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Bastrop
Blanco
Burnet
Caldwell
Fayette
Hays
Lee
Llano
Travis
Williamson
Counties

December 28, 2007

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

Mr. Buddy Garcia, 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 Garcia:

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 tenth and final semi-annual EAC report. During the reporting period, May 2007 through November 2007, all of the emission reduction measures committed to in the EAC, as adopted into the State Implementation Plan Revision, were completed. Information is also included in this report regarding implementation of voluntary measures and progress since the last report was submitted in June 2007.

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, 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, a summary of the draft document was posted on the CAPCOG web site for review and comment.

Elected officials and staff in central Texas have worked in partnership together with EPA and TCEQ EAC on these important regional air quality issues to bring about a successful completion of the EAC. 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

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

Protecting Texas by Reducing and Preventing Pollution

December 21, 2007

Mr. Guy Donaldson
Chief, Air Planning Section
U.S. Environmental Protection Agency – Region 6
1445 Ross Avenue, Suite 1200
Dallas, TX 75202-2733

Re: Early Action Compact (EAC) Milestones

Dear Mr. Donaldson:

This is in response to the November 16, 2007, letter from Mr. Diggs requesting information related to two milestones for the Early Action Compact (EAC) areas of Austin, Northeast Texas, and San Antonio. In his letter, Mr. Diggs requests (1) certified 2007 eight-hour ozone ambient air monitoring data and (2) a report that all applicable control measures have been implemented through December 2007.

The letter specifically requests that eight-hour ozone data through October 31, 2007, for all three EAC areas be certified and entered into the Environmental Protection Agency's (EPA) Air Quality System (AQS) by December 31, 2007. These 2007 data are currently in the process of being validated according to EPA's AQS protocol by the Texas Commission on Environmental Quality (TCEQ), as specified by 40 Code of Federal Regulations Part 58. Normally, these data would be entered into the AQS by the end of March 2008. Per Mr. Diggs' request, staff is attempting to expedite the work which may allow validated data through October 2007 to be entered sooner, but it may not occur until the end of January 2008. In the interim, please refer to *http://www.tceq.state.tx.us/cgi-bin/compliance/ monops/8hr_attainment.pl* for the most current ozone data for the EAC areas. Preliminary data show that all three Texas EAC areas are in attainment of the standard. Data for 2005 and 2006 were previously certified by the TCEQ's Monitoring Operations Division.

Mr. Diggs also requests an "EAC milestone report" for each of the areas, explaining that all applicable control measures have continued to be implemented through December 2007. All state measures in the SIP revision for each of the three areas have been, and will continue to be, implemented throughout the term of the compact. For information regarding the implementation of local measures, please refer to the semi-annual reports submitted by the respective local governments of each EAC area. The final EAC semi-annual reports are not due until December 31, 2007. However, a draft version of the Alamo Area Council of Governments' final semi-annual report for the San Antonio EAC area is available at *http://www.aacog.com/CAP/eacsemiannualreports/eacsemiannualreports.asp*. Draft versions of the reports are expected to be available soon for the Austin and Northeast Texas areas, and notification will be provided to you when they are available.

Re: Early Action Compact (EAC) Milestones

In summary, validated eight-hour ozone data through October 2007 for the Texas EAC areas will be entered into the AQS by March 2008 and semi-annual reports containing information regarding the implementation of control measures in the areas should be delivered to the TCEQ and the EPA by December 31, 2007. If you have any questions, please contact Walker Williamson of the State Implementation Plan (SIP) Team at (512) 239-3181.

Sincerely,

Theresa Pella
Section Manager
Air Quality Planning

TP/WW/sy

cc: Ms. Cathy Stephens, Capital Area MPO
Mr. Jim Mathews, Northeast Texas Air Care
Mr. Peter Bella, Alamo Area Council of Governments

10th 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

Dec 31, 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 10th and final Semi-annual progress report required by the EAC and accounts for EAC activities accomplished during the period May through October 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

- Installation of the Lake Georgetown ozone monitor
- Coordinated airborne sampling and assessment of ozone transport from major urban areas and neighboring power plants (Baylor University, 2007)
- Development of the conceptual model for the central Texas area (UT Austin, 2007)
- Conducted VOC sampling in central Austin and upwind and downwind of central Austin (CAPCOG, UT Austin, 2007)

Analysis of new source permit growth - The 1999 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.

Texas Low Emission Diesel (TexLED) control strategy evolution – CAPCOG contracted with Texas Transportation Institute (TTI) to estimate the emissions reductions that might be achieved by using a fuel additive for local diesel truck and bus fleets in order to reduce NOx emissions.

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 - CAF notifications sent out to more than 400 addressees for six ozone action days called for the 2007 ozone season

Clean Air Partners Program - **N**ew Clean Air Partners Program manager was hired and partners reporting completed for summer 2007 using new, web-based emission reduction reporting tool;

Clean School Bus Program – Purchased retrofit equipment for San Marcos ISD school buses using EPA grant funding

Enforcement of the Heavy Duty Vehicle Idling Restriction Rule

- 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 continued to identify high emitters in the area

Texas Emission Reduction Program (TERP) - More than 30 TERP applications were approved during the period resulting in more than 0.2 tons/day NOx emission reductions

Transportation Emission Reduction Measures (TERMS) Program

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

Local Voluntary Measures - Local/voluntary measures fully implemented

- Travis County, COA and CMTA are using a diesel fuel additive for their fleets which will significantly reduce NOx emissions (up to 6%)
- Energy efficiency/conservation measures beyond senate Bills 5 and 7 implemented by COA/Austin Energy
- 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 May 2007 to October 2007 reporting period and this will also be the final EAC semiannual report.

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 focused on airborne sampling and 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, to provide implementation support for maximum effectiveness of emission

reduction measures, to submit the final semi-annual EAC progress report and, most importantly, achieve attainment of the 8-hour ozone standard.

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

During the May 2007 through October 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. The 0ne-hour O_3 Flex commitments 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 has spent over $1.2 million on this work over the last three and the half 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 May 07 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 Caldwell Hays Travis Williamson	0.72	0.83	See Table 2.4	N/A	On-Road Mobile (NOx)	62.18
							On-Road Mobile (VOC)	33.79
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 Caldwell Hays Travis Williamson	0.67	0	30-Aug-05	1-Apr-06	On-Road Mobile - HDGV & HDDV	31.82
Portable Fuel Containers Rule	115.620-115.622, 115.626, 115.627, 115.629	Bastrop Caldwell Hays Travis Williamson	0	0.89	31-Dec-05	31-Dec-05	Area - Portable Fuel Containers (Commercial & Residential)	13.4
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 Caldwell Hays Travis Williamson	0	5.5	31-Dec-05	31-Dec-05	Area - Degreasing (Cold Cleaning)	9.38
Cut-Back Asphalt	115.510, 115.512, 115.513, 115.515-115.517, 115.519	Bastrop Caldwell Hays Travis Williamson	0	1.03	31-Dec-05	31-Dec-05	Area - Asphalt Applications	2.68
Texas Emission Reduction Plan (TERP)	N/A	Bastrop Caldwell Hays Travis Williamson	2	0	31-Dec-07	N/A	On-Road Mobile - LDDV, LDDT, & HDDV	28.79
							Off-Road Mobile - LDDV, LDDT, & HDDV	24.47
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 May 07 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 October 31, 2007, 1,413,671 initial emissions test were performed in the Austin area. The emissions only failure rate is 6.1% for this period as compared to 7.09%during

last reporting period. Table 2.2 provides the failure rate by model year for the Austin area during the period 05/01/2007 – 10/31/2007 and Table 2.3 shows a summary of the test results for this reporting period.

The program is performing as expected. There are approximately 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. The data on high emitters are collected from approximately 17 sites in Travis and Williamson counties at which remote sensing equipment is operated on a rotating basis. At least two remote sensing vans were available during 2007, which moved 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 May 01, 2007 to October 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 (May 2007 – October 2007.), Travis County issued 187 Repair Vouchers and 8 Replacement Vouchers with approximated total repair/replacement cost of $96k.

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

MODEL YR	OVERALL COUNT	OVERALL FAIL	OVERALL FAIL PERCENTAGE	EMISSIONS COUNT	EMISSIONS FAIL	EMISSIONS FAIL PERCENTAGE	OBD COUNT	OBD FAIL	OBD FAIL PERCENTAGE
2005	39048	1152	3	39048	754	1.9	38527	597	1.5
2004	40416	1550	3.8	40416	958	2.4	39859	802	2
2003	41065	2112	5.1	41065	1455	3.5	40485	1264	3.1
2002	42057	3076	7.3	42057	2106	5	41449	1856	4.5
2001	41326	3737	9	41326	2634	6.4	40515	2308	5.7
2000	38228	3734	9.8	38228	2473	6.5	37348	2185	5.9
1999	32059	3507	10.9	32059	2424	7.6	31264	2189	7
1998	26190	3344	12.8	26190	2425	9.3	25526	2258	8.8
1997	23026	3535	15.4	23026	2673	11.6	22234	2475	11.1
1996	17177	2954	17.2	17177	2292	13.3	16479	2136	13
1995	16187	1931	11.9	16187	1033	6.4	0	0	0
1994	12744	1695	13.3	12744	910	7.1	0	0	0
1993	9907	1497	15.1	9907	890	9	0	0	0
1992	7481	1320	17.6	7481	826	11	0	0	0
1991	6018	1075	17.9	6018	680	11.3	0	0	0
1990	4602	936	20.3	4602	618	13.4	0	0	0
1989	3612	749	20.7	3612	508	14.1	0	0	0
1988	2661	647	24.3	2661	482	18.1	0	0	0
1987	1948	542	27.8	1948	417	21.4	0	0	0
1986	1739	536	30.8	1739	464	26.7	0	0	0
1985	1414	517	36.6	1414	451	31.9	0	0	0
1984	1024	367	35.8	1024	323	31.5	0	0	0
1983	398	162	40.7	398	143	35.9	0	0	0

ASM COUNT	ASM FAIL	ASM FAIL PERCENTAGE	TSI COUNT	TSI FAIL	TSI FAIL PERCENTAGE	GASCAP COUNT	GASCAP FAIL	GASCAP FAIL PERCENTAGE	SAFETY COUNT	SAFETY FAIL	SAFETY FAIL PERCENTAGE
0	0	0	521	9	1.7	39048	172	0.4	38994	437	1.1
0	0	0	557	11	2	40416	167	0.4	40292	659	1.6
0	0	0	580	7	1.2	41065	222	0.5	40855	776	1.9
0	0	0	608	10	1.6	42057	329	0.8	41874	1177	2.8
0	0	0	811	14	1.7	41326	422	1	41123	1392	3.4
0	0	0	880	25	2.8	38228	333	0.9	38069	1587	4.2
0	0	0	795	20	2.5	32059	304	0.9	31908	1391	4.4
0	0	0	664	21	3.2	26190	236	0.9	26108	1243	4.8
0	0	0	792	32	4	23026	282	1.2	22966	1243	5.4
0	0	0	698	28	4	17177	249	1.4	17134	1012	5.9
0	0	0	16187	893	5.5	16187	184	1.1	16152	1025	6.3
0	0	0	12744	773	6.1	12744	172	1.3	12707	919	7.2
0	0	0	9907	786	7.9	9907	144	1.5	9822	734	7.5
0	0	0	7481	734	9.8	7481	124	1.7	7425	616	8.3
0	0	0	6018	606	10.1	6018	113	1.9	5959	515	8.6
0	0	0	4602	565	12.3	4602	80	1.7	4552	419	9.2
0	0	0	3612	463	12.8	3612	70	1.9	3556	325	9.1
0	0	0	2661	443	16.6	2661	72	2.7	2611	242	9.3
0	0	0	1948	394	20.2	1948	50	2.6	1913	195	10.2
0	0	0	1739	441	25.4	1739	49	2.8	1734	134	7.7
0	0	0	1414	439	31	1414	50	3.5	1414	135	9.5
0	0	0	1024	312	30.5	1024	38	3.7	1018	81	8
0	0	0	398	139	34.9	398	14	3.5	394	39	9.9

Table 2.2: Vehicle I&M Failure Rates by Model Year in Austin Area, Travis and Williamson Counties for May through October 2007 reporting period

Main Report

Period=05/01/2007 To 10/31/2007, Location=IM Area: Austin, Test Sequence=All Tests, Vehicle Type=All Types, Model Year=All

DESCRIPTION	TOTAL TESTS	% TOTAL TESTS	INITIAL TESTS (IT)	% IT	IT FAIL	% IT FAIL	INITIAL RETESTS (IR)	% IR	IR FAIL	% IR FAIL	OTHER RETESTS (OR)	% OR	OR FAIL	% OR FAIL
OVERALL TESTS	410,327	100.0%	373,573	91.0%	35,381	9.5%	32,212	7.9%	3,878	12.0%	4,542	1.1%	1,416	31.2%
EMISSION TESTS	410,327	100.0%	373,573	91.0%	22,812	6.1%	32,212	7.9%	3,741	11.6%	4,542	1.1%	1,386	30.5%
OBDII	333,686	81.3%	308,608	92.5%	15,159	4.9%	22,652	6.8%	2,282	10.1%	2,426	0.7%	629	25.9%
TAILPIPE	76,641	18.7%	64,965	84.8%	5,046	7.8%	9,560	12.5%	1,378	14.4%	2,116	2.8%	741	35.0%
ASM	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
TSI	76,641	100.0%	64,965	84.8%	5,046	7.8%	9,560	12.5%	1,378	14.4%	2,116	2.8%	741	35.0%
GASCAP	410,327	100.0%	373,573	91.0%	3,623	1.0%	32,212	7.9%	192	0.6%	4,542	1.1%	61	1.3%
SAFETY TESTS	408,580	99.6%	371,970	91.0%	15,722	4.2%	32,101	7.9%	483	1.5%	4,509	1.1%	91	2.0%

Table 2.3: Austin area summary of the inspection and maintenance program test results for May through October 2007 reporting period

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 at the beginning of the ozone season (April 2007).

3. **Stage 1 Vapor Recovery** - **Revision of Stage I 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).

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.

4. **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.

5. **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 2007, the TCEQ projects NOx reductions of **2.36** tons per day in 2009 from TERP projects, which does satisfy the regional NOx emission reduction goals. Table 2.4 gives the TERP status summary for Austin-RR MSA. During this reporting period TCEQ was 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. (see Attachment 2). 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.

TERP Summary (as of Nov 15, 2007)	**Austin (AUS)**
NUMBER OF PROJECTS	196
NUMBER OF ACTIVITIES	457
TOTAL NOx REDUCED (TONS)	4065.21
GRANT AMOUNT	$22,771,062
COST PER TON	**$ 5,601**
TONS PER DAY [TPD]OF NOx REDUCED IN 2009	**2.36**

Table 2.4 Summary of TERP projects for Austin Round Rock MSA (*TCEQ, Nov 2007*)

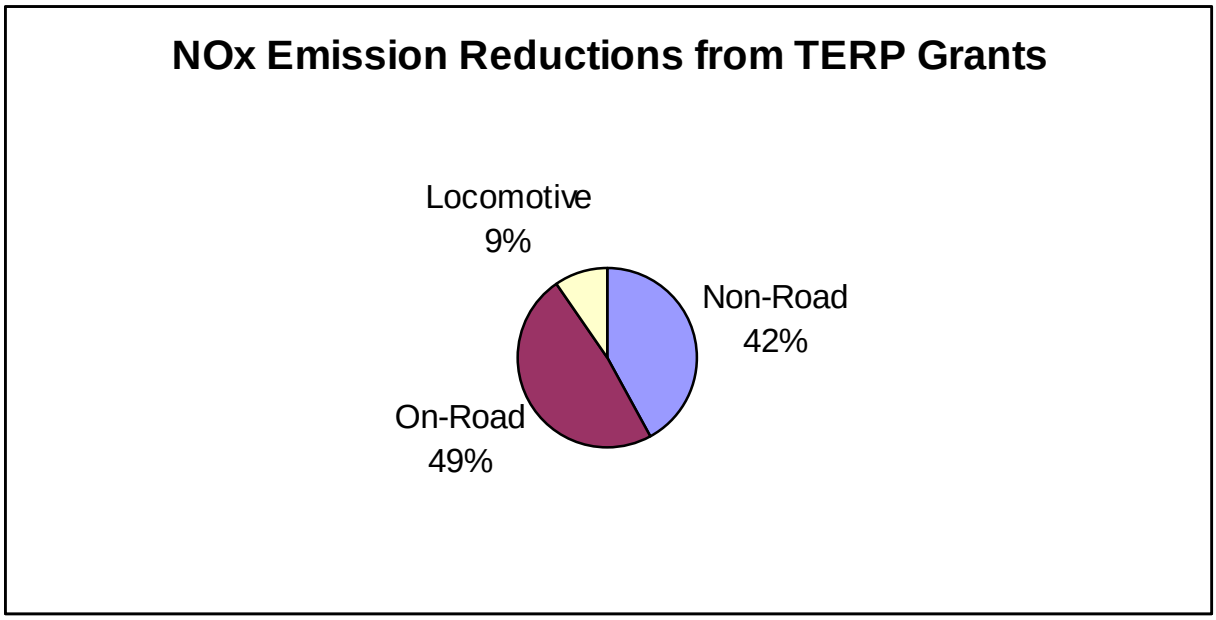


Figure 2.1 Actual NOx reduction and source allocation of TERP grants in the A/RR MSA

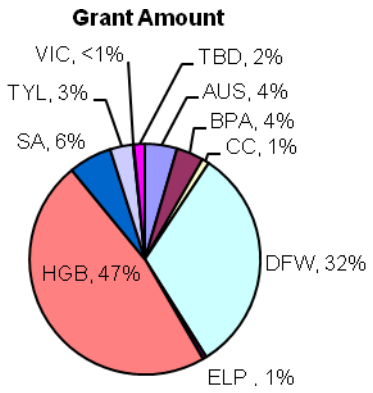


Figure 2.2: Allocation of TERP funds by location.

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 shut down Holly Units 3 and 4 in September 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 2.5.

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)

Table 2.5: Summary of Transportation Emission Reduction Measures (TERMS) for the EAC Clean Air Action Plan for the Austin-Eound Rock MSA Project Status and Emissions Report – Oct 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

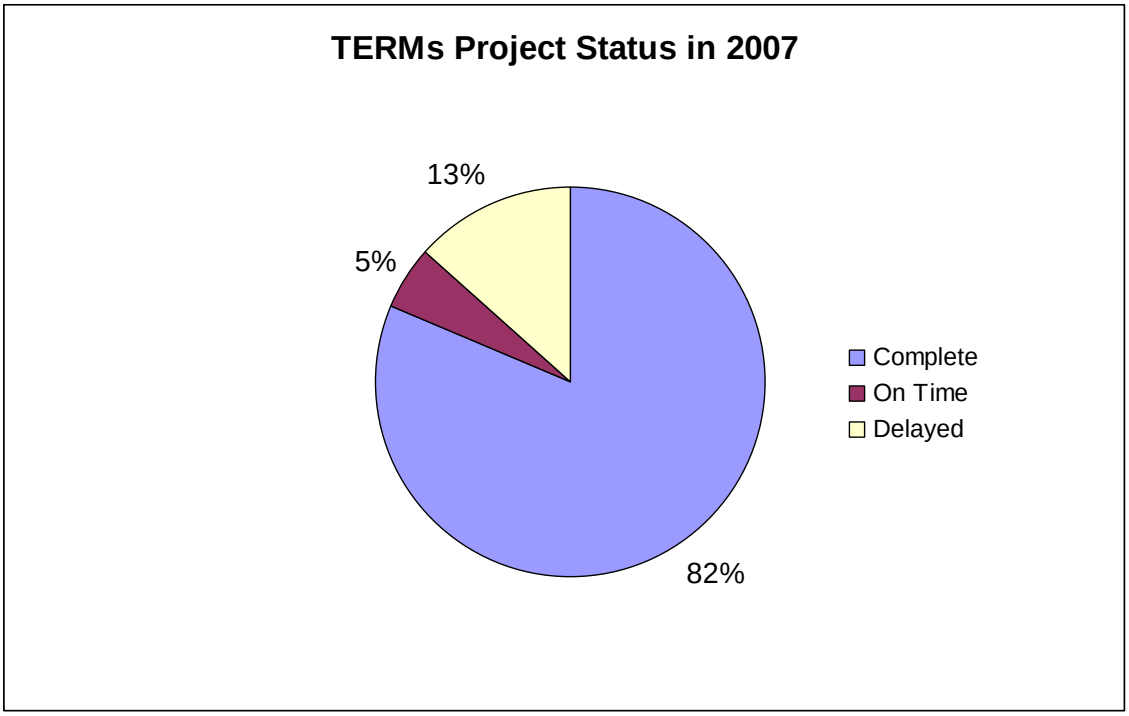


Figure 2.3 TERMs Project Status as of Oct 2007

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.

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 completed and data for summer of 2007 is being collected.

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 Wynn awarded with special recognition several Clean Air Partners for their achievements and commitments.

6TH ANNUAL ELECTRIC LAWNMOWER DISCOUNT PROGRAM

This program started and ended during last reporting period (*9th Semi Annual EAC Progress Report – Austin Round Rock MSA, 2007*)

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

A letter was written by the Clean School Bus Program Manager to all of the school districts in the five-county area to ask if they want to participate in the school bus retrofit program which CAPCOG is funding with a small EPA grant. One of the leading contenders for a grant award was Smithville I.S.D. CAPCOG issued a Request for Quotations for 38 DOC/CCV school bus retrofits to be installed on Smithville I.S.D. buses or other district buses. The RFQ left open the possibility that some of the retrofits could go to other districts in the five-county area depending on the number of buses that Smithville has retrofitted.

The Austin I.S.D. received its first hybrid electric school bus, the first such bus in the state of Texas. CAPCOG contributed $20,000 toward the purchase of the bus using funding from an EPA grant.

COMMUTE SOLUTIONS

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.

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 a new location near Lake Georgetown. Data from the Lake Georgetown site is available 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 ended on October 31st. During this reporting period, there was one exceedance of the 8-hour 84ppb standard. The highest value reported was 91 ppb, which was observed at the Austin Northwest (Murchison) C 03 site on September 21, 2007. There was a total of six ozone action days in the Austin area during months of August and September. Figures 3.2a, 3.2b, 3.2c, 3.2d, 3.2e and 3.2f show ozone concentrations for the months of May through October respectively. Figure 3.3 shows the entire season maximum 8-hr average daily ozone readings in the Austin Round Rock MSA.

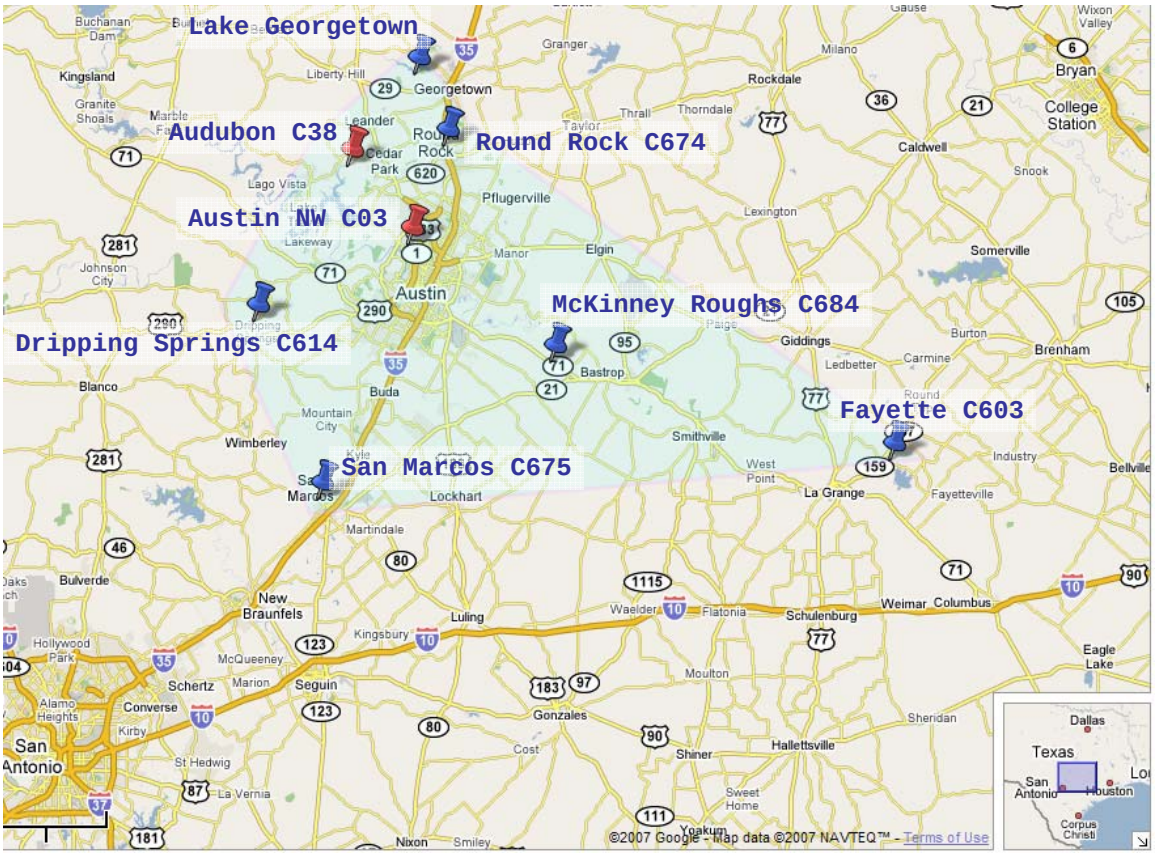


Figure 3.1 Austin region ozone monitoring network.

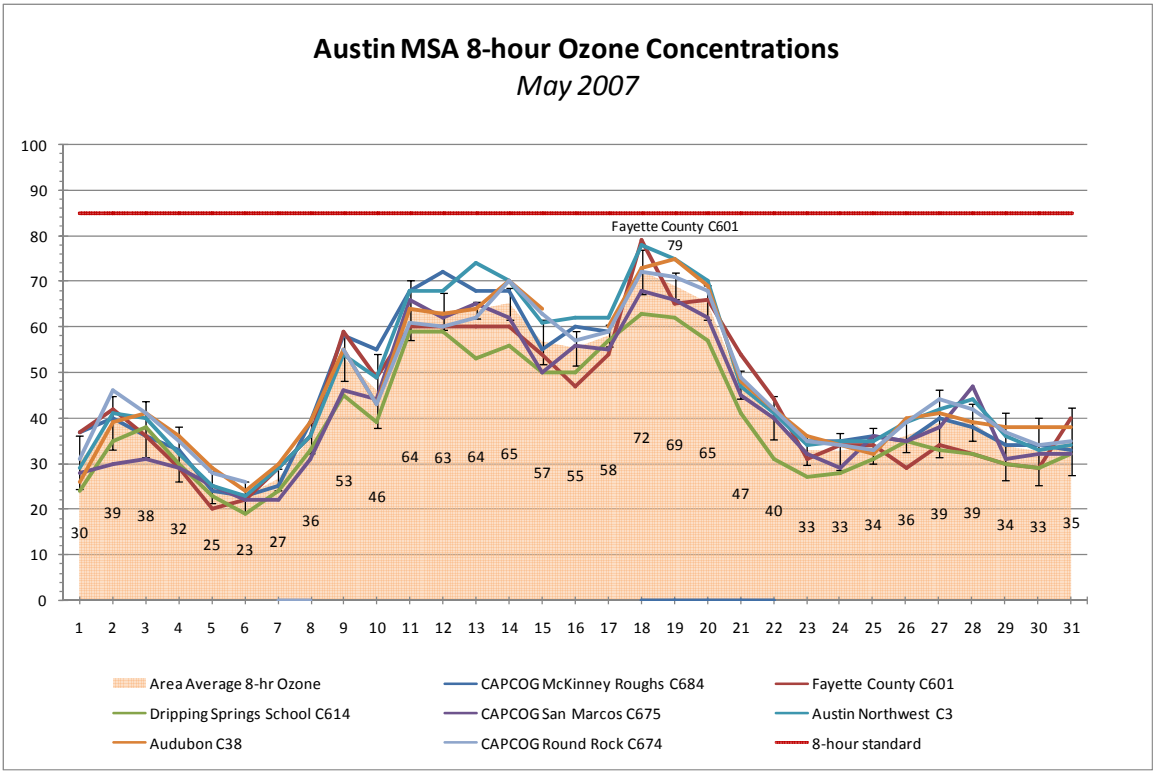


Figure 3.2a Austin-Round Rock MSA maximum daily 8-hr average ozone reading in ppb during month of May.

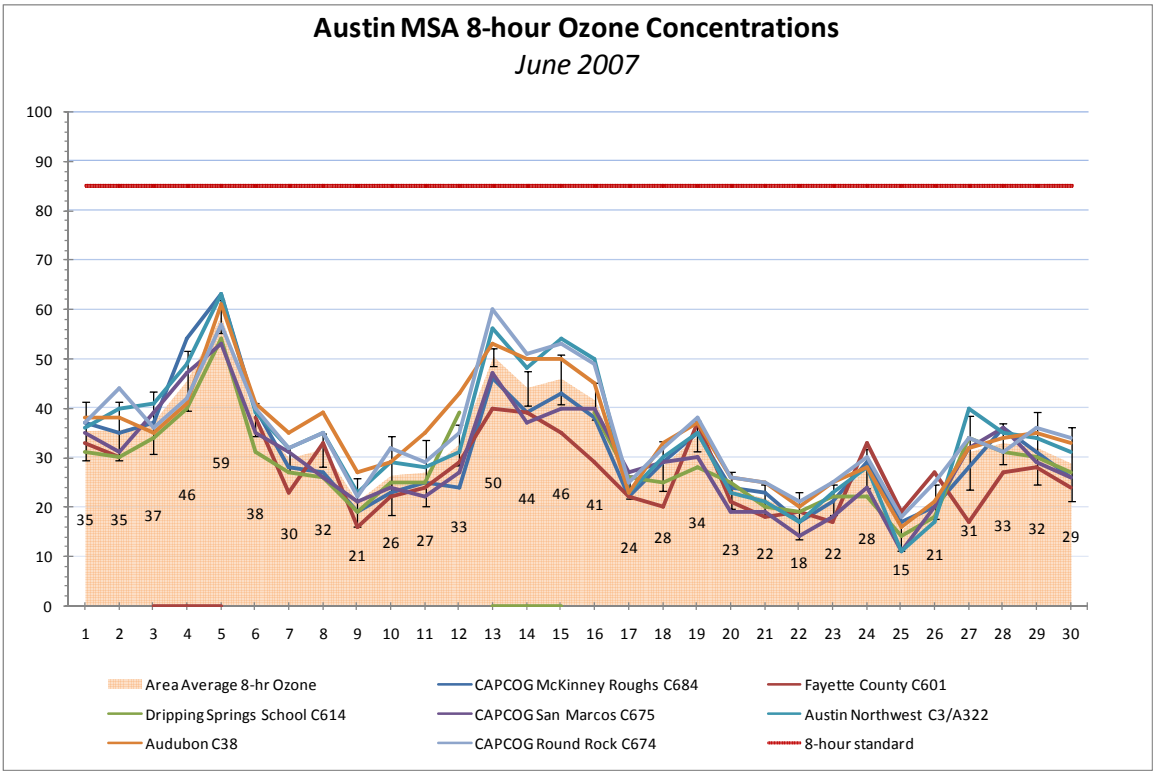


Figure 3.2b Austin-Round Rock MSA maximum daily 8-hr average ozone reading in ppb during month of June.

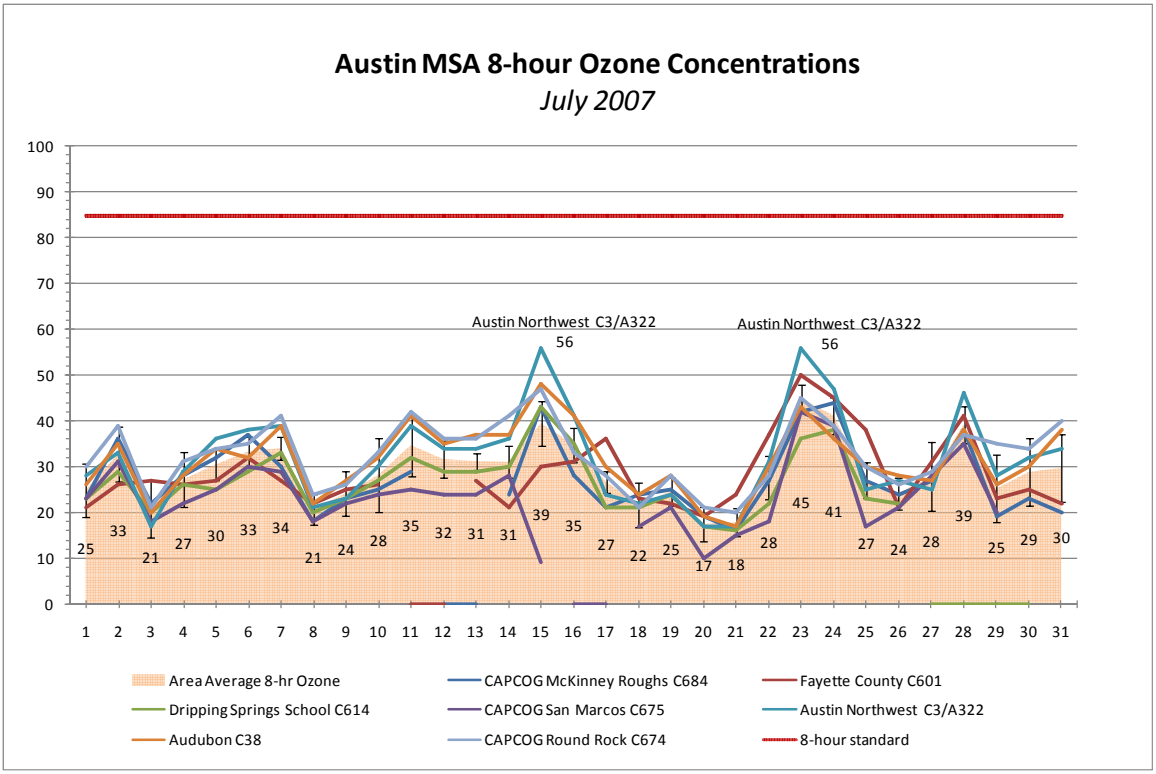


Figure 3.2c Austin-Round Rock MSA maximum daily 8-hr average ozone reading in ppb during month of July.

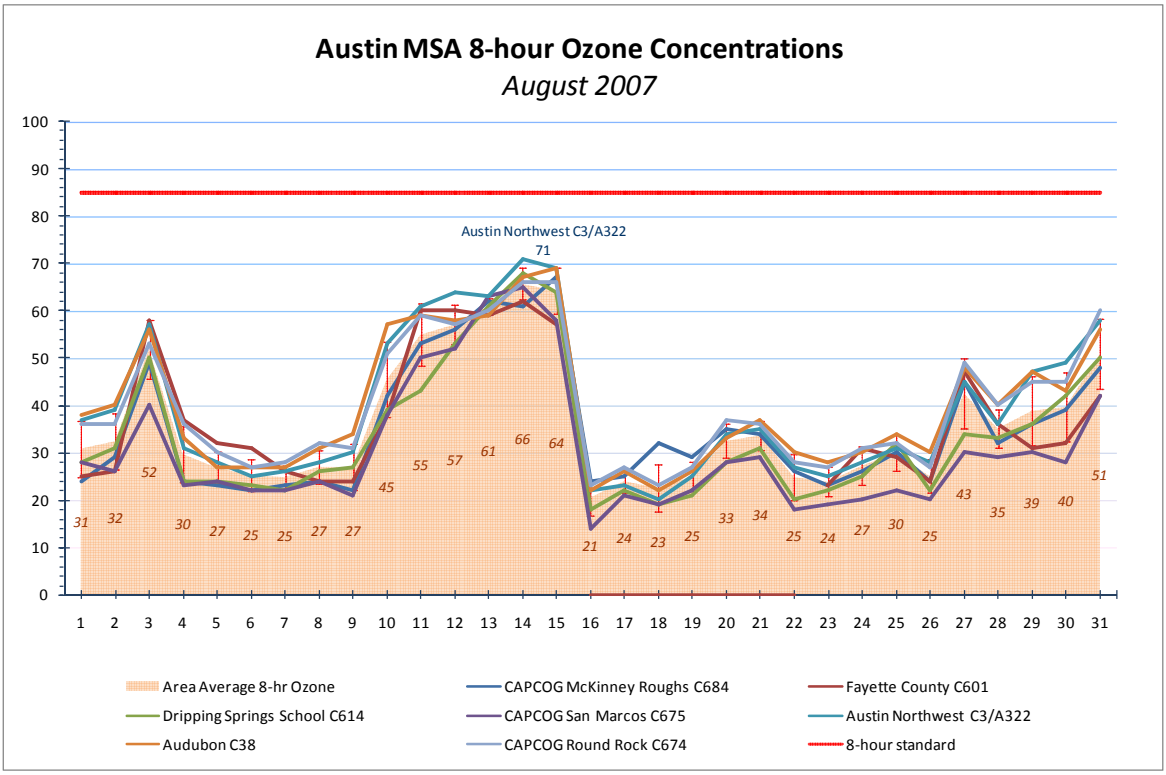


Figure 3.2d Austin-Round Rock MSA maximum daily 8-hr average ozone reading in ppb during month of August.

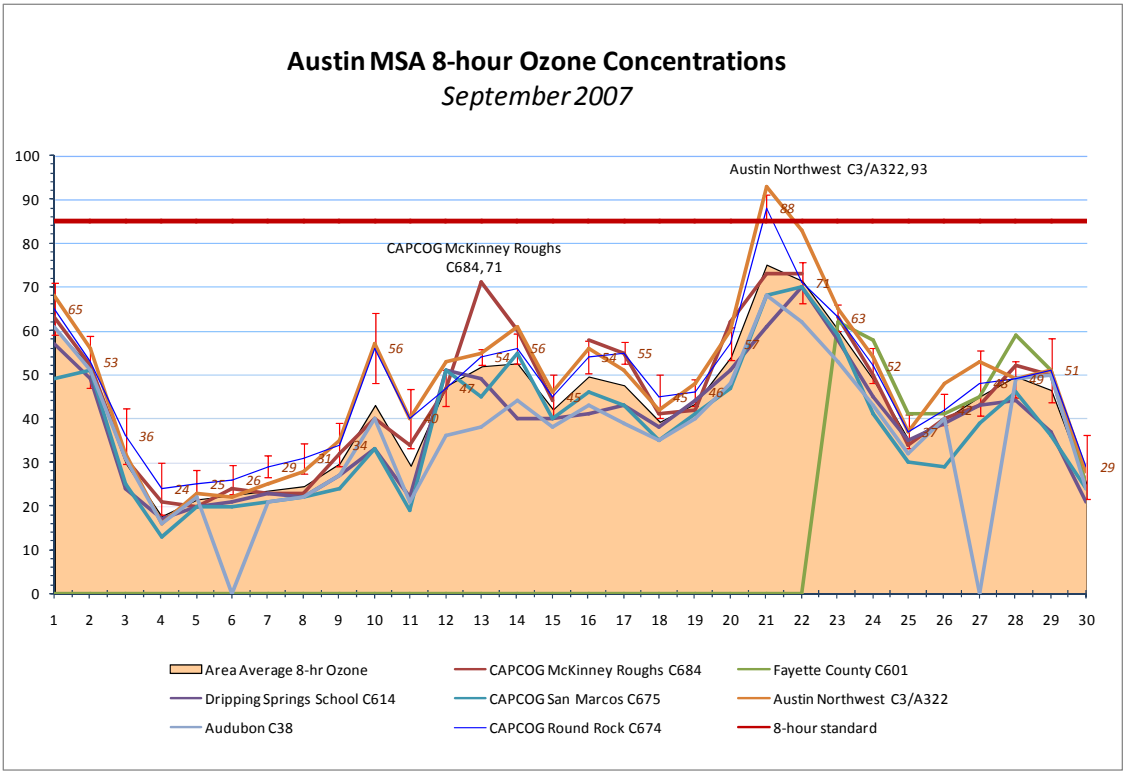


Figure 3.2e Austin-Round Rock MSA maximum daily 8-hr average ozone reading in ppb during month of September.

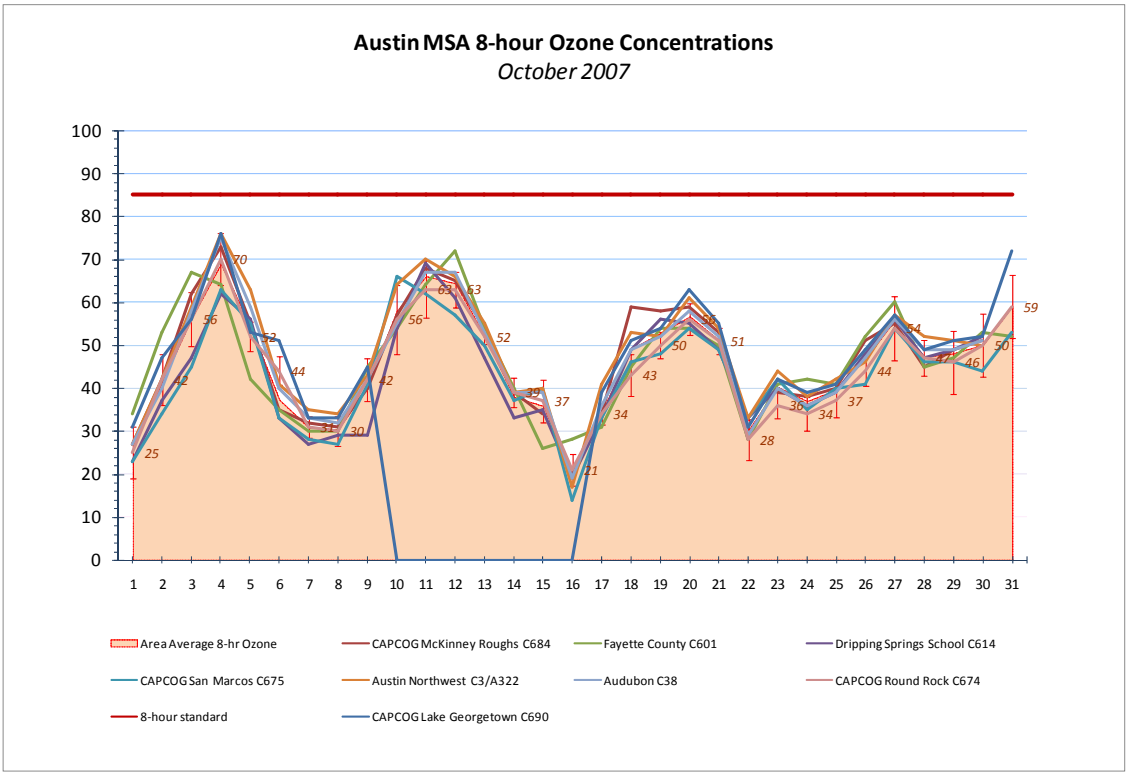


Figure 3.2f Austin-Round Rock MSA maximum daily 8-hr average ozone reading in ppb during month of October.

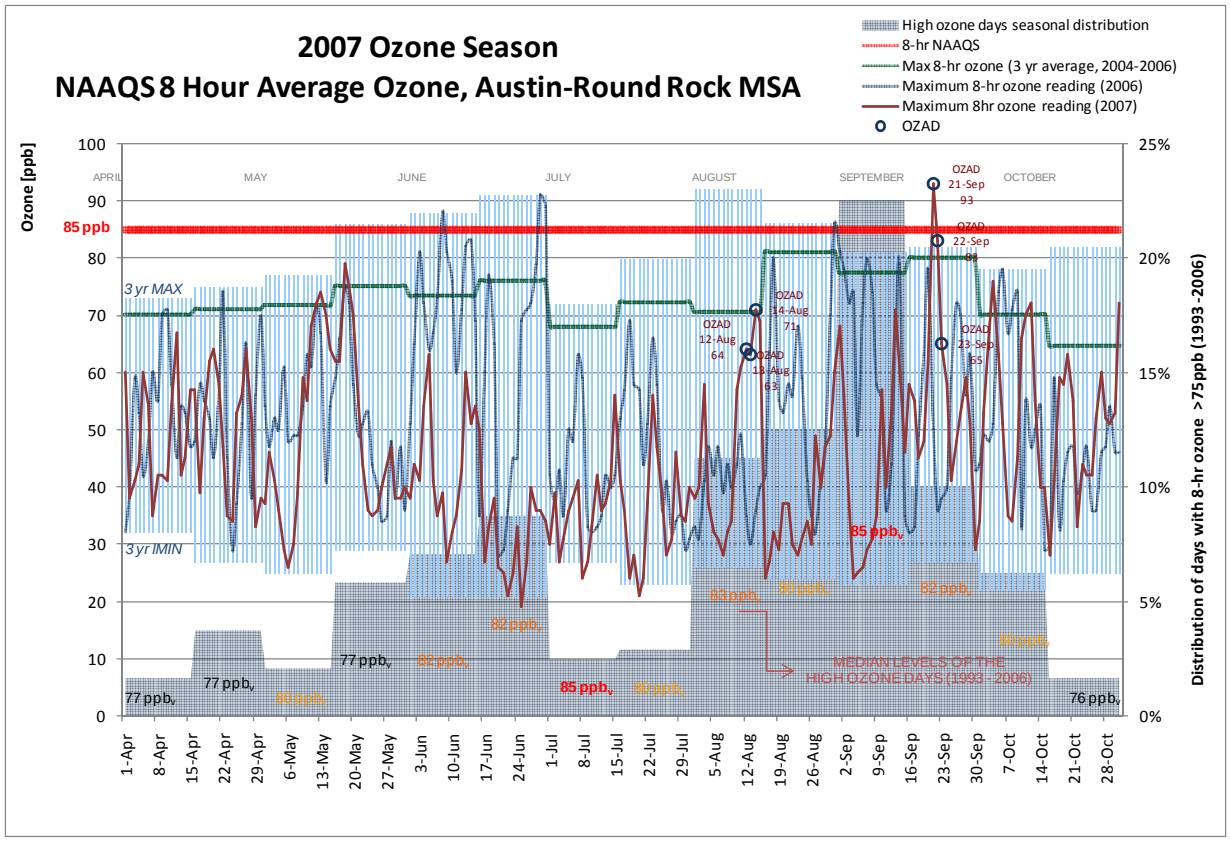


Figure 3.3 Austin Round Rock MSA 2007 ozone season with area's daily measurements of the maximum 8-hr ozone averages overlaid with historic data.

The design value in 2007[2] stayed below the NAAQS and it is calculated to be 80 ppb for Austin Northwest (NW) CAMS 03 and 77 ppb for Audubon CAMS 38 site, compared to 82 ppb and 81 ppb in 2006 for Austin NW CAMS 03 and Audubon CAMS 38 respectively. With the 2007 ozone season over and monitoring data reflecting continued attainment of the ozone NAAQS, the Austin region has fulfilled their EAC commitments and achieved the final EAC milestone. It is important to note that the area maintained an ozone design value below the 8-hr NAAQS during the entire EAC period (2003 – 2007). Figure 3.4 shows the ozone design value during the EAC period. The Austin RR MSA will continue with their efforts to maintain attainment through 2012.

[2] The design value is a three year average of the fourth highest value measured at each regulatory monitor from 2005, 2006 and 2007.

Figure 3.5 shows the 4th highest values for 2004 to 2007 for the Murchison and Audubon sites and the design values in 2006 and 2007 for the two regulatory monitors. Figure 3.6 shows 2007 ozone season fourth highest readings from all sites in the area.

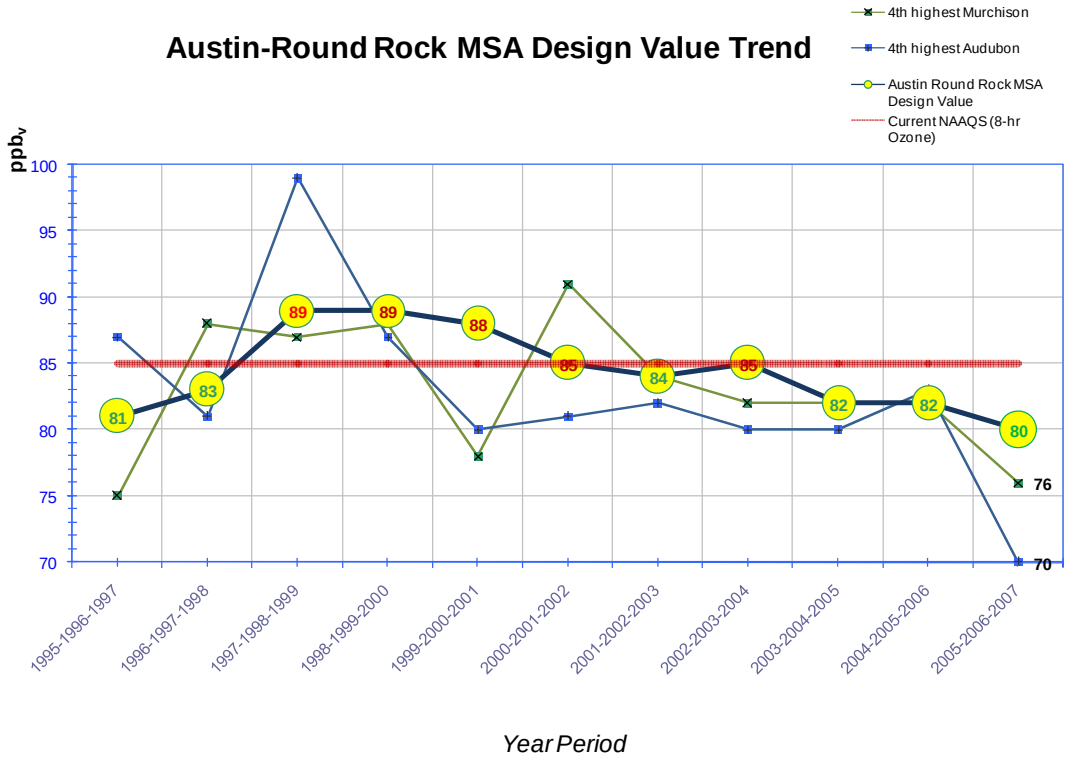


Figure 3.4 Austin Round Rock MSA 8-hr ozone design value trend (1997 – 2007).

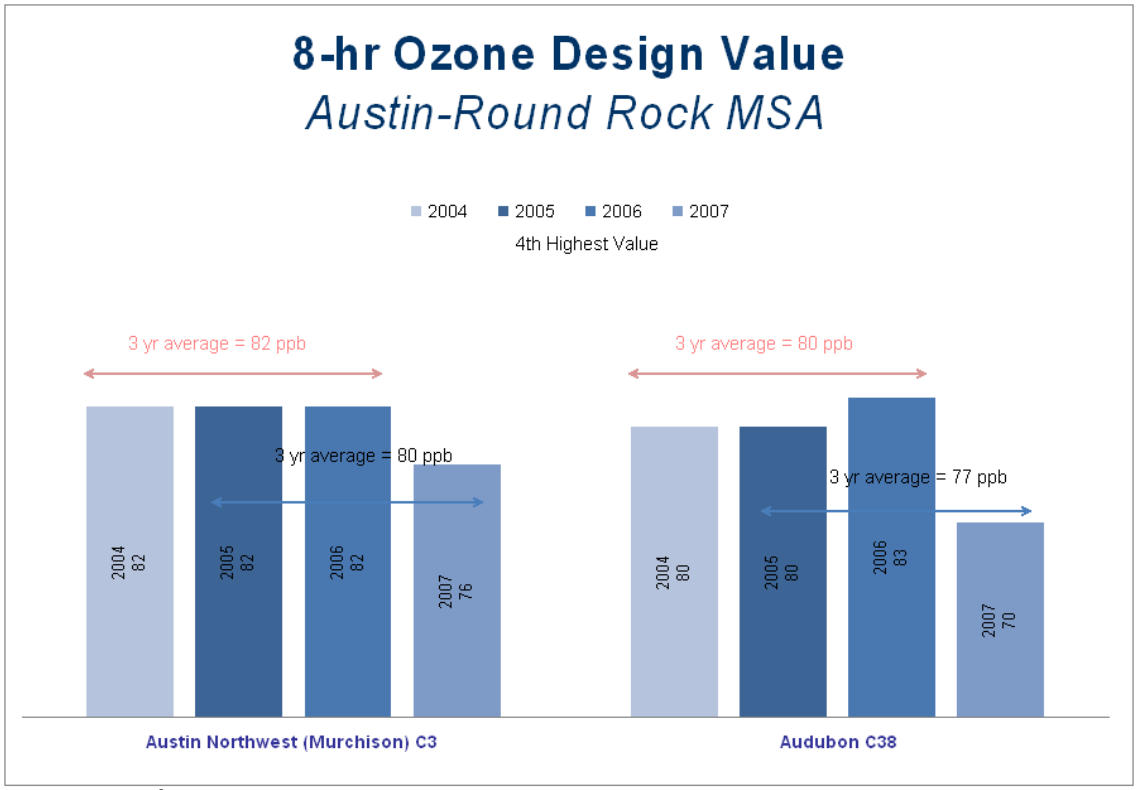
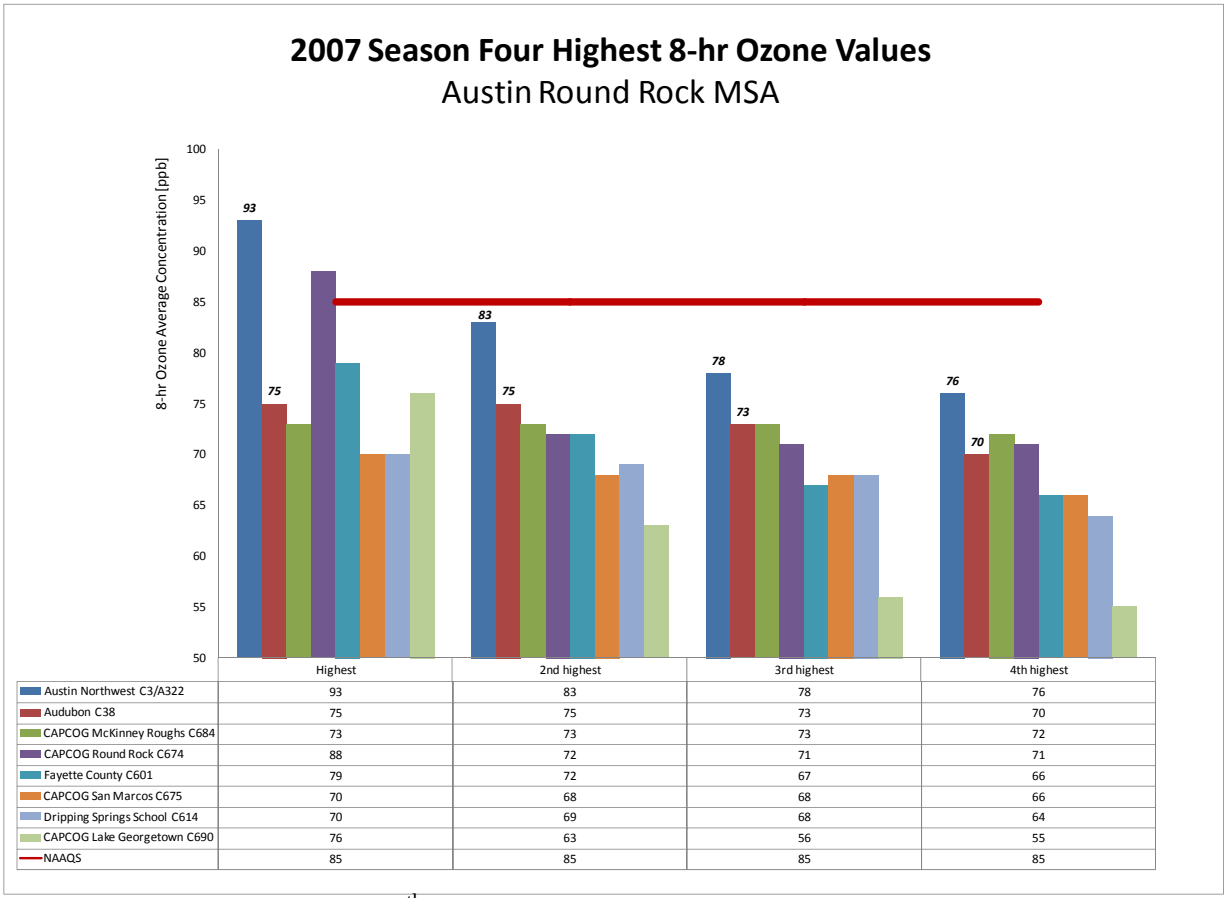


Figure 3.5 4th Highest Ozone Values and Three Year Averages for Austin MSA



	Highest	2nd highest	3rd highest	4th highest
Austin Northwest C3/A322	93	83	78	76
Audubon C38	75	75	73	70
CAPCOG McKinney Roughs C684	73	73	73	72
CAPCOG Round Rock C674	88	72	71	71
Fayette County C601	79	72	67	66
CAPCOG San Marcos C675	70	68	68	66
Dripping Springs School C614	70	69	68	64
CAPCOG Lake Georgetown C690	76	63	56	55
NAAQS	85	85	85	85

Figure 3.6 8-Hour Highest to 4th Highest Ozone Values for Austin MSA

Figure 3.7 shows day frequency in respect to ozone concentration. The comparison between 2007 and 2006 suggest that 2007 was considerably lower in number of high ozone days compared to 2006. Moreover the analysis of historical data indicate that in last 7 years high ozone days are distributed between June and September more evenly. Traditionally, 80% of all high ozone days (defined as all days with 8-hr ozone concentration above or equal 75ppb) would occur during month of September. Figure 3.8 shows seasonal distribution of high ozone days in Austin Round Rock MSA.

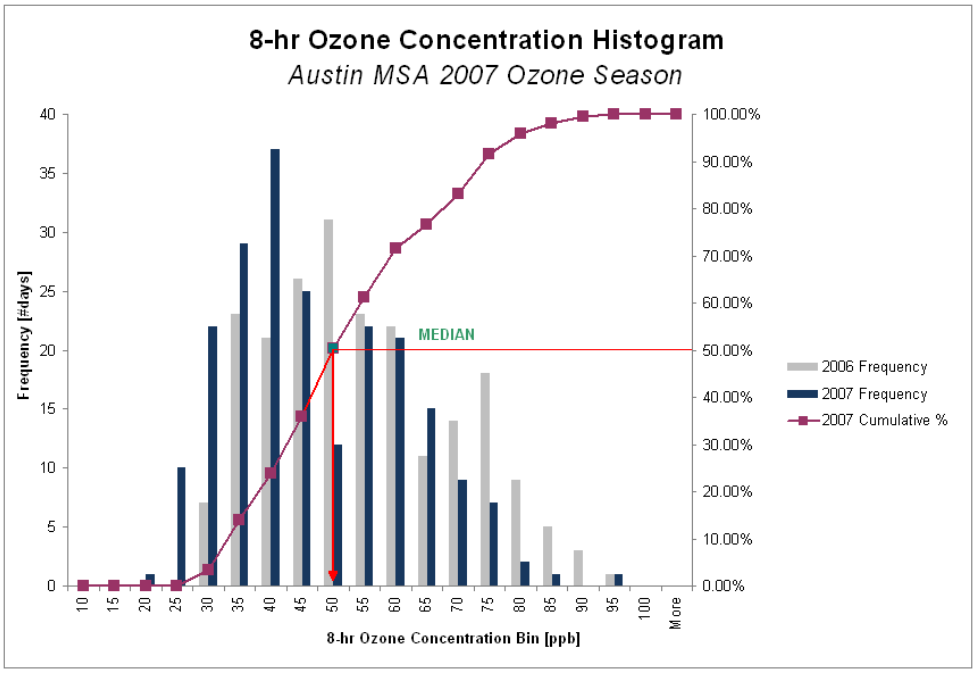


Figure 3.7 Ozone concentration and day frequency during 2007 season compared to last year (2006)

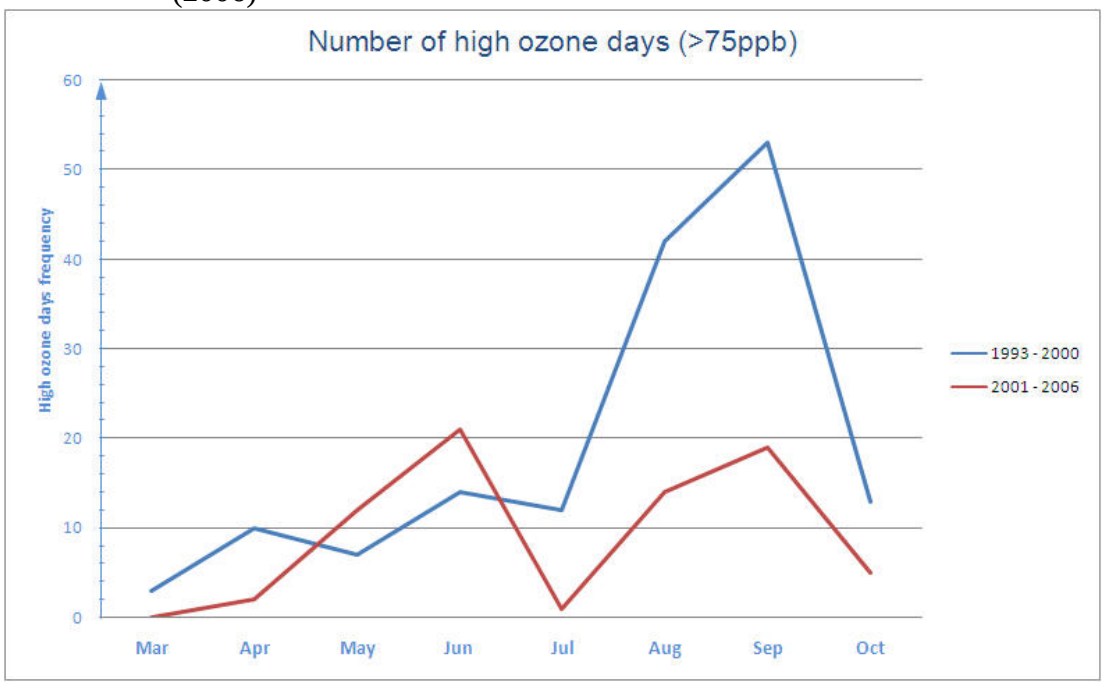


Figure 3.8 Seasonal distribution of high ozone days in last 6 years (red line) compared to previous seasons from 1993 - 2000 (blue line) (*UT Austin, 2006*)

Airborne Sampling of Power Plant Plumes and Urban Area Impact

CAPCOG contracted with Baylor University to conduct a series of aircraft-based monitoring flights. Four flights were conducted in 2007 using a Cessna Skyhawk C-172 N7562F. The final report is not yet available. However, preliminary results from a flight conducted on Sep 17, 2007 suggest long distance transport of an urban ozone plume from Houston to the Waco area. Figure 3.9 shows the flight track and ozone concentration for Sep 17, 2007 flight.

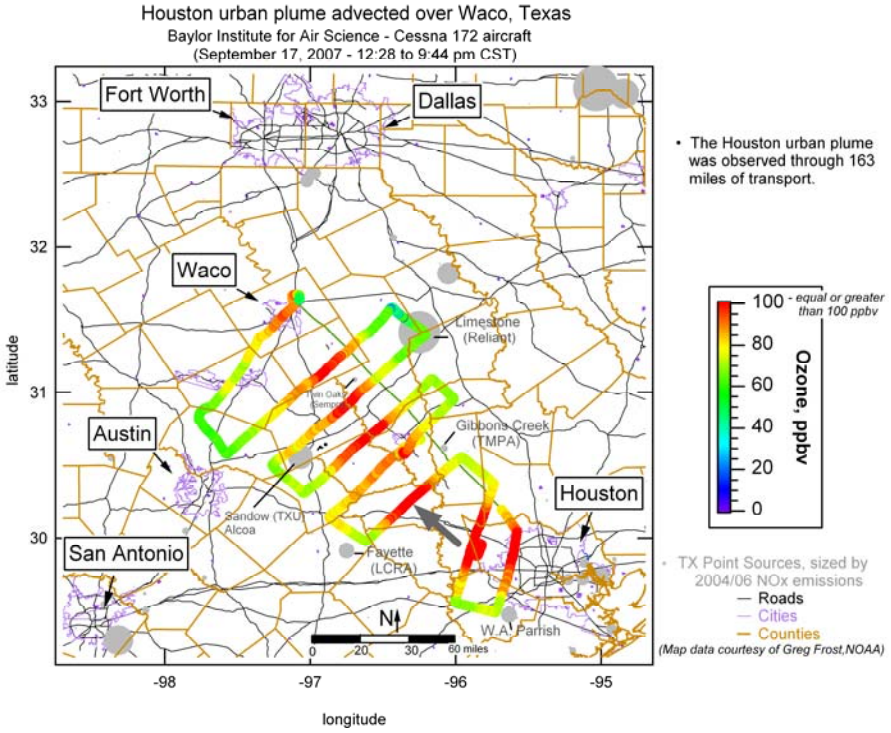


Figure 3.9 Houston urban plume transported to Waco area (September 17, 2007; Baylor Univ).

Development of the conceptual model for the central Texas area

The University of Texas at Austin presents a conceptual model of the large-scale weather patterns and associated local meteorological conditions typically experienced during high ozone episodes in the Austin Area.

ANALYSIS OF HIGH OZONE EPISODES

The HYSPLIT (Hybrid Single-Particle Lagrangian Integrated Trajectory) model was used to investigate the potential source regions of air entering the Austin Area. HYSPLIT uses meteorological model forecast data from the National Centers for Environmental Prediction (NCEP) archived by Air Resources Laboratory (ARL). Figures 3.10 and 3.11 present the residence time maps for the 20% highest ozone days for June and September based on the maximum ozone concentration at either the Murchison or Audubon monitoring station during the years 2001 through 2005. These back trajectories suggest long-range transport of continental air into Central Texas from upwind areas located to the east and northeast of Texas. Multi-day high ozone episodes are often associated with a ridge of high pressure that extends southwestward into Texas. The transport pattern prior to high ozone days is consistent with the large-scale clockwise circulation around this high pressure ridge. This high pressure ridge is often associated with local meteorological conditions that are favorable for the formation and accumulation of ground-level ozone. In addition, the continental air mass transported into Austin likely contains elevated concentrations of ozone and its precursor compounds associated with both biogenic and anthropogenic emissions from sources located in states and other areas of Texas upwind of Austin (*Conceptual Model of the Large-Scale Weather Features, Local Meteorological Conditions, and Long-Range Transport Patterns on High Ozone Days for the Austin Area*, UT Austin, 2007).

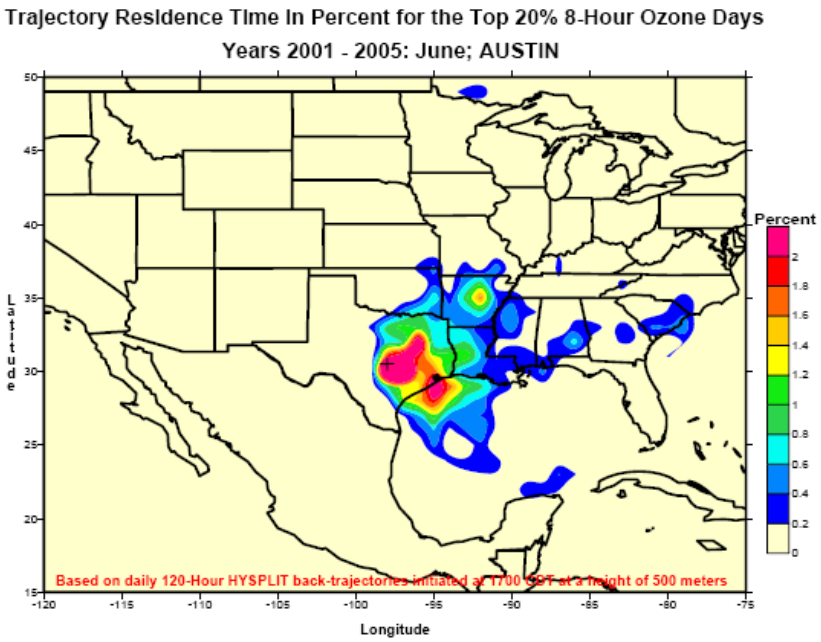


Figure 3.10 Trajectory residence time in percent for the highest 20% ozone days in June from 2001to 2005.

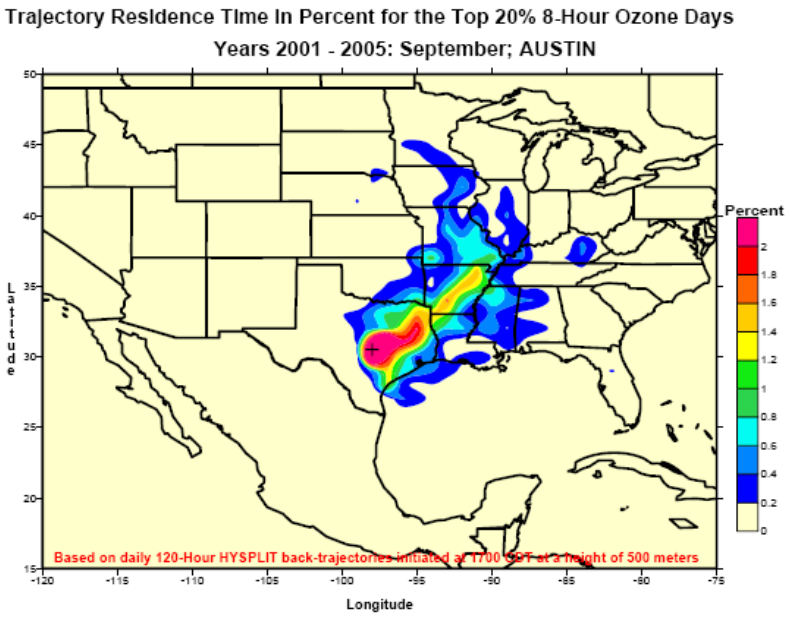


Figure 3.11 Trajectory residence time in percent for the highest 20% ozone days in September from 2001 to 2005.

According to the Austin Ozone Conceptual Model (The University of Texas at Austin, July 26, 2007), from 1993 through 2006, one or more monitoring stations measured 75 ppb or greater on 228 days. The number of high ozone days varied from a minimum of 6 in 1996 to a maximum of 34 in 1999. The frequency of occurrence of high ozone days over the course of a typical ozone season is characterized by a bi-modal distribution, with a primary peak in the frequency of high ozone days during the August through early October period and a secondary peak during late May and June. In recent years (2001 through 2006) the average number of late summer high ozone days declined substantially. The frequency of occurrence of high ozone days was equally distributed between the May/June and August/September peaks.

The common meteorological condition occurring with high ozone is a clockwise circulation around a surface ridge of high pressure, often centered over the Central Plains or Ohio/Mississippi River Valleys. It generates northeasterly or easterly wind that transports continental air and haze into eastern Texas. This continental air mass is often characterized by reduced visibility, and likely contains elevated concentrations of ozone and its precursor

compounds associated with both biogenic and anthropogenic emissions. High ozone concentrations are often measured at monitoring stations throughout the eastern half of Texas.

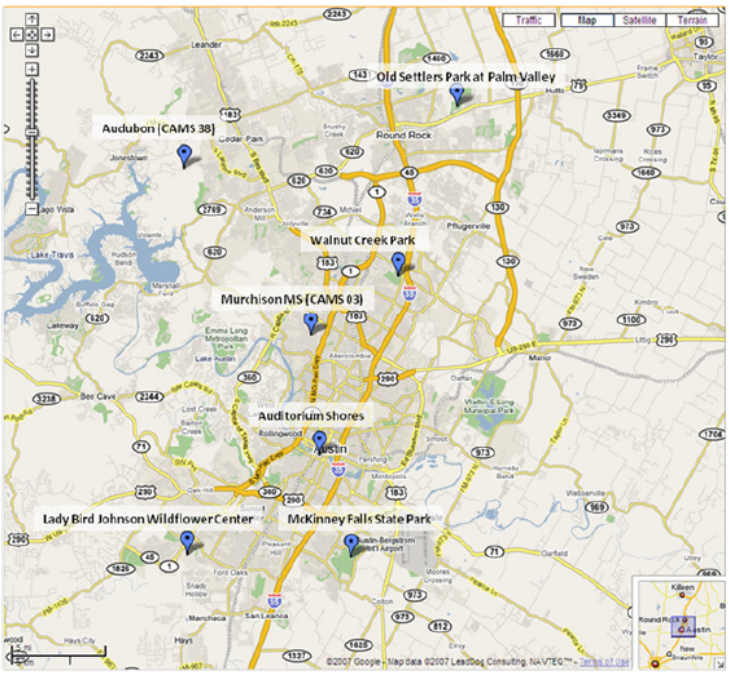
In the Austin-Round Rock MSA, monitoring data collected during these episodes shows background ozone concentrations of typically 80-85% of the observed local maximum. Based on these analyses, the enhancement of ozone concentrations due to emissions from sources within the Austin-Round Rock MSA generally ranged between 10 ppb and 20 ppb on individual high ozone days, with an average enhancement of 15 ppb. With background concentrations ranging from 65 ppb to 75 ppb, even relatively small contributions of ozone formed from local source emissions in the Austin-Round Rock MSA would have resulted in an exceedance of the 8-hour NAAQS of 0.08 ppm.

VOC Canister Sampling during 2007 Ozone Season

CAPCOG staff conducted VOC sampling on several days during 2007 season. The sampling time was determined based on temporal analysis results. Each sampling was performed at 2-3 of nine sampling sites which are grouped into categories depending on wind direction shown in Figure 3.12. The sampled data is still being processed by the Center for Energy and Environmental Resources (CEER), a department of the University of Texas at Austin.

VOC Canister Sampling MAP

2007 Ozone Season (Task 1.4)



- Auditorium Shores (950 W Riverside Dr Austin, TX 78704)
- McKinney Falls State Park (5808 McKinney Falls Parkway Austin, TX 78744)
- Old Settlers Park at Palm Valley (3300 E Palm Valley Blvd Round Rock, TX 78665)
- Walnut Creek Park (12138 N Lamar Blvd, Austin, TX 78753
- Lady Bird Johnson Wildflower Center (4801 La Crosse Ave, Austin, TX 78739)
- Murchison CAMS 03 (3724 North Hills Dr., Austin, TX 78731)
- Audubon CAMS 38 (12200 Lime Creek Rd Cedar Park, TX 78613)

Figure 3.12 Austin Round Rock MSA 2007 VOC sampling sites

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 analysis conducted to evaluate new and potential point sources proposed in the area.

NEW SOURCE PERMIT GROWTH: POWER PLANTS

TXU announced that they would build 3 EGUs: 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. In addition to TXU plans to build new boilers under permits granted by TCEQ, a permit application is under consideration by TCEQ for a third coal-fired boiler at the NRG Limestone facility location. It has been noted that all four units will be located north-east of the Austin area. Figure 3.13 shows location of new units and wind back trajectories residence time during top 20% ozone days for month of September (from 2001 – 2005) (*UT Austin, 2006*).

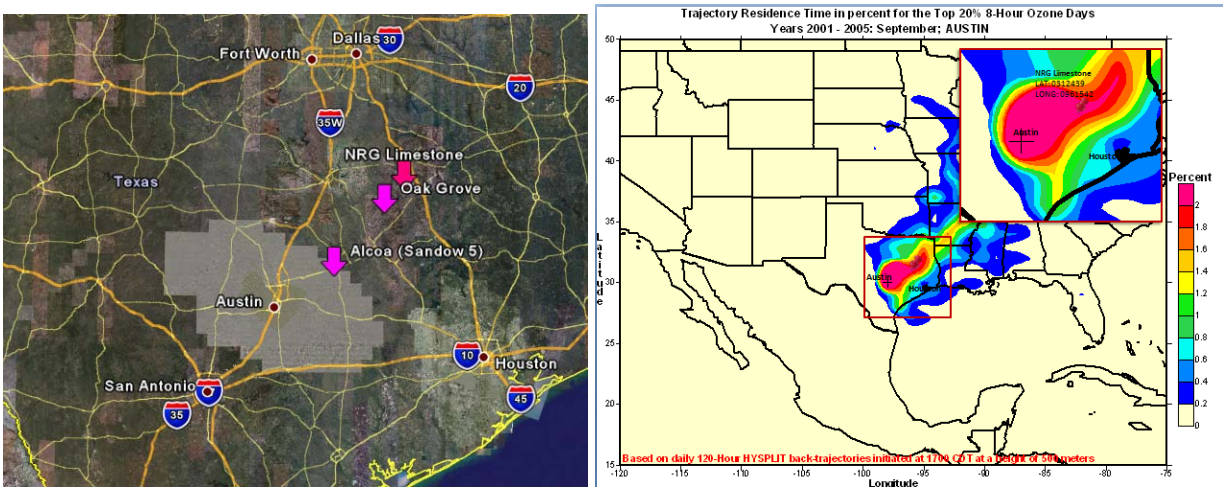


Figure 3.13 Location of new coal power plants (left; *Google Earth*) and wind back trajectories during high-season (*University of Texas at Austin, 2006*)

Several modeling studies were conducted earlier this year addressing impacts from new coal power plants under various meteorological conditions. Both the 2002 seasonal episode and the 1999 September episode were used with photochemical modeling tools in order to evaluate impacts from the proposed power plants. Table 3.1 shows Anthropogenic Precursor Culpability Assessment (APCA) seasonal modeling new sources impact assessment on Austin's two regulatory monitors using the 2002 seasonal model (UT Austin, 2007). The APCA analysis indicates that individual impact on Austin regulatory monitors from the proposed new power plants can be significant comparing to reductions achieved by EAC measures.

Monitor	Rank	8-hour Ozone (ppb)	Date (yyyymmdd)	TOTAL	LIMESTONE	SANDOW 5	OAK GROVE
Audubon (CAMS 38)	1	90.46	20020708	**2.22**	0.07	0.85	0.61
	2	85.05	20020913	**2.21**	0.13	0.37	0.56
	3	82.82	20020914	**0.38**	0.00	0.01	0.01
	4	82.82	20020826	**0.33**	0.01	0.03	0.04
	5	82.4	20020830	**1.08**	0.02	0.67	0.19
	6	81.76	20020912	**2.27**	0.13	0.21	0.42
	7	81.32	20020829	**2.80**	0.13	0.62	0.63
	8	78.74	20020807	**0.75**	0.03	0.33	0.13
	9	78.64	20020607	**1.24**	0.04	0.80	0.07
	10	78.25	20020831	**0.81**	0.01	0.59	0.12
			AVERAGE	**1.41**	**0.06**	**0.45**	**0.28**
Murchison (CAMS 3)	1	87.34	20020708	**2.85**	0.13	0.71	0.88
	2	85.05	20020913	**2.21**	0.13	0.37	0.56
	3	82.82	20020826	**0.33**	0.01	0.03	0.04
	4	80.85	20020830	**1.26**	0.04	0.64	0.30
	5	79.28	20020914	**0.39**	0.00	0.00	0.01
	6	79.09	20020829	**3.06**	0.14	0.47	0.63
	7	78.74	20020807	**0.75**	0.03	0.33	0.13
	8	78.64	20020607	**1.24**	0.04	0.80	0.07
	9	76.84	20020707	**0.61**	0.00	0.56	0.01
	10	76.09	20020902	**0.14**	0.00	0.09	0.01
			AVERAGE	**1.28**	**0.05**	**0.40**	**0.26**

Table 3.1 Assessing the air quality impacts on Austin's regulatory monitors associated with the proposed operation of four new coal-fired power plants in Texas using Anthropogenic Precursor Culpability Assessment (APCA) for a June through September 2002 seasonal model and 2009 anthropogenic emissions

ESTIMATION OF EMISSIONS FROM DIESEL ADDITIVES

The Texas Transportation Institute (TTI) finalized a project to estimate the emissions reductions that might be achieved by using a fuel additive in diesel truck and bus fleets in the Austin area to reduce NOx emissions. The objective of this study was to quantify three of the contingency measures being evaluated by the Early Action Compact (EAC) Task Force for possible inclusion in the central Texas eight-hour Ozone Flex Plan menu of contingency measures. The three measures include:

- use of a NOx emissions-reducing additive to diesel fuel in school district bus fleets;
- use of a fuel additive to reduce NOx emissions in company diesel truck fleets larger than 10 trucks; and
- use of a NOx emissions-reducing additive to diesel fuel in municipal and regional transit bus fleets.

The estimated reductions were for a typical ozone season weekday (e.g., the September episode used for the area's EAC inventories) for each year of the 2008 through 2013 period.

Analyses were based on existing recent Austin EAC area inventories to the extent possible. Table 3.2 and Figure 3.14 show cumulative reductions in NOx emissions due to the use of diesel fuel additive (i.e. TxLED equivalent fuel) for the entire heavy duty diesel fleet in the Austin Round Rock MSA area over the period of six years. Reductions are grouped in three categories: transit buses, school buses and heavy duty diesel trucks.

Year	Transit Bus	School Bus	Trucks	Total
2008	79.5	109.0	311.7	500.2
2009	74.4	106.1	278.3	458.8
2010	69.7	103.3	248.4	421.4
2011	65.3	100.6	223.4	389.3
2012	61.1	97.9	198.0	357.0
2013	57.2	95.3	171.4	323.9
Total	**407.2**	**612.2**	**1,431.2**	**2,450.6**

Table 3.2. TxLED equivalent diesel fuel additive NOx reductions by year and vehicle category. (NOx in Pounds per Day)

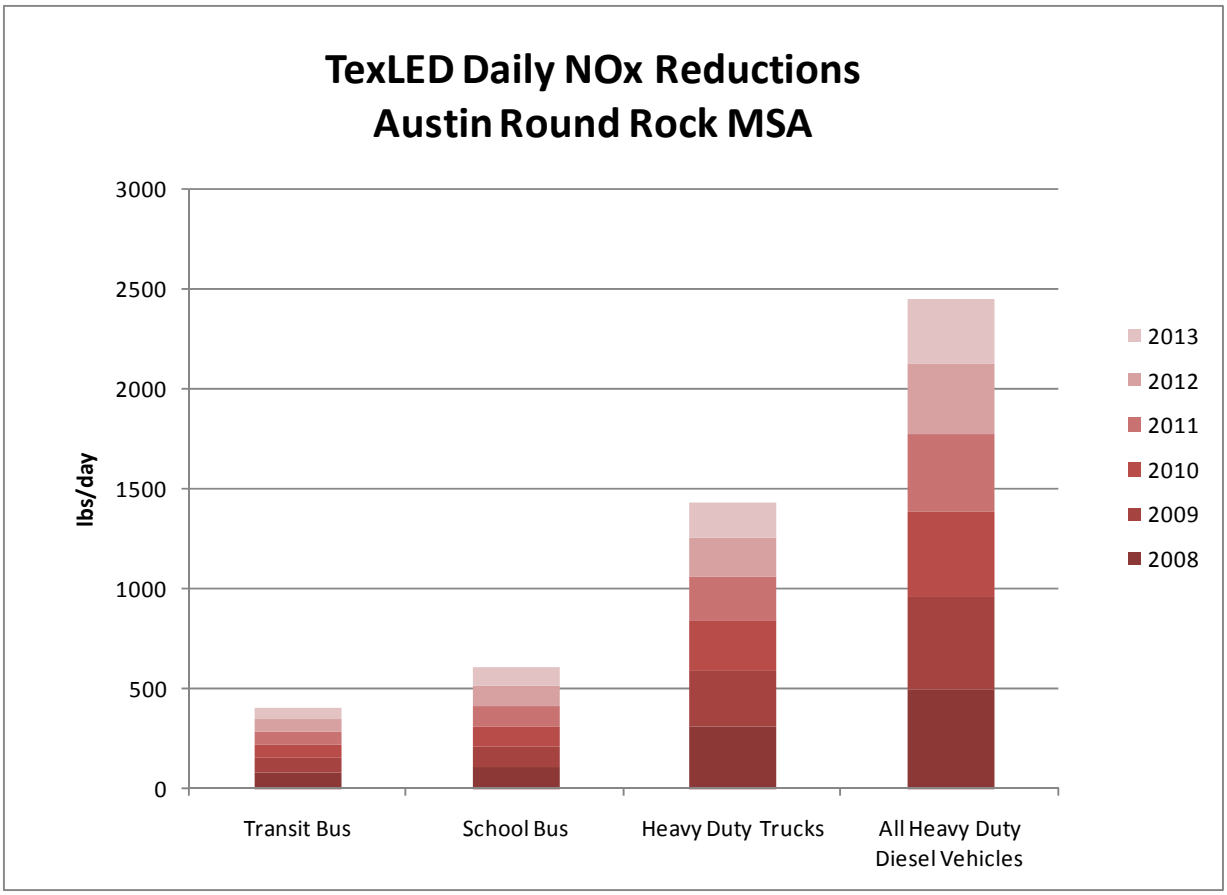


Figure 3.14 Estimated Daily NOx Reductions by Year and Reduction Strategy. (NOx in Pounds per Day)

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 Area 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 during this reporting period 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.

Clean Air Coalition (CAC), CLEAN AIR Force of Central Texas (CAF) and EAC Task Force Air Quality/EAC Public Outreach Activities & Meetings
May 1st, 200 – October 31th, 2007

- CAF Air Quality/Clean School Bus Workshop for Hays County Commissioners Court - May 1st
- CAF Electric Lawnmower Event at Home Depot Sunset Valley - May 5th
- CAF Meeting with KXAN re: PSA Contest - May 9th
- Early Action Compact Task Force Meeting - May 10th
- CAF Booth at Fresh Air Friday at Waller Creek - May 11th
- CAF Electric Lawnmower Event at Home Depot Arbor Walk - May 12th
- New Clean Air Partner, Clean Air Lawn Care Joins - May 18th
- Commute Solutions Meeting - May 23rd
- CAF Ad in Green Issue of The Chronicle - May 25th
- Commercial Shoot of 1st place PSA winner with KXAN at Arboretum - May 30
- CAF Booth at Bastrop County Health Fair - June 2nd
- CAF Ad in Northwest Hills Neighborhood News Online - June 5th
- CAF Executive Committee and Board of Directors Meetings - June 6th
- CAF Public Involvement Meeting - June 7th
- CAF Booth at Fresh Air Friday at TLC - June 8th
- Region's elected officials speak at TCEQ meeting on Oak Grove Permit Approval – June 13th
- North Arizona University Interview for Sustainable Cities Project – June 13th
- Early Action Compact Task Force Meeting - June 14th
- CAF Quote in Capital Metro Diesel Additive Press Release – June 19th
- CAF Public Involvement Meeting - June 21st
- Clean Air Coalition Meeting - June 27th
- CAF Technical Advisory Committee (TAC) meeting - June 28th

- CAF Cross-Road Banner at 1216 S. Lamar - July 2nd to16th
- Early Action Compact Task Force Meeting - July 12th
- Meeting with URS – July 12th
- CAF Officers Meetings re: Oak Grove – July 13th
- CAF TAC Subcommittee on Proposed Ozone Standards Conference Call - July 16th
- CAPP Reporting Request Sent to Partners - July 18th
- Commute Solutions Meeting - July 19th
- CAF Public Involvement Meeting - July 19th
- Executive Committee Meeting re: Oak Grove – July 20th
- CAF Booth at Fresh Air Friday at RBJ - July 20th
- CAF Cross-Road Banner at 100 W. Riverside - July 30 - August 13th
- Conference Call with Chamber of Austin – August 2nd
- CAF Website Redesign Research begins - August 3rd
- Early Action Compact Task Force Meeting - August 9th
- CAF Notifies Public of OZAD #1 – August 12th
- KLBJ 590 Interview on Ozone Season – August 13th
- CAF Notifies Public of OZAD #2 – August 13th
- CAF Notifies Public of OZAD #3
- CAF Public Involvement Meeting - August 16th
- Meeting with KXAN re: Going Green Edition – August 16th
- CAF Booth at Fresh Air Friday at One Texas Center - August 17th
- CAF TAC Subcommittee and TAC Meetings - August 23rd
- KXAN Interview on OZADs – August 24th
- 8-hour O3 Flex Planning Meeting at CAMPO – August 24th
- CAF ED Makes Presentation at Commute Solutions Kick-off Rally – August 29th
- CAF Ad in University of Texas' Daily Texan Newspaper - August 30th
- CAF/Austin City Limits Ads Air on KGSR – September 1st to 10th
- CAF Cross-Road Banner at 807 Red River - September 3- 17th
- CAF Ad in Texas State's University Star Newspaper - September 5th
- CAF Public Involvement Committee Meeting - September 6th
- CAF Booth at Commute Solutions Month Kick-off at Republic Square Park - September 7th
- CAF Executive Committee and Board of Directors Meetings - September 13th
- Early Action Compact Task Force Meeting at Chamber of Austin – September 13th
- CAF booth at Fresh Air Friday Event at Ed Bluestein Center - September 14th
- CAPP Final Reporting Deadline - September 14th
- CAF Booth at Commuter Fair at Hobby Complex - September 18th
- CAF Public Involvement Meeting - September 20th ,
- CAF Notifies Public of OZAD #4 – September 21st , of OZAD #5 – September 22nd , of OZAD #6 – September 23rd
- Clean Air Coalition Meeting – September 26th
- CAF Technical Advisory Committee Meeting – September 27th
- CAF Cross-Road Banner at 2674 N. Lamar - September 24 - October 8th

- CAF Cross-Road Banner at 3505 Steck Avenue - September 24 - October 8th
- CAF Cross-Road Banner at 2720 Walsh Tarlton (Barton Creek Mall) - September 24th to October 8th
- CAF Booth at Commute Solutions Awards Ceremony and Commuter Fair Wooldridge Square Park - September 28th
- Promo Donation and Aid to TXDOT Environmental Event - October 3rd
- CAF Booth at University of Texas Wellfest - October 10th
- CAF Public Involvement Meeting - October 11th
- CAF Meeting in Williamson County with Judge Gattis and Commissioner Morrison - October 12th
- CAF Booth at City of Austin's Green City Festival - October 13th
- CAF Ad in Texas State's University Star Newspaper - October 16th
- Commute Solutions Meeting - October 18th
- Early Action Compact Task Force Meeting – October 18th
- Spansion Joins CAF Board – October 23rd
- CAF O3 Flex Public Comment Campaign in Round Rock Leader - October 25th, in Pflugerville Pflag - October 25th, in Westlake Picayune - October 25th, in Lake Travis View - October 25th, in Lockhart Post Register - October 25th, in Caldwell County Guardian Shopper - October 26th

5. CHALLENGE S AHEAD/ NEXT STEPS

This report comes at the end of the formal agreement between local, state and federal governments, known as the Early Action Compact, to plan and implement measures to proactively address the goal of maintaining healthy air quality in the Austin region. Not only has the area been able to maintain the ozone air quality below the federal standard as measured at the regulatory monitors, but the design value was reduced significantly over the period. This has occurred even though the region's economy and population have seen significant growth during the period. By all accounts this has been a very successful undertaking, demonstrating that through an effective partnership, regional stakeholders should achieve a healthy environment while experiencing a growing economy.

CHALLENGES AHEAD

One significant requirement of the EAC was to demonstrate that measures implemented under the region's clean air action plan would be sufficient to maintain compliance with the ozone standard through the year 2012. While that exercise did show the benefits of federal measures in reducing onroad and nonroad mobile source emissions in future years, growth in population and vehicle miles of travel will continue to be a challenge to meeting the air quality standard.

Even more of a possible challenge for the region's compliance with the federal ozone standard is EPA's proposed change in the levels a region must monitor to meet the requirements. The changed standard, if set below the 80 parts per billion level, could result in a nonattainment designation for the region, in spite of continued air quality benefits accruing from emission reduction measures initiated under the EAC and any subsequent ozone flex plan.

An additional challenge the region faces, especially if the ozone standard is lowered to the level seen in ozone measurements at rural background monitors, is the influence of emissions from sources outside the region, both significant new point sources, as well as, large urban areas upwind of the region. To address this issue it will be important for both TCEQ and EPA to recognize these impacts and incorporate sufficient programmatic tools to assure that local emission reduction measures are not overwhelmed by transported

emissions outside of local control. Both new source permitting and state implementation plan development policies should be made cognizant of the long-distance regional influence of transported emissions on a local area's ability to meet the ozone standard.

NEXT STEPS

To meet the challenges ahead air quality planners in the Austin region will need to continue to provide the best scientific data and tools to evaluate changes in air quality and determine the causes and provide analysis of possible solutions to the continued need to maintain healthy air quality in the region. Operation of a robust network of ozone monitoring stations sited around the region, supplemented by airborne and other mobile platforms will continue to be used to provide the necessary air quality data for determining variability of ozone concentrations under differing meteorological conditions and for identification of locally generated, as well as, transported components. In addition monitoring data will be used to calibrate and validate new ozone modeling episodes being developed for the region. Photochemical modeling will continue to be used as a valuable tool in assessing baseline ozone events and for evaluating impacts of emission changes in the future on the region's ability to maintain healthy air quality.

Planning has already been initiated for the next regional air quality management plan, the 8-hour ozone flex plan (8-O3 Flex), to follow on the heels of the EAC. The 8-O3 Flex is expected to continue commitments for implementation of existing EAC regulatory and voluntary measures for a five-year period through 2013. While this plan is still in the development and initial approval stage, and details will need to be considered and approved by all participating governmental entities before it's given the final go-ahead, the goal is to maintain the region's proactive commitment to maintaining good air quality. Measures expected to be in the plan include:

- Heavy duty vehicle idling restrictions efforts will complete new MOA with TCEQ and participating local governments, and continue outreach to businesses and truckers, and provide training for enforcement staff;
- Continued vehicle inspection and maintenance in Travis and Williamson Counties with expanded efforts to assist the public in obtaining assistance through LIRAP to replace aging vehicles with newer, cleaner operating vehicles;

- Provide support for regional ride share program to assist commuters to match trip needs and reduce single-occupant vehicle trips;
- Encouragement for the use of cleaner fuels and TxLED additives where needed to reduce emissions of ozone precursors;
- Encouragement of local businesses and governmental units to aggressively apply for TERP grants to upgrade older polluting diesel vehicles and off-road mobile diesel equipment

Voluntary measures expected to be in the plan will include programs supported with the assistance of the CLEAN AIR Force of Central Texas, such as the Clean Air Partners and the Central Texas Clean School Bus Program. Participating local government signatories and other public entities will continue to implement selected voluntary commitments to reduce emissions at the local level. In addition, increased efforts will be directed to promote the use of energy conservation and efficiency measures, and the use of renewable power sources with the goal of reducing the need for new fossil-fuel fired power plants.

With this proactive, science-based, partnership approach to regional air quality planning, the Austin/Round Rock MSA will continue to strive to maintain a healthy environment while experiencing population increases and supporting economic growth for the welfare of its citizens.

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 fulfilled 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 **2.36 tpd**. In April 2, 2007 the TCEQ began a new TERP grant round for both the Emission Reduction Incentive Grants (ERIG) and the rebate programs. The ERIG application period ended June 1, 2007, while the rebate grant application period extended through June 29, 2007. This round of funding included 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 Area 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	Has the program been implemented? (Y/N)	Reporting Information
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: MAY 2007 to OCTOBER 2007**		
1. A/C Electric Load Shift Describe the shift schedule and include the number of kWh shifted.	Yes	12.3 MW and 1454 MWh recorded at the meter. Includes Load Cycling and Thermal Storage.
2. ABIA Airport Clean Air Plan: (includes measures A - E below)		
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 47 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.	Yes	The City of Austin as an active Bicycle Program with staff that continually work to improve infrastructure for bicycle & pedestrian transportation modes. For this reporting period we installed approximately 20 miles of bicycle transportation infrastructure and distributed close to 2500 Austin Bicycle Maps.				
4. Alternative Fuel Vehicles Give the number (or percentage) of vehicles using alternative fuel.	Yes	419 or 10.31%				
5. Cleaner Diesel for Fleets How many gallons of clean diesel have been purchased?	Yes	Using USLED w/ Orxye 1,261,644 gallons 5/1/07-10/31/07				
6. Commute Solutions Programs	Yes	**carpooling**	**vanpooling**	**teleworking**	**public transportation**	**flexible or compressed work week**
6A. Give the number of employees participating in each of the programs.		unknown	33	unknown	479	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	11,892				
8A. Estimate the number of payments direct deposited per year per employee. (e.g. Bimonthly-26 payments)		309,192				
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	Yes	Total demand reduction (excluding the above shift) 12.6 MW and 38,000 MWh recorded at the meter.				

Describe the status of the program.		
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 May - Oct 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.	Yes	180 Days
16. Fueling Vehicles in the Evening Describe the status of the program.	Yes	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.	Yes	444 or 10.9%
18. Low VOC Roadway Striping Report the type of low VOC material and the average amount used. Be sure to include units.		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	Reduced 39,400 MWh. This averted 26 tons of pollution.
22. Shaded Parking Describe the status of the program.	Yes	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 Report the number of vehicles using low emission diesel (TxLED) or the fleet % using TxLED or an equivalent.	Yes	All diesel fuel purchased since 10/1/06 is Ultra Low Sulfur w/ Oryxe additive – TxLED equivalent. 100% of our diesel vehicles are using it (1,783 units)
24. Transit-Oriented Development (TOD) Describe the program status.	Yes	The TOD Program in Austin is in an infancy stage. The City's Planning Department is still in the process of creating station area plans for 3 initial TODs. Plans are expected to be adopted Winter of 2008; however, implementation will occur gradually, primarily as the private market responds to the new standards created in the TODs. As a result, measurable effects of denser development around transit may not be realized for some time, and may be very difficult to calculate since the TODs represent such a small percentage of the overall size of the City of Austin.
25. Transportation Emission Reduction Measures (TERMs)	Yes	* 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, and Austin Community Trees has planted 200.
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 within 15 years for all new parking lots, Tree Mapping, and Expand City Tree Planting Program. Increased canopy cover through Large Tree plantings, Neighbor Woods and Austin Community Trees programs by planting 6000 shade trees in Austin . Increased energy efficiency programs.

City of Bastrop

Emission Reduction Measure	Reported by:	Derek Dowdell ddowdell@cityofbastrop.org
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: MAY 2007 to OCTOBER 2007**	**Has the program been implemented? (Y/N)**	Reporting Information
1. Access Management How many roadway projects are employing this program?	Y	All project review conducted by the City includes access management.
2. Alternative Commute Infrastructure Describe the status of the program.	N	
3. Cleaner Diesel for Fleets How many gallons of clean diesel have been purchased?	Y	6,933 gallons purchased
4. Direct Deposit How many employees receive direct deposit?	Y	66 out of 100 employees
a. Estimate the number of payments direct deposited per year per employee. (e.g. Bimonthly-26 payments)		1,716
5. Emission Reductions in SEPs, BEPS and Similar Agreements Report the emission reduction achieved for any SEP implemented in the reporting area.	N	
6. Expedited Permitting for VMT-Reducing Development Describe the status of the program.	Y	Ongoing
7. Low VOC Roadway Striping	NA	No roadway striping occurred during this time period

Report the type of low VOC material and the average amount used. Be sure to include units.		
8. Open Burning Restrictions	Y	
9. Ozone Action Day Education Program Describe the status of the program.	Y	
10. Transportation Emission Reduction Measures (TERMs)	Y	Construction of SH 71/FM 304 Overpass was completed in April 2007
11. Tree Planting	Y	Trees are required in new developments as part of landscaping.

Travis County

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.	Has the program been implemented? (Y/N)	Reporting Information
REPORTING PERIOD: MAY 2007 to OCTOBER 2007		
1. Alternative Fuel Vehicles Give the number (or percentage) of vehicles using alternative fuel.		76 vehicles
2. Cleaner Diesel for Fleets How many gallons of clean diesel have been purchased?		149,536

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.		**114**	**not known**	**not known**	**156**	**120**
b. Give the average number of miles traveled while commuting.		**46.7**	**not known**		**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?		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		Approximately 11,200 (90%) Travis County

Describe the status of the program.		jury assignments are made via Internet every 6 months, saving as many roundtrips to the county's downtown complex. There were 33,562 motor vehicle renewals over the internet; 6,178 property tax payments over the internet; and 278 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.		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.		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.		Travis County Fleet users as well as individuals 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.		53%
10. Low VOC Roadway Striping Report the type of low VOC material and the average amount used. Be sure to include units.		Low VOC (Latex) Yellow Traffic Paint--150 - 55 gal drums (8,250 gal total) Low VOC (Latex) White Traffic Paint--150 - 55 gal drums (8,250 gal total)
11. Ozone Action Day Education Program Describe the status of the program.		On-going
12. Ozone Action Day Response Program Describe the public response program.		On-going
13. Resource Conservation		Paper: 126 tons

Describe the status of the program.		Aluminum: 2220 lbs Oil: 2820 gal, $1584 revenue tires: 282, $146 Antifreeze: 3 - 55 gallon drums batteries: 108 Iron/tin: 2060 lbs Scrap Metal: 48,640 lbs, $1238
14. Shaded Parking Describe the status of the program.		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.		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		0

LCRA

Reported by: Natalie Hossain	(512) 473-3200	natalie.hossain@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: MAY – OCTOBER 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	135,004 gallons
3. Direct Deposit How many employees receive direct deposit?	Y	1502 within the 5 county EAC region.
a. Estimate the number of payments direct deposited per year per employee. (e.g. Bimonthly-26 payments)	[redacted]	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	10 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: Walter Bryan 239-3182 wbryan@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.	Has the program been implemented? (Y/N)	Reporting Information
REPORTING PERIOD: MAY – OCTOBER 2007		
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	Y	carpooling	vanpooling	teleworking	public transportation	flexible or compressed work week
a. Give the number of employees participating in each of the programs.		90	102	115		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?	Y	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.	Y	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 has implemented several plans aimed at promoting energy and water conservation, as well as resource recycling.
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)	Y	* Submit implementation status of each TERM to CAMPO. Report implementation status (Y/N) in middle blue column.

TxDOT-Austin

Reported by: (Name)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.	Has the program been implemented? (Y/N)	Reporting Information				
REPORTING PERIOD: MAY 2007 to OCTOBER 2007						
1. Alternative Fuel Vehicles Give the number (or percentage) of vehicles using alternative fuel.	Y	106				
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.		69	14		3	470
b. Give the average number of miles traveled while commuting.		n/a	n/a		n/a	n/a
c. Give the number of days per week that the program is used.		5	5		5	5
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)		12.2				
4. Fleet Vehicle Maintenance	Y	VARIES generally every 90 days				

Report the average time between two scheduled maintenance services.		
5. Low VOC Roadway Striping Report the type of low VOC material and the average amount used. Be sure to include units.	Y	9,203,426 Linear Feet
6. Ozone Action Day Education Program Describe the status of the program.	Y	active
7. Ozone Action Day Response Program Describe the public response program.	Y	active
8. Resource Conservation Describe the status of the program.	Y	active
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	active

NO-CHANGE-IN-STATUS REPORT (no report for this period received)

City of Elgin
City of Lulling
City of Lockhart
City of Round Rock
City of San Marcos
Bastrop County
Caldwell County
Hays County
Williamson County
CAPCOG
CAMPO
CAPITAL METRO

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.

ATTACHMENT 1 I&M FAILURE RATE BY COUNTY AND DPS REMOTE SENSING PROGRAM DETAILS

Failure Rate By Model Year

Period=05/01/2007 To 10/31/2007, Location=County: TRAVIS, Test Sequence=All Tests, Vehicle Type=All Types, Model Year=All

MODEL YR	OVERALL COUNT	OVERALL FAIL	OVERALL FAIL PERCENTAGE	EMISSIONS COUNT	EMISSIONS FAIL	EMISSIONS FAIL PERCENTAGE	OBD COUNT	OBD FAIL	OBD FAIL PERCENTAGE	ASM COUNT	ASM FAIL	ASM FAIL PERCENTAGE	TSI COUNT	TSI FAIL	TSI FAIL PERCENTAGE	GASCAP COUNT	GASCAP FAIL	GASCAP FAIL PERCENTAGE	SAFETY COUNT	SAFETY FAIL	SAFETY FAIL PERCENTAGE
2005	27055	829	3.1	27055	544	2	26686	436	1.6	0	0	0	369	8	2.2	27055	116	0.4	27010	313	1.2
2004	27908	1122	4	27908	686	2.5	27535	576	2.1	0	0	0	373	7	1.9	27908	120	0.4	27813	489	1.8
2003	28822	1560	5.4	28822	1089	3.8	28392	954	3.4	0	0	0	430	5	1.2	28822	156	0.5	28663	564	2
2002	30261	2321	7.7	30261	1586	5.2	29835	1392	4.7	0	0	0	426	6	1.4	30261	254	0.8	30152	884	2.9
2001	30362	2854	9.4	30362	2038	6.7	29756	1794	6	0	0	0	606	12	2	30362	328	1.1	30242	1046	3.5
2000	28195	2856	10.1	28195	1901	6.7	27561	1669	6.1	0	0	0	634	18	2.8	28195	270	1	28101	1212	4.3
1999	24058	2738	11.4	24058	1918	8	23461	1727	7.4	0	0	0	597	17	2.8	24058	250	1	23973	1081	4.5
1998	19721	2653	13.5	19721	1946	9.9	19223	1804	9.4	0	0	0	498	20	4	19721	199	1	19662	971	4.9
1997	17371	2782	16	17371	2117	12.2	16731	1955	11.7	0	0	0	640	30	4.7	17371	229	1.3	17332	964	5.6
1996	13040	2327	17.8	13040	1821	14	12496	1698	13.6	0	0	0	544	25	4.6	13040	202	1.5	13010	790	6.1
1995	12363	1538	12.4	12363	834	6.7	0	0	0	0	0	0	12363	723	5.8	12363	149	1.2	12339	810	6.6
1994	9705	1336	13.8	9705	711	7.3	0	0	0	0	0	0	9705	598	6.2	9705	144	1.5	9673	731	7.6
1993	7637	1181	15.5	7637	711	9.3	0	0	0	0	0	0	7637	617	8.1	7637	128	1.7	7559	579	7.7
1992	5682	1027	18.1	5682	650	11.4	0	0	0	0	0	0	5682	572	10.1	5682	105	1.8	5630	478	8.5
1991	4641	854	18.4	4641	550	11.9	0	0	0	0	0	0	4641	484	10.4	4641	99	2.1	4586	406	8.9
1990	3540	738	20.8	3540	491	13.9	0	0	0	0	0	0	3540	446	12.6	3540	69	1.9	3494	328	9.4
1989	2735	582	21.3	2735	404	14.8	0	0	0	0	0	0	2735	364	13.3	2735	58	2.1	2681	246	9.2
1988	2058	524	25.5	2058	393	19.1	0	0	0	0	0	0	2058	359	17.4	2058	61	3	2012	200	9.9
1987	1495	422	28.2	1495	321	21.5	0	0	0	0	0	0	1495	304	20.3	1495	41	2.7	1461	154	10.5
1986	1343	422	31.4	1343	365	27.2	0	0	0	0	0	0	1343	349	26	1343	36	2.7	1339	105	7.8
1985	1057	385	36.4	1057	334	31.6	0	0	0	0	0	0	1057	323	30.6	1057	43	4.1	1057	102	9.6
1984	749	278	37.1	749	244	32.6	0	0	0	0	0	0	749	236	31.5	749	32	4.3	743	66	8.9
1983	291	122	41.9	291	108	37.1	0	0	0	0	0	0	291	104	35.7	291	12	4.1	288	31	10.8

Failure Rate By Model Year

Period=05/01/2007 To 10/31/2007, Location=County: WILLIAMSON, Test Sequence=All Tests, Vehicle Type=All Types, Model Year=All

MODEL YR	OVERALL COUNT	OVERALL FAIL	OVERALL FAIL PERCENTAGE	EMISSIONS COUNT	EMISSIONS FAIL	EMISSIONS FAIL PERCENTAGE	OBD COUNT	OBD FAIL	OBD FAIL PERCENTAGE	ASM COUNT	ASM FAIL	ASM FAIL PERCENTAGE	TSI COUNT	TSI FAIL	TSI FAIL PERCENTAGE	GASCAP COUNT	GASCAP FAIL	GASCAP FAIL PERCENTAGE	SAFETY COUNT	SAFETY FAIL	SAFETY FAIL PERCENTAGE
2005	11993	323	2.7	11993	210	1.8	11841	161	1.4	0	0	0	152	1	0.7	11993	56	0.5	11984	124	1
2004	12508	428	3.4	12508	272	2.2	12324	226	1.8	0	0	0	184	4	2.2	12508	47	0.4	12479	170	1.4
2003	12243	552	4.5	12243	366	3	12093	310	2.6	0	0	0	150	2	1.3	12243	66	0.5	12192	212	1.7
2002	11796	755	6.4	11796	520	4.4	11614	464	4	0	0	0	182	4	2.2	11796	75	0.6	11722	293	2.5
2001	10964	883	8.1	10964	596	5.4	10759	514	4.8	0	0	0	205	2	1	10964	94	0.9	10881	346	3.2
2000	10033	878	8.8	10033	572	5.7	9787	516	5.3	0	0	0	246	7	2.8	10033	63	0.6	9968	375	3.8
1999	8001	769	9.6	8001	506	6.3	7803	462	5.9	0	0	0	198	3	1.5	8001	54	0.7	7935	310	3.9
1998	6469	691	10.7	6469	479	7.4	6303	454	7.2	0	0	0	166	1	0.6	6469	37	0.6	6446	272	4.2
1997	5655	753	13.3	5655	556	9.8	5503	520	9.4	0	0	0	152	2	1.3	5655	53	0.9	5634	279	5
1996	4137	627	15.2	4137	471	11.4	3983	438	11	0	0	0	154	3	1.9	4137	47	1.1	4124	222	5.4
1995	3824	393	10.3	3824	199	5.2	0	0	0	0	0	0	3824	170	4.4	3824	35	0.9	3813	215	5.6
1994	3039	359	11.8	3039	199	6.5	0	0	0	0	0	0	3039	175	5.8	3039	28	0.9	3034	188	6.2
1993	2270	316	13.9	2270	179	7.9	0	0	0	0	0	0	2270	169	7.4	2270	16	0.7	2263	155	6.8
1992	1799	293	16.3	1799	176	9.8	0	0	0	0	0	0	1799	162	9	1799	19	1.1	1795	138	7.7
1991	1377	221	16	1377	130	9.4	0	0	0	0	0	0	1377	122	8.9	1377	14	1	1373	109	7.9
1990	1062	198	18.6	1062	127	12	0	0	0	0	0	0	1062	119	11.2	1062	11	1	1058	91	8.6
1989	877	167	19	877	104	11.9	0	0	0	0	0	0	877	99	11.3	877	12	1.4	875	79	9
1988	603	123	20.4	603	89	14.8	0	0	0	0	0	0	603	84	13.9	603	11	1.8	599	42	7
1987	453	120	26.5	453	96	21.2	0	0	0	0	0	0	453	90	19.9	453	9	2	452	41	9.1
1986	396	114	28.8	396	99	25	0	0	0	0	0	0	396	92	23.2	396	13	3.3	395	29	7.3
1985	357	132	37	357	117	32.8	0	0	0	0	0	0	357	116	32.5	357	7	2	357	33	9.2
1984	275	89	32.4	275	79	28.7	0	0	0	0	0	0	275	76	27.6	275	6	2.2	275	15	5.5
1983	107	40	37.4	107	35	32.7	0	0	0	0	0	0	107	35	32.7	107	2	1.9	106	8	7.5

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**