Inspection and Maintenance and Low Income Vehicle Repair Assistance, Retrofit, and Accelerated Vehicle Retirement Program, Division 1 Vehicle Inspection and Maintenance, Sections §§114.80-114.87
   - **Implementation Status:** From September 1, 2005 to March 31, 2007, 1,003,344 initial emissions test were performed in the Austin area. The emissions only failure rate is 7.09% for this period. Table 2.2 provides the

failure rate by model year for the Austin area during the period 09/01/2006 – 03/31/2007 and Table 2.3 shows a summary of the test results for FY 2006/07.

The program is performing as expected. There are 277 public inspection stations in the two-county area. There have been no unusual reports of long lines, equipment problems, or customer complaints. The top five OBD failures are EGR, Catalyst System, System too Lean (Bank 1 and Bank 2) and O2 Sensor Heater.

Operating in tandem with the vehicle I/M program, the Texas Department of Public Safety (DPS) manages a remote sensing program to help detect high emitters traveling in the EAC area. There are currently 17 sites in Travis and Williamson counties at which remote sensing equipment is operated on a rotating basis to collect the data on high emitters. There are two remote sensing vans available, which move from site to site. The contractor running the program for DPS selected sites that would provide a broad geographic sampling of the fleet. The sites are generally indiscriminate in that that they are located on major thoroughfares on which vehicles from many different areas of the city can be found at most given periods of the day, irrespective of the geographic origin of the owner.

From September 1, 2006 to May 31, 2007, 197,523 records in the Austin EAC Area have been collected via the remote sensing program in the Austin EAC area. About 90 vehicles qualified as high emitters of either CO or HCs or both. There were 35 notices mailed to owners of high emitting vehicles. For a complete summary of the results from the remote sensing program, see Attachment 1.

LIRAP: During this reporting period (Nov 2006 – April 2007.), Travis County issued 293 Repair Vouchers and 3 Replacement Vouchers while Williamson County issued 54 Repair Vouchers (61 applications and 7 denials) and 1 Replacement Vouchers of $1,000 under the LIRAP program with total repair cost of $31,744.28.

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[1] Data source: *Austin-Round Rock MSA Attainment Maintenance Analysis*, EAC Milestone Technical Report, March 2004.

Austin Area Emissions Failure Rate by Model Year
Report Period - 09/01/2006 - 03/31/2007

Model	Austin Area		Travis County		Willaimson County	
Year	Initial Tests	Failure Rate	Initial Tests	FailureRate	Initial Tests	Failure Rate
2005	25,661	1.41%	17,619	1.37%	8,042	1.50%
2004	39,852	1.79%	27,504	1.80%	12,348	1.77%
2003	41,065	2.71%	28,911	2.82%	12,154	2.45%
2002	40,710	3.97%	29,395	4.09%	11,315	3.67%
2001	40,139	5.80%	29,632	5.83%	10,507	5.72%
2000	37,753	5.62%	28,106	5.87%	9,647	4.88%
1999	32,016	7.10%	24,032	7.26%	7,984	6.60%
1998	25,965	8.75%	19,761	9.07%	6,204	7.70%
1997	22,779	11.40%	17,400	11.66%	5,379	10.58%
1996	16,839	13.74%	12,905	14.19%	3,934	12.28%
1995	17,535	4.41%	13,529	4.55%	4,006	3.94%
1994	13,842	5.05%	10,762	5.19%	3,080	4.55%
1993	10,719	6.86%	8,323	7.05%	2,396	6.18%
1992	7,831	8.65%	6,074	8.81%	1,757	8.08%
1991	6,306	8.48%	4,926	8.38%	1,380	8.84%
1990	4,954	9.81%	3,855	9.96%	1,099	9.28%
1989	3,796	12.33%	2,856	12.32%	940	12.34%
1988	2,643	13.92%	2,034	13.72%	609	14.61%
1987	1,911	18.84%	1,490	19.13%	421	17.81%
1986	1,685	22.43%	1,290	21.71%	395	24.81%
1985	1,317	28.25%	1,018	26.72%	299	33.44%
1984	1,003	30.71%	755	29.14%	248	35.48%
1983	493	40.16%	345	39.13%	148	42.57%
1982	159	42.14%	121	40.50%	38	47.37%

TIMS db for 05/09/2007 at 2:30pm...gph

Table 2.2: Vehicle I&M Failure Rates by Model Year in Austin Area, Travis and Williamson Counties-FY 2006/2007

Austin Area AirCheckTexas Test Results for 09/01/2006 through 03/31/2007							
Location	Number of Initial Tests	Emissions Only Failures	Emissions Only Failure Rate	Re-Test Passing Rate	Gas Cap Only Failures	Gas Cap Only Failure Rate	Overall Failure Rate
OBD							
Austin Area	320,334	17,677	5.52%	81.83%	2,671	0.83%	6.35%
Travis County	233,136	13,493	5.79%	81.17%	2,078	0.89%	6.68%
Williamson County	87,198	4,184	4.80%	83.94%	593	0.68%	5.48%
TSI							
Austin Area	79,778	6,554	8.22%	69.48%	1,470	1.84%	10.06%
Travis County	61,606	5,074	8.24%	70.25%	1,193	1.94%	10.17%
Williamson County	18,172	1,480	8.14%	66.84%	277	1.52%	9.67%
All Tests Types							
Austin Area	400,112	24,231	6.06%	77.93%	4,141	1.03%	7.09%
Travis County	294,742	18,567	6.30%	77.68%	3,271	1.11%	7.41%
Williamson County	105,370	5,664	5.38%	78.75%	870	0.83%	6.20%
	Public Stations Testing		OBD Not-Ready Rates				
Austin Area	320		2.70%				
Travis County	237		2.79%				
Williamson County	83		2.46%				
Austin Area Top 5 OBD Failures							
		P0401	Exhaust Gas Recirculation Flow Insufficient Detected				
		P0420	Catalyst System Efficiency Below Threshold (Bank 1)				
		P0171	System too Lean (Bank 1)				
		P0174	System too Lean (Bank 2)				
		P0135	O2 Sensor Heater Circuit Malfunction (Bank 1 Sensor 1)				
TIMS db for 05/09/2007 at 2:30pm...gph							

Table 2.3: Austin area summary of the inspection and maintenance program test results-FY 2006/2007

2. **Locally Enforced Idling Restrictions**–TCEQ adopted new rules to implement idling limits for gasoline and diesel-powered engines in heavy-duty motor vehicles within the jurisdiction of any local government in the state that has signed a Memorandum of Agreement with the commission to delegate enforcement to that local government.
   - **Effective Date:** August 30, 2005
   - **Enforcement Date:** By April 1, 2006
   - **Affected Area / Timeframe:** Any jurisdiction in Texas that has signed a MOA / agreeing to enforce the Rule or enacts an ordinance to enforce during the Ozone Season (April 1st - October 31st) each year
   - **Estimated Austin Area Reductions:** 0.67 tpd of NOx, 0.0 tpd of VOC.
   - **Administrative Code:** Title 30, Subchapter J, *Operational Controls for Motor Vehicles, Division 1 Motor Vehicle Idling Limitations*, new Sections §§114.510-114.512, and 114.517
   - **Implementation Milestones:** Twelve jurisdictions passed resolutions and signed a Memorandum of Agreement (MOA) with TCEQ to locally enforce the state's heavy-duty vehicle idling limitation rule in early August 2005. The twelve jurisdictions were: Bastrop, Caldwell, Hays, Travis and Williamson counties and the cities of Austin, Bastrop, Elgin, Lockhart, Luling, Round-Rock and San Marcos. The MOA and associated implementation plan were submitted to TCEQ and EPA Region 6. After submittal, the cities of Georgetown and Hutto also adopted ordinances. Because the state rule is only applicable April – October each year, enforcement starts April 2007 and ends October 31, 2007. For this reporting period, a total of <u>one warning</u> has been issued for a vehicle in Travis County.

     The jurisdictions will enforce the idling limitations civilly and/or criminally, consistent with the enforcement provisions of the Texas Water Code. Consistent with their resolutions, Hays and Williamson counties only will enforce the limitations using the civil enforcement process, while Bastrop, Caldwell and Travis counties reserved the option for using either civil or criminal enforcement procedures. A number of cities adopted ordinances specifying penalties or will enforce the limitations using Texas Water Code provisions. At this time, nine cities have adopted ordinances which prohibit heavy duty diesel vehicles (HDDV) from excessive idling (more than 5 minutes). The nine cities that have adopted idling restriction ordinances

are the cities of Austin, Round Rock, Bastrop, Lockhart, Elgin, San Marcos, Luling, Georgetown, and Hutto. Samples of these city ordinances can be found at www.engineoff.org,

Public outreach: CAPCOG is continuing to host the website, www.engineoff.org, which includes information on the regulation and a downloadable brochure. The online request forms for the idling limit signs and/or sign artwork and other outreach promoting material such as flyers, visors and sunglass clips are also available on the site. The City of Austin designed two versions of idling restriction signs that comply with the Manual of Uniform Traffic Control Devices (MUTCD). One version is for cities with ordinances and cites the ordinance number. The other version is for counties and cities without ordinances and cites the state rule number. The Capital Area MPO is funding the sign and incentive program.

Efforts are also underway to encourage voluntary idling reductions. The City of Austin has been and will continue to promote the anti-idling message near elementary schools and along blocks where buses are suspected to idle. CAMPO and Travis County mailed out idling restriction advisory notices to almost 3000 businesses before the beginning of the ozone season (April 2007).

3. **Stage 1 Vapor Recovery - Revision of Stage I & II Vapor Recovery Rules, Chapter 115** (Rule Project Number: 2005-001-115-AI). Amendments to existing TCEQ rules lowered the exemption level for facilities subject to Stage I vapor recovery controls from 125,000 gallons in a calendar month to 25,000 gallons of gasoline throughput in a calendar month.
   - **Approval Date:** March 23, 2005
   - **Effective Date:** April 13, 2005
   - **Affected Area / Timeframe:** Bastrop, Caldwell, Hays, Travis, and Williamson Counties
   - **Estimated Austin Area Reductions:** 0.0 tpd of NOx, 4.88 tpd of VOC
   - **Administrative Code:** Title 30, Chapter 115, Subchapter C, *Volatile Organic Compound Transfer Operations, Division 2, Filling of Gasoline Storage Vessels*

(Stage I) for Motor Vehicle Fuel Dispensing Facilities, Sections §§115.227 and 115.229

Implementation Status: TCEQ regional enforcement staff have been advised of the regulation and its implications to the Austin area's EAC commitments. The TCEQ has 3.5 FTEs and 2 Petroleum Storage Tank (PST) Investigators assigned to perform air quality investigations in Region 11. The Austin Region has issued one Stage 1 violation to Fatmid Enterprises LLC DBA Carter's Grocery. (Investigation #461829, NOV dated 5/8/06). TCEQ mailed out more than 800 notices advising businesses of the Stage I regulations during this period. TCEQ organized a workshop to inform and educate gas station management about the rule. TCEQ is planning to follow up with site visits to some of the regulated business locations in July 2007.

4. **Degreasing Requirements** - Amendments to existing TCEQ rules extended emission control requirements on certain solvent emitting processes to counties in the Austin Area EAC.
   - **Effective Date:** December 31, 2005
   - **Affected Area / Timeframe:** Bastrop, Caldwell, Hays, Travis, and Williamson Counties, plus all San Antonio Area EAC counties (Bexar, Comal, Guadalupe, and Wilson) / year round
   - **Estimated Austin Area Reductions:** 0.0 tpd of NOx, 5.55 tpd of VOC
   - **Administrative Code:** Title 30, Chapter 115, Subchapter E, *Solvent-Using Processes, Division 1, Degreasing Processes*, §§115.412, 115.413, 115.415-115.457, and 115.419
   - **Implementation Status:** TCEQ regional enforcement staff have been informed of the regulation and its implications to the Austin area's EAC commitments. The TCEQ has 3.5 FTEs assigned to perform air quality investigations in Region 11. During the period of this report no violations on degreasing activities have been issued.

5. **Cut-back Asphalt Restrictions** - Amendments to existing rules extended restrictions on the use of certain paving substances to the Austin Area EAC counties.
   - **Effective Date:** December 31, 2005

- **Affected Area / Timeframe:** Bastrop, Caldwell, Hays, Travis, and Williamson Counties / April 16th - September 15th each year
- **Estimated Austin Area Reductions:** 0.0 tpd of NOx, 1.03 tpd of VOC
- **Administrative Code:** Title 30, Chapter 115, Subchapter F, *Miscellaneous Industrial Sources, Division 1, Cutback Asphalt*, Sections §§115.512, 115.516, 115.517, and 115.519
- **Implementation Status:** TCEQ regional enforcement staff have been informed of the regulation and its implications to the Austin area's EAC commitments. The TCEQ has 3.5 FTEs assigned to perform air quality investigations in Region 11. During the period of this report no violations on cut-back asphalt have been issued.

6. **Low Emission Gas Cans** – New rules established requirements relating to the design criteria for portable fuel containers and portable fuel container spouts and the sale or distribution of the portable fuel containers.
   - **Effective Date:** December 31, 2005
   - **Affected Area / Timeframe:** Statewide / year round
   - **Estimated Austin Area Reductions:** 0.0 tpd of NOx, 0.89 tpd of VOC
   - **Administrative Code:** Title 30, Subchapter G, *Consumer-Related Sources, Division 2, Portable Fuel Containers*, Sections §§115.620-115.622, 115.626, 115.627, and 115.629
   - **Implementation Status:** TCEQ regional enforcement staff have been informed of the regulation and its implications to the Austin area's EAC commitments. The TCEQ has 3.5 FTEs assigned to perform air quality investigations in Region 11. During the period of this report no violations have been issued.

State-assisted measures not requiring new state rules for implementation:

1. **Texas Emission Reduction Program (TERP) Grants** – This existing TCEQ program, created by the State Legislature, provides funds administered by TCEQ for competitive grant awards to public and private diesel equipment fleets in 41 Texas counties. It covers the *incremental* costs associated with cleaner diesel equipment.

   Estimated Austin Area Reductions: The region committed to achieve a 2-tpd NOx decrease from TERP grants by the end of 2007. With the grants awarded to

the Austin area in FY 2006, the TCEQ projects NOx reductions of **2.02** tons per day in 2007 from TERP projects, which does satisfy the regional NOx emission reduction goals. During this reporting period TCEQ announced that they will be accepting grant applications from the several Texas near non-attainment areas including the Austin/RR MSA for funding under the Emissions Reduction Incentive Grants Program. The deadline for applications was 5:00 p.m., Friday, June 1, 2007. On May 11, TCEQ organized a TERP application workshop in the area. During this reporting period TCEQ announced a list of Rebate Grants projects that were picked up when they opened up the last round to the Austin area. Note Rebate Grants go through a faster process and already have executed contracts. Therefore from this round of TERP grants, the Austin area achieved an additional reduction in NOX emissions of up to **0.18 tons per day** (see Attachment 2). It is reasonable to expect that there will be even more emission reductions once TCEQ executes contracts in August for the Emissions Reduction Incentive Grants that closed June 1. More information concerning the 3rd round of TERP grants will be available in the next semi-annual progress report.

Figure 2.1 shows current allocation of NOx emission reductions by the source category. Figure 2.2 summarizes the allocation of grant funds across the state of Texas.

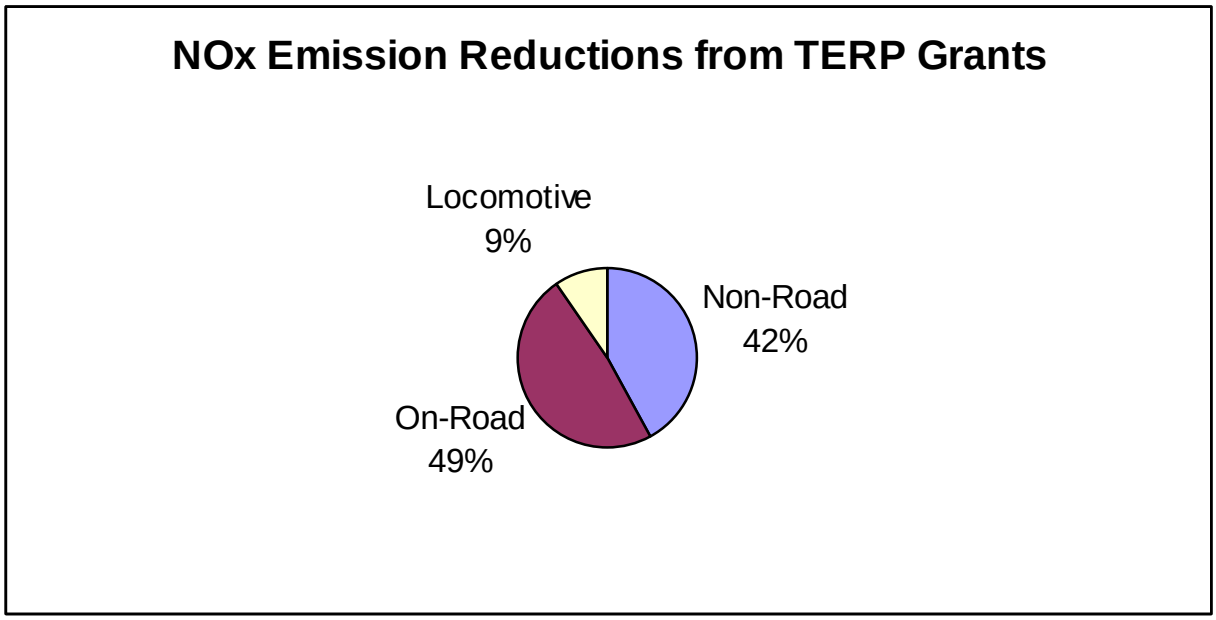

Figure 2.1 Actual NOx reduction and source allocation of TERP grants in the A/RR MSA

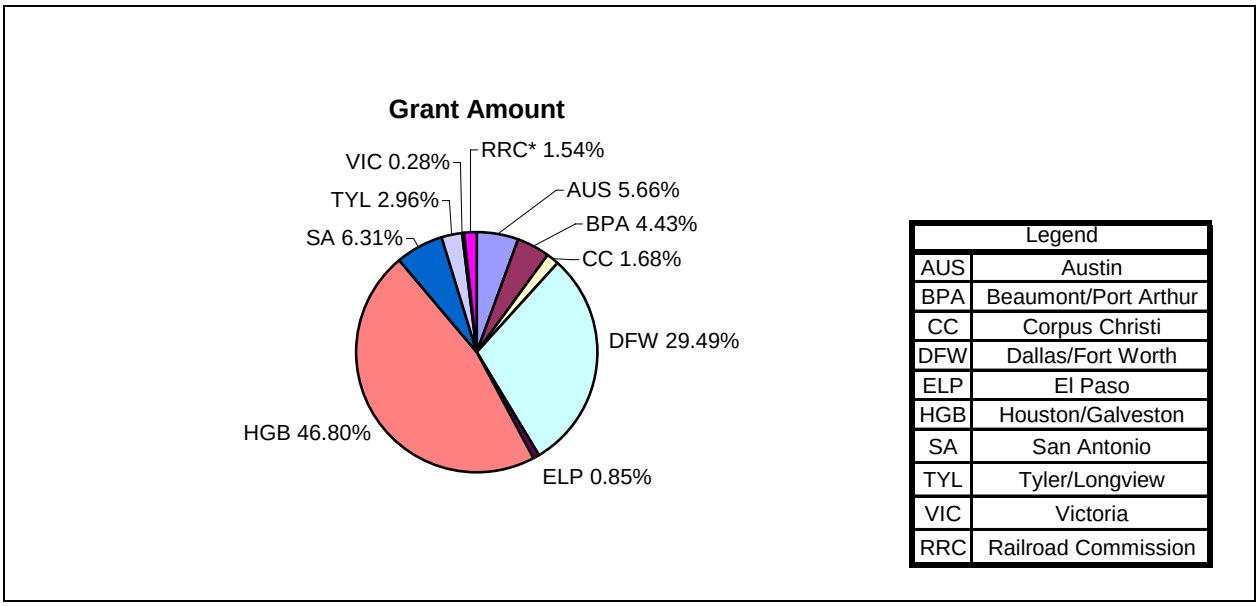

Figure 2.2: Allocation of TERP funds by location.

2. **Local Power Plant Reductions –** Austin Energy, LCRA and UT agreed to specific reductions during the EAC Stakeholder process.

- **Estimated Austin Area Reductions:** Four Austin-area power plants anticipate NOx reductions of 1,866 tons per *year* (12.7%) by 2007. Reductions have been noted in TCEQ permits and incorporated into the State Implementation Plan (SIP).

***Austin Energy*:** Austin Energy implemented its environmental dispatch program for gas-fired facilities on ozone action days. The measure was in effect before 1/1/2005. The commitment to a voluntary NOx cap of 1,500 tons/year encompassing the Holly, Decker and Sand Hills facilities was included as a special condition of the Holly Power Plant SB-7 permit as of 1/30/2004. The reported total NOx emissions from these three facilities in 2006 were 1108 tons, which was lower than the voluntary NOx cap commitment. In addition to the cap commitment, 241 NOx allowances are being retired each year. Austin Energy has also accelerated their commitment to shut down Holly Units 3 and 4 by 9/30/2007.

***Sim Gideon Power Plant*:** LCRA has agreed to limit total NOx emissions from its Sim Gideon Units 1, 2, and 3 to less than 1,044 tons for each 12-month control period. As provided for in Senate Bill 7 (76th Texas Legislature, 1999), Sim Gideon was allocated 1,344 tons of NOx. By reducing the allowable Sim Gideon NOx emissions from 1,344 tons to 1,044 tons for each control period, LCRA will offset the maximum expected NOx emissions from the Lost Pines 1 Power Plant, as previously committed to, plus an additional 100 tons. In addition, LCRA will not execute any allowance trades during any control period from Sim Gideon such that the combination of NOx emissions and allowance transactions exceed 1,044 tons.

In November 2005, LCRA requested in a letter to the Texas Commission on Environmental Quality (TCEQ), that the Sim Gideon Power Plant permit be altered to reflect maximum NOx emissions of 1,044 tons for each control period as identified in SB7. The Sim Gideon permit alteration was received from TCEQ on December 21, 2005.

***Fayette Power Project*:** LCRA and Austin Energy, as partners in the Fayette Power Project (FPP), have agreed to accelerate the FPP Flexible Air Permit final NOx plant-wide emission cap from an effective date of October 2012 to December 31, 2006. The early replacement of the interim cap of 10,494 tons with the final cap of 9,522 tons will reduce the allowable plant-wide NOx emissions limit by 972 tons.

In October 2005, LCRA requested in a letter to TCEQ, that the FPP plant-wide flexible permit be altered to reflect the accelerated date of the final allowable NOx cap from October 2012, to December 31, 2006. The FPP permit alteration was received from TCEQ on February 24, 2006.

LCRA is utilizing boiler combustion system modifications to achieve the Flexible Air Permit final NOx plant-wide emission cap. System modifications were installed on FPP Unit 1 in 2002, on FPP Unit 2 in 2004, and on FPP Unit 3 in 2005. The modifications to each of the boilers involved installation of new coal burner tips and separated over-fire air.

Online References:

TCEQ Austin Area SIP - http://www.tceq.state.tx.us/implementation/air/sip/nov2004eac.html
Adopted State Rules - http://www.tceq.state.tx.us/nav/rules/propose_adopt.html
TERP grants - http://www.tceq.state.tx.us/implementation/air/terp/erig.html#projects_selected
List of Austin TERP Applications Received in December 2005 for Funding Consideration - http://www.tceq.state.tx.us/assets/public/implementation/air/terp/erig/AUS_FY06R1_Applicant_Summary.pdf

Locally Implemented EAC Measure Status

Locally Implemented EAC measures build on those in the one –hour O_3 Flex Agreement. More detailed descriptions, and commitments from participating agencies, appear in Appendix 5-2 of the CAAP. To provide an update for this reporting period, survey forms were sent to all participating agencies to collect information about the status of all locally implemented measures. The survey forms and answers and a summary table can be found in Appendix B of this document.

Signatories interpret and implement these measures according to their needs and abilities. With the exception of the Transportation Emission Reduction Measures (TERMs), neither the SIP nor the Austin Area EAC quantifies these reductions nor do they include them in the attainment modeling. This chapter summarizes the implementation status of the local measures. The progress of the Transportation Emission Reduction Measures (TERMs) for this reporting period is illustrated in Figure 2.3 and Table 2.4.

Signatories and Participating Agencies

Locally implemented emission reduction measures were committed to by the signatories to the EAC Agreement:

Cities:

City of Austin, City of Round Rock, City of San Marcos, City of Bastrop, City of Lockhart, City of Luling, City of Elgin

Counties:

Bastrop County, Caldwell County, Hays County, Travis County, Williamson County

Agencies:

Capital Metropolitan Transportation Authority, Capital Area Council of Governments (CAPCOG), Capital Metropolitan Planning Organization (CAMPO), Lower Colorado River Authority (LCRA), Texas Commission on Environmental Quality (TCEQ), Texas Department of Transportation (TxDOT)

Transportation Emission Reduction Measures (TERMs)
EAC Clean Air Action Plan for the Austin-Round Rock MSA
Project Status and Emissions Report - May 2007

PROJECT TYPE	TERMs PROJECT STATUS*				TERMs TOTALS			Continued Attainment TERMs*			TOTAL EMISSION REDUCTIONS			
	Complete	On Time	Delayed	*Beyond 07 or Deleted*	Total Eligible TERMs	Total Commitments		Total Projects	Total Commitments		Current Reductions		2007 Reductions	
											VOC	NOx	VOC	NOx
Intersection Improvements	128	9	21	*0*	158	316	Intersections	7	8	Intersections	644.616	565.897	591.969	547.534
Signal Improvements	39	5	4	*0*	48	~ 1959	Signalized Intersections	2	6	Signalized Intersections	976.368	981.559	794.726	767.483
Bicycle/Pedestrian Facilities	152	5	32	*0*	189	~ 209.03	Miles (+Bike Hub/Racks)	6	13.95	Miles of linear facilities	82.740	82.739	64.272	62.850
Grade Separations	2	0	0	*0*	2	2	Grade Separations	2	2	Separations	6.764	5.774	0.000	0.000
Transit Projects/Programs	18	0	3	*4*	21	3447	Lot Spaces (+ 2 Buses)	0	0	Spaces/Programs	129.057	130.756	132.442	116.025
Traffic Flow Improvements	7	0	0	*0*	7	30.26	Miles of Roadway	0	0	Miles of Roadway	397.612	251.629	384.166	265.074
Intelligent Transportation Systems*	18	4	0	*1*	22	> 42.51	Miles of Roadway	4	16.958	Miles of Roadway	*specific reductions not quantified to date*			
											TOTAL LBS PER DAY REDUCED			
PROJECT STATUS TOTALS	364	23	60	*5*	447	Total Projects		21	Total Projects		2237.158	2018.354	1967.575	1758.967

TOTAL TONS PER DAY REDUCED			
VOC	NOx	VOC	NOx
Current		2007	
1.119	1.009	0.984	0.879

IMPORTATNT NOTES:

* This TERMs Report shows the current status of projects as of **May 15, 2007.**
* The "Complete" projects are complete and implemented within the region.
* The "On Time" projects are those that will still be complete by/sooner than the implementation date provided in the previous reporting period.
* The "Delayed" projects are those that have been pushed back a year or more from the implementation date provided in the previous reporting period, due to various reasons
* TERMs deleted or due beyond 2007 are excluded from the emission reduction totals for the 2007 Clean Air Action Plan (CAAP) attainment goal required by the State Implementation Plan (SIP).
* Deleted projects are required to be substituted with projects of similar emission reductions by the next reporting period.
* Each improvement has a different type of commitment. These commitments are units used to quantify emission reductions.
* Shaded rows indicate TERMs that provide continued attainment to the CAAP (due between 2008 and 2012), and are not included in the 2007 emission reduction totals.
* ITS projects are not quantified, due to lack of specific quantification data for the project type/function. These projects are included in project status totals, but not in reduction totals.
* Footnotes in each table provide essential information on specific improvements.
* Bike/Ped totals changed significantly in 2005 due to spreadsheet errors in the 12/2004 report that caused duplication of certain projects.
* Jonestown Park & Ride, Wells Branch HEB Park & Ride, Northwest (Interim) Park & Ride, and Kreig Softball Complex Park & Ride have all been closed.
The additional spaces provided by the Leander Park & Ride (increase to 500 from 200) and Leander Church of Christ (increase to 100 from 30) replace

Table 2.4: Summary of TERM Individual Project statuses

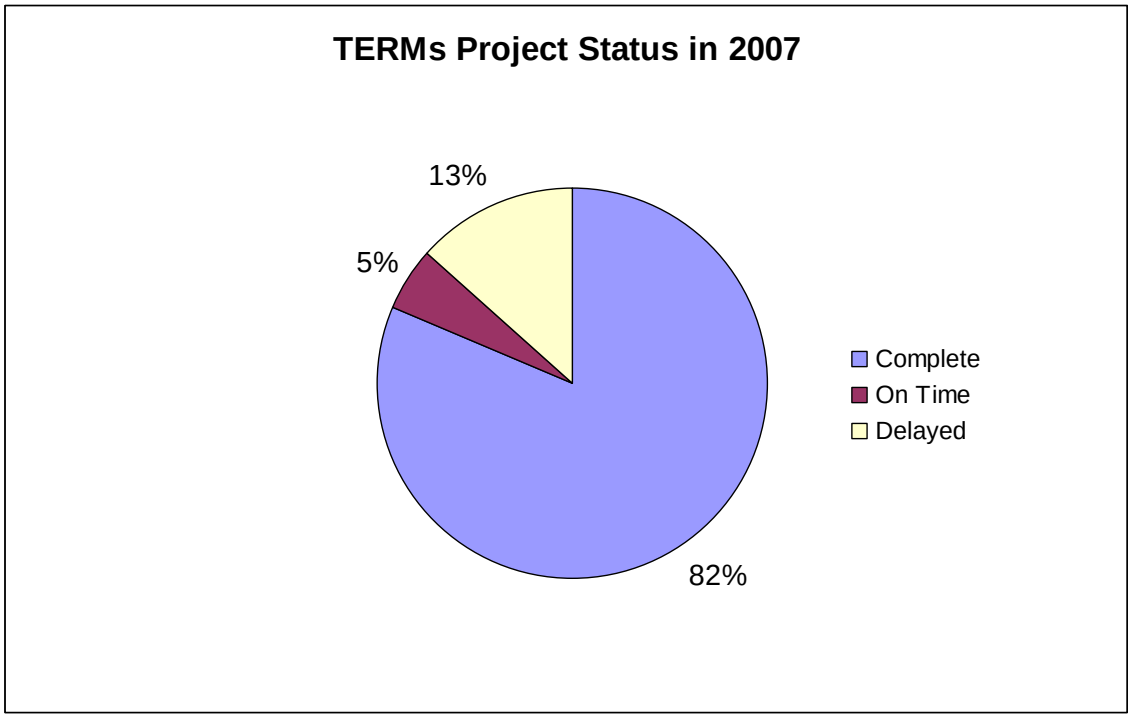

Figure 2.3 TERMs Project Status as of May 2007

Other Emission Reduction Activities

CLEAN AIR PARTNERS PROGRAM (CLEANAIRPARTNERSTX.ORG)

The Clean Air Partners Program (CAPP) is a program of the CLEAN AIR Force (CAF), the Greater Austin Chamber of Commerce, and CAPCOG and is aimed at encouraging businesses and organizations to voluntarily reduce their ozone-forming emissions in the Central Texas area by 10%. We are currently up to 108 Partners which represent over 170,000 employees in Central Texas. A new and improved web-based reporting tool has currently been completed which will more accurately capture the emission reductions being achieved by Clean Air Partners.

Since the last EAC reporting period, two new companies joined the CAP Program. The program goal is to reduce the equivalent of 16,000 commuters from our Central Texas roads. Partners are able to utilize many different strategies to achieve these reductions, such as carpooling/vanpooling; remote work (teleworking/telecommuting); flex-time schedules; energy conservation; on-site emission reductions from the use of Green Choice

energy; low-emission construction activities; cleaner, water-conserving landscaping practices; and a host of other proactive activities that lead to cleaner air. Recruiting Partners for the program is ongoing. Contact has recently been made with staff members of the EPA's Best Workplaces for Commuters nationwide program and plans are now in place to leverage EPA's help to recruit Central Texas offices of its national members. The Clean Air Partners website is regularly updated to include feature stories from Partners about their commute reduction activities and ideas. Also, a new, simpler web-based system to measure emissions reductions is near completion and targeted to be ready to collect data during the summer of 2007.

Analysis: Following is a breakdown of the emission reduction strategies used by CAPs: 92% educate their employees on commute reduction ideas and ozone education; 41% practice energy conservation including the use of cleaner energy (GreenChoice); 23% practice water conservation; 26% reduce site deliveries; 33% use ebusiness, video/teleconferencing, etc. to reduce commutes for visitors and customers; and 28% reduce emissions by using cleaner/alternative fuels, taking fewer vehicles/trips, etc. in company vehicles.

The ABJ annual ad was placed to recognize Partners' achievements and encourage new Partners to join, reaching 63,600 readers. The ad also keeps CAPP visible in the community. On April 4th 2007, during the 2007 Ozone season "kick-off" event, Austin Mayor Will Winn awarded with special recognition several Clean Air Partners for their achievements and commitments.

6TH ANNUAL ELECTRIC LAWNMOWER DISCOUNT PROGRAM

With gas-powered lawn equipment contributing to 5% of air pollutions problems in Central Texas, for the past six years the CLEAN AIR Force has offered Central Texans a financial incentive to purchase cleaner, electric lawnmowers and to learn other simple ways to reduce air pollution. CAF and two local Home Depots offered Central Texans a 20% discount on three models of the electric Homelite mower, resulting in 131 mowers sold and 30 gas-powered mowers recycled. CAF also partnered with an online company, Neuton Mowers, for the third year in a row to provide a 33% discount on the cordless Neuton electric mower, resulting in 154 mowers sold. For both programs, the City of

Sunset Valley also added an incentive of an additional 20% discount on the mowers. The popularity of this program with the public and the value gained by educating citizens on purchasing electric vs. gas options, planting grass that needs less mowing, keeping blades sharp, etc. makes this program an effective way of reaching the public to motivate change for improved air quality.

THE CLEAN SCHOOL BUS PROGRAM

The Clean School Bus Program (CSB) is a joint program of the CLEAN AIR Force (CAF) and CAPCOG aimed at reducing children's exposure to harmful emissions by retrofitting or replacing older school buses with cleaner technology. Through the CSB Program we have been able to help seven local school districts successfully retrofit and replace 112 school buses so that they run cleaner

COMMUTE SOLUTIONS PROGRAM

Commute Solutions is a voluntary trip reduction program created in response to increasing traffic congestion and worsening of air quality. It is administered by CAMPO and funded by the MPO and partner organizations.

Commute Solutions educates area residents on the benefits of trip reduction through Transportation Demand Management (TDM). TDM reduces traffic congestion and air pollution by influencing changes in travel behavior. This is accomplished through a variety of strategies aimed at influencing mode choice, frequency of trips, trip length, travel time, convenience and cost.

Another important factor creating a need for Commute Solutions is the Austin Area Early Action Compact (EAC). The local jurisdictions within Bastrop, Caldwell, Hays, Travis and Williamson Counties, participating agencies, the Texas Commission on Environmental Quality (TCEQ), and the Environmental Protection Agency (EPA) have made this regional commitment to reduce ozone-forming emissions so that Central Texas meets national air quality standards by 2007 with continued reductions through 2012. Within the EAC, there are commitments to implement commute solutions programs for employees of local jurisdictions, agencies and businesses (including the Clean Air Partners Program). Commute Solutions provides resources, guidance and training needed to

implement these commute reduction programs across Central Texas. As a result, the programs will reduce congestion, reduce vehicle emissions, and improve our region's air quality.

Commute Solutions educates and informs the public about TDM. The program promotes commute options—*transportation alternatives* (carpools, vanpools, transit, bicycling, walking) and *work schedule alternatives* (flextime, compressed work weeks, teleworking) - to improve mobility. Commute Solutions works with major employers and area organizations to raise awareness about TDM and trip reduction. The Commute Solutions Coalition makes presentations to employers, groups and area organizations, educating them on the benefits of TDM and generating participation in the Commute Solutions program. The Coalition also organizes transportation events and fairs to increase awareness of commute options and promote alternatives to driving alone, especially during commute peak hours.

Commute Solutions helps businesses initiate trip reduction programs by offering employers in Central Texas the *Let's Ride* program, free training, and access to a full range of commuter program information and services. Depending on the individual company and its specific needs, Commute Solutions can provide services such as orientation to commute options, computerized ride matching, worksite assessments, technical support and marketing assistance. CAMPO serves as the point of contact for employers and coordinates Commute Solutions activities.

LET'S RIDE PROGRAM

Commute Solutions (CS) sponsors the Let's Ride (LR) Program, a program to educate employers and employees on how to implement and benefit from successful employee Commute Solutions programs. CS hosts Let's Ride Training for requesting employers in the Central Texas region. For more program information, visit www.commutesolutions.com/letsride.

OZONE ACTION DAY ALERT PROGRAM (OZAD)

The CLEAN AIR Force offers a free email notification service is provided to over 4,000 Central Texans (as well as via phone at 343-SMOG, radio, newspaper and TV news

program) on days when our region's air quality is likely to reach harmful levels. The alerts are sent out the day prior to the expected high ozone day in order to give Central Texans time to plan ahead for alternate travel arrangements for the next day and to make informed decisions about air pollution and its potential health effects. The email alerts also encourage Central Texans to reduce their driving and postpone other polluting activities until late in the day when ozone is less likely to form. To register for these alerts, citizens can visit www.cleanairforce.org or call 1-866-916-4AIR. Ozone Season summaries are given at all TAC and CAF Board and Executive Committee meetings during Ozone Season.

3. TECHNICAL ANALYSIS FOR CONTINUED ATTAINMENT PLANNING

EAC Clean Air Action Plan (CAAP)

The Austin-Round Rock MSA CAAP which was completed and sent to EPA and TCEQ on March 31, 2004 is based on a modeled attainment demonstration for 2007. The analysis for growth indicated that the attainment status will be maintained through 2012. The EAC milestone reports documenting each of the technical analysis activities performed to support the attainment demonstration are included as appendices to the CAAP and can be accessed on the CAPCOG web site.

A brief discussion follows on continuing technical support activities completed during the reporting period. A discussion of ozone monitoring efforts to provide more complete measurements of ozone levels in the area is provided. Also discussed are studies that examine toxic pollutant levels in the area and the use of biodiesel in local school buses.

Air Quality Monitoring Network for the 2007 Ozone Season

In addition to the two regulatory and three scientific ozone monitors operated in the Austin area by TCEQ and CAPCOG respectively, CAPCOG in coordination with TCEQ relocated the Pflugerville monitor to new location near Lake Georgetown. Data from the Lake Georgetown site is expected to be available soon on-line from TCEQ's Monitoring Operations Web Site. The locations of the Austin area ozone monitors are shown in Figure 3.1.

Ozone season for the Austin-Round Rock MSA began on April 1st and ends on October 31st. During this reporting period, there were no exceedances of the 8-hour 85ppb standard. The highest value reported during the month of April was 67 ppb, which observed at the CAPCOG McKinney Roughs C684 and Round Rock C674 sites on April 12, 2007. There were no ozone action days in the Austin area during month of April. Ozone concentrations for April and May of 2007 are shown in Figure 3.2

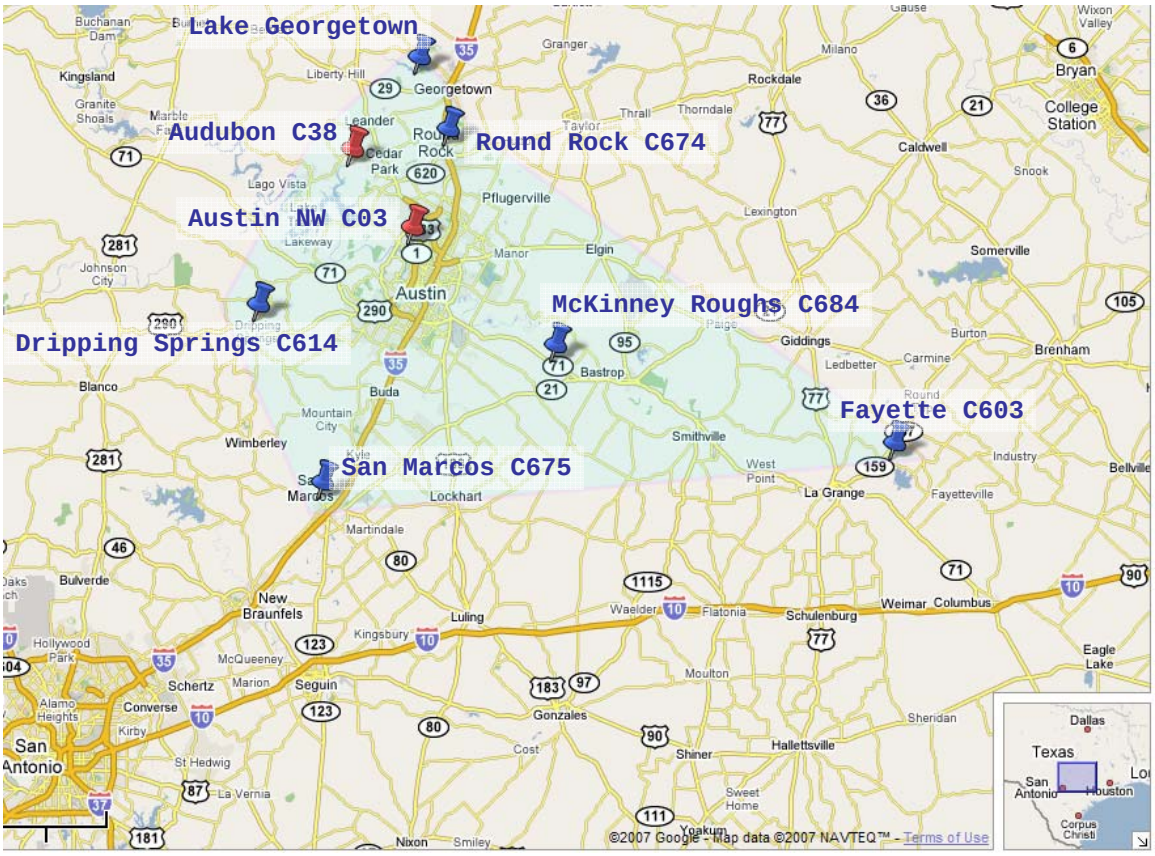

Figure 3.1 Austin region ozone monitoring network.

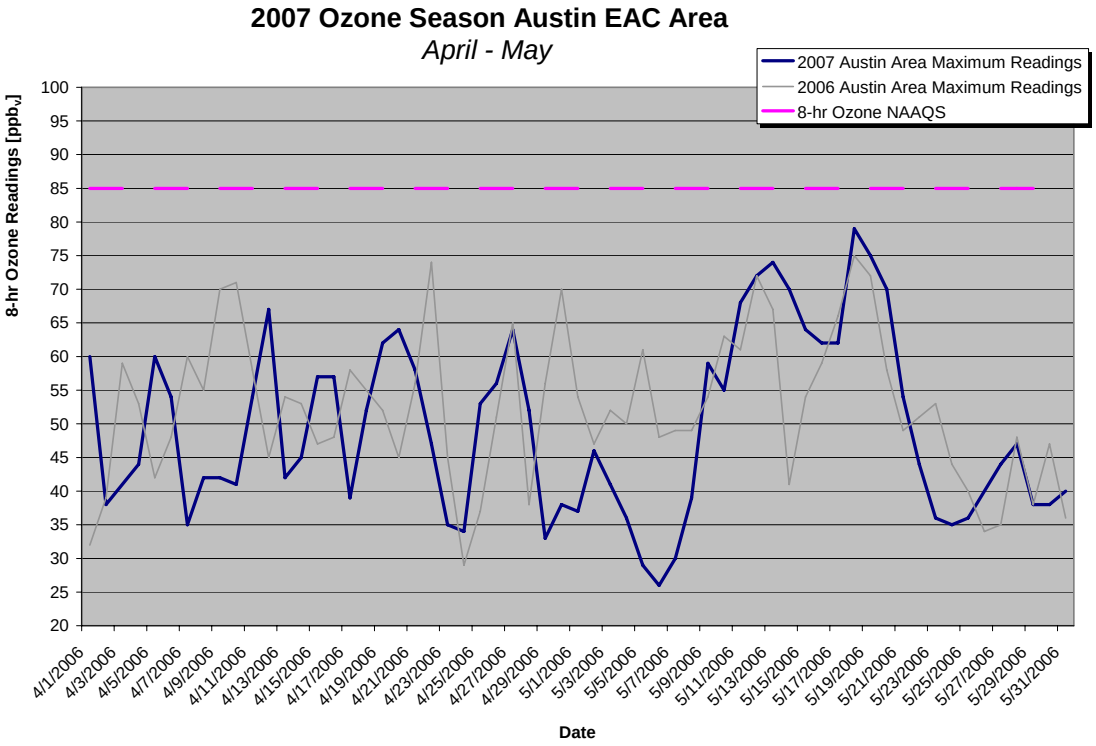

Figure 3.2 Austin-Round Rock MSA April through May 2007 Maximum Ozone Readings

The design value[2] in 2006 was 82 ppb for Austin Northwest (NW) CAM03 and 81 ppb for Audubon CAM38. Figure 3.3 shows the 4th highest values for 2004 to 2006 for the Murchison and Audubon sites and the design value for the two regulatory monitors. Figure 3.4 shows the highest to fourth highest values for the sites. In order to stay in attainment with 8-hr ozone NAAQS, the Austin area will need to maintain ozone levels below 91 ppb and 92 ppb at Murchison (Austin NW, C03) and Audubon (C38) site, respectively. The analysis of the last 10 years of data suggests that the probability for the 4th highest value to be 91 or 92 ppb at Murchison or Audubon, respectively, is around 5% (average of the two regulatory monitors). Table 3.1 summarizes findings of that analysis.

[2] The design value is a three year average of the fourth highest values from 2004, 2005 and 2006.

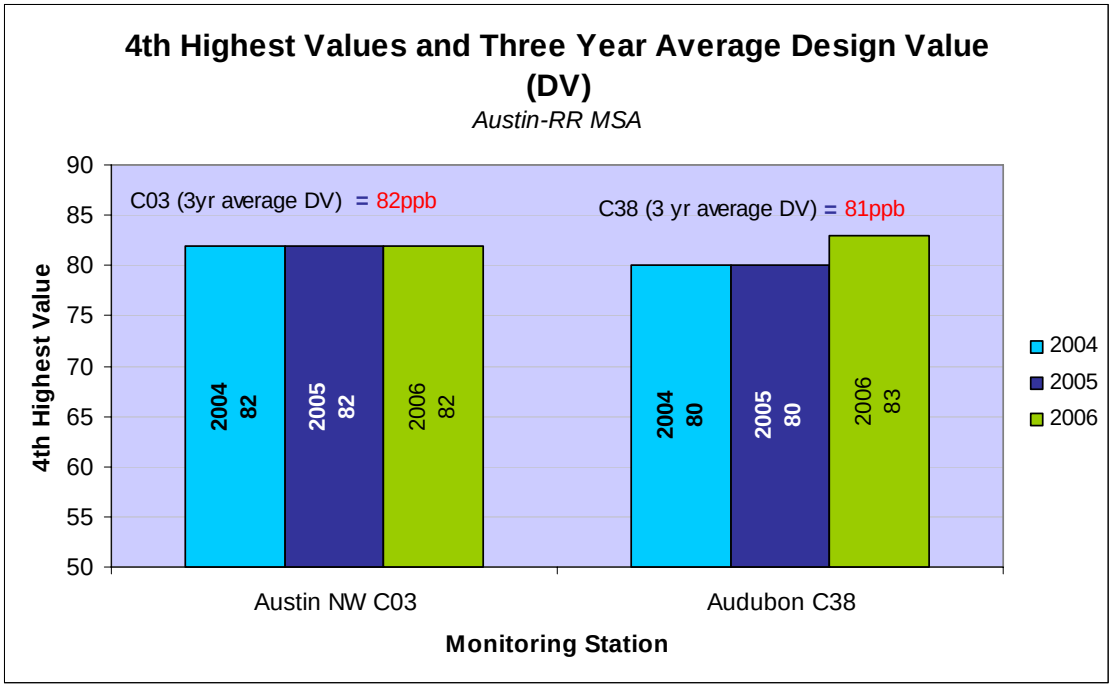

Figure 3.3 4th Highest Ozone Values and Three Year Averages for Austin MSA

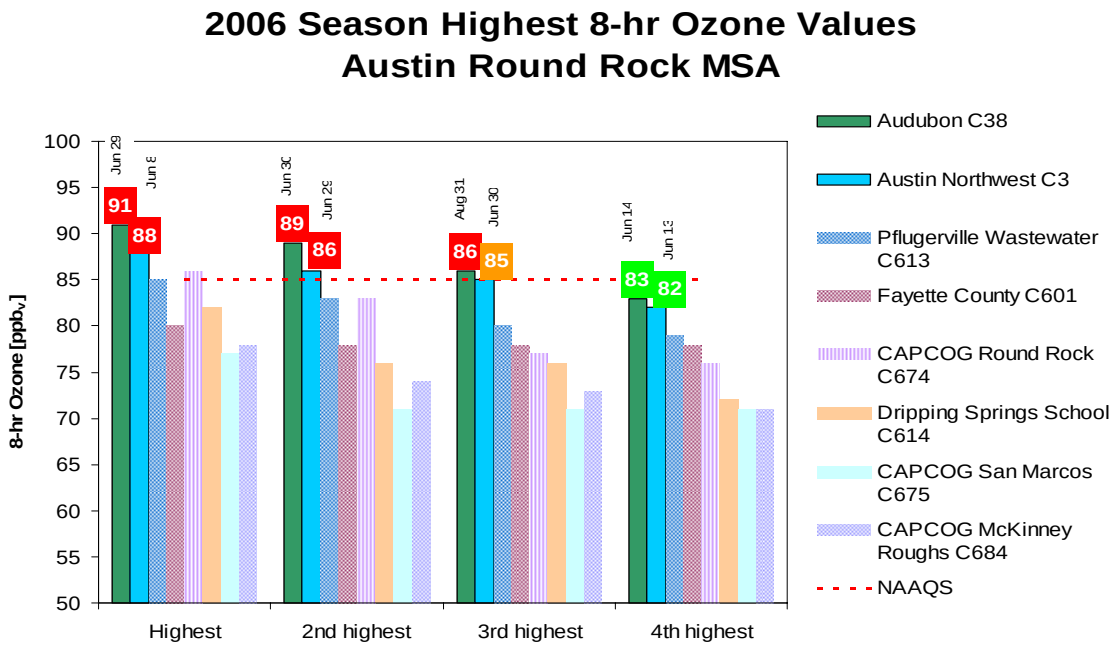

Figure 3.4 8-Hour Highest to 4th Highest Ozone Values for Austin MSA

	4th highest **91ppb** or higher	4th highest **91ppb** or higher	4th highest **92 ppb** or higher
	at any monitor	***at MURCHISON***	***at AUDUBON***
Attainment	**64.7%**	**97.5%**	**93.5%**
Nonattainment	**35.3%**	**2.5%**	**6.5%**

Data source: TCEQ
DATA SAMPLE: 1997 - 2006
Total number of days in the data sample: 2140
Days in season: 214

Table 3.1 Austin Round Rock MSA Attainment/Nonattainment probability analysis for year 2007 based on historic data

Airborne Sampling of Power Plant Plumes and Metropolitan Impact

CAPCOG contracted with Baylor University to conduct a series of aircraft-based monitoring flights. Five flights were conducted in 2006 (four in September 2006 and one in December) using a Cessna Skyhawk C-172 N7562F. The four days of operation in September measured three different plumes and four different pollutants. The pollutants measured were ozone, SO2, NOx, and CO. Two days, September 8 and 14, were devoted to measuring the concentration of pollutants in the plume from the Fayette Power Plant. September 19 was devoted to monitoring the Alcoa/Rockdale Power Plant plume and September 27 measured pollutant concentrations from the San Antonio area. December 19 flight was devoted to measure impact from onroad mobile emissions at TX highway 290W. CAPCOG received the final report from Baylor University in March 2007.

Figures 3.5 to 3.7 show results from flight over the Fayette Power plant plume. Starting with a time series concentration graph followed by figure showing the spatial/geographic distribution of SO2 and, finally, chart on Figure 3.7 represents ozone generated in the plume (i.e., the amount added to the background concentration).

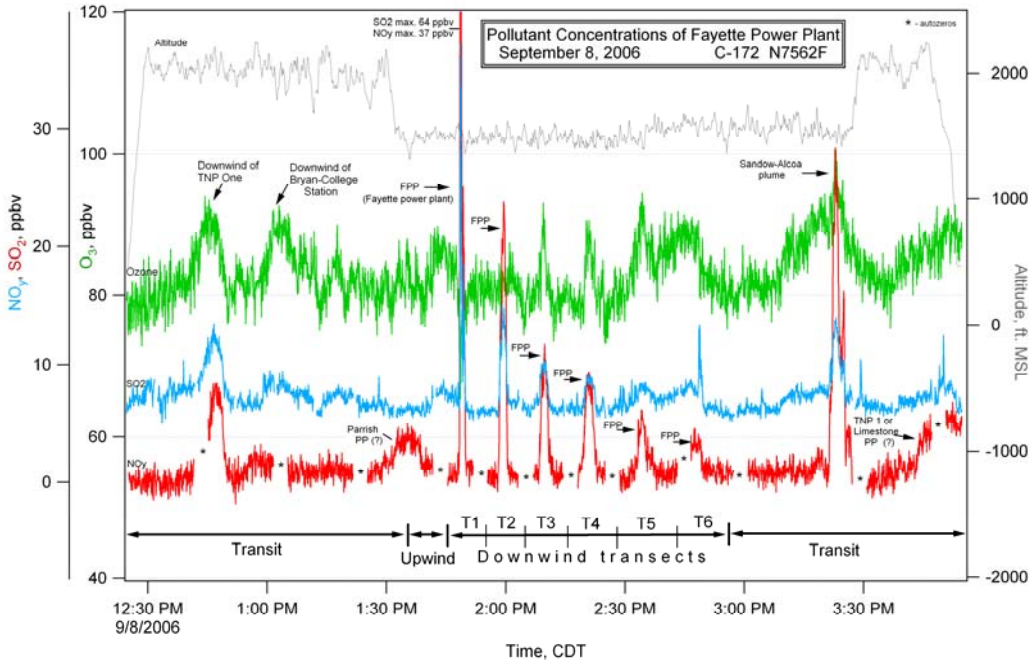

Figure 3.5: Time series concentration along Fayette PP plume on September 8, 2006

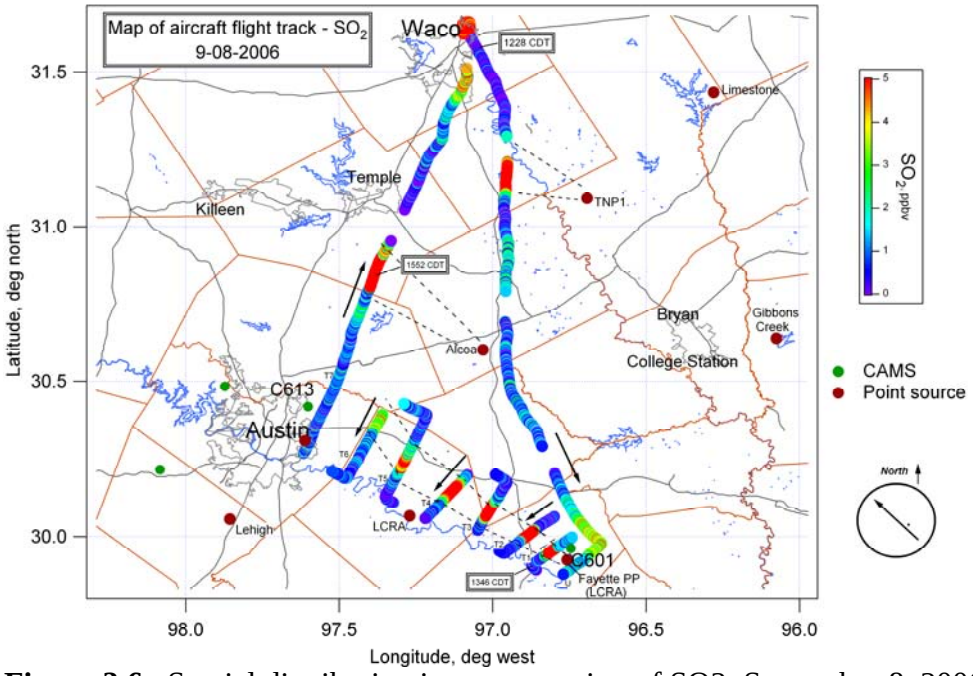

Figure 3.6: Spatial distribution in concentration of SO2; September 8, 2006

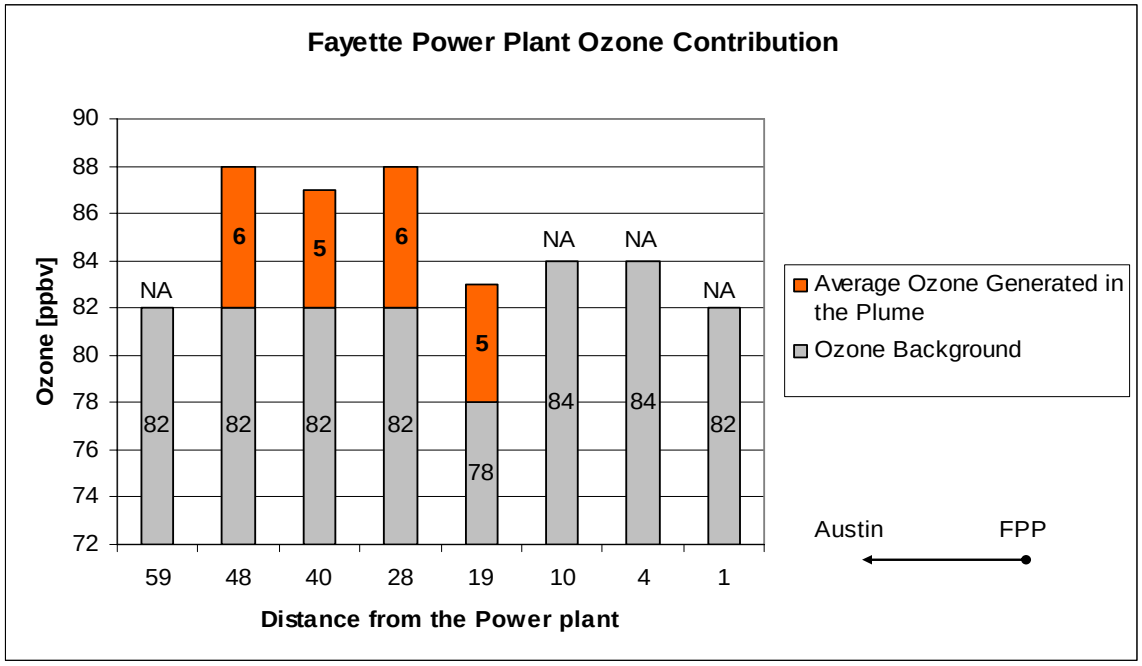

Figure 3.7 Ozone contribution along Fayette power plant plume (Sep 8)

Results from the Alcoa flight are presented in Figures 3.8, and 3.9. Note that ozone in the plume (that originated from the position where the Alcoa power plants are located, i.e. Sandow 1, 2, 3 & 4) may contribute to a 4-6 ppb increase in ozone.

Figure 3.10 shows the geographical extent of the ozone plume from the San Antonio direction, while Figure 3.11 illustrates the amount of ozone generated in the “San Antonio plume”.

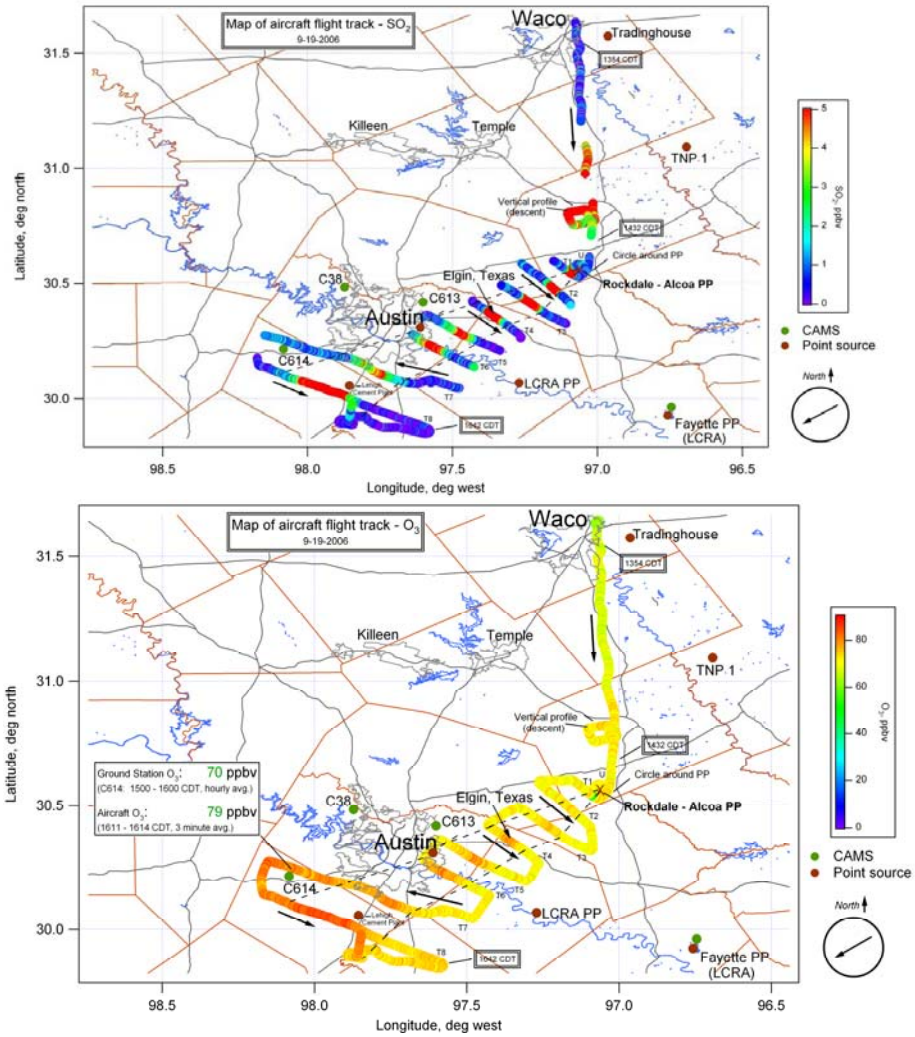

Figure 3.8 SO2 and Ozone contributions along the Alcoa plume

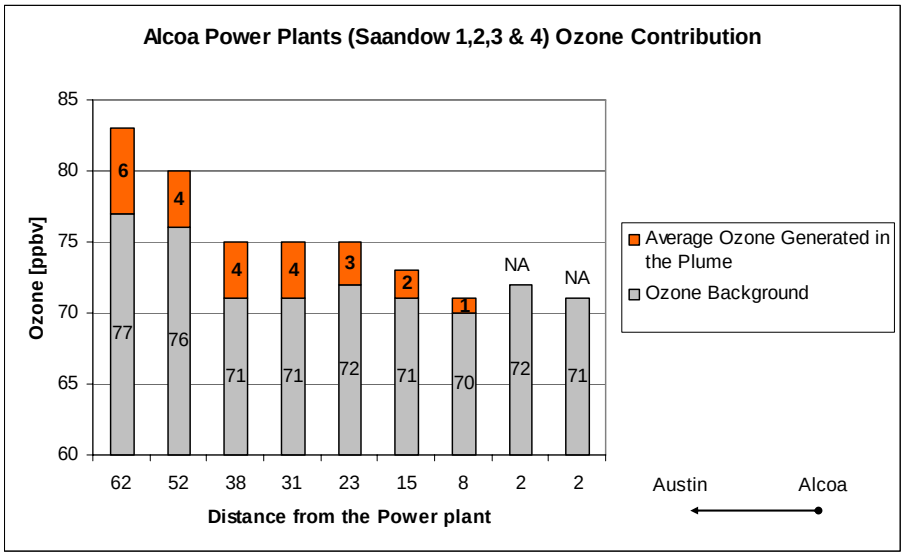

Figure 3.9 Relative ozone contribution to the background due to the Sandow power plants

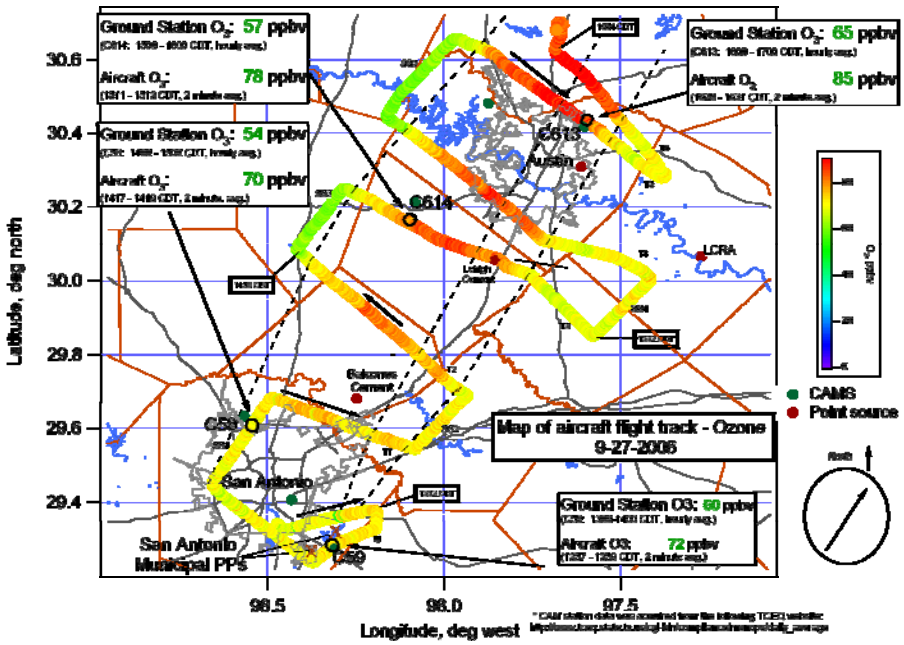

Figure 3.10 Ozone Transported to Austin from the direction of San Antonio

The 2006 airborne study results show that the air quality in the Austin region is directly and adversely affected by the power plants and urban sources located outside the Austin 5-county area.

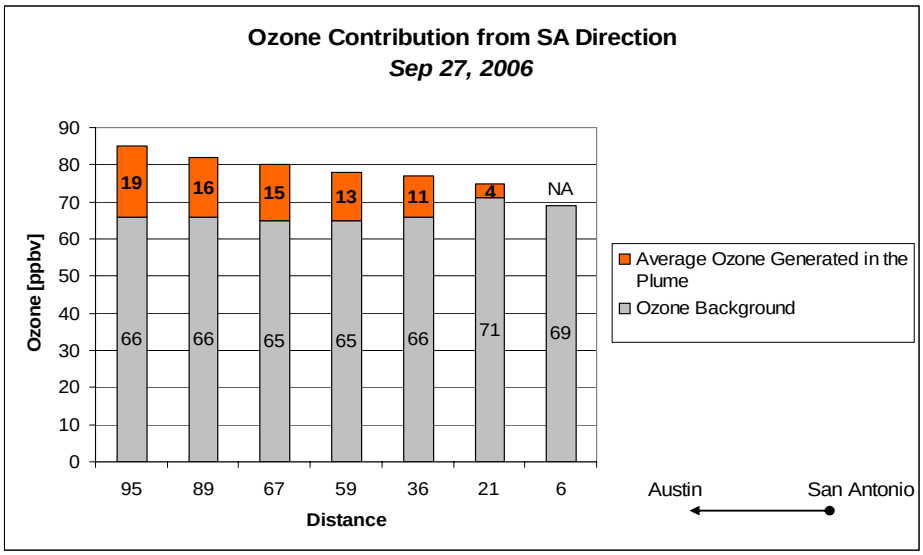

Figure 3.11 Amount of ozone generated in the "San Antonio Plume"

Ozone formation of 5-19 ppb above the regional background was observed in the various plumes. Results for examination of emissions from a local highway segment have been collected and were found to be inconclusive due to the unexpected strength of upwind sources. In addition the higher than expected wind speeds observed on the sampling day impacted the aircraft ability to directly sample the highway segment emissions.

In all cases, the power plant and urban plumes exhibited expected activities in that the concentrations of the primary pollutants (SO_2 and NO_y) was highest near the source and the concentration of the secondary pollutant (ozone) was highest downwind of the source power plant. In regard to tropospheric ozone chemistry, it is important to note that the influence of these power plant plumes observed was greatest in the range 20-95 miles downwind.

Under atmospheric conditions more conducive to ozone formation than observed during this limited study period, up to 30 ppb ozone enhancement has been observed by Baylor aircraft in power plant plumes.

The full report on airborne sampling is now available and it is titled: "*Airborne Air Quality Sample Collection in Central Texas during the 2006 Ozone Season*", Baylor Univ., March 2007

Continuing Planning Process

New Point Sources and Potential New Point Sources: In addition to the VMT screen and review of area sources (reported last time), the EAC Area committed to include a list and impact analysis of the relevant new and potential new point sources.

The annual analysis will determine the adequacy of the selected control measures.. After review by the appropriate elected officials, these measures will be adjusted if necessary.

The following is a summary of the results from the comprehensive modeling analysis conducted to evaluate new and potential point sources proposed in the area.

NEW SOURCE PERMIT GROWTH: POWER PLANTS

Fifteen new major point sources, located near the Austin-RR MSA, were pending approval for construction prior to TXU's announcement that they would build only 3 plants: two at Oak Grove in Robertson and one at Alcoa in Milam County. Although the sources are not located in this region, emissions from the sources are likely to be transported into the area under certain meteorological conditions and could have an effect on attainment status. There are 18 new units/boilers proposed for these 15 facilities. TXU Oak Grove, TXU Tradinghouse, and Formosa Plastics facilities have proposed two units each, which brings the total number of units from 15 facilities to 18. The proposed plants, their point source emissions, county locations, start dates, and ratings are listed in Table 3.2. The approximate location of the new plants is shown in Figure 3.12. Both Table 3.2 and Figure 3.12 lists plants and locations of plants that have been stayed by TXU. The plants that have been stayed are: Big Brown, Lake Creek, Martin Lake, Monticello, Morgan Creek, Tradinghouse and Valley Steam Electric Station.

Plant Name	Emissions (tpd)				County	Start Date	Rating (MW)
	CO	NOx	SO2	VOC			
E S Joslin 2	4.78	2.23	5.66	0.16	Calhoun	Nov-09	271
Formosa Plastics Corp.,TX	3.96	2.52	8.64	0.19	Calhoun	May-10	2 x 150
J K Spruce 2 (CPS)	53.76	6.62	9.60	0.35	Bexar	Dec-09	750
NRG Limestone	53.76	6.73	9.60	0.43	Limestone	unknown	unknown
Oak Grove Mgmt. Co. LP (TXU)	73.20	17.22	41.33	1.13	Robertson	Jul-09	2 x 800
Sandow 5 (replaces ALCOA units)	7.10	7.10	14.21	0.36	Milam	Jul-09	450
Sandy Creek En. Assocs., LP	29.47	6.88	11.78	0.35	McLennan	May-10	800
Twin Oaks Power III, LP (Sempra)	11.95	5.58	15.94	0.36	Robertson	Jan-11	630
TXU Big Brown	29.47	7.26	12.46	0.35	Freestone	Jul-09	800
TXU Lake Creek	29.47	7.26	12.46	0.35	McLennan	Jul-09	800
TXU Martin Lake	29.47	7.26	12.46	0.35	Rusk	Jul-09	800
TXU Monticello	29.47	7.26	12.46	0.35	Titus	Jul-09	800
TXU Morgan Creek	29.47	7.26	12.46	0.35	Mitchell	Jul-09	800
TXU Tradinghouse	58.94	14.53	24.91	0.70	McLennan	Jul-09	2 x 800
TXU Valley SES	29.47	7.26	12.46	0.35	Fannin	Jul-09	800
Grand Total	**473.76**	**112.9931**	**216.408**	**6.108**			

Table 3.2 Total point source emissions associated with the fifteen proposed coal-fired power plants in Texas.

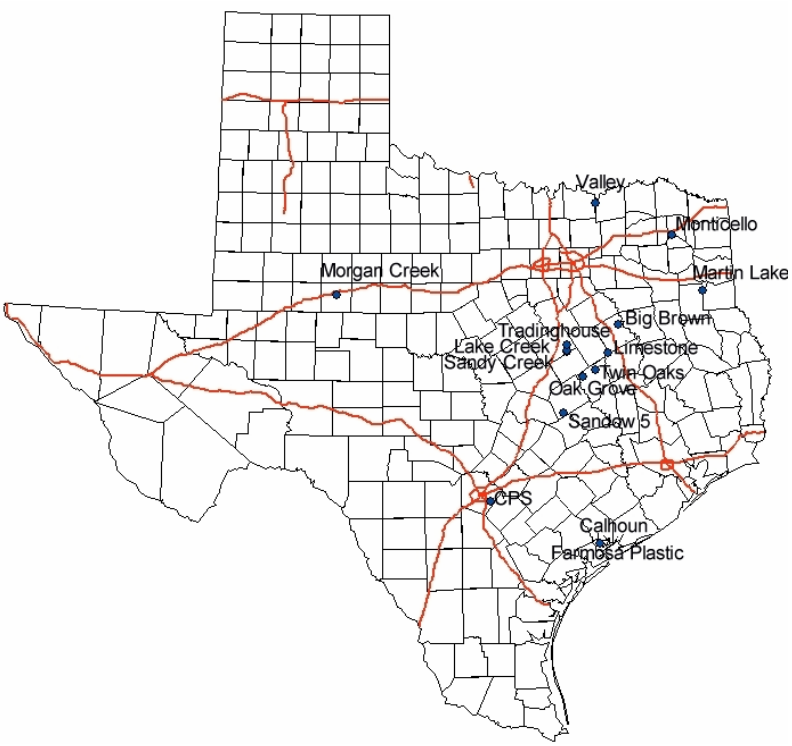

Figure 3.12 Map showing the locations of fifteen proposed coal-fired power plants in Central Texas.

Several modeling studies have been completed during this reporting period addressing impacts from new coal power plants under various meteorological conditions. Both 2002 seasonal episode and 1999 September episode was used with CAMx photochemical model in order to evaluate impacts from the proposed power plants.

2002 SEASONAL MODEL

Three photochemical modeling simulations were performed using meteorological data from a June through September 2002 episode and 2009 anthropogenic emissions. The objective of the modeling studies was to estimate the impact on future ozone concentrations in areas of Texas due to emissions from the operation of: 1.) fifteen proposed coal-fired power plants together, and 2.) fifteen proposed coal-fired power plants together with emissions decreases (offsets) at selected existing facilities owned and operated by Texas Utilities (TXU). All air quality impacts were evaluated for ozone concentrations averaged over 8 hours.

Ozone difference maps were generated to display the difference in daily maximum ozone concentrations averaged over 8 hours for each scenario on a large-scale (12-km horizontal resolution) map domain. The ozone difference maps have been provided for each day of the modeling episode and illustrate the spatial extent of air quality impacts associated with each modeling scenario.

The daily maximum changes in ozone were quantified for the 5-county Austin area, the 9-county Dallas/Fort Worth area, the 5-county Tyler/Longview/Marshall area, and for McLennan County (Waco). The addition of the fifteen proposed coal-fired power plants to the 2009 Future Case increased the area-wide maximum ozone concentrations on most days in all four Texas areas. On average during the June through September episode, the daily maximum ozone concentrations increased by 0.28 ppb, 0.27 ppb, 0.92 ppb, and 2.06 ppb in the Austin, Dallas/Forth Worth, Tyler/Longview/Marshall, and Waco areas, respectively. The maximum ozone increase in the four Texas areas was 9.90 ppb on July 7th in McLennan County (Waco).

Table 3.3. presents the ten highest daily maximum ozone concentrations averaged over 8 hours for each modeling scenario at ground monitoring stations in the Austin area while Table 3.4 shows contributions to the ten highest daily maximum 8-hour ozone concentrations at ground monitoring stations in the Austin area from each power plant separately by using Anthropogenic Precursor Culpability Assessment (APCA) analysis.

Monitor	Rank	2009 Future Case		2009 FC + 15 PP		2009 FC + 15 PP + Offsets		(FC + 15 PP) - FC	(FC + 15 PP + Offsets) - FC
		8-Hour Ozone (ppb)	Date (yyyymmdd)	8-Hour Ozone (ppb)	Date (yyyymmdd)	8-Hour Ozone (ppb)	Date (yyyymmdd)	Difference (ppb)	Difference (ppb)
Audubon (CAMS 38)	1	89.284	20020708	90.458	20020708	90.142	20020708	1.174	0.858
	2	83.89	20020913	85.050	20020913	84.689	20020913	1.160	0.799
	3	82.646	20020826	82.824	20020914	82.820	20020914	0.178	0.174
	4	**82.635**	**20020914**	**82.817**	**20020826**	**82.785**	**20020826**	**0.182**	**0.150**
	5	81.768	20020830	82.402	20020830	81.895	20020830	0.634	0.127
	6	80.832	20020912	81.758	20020912	81.239	20020912	0.926	0.407
	7	79.463	20020829	81.324	20020829	80.632	20020829	1.861	1.169
	8	78.567	20020807	78.744	20020807	78.639	20020807	0.177	0.072
	9	77.91	20020607	78.637	20020607	77.964	20020831	0.727	0.054
	10	77.766	20020831	78.251	20020831	77.908	20020607	0.485	0.142
Murchison (CAMS 3)	1	86.055	20020708	87.337	20020708	87.141	20020708	1.282	1.086
	2	83.89	20020913	85.050	20020913	84.689	20020913	1.160	0.799
	3	82.646	20020826	82.817	20020826	82.785	20020826	0.171	0.139
	4	**80.093**	**20020830**	**80.853**	**20020830**	**80.384**	**20020830**	**0.760**	**0.291**
	5	79.077	20020914	79.278	20020914	79.275	20020914	0.201	0.198
	6	78.567	20020807	79.090	20020829	78.639	20020807	0.523	0.072
	7	77.91	20020607	78.744	20020807	78.415	20020829	0.834	0.505
	8	76.883	20020829	78.637	20020607	77.908	20020607	1.754	1.025
	9	76.492	20020707	76.844	20020707	76.623	20020707	0.352	0.131
	10	76.066	20020902	76.092	20020902	75.983	20020902	0.026	-0.083

Table 3.3 Ten highest daily maximum ozone concentrations averaged over 8 hours for each modeling scenario at ground monitoring stations in the Austin area

Monitor	Rank	8-hour Ozone (ppb)	Date (yyyymmdd)	SPRU	FORM	JOSL	SANDY	OAKG	TWIN	LAKE	TRAD	MORG	VALL	BIGB	MART	MONT	LIME	SAND
Audubon (CAMS 38)	1	90.46	20020708	0.00	0.00	0.00	0.10	0.61	0.32	0.11	0.15	0.00	0.00	0.01	0.00	0.00	0.07	0.85
	2	85.05	20020913	0.00	0.00	0.00	0.18	0.56	0.27	0.19	0.31	0.00	0.01	0.10	0.03	0.06	0.13	0.37
	3	82.82	20020914	0.25	0.06	0.05	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
	4	**82.82**	**20020826**	**0.14**	**0.01**	**0.01**	**0.02**	**0.04**	**0.01**	**0.02**	**0.03**	**0.00**	**0.00**	**0.01**	**0.00**	**0.00**	**0.01**	**0.03**
	5	82.40	20020830	0.00	0.00	0.00	0.01	0.19	0.09	0.01	0.00	0.00	0.00	0.00	0.08	0.01	0.02	0.67
	6	81.76	20020912	0.00	0.00	0.00	0.27	0.42	0.17	0.29	0.49	0.00	0.01	0.10	0.03	0.15	0.13	0.21
	7	81.32	20020829	0.00	0.00	0.00	0.25	0.63	0.30	0.26	0.40	0.00	0.00	0.05	0.13	0.03	0.13	0.62
	8	78.74	20020807	0.00	0.00	0.00	0.03	0.13	0.07	0.04	0.06	0.00	0.00	0.02	0.04	0.00	0.03	0.33
	9	78.64	20020607	0.00	0.00	0.00	0.01	0.07	0.01	0.01	0.01	0.00	0.03	0.08	0.12	0.06	0.04	0.80
	10	78.25	20020831	0.00	0.00	0.00	0.00	0.12	0.08	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.01	0.59
Murchison (CAMS 3)	1	87.34	20020708	0.00	0.00	0.00	0.19	0.88	0.43	0.20	0.29	0.00	0.00	0.02	0.00	0.00	0.13	0.71
	2	85.05	20020913	0.00	0.00	0.00	0.18	0.56	0.27	0.19	0.31	0.00	0.01	0.10	0.03	0.06	0.13	0.37
	3	82.82	20020826	0.14	0.01	0.01	0.02	0.04	0.01	0.02	0.03	0.00	0.00	0.01	0.00	0.00	0.01	0.03
	4	**80.85**	**20020830**	**0.00**	**0.00**	**0.00**	**0.02**	**0.30**	**0.14**	**0.01**	**0.01**	**0.00**	**0.00**	**0.01**	**0.08**	**0.01**	**0.04**	**0.64**
	5	79.28	20020914	0.27	0.06	0.05	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	6	79.09	20020829	0.00	0.00	0.00	0.34	0.63	0.30	0.36	0.58	0.00	0.00	0.07	0.13	0.04	0.14	0.47
	7	78.74	20020807	0.00	0.00	0.00	0.03	0.13	0.07	0.04	0.06	0.00	0.00	0.02	0.04	0.00	0.03	0.33
	8	78.64	20020607	0.00	0.00	0.00	0.01	0.07	0.01	0.01	0.01	0.00	0.03	0.08	0.12	0.06	0.04	0.80
	9	76.84	20020707	0.00	0.02	0.01	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.56
	10	76.09	20020902	0.01	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.01	0.02	0.00	0.00	0.09

Table 3.4 Contributions to the ten highest daily maximum 8-hour ozone concentrations at ground monitoring stations in the Austin area.

Figures 3.13 to 3.16 show examples of meteorological conditions during months of June, July, August and September under which emissions from the new coal power plants may have significant impact on the Austin 5-county area.

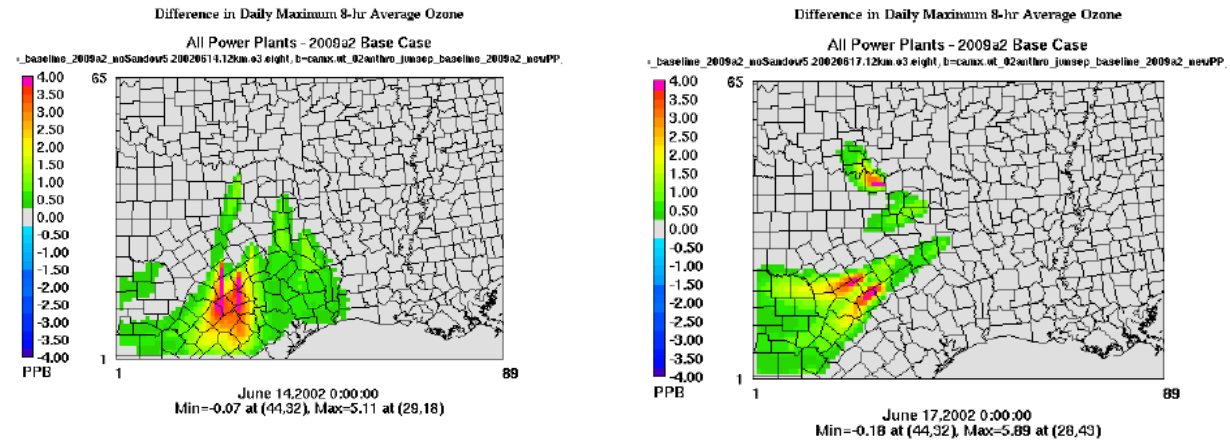

Figure 3.13. Difference in predicted daily maximum ozone concentrations (ground-level) averaged over 8 hours on the 12-km CAMx domain during two days in June (Jun 14 and Jun 17) between the 2009 Future Case and 2009 Future Case with New Power Plants

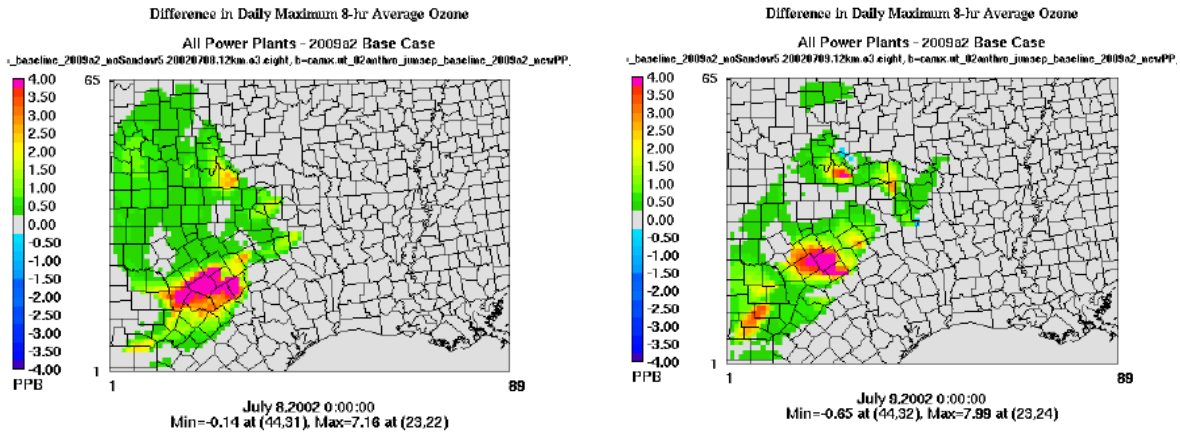

Figure 3.14. Difference in predicted daily maximum ozone concentrations (ground-level) averaged over 8 hours on the 12-km CAMx domain during two days in July (Jul 8 and Jul 9) between the 2009 Future Case and 2009 Future Case with New Power Plants

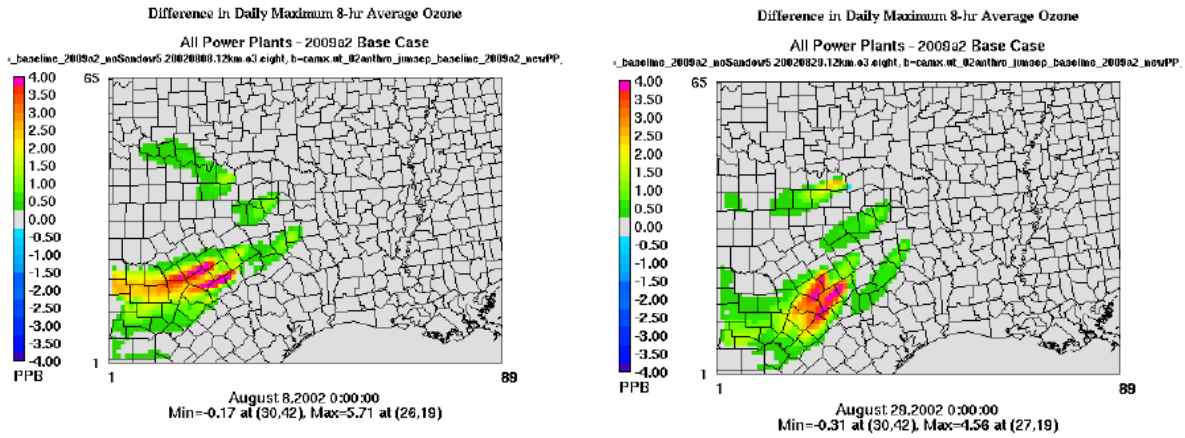

Figure 3.15. Difference in predicted daily maximum ozone concentrations (ground-level) averaged over 8 hours on the 12-km CAMx domain during two days in August (Aug 8 and Aug 28) between the 2009 Future Case and 2009 Future Case with New Power Plants

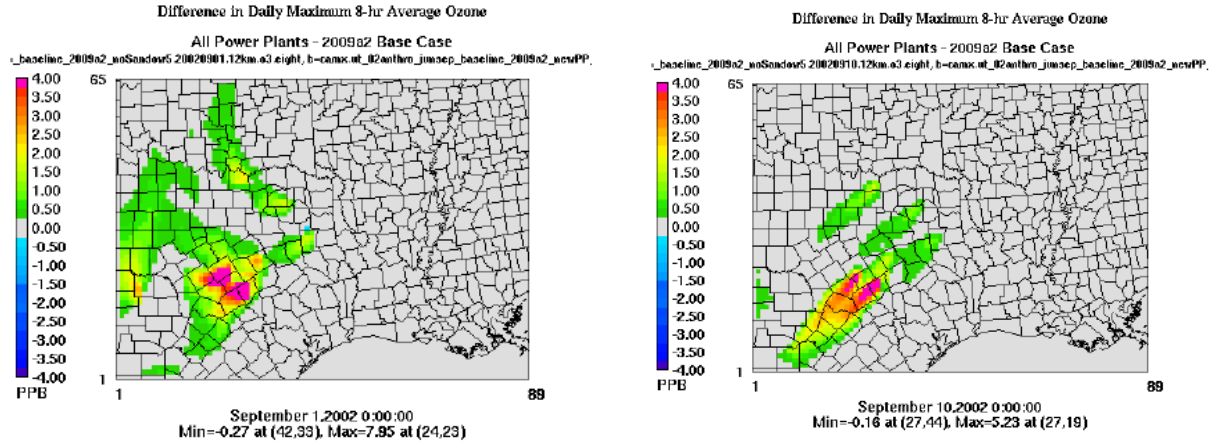

Figure 3.16. Difference in predicted daily maximum ozone concentrations (ground-level) averaged over 8 hours on the 12-km CAMx domain during two days in September (Sep 1 and Sep 10) between the 2009 Future Case and 2009 Future Case with New Power Plants

This study was done be University of Texas at Austin in February 2007. the full report titled "*Assessing the Air Quality Impacts Associated with the Proposed Operation of Fifteen New Coal-Fired Power Plants in Texas using a June through September 2002 Photochemical Episode and 2009 Anthropogenic Emissions*" is available on line at: http://www.utexas.edu/research/ceer/modelingstudy.htm

1999 EPISODE MODELING

A total of two modeling analyses were performed with a 1999 episode during this reporting period. The first analysis focused on fifteen new coal power plants (18 units) that were originally announced in spring of 2006 while the second modeling analysis was done after the TXU buyout was announced and their near term strategy changed regarding building new coal power plants. That announcement resulted in a new scenario where the number of new TXU coal power plants dropped from eleven to only three coal units (Those were: the Sandow 5 unit in Milam County and two Oak Grove units in Robertson County). Plans for the remaining seven units were stayed by TXU. However, as pointed out by some environmental groups, there is no binding commitment on TXU that would prevent TXU from eventually building some or all of seven units that were stayed.

A total of nine photochemical modeling simulations were performed using the 2007 Future Case for the photochemical modeling episode based on September 13-20, 1999 meteorology. The simulations evaluated the air quality impacts associated with the proposed operation of fifteen new coal-fired power plants in Texas (this includes original offset scenarios announced by TXU in Spring 2006) as well as the individual impacts on future ozone concentrations in the Austin area due to emissions from the operation of: 1.) two proposed Oak Grove units each at 8.61 tons per day (tpd) NO_x and Sandow 5 at 5.68 tpd NO_x, 2.) two proposed Oak Grove units each at 5.38 tpd NO_x and Sandow 5 at 5.68 tpd NO_x, 3.) two proposed Oak Grove units each at 8.61 tpd NO_x, Sandow 5 at 7.1 tpd NO_x, 4.) two proposed Oak Grove units each at 8.61 tpd NO_x, Sandow 5 at 5.68 tpd NO_x, and proposed Formosa, Joslin, Limestone, and Twin Oaks units. All air quality impacts were evaluated for ozone concentrations averaged over 8 hours.

The simulations indicated that the maximum daily increases of ozone concentrations averaged over 8 hours in the 5-county Austin area associated with emissions from the proposed Oak Grove facility ranged from 0.02 ppb on September 19th to 1.71 ppb on September 15th. In the region including Austin, San Antonio, and Victoria, which was modeled with a finer-scale (4-km) horizontal resolution, results showed ozone increases due to emissions from the Oak Grove facility ranged from 0.03 ppb on September 19th to 4.19 ppb on September 20th. For the All Power Plants scenario, maximum impacts ranged from 0.96 ppb on September 19th to 5.39 ppb on September 20th..

The summary of results from the first modeling analysis is shown in Table 3.5

Scenario	9/15	9/16	9/17	9/18	9/19	9/20
Oak Grove	1.71	1.21	0.17	0.84	0.02	0.03
Tradinghouse Creek	0.27	0.01	0.00	0.01	0.00	0.02
All Power Plants	2.69	1.71	0.30	1.24	0.33	0.16
All Power Plants with Offsets (maximum increase)	2.55	1.63	0.25	0.86	0.29	0.11
All Power Plants with Offsets (maximum decrease)	-1.09	-1.52	-1.66	-1.88	-0.73	-0.62

Table 3.5 Maximum daily ozone increases (ppb) in the 5-county Austin area for each of the four modeling scenarios. The last row provides the maximum daily ozone decreases (ppb) in the Austin area for the Offsets scenario.

Second set of modeling runs focused on impact on Austin area from Oak Grove (Table 3.6).

Area	15th	16th	17th	18th	19th	20th	Avg
12-km Domain	2.29	3.10	4.71	4.69	7.39	7.24	4.90
4-km Domain	2.27	2.42	1.59	3.08	0.03	4.17	2.26
Austin (5-county)	1.71	1.21	0.17	0.86	0.02	0.03	0.67
Waco (McLennan Co)	0.27	0.50	2.43	1.30	1.86	0.03	1.07
Audubon	0.13	0.00	0.00	0.00	0.01	0.01	0.03
Murchison	0.03	0.00	0.00	0.00	0.01	0.02	0.01
Lake Georgetown	0.71	0.04	0.00	0.01	0.01	0.01	0.13

Table 3.6 Maximum difference at any grid cell in the daily maximum ozone concentrations (ppb) averaged over 8 hours between Base Case and Oak Grove only.

Table 3.7 shows impact from the Oak Grove while operating at lower emission rate (0.05 rather than 0.08 lbs/MMBtu)

Area	15th	16th	17th	18th	19th	20th	Avg
12-km Domain	0.83	1.03	1.62	1.53	2.33	2.19	1.59
4-km Domain	0.78	0.81	0.56	1.03	0.01	1.54	0.79
Austin (5-county)	0.59	0.44	0.06	0.29	0.01	0.01	0.23
Waco (McLennan County)	0.10	0.19	0.85	0.44	0.64	0.01	0.37
Audubon	0.04	0.00	0.00	0.00	0.00	0.00	0.01
Murchison	0.01	0.00	0.00	0.00	0.00	0.01	0.00
Lake Georgetown	0.31	0.02	0.00	0.00	0.00	0.00	0.06

Table 3.7 Maximum difference at any grid cell in the daily maximum ozone concentrations (ppb) averaged over 8 hours between Oak Grove at 0.08 lbs/MMBtu versus 0.05 lbs/MMBtu (positive number represent decrease in ozone)

Figure 3.17 illustrates the ozone impact on Austin 5 County area due to the Oak Grove units only as well as positive impact from reductions at Sandow 4&5.

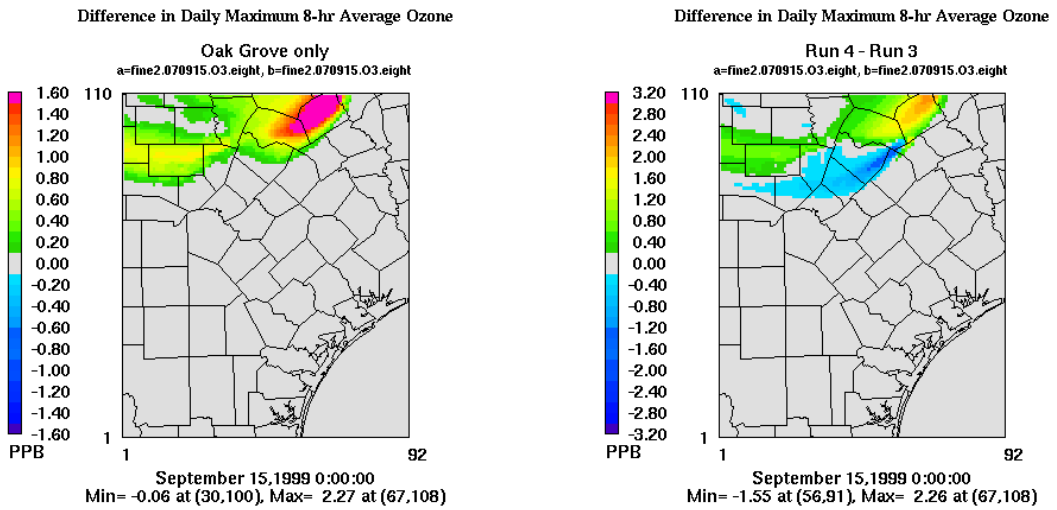

Figure 3.17 Difference between Base Case and addition of Oak Grove only (left) and scenario with Oak Grove and additional offsets at Sandow 4 and Sandow 5 (right).

More details from these studies can be found in the UT reports: "*Assessing the Air Quality Impacts in the Austin Area Associated with the Proposed Operation of Fourteen New Coal-Fired Power Plants in Texas*", February 2007 (available online: http://www.utexas.edu/research/ceer/modelingstudy.htm) and "*Assessing the Air Quality Impacts in the Austin Area Associated with the Proposed Operation of Eight New Coal-Fired Power Plants in Texas*", March 2007 (available on request).

4. PUBLIC INVOLVEMENT AND OUTREACH ACTIVITIES

The following groups and programs work together on air quality improvement efforts under the Austin-Round Rock MSA Early Action Compact (EAC):

THE CLEAN AIR COALITION (CAC) is composed of elected officials representing the 12 signatory jurisdictions in the MSA. They guide policy, coordinate with TCEQ and EPA, and advise their respective elected bodies regarding the EAC. The CAC meets, at least, semi-annually and is chaired by Mayor Will Wynn of the City of Austin.

THE EARLY ACTION COMPACT TASK FORCE (EACTF) is composed of staff from governmental and quasi-governmental agencies, such as the Lower Colorado River Authority, throughout the MSA. The EAC Task Force coordinates stakeholder input, reviews emission reduction measures, and reports on EAC issues to the CAC. The Co-Chairs of this task force are Bill Gill of the Capital Area Council of Governments (CAPCOG) and Cathy Stephens of Capital Metropolitan Planning Organization (CAMPO). The EACTF consists of approximately 30 members and meets monthly.

Our region's EAC is also reviewed along with those of other areas' EACs during Near Non-Attainment Meetings. These meetings are held quarterly to bring together regions that are facing non-attainment such as the Austin/RR MSA and the San Antonio MSA.

THE CLEAN AIR FORCE OF CENTRAL TEXAS (CAF) Board of Directors consists of 35 members united in the common goal of finding workable solutions for improving air quality in Central Texas. CAF represents environmental, governmental, corporate, academic, and community interests in air quality in the 5-county region. The Board is chaired by Judge Samuel T. Biscoe of Travis County and meets quarterly to discuss air quality issues, including the EAC.

THE CLEAN AIR FORCE TECHNICAL ADVISORY COMMITTEE (CAF TAC) is a committee of the CAF which provides businesses and citizens the opportunity to stay

abreast of the latest technical and policy air quality developments. The CAF TAC is chaired by Art Bedrosian and has approximately 35 members. Meetings are open to the public and meeting notices are posted on www.cleanairforce.org. To receive meeting notices and agendas by email, citizens can send a request to info@cleanairforce.org.

The CLEAN AIR Force Public Involvement Committee (CAF PI) is a committee of the CAF which helps to develop and implement air quality programs designed to educate citizens and businesses on the effects of poor air quality on our health and our economy and simple things citizens can do to help improve air quality. The CAF PI is chaired by Deanna Altenhoff and has approximately 20 members. Meetings are open to the public and meeting notices are posted on www.cleanairforce.org. To receive meeting notices and agendas by email, citizens can send a request to info@cleanairforce.org.

Air Quality Public Education TV and Banner Ads

The CLEAN AIR Force of Central Texas (CAF) will air two "It All Adds Up to Cleaner Air!" TV commercials from June to September 2007 on KXAN which give citizens suggestions on simple things they can do to improve air quality in Central Texas. A funding request has been made by the Executive Director to also allow airing of the two commercials on KVUE. CAF reinforces the TV air quality messages by displaying cross-road banners during the months of July, August and September that encourage downtown commuters to utilize alternative commute options during ozone season. KXAN-TV ads reach 40% of the population (equivalent to 355,582 citizens ages 18-54) an average of 3.3 times each through 74 commercials. The two commercials being aired are the winners of a new program for the CLEAN AIR Force in coordination with the City of Austin called the High School PSA Contest. The PSA Contest encourages high school students to learn about ozone and then produce and develop a 30-second PSA about what can be done about it that will air during the 2007 Ozone Season. While expensive, TV commercials on the top rated TV station in Central Texas reaches a significantly large percentage of the population during Ozone Season when getting the word out about what to do on OZADs is critical.

Table 4.1 lists all Early Action Compact (EAC) meetings and public outreach programs that occurred between November 1, 2006 and April 30, 2007.

Clean Air Coalition (CAC), CLEAN AIR Force of Central Texas (CAF) and EAC Task Force Air Quality/EAC Public Outreach Activities & Meetings December 1st, 2006 – April 30th, 2007

- CAF Executive Committee and Board Meetings– December 6
- CAF Letter sent to Department of Justice re: Power Plants- December 7
- CAF Executive Committee Conference Call- January 3
- EPA $145K Grant Awarded to CSB Program – January 12
- Commute Solutions Meeting- January 16
- CAF Public Involvement Meeting- January 18
- CAF Technical Advisory Committee (TAC) Meeting- January 25
- National Association of Local Government Environmental Professionals Webcast- January 25
- CAF Public Involvement Meeting- February 1
- CAF Executive Committee Lunch Meeting- February 1
- CAF Executive Committee Conference Call- February 7
- CAF Attends Mayor Wynn's Climate Protection Plan, City Hall - February 7
- Early Action Task Force Compact (EACTF) Meeting- February 7
- CAF Public Involvement Meeting- February 15
- EACTF Meeting- February 15
- CAF Booth at Downtown Austin Alliance (DAA) Event- February 20
- Commute Solutions Meeting- February 20
- CAF Technical Advisory Committee Meeting- February 22
- Commute Solutions Meeting- February 27
- Clean Air Coalition Meeting- February 28
- Coal-Fired Power Plant Meeting, City Hall-March 2
- Alcoa $15K Check Presentation to CAF- March 3
- CAF Electric Lawnmower Program Booth at Sunset Valley Open House- March 3
- Commute Solutions Meeting- March 6
- CAF Executive Committee and Board Meetings– March 7
- Clean School Bus Program applied for Impact Austin Grant- March 12
- Alternative Fuel Vehicle Institute Webcast School Bus Connections- March 13
- EACTF Meeting- March 15
- Ad in Waterwise Newsletter for Electric Lawnmower Program- March 15
- Deanna's Interview with Jim Swift, KXAN- March 16
- CAF Public Involvement Meeting- March 21
- Meeting with Clean Air Partner TCB- March 21
- CAF Technical Advisory Committee Meeting- March 22
- CAF Attends Hydrogen Drive and Ride- March 22
- Meeting with Newly Appointed Hays County Judge Sumpter - March 23
- Presentation to Bastrop County Commissioners Court- March 26
- Meeting with CapMetro re: Funding/OZAD signs on buses - March 26
- Meeting with City of Austin re: Press Event - March 26
- Clean Air Coalition Meeting- March 29
- Ozone Season Kick Off Media Advisory sent to media outlets – March 29
- New Clean Air Partner, CTRMA Joins- March 30
- CAF/Neuton Cordless Electric Lawnmower Discount Begins – April 1– May 31
- Ad in Austin Energy Newsletter for Electric Lawnmower program (distributed to approximately 330,000 customers) - April 1

- Ozone Season Kick Off Press Release sent to media outlets – April 2
- CAF Ozone Season Kick Off Press Event and CAPP Awards, City Hall- April 2
- Ozone Season Press Hits on KXAN, Univision, News 8, Daily Texan, Channel 6, Fox 7 – April 2-3
- Applied for Commute Solutions Innovator Grant for PSA Contest - April 2
- Hyde Park Posting of Electric Lawnmower Ad– April 2
- A&WMA Posting of Electric Lawnmower Ad – April 2
- CAPCOG Website Posting of Electric Lawnmower Ad – April 2
- CAMPO Website Posting of Electric Lawnmower Ad – April 3
- Austin EcoNetwork Posting of Electric Lawnmower Ad – April 3
- CAF Executive Committee Conference Call- April 4
- CAF Public Involvement Meeting- April 5
- Deanna's Presentation to Texas Campaign for the Environment- April 5
- CAF Petitioned to join Texas Clean Air Cities Coalition- April 11
- EACTF Meeting- April 12
- CAF booth at Fresh Air Friday Event and Electric Lawnmower Giveaway- April 13
- Deanna's Interview with KUT Radio- April 18
- Commute Solutions Meeting- April 18
- CAF Public Involvement Meeting- April 19
- Ad in Austin Chronicle re: Electric Lawnmower Program- April 19
- CAF Booth at Green Art Earth Day Event- April 21
- CAF Technical Advisory Committee Meeting- April 26
- CAF Awarded Commute Solutions Grant for PSA Contest- April 30

Table 4.1: Early Action Compact (EAC) meetings and public outreach programs that occurred between November 1, 2006 and April 30, 2007.

5. CHALLENGE S AHEAD/ NEXT STEPS

Attention to effective implementation of EAC measures during the last ozone season (2007) of the three-year attainment period

- Continue notification and enforcement of HDV idling restrictions
- Promote use of clean fuels, with low-NOx additives
- Emphasize adherence to voluntary ozone action day measures

Implement Clean Air Partners reporting program

Support efforts to bring additional TERP applications to attention of TCEQ

Conduct performance evaluations of EAC measure effectiveness

Complete development of an 8-hour O3 Flex plan

NEXT STEPS

During this reporting period CAPCOG has continued to add capacity for increasing the ozone monitoring coverage within the five EAC Counties. With three new ozone monitoring sites placed into operation during the 2006 ozone season and a fourth scheduled to come on line in mid-summer of 2007, the ozone air quality is now being sampled in Bastrop, Hays, Travis, and Williamson Counties. Through a new contract with Baylor University CAPCOG will be able to evaluate the impact on regional ozone of distant point sources, upwind urban areas, and contributions from the Austin metropolitan area during the 2007 ozone season. Projects underway include a contract task by University of Texas researchers to analyze monitored air quality data in conjunction with different meteorological conditions to gain a better understanding of the influences on ozone generation and transport into the Austin EAC region.

The upcoming reporting period will also see an increased emphasis on achieving maximum effectiveness of the emissions reduction measures committed to in the EAC. This is the final year of the three-year monitoring cycle used to determine whether the area is in attainment of the current 8-hour ozone standard. While the past two ozone seasons have had a measured fourth high value of 82 parts per billion (ppb) of ozone, continued diligence on maintaining the effectiveness of both voluntary and mandatory

measures will be important to assist in keeping the three-year average below the standard of 85 ppb.

During this reporting period TCEQ's small business outreach staff sent out notices and conducted a workshop to inform gasoline station owners in the Austin EAC region of the regulatory requirements for stage I controls on storage tank filling operations. Site visits by air quality staff are planned during the upcoming months to insure that maximum compliance with the applicable state rule is achieved during this ozone season. While the locally-enforced heavy duty vehicle idling rule resulted in just a handful of violation notices this past ozone season, efforts were made at the beginning of this ozone season to inform the regulated community of local restrictions on heavy duty vehicle idling activity.

Several of the voluntary measures which are resulting in significant emissions reductions will continue to be emphasized. Although the pipeline providing fuel to the Austin area is not currently transporting a Texas Low Emission Diesel (TxLED), both the City of Austin and Travis County are incurring extra expense to have their fuel distributor mix an additive into their diesel fuel to give it NOx emissions reduction equivalent to TxLED. These efforts will continue through this ozone season along with outreach to other local entities to use TxLED equivalent additives, if possible. During this reporting period a project was completed to develop improved software and reporting mechanisms so that emission reductions made by the Clean Air Partners members can be accounted for. This will help in recognizing those partners who make significant efforts to reduce ozone precursor emissions. Another voluntary program which aims to initiate significant vehicle emission reductions through retrofits and clean fuels is the Central Texas Clean School Bus Program, which obtained an EPA Blue Skyways grant during this reporting period. Using the EPA grant assistance this program expects to facilitate emission improvements to a number of school buses in the region.

CHALLENGES AHEAD

Through the performance of the continued planning process required by the EAC to evaluate the potential impacts on attainment status by new source growth, it has become apparent that a significant challenge for the years ahead will be to provide for

maintenance of healthy local air quality while under the influence of significant emissions transported into the region from newly constructed industrial and utility plants. Technical work done to support continued planning using trajectory analysis and photochemical modeling, discussed herein and in previous progress reports, indicates a high likelihood that newly constructed coal-fired power plants outside the EAC counties could contribute enough NOx emissions to seriously jeopardize the area's attainment status, especially if EPA lowers the ozone standard. These activities show the importance of both TCEQ and EPA recognizing the impact their actions can have on air quality in the Austin EAC region and the need for them to act in consideration of their commitment to the EAC in protecting local air quality from influences outside of local control.

During the latter part of this reporting period TCEQ announced that they were opening up consideration of Texas Emission reduction Plan (TERP) grant applications for the Austin EAC region. While it is too soon to determine how successful area local governments and businesses will be in receiving TERP grants from this round, just having the opportunity offered to apply is a positive development. Given the large amount of construction activity occurring in the region officials will continue to urge TCEQ to consider making TERP funds available to equipment operators in the Austin EAC region.

Challenges for the upcoming period will be to successfully complete the EAC commitments while preparing an 8-hour ozone flex plan for the region as a follow-on to the EAC. Starting with the 1-hour ozone flex plan through the current EAC, the Austin region has been an enthusiastic participant in air quality management plans designed to proactively address attainment of the ozone standards. During the upcoming reporting period local government staff and other stakeholders will continue working with EPA and TCEQ to develop the various elements of an 8-O3 Flex Plan, present it the various local governmental bodies for approval and submit documentation to TCEQ for their consideration. Just as with previous air quality plans, community input will be sought at various stages of the process to insure that the plan represents an approach the public and elected officials can support.

APPENDIX A STATE-ASSISTED EAC MEASURES

Control Measure	Summary description of control measure	Program/Measure Status	Implementation Date	VOC Reduction	NOx Reduction	Resources
Stage I Vapor Recovery	No person shall transfer, or allow the transfer of, gasoline from any tank-truck into a stationary storage container which is located at a motor vehicle fuel dispensing facility, unless the displaced vapors from the gasoline storage container are controlled by one of the following: (1) a vapor control system which reduces the emissions of VOC to the atmosphere to not more than 0.8 pound per 1,000 gallons of gasoline transferred; or (2) a vapor balance system which is operated and maintained in accordance with the provisions of section 115.222 of the full title. For more details, see TCEQ administrative code Title 30, Chapter 115, Subchapter C, *Volatile Organic Compounds Transfer Operations, Division 2, Filling of Gasoline Storage Vessels (Stage I) for Motor Vehicle Fuel Dispensing Facilities.*	Amendments to existing rules lower the exemption level for facilities subject to Stage I vapor recovery controls from 125,000 gallons in a calendar month to 25,000 gallons of gasoline in a calendar month. The TCEQ's Small Business and Environmental Assistance Division's Pollution Prevention and Education Section has worked with the local area to notify 505 petroleum storage tank owners and operators that they may be subject to existing laws put in place under the Early Action Compact. If their facility dispenses more than 25,000 gallons of gasoline per month, and the facility is located in Bastrop, Caldwell, Hays, Travis, or Williamson County, they are required to have Stage I Vapor Recovery Equipment installed at their facility. The agency provided a web site and a helpline number in the letter to assist these effected entities. The letter was mailed on March 27, 2007.	April 13, 2005	4.88 tpd VOC	0.0 tpd NOx	TCEQ has 3.5 FTEs and 2 Petroleum Storage Tank (PST) investigators devoted to air quality investigations in Region 11.

Control Measure	Summary description of control measure	Program/Measure Status	Implementation Date	VOC Reduction	NOx Reduction	Resources
Idling Restrictions on Heavy-Duty Diesel Vehicles	This rule, which was first established in December 2004, places idling limits on gasoline and diesel-powered engines in motor vehicles in any locality that signs a Memorandum of Agreement with the TCEQ. This rule prohibits any person in the affected locality from permitting the primary propulsion engine of a heavy-duty motor vehicle to idle for more than five consecutive minutes when the vehicle is not in motion unless the driver is using the engine to heat or cool his sleeper berth while taking a federally mandated rest break. This rule is effective from April 1 through October 31. The aim of this program is to lower nitrogen oxides (NOx) and other emissions from fuel combustion. More details of the rule can be found in Title 30, Subchapter J, *Operational Controls for Motor Vehicles, Division I, Motor Vehicle Idling Limitations*, new sections 114.510 - 114.512, and 114.517.	A committee formed by the EAC Task Force and Capital Area Metropolitan Planning Organization (CAMPO) began work on April 1, 2005 on the Idling Restrictions MOA and Implementation Plan. A draft MOA was presented to the full EAC Task Force on May 19, 2005. The MOA was endorsed by the Task Force and presented to the Clean Air Coalition officials. Enforcement began on April 1, 2006. During the 2006 enforcement season, Round Rock issued 6 citations and 3 warnings to idling vehicles.	Effective August 30, 2005 Enforcement started April 1, 2006	0.0 tpd VOC	0.67 tpd NOx	
Cutback Asphalt Restrictions	This measure restricts the use of cut-back asphalt in the region through a TCEQ rule revision (Chapter 115, Subchapter F, *Division 1, Sections 115.512, 115.516, 115.517, and 115.519*). The use of conventional cutback asphalt containing VOC solvents for the paving of roadways, driveways, or parking lots is restricted to no more than 7.0% of the total annual volume averaged over a two-year period of asphalt used by or specified by any state, municipal, or county agency who uses or specifies the type of asphalt application. The amount of VOC in asphalt emulsion is also limited by this rule. For a complete description of control measures for asphalt paving, see the TCEQ Rule referenced above.	TCEQ regional enforcement staff are aware of the regulation and its implications to the Austin area's EAC commitments. No violations were issued during this reporting period.	December 31, 2005	1.03 tpd VOC	0.0 tpd NOx	TCEQ has 3.5 FTEs devoted to air quality investigators in Region 11.

Control Measure	Summary description of control measure	Program/Measure Status	Implementation Date	VOC Reduction	NOx Reduction	Resources
Local Power Plant Reductions	Austin Energy has committed to lower the cap on NOx emissions from 1750 tons to 1500 tons per year. The reduction will be accomplished by retiring 241 SB-7 allowances per year. Emissions are reduced voluntarily from the Holly and Decker Creek units. The cap will be achieved by installing NOx reduction technologies at the Holly and Decker facilities and by the increased utilization of renewable energy resources as well as increased use of energy efficiency measures. Lower Colorado River Authority has committed to the following voluntary actions: Reduction of NOx allowance allocation at Sim Gideon Power Plant in Bastrop County by 300 tons per year. The Lost Pines Power Plant will reduce NOx emissions by an additional 100 tons per year. The University of Texas at Austin has committed to reduce allowable annual NOx emissions from its grandfathered units by 75%. Reductions from power plants are reported on an annual basis because daily reductions could not be achieved.	Four Austin-area power plants anticipate NOx reductions of 1,866 tons per year (12.7%) by 2007. Reductions will be noted in TCEQ permits and incorporated into the State Implementation Plan (SIP). **LCRA** requested in a letter to TCEQ, that both Sim Gideon and the FPP plant-wide flexible permit be altered to reflect the accelerated date of the final allowable NOx cap. TCEQ permit alterations were received in December 2005 and February 2006, respectively. **Austin Energy** committed to a voluntary NOx cap was included as a special condition of AE's Holly Power Plant SB-7 permit. AE also accelerated their commitment to shut down Holly Units 3 and 4 by September 30, 2007.	**LCRA:** Sim Gideon, December 31, 2005. FPP, December 31, 2006. **AE**: Holly Plant, January 30, 2004 **UT:** December 31, 2006	0.0 tpy VOC	1866 tons per year of NOx	

Control Measure	Summary description of control measure	Program/Measure Status	Implementation Date	VOC Reduction	NOx Reduction	Resources
Texas Emission Reduction Program (TERP) grants	This existing TCEQ program, created by the State Legislature, provides grants to public and private fleets in 41 Texas counties. The grants offset the incremental costs associated with reducing emissions of oxides of nitrogen (NOx) from high-emitting internal combustion engines.	The region is committed to achieving a 2-tpd NOx decrease from TERP grants by the end of 2007. To date, the region has received grants anticipated to decrease NOx by 2.02 tpd. The TCEQ began a new TERP grant round for both the Emission Reduction Incentive Grants (ERIG) and the rebate programs beginning April 2, 2007. The ERIG application period ended June 1, 2007, while the rebate grant application period extends through June 29, 2007. This round of funding includes the Austin area, as well as the following areas: Dallas-Fort Worth; Houston-Galveston-Brazoria; Beaumont-Port Arthur; Tyler-Longview; and San Antonio.	Grant selection: July 2005-1st round, August 2005-2nd round, November 2005- 3rd round	0.0 tpd VOC	2.0 tpd NOx	
Vehicle Emission Inspection & Maintenance	The I/M program requires the regular inspection of vehicles 2–24 years old in Travis and Williamson counties. Vehicles must be inspected through Department of Public Safety–certified inspection stations for emissions of nitrogen oxide (NOx), volatile organic compounds (VOCs) and carbon monoxide (CO). Travis County committed to administer an associated Low Income Repair Replacement Assistant Program (LIRAP) program, as well, per existing state rules.	**I/M:** During FY 2006, 683,010 emissions tests were performed. The emissions failure rate was 7.96%. An additional 1.04% failed the gas cap portion, which results in a 9% overall failure rate. **REMOTE SENSING:** There are currently 17 sites in the Austin EAC. Approximately 351,338 records were collected during FY 2006 and 295 qualified as high pollutant emitters. About 200 notices were mailed to owners of high-emitter vehicles.	September 1, 2005	3.83 tpd VOC	3.22 tpd NOx	

Control Measure	Summary description of control measure	Program/Measure Status	Implementation Date	VOC Reduction	NOx Reduction	Resources
Degreasing Requirements	Cold solvent cleaning operations which utilize a volatile organic compound (VOC) for the cold solvent cleaning of objects are subject to the control requirements in Section 115.412 of the TCEQ administrative code for Solvent Using Processes. Controls are in place for cold cleaning, open-top vapor, and conveyorized degreasing operations. They aim to reduce VOC emissions by containing the solvent within the system or by capturing fugitive vapors. For a full description of the control requirements, see Title 30, Chapter 115, Subchapter E, *Solvent Using Processes, Division I, Degreasing Processes, Sections 115.412, 115.413, 115.415-115.417, and 115.419.*	TCEQ regional enforcement staff are aware of the regulation and its implications to the Austin area's EAC commitments. No violations were issued during this reporting period.	December 31, 2005	5.55 tpd VOC	0.0 tpd NOx	TCEQ has 3.5 FTEs devoted to air quality investigators in Region 11.
Portable Fuel Containers	The control measure specifies performance standards and testing requirements that must be met by portable fuel containers to reduce VOC emissions. The controls apply to containers with a nominal capacity between one quart and ten gallons. The containers must be equipped with the appropriate dispensing spout and must be labeled to indicate compliance with the rule. The measure applies to all portable fuel containers or portable fuel container spouts manufactured on or after December 31, 2005. The complete description of this measure is in Title 30, Subchapter G, *Consumer-Related Sources, Division 2, Portable Fuel Containers, Sections 115.620-115.622, 115.626, 115.627, and 115.629* of TCEQ Air Quality Rules.	TCEQ regional enforcement staff are aware of the regulation and its implications to the Austin area's EAC commitments. No violations were issued during this reporting period.	December 31, 2005	0.89 tpd VOC	0.0 tpd NOx	TCEQ has 3.5 FTEs devoted to air quality investigators in Region 11.

Table A.1: State-assisted EAC Measures

APPENDIX B EAC LOCAL MEASURE STATUS SUMMARY AND REPORTING FORMS

Reports Enclosed:

Cities:

City of Austin

City of Bastrop

City of Elgin

City of Luling

City of Lockhart

City of Round Rock

City of San Marcos

Counties:

Bastrop County

Caldwell County

Hays County

Travis County

Williamson County

Agencies:

Capital Area Council of Governments

Capital Metropolitan Planning Organization

Capital Metropolitan Transportation Authority

Lower Colorado River Authority

Texas Commission on Environmental Quality

Texas Department of Transportation

The summary of the status of locally implemented EAC measures in Austin Round Rock MSA is shown in Table B.1 followed by individual EAC reporting forms

Emission Reduction Measure	Summary Description of Measure	Program/Measure Implementation Status
A/C Electric Load Shift	Requires commercial facilities to develop overnight the reservoir of cold water needed to meet air conditioning needs the following day. Total energy consumption and emissions are not reduced, but the emissions are not generated during the day, reducing the potential for ozone formation.	implemented
Access Management	Access management includes managing roadway access by limiting the number and location of allowable curb cuts and driveways, consolidating access to multiple business through one main driveway, side road etc. Access management reduces congestion, vehicle delay and associated emissions.	implemented
Adopt-a-School Bus Program	Local school districts participate in this CLEAN AIR Force sponsored program to replace or retrofit old diesel school buses with new, cleaner buses. Replacements and retrofits are implemented using 50% corporate sponsorship funds and 50% school district funds. EPA provides seed money to the CLEAN AIR Force for a fundraiser and program administration.	Implemented (in progress)
Airport Airside Incentives for Reduction of GSE Need	ABIA has begun and will complete the addition of building supplied power and preconditioned air for all aircraft parked at the gate. This will eliminate the need to run on-board auxiliary power units (APUs), and air-conditioning (ACUs) and ground power units (GPUs) by the air carriers if they will participate. It is not clear if we can mandate their use, or if it will need to be on a voluntary basis. Implementation might require creating incentives or use restrictions. Estimated 0.16 tpd NOx reduction.	implemented
Alternative Commute Infrastructure	Require all new non-residential developments of 25,000 sq. ft or more and developments that increase their square footage 25% or more and have/expect 100+ employees on the site to include bicycle commuting facilities (parking/racks and showers) and preferential carpool/vanpool parking spaces.	implemented
Alternative Fuel Infrastructure for Shuttle Buses	Propane fueling infrastructure is available at ABIA that could be used to refuel off-site parking shuttle buses. Encourage or mandate these services to shift to propane by 2005. Estimated 60% NOx reduction.	implemented
Alternative Fuels for Aviation Fleet	Replacement of Aviation Fleet equipment with propane fuel starting FY2003. Purchase of 10 propane pro-turf mowers, and 4 propane non-road truck-alls. Planned purchases at this time. Future replacement is subject to budget provisions.	implemented
Alternative Fuels for Shuttle Buses		implemented

Emission Reduction Measure	Summary Description of Measure	Program/Measure Implementation Status
Alternative Fuel Vehicles	A/SM MSA participants to the O3 Flex Agreement are committed to encouraging the expanded use of alternative fuels and alternative fuel vehicles among the owners and/or operators of fleets of 15 vehicles or more. To qualify as an alternative fuel vehicle, the vehicle must operate 75% of the time on one of the federal Energy Policy Act fuels. Approved alternative fuels are compressed natural gas (CNG), liquefied natural gas (LNG), liquefied petroleum gas (LPG), electricity, methanol, ethanol, and biodiesel (at a minimum 20% mix). Alternative fuels reduce NOx and VOCs at varying levels and are an appropriate strategy for reducing or even eliminating emissions. Credits are available under the federal Energy Policy Act (EPAct) for use of alternative fuels.	implemented
Cleaner Diesel for Fleets	Capital Metro, the cities of Austin, Bastrop and Elgin, Travis County and the Austin Independent School District have agreed to purchase a diesel product that is believed to reduce particulate matter and increase overall efficiency. Use of this fuel increases engine performance, with corresponding air quality benefits through fuel efficiency. While reductions of NOx emissions from this product are not quantifiable at this time, the commitment to this fuel represents a good-faith effort on the part of these entities to purchase the best currently available diesel fuels.	implemented
Commute Solutions Programs	Encourage and provide tools to implement Commute VMT reduction programs (e.g. Teleworking, compressed work week, carpooling/vanpooling, bus fares, subsidized transit pass, flextime, carpool or alternative transportation incentives etc.). The Commute Solutions program provides information and tools to implement these programs. It could be used to support a commute emission reduction regulation.	implemented
Construction Contract Provisions for High Ozone Days	Public contracts may include provisions to limit construction activities and equipment operation on high ozone days. A specified number of these high ozone days would be built into the contract. While controversial, it is one of the only ways to target non-road construction emissions.	implemented
Direct Deposit	Offer employees direct deposit potentially saving at least one vehicle errand per pay period.	implemented
Drive-Thru Facilities on Ozone Action Days	Requires or encourages businesses with drive-through facilities to post signs on Ozone Action Days asking customers to park and come inside instead of using the drive-through facilities. Encourage the public to comply.	implemented

Emission Reduction Measure	Summary Description of Measure	Program/Measure Implementation Status
e-Government and Multiple Locations	Provides web-based services, both for information and transactions, and/or multiple locations for payments, etc., Reduces VMT and associated emissions.	implemented
Electric Lawnmower Discount Program	Clean Air Force (CAF) and participating Home Depots offered Central Texans a 20% discount on the purchase of a corded Black & Decker MM575 18" Mulching Lawn Hog Electric Lawnmower the first two Saturdays in April of 2005.In addition CAF partnered with an online electric lawnmower company, Neuton, to provide $40 discounts on the Neuton cordless electric lawnmower, plus a free rear-bagger, 3-year extended warranty and free shipping for the period of April 1 - May 12, 2005.	implemented
Electric or Alternative Fuel for Airport GSE	This category includes new and in-use ground support equipment (GSE) used in airport operations. GSE perform a variety of functions, including: starting aircraft, aircraft maintenance, aircraft fueling, transporting cargo to and from aircraft, loading cargo, transporting passengers to and from aircraft, baggage handling, lavatory service, and food service. The Air Transportation industry has informed Central Texas that they will oppose any requirements on their industry.	implemented
Electric Utility Investments in Energy Demand Management	This measure involves the development of energy demand management programs in areas outside the Austin Energy service area. Austin Energy offers financial incentives to commercial and residential customers for installation of energy efficient appliances and technologies and they report a good correlation between their demand programs and reduced emissions at their power plants. This measure would encourage other utility providers in the region to develop similar programs.	implemented
Emission Reductions in SEPs, BEPS and Similar Agreements	Ensures that the primary impact of all air quality related SEPs, BEPs or similar agreements applicable to the EAC area, is to reduce emissions and improve air quality. EPA and/or TCEQ would consult, to the extent possible, with the local EAC signatories when developing any air quality related environmental mitigation agreement, such as a SEP, BEP or other similar agreement.	Not implemented
Energy Efficiency Beyond Senate Bills 5 & 7	Require additional energy efficiency measures beyond SB5 and SB7, such as building design, revisions to codes and standards, and energy management programs for large commercial facilities. Additional energy efficiency measures could provide significant reductions in energy demand and demand-related emissions.	implemented
Environmental Dispatch of Power Plants	Austin Energy is conducting environmental dispatch on their gas-fired facilities during the ozone action days.	implemented

Emission Reduction Measure	Summary Description of Measure	Program/Measure Implementation Status
Expedited Permitting for VMT-Reducing Development	Provide an expedited permitting process and/or other incentives for mixed use, transit oriented or in-fill development. Developments would have to meet certain performance criteria in order to qualify for expedited permitting.	Not implemented
Fleet Usage Efficiency Evaluation	Evaluate and improve the efficiency of fleet usage, including using alternative or clean fueled vehicles, using the cleanest vehicle appropriate for the job, consolidating and coordinating trips, etc.	implemented
Fleet Vehicle Maintenance	In addition to alternative fuels and alternative fuel vehicles, signatories and participants have incorporated regular maintenance in a manner that will minimize emissions, into their fleet operation policies.	implemented
Fueling Vehicles in the Evening	Promote fueling vehicles after peak hot periods of the day have passed during ozone season. This does not reduce NOx emissions but moves the high emissions time frame to later hours.	implemented
Landscaping Delay on High Ozone Days (Education Program)	Outreach to local stakeholders will include education and encourage voluntary implementation of delaying landscape work until noon on high ozone days.	implemented
Low Emission Vehicles	Encourage and/or provide incentives for the purchase and use of Tier 2 Bin 3 or cleaner vehicles for fleets and private use.	implemented
Low VOC Roadway Striping	Require use of reformulated striping material products (i.e., water-based paints or thermoplastic) to achieve VOC reductions. Traffic marking activities refer to the striping of center lines, edges, and directional markings on roads and parking lots. VOC emissions from traffic marking vary depending on the marking material used, and the frequency of application. Generally, there are six different types of traffic marking materials (EIIP, 1997a): 1) solvent-based paint; 2) water-based paint; 3) thermoplastics; 4) field-reacted systems; 5) preformed tapes; and 6) permanent markers. Solvent-based paints typically are the least expensive among the material types, but produce the highest VOC emissions.	implemented
Open Burning Restrictions	Amend and/or adopt regulations to ban the open burning of such items as trees, shrubs, and brush from land clearing, trimmings from landscaping, and household or business trash, during the peak ozone season. It reduces VOCs and NOx.	implemented
Ozone Action Day Education Program	Implement a public ozone education program, including ozone action days and recommended actions. Entities will notify employees of ozone action days the day before and encourage employees to reduce emissions.	implemented

Emission Reduction Measure	Summary Description of Measure	Program/Measure Implementation Status
Ozone Action Day Response Program	Implement a program of specific emission reduction measures taken on ozone action days.	implemented
Police Department Ticketing of Smoking Vehicles	Implement aggressive police enforcement by local agencies of speed limits 55 mph or more and smoking vehicle restrictions. If the smoking vehicle is fixed within 60 days, the ticket could be waived.	implemented
Resource Conservation	Expand and quantify ongoing resource conservation programs (materials recycling, water and energy conservation, etc.).	implemented
Shaded Parking	In addition to alternative fuels and alternative fuel vehicles, signatories and participants have incorporated shaded parking for fleet vehicles, to the extent possible, into their fleet operation policies.	implemented
Texas Low Emission Diesel (TxLED) for Fleets	Purchase and use Texas Low Emission Diesel in on-road and non-road vehicles and equipment.	implemented
Transit-Oriented Development (TOD)	Local governments implement development criteria either requiring or providing incentives for sprawl reduction such as vertical zoning, mixed use zoning, enhanced mobility choices, reducing distances between home sites, work sites, and service sites. These types of development criteria will reduce the impacts of new development on air quality.	implemented
Transportation Emission Reduction Measures (TERMs)	Implement transportation projects and programs that reduce emissions. Projects and programs include improved transit options and level of service, intersection improvements, grade separations, signal synchronizations and/or improvements, peak and/or off-peak traffic flow improvements, park and ride facilities, bike/ped facilities, high occupancy vehicle lanes, rail, demand management, intelligent transportation systems etc. Many TERMs are already planned and funded. CAMPO has issued a call for projects that may provide funding for additional TERMs.	implemented
Tree Planting	Implement landscaping ordinances to require additional urban tree planting. Reforestation improves air quality and energy efficiency.	implemented
Urban Heat Island/Cool Cities Program	Develop and implement Urban Heat Island (UHI) mitigation strategies. Since ozone forms at higher temperatures, the purpose of this strategy is to keep the city as cool as possible, through vegetation, cool roofing and light colored pavement.	implemented

Table B.1 Local EAC Voluntary Measures Implementation Status

City of Austin

Reported by: (Name) **(Phone)** **(Email)**

Emission Reduction Measure

For all CAAP emission reduction measures that have been implemented, please enter a Y (yes) in the column to the right. Enter additional information in the Reporting Information column. **REPORTING PERIOD: November 2006 to April 2007**	**Has the program been implemented? (Y/N)**	Reporting Information
1. A/C Electric Load Shift Describe the shift schedule and include the number of kWh shifted.	Yes	5,300 KW recorded at the meter
2. ABIA Airport Clean Air Plan: (includes measures A - E below)	Yes	
2A. Airport Airside Incentives for Reduction of GSE Need Describe the status of the program.	Yes	This is a voluntary program but most airlines do participate. The major incentive is the current cost of fuel.
2B. Alternative Fuel Infrastructure for Shuttle Buses How many alternative fuel facilities have been installed?	Yes	We have one propane storage facility that is capable of dispensing fuel to landside airport users, airside airport users and the public.
2C. Alternative Fuels for Aviation Fleet Give the number (or percentage) of equipment converted to alternative fuel.	Yes	This is an on-going Department of Aviation measure. Currently the Department of Aviation has 45 pieces of equipment/vehicles that operate on propane and six electric hybrid vehicles.
2D. Alternative Fuels for Shuttle Buses Give the number (or percentage) of buses using alternative fuel.	Yes	The Department of Aviation operates 100% of their shuttle buses on propane. One off-site parking vendor is converting to propane and the other is using B100 biodiesel.
2E. Electric or Alternative Fuel for Airport GSE Are you using alternative fuel* or electric power? (*If alternative fuel is being used, report the number of gallons purchased.)	NO	No
3. Alternative Commute Infrastructure Describe the status of the program.		The City of Austin has constructed a bicycle/pedestrian bridge across Town Lake. There is an active bicycle program manager continually working on bike lanes.
4. Alternative Fuel Vehicles	Yes	393 or 8.7%

Give the number (or percentage) of vehicles using alternative fuel.						
5. Cleaner Diesel for Fleets How many gallons of clean diesel have been purchased?	No	None, fuel contract over budget				
6. Commute Solutions Programs		**carpooling**	**vanpooling**	**teleworking**	**public transportation**	**flexible or compressed work week**
6A. Give the number of employees participating in each of the programs.		unknown	41 CoA people enrolled	unknown	439 trips ave. daily	unknown
6B. Give the average number of miles traveled while commuting.		23	23	23	23	23
6C. Give the number of days per week that the program is used.		1	1	1	1	1
7. Construction Contract Provisions for High Ozone Days Describe the status of the program.	No	No cooperation from Public Works				
8. Direct Deposit How many employees receive direct deposit?	Yes	11089				
8A. Estimate the number of payments direct deposited per year per employee. (e.g. Bimonthly-26 payments)	Yes	288314				
9. Drive-Thru Facilities on Ozone Action Days Describe the status of the program.	No	Program in development stage.				
10. e-Government and Multiple Locations Describe the status of the program.	Yes					
11. Electric Utility Investments in Energy Demand Management Describe the status of the program.	Yes	Total demand reduction (including the above shift) 16.5 MW recorded at the meter.				
12. Energy Efficiency Beyond Senate Bills 5 & 7 Describe the status of the program and the % energy reduction beyond the SB5 requirement.	Yes	Presume City of Austin Electric usage down 9% in two years. Municipal effort thru DSM was zero in Dec-May 07.				

13. Environmental Dispatch of Power Plants Describe the status of the program.	Yes	Capped total emissions, considered a superior action.
14. Fleet Usage Efficiency Evaluation Describe the status of the program.	No	Development stage.
15. Fleet Vehicle Maintenance Report the average time between two scheduled maintenance services.		180 DAYS
16. Fueling Vehicles in the Evening Describe the status of the program.		All customers encouraged to fuel in evening.
17. Low Emission Vehicles Report the number of LEVs purchased or the % of fleet vehicles that are categorized as LEVs.		10% purchased.
18. Low VOC Roadway Striping Report the type of low VOC material and the average amount used. Be sure to include units.	Yes	48,000 lbs of Hot Applied Thermoplastic material
19. Ozone Action Day Education Program Describe the status of the program.	Yes	This program works to incorporate an air quality curriculum in AISD middle school science work plan. We are also working with elementary school to promote the anti idling message near schools.
20. Ozone Action Day Response Program Describe the public response program.	Yes	This program is designed to inform employees of an upcoming ozone action day and preventative actions to take on those days.
21. Resource Conservation Describe the status of the program.	Yes	Water Conservation: 48,013,920 gallons; Energy: Reduced 46,500 MWh. This averted 32,000 tons of pollution
22. Shaded Parking Describe the status of the program.		January 2003: The Landscape code was altered to require that a minimum of 80% of the trees required for parking lots be large shade producing trees from a newly created list of Native and Adapted Shade Trees. Additionally a minimum of 50% of the trees in non-parking lot areas are to be shade-providing trees from the same list. (Environmental Criteria Manual Section 2.4.2(C) Trees in Parking Lots, 2.4.1D)
23. Texas Low Emission Diesel (TxLED) for Fleets	No	Price spikes caused fuel budget to be overspent

Report the number of vehicles using low emission diesel (TxLED) or the fleet % using TxLED or an equivalent.		
24. Transit-Oriented Development (TOD) Describe the program status.	Yes	The TOD ordinance was adopted in May 2005. Planning of the areas around the transit stations is in progress. Three of the TOD districts, Plaza Saltillo TOD, MLK TOD, and Lamar/Justin Ln TOD are 1/3 of the way through the planning process with station area plans for these areas to be adopted by the end of 2007. Implementation of plans dependant on City approval of station area plans (anticipated in late 2007).
25. Transportation Emission Reduction Measures (TERMs)		* Submit implementation status of each TERM to CAMPO. Report implementation status (Y/N) in middle blue column.
26. Tree Planting	Yes	NeighborWoods has planted 2,000.
27. Urban Heat Island/Cool Cities Program Describe the status of the program.	Yes	The following programs are in progress: Building code requirements for Light-Colored Roof Strategies, Incentive/Enforcement of Tree-Saving Ordinance, Ordinance mandating 50% Canopy Coverage with in 15 years for all new parking lots, Tree Mapping, and Expand City Tree Planting Program. Increased canopy cover through Large Tree plantings, Neighbor W oods and Austin Community Trees programs by planting 6000 shade trees in Austin . Increased energy efficiency programs.

CITY OF Bastrop - STATUS UNCHANGED

City of Elgin

Reported by: (Name) **(Phone)** **(Email)**

Emission Reduction Measure

For all CAAP emission reduction measures that have been implemented, please enter a Y (yes) in the column to the right. Enter additional information in the Reporting Information column. **REPORTING PERIOD: NOV 2006 to APR 2007**	**Has the program been implemented? (Y/N)**	Reporting Information
1. Access Management How many roadway projects are employing this program?		
2. Alternative Commute Infrastructure Describe the status of the program.		
3. Cleaner Diesel for Fleets How many gallons of clean diesel have been purchased?		Low Sulfur Purchased from Fuelman 2,942.55 gallons
4. Emission Reductions in SEPs, BEPS and Similar Agreements Report the emission reduction achieved for any SEP implemented in the reporting area.		
5. Expedited Permitting for VMT-Reducing Development Describe the status of the program.		
6. Low VOC Roadway Striping Report the type of low VOC material and the average amount used. Be sure to include units.		
7. Open Burning Restrictions		
8. Ozone Action Day Education Program Describe the status of the program.		Notice to Department Directors
9. Transportation Emission Reduction Measures (TERMs)		* Submit implementation status of each TERM to CAMPO. Report implementation status (Y/N) in middle blue column.
10. Tree Planting		

City of Luling

Reported by: (name)Chris Powell **(phone)** (email)cpowell@luling.the-cia.net

Emission Reduction Measure

For all CAAP emission reduction measures that have been implemented, please enter a Y (yes) in the column to the right. Enter additional information in the Reporting Information column. **REPORTING PERIOD: NOV 2006 to APR 2007**	**Has the program been implemented? (Y/N)**	Reporting Information				
1. Commute Solutions Programs	N	**carpooling**	**vanpooling**	**Teleworking**	**public transportation**	**flexible or compressed work week**
a. Give the number of employees participating in each of the programs.						
b. Give the average number of miles traveled while commuting.						
c. Give the number of days per week that the program is used.						
2. Fueling Vehicles in the Evening Describe the status of the program.	Y	fuel vehicles after 4pm when ever possible				
3. Ozone Action Day Education Program Describe the status of the program.	Y	forward all emails to other department heads				
4. Resource Conservation Describe the status of the program.	N	have limited resources as it is				

City of Lockhart

Reported by: (Name)	(Phone)	(Email) vrodgers@lockhart-tx.org
Vance Rodgers	376-2910	

Emission Reduction Measure

For all CAAP emission reduction measures that have been implemented, please enter a Y (yes) in the column to the right. Enter additional information in the Reporting Information column. **REPORTING PERIOD November 2006 to April 2007**	Has the program been implemented? (Y/N)	Reporting Information				
1. Access Management How many roadway projects are employing this program?		4				
2. Adopt-a-School Bus Program Give the number of buses replaced/retrofitted.						
3. Commute Solutions Programs		carpooling	vanpooling	teleworking	public transportation	flexible or compressed work week
a. Give the number of employees participating in each of the programs.						
b. Give the average number of miles traveled while commuting.						
c. Give the number of days per week that the program is used.						
4. Direct Deposit How many employees receive direct deposit?						
a. Estimate the number of payments direct deposited per year per employee. (e.g. Bimonthly-26 payments)		2210 deposits				
5. Drive-Thru Facilities on Ozone Action Days		Banks are notified by e-mail directly				

Describe the status of the program.		
6. Emission Reductions in SEPs, BEPS and Similar Agreements Report the emission reduction achieved for any SEP implemented in the reporting area.		
7. Fueling Vehicles in the Evening Describe the status of the program.		Still in force as a requirement unless it is an emergency
8. Landscaping Delay on High Ozone Days (Education Program) Describe the status of the program.		City maintenance crews observe this
9. Low Emission Vehicles Report the number of LEVs purchased or the % of fleet vehicles that are categorized as LEVs.		5
10. Low VOC Roadway Striping Report the type of low VOC material and the average amount used. Be sure to include units.		22,500 linear feet applied
11. Ozone Action Day Education Program Describe the status of the program.		Utility bill inserts, newspaper articles, etc
12. Police Department Ticketing of Smoking Vehicles Describe the status of the program.		Given tickets first time and given 60 days to correct problems
13. Tree Planting		26 additional planted since last report

City of Round Rock – STATUS UNCHANGED

City of San Marcos

Reported by: (Name) **(Phone)** **(Email)**

Emission Reduction Measure

For all CAAP emission reduction measures that have been implemented, please enter a Y (yes) in the column to the right. Enter additional information in the Reporting Information column. **REPORTING PERIOD: NOV 2006 to APR 2007**	**Has the program been implemented? (Y/N)**	Reporting Information
1. Direct Deposit How many employees receive direct deposit?	Y	391 as of April 30, 2007
a. Estimate the number of payments direct deposited per year per employee. (e.g. Bimonthly-26 payments)		26
2. e-Government and Multiple Locations Describe the status of the program.	Y	On-line programs fully implemented: Library book renewals, put books on hold, view online catalog; citizen request system; Parks & Rec. program registration; utility billing and payments; and City Council paperless agenda . Two City-owned utility bill payment centers. Customers can also pay their bills at HEB.
3. Fleet Usage Efficiency Evaluation Describe the status of the program.	N	
4. Fleet Vehicle Maintenance Report the average time between two scheduled maintenance services.	Y	6 Months
5. Fueling Vehicles in the Evening Describe the status of the program.	Y	Initial Phase--SMPD serving as test bed
6. Low VOC Roadway Striping Report the type of low VOC material and the average amount used. Be sure to include units.	Y	No VOC materials
7. Open Burning Restrictions	Y	No person shall burn material in the city limits. We extended our commitment to the environment by eliminating grills from the hundreds of apartment complexes in the City.
8. Ozone Action Day Education Program	Y	Place Ozone Action Day notices on City Hall bulletin boards and the City's local

Describe the status of the program.		access channel message board.
9. Ozone Action Day Response Program Describe the public response program.	N	
10. Resource Conservation Describe the status of the program.	Y	Please see attached sheet for on-going Water/ Wastewater and Electric energy conservation efforts.
11. Transportation Emission Reduction Measures (TERMs)		* Submit implementation status of each TERM to CAMPO. Report implementation status (Y/N) in middle blue column.
12. Tree Planting	Y	12 trees

San Marcos EAC Report Attachment
Resource Conservation #10

2007 EAC/CAP Report
Recycling

CURRENTLY, THE CITY OF SAN MARCOS USES THE FOLLOWING PROGRAMS TO ENCOURAGE RECYCLING AND LOWER AIR POLLUTION LEVELS:

Household Hazardous Waste Collection
The Public Works Department administers the City of San Marcos Household Hazardous Waste Program. The purpose of this program is to make household hazardous waste disposal available to our residents. This is accomplished through four collection events, per year at the City's permanent HHW collection site, and diversion of wastes through education and waste exchange components.

Prior to building our permanent facility, residents of the City of San Marcos who had household hazardous waste to dispose of either had to wait for an annual collection event, store the waste indefinitely, or dispose of the hazardous waste illegally. The effects of improperly disposed household hazardous waste on human health and the environment are hard to document.. But what is documented is that each year more than two million poison exposures occur in the United States. More than half involve children ages five or under.

One time per week residential recycling pickup collection diverted 998,020lbs material from the landfill and the Green Guy Recycling Drop off center diverted 3,025,180pounds material, 7,525 gallons of oil and 2400 oil filters. This number does not include tires, recycled printer cartridges, rechargeable batteries, Styrofoam peanuts, and reusable items collected by the recycling center.

Solid Waste Collection
The Public Works Department administers the City's Solid Waste contract. Garbage is picked up curbside twice a week. Recycling is a big component of the contract. Recycling opportunities are provided to all San Marcos residents, such as once a week curbside pickup for all residential customers and a drop off center for all commercial and multi-family residential units. Recycling participation is encouraged through local publications, mail-outs, youth educational programs and random monthly selection of a resident who is recycling that will be given a GardenVille gift certificate provided by Texas Disposal Systems.

Water Conservation

The City of San Marcos has implemented and maintains an active water conservation program. The objectives of the program are to improve efficiency of water use and to decrease per capita consumption in order to provide additional water supplies for future growth. The goal is to reduce per capita usage by 10% to 123 gallons per person per day by 2045. In order to reach this goal the City has implemented a variety of water conservation Best Management Practices (BMPs), which are defined as established practices and techniques that have shown documented improvements in water use efficiency.

Water Audit and Leak Detection/Repair Program

The City conducts monthly and annual pre-screening water audits in an effort to determine and control unaccounted water usage. Unaccounted usage is determined through analysis of total water production, metered sales and other verifiable beneficial/maintenance water uses such as fire fighting and line flushing. The City also estimates water losses from known leaks.

The City initiated a leak detection program in 1989 through cooperation with the Edwards Underground Water District (EUWD). In 1997 the City began conducting annual leak detection surveys of "high risk" zones including areas with older piping and areas that had experienced higher than normal leak activity.

In 2000, the City implemented a system-wide leak detection program, with one quarter of the system scheduled to be surveyed each year. Leaks are detected through sonic sounding of all service lines, fire hydrants and valves using leak detection equipment. Reports are generated throughout the survey period and leaks are repaired as soon as practicable, with precedence given to larger leaks.

In addition to the annual leak survey, the City conducts ongoing leak detection activities such as periodic visual inspection of lines and a 24-hour leak report hotline. Suspected and reported leaks are investigated immediately and repaired as soon as possible.

The City's aggressive leak detection and water audit program has lowered unaccounted water use to below 15%, the goal established by the American Water Works Association (AWWA). The City will continue to refine these programs with a goal of reducing and maintaining unaccounted usage below 15%.

Universal Metering

The City meters all water connections within the service area, and estimates un-metered uses such as fire fighting, line flushing and water leaks. Construction water from hydrants is allowed only through portable metering devices controlled by the City.

In 1987, the City implemented a meter replacement program in which all water meters within the service area are replaced on a ten-year cycle. In 1996 the City added a large meter testing program in which meters three inches and larger are tested annually and repaired or replaced as needed, using AWWA standards for meter accuracy. Most malfunctioning meters are repaired immediately unless it is determined that replacement is necessary. Testing is accomplished through flow comparison with a calibrated digital water meter with each meter tested at high, medium, and low flows. In addition to scheduled replacement and testing, meters that are suspected of malfunction are investigated immediately and repaired or replaced as needed.
Compound water meters are used for businesses that are likely to experience periodic low flows, such as apartment complexes and restaurants. Turbo meters are used for those businesses that are likely to experience only high flows such as car washes, laundry mats and irrigation.

Universal metering and the meter maintenance program allow the City to accurately track water consumption. The City will continue to develop and adjust the meter program as needed.

Water Waste Ordinances

In 1994, the City adopted its first year-round water conservation ordinance. This ordinance was adopted along with the drought management rules, and prohibited both charity car washes and landscape watering with sprinklers during daytime hours.

In 2004 the City adopted a revised Land Development Code which includes landscape water conservation measures for new development. These ordinances encourage developers and homebuilders to utilize low-water landscape materials, to limit turf areas to no more than 50% of the total landscape, and to properly prepare for new landscapes with at least 6 inches of high-quality soil.

In September 2006 the City adopted revised and expanded year-round conservation rules. The water conservation plumbing code sets forth requirements for commercial car washes, cooling systems, decorative water features, commercial dining facilities, on-premise laundry facilities and landscape irrigation systems. The water conservation and drought response ordinance includes year-round rules that prohibit water waste, use of

sprinklers during daytime hours, charity car washes, non-recirculating decorative water features and at-home car washing using open hoses.

Conservation Pricing

In 1994, the City implemented an increasing block rate structure for all water customers. The rates have been amended numerous times to arrive at the current rate schedule (Appendix B). Each active account is charged a minimum bill based on water meter size. Cost for additional usage ranges from $4.45 up to $6.18 per thousand gallons for water customers within the corporate City limits, and $5.57 up to $7.72 per thousand gallons for rural water customers. The City offers a Lifeline rate for customers that qualify for financial assistance.

Wastewater charges are based on metered water consumption. Industrial users may request alternative methodologies to determine wastewater use. Each active account is charged a minimum bill based on water meter size, with additional charges for use in excess of the minimum bill. Sewer charges for single-family residential accounts are capped at 8,000 gallons. Accounts with dedicated landscape meters are not charged for wastewater service.

The City plans to continue the increasing block rate structure, with rate adjustments implemented as needed. Future adjustments may include higher seasonal water rates, steeper tiers to target high water users, and wastewater rates based on winter averaging.

Public Information

The City maintains an active public information program to educate water customers about the importance of water conservation, and to inform them of effective water conservation techniques. The goal is to reach all water customers through various methods including:

- written materials such as press releases, newsletter articles, and bill inserts;
- visual materials such as recharge zone and vehicle signage;
- water conservation website;
- representation at public events such as the Business Expo and Earth Day; and
- presentations for local groups, clubs, and organizations.

The City will continue to develop and expand the public information program as additional resources become available. Future public information programs may include: regularly scheduled mailouts and newspaper ads, billboard advertising, partnering with neighboring water purveyors to provide radio/television spots, and participation in state-wide conservation campaigns.

School Education

The City is dedicated to increasing water awareness in local public and private schools. The goal is to reach all K-12 students through a variety of school education activities including:

- participation in TSU Groundwater Festival;
- distribution of water conservation book covers;
- water conservation book cover design contest;
- sponsorship of the Major Rivers water education curricula; and
- classroom presentations and teacher workshops.

The City will continue to expand the water education program as additional education resources become available.

Conservation Coordinator

In April 2001, the City created a water conservation position to develop, coordinate, and implement the City's water conservation and drought management programs. The position is responsible for:

- development and management of water conservation budget;
- execution and analysis of residential and ICI water audits;
- development and distribution of public information materials;
- coordination of water conservation school education program;
- development and implementation of rebate/incentive programs;
- preparation of mandated water conservation and drought management plans; and
- enforcement of conservation and drought ordinances.

Additional conservation staff will be employed as the water conservation program develops.

Residential Water Survey Program

In May 2001, the City implemented a water survey program for single and multi-family residential water customers. Each survey includes an evaluation of household leaks, measurement of shower and faucet flow rates, measurement of toilet flush volumes, and assessment of other water uses within the home. Each customer receives general water conservation information along with an individualized report detailing specific water conservation strategies and their expected savings. The City will continue to offer water surveys for single and multi-family homes constructed before 1992.

Residential Plumbing Retrofit Program

The residential plumbing retrofit program is conducted in conjunction with the residential water survey program and other rebate/incentive programs. Customers that have received a residential water survey or have participated in City rebate/incentive programs receive free replacement showerheads, kitchen faucet aerators, bathroom faucet aerators, and

toilet displacement devices as needed. The City also distributes plumbing devices at public events and at the Water Utility office. The City plans to continue the plumbing retrofit program, and to evaluate other methods of distribution.

High- Efficiency Washing Machine Rebate Program

In 2002, the City introduced the Wash-Smart Rebate Program for single-family residential water customers. To encourage use of efficient machines the City offers a rebate of $50, $75, or $100 to residential customers that purchase a qualifying efficient clothes washer. Only washers that use 7.5 gallons per cubic foot of capacity or less are eligible for a rebate. The rebate amount is determined by the level of efficiency of the machine. Washers that use less water per cubic foot of capacity are eligible for a higher rebate. Water efficiency information is obtained from the Consortium for Energy Efficiency (CEE) Residential Clothes Washer Initiative.

The City plans to continue the washer rebate program with expansion to multi-family and commercial and institutional water customers.

Residential ULFT Replacement Program

In 1995, the City implemented an ultra-low flush toilet (ULFT) replacement program through funding received from the Edwards Underground Water District (EUWD). Due to the success of the program, the City has continued to fund the program each year since. The goal of the Flush-Smart Rebate Program is to encourage replacement of existing high-volume toilets with new efficient models. The program is currently open to single-family and multi-family residential water customers. Only toilets that cannot be altered to use more than 1.6 gpf qualify for a rebate.

In 2006 the City implemented a high-efficiency toilet distribution program. Approximately 140 Caroma dual-flush toilets were distributed to qualifying single-family water customers.

The City plans to continue both the rebate and distribution programs.

Conservation Programs for ICI Accounts

In 2002, the City implemented a water audit program for ICI customers. Each audit includes an analysis of known water uses including domestic water usage, process water usage, and equipment water usage. Known uses are analyzed to determine water conservation opportunities. Each customer receives an individualized report detailing known water uses, recommended water conservation strategies, estimated costs, and expected water savings.

In 2003, the City introduced the annual Water Efficiency Achievement (WEA) awards for ICI customers. The goal of the award is to recognize ICI customers that have implemented measures to reduce water consumption and improve efficiency. Entries are

judged on water savings, cost/benefit of conservation measures, and innovation of water efficiency improvements.

In 2004, the City launched the Pre-Rinse Spray Valve Exchange program to increase water efficiency in the food service industry. Through this program the City offered free high-quality pre-rinse sprayers to commercial and institutional water customers, as well as installation of the sprayer by a licensed professional plumber.

The City will continue to research and develop additional cost-effective water conservation programs for ICI customers.

Reuse of Treated Effluent

In 2001, the City began delivery of reclaimed wastewater to the American National Power facility located near San Marcos. American National Power uses the reclaimed water along with Guadalupe River water to cool their power-producing turbines. The reclaimed water is used instead of treated potable water to dilute the high total suspended solids (TSS) of the river water. Once used, the water goes to an onsite reverse osmosis treatment facility where it is treated and recirculated back into the cooling system.

The City is currently investigating the feasibility of extending the reuse system to other ICI water customers.

ENERGY CONSERVATION

The Customer Information Department of the Electric Utility department promotes energy conservation through the following programs:

Texas Wi$e Rebate Program
This program rewards new home construction that meets high- energy efficiency standards. Also, the program rewards improvements made to existing homes that meet the program's high-energy efficiency standards.

Assist Customers with Suggestions for their Electric Use
Assistance is provided by: performing energy audits at homes or businesses and giving the customer a written report about using electricity to maintain comfort while maximizing efficiency; giving presentations to Civic groups and local schools regarding energy conservation and offering the Electric Utility department's services to customers; and developing brochures to help teach customers, including business owners, home owners and apartment renters, to be aware of ways to use electricity efficiently and profitably. In addition, brochures are developed seasonally and address specific consumer populations, such as apartment renters and mobile owners/ renters.

Marketing Energy Conservation

The Electric Utility department visits the largest City of San Marcos customers to develop a closer provider/ customer relationship as well as update City services and information that would be useful to them for energy conservation; visits each apartment complex manager to offer services to them and their tenants in the form of energy audits and informational brochures; posts Texas Wi$e brochures, posters, and rebate guidelines throughout departments within the City of San Marcos, thus allowing home building, remodeling, and air conditioning contractors to see and use this information; and visits each San Marcos building and air conditioning contractor to provide current information on the Texas Wi$e rebate program and other services provided by the City.

Bastrop County

Reported by: Gayle Wilhelm	512 332 7201	gayle.wilhelm@co.bastrop.tx.us

Emission Reduction Measure

For all CAAP emission reduction measures that have been implemented, please enter a Y (yes) in the column to the right. Enter additional information in the Reporting Information column. **REPORTING PERIOD: NOV 2006-APR 2007**	**Has the program been implemented? (Y/N)**	Reporting Information				
1. Cleaner Diesel for Fleets How many gallons of clean diesel have been purchased?	Y	low sulfur diesel purchased for vehicles				
2. Commute Solutions Programs		**carpooling**	**vanpooling**	**teleworking**	**public transportation**	**flexible or compressed work week**
a. Give the number of employees participating in each of the programs.		**5**				**60**
b. Give the average number of miles traveled while commuting.		**40**				**20**
c. Give the number of days per week that the program is used.		**5**				
3. Direct Deposit How many employees receive direct deposit?	Y	318				
a. Estimate the number of payments direct deposited per year per employee. (e.g. Bimonthly-26 payments)		8268				
4. Fleet Vehicle Maintenance Report the average time between two scheduled maintenance services.	Y	as recommended by manufacturer				
5. Fueling Vehicles in the Evening Describe the status of the program.	Y	road & bridge fleets fuel at end of shift				

6. Ozone Action Day Education Program Describe the status of the program.	Y	
7. Ozone Action Day Response Program Describe the public response program.	Y	

Caldwell County – STATUS UNCHANGED

Hays County

Reported by: Jerry Borcherding	(Phone)512-393-7385	(Email)jerry@co.hays.tx.us

Emission Reduction Measure

For all CAAP emission reduction measures that have been implemented, please enter a Y (yes) in the column to the right. Enter additional information in the Reporting Information column. **REPORTING PERIOD: NOV 2006 to APR 2007**	**Has the program been implemented? (Y/N)**	Reporting Information
1. Cleaner Diesel for Fleets How many gallons of clean diesel have been purchased?	Y	46,027
2. Direct Deposit How many employees receive direct deposit?	Y	647
a. Estimate the number of payments direct deposited per year per employee. (e.g. Bimonthly-26 payments)		15,528
3. e-Government and Multiple Locations Describe the status of the program.		
4. Fleet Vehicle Maintenance Report the average time between two scheduled maintenance services.	Y	heavy equipment - every 250 hours; heavy trucks - every 6000 miles; small trucks - every 3000 miles
5. Fueling Vehicles in the Evening Describe the status of the program.	Y	Vehicles are fueled at the end of the day.
6. Low VOC Roadway Striping Report the type of low VOC material and the average amount used. Be sure to include units.	Y	There is none for this reporting period.
7. Ozone Action Day Education Program Describe the status of the program.		
8. Ozone Action Day Response Program Describe the public response program.		
9. Resource Conservation Describe the status of the program.		

10. Tree Planting		

Travis County

Reported by: Adele Noel 854-7211 adele.noel@co.travis.tx.us

Emission Reduction Measure

For all CAAP emission reduction measures that have been implemented, please enter a Y (yes) in the column to the right. Enter additional information in the Reporting Information column.	Has the program been implemented? (Y/N)	Reporting Information
REPORTING PERIOD: NOV 2006 to APR 2007		
1. Alternative Fuel Vehicles Give the number (or percentage) of vehicles using alternative fuel.	YES	76 vehicles total: an increase of 14 vehicles since the last report.
2. Cleaner Diesel for Fleets How many gallons of clean diesel have been purchased?	YES	Travis County will have purchased an estimated 18,000 of fuel with the Oryxe additive by May 31, 2007. Travis County will use the Oryxe additive in its fuel throughout the remaining ozone season.

3. Commute Solutions Programs	YES	carpooling	vanpooling	teleworking	public transportation	flexible or compressed work week
a. Give the number of employees participating in each of the programs.		114	not known	not known	58	75
b. Give the average number of miles traveled while commuting.		46.7			24.5	
c. Give the number of days per week that the program is used.		5			5	4 on 1 off

4. Direct Deposit How many employees receive direct deposit?	YES	About 3655 employees have Direct Deposit.
a. Estimate the number of payments direct deposited per year per employee. (e.g. Bimonthly-26 payments)		89,406 payments were made via direct deposit last year or about or about 24.4 direct deposits per employee per year.

5. e-Government and Multiple Locations Describe the status of the program.	YES	Approximately 11,200 (90%) Travis County jury assignments are made via Internet every 6 months, saving as many roundtrips to the county's downtown complex. There were 32,928 motor vehicle renewals over the internet; 6,178 property tax payments over the internet; and 228 voter registration updates over the internet. These actions can also be performed by mail instead of in person. Travis County offers many client services through seven different intake offices located throughout the county, and operates a one-stop shop Subdivision Review office with the City of Austin so citizens needing review by both entities don't have to drive to different locations.
6. Fleet Usage Efficiency Evaluation Describe the status of the program.	YES	Travis County Fleet Services performs Fleet Usage and Efficiency Evaluations throughout the year and makes recommendations for improvements to the fleet users. Recommendations such as trip reductions, consolidations and the type of vehicles. The use of propane fuel in the bi-fueled vehicles at least 75% of the time is encouraged.
7. Fleet Vehicle Maintenance Report the average time between two scheduled maintenance services.	YES	Regular Service Average: 120 days between two scheduled maintenance services. Severe Service Average: 35 days between two scheduled maintenance services.
8. Fueling Vehicles in the Evening Describe the status of the program.	YES	Travis County Fleet users are encouraged to fuel vehicles at the end of their work day, rather than at the beginning.
9. Low Emission Vehicles Report the number of LEVs purchased or the % of fleet vehicles that are categorized as LEVs.	YES	The percentage of LEV vehicles to 53%.
10. Low VOC Roadway Striping	YES	Low VOC (Latex) 457 -55 gal

Report the type of low VOC material and the average amount used. Be sure to include units.		drums (25,175 gallons).
11. Ozone Action Day Education Program Describe the status of the program.	YES	On-going,
12. Ozone Action Day Response Program Describe the public response program.	YES	On-going
13. Resource Conservation Describe the status of the program.	YES	Travis County Recycled the following: Paper: 157.8 Tons or 315660 lbs Aluminum: 974 lbs Oil: 4017 gallons Tires: 710 Antifreeze: 155 gallons Batteries: 212 Iron/Tin: 0 Purchased 1703 re-manufactured toner cartridges Car Parts: 0 Scrap Metal: 111,480 lbs
14. Shaded Parking Describe the status of the program.	YES	963 covered or shaded spaces
15. Texas Low Emission Diesel (TxLED) for Fleets Report the number of vehicles using low emission diesel (TxLED) or the fleet % using TxLED or an equivalent.	Yes	Travis County used Ultra Low Sulfur Diesel in all of its diesel vehicles
16. Transportation Emission Reduction Measures (TERMs)	YES	* Submit implementation status of each TERM to CAMPO. Report implementation status (Y/N) in middle blue column.
17. Tree Planting	YES	170 tress were planted during this report period.

Williamson County

Reported by: Gary Boyd **260-4226** Gboyd@wilco.org

Emission Reduction Measure

For all CAAP emission reduction measures that have been implemented, please enter a Y (yes) in the column to the right. Enter additional information in the Reporting Information column. **REPORTING PERIOD: NOVEMBER 2006 to APRIL 2007**	**Has the program been implemented? (Y/N)**	Reporting Information
1. Cleaner Diesel for Fleets How many gallons of clean diesel have been purchased?	n	
2. Direct Deposit How many employees receive direct deposit?	y	1283
a. Estimate the number of payments direct deposited per year per employee. (e.g. Bimonthly-26 payments)		26
3. e-Government and Multiple Locations Describe the status of the program.	y	The County Clerks office has all records on line. Citizens may research birth and death certificates, deeds and all Commissioners Court documents.
4. Fleet Usage Efficiency Evaluation Describe the status of the program.	y	The Williamson County fleet committee meets every other month to evaluate fleet efficiency.
5. Fleet Vehicle Maintenance Report the average time between two scheduled maintenance services.	y	3000 miles on severe duty cars, 4000 miles on non-severe duty cars, 5000-8000 on heavy trucks
6. Fueling Vehicles in the Evening Describe the status of the program.	y	Vehicles are fueled at the end of the workday, after 3 pm
7. Low Emission Vehicles Report the number of LEVs purchased or the % of fleet vehicles that are categorized as LEVs.	y	63%
8. Low VOC Roadway Striping Report the type of low VOC material and the average amount used. Be sure to include units.	y	4000 sq. ft of water based paint, 47,290 sq ft of thermoplastic

9. Ozone Action Day Education Program Describe the status of the program.	y	articles in county-wide newsletter and employee education seminars
10. Ozone Action Day Response Program Describe the public response program.	y	Ozone action days are posted on the website
11. Resource Conservation Describe the status of the program.	y	Paper recycling and energy conservation in all count buildings
12. Texas Low Emission Diesel (TxLED) for Fleets Report the number of vehicles using low emission diesel (TxLED) or the fleet % using TxLED or an equivalent.	n	
13. Transportation Emission Reduction Measures (TERMs)	y	* Submit implementation status of each TERM to CAMPO. Report implementation status (Y/N) in middle blue column.
14. Tree Planting	y	

CAPCOG – STATUS UNCHANGED

CAMPO

Reported by: Cathy Stevens	Phone: 512.974.1861	Email: cathy.stevens@campotexas.org

Emission Reduction Measure

For all CAAP emission reduction measures that have been implemented, please enter a Y (yes) in the column to the right. Enter additional information in the Reporting Information column. **REPORTING PERIOD: NOV 2006 to APR 2007**	**Has the program been implemented? (Y/N)**	Reporting Information				
1. Commute Solutions Programs		**carpooling**	**vanpooling**	**teleworking**	**public transportation**	**flexible or compressed work week**
a. Give the number of employees participating in each of the programs.		**3**		**6**	**1**	
b. Give the average number of miles traveled while commuting.		**44**		**52**	**4**	
c. Give the number of days per week that the program is used.		**4**		**4**	**4**	
2. Ozone Action Day Education Program Describe the status of the program.		ongoing				
3. Ozone Action Day Response Program Describe the public response program.		Post educational alerts/notices to staff and building employees; no CAMPO meetings and staff teleworks before 10:00am				
4. Transportation Emission Reduction Measures (TERMs) Approval		* Submit implementation status of each TERM to CAMPO. Report implementation status (Y/N) in middle blue column.				

Capital Metro

Reported by: (Name) **(Phone)** **(Email)**

Emission Reduction Measure

For all CAAP emission reduction measures that have been implemented, please enter a Y (yes) in the column to the right. Enter additional information in the Reporting Information column. **REPORTING PERIOD: NOV 2006 – APR 2007**	**Has the program been implemented? (Y/N)**	Reporting Information				
1. Alternative Fuel Vehicles Give the number (or percentage) of vehicles using alternative fuel.	Y	14 Hybrid Toyota Prius Sedans ; 2 40-foot Hybrid Buses; **Note: 1 additional 40-foot Hybrid bus was approved in September 2007 for purchase and is still awaiting arrival for Spring/Summer 2007.**				
2. Cleaner Diesel for Fleets How many gallons of clean diesel have been purchased?	Y	1,933,379 gallons received between December 2006 and April 30, 2007. Only Ultra Low Sulfur Diesel (ULSD) is purchased at this time.				
3. Commute Solutions Programs	Y	**carpooling**	**vanpooling**	**teleworking**	**public transportation**	**flexible or compressed work week**
a. Give the number of employees participating in each of the programs.		**Not Tracked**	39	**Not Tracked**	**Not Tracked**	**Not Tracked**
b. Give the average number of miles traveled while commuting.		**Not Tracked**	43 Round Trip Miles	**Not Tracked**	**Not Tracked**	**Not Tracked**
c. Give the number of days per week that the program is used.		**Not Tracked**	3	**Not Tracked**	**Not Tracked**	**Not Tracked**
4. Direct Deposit How many employees receive direct deposit?	Y	Approximations Capital Metro (Admin) - 200 Startran (Operators/Mechanics) - 700 Approximately 70% of our workforce utilizes direct deposit.				
a. Estimate the number of payments direct deposited per year per employee.		Bimonthly - 26 payments				

(e.g. Bimonthly-26 payments)		
5. e-Government and Multiple Locations Describe the status of the program.	Y	Multiple Farecard Sale Outlets, Direct Sale of Farecard via Internet Available, On-Line Trip Planner
6. Fleet Usage Efficiency Evaluation Describe the status of the program.	Y	Automatic Passenger Counters (APC) are used to continually evaluate ridership. Vehicle types are assigned to route services based on passenger loading factors. Procurement is underway for a more detailed Intelligent Transportation System (ITS) to be incorporated into all fleet types for real-time monitoring - planned implementation is 2 years.
7. Fleet Vehicle Maintenance Report the average time between two scheduled maintenance services.	Y	Bus PMIs are typically scheduled at 6,000 mile intervals, plus or minus 10% or 600 miles for all buses. Exceptions for more frequent intervals on particular units are sometimes made to comply with warranty purposes.
8. Fueling Vehicles in the Evening Describe the status of the program.	Y	With the exception to vehicles "in the shop" during the day, all Vehicles are Fueled in the Evening
9. Low Emission Vehicles Report the number of LEVs purchased or the % of fleet vehicles that are categorized as LEVs.	Y	57% of vehicles are LEV or better.
10. Low VOC Roadway Striping Report the type of low VOC material and the average amount used. Be sure to include units.	N/A	
11. Ozone Action Day Education Program Describe the status of the program.	N/A	**Until October 2006, Capital Metro had been providing free rides to customers on Ozone Action Days for the last 13 years.** Regular education to the public was in the form of public information announcements (media and email). On the day prior to an Ozone Day, an email alert was sent to passengers registered with Capital Metro's RiderInfo alert system. Information was broadcast on all vehicles (intercom) to all passengers the day prior to alert of next day's free operation. Information was displayed on large scale message boards currently in place along major travel corridors (e.g. IH-35 coordinated by TxDOT). **Unfortunately, in October 2006, the Board of Directors took action that removed the "free fare" aspect of this program. Thus, all information relating to this program is no longer practiced.**

12. Ozone Action Day Response Program Describe the public response program.	N/A	During the program, Capital Metro provided free rides to customers on Ozone Action Days, and saw an average increase in ridership by up to eight percent.
13. Resource Conservation Describe the status of the program.	Y	On site recycling of Paper products, Metals, Oil, and Grey water
14. Transit-Oriented Development (TOD) Describe the program status.	Y	Capital Metro Board of Directors approved in Fall 2005 hiring a contractor to conduct six market studies on Transit Oriented Development (TOD), with an option for ten additional studies. The studies will provide market analyses of the potential for development in areas around six Rapid bus and urban commuter rail stations inside the Austin city limits. The six study areas were identified by a collaboration of the City of Austin and Capital Metro. The City of Austin will take the lead in developing Station Area Plans through its Neighborhood Planning and Zoning Department. Commuter Rail Station Area Planning is underway as of Spring 2007 and will continue forward.
15. Transportation Emission Reduction Measures (TERMs)	Y	Submitted update to CAMPO in April 2007

LCRA

Reported by: Maia Corbitt	**(512) 473-3200**	maia.corbitt@lcra.org

Emission Reduction Measure

For all CAAP emission reduction measures that have been implemented, please enter a Y (yes) in the column to the right. Enter additional information in the Reporting Information column. **REPORTING PERIOD: NOVEMBER 2006 to APRIL 2007**	**Has the program been implemented? (Y/N)**	Reporting Information
1. Alternative Commute Infrastructure Describe the status of the program.	Y	Unchanged in reporting period.
2. Cleaner Diesel for Fleets How many gallons of clean diesel have been purchased?	Y	125,975 gallons
3. Direct Deposit How many employees receive direct deposit?	Y	1,900 within the 5 county EAC region.
a. Estimate the number of payments direct deposited per year per employee. (e.g. Bimonthly-26 payments)		Bimonthly payroll (26 payments) along with employee reimbursements as submitted
4. Fleet Vehicle Maintenance Report the average time between two scheduled maintenance services.	Y	Small fleet (cars, pickups, etc…) every 5,000 miles Large fleet (bucket trucks, etc…) every 10,000 miles
5. Low Emission Vehicles Report the number of LEVs purchased or the % of fleet vehicles that are categorized as LEVs.	Y	21 LEVs purchased
6. Ozone Action Day Education Program Describe the status of the program.	Y	Unchanged in reporting period.
7. Ozone Action Day Response Program Describe the public response program.	N	We have received no public response to program.
8. Resource Conservation Describe the status of the program.	N	Not in EAC capacity.
9. Transportation Emission Reduction Measures (TERMs)	N	* Submit implementation status of each TERM to CAMPO. Report implementation status (Y/N) in middle blue column.

10. Tree Planting	N	Not in EAC capacity.

TCEQ

Reported by: James Voelker	239-3182	jvoelker@tceq.state.tx.us

Emission Reduction Measure

For all CAAP emission reduction measures that have been implemented, please enter a Y (yes) in the column to the right. Enter additional information in the Reporting Information column. **REPORTING PERIOD: NOV 2006 - APR 2007**	**Has the program been implemented? (Y/N)**	Reporting Information				
1. Alternative Commute Infrastructure Describe the status of the program.	Y	The TCEQ has an existing Commute Solutions program that promotes alternatives to the single-passenger commute. This program provides information to employees regarding teleworking, and ridesharing opportunities through carpools and vanpools.				
2. Alternative Fuel Vehicles Give the number (or percentage) of vehicles using alternative fuel.	Y	17 vehicles are hybrid or propane				
3. Commute Solutions Programs		**carpooling**	**vanpooling**	**teleworking**	**public transportation**	**flexible or compressed work week**
a. Give the number of employees participating in each of the programs.		**90**	**102**	**85**		**300**
b. Give the average number of miles traveled while commuting.		**22**	**22**	**50**		**22**
c. Give the number of days per week that the program is used.		**5**	**5**	**1**		**1**
4. Direct Deposit How many employees receive direct deposit?		1800				
a. Estimate the number of payments direct deposited per year per employee. (e.g. Bimonthly-26 payments)		12				

5. e-Government and Multiple Locations Describe the status of the program.		The TCEQ has 16 regional offices located throughout the state, while also providing important services and resources available to external customers online.
6. Fleet Vehicle Maintenance Report the average time between two scheduled maintenance services.	Y	3,000 miles
7. Ozone Action Day Education Program Describe the status of the program.	Y	The TCEQ coordinates the forecasting and reporting of Ozone Action Days for the State of Texas.
8. Ozone Action Day Response Program Describe the public response program.	Y	
9. Resource Conservation Describe the status of the program.	Y	The agency as implemented several plans aimed at promoting energy and water conservation, as well as resource recycling. Most recently, the TCEQ submitted its Energy Savings Plan in conjunction with the Governor's Executive Order RP 49.
10. Shaded Parking Describe the status of the program.	Y	One parking garage provides shaded spaces for three stories of parking. One lot has a significant number of spaces shaded by trees.
11. Transportation Emission Reduction Measures (TERMs)		* Submit implementation status of each TERM to CAMPO. Report implementation status (Y/N) in middle blue column.

TxDOT-Austin

Reported by: Darcie Schipull	512/832-7039	Dschipu@dot.state.tx.us

Emission Reduction Measure

For all CAAP emission reduction measures that have been implemented, please enter a Y (yes) in the column to the right. Enter additional information in the Reporting Information column. **REPORTING PERIOD: NOV 2006 to APR 2007**	Has the program been implemented? (Y/N)	Reporting Information				
1. Alternative Fuel Vehicles Give the number (or percentage) of vehicles using alternative fuel.	Y	126				
2. Commute Solutions Programs	Y	carpooling	vanpooling	teleworking	public transportation	flexible or compressed work week
a. Give the number of employees participating in each of the programs.						**517**
b. Give the average number of miles traveled while commuting.						
c. Give the number of days per week that the program is used.						
3. Direct Deposit How many employees receive direct deposit?	Y	607				
a. Estimate the number of payments direct deposited per year per employee. (e.g. Bimonthly-26 payments)		12				
4. Fleet Vehicle Maintenance Report the average time between two scheduled maintenance	Y	approx. every 3000 or every 90 days				

services.		
5. Low VOC Roadway Striping Report the type of low VOC material and the average amount used. Be sure to include units.	Y	4,454,732 LF
6. Ozone Action Day Education Program Describe the status of the program.	Y	OUR CLEAN AIR PROGRAM IS MONITORED BETWEEN MAY thru October
7. Ozone Action Day Response Program Describe the public response program.	Y	
8. Resource Conservation Describe the status of the program.	Y	TxDOT Recycles Program
9. Transportation Emission Reduction Measures (TERMs)	Y	* Submit implementation status of each TERM to CAMPO. Report implementation status (Y/N) in middle blue column.
10. Tree Planting	Y	

ATTACHMENT 1 DPS REMOTE SENSING PROGRAM DETAILS

TEXAS ON-ROAD VEHICLE EMISSIONS TESTING PROGRAM
STATISTICAL INFORMATION FOR FISCAL YEAR 2007
SEPTEMBER 01, 2006 - MAY 31, 2007

SUMMARY FOR AUSTIN EARLY ACTION COMPACT AREA

RECORD COLLECTION

	TOTAL	UNIQ VEHS	SESSIONS	DAYS	SITES	VANS
RECORDS COLLECTED	3,888,186		874	184	114	8
CALIBRATION RECORDS	2,532					
INVALID RECORDS	23,880					
VALID RECORDS	3,861,774		842	181	114	8
NO LICENSE PLATE INFORMATION	574,481					
TEMPORARY LICENSE PLATE	27,354					
NON-PROGRAM VEHICLES	908,225					
PROGRAM VEHICLES	2,351,714	1,363,136				
NON-PROGRAM AREA VEHICLES	185,094	115,553				
PROGRAM AREA VEHICLES	2,166,620	1,247,583	827	178	113	8
DALLAS-FORT WORTH I/M AREA	1,073,501	621,429	355	160	53	3
HOUSTON-GALVESTON I/M AREA	774,179	415,583	332	152	36	4
EL PASO I/M AREA	121,417	72,170	34	24	7	3
AUSTIN EAC	**197,523**	***123248**	**81**	**76**	**11**	**2**
TRAVIS COUNTY	**162,158**	**101,843**	**59**	**54**	**7**	**2**
WILLIAMSON COUNTY	**35,365**	**24,059**	**22**	**22**	**4**	**1**

* MAY NOT EQUAL THE SUM OF UNIQUE VEHICLES SEEN IN EACH COUNTY DUE TO THE SAME VEHICLE BEING SEEN IN BOTH

HIGH EMITTER IDENTIFICATION

	IDENTIFIED	MAILED	NOTIFIED	PENDING	COMPLIED	VIOLATORS
STATEWIDE	1,183	1,120	656	176	313	165
DALLAS-FORT WORTH I/M AREA	614	611	334	86	150	98
HOUSTON-GALVESTON I/M AREA	407	403	250	57	130	63
EL PASO I/M AREA	71	71	54	26	26	0
AUSTIN EAC	**91**	**35**	**18**	**7**	**7**	**4**
AFFECTED COUNTY VEHICLES	**91**	**35**	**18**	**7**	**7**	**4**
TRAVIS COUNTY	**91**	**35**	**18**	**7**	**7**	**4**
WILLIAMSON COUNTY	**0**	**0**	**0**	**0**	**0**	**0**
ADJACENT COUNTY VEHICLES	**0**	**0**	**0**	**0**	**0**	**0**
BASTROP COUNTY	**0**	**0**	**0**	**0**	**0**	**0**
BELL COUNTY	**0**	**0**	**0**	**0**	**0**	**0**
BLANCO COUNTY	**0**	**0**	**0**	**0**	**0**	**0**
BURNET COUNTY	**0**	**0**	**0**	**0**	**0**	**0**
CALDWELL COUNTY	**0**	**0**	**0**	**0**	**0**	**0**
HAYS COUNTY	**0**	**0**	**0**	**0**	**0**	**0**
LEE COUNTY	**0**	**0**	**0**	**0**	**0**	**0**
MILAM COUNTY	**0**	**0**	**0**	**0**	**0**	**0**

ATTACHMENT 2: 3RD ROUND TERP REBATE PROGRAM AWARDS (AUSTIN AREA, 2007)

PROJECT ID	CONTRACT ID	LEGAL NAME	PRIMARY AREA	PRIMARY TYPE	PRIMARY EMISSION SOURCE	DESCRIPTION	GRANT AMOUNT	TOTAL NOX	ANNUAL TONS	TPD 2007
200730414RG	582783972027	BPM Leasing, LLC	Austin	Replacement	On-Road	Replace haul truck	$ 48,808.00	8.874	1.268	0.005
200730415RG	582783972027	BPM Leasing, LLC	Austin	Replacement	On-Road	Replace haul truck	$ 49,443.00	8.990	1.284	0.005
200730444RG	582783972028	Bedrock Stone & Design, Inc.	Austin	Replacement	On-Road	Replace flatbed truck	$ 49,443.00	8.990	1.284	0.005
200730445RG	582783972028	Blair Trucking, Inc.	Austin	Replacement	On-Road	Replace haul truck	$ 76,513.00	13.911	1.987	0.008
200730478RG	582783972029	Genaro Guerrero	Austin	Replacement	On-Road	Replace dump truck	$ 50,712.00	9.220	1.317	0.005
200730484SR	582783972030	Daniel Briseno	Austin	Replacement	On-Road	Replace dump truck	$ 50,289.00	9.144	1.306	0.005
200730501RG	582783972031	Ray Crain Trucking	Austin	Replacement	On-Road	Replace haul truck	$ 74,119.00	13.476	1.925	0.008
200730502RG	582783972031	Ray Crain Trucking	Austin	Replacement	On-Road	Replace haul truck	$ 73,820.00	13.422	1.917	0.008
200730503RG	582783972031	Ray Crain Trucking	Austin	Replacement	On-Road	Replace haul truck	$ 73,820.00	13.422	1.917	0.008
200730504RG	582783972031	Ray Crain Trucking	Austin	Replacement	On-Road	Replace haul truck	$ 77,410.00	14.075	2.011	0.008
200730505RG	582783972031	Ray Crain Trucking	Austin	Replacement	On-Road	Replace haul truck	$ 74,119.00	13.476	1.925	0.008
200730518RG	582783972033	P.C.W. Construction, Inc.	Austin	Replacement	On-Road	Replace dump truck	$ 55,854.00	10.155	1.451	0.006
200730519RG	582783972033	P.C.W. Construction, Inc.	Austin	Replacement	On-Road	Replace dump truck	$ 55,220.00	10.040	1.434	0.006
200730532SR	582783972034	Hence W. Irby, Jr.	Austin	Replacement	On-Road	Replace haul truck	$ 70,765.77	13.422	1.917	0.008
200730533RG	582783972034	Jose J. Cancino (dba Estrella Trucking Co., Inc.)	Austin	Replacement	On-Road	Replace dump truck	$ 19,639.00	3.571	0.510	0.002
200730543SR	582783972035	Alberto Carrillo	Austin	Replacement	On-Road	Replace dump truck	$ 49,443.00	8.990	1.284	0.005
200730572RG	582783972038	Vera's Trucking	Austin	Replacement	On-Road	Replace haul truck	$ 73,521.00	13.367	1.910	0.008
200730589SR	582783972039	William Marshal Copeland	Austin	Replacement	On-Road	Replace dump truck	$ 73,521.00	13.367	1.910	0.008
200730591RG	582783972039	Poldrack Grain & Cattle	Austin	Replacement	On-Road	Replace haul truck	$ 58,378.51	11.408	1.630	0.007
200730599SR	582783972040	James R. Brown	Austin	Replacement	On-Road	Replace haul truck	$ 76,513.00	13.911	1.987	0.008
200730600SR	582783972040	Eduardo Bustillos	Austin	Replacement	On-Road	Replace dump truck	$ 76,513.00	13.911	1.987	0.008
200730613SR	582783972041	Felix P. Loza	Austin	Replacement	On-Road	Replace dump truck	$ 55,576.00	10.105	1.444	0.006
200730614SR	582783972041	Greg D. Werchan	Austin	Replacement	On-Road	Replace dump truck	$ 50,289.00	9.144	1.306	0.005
200730637SR	582783972043	Simon P. Macias	Austin	Replacement	On-Road	Replace haul truck	$ 53,672.00	9.759	1.394	0.006
200730676RG	582783972046	Balli Trucking, Inc.	Austin	Replacement	On-Road	Replace haul truck	$ 73,820.00	13.422	1.917	0.008
200730677RG	582783972046	David Fenske	Austin	Replacement	On-Road	Replace haul truck	$ 73,521.00	13.367	1.910	0.008
200730710RG	582783972049	Don Farmer	Austin	Replacement	On-Road	Replace haul truck	$ 79,504.00	14.455	2.065	0.008
200730717RG	582783972047	H & H Foradory Construction, Inc.	Austin	Replacement	On-Road	Replace haul truck	$ 73,521.00	13.367	1.910	0.008
3rd ROUND							**$ 1,767,767**	**322.8**	**46.1**	**0.184**