



Catherine B. Templeton, Director

Promoting and protecting the health of the public and the environment

September 2, 2014

Path Forward Plan
c/o Laura Bunte, Mail Code C304-01
109 TW Alexander Drive
Research Triangle Park, NC 27711

Re: Path Forward Plan, Ozone and Particulate Matter Advance Programs

Dear Ms. Bunte:

The South Carolina Department of Health and Environmental Control (Department) wishes to provide the U.S. Environmental Protection Agency (EPA) this "Path Forward Plan" for both the Ozone and the Particulate Matter (PM) Advance Programs. The Department has aggressively worked alongside South Carolina air quality stakeholders in multipollutant programs similar to the Advance Programs since 2001, as described in our plan. By participating in the Ozone and PM Advance Programs, in partnership with the EPA and our stakeholders, we are pledging to continue our successful efforts at reducing emissions of pollutants and improving our air quality in South Carolina.

The Department commits to its participation in EPA's Ozone and PM Advance Programs and will continue to work with our air quality coalitions, industries, schools, local governments, and interested individuals on voluntary multipollutant reducing programs. We look forward to your acknowledgement of receipt of this "Path Forward Plan". If you have any questions please contact Mr. Jack Porter at 803-898-3829 or porterje@dhec.sc.gov.

Sincerely,

Myra C. Reece, Chief
Bureau of Air Quality
South Carolina Department of Health and Environmental Control

cc: Heather McTeer-Toney, Regional Administrator, U.S. EPA Region 4

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South Carolina Ozone Advance and Particulate Matter (PM) Advance Programs

Path Forward Plan

Submitted by
The South Carolina Department of Health and Environmental Control
Bureau of Air Quality
September 2, 2014

Table of Contents

- A. Introduction
- B. The Ozone and PM Advance Programs
- C. Early Partnership Development and the Early Action Compacts
- D. Ozone, PM and Health Concerns
 - 1. Ground-Level Ozone and Health Concerns
 - 2. Particulate Matter and Health Concerns
- E. Air Quality in South Carolina
- F. Electric Generating Unit (EGU) Emission Reductions
- G. Local Air Quality Coalitions
 - 1. Ten at the Top
 - 2. Catawba Regional Air Quality Coalition
 - 3. Central Midlands Air Partnership
 - 4. CSRA Air Quality Alliance
 - 5. Waccamaw Air Quality Coalition
 - 6. BCDCOG Clean Air and Climate Coalition
 - 7. Florence/Darlington
- H. Statewide Voluntary Programs
 - 1. Spare the Air Awards
 - 2. Breathe Better (B²)
 - 3. Diesel Emissions Reduction Act (DERA)
 - 4. Lawn Mower Exchanges
 - 5. Take a Break from the Exhaust (TABFTE)
 - 6. SmartWay® Transport Partnership
 - 7. Local Policies and Voluntary Measures
 - 8. The Advance Reporting Tool
- I. Conclusion

South Carolina Ozone Advance and Particulate Matter (PM) Advance Programs Path Forward Plan

A. Introduction

The United States Environmental Protection Agency (EPA) establishes standards for criteria pollutants that affect ambient air quality. These pollutants (ozone, PM, lead, nitrogen dioxide, sulfur dioxide and carbon monoxide) are known to have adverse health effects if found in certain concentrations. The National Ambient Air Quality Standards (NAAQS) are established to sufficiently protect human health and welfare.

In South Carolina, our citizens are fortunate that they have enjoyed good air quality for years. For over a decade, our air quality has steadily improved. Currently, only two pollutants – ground-level ozone and particulate matter – are at levels in some areas that make them “at-risk” for a nonattainment designation should EPA tighten standards. The South Carolina Department of Health and Environmental Control (Department) has strived to create and implement initiatives that continuously improve air quality, and the Department intends to continue these efforts through multiple voluntary programs, to include participation in the Ozone and PM Advance Programs.

B. The Ozone and PM Advance Programs

The Ozone and PM Advance Programs are collaborative efforts between EPA, states, tribes, local governments, businesses and industries. The programs encourage expeditious emission reductions in ozone and PM attainment areas to help participating areas continue to meet the NAAQS for ground-level ozone and PM. By encouraging a proactive approach at the local level, the Advance Programs can help attainment areas ensure that their air remains healthy, and EPA can assist areas in addressing any ozone and PM issues that arise.

Advance is distinct from the former Early Action Compact (EAC) program in that it focuses on attainment areas, and it does not provide regulatory flexibility in the form of deferred designations. It is similar to the EAC program in that it encourages early actions to reduce pollutant and precursor emissions so that the area can avoid a nonattainment designation.

By participating in the Ozone and PM Advance Programs, in partnership with the EPA and our stakeholders, we are pledging to continue our successful efforts at reducing emissions of pollutants and improving air quality in South Carolina.

C. Early Partnership Development and the EACs

The Department has aggressively worked alongside South Carolina air quality stakeholders in multipollutant programs similar to the Advance Programs for over a decade, as described below.

In the fall of 2002, EPA approved an Early Action Plan wherein areas meeting the 1-hour ozone standard could have the effective date of a nonattainment designation for the 1997 8-hour ozone standard deferred by achieving emissions reductions sooner than required under the 1997 8-hour ozone implementation rule, as long as agreed upon milestones were met.

Forty-five of forty-six South Carolina counties signed EACs in December 2002. The Department worked with EPA, state and local governments, industry, environmental groups, and other interested parties to develop strategies to reduce ground-level ozone precursor emissions. In March 2004, counties participating in the EAC program submitted local Early Action Plans to the Department.

On April 15, 2004, EPA designated two areas of South Carolina nonattainment, with the effective date deferred as a result of EAC participation. The design values from all of the monitors in the deferred areas met the ozone standard in 2005, and continued to meet it from that time forward. A portion of York County was designated nonattainment (moderate level) effective June 15, 2004, due to proximity with Charlotte, North Carolina and was not allowed to participate in the EAC program. Only areas classified as marginal nonattainment were allowed to participate.

The Department organized an Early Action Compact Summit in 2006, in order to provide an opportunity for South Carolina air quality partners to share their successes and solidify their resolve to continue improving air quality beyond the term of the EAC compact. As the first of its kind, it attracted nearly 300 stakeholders from five different states including representatives from 24 counties and seven Councils of Government. Participants included representatives from federal, state, and local governments as well as industry representatives, environmental organizations and private citizens.

The EAC Summit topics included energy conservation, diesel retrofits, land use planning, alternative fuels, commuting options and multi-modal transportation, innovative education and outreach, health impacts/lifestyle and finding the funding. Key speakers included Bill Wehrum, Acting Assistant Administrator for Air & Radiation, U.S. EPA, and Mark MacLeod, the Director for Special Projects in Environmental Defense's Climate and Air program, working out of the Washington, D.C. office. As experience with the EAC process demonstrated, direct involvement of stakeholders is critical to overall success with initiatives for improving air quality. The EAC Summit initiative certainly proved this point again. The exchange of ideas, information and interest experienced during the sessions and other opportunities, including breaks and meals, was very beneficial.

As a service to those not attending the EAC Summit, a website was created where electronic copies of the EAC Summit materials were made available. Information included speaker biographies, presentations, additional information, Department staff, registered attendee contact information, list of vendors and contact information, a list of sponsors, and event photos.

EAC counties provided regular updates on the progress of their air quality initiatives to the Department beginning in December 2003. This information was compiled and submitted to EPA semi-annually throughout the program, which ended December 31, 2007.

On December 14, 2007, the Department requested that, based on ambient air monitoring data for 2005, 2006, and 2007, the South Carolina areas that had been designated as nonattainment for the 1997 8-hour ozone standard with the effective date deferred be redesignated to attainment. On April 2, 2008, the redesignations were published in the Federal Register.

Although the EAC program officially ended with our affected areas redesignated to attainment, the efforts with the stakeholders across our State did not cease. These efforts have allowed the ambient ozone and PM concentrations to continue to drop, keeping our areas ahead of the ever-tightening NAAQS. These EAC participants have evolved into our air quality coalitions, which will be discussed in greater detail in Section G.

D. Ozone, PM and Health Concerns

1. Ground-Level Ozone and Health Concerns

Ground-level ozone is not emitted directly by the combustion of fuels. Ozone is formed in the atmosphere by the reaction of volatile organic compounds (VOCs) and oxides of nitrogen (NO_x) in the presence of sunlight. These air pollutants are often referred to as ozone precursors, and are emitted by many types of pollution sources, including on-road and off-road (nonroad) motor vehicles and engines, power plants and industrial facilities, and smaller sources such as dry cleaners, gas stations and fires. Changing weather patterns contribute to yearly differences in ozone concentrations from region to region. Ozone and the pollutants that form ozone can also be transported into an area from pollution sources hundreds of miles upwind. Modeling has shown that South Carolina is “NO_x-limited,” which means that reducing NO_x is a much more effective strategy for lowering monitored ozone levels in South Carolina than reducing VOCs since most of the VOCs in our state are from biogenic sources.

During the hot summer months, ground-level ozone can reach unhealthy levels. Ozone has been associated with increased hospitalizations and emergency room visits, school absences, and reduced activity and productivity. Even at relatively low levels, breathing ozone can trigger a variety of health problems. Ozone can irritate the respiratory system, causing coughing, throat irritation, an uncomfortable sensation in the chest, and pain when breathing deeply. Ozone can worsen asthma and possibly other respiratory diseases, such as bronchitis and emphysema. When ozone levels are

high, people with asthma may have attacks that require a doctor's attention or the use of additional medication. Ozone can reduce lung function and make it more difficult to breathe deeply. Breathing may become more rapid and shallow than normal, limiting activity. In addition, breathing ozone can inflame and damage the lining of the lungs. Over a long period of time (months or years) this may lead to permanent changes in lung tissue, irreversible reductions in lung function, and a lower quality of life. People who are particularly susceptible to the effects of ozone include children and adults who are active outdoors, people with respiratory disease such as asthma, and people with unusual sensitivity to ozone.

2. PM and Health Concerns

PM is made of solid particles and liquid droplets in the air. Burning and dust-generating activities are direct sources of PM. Secondary PM is formed through chemical reactions downwind from sources of gaseous emissions. Larger particles are generally comprised of soil. Smaller particles are generated from the burning of fossil fuels, like gasoline in cars, diesel in trucks and coal used by power plants. PM₁₀ includes particles 10 micrometers in diameter and smaller. PM_{2.5}, also called fine particulate, includes particles 2.5 micrometers in diameter and smaller. EPA regulates both PM_{2.5} and PM₁₀ through the NAAQS.

PM can also have significant impacts on the health of sensitive groups such as children, people with lung disease, and people who are active outdoors. PM is small enough to invade the respiratory system. It can damage lung tissues when it reaches the alveoli, which are the tiny air sacs where we take in oxygen and unload carbon dioxide, thereby reducing lung capacity. PM_{2.5} can get deep into the lungs, may even get into the bloodstream, and can affect the heart as well. Children are at risk because their lungs are still developing and because they spend more time outdoors. The elderly are also sensitive to PM pollution. Scientific studies have linked breathing PM to irritation of the airways, coughing or difficulty breathing, decreased lung function, aggravated asthma, development of chronic bronchitis, irregular heartbeat, nonfatal heart attacks, and premature death in people with heart or lung disease. Both short and long term exposure to PM, primarily PM_{2.5}, can lead to these health problems. Short term exposure is measured on a daily basis. Effects such as nonfatal heart attacks and premature death are the result of repeated short term exposures, rather than a single instance of exposure to high PM levels. Long term exposure is measured on an annual basis.

E. Air Quality in South Carolina

With the exception of the eastern portion of York County, the State of South Carolina is designated attainment for all of the NAAQS. Eastern York County was designated nonattainment for the 2008 8-hour ozone NAAQS, based on monitoring in the North Carolina portion of the Charlotte MSA. The Department ensures compliance with the NAAQS for criteria pollutants through air quality monitoring. Current South Carolina air quality monitoring data indicates that the air quality at all monitoring locations in the State is meeting all of the NAAQS, including the NAAQS for ground-level ozone and particulate matter. The Department continues to maintain a representative network of

ambient air monitoring sites for ozone (see Figure 1) and particulate matter (see Figure 2). Information regarding South Carolina's ambient air quality monitors is found in the yearly *Network Description and Ambient Air Monitoring Plan*.

Figure 1.

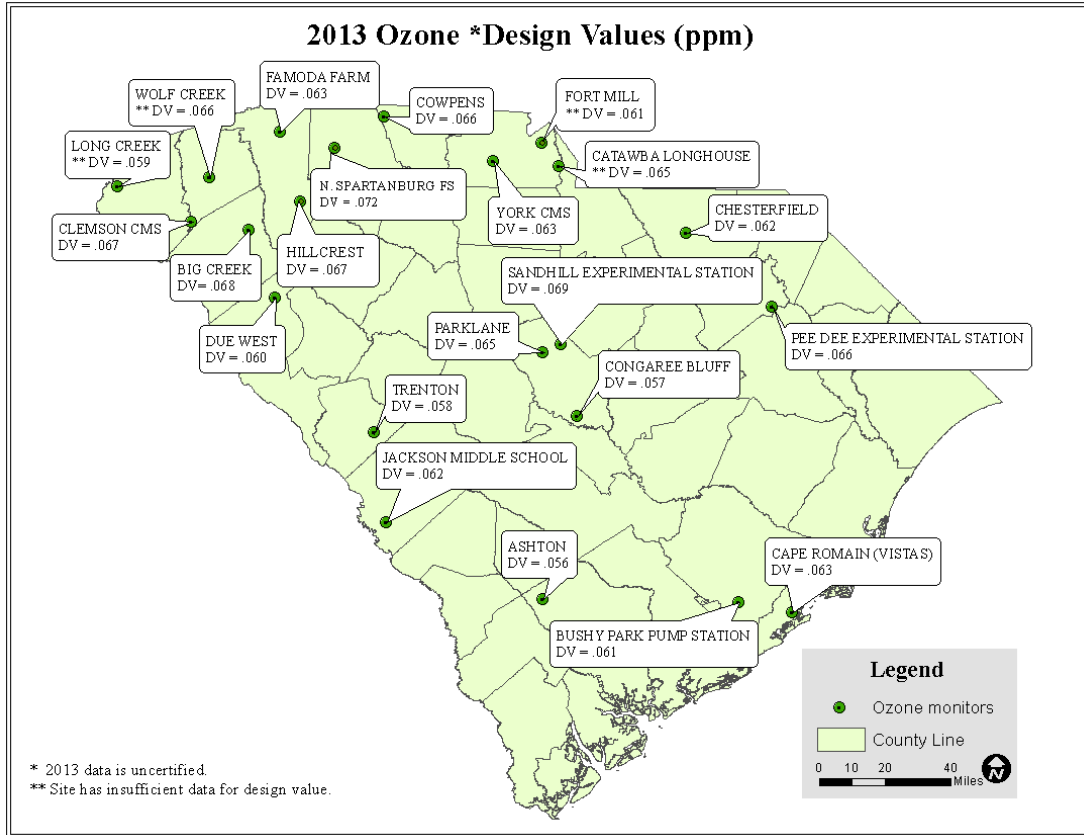
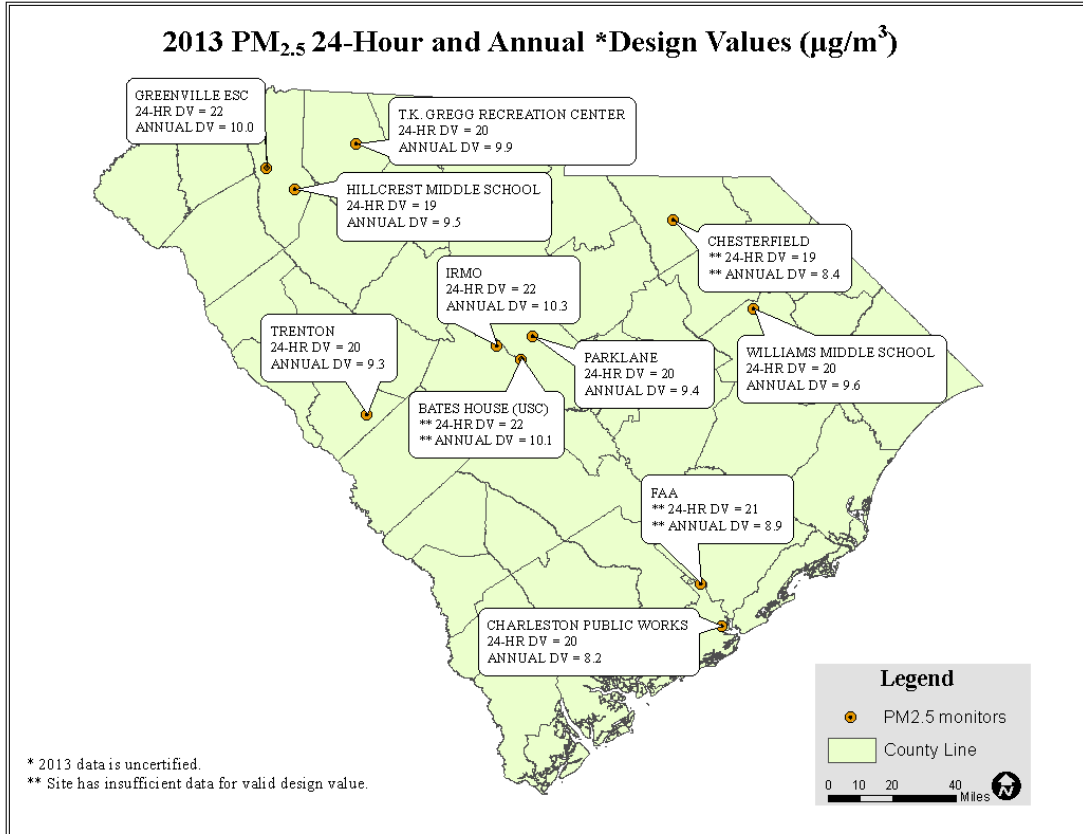
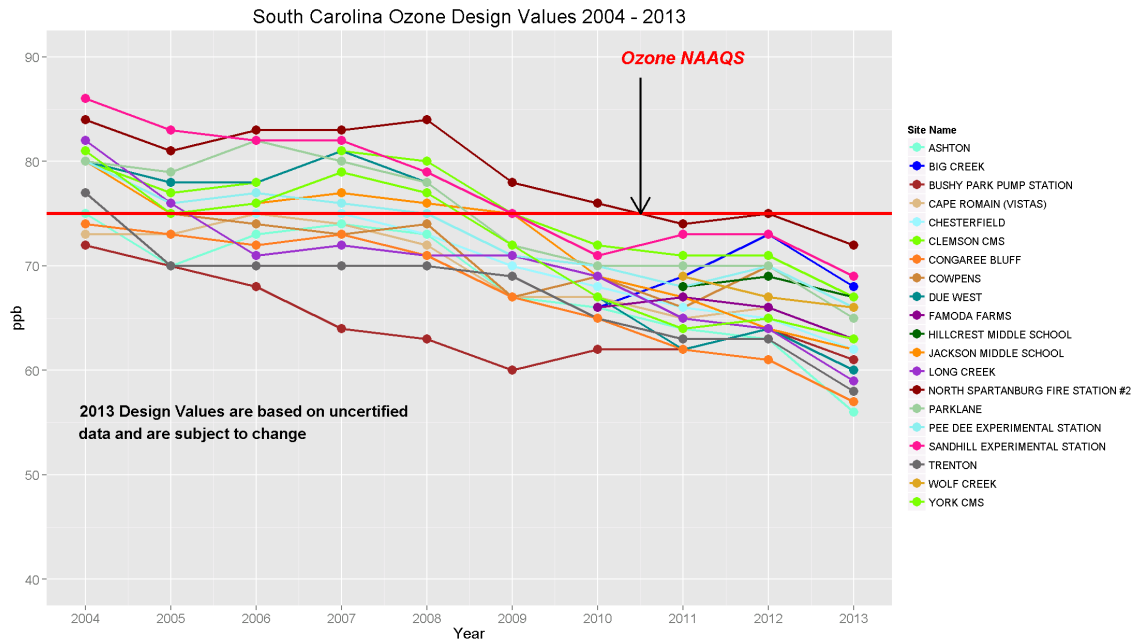


Figure 2.



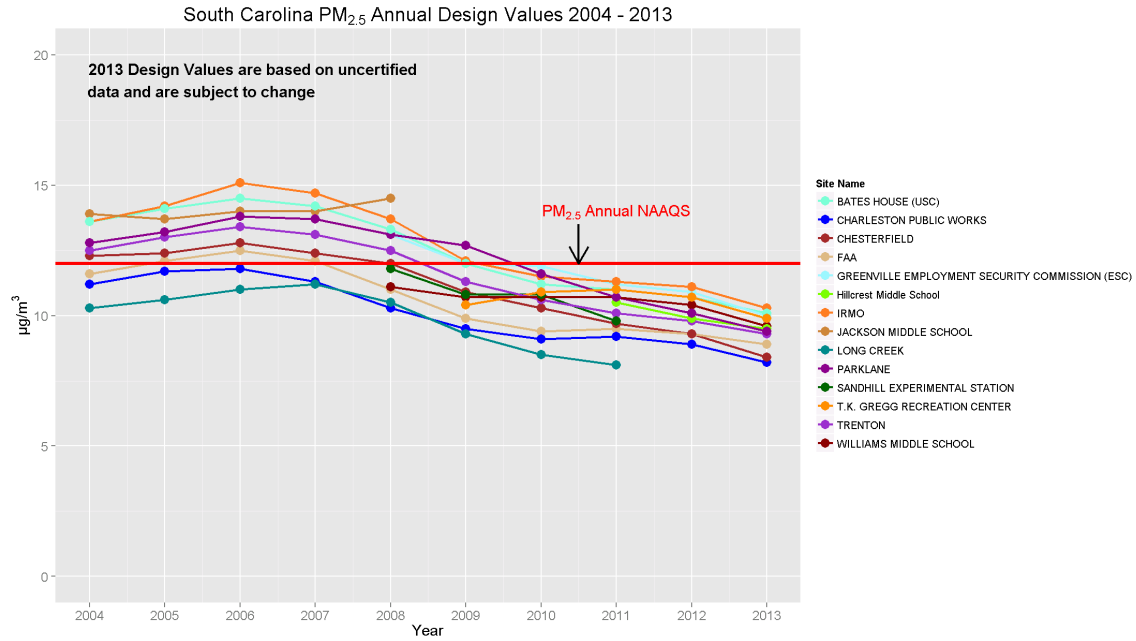
Over the past ten years, South Carolina has seen a continued improvement of both ozone and PM levels throughout the State. Graph 1 demonstrates a significant downward trend of the design values at all monitors across the State. The design values at all monitors are currently meeting the 2008 ozone standards. Also, South Carolina is fulfilling existing emissions inventory requirements.

Graph 1.

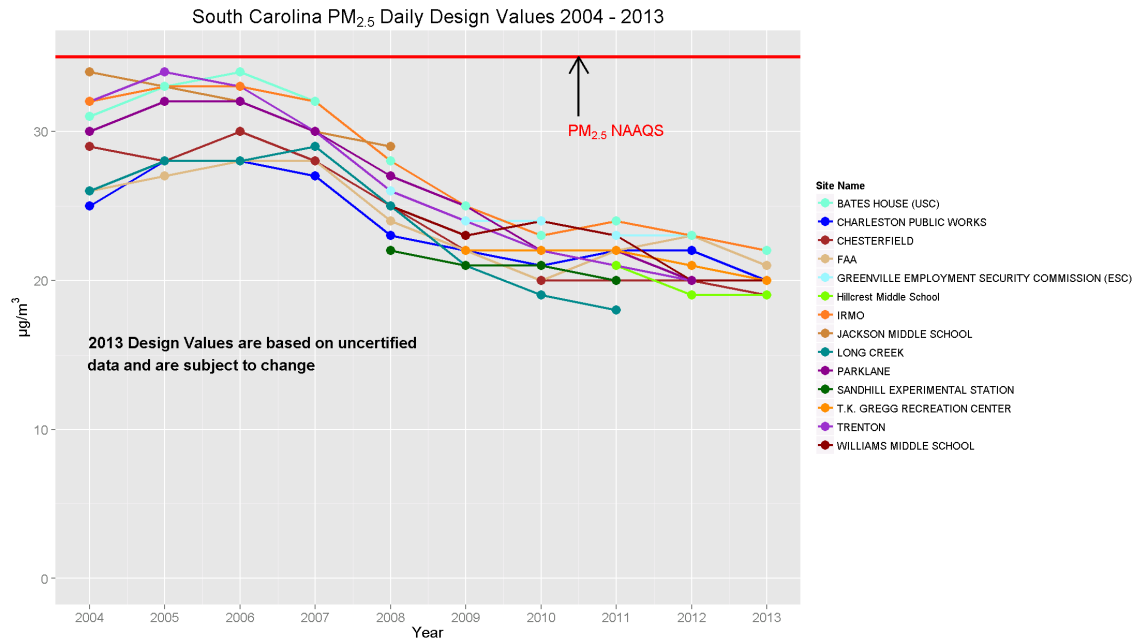


Graphs 2 and 3 demonstrate a continued downward trend in PM_{2.5} annual and 24-hour design values, respectively.

Graph 2.



Graph 3.



F. Electric Generating Unit (EGU) Emission Reductions

The Clean Air Interstate Rule (CAIR) is designed to reduce the amount of PM_{2.5} (by reducing SO₂) and ozone (by reducing NO_x) crossing state lines in the eastern United States. CAIR caps emissions of nitrogen oxides and SO₂, and sets up a market for facilities to trade emissions credits. CAIR was vacated in 2008 following litigation; however, on appeal it was remanded to EPA without vacatur. CAIR is now in effect while EPA develops a replacement rule. South Carolina's CAIR regulations went into effect on May 1, 2009, replacing the NO_x SIP Call Program. The Department implemented CAIR in South Carolina through a modification of our State Implementation Plan (SIP). It should be noted that while some sources around the United States elect to buy credits, two sources in South Carolina have installed and continue to operate additional voluntary pollution control equipment that achieves *actual* emission reductions. One facility installed selective catalytic reduction as early as 2003 and a flue gas desulfurization system in 2008, and another facility installed flue gas desulfurization in 2007.

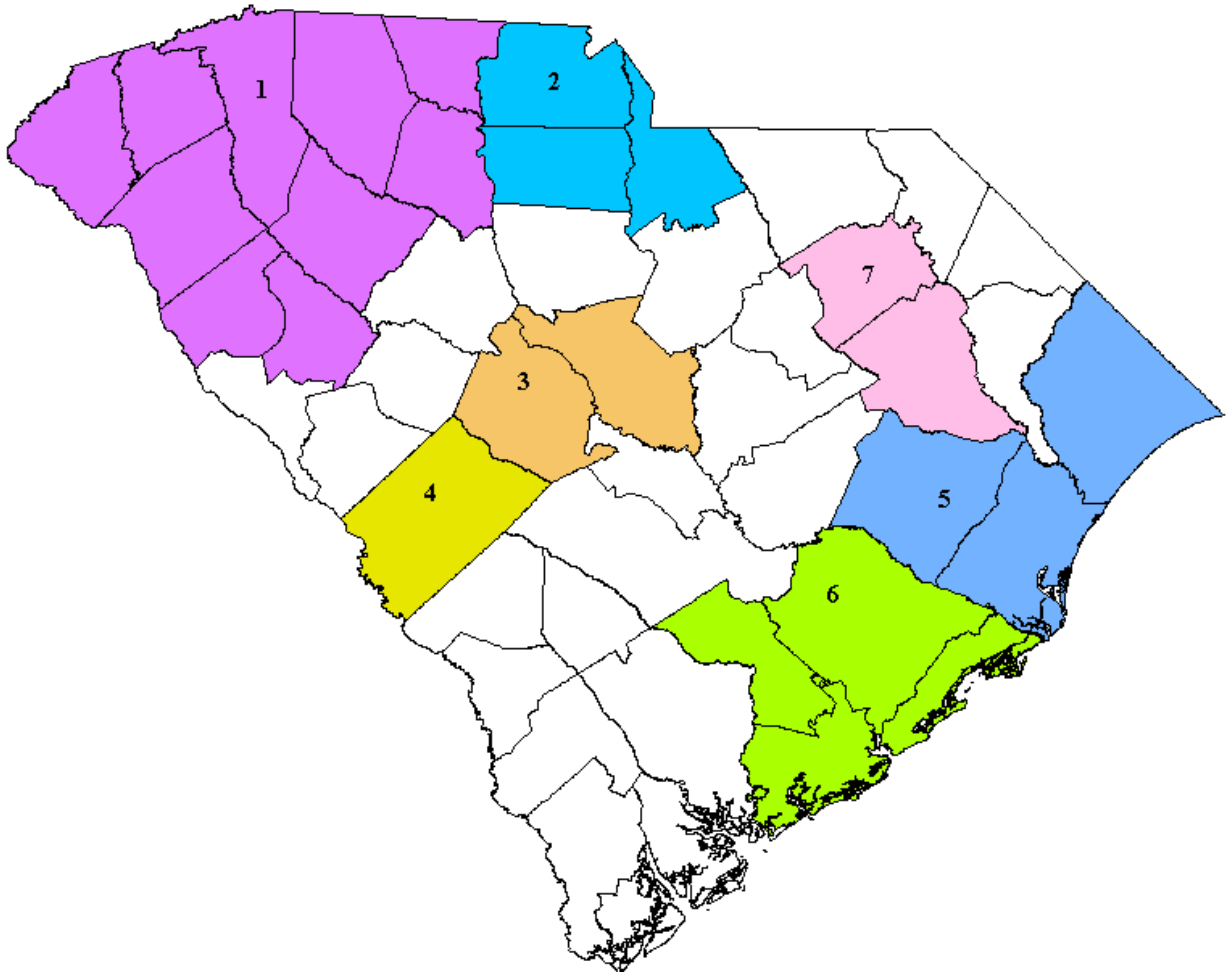
Emission reductions are also being achieved through the replacement of some of South Carolina coal-fired power plants with natural gas and nuclear power as a result of EPA's Utility Maximum Achievable Control Technology (MACT) rule. Between 2009 and 2012, SC realized EGU emission reductions of 24% for NO₂, 56% for direct PM_{2.5}, and 49% for sulfur dioxide (SO₂). Additional closures of older coal-fired EGUs are expected.

G. Local Air Quality Coalitions

As mentioned in Section C, local air quality efforts in South Carolina have continued beyond the successful completion of EAC requirements. South Carolina's air quality coalitions are the next generation of the EAC areas, and many of the stakeholders who made the EAC effort so successful are continuing their support of and commitment to the air quality coalitions as part of the Advance Programs. The air quality coalitions have been in existence for over a decade and provide an excellent framework on which to build continued success in the effort to improve air quality. The coalitions are comprised of local government officials, industry representatives, businesses, environmental groups, and concerned citizens who implement voluntary programs at the local level. These groups meet on a regular basis to discuss local, state, and national air quality issues, receive the latest updates regarding local air quality monitors, plan local voluntary programs that will improve air quality in their regions.

The State currently has seven areas where coalitions exist or are being established. These are discussed below.

Local Air Quality Coalitions



1. Ten at the Top
2. Catawba Regional Air Quality Coalition
3. Central Midlands Air Partnership
4. CSRA Air Quality Alliance
5. Waccamaw Air Quality Coalition
6. BCDCOG Clean Air and Climate Coalition
7. Florence and Darlington Counties



1. Ten at the Top: Ten at the Top (TATT) was initially formed in 2005 as Upstate Together in order to educate business leaders, elected officials, and residents on the value of fostering regional collaboration and cooperation within the 10-county Upstate (Abbeville, Anderson, Cherokee, Greenville, Greenwood, Laurens, Oconee, Pickens, Spartanburg and Union Counties). TATT's 53 member Board of Directors is comprised of a broad spectrum of community members to include representatives from the US House of Representatives, United Way, Upstate Forever, City of

Anderson, Council of Governments, school districts, law firms, and small and large businesses. Together TATT has developed the Upstate Vision 2030 which outlines transportation, air quality, education, land use, and water as the five main indicators of where the Upstate is currently and ultimately where the Upstate is going. TATT closely follows air quality issues and is engaged in air quality at the local level, and has convened a 42-member Upstate Air Quality Advisory Committee.

The Upstate was initially concerned with ozone and PM_{2.5} issues as pre-EAC monitored levels approached the NAAQS. TATT is very much still engaged on both fronts, but the perspective has shifted to a more holistic, multi-pollutant strategy as ozone and PM levels in the area have fallen since the early 2000s. As an example of their current efforts, the Upstate Air Quality Advisory Committee was recently awarded a grant and is currently offering non-restricted grants to up to 40 public and private schools in the Upstate who wish to participate in the Department's Breathe Better (B²) Clean Air Program. TATT is also currently running air quality Public Service Announcements (PSA) throughout the ozone season on local television and radio and is working to print and distribute air quality educational materials. They also publish a "Tip of the Week" which is right in line with their PSA efforts to encourage citizens to keep from idling vehicles and pumping gas in the middle of the day, and to encourage citizens to reduce energy consumption and to properly maintain personal vehicles. Additional information about TATT and their ongoing regional air quality efforts can be found at www.tenatthetop.org/.

Additionally, the Department has partnered with EPA and the TATT to conduct a study to evaluate how proactive strategies and either existing or planned federal/state measures to address multipollutant air quality management can be modeled to demonstrate continued compliance with the NAAQS and reduce population risk from exposure to ozone, PM_{2.5} and selected air toxics. The results of this study could allow the area to focus on those initiatives that will result in the greatest air quality improvements.

2. Catawba Regional Air Quality Coalition: The Catawba Regional Air Quality Coalition is comprised of four counties: Chester, Lancaster, Union and York. Union County also participates in TATT. The coalition works closely with the Department on a number of projects, especially the B² program in which twenty-five schools in the Catawba region have participated. The coalition also participates in the CONNECT program. "CONNECT Our Future" is a three-year planning process being undertaken by 14 counties in the Charlotte area, including the four counties of the Catawba Regional Air Coalition in South Carolina. Through extensive community engagement a regional framework for growing jobs and the economy, improving quality of life and controlling the cost of government will be developed. Sustainable growth and a safe and healthy environment are among the core values of the project.

The Catawba region is unique in that it contains South Carolina's only nonattainment area. The Rock Hill-Fort Mill Area Transportation Study (RFATS), which comprises

the eastern part of York County, was designated as part of the Charlotte nonattainment area for the 1997 8-hour ozone standard in 2004. RFATS was redesignated to attainment for the 1997 standard in November 2012, but subsequently designated as a marginal nonattainment area for the 2008 8-hour ozone standard in July 2012. Although the area has been designated nonattainment as a contributor to ozone levels in the North Carolina portion of the Charlotte region, design values at the ozone monitors in York County have remained in compliance with the 1997 and 2008 8-hour ozone standards.

A subgroup of the coalition meets to discuss regional growth, planning and air quality.

As a nonattainment area, RFATS works with the Department to demonstrate transportation conformity and utilizes Congestion Mitigation and Air Quality (CMAQ) funding for projects demonstrated to provide air quality benefits.

3. Central Midlands Air Partnership: The Department has developed an air quality coalition in the Greater Columbia area, in partnership with the Central Midlands Council of Governments, which includes Fairfield, Lexington, Newberry, and Richland Counties. The Department plans for this group to include city, county, environmental, industry, and other local partners to meet and plan ways to improve air quality in the Greater Columbia area. This group builds on previous work with the Midlands Air Quality Forum, again in partnership with the Central Midlands Council of Governments, and commitments made during the Early Action Compact process.

Department staff is holding one-on-one meetings with coalition partners to discuss multi-pollutant air quality strategies. Coalition partners participate in numerous voluntary emission reducing programs such as lawn mower exchanges and a ride match program called “GreenRide” (<http://midlandsrideshare.org/>). The coalition is also a way to share information about the air quality benefits of energy efficiency building codes. Such information sharing also occurs through groups that coalition partners have organized. The City of Columbia, for example, formed a group called the “Climate Protection Action Campaign,” or CPAC, which meets regularly and advises the Columbia City Council on environmental issues. Air quality is a prominent topic in these discussions. Additional information about CPAC can be found at <http://www.columbiasc.net/cpac>.

4. CSRA Air Quality Alliance: The Central Savannah River Area (CSRA) Air Quality Alliance is a group of counties from both South Carolina and Georgia looking to improve air quality at the local level. One of the greatest accomplishments of the Alliance is the completion of a Park & Ride facility off interstate I-20 in North Augusta. This Park & Ride facility provides car-pooling opportunities for both local drivers working in the area and commuters traveling from the area to and from Columbia, SC. The facility opened in August 2014 and has a capacity for over 200 vehicles. This area, once facing possible PM_{2.5} and ground level ozone non-

attainment issues, is now meeting all NAAQS. More information about this alliance can be found at <http://www.csra-airquality-alliance.com/>.

5. Waccamaw Air Quality Coalition: South Carolina's newest air quality coalition represents Horry, Williamsburg, and Georgetown Counties. The group has been meeting on a quarterly basis to discuss opportunities to improve air quality in the area. These initial meetings have provided opportunities for sharing information on area air-related activities and for building relationships. The Department will also utilize this group to assist with the placement of a new ground level ozone monitor that will be located in the area.

6. BCDCOG Clean Air and Climate Coalition: The Berkeley, Charleston, and Dorchester Council of Governments (BCDCOG) Clean Air and Climate Coalition group represents Berkeley, Charleston, and Dorchester Counties. The coalition has been a springboard for discussions on voluntary emissions reduction programs for industries, municipalities, and individuals, alike. Some of these varied programs include police fleet vehicle usage changes, business fleet anti-idling, municipal waste collection truck retrofits, Trident Ride-Share, and lawn mower exchanges. At times, information shared in coalition meetings led to additional actions.

A relatively unique partner in this community is the South Carolina Ports Authority (SCPA). The SCPA and the Department signed a Memorandum of Agreement in March 2007 for cooperation in reducing air emissions. An emission inventory based on 2005 emissions established a benchmark for future reductions. The Agreement was renewed in 2010 and again in 2013. Some of the SCPA's emission reductions through DERA grants include tug boat engine replacements, drayage truck replacements, and repowered container handling equipment.

7. Florence/Darlington: The Department is working with local officials in Florence and Darlington counties to create an air quality coalition for that region of the state. This future coalition will be modeled after the other coalitions involving local governments, concerned citizens, and local industries. Staff has been in discussions with local government officials, industry contacts, and representatives from the local University about participating in the coalition.

H. Statewide Voluntary Programs

Currently, the Department implements several voluntary multipollutant emissions reducing programs across the State. Also, as a result of participation in the Ozone and PM Advance Programs, the Department is renewing its efforts with our air quality coalitions, and these initiatives are some of the tools being utilized.

These programs include, but are not limited to, the following:

1. Spare the Air Awards

The Spare the Air Awards is an annual program sponsored by the Bureau of Air Quality to recognize innovative programs, projects, and individuals behind the scenes

who continually go above and beyond the call of duty in protecting the environment. These environmental leaders represent workplaces, communities, schools, local governments and individuals who demonstrate their commitment to improve air quality.

For more information and a list of previous winners, visit <https://www.scdhec.gov/SparetheAirAwards/>.

2. Breathe Better (B²)

The B² program is an anti-idling/clean air campaign. The goal of B² is to help protect the health and safety of children by reducing harmful vehicle emissions from cars and buses around school campuses. Solutions involve the efforts of students, faculty, administration, staff, local government and community partners working together. The program is offered to all areas of the State. Through a grant received from the Hollingsworth Fund, the Upstate Air Quality Advisory Committee is offering non-restricted grants for up to 40 public and private schools in Greenville County that start or continue participation in the Breathe Better Clean Air Initiative during the 2012-2013 and 2013-2014 school years.

The B² program is expanding to include the SC Flag Program. The SC Flag Program uses colored flags to notify faculty and staff, students and the community about outdoor air quality conditions. During ground-level ozone season (April-October), a flag is raised in front of participating schools to signify the level of air pollution for that day. The SC Flag Program will help to create awareness of outdoor air quality conditions so students can continue outdoor activities while protecting their health when air quality is in unhealthy ranges.

For more information about the B² program please go to <http://www.scdhec.gov/HomeAndEnvironment/K12SchoolsStudentsTeachers/B2BreatheBetterProgram/>.

3. Diesel Emissions Reduction Act (DERA)

Reducing diesel emissions is an important air quality challenge as diesel emissions make up a significant portion of the on-road and non-road mobile source air pollution in South Carolina. Although more stringent emission standards are taking effect for new heavy-duty on-road and non-road engines, the older diesel engines currently in use will last a long time and will continue to emit large amounts of air pollution for years to come.

DERA established funding for the National Clean Diesel Campaign (NCDC). The NCDC has State Clean Diesel Program allocations for funding projects in each state and a National Funding Assistance program for larger regional competitive grants. The Department's Bureau of Air Quality administers the State Clean Diesel Program allocated funding by awarding subgrants competitively for projects that reduce diesel emissions. In FY12 South Carolina received additional funding from the National

Funding Assistance regional competitive grants fund for targeted projects and additional statewide competitive subgrants.

More information about the Department's effort with the DERA program can be found at <http://www.scdhec.gov/DERA/>.

4. Lawn Mower Exchanges

Although mobile sources, such as cars and trucks, are one of the largest sources of air pollution in South Carolina, lawn mowers and other outdoor gas-powered equipment contribute to air pollution as well. The Department partners with counties, local governments, businesses, and municipalities to help reduce air pollution by hosting lawn mower exchange events. The Department has been involved in promoting, planning, and coordinating lawn mower exchanges throughout the State since 2007.

Additional information about emissions reductions regarding the lawn mower exchange program can be found at <http://www.scdhec.gov/lawnmowerexchange/>.

5. Take a Break from the Exhaust (TABFTE)

TABFTE is a computer program that tracks voluntary actions employees take to reduce air pollution. Employees are awarded points for reducing the amount of vehicle miles traveled (VMT) during the work week by carpooling, staying in the office for lunch, telecommuting, and using mass transit. TABFTE also provides ground-level ozone forecasts April 1 – September 30. To date, the program has tracked over one million miles of VMT reductions. The program is currently offline for maintenance.

6. SmartWay® Transport Partnership

The Department's Bureau of Air Quality collaborated with the South Carolina Trucking Association and EPA to host a workshop on the SmartWay® Transport partnership. The partnership is a collaboration between the EPA and the freight transportation industry to reduce emissions and improve the efficiency of freight transportation. Partners in the program commit to benchmark operations and track fuel consumption. The Department's Bureau of Air Quality became a SmartWay® affiliate in 2013, and will continue to promote the partnership. Twenty-two South Carolina-based companies are currently SmartWay® Partners.

7. Local Policies and Voluntary Measures

Several areas of the state have voluntarily implemented policies or ordinances that will improve air quality. One example is open burning bans that go beyond what the Department's state-wide regulations require. The burning bans not only improve PM emissions in the affected region and but also raise citizen awareness of how behavior affects air quality.

Another local effort is traffic light synchronization that is occurring in many areas of South Carolina. Synchronization reduces vehicle idling and improves traffic flow.

The South Carolina Department of Transportation (SCDOT) assists local governments throughout the state with synchronization projects.

The Department maintains a webpage with suggested model language for ordinances and policies addressing a variety of measures that can be implemented. These can be found at <http://www.scdhec.gov/HomeAndEnvironment/BusinessesandCommunities-GoGreen/GreenhouseGasesActions/>

8. The Advance Reporting Tool

In an effort to keep track of the initiatives across the State, the Department has created the Advance Reporting Tool (ART) which will allow air quality coalitions, industries, local governments, schools, and citizens to report all voluntary emissions reducing actions they take via the internet. The reporting tool, located at <http://www.scdhec.gov/HomeAndEnvironment/Air/AdvanceReportingTool/>, will also enable the Department to export all of the entries into an EXCEL spreadsheet that can be shared with EPA and all of the air quality coalitions. The tool tracks the pollutants reduced, location of the program, the amount of reductions (where applicable), contact information, and other relevant information that will be useful for other groups interested in replicating the programs listed.

The tool will be, in effect, be a “living document” of South Carolina’s Advance program. An up-to-date report on the multipollutant reduction efforts of our air quality coalitions and other stakeholders can be shared with EPA at any time. This will also enable our local air quality coalitions to share successful voluntary air quality programs that can then be replicated throughout the state.

To demonstrate the information collected for initiatives, the landing page is represented below.

Advance Reporting Tool Webpage

Name: * <input type="text"/>		Email: * <input type="text"/>		Phone Number: * <input type="text"/>	
Organization or Company you are Representing (if any) * <input type="text"/>					
Date your activities started * <input type="text"/>			Date your activities Ended (optional) <input type="text"/>		
Type of Control Measure / Activity to improve Air Quality * <input type="checkbox"/> Alternative Commuting Options <input type="checkbox"/> Energy Conservation / Efficiency <input type="checkbox"/> Grants <input type="checkbox"/> Mass Transit <input type="checkbox"/> School Buses <input type="checkbox"/> Outreach Efforts - Industry <input type="checkbox"/> Outreach Efforts - Local Government <input type="checkbox"/> Outreach Efforts - Schools <input type="checkbox"/> Other <input type="text"/>					
Please describe your air quality improvement activities * <input type="text"/>					
Please identify the geographical area(s) of South Carolina that your activities pertain to. * <input type="checkbox"/> Statewide					
<input type="checkbox"/> Berkeley	<input type="checkbox"/> Calhoun	<input type="checkbox"/> Charleston	<input type="checkbox"/> Cherokee	<input type="checkbox"/> Chester	<input type="checkbox"/> Chesterfield
<input type="checkbox"/> Darlington	<input type="checkbox"/> Dillon	<input type="checkbox"/> Dorchester	<input type="checkbox"/> Edgefield	<input type="checkbox"/> Fairfield	<input type="checkbox"/> Florence
<input type="checkbox"/> Greenwood	<input type="checkbox"/> Hampton	<input type="checkbox"/> Horry	<input type="checkbox"/> Jasper	<input type="checkbox"/> Kershaw	<input type="checkbox"/> Lancaster
<input type="checkbox"/> Lexington	<input type="checkbox"/> Marion	<input type="checkbox"/> Marlboro	<input type="checkbox"/> McCormick	<input type="checkbox"/> Newberry	<input type="checkbox"/> Oconee
<input type="checkbox"/> Richland	<input type="checkbox"/> Saluda	<input type="checkbox"/> Spartanburg	<input type="checkbox"/> Sumter	<input type="checkbox"/> Union	<input type="checkbox"/> Williamsburg
<input type="checkbox"/> Other:	<input type="text"/>				
Please include any (estimated) calculated air pollutant reductions [preferably in Tons Per Year (TPY)]:					
NO _x (Oxides of Nitrogen)	<input type="text"/>	CO (Carbon Monoxide)	<input type="text"/>	Ozone	<input type="text"/>
Pb (Lead)	<input type="text"/>	PM ₁₀	<input type="text"/>	PM _{2.5}	<input type="text"/>
SO ₂ (Sulfur Dioxide)	<input type="text"/>	VOC	<input type="text"/>		
Are you planning on submitting additional materials via email? * <input type="radio"/> Yes <input type="radio"/> No					
<input type="button" value="SUBMIT"/>					
DHEC 0468 - 1/2013					

I. Conclusion

The Ozone and PM Advance Programs offer an opportunity for states and local governments to work in partnership with EPA and each other that can help focus participants' efforts to keep their air clean. Participating areas will work with the State to evaluate initiatives that are suitable for their area, and select those that are effective and practical, and implement those control measures and programs. The State and EPA can provide information about available tools and resources that may be used to help the area maintain air quality, and provide technical advice and other support.

South Carolina pursued air quality maintenance and improvement at the local level for over a decade, beginning with the EAC process. The Department recognizes the EAC efforts as successful not only because the affected areas avoided a nonattainment designation, but also because local areas became engaged in an ongoing effort to improve air quality as an outgrowth of their EAC efforts. By 2005 – just one year into the EAC process - all monitors in the affected areas were showing ozone design values below the 1997 ozone standard.

Local efforts did not diminish following the successful conclusion of the EAC process. Another example of the results of local efforts involves the 2008 ozone standard. When the standard was first finalized, several areas in the State had monitors exceeding 0.075 ppm. The Obama Administration reconsidered this standard which delayed the designation process, and our local coalitions took advantage of this opportunity. By the time the final boundary recommendations were submitted to the EPA in October 2011, every monitor in the state demonstrated that air quality had improved to the degree that all areas had a design value that met the 2008 ozone standard.

To date, air quality in our State continues to improve, and all areas currently meet the 2008 ozone standard. Participation in Department-sponsored programs, such as the lawn mower exchange program, has been enthusiastic. Local areas have expanded Department initiatives, such as the B² anti-idling program for schools, in new directions. Several areas, such as the Upstate region, determined an Air Quality Advisory Committee was needed, independent of the Department, to expand efforts in their area. The Department is working with the local coalitions to ramp up these efforts across the State through the Ozone and PM Advance Programs. South Carolina air quality coalitions intend to stay ahead of the ever-tightening curve of air quality standards, and the Department will continue to provide tools and support toward that end. It has been, and will continue to be, our goal to protect the public's health by meeting EPA's air quality standards.