



STATE OF TENNESSEE  
DEPARTMENT OF ENVIRONMENT AND CONSERVATION  
**Air Pollution Control Division**  
9th Floor, L & C Annex, 401 Church Street  
Nashville, Tennessee 37243-1531

December 28, 2006

J.I. Palmer, Jr.  
Regional Administrator  
US EPA, Region IV  
Atlanta Federal Center, 12<sup>th</sup> Floor  
61 Forsyth Street, SW  
Atlanta, GA 30303

RE: Submittal of December 31, 2006 Progress Report for Early Action Compact Areas

Dear Mr. Palmer:

Enclosed is a copy of the December 31, 2006 Progress Report in accordance with the Early Action Compact (EAC) requirements for Chattanooga, Nashville, and Tri-Cities EAC areas. This submittal includes an update of the EAC progress from each of the EAC areas in Tennessee and is being submitted by the Tennessee Division of Air Pollution Control to you on their behalf.

This submittal shows Tennessee's and local government's ongoing commitment to achieve the 8-hour ozone standard early and improve our air quality. If any additional information is needed, or if you have questions, please do not hesitate to contact me.

Sincerely,

*Barry R. Stephens III*

for Barry R. Stephens, P.E.  
Director  
Division of Air Pollution Control

Enclosures

cc: Kay Prince and Dick Schutt, EPA Region IV

Electronic copies to: TN Air Pollution Control Board & TN Local Air Programs  
EPA, Region IV

# MIDDLE TENNESSEE EARLY ACTION COMPACT

## PROGRESS REPORT

DECEMBER 31, 2006

### 1.0 Introduction

This submittal is the December 31, 2006 semiannual progress report on the implementation of the control strategies for the Middle Tennessee Early Action Compact (EAC) area. The Middle Tennessee EAC area includes the counties of Davidson, Cheatham, Robertson, Rutherford, Sumner, Williamson and Wilson. By and large, the area is on track toward implementing the measures specified in the March 31, 2004 Air Quality Improvement Plan (AQIP). The AQIP is the local air quality plan defining the specific measures to be taken to ensure compliance with the 8-hour ozone National Ambient Air Quality Standard (NAAQS) no later than December 31, 2007.

The local governments of the Middle Tennessee Early Action Compact (EAC) have developed and adopted a list of local control measures intended to reduce area levels of ozone precursors. Modeling for the adopted local control measures done through the multi-state project known as ATMOS (Arkansas, Tennessee and Mississippi Ozone Study) has demonstrated that the Middle Tennessee area should be able to attain the 8-hour ozone standard by the 2007 deadline.

The region has programmed funding for implementation of these measures, primarily through adoption of the projects and programs in the Transportation Improvement Program of the Nashville Area Metropolitan Planning Organization.

For the years 2002, 2003, 2004 and 2005, all monitors in the Middle Tennessee area have demonstrated attainment with the 8-hour ozone NAAQS by the three year average of the annual fourth highest value being less than 0.085 ppm. Below is a table showing the annual fourth highest 8-hour ozone values at each of the Middle Tennessee monitors from 2002 – 2006 and the three year design value for each monitor.

Elevated 8-hour ozone values were recorded in the Middle Tennessee area during the summer of 2006. Historically, the monitor showing the highest ozone values in Middle Tennessee is the monitor located at Rockland Road in Sumner County and designated as 4716500007-1. The fourth highest 8-hour ozone value measured at this site during the summer of 2006 was 0.088 ppm. All other fourth highest 8-hour ozone values measured in Middle Tennessee during 2006 were less than the 8-hour ozone NAAQS as shown in the table below. Based on 2004 through 2006 data, all monitors in Middle Tennessee are demonstrating attainment with the 8-hour ozone NAAQS. Based on 2005 and 2006 data, the Rockland Road site would have to have a fourth highest 8-hour ozone value of 0.084 ppm or greater in order for a violation of the 8-hour ozone NAAQS to occur. This clearly a concern, but it is our belief that the combination of Local, State and Federal control measures that are in place will yield the desired outcome of the Middle Tennessee area attaining the 8-hour ozone NAAQS by December 31, 2007. The good news is that the

Middle Tennessee area continues to attain the 8-hour ozone NAAQS and has for the past few years.

<b>ANNUAL FOURTH MAXIMUM AND THREE YEAR DESIGN VALUES FOR THE MIDDLE TENNESSEE OZONE MONITORS</b>							
Year	East Health Center 470370011	Percy Priest Dam 470370026	Eagleville 471490101	Rockland Road 471650007	Cottontown 471650101	Fairview Middle School 471870106	Cedars of Lebanon 471890103
2002	0.073	0.079	0.090	0.086	0.087	0.094	0.088
2003	0.064	0.074	0.076	0.086	0.074	0.080	0.079
2004	0.064	0.076	0.070	0.078	0.076	0.072	0.071
2005	0.070	0.079	0.079	0.083	0.078	0.076	0.081
2006	0.072	0.079	0.074	0.088	0.083	0.072	0.081
2002-2004	0.067	0.076	0.078	0.083	0.079	0.082	0.079
2003-2005	0.066	0.076	0.075	0.082	0.076	0.076	0.077
2004-2006	0.068	0.078	0.074	0.083	0.079	0.073	0.077

## **2.0 Emission Reduction Measures**

The planned schedule for implementation of the various control measures is included in the December 31, 2004 SIP submittal. Some of the implementation schedules have been adjusted slightly to account for delays that invariably occur with planning assumptions. Many projects have been completed, or are nearing completion, that will have a positive impact on air quality in the Middle Tennessee area. The following table lists the general status of each control measure followed by a more complete summary.

<b>Emission Reduction Measure</b>	<b>Scheduled Implementation Date</b>	<b>Status of Emission Reduction Measure</b>
Expand existing IM program to include gas and diesel vehicles up to 10,500# GVWR <sup>1</sup> .	April 1, 2005	Implemented on April 1, 2005
Construction land clearing (open burning)	March 1, 2004	Implemented on March 1, 2004
HOV lane expansion	2004 - 2006	Mostly complete – Additional work in progress
Trip reduction plans	2004 - 2006	Mostly complete – Additional work in progress
Rideshare programs	2004 - 2006	Mostly complete – Additional work in progress

<b>Emission Reduction Measure</b>	<b>Scheduled Implementation Date</b>	<b>Status of Emission Reduction Measure</b>
Traffic signal synchronization	2004 - 2006	Partially complete – Additional work remaining
Roadside assistance program	2004 - 2006	Project implemented
New greenways/bikeways	Most in 2004, but some in 2005 and 2006	Several projects complete with several more planned or under construction – Construction will continue for several years
Improve bus ridership	2004 - 2007	Mostly complete – Additional work in progress
New rail service	2005 - 2006	Nashville to Lebanon corridor began daily service in September, 2006
Land use controls to reduce VMT	2004 and beyond	Significant work completed – Significant work is remaining
Air Quality Action Day (AQAD) Measures	May 1, 2004	Project implemented

**<sup>1</sup> This is the only federally enforceable measure included in the March 31, 2004 AQIP. Also, the emission reductions from this program were the only ones used in the modeled attainment demonstration for the Middle Tennessee EAC area.**

Following is a brief summary of the implementation status of the one federally enforceable measure and each of the voluntary measures outlined in the March 31, 2004 AQIP.

## **2.1 Expand Existing Vehicle Inspection Program to Include Gas and Diesel Vehicles Up To 10,500# GVWR**

The Middle Tennessee counties of Davidson, Rutherford, Sumner, Williamson and Wilson have an existing Vehicle Inspection Program. Previously, these programs tested only light duty gasoline vehicles up to 8,500# GVWR. Existing regulations were amended to include all gasoline and diesel vehicles up to 10,500# GVWR. This program was implemented on schedule as planned on April 1, 2005. The contract with Envirotest (contractor that operates the testing sites) was recently extended until June 30, 2007 ensuring the continuation of our existing and successful Vehicle Inspection Program (VIP).

Due to differing contract expiration dates, the contract for the Davidson County vehicle inspection program will expire June 30, 2007. A new contractor has been chosen for the Davidson County VIP. Systech International will begin operation of the Davidson County VIP on July 1, 2007. A seamless transition is anticipated with no disruption to the existing VIP. Envirotest will continue operating the program, until at least 2011, in the four surrounding counties that currently have a VIP.

## **2.2 Construction Land Clearing - Open Burning (Davidson County only)**

This emission reduction measure is only applicable in Davidson County. Open burning of land clearing material in Davidson County is allowed only with the proper use of an air curtain destructor and a permit from the Metro Nashville Air Pollution Control Division (MNAPCD). On March 1, 2004, the MNAPCD began adding a condition to each air curtain destructor permit. This condition prohibits the open burning of land clearing material on any day the air quality is forecast to be worse than the moderate (yellow) category as determined by the EPA air quality index. This measure is currently being implemented with no problems.

## **2.3 HOV Lane Expansion**

TDOT has completed construction, except for a few cosmetic items, of the new HOV lanes added to Interstate 40 East in Davidson County from Interstate 24 to Donelson Pike. The scheduled completion date is May 31, 2007. The HOV lane work was completed several months ahead of schedule.

TDOT has completed work on the HOV lanes on Interstate 24 in Rutherford County from State Highway 96 to State Route 840.

Construction is underway on the HOV lane addition to Interstate 24 in Rutherford County from U.S. 231 to State Highway 96. The project is scheduled for completion on June 1, 2008. Construction is progressing on schedule.

## **2.4 Funding and new infrastructure for rideshare/trip reduction programs**

Work is continuing on the Smyrna (Rutherford County) Intermodal Transportation Center. It is designed to handle both rail and bus service. The location study has been completed. The Southeast Alternatives Analysis will determine the final layout of the Intermodal Transportation Center. The results of the alternatives analysis will be available in December 2006.

The Regional Transportation Authority (RTA) has implemented a ridesharing program that promotes single occupant vehicle (SOV) alternatives such as computer ride matching, guaranteed ride home, broker vans and riders for vanpools and carpools. Funding has been extended for this program through FY2008. The RTA is making enhancements to its vanpooling program with the installation of new, web-based ridematching software. Staff has received software training and the program is in operation. RTA has also purchased two new "over-the-road coaches" to offer better service for riders on its long-distance express bus routes between Nashville and Murfreesboro. In addition, the RTA has purchased new vans including new conventional fueled vans to replace older vans, new hybrid vans, and lift equipped vans. These new, cleaner vans are currently in operation.

Williamson County is continuing its existing rideshare program by conducting outreach to employers and employees through transportation fairs, transit fairs, newsletters, advertisement and a "Clear the Air" television program. They have purchased nine new vanpool vehicles. These vehicles are currently operating as part of a regional van pool.

## **2.5 Traffic Signal Synchronization and Related Improvements**

Davidson County is in the process of completing Phase 3 of its signal system update. Phases 1 and 2 have been completed. The project includes creating multiple closed loop systems, installing loop detectors at non-actuated intersections and installing peripheral equipment needed for monitoring. This work is designed to improve traffic flow and pedestrian access. Phase 3 is under construction with a scheduled completion date of June 2008.

Phase IA of the Advanced Traveler Information System in Davidson County is moving forward on schedule. The consultant has been selected, and work is scheduled for completion in June 2008. When completed, this system will include signalized intersection improvements, the replacement of signal displays with LED signal heads, added pedestrian signals and the replacement of loop detectors with video or other detection.

Davidson County is also in the process of retiming traffic signals across the county. As of December 2006, the retiming of 233 signals has been completed. There are 319 signals remaining to be retimed for a total of 552 signals. This work will be completed during the next year (2007).

The City of Hendersonville (Sumner County) is currently replacing some of its older signals, with work to be completed in 2006. This is in preparation for implementing a citywide closed loop system and signal upgrade including closed circuit TV (CCTV) monitors and a monitoring facility. This closed loop system has been placed on hold.

Planning is continuing on The City of Murfreesboro (Rutherford County) closed circuit TV (CCTV) and traffic signal interconnect project. This project includes the installation of fiber optic cable, interconnected signalized intersections along three state routes and the installation of CCTV cameras. This project has a scheduled completion date of the fall of 2007. Signalization of the intersection of Stones River Road at the Old Nashville Highway is under design. They are currently preparing the right-of-way purchase. The estimated completion date is the spring of 2007.

Several projects are in progress in Williamson County. The City of Franklin Traffic Operations Center (Phase 3), including system software, dynamic message signs and cameras, is currently in the design phase. The City of Franklin is reformulating the scope of work. Requests for Qualifications will occur in 2007.

The City of Brentwood Closed Loop Signal System (Phase 1), which includes interconnecting all intersection master loops and monitoring equipment to a centralized system, has been completed. The North Brentwood Signal Interconnect project has been combined with the City of Brentwood's Closed Loop Signal System. The entire project has been completed. The Cool Springs Closed Loop Signal System, which created a closed loop signal system throughout the Cool Springs area, has been completed and is operational.

## **2.6 Roadside Assistance Program**

This is an on-going program, involving roving TDOT Help Trucks that has been implemented on the interstate system in Davidson County. This program has proven to be an asset in minimizing traffic build-up due to wrecks or disabled vehicles. Based on the latest reported information from the TDOT Incident Management Office Annual Report, July 1, 2005 to June 30, 2006, the total number of vehicles assisted was 28,587 and the total number of vehicles relocated outside of the travel lane was 3,153. These actions by the TDOT Help Truck staff have made a noticeable improvement in traffic flow on the Davidson County interstate system.

In addition to the TDOT Help Trucks, the Metro Nashville Department of Public Works has added a Roadside Emergency Assistance Program to aid motorists on non-interstate roadways.

## **2.7 Build New Pedestrian Facilities (Greenways and Bikeways)**

Several greenway and bikeway projects as well as sidewalk improvements are underway in Davidson, Rutherford, Sumner, Williamson and Wilson counties. These are on-going projects that will continue for several years. Following is a county level list with a brief description and completion status.

### Davidson County

Richland Creek Greenway – this is a multi-use paved trail with a scheduled completion date of the summer of 2007. Phases I and II have been completed. Phase III is currently underway.

Whites Creek Greenway – this is a multi-use paved trail with a scheduled completion date of the summer of 2007.

Hillsboro Pike Sidewalk Improvement – this is a regional activity center and sidewalk improvement project that is in the design phase.

East Bank River Path – this is a multi-use paved trail that has been completed.

The Nashville-Davidson County Strategic Plan for Sidewalks and Bikeways was completed in 2003. Using this plan, there have been 5 miles of bikeway facilities installed from June to December 2006. During the past three years, a total of 70 miles of new bikeway facilities have been completed at a cost of \$450,000 in local capital funds.

Also, there have been 7 miles of new pedestrian facilities built from June to December 2006. Since 1999, a total of 104 miles of new pedestrian facilities have been completed with 81 miles constructed by Davidson County and 23 miles by new developments in Davidson County. There are 33 miles of new pedestrian facilities currently underway in Davidson County. Since 1999, Davidson County has approved \$78,750,000 for pedestrian and sidewalk facilities. Of that amount,

\$55,160,000 has been spent with the \$23,590,000 balance planned for additional pedestrian facilities.

### Sumner County

The Hendersonville Bike and Pedestrian Trail, Phase 2, is a multi-use paved trail that was designed in two portions. The South portion is under construction with an estimated completion date of the spring of 2007. The design work for the North portion has been completed. It is scheduled to be released for bids in the near future with an estimated completion date of July 2007.

The SR-52 Sidewalks from SR-109 to South Russell Street, College Street from Searcy Lane to Morningside Drive and Searcy Lane from College Street to SR-52 is a sidewalk project that has completed the design phase. It is currently awaiting environmental clearance. The estimated project completion date is the spring of 2007.

### Rutherford County

The Fergus Road Sidewalk project includes constructing sidewalks from Gale Lane to Bill Stewart Boulevard. Construction began late in the summer of 2006.

The Stones River Road Sidewalk project includes constructing sidewalks on the east side of Stones River Road. This project is under construction with an estimated completion date of the spring of 2007.

The City of Murfreesboro has multiple greenway segments under design. The Stones River Greenway Extension (SRGE) Phase I, Section I, with a length of 2,300 feet, was completed during the summer of 2006. The SRGE Phase II, with a length of 16,710 feet, will be bid in the spring of 2007. The SRGE Phase III, with a length of 4,870 feet, will be bid in the fall of 2007. The SRGE Phase IV, with an extension of 13,810 feet will also be bid in the fall of 2007. The Gateway Trail Phase I, with a length of 9,800 feet, will be bid in the spring of 2007, and Phase II, with a length of 4,280 feet, will be bid in the fall of 2007.

### Williamson County

The Franklin Greenway project is underway and scheduled for completion in 2007. So far, a  $\frac{3}{4}$  mile section along Spencer Creek has been completed in order to connect to an existing trail system leading from Aspen Grove Park. The City of Franklin Parks Department is currently bidding a bridge to span Spencer Creek in order to join these two greenways. Installation of the bridge began in July 2006. The project has an anticipated completion date of 2008.

The Harpeth River Walk had been set to begin construction on December 1, 2005. Due to unforeseen delays, construction is now scheduled to begin in the Spring 2007. When completed, the Harpeth River Walk will join an existing greenway system traveling south along the Harpeth River adding  $\frac{1}{2}$  mile to the overall length of the greenway.

### Wilson County

Cedar City Trail (Phase 1, 2, 3 and 4) – this is a multi use paved trail and park. Phases 1 and 2 have been completed. Phase 1 was the construction of a large park area that included a playground, restrooms and circumferential walking trail with riverwalk connection. Phase 2 connected the Phase I trail to an existing trail that leads to recreation center. A consultant has been hired for Phase 3, and the project is currently under design. The scheduled completion date for Phases 3 and 4 is June, 2007.

The City of Lebanon Downtown Sidewalk Project has been returned to the Transportation Improvement Plan (TIP). Long term funding has been committed to this project.

## **2.8 Improve Bus Ridership**

Several Park and Ride lots have been constructed in Davidson and Wilson County. These park and ride lots are part of the Music City Star Commuter Rail Line that will directly affect bus and rail ridership. These lots were completed in time for the September, 2006 start-up of the Music City Star Commuter Rail Line.

The Metro Transit Authority (MTA) in Davidson County is expanding express bus service in order to increase the number of express routes to previously unserved/underserved areas of the county. This project is underway and will be an on-going effort to attract more riders. Overall, MTA ridership has increased approximately 15% from 2005 to 2006.

A partnership has developed between the MTA and Vanderbilt University to promote bus ridership to Vanderbilt employees. This has resulted in employee bus ridership of approximately 2,000 trips per month. Clean Air Partner Vanderbilt University was nominated for and won the 2006 Governor's Environmental Stewardship Award in the Pollution Prevention Category. Vanderbilt University is the first company in the Middle Tennessee area to obtain a Best Workplaces for Commuters Designation, thanks in large part to its commitment to pay the MTA fares for employees commuting to and from Vanderbilt University and Vanderbilt Medical Center.

MTA has further expanded its employer-sponsored ridership program, also call "Easy Ride", to include Belmont University. Belmont is also working directly with RTA on a similar program with the newly opened commuter rail (Music City Star).

In addition, MTA is participating with the State of Tennessee on a pilot program for State employees to use the "Easy Ride" program. Since its inception in October, 2006, the MTA has provided over 20,000 commute trips for State employees.

In conjunction with Phase 2 and 3 of the Traffic Signal Synchronization project in Davidson County, a Transit Priority Implementation program will be implemented. This project will install pre-emption and priority control technology along corridors for buses and evaluation of express service along Lebanon Pike. The Transit Priority Implementation program will be implemented along with the Traffic Signal Synchronization project. Phase 2 has been completed. The scheduled completion date of the entire project is June, 2008.

RTA has extended Express Bus Service to Lebanon since September, 2006. This route provides midday and “shadow” bus service once the Music City Star Commuter Rail Line.

The Metro Transit Authority (MTA) in Nashville/Davidson County has purchased 25 new, low-floor buses to replace vehicles in its fleet that were well past their useful service life. These new buses are more functional for passengers, and they have lower emissions than the older buses they replaced.

During the past calendar quarter, MTA has ordered 13 new Para Transit buses to replace aging vehicles and in the next few months will order between 8 and 10 articulated buses to increase their carrying capacity on several routes. The articulated buses are larger and improve energy consumption by allowing MTA to use fewer buses to carry the same amount of passengers.

The MTA Music City Central is a regional transportation hub (landport) which will include a new transit facility in downtown Nashville offering downtown transit operations, bus parking/loading areas, a climate controlled waiting area, restrooms and bus schedule and ticket sales information. It is designed to replace the current open-air shelters located in downtown Nashville. This project is in the design phase with an estimated completion date in the fall, 2007.

The City of Murfreesboro (Rutherford County) plans to begin a local transit system in the spring of 2007.

## **2.9 New Rail Service (Nashville-Lebanon corridor)**

The Music City Star Commuter Rail Line has been completed and is in daily operation. The park and ride lots have been completed. The Nashville-to-Lebanon commuter rail line began operation in September, 2006. The rail line begins in Lebanon with stops in Martha, Mt. Juliet, Hermitage and Donelson before arriving at Riverfront Park in downtown Nashville. A bus loop is in operation for the West End Avenue-Vanderbilt area with bus connections to the existing downtown hub for other areas.

During the 2006 holiday season the Music City Star will provide special nighttime train service on Thursday and Friday nights. Service began on Thursday, November 16, and will continue every Thursday and Friday night during November and December, 2006. The train travels between Lebanon and Riverfront Station in downtown Nashville, making stops at each of the usual stations along the way.

Also, the Music City Star will run additional service to the Tennessee Titans football games on December 3, 17 and 31, 2006. Two trains will run in the morning from Lebanon with all the usual stops along the way. Two trains will return in the afternoon departing 45 minutes and 90 minutes after the conclusion of the game.

## **2.10 Land Use Planning that Reduces Driving**

Mixed use developments are in various stages of development and building in Davidson, Rutherford, Williamson and Wilson counties. It will take several years for these developments to be completely built out. Following is a status report on the projects that are currently underway.

### **Lennox Village in Davidson County**

Lennox Village is a Traditional Neighborhood Development with mixed-use retail and residential development. It encompasses approximately 207 acres. This project is currently under construction and is approximately 76% complete.

### **Bedford Avenue in Davidson County**

The Bedford Avenue project includes changed zoning to incorporate mixed-use development and an improved streetscape. This project is currently under construction with a scheduled completion date of December, 2007.

### **Carothers Crossing in Davidson and Rutherford Counties**

The Carothers Crossing project is a Traditional Neighborhood Development with mixed-use retail and residential development. It encompasses approximately 500-600 acres. Phases I and II are under construction with a scheduled project completion date of approximately 2010.

### **Lenox of Smyrna in Rutherford County**

This project is adjacent to Lennox Village in Davidson County. It is a 69 acre mixed use project with 312 residential units mixed between single family detached, single family attached and apartments. There is 18,000 square feet of commercial space planned. This project is just beginning with the infrastructure currently being developed. The completion date is approximately 2016.

### **Providence Place in Wilson County**

Providence Place is under construction with approximately 600 homes built. A large office, retail and restaurant center is currently under construction with several large department stores open and some of the smaller tenant spaces already occupied. There is a total of 830,000 square feet of retail space now built. When completely built, the development will contain approximately 3,200 homes in close proximity to office, retail and restaurants.

Del Webb Builders has purchased 354 acres of Providence and is building 1069 of the planned 3,200 homes. This is a "55 and over" community with many retirees buying into the development. With the adjacent office, retail and restaurant space, average trips per day and trip length should be reduced.

### **Indian Lake Village in Sumner County**

This is a mixed use development on 300 acres. It consists of 1,000 high density residential units, 850,000 square feet of retail and 2,000,000 square feet of office

space. A commuter rail station is planned on the adjacent CSX rail line. The project is currently under construction with a completion date of approximately 2016.

#### Durham in Sumner County

This is a traditional neighborhood development with 1,100 units in a variety of housing types planned. Housing will surround a village center. An extensive system of bike/pedestrian ways are planned that will be linked to similar facilities in the City of Hendersonville and Sumner County bike/pedestrian system. The completion date is approximately 2016.

#### Willowbrooke in Sumner County

This is a traditional neighborhood development with 650 residential units planned. An extensive system of bike/pedestrian ways are planned that will be linked to similar facilities in the City of Hendersonville and Sumner County bike/pedestrian system. The completion date is approximately 2016.

#### Westhaven in Williamson County

Westhaven is under construction with approximately 350 of the planned 2,750 homes built. This development will contain mixed use residential and retail.

### **2.11 Air Quality Forecasting, Outreach and Action Day Program**

The regional Clean Air Partnership of Middle Tennessee directs the Air Quality Action Day program. This program continues to develop, promoting the use of local air quality forecasts to induce voluntary behavior changes that improve air quality and protect the health of sensitive individuals. The goals of the program, the progress and the near term planned activities of this program follow.

The program has four main goals. First, increase the public's understanding about ozone and PM<sub>2.5</sub> and how they are formed; second, increase the public's awareness/use of locally available air quality forecasts; third, identify and target the behavioral changes that will be most effective to reduce emissions contributions from individual and household choices; and last, educate corporations in Middle Tennessee about air quality issues and commuter choice benefits.

The public awareness of basic ozone and PM<sub>2.5</sub> issues is designed to broaden the base of support for local and regional emission reduction programs, lay the groundwork for programs designed to create behavioral changes, garner positive publicity for emission reduction programs and lay the groundwork for wider publicity of the local air quality forecast. Progress to date includes introductory meetings and continued relationships with weather staff at each of the local TV news stations, development and continued support of the Clean Air Partnership of Middle Tennessee's [www.cleanairpartnership.info](http://www.cleanairpartnership.info) website and quarterly newsletter, participation in the Nashville Earth Day Festival from 2003 through 2006, and interviews aired on local TV news and radio programs relating to Air Quality Action Days in 2005 and 2006. Planned activities include promoting air quality curriculum materials for use in area public and private schools, partnering with area schools and businesses interested in developing air quality projects as part of the Tennessee Pollution

Prevention Partnership program, generating media coverage surrounding current air quality events, and contributing to the AirShare Television series produced by the Clean Air Partnership of Williamson County.

By increasing the public's awareness and use of locally available air quality forecasts, the partnership hopes to provide at-risk populations with air quality forecast information before planning the day's activities, and ensure the general public knows which days are most important to practice emissions-reducing behaviors. This portion of the program is designed to help at-risk populations take appropriate steps to protect themselves on poor air quality days, reduce emergency room visits by at-risk populations, and more effectively deliver messages targeting behavioral change.

Progress to date includes Nashville being one of only five cities in the U.S. to participate in the pilot of EnviroFlash email advisory service, providing automated customized web-based email air quality forecast information to subscribers beginning in October 2004, Nashville hosting a media event promoting the state-wide rollout of EnviroFlash in May 2005, the initiation of a study evaluating the status and needs of local health care providers regarding the air quality forecasts and patient education and impacts, and providing air pollution and health effects information and local resources to local residents through health fairs, and the inclusion of air pollution speakers and presentations at local medical update conferences.

The Clean Air Partnership recruited Professor Anthony DeLucia, former President of the American Lung Association, to speak on air pollution and health at the 2006 St. Thomas Health Services 13th Annual Asthma Update Conference. Ongoing activities include partnering with the American Lung Association of Tennessee and the Nashville Asthma Task Force coalition to provide air pollution and health information to asthma service providers and patients, and providing medical educational material and patient handouts directly to health care providers for sensitive populations in Middle Tennessee. The results of the health care provider study will be presented at the EPA Air Quality Conference in February, 2007.

It is planned that by identifying and targeting behavioral changes, the CAP will help ensure that the public has a clear understanding of the desired behavioral changes, and success will be realized in changing the behavior of a significant percentage of citizens. The ultimate goals are improved health for citizens (due to improved air quality) and fewer exceedances of the ozone and PM<sub>2.5</sub> NAAQS (due to changed behavior on days forecast for poor air quality).

Progress to date includes surveys of over 1400 Middle Tennessee households on air quality awareness and related behaviors, finalization of \$649,000 in funding for an outreach program and advertising campaign, initiation of radio advertising on 2 of the top five Nashville radio stations during the 2006 ozone season, and partnerships with Vanderbilt University faculty and graduate students involved in health, behavior change theory, marketing, and the environment to maximize the survey and marketing impacts. In addition, a public relations and marketing firm has been hired and has begun work on developing a full scale advertising campaign as well as development of partner resources, grassroots support, a new and improved website, and earned media coverage.

Planned activities include a full scale radio and outdoor print advertising campaign for 2007, conducting follow-up surveys of Middle Tennessee households, and the development of the Clean Air Partnership of Middle Tennessee into a formal non-profit organization in order to facilitate continued funding and operations of the outreach program. Individuals and businesses are also being recruited as “Clean Air Partners”. The list of individuals and businesses that have pledged to take active steps and spread the word about improving air quality continues to grow.

### **3.0 Conclusion**

The Middle Tennessee EAC area is on track toward implementing the measures specified in the March 31, 2004 Air Quality Improvement Plan (AQIP). Some of the voluntary emission reductions have been delayed. These voluntary measures were not relied on for the modeled attainment demonstration. Many of these voluntary projects require extended implementation periods with benefits to be realized well into the future. However, most have been implemented or are scheduled to be implemented in the near future. The one federally enforceable measure (expansion of the existing IM program to include gas and diesel vehicles up to 10,500# GVWR) was implemented April 1, 2005 as scheduled.

The Middle Tennessee ozone air quality during the upcoming summer of 2007 is clearly a concern, but it is our belief that the combination of Local, State and Federal control measures that are in place will yield the desired outcome of the Middle Tennessee area attaining the 8-hour ozone NAAQS by December 31, 2007. At this time, we are confident that the Middle Tennessee Early Action Compact has been and will continue to be a success and have a positive impact on ozone air quality in Middle Tennessee. We fully expect to be able to show attainment with the 8-hour ozone NAAQS on December 31, 2007.