CONSENSUS REPORT of the *BREATHE* STAKEHOLDERS
for
Local Air Emission Controls

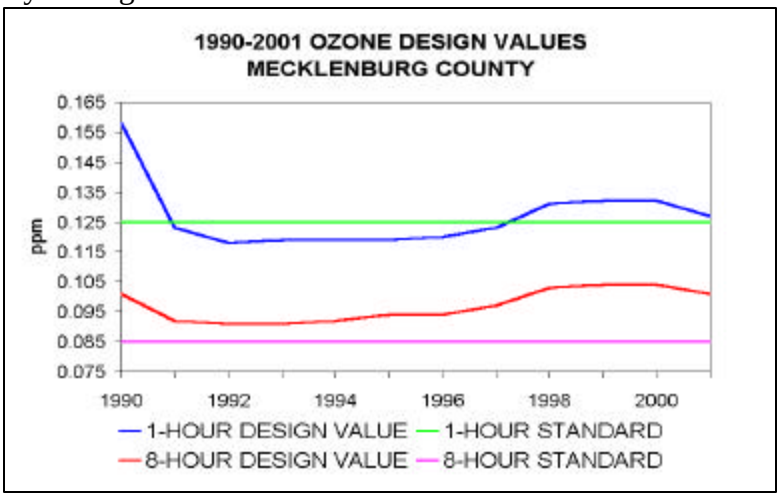
April 25, 2002

Charlotte/Mecklenburg's historic, long term problems meeting the National Ambient Air Quality Standard for ozone ultimately led the Mecklenburg County Commissioners and the Charlotte City Council to adopt and support a clean air policy, which called for local action. The elected officials understood that while our air quality problems needed federal, state and regional action and cooperation, it was important to show leadership and to do what was feasible within their jurisdictions to reduce emission levels. Specifically, on March 29, 2001, the Mecklenburg County Commissioners (Board) adopted a "clean air policy and implementation strategy," which committed it to act proactively at the county level to achieve and maintain clean healthful air and to appoint a representative stakeholder group charged to develop and present recommendations "emphasizing local action." City Council concurred on June 7, 2001. After over six months of education and deliberations, the *Breathe* Stakeholders herewith present their findings, conclusions and a consensus list of air emission control recommendations that we believe are needed to assist Charlotte/Mecklenburg achieve year-round healthy air for its citizens.

I. INTRODUCTION

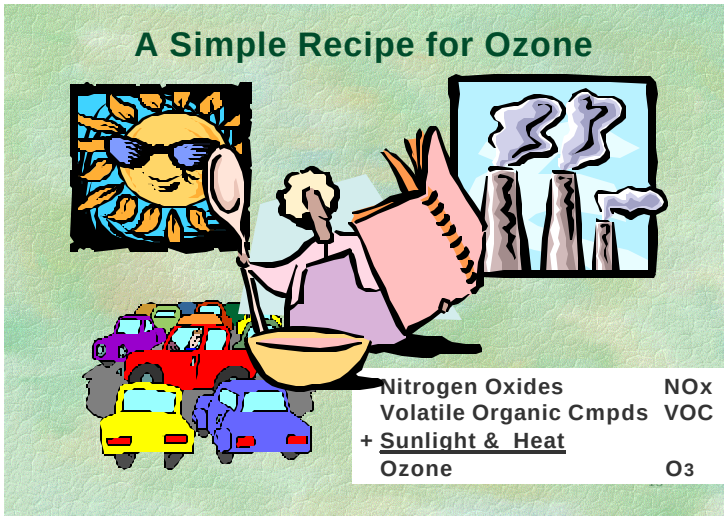
Background

Mecklenburg County has had historic difficulties meeting the National Ambient Air Quality Standards (NAAQS) for ozone, being designated non-attainment (violating the NAAQS) for the one-hour ozone standard from 1978 – 1995. The County was designated attainment by the USEPA in 1995 based on improvements that were made in air quality in the early 1990's. Since then, Mecklenburg County monitoring data shows that the County once again violates the existing one-hour standard and unhealthy levels of ozone based on the pending eight-hour standard are occurring on many days throughout the summer.



The adoption of a local clean air policy was prompted by a recommendation from the Mecklenburg County Environmental Protection Commission (EPC), a citizen advisory board and the Mecklenburg County Department of Environmental Protection (MCDEP) who jointly advised the Board that local action integrated with state and federal programs is needed to ensure our citizens have clean healthy air to breathe. The EPC adopted the recommendation in the form of a resolution on February 26, 2001, and it was forwarded to the Board. In developing the resolution, the EPC received and considered a MCDEP presentation and background document called "Let's Clear the Air," and considered the facts below.

Volatile Organic Compounds (VOCs) and Nitrogen Oxides (NO_x) are the primary pollutants involved in ozone formation (precursors). NO_x is a pollutant generated by combustion of fossil fuels (*e.g.*, gasoline, oil and coal) and is the most important ozone precursor for Mecklenburg County. Multiple, numerous small pollution sources (*i.e.*, small business, mobile and off-road mobile) comprise over 90% of NO_x in Mecklenburg County's air emission's inventory. VOCs are also important with mobile sources being their primary source as well. The key growth factors that lead to increased levels of ozone precursor emissions, - population and vehicle miles traveled, - continue to rise in Mecklenburg County. Current computer modeling shows that reduction in NO_x emissions from large, medium and small sources are an essential component to achieving healthy levels of ozone (as defined by national standards).



Failure to meet the ozone standard will have detrimental effects on the region such as unhealthy air for citizens of Mecklenburg County, increased health care costs, "conformity" requirements adversely affecting transportation projects, difficulty in attracting industry and citizens to the region, flight of industry and citizens to a cleaner environment, and heavier and more costly regulation of small businesses and individuals. (Note: Action on March 26, 2002 by the U.S. Court of Appeals for the District of Columbia Circuit has removed the last major legal hurdle confronting the eight-hour ozone standard, which means that non-attainment re-designation for the County and local

region will come sooner rather than later.)
Other air pollutants such as particulate matter and air toxics are also of significant concern in Mecklenburg County. For the past two years, fine particulate matter (PM 2.5) has been measured at levels that exceed the annual pending national standard

Federal and state governments (including NC) have adopted and implemented rules to reduce ozone levels but Mecklenburg County governments have taken minimal action. Actions the state plans may not be sufficient to assure the county can meet the new standards for healthy air quality. Other cities and counties such as Chattanooga, Cincinnati, and Maricopa County, have enacted local initiatives to achieve cleaner air. Local actions by Mecklenburg County governments can help achieve healthy air quality sooner than if we rely on state or federal actions alone. Moreover, it will place Charlotte/Mecklenburg in a leadership role to champion regional cooperation and action.

Policy and Charge

March 29, 2001: Board adopted "Clean Air Policy."

Resolved, by the Mecklenburg County Board of Commissioners:
"*Mecklenburg County wishes to achieve and maintain clean healthful air as determined by national, state and local ambient air quality standards for the well being of its citizens and the economic vitality of this community and shall act proactively at the county level to achieve this goal.*"

June 7, 2001: Charlotte City Council adopted a resolution in support of the clean air policy.

Resolved by the City Council:
"… the City of Charlotte wishes to jointly develop a "Clean Air Policy" with Mecklenburg County Commission and that the City Council respectfully requests a portion of the appointments to the stakeholder committee, presentation of progress reports and the final report to both the County Commission and City council…"

August 14, 2001: BOCC "charged" the *Breathe* Stakeholders

Resolved, by the Mecklenburg County Board of Commissioners:
"that a representative group of citizens to be known as the Breathe Stakeholders shall be appointed and is charged to:
(i) identify and prioritize specific issues relative to ozone levels and its precursor emissions specific to Mecklenburg County,
(ii) develop a consensus set of principles and quantifiable emission reduction strategies to be considered by the Board and
(iii) present recommendations for action on these matters to the Board of Commissioners within 180 days from the date of the initial meeting."

Stakeholder Process

June – September 2001: Stakeholder Appointed

The Board of Commissioners and the City Council approved the appointment of a representative group of twenty-six (26) citizens and a chair known as the *Breathe* Stakeholders for the following categories:

- Citizens/General Public - (3)
- Environment and Health - (5)
- Transportation - (5)
- Business and Industry - (8)
- Existing Advisory Boards - (5)

September 27, 2001 – December 18, 2001: Education and Fact Finding

During the educational and fact-finding phase seven meetings were held for the purpose of conducting research, as well as identifying issues and potential emission control options. During this time, background air quality literature was provided to the stakeholders for review and eleven (11) guest speakers with expertise in their respective fields made presentations to the group.

January 9, 2002 – April 10, 2002: Deliberations

April 18, 2002 - Public Meeting Presenting Draft Recommendations

II. ISSUES

An issue can be defined as a point of discussion, debate or dispute, which is often of broad public concern. The *Breathe* Stakeholders for Charlotte/Mecklenburg identified the following air quality issues and concerns at their initial meeting on September 27th:

1. Air pollution impacts the environment, economy and health of Charlotte/Mecklenburg. How significant are these impacts?

2. Pollution reduction measures cost money. Who is going to pay for it? What kinds of funds are available to pay County air pollution control programs?
3. Can the Mecklenburg County Commissioners adopt more stringent air pollution regulations than those adopted by the North Carolina Environmental Management Commission, and are in effect elsewhere in North Carolina?

4. The air in Mecklenburg County is aesthetically unpleasing at times. Haze occurs throughout the summer and a brown cloud appears above the city during the winter and summer.

5. Industrial sources of air pollution in Mecklenburg County are already regulated. Is it not time to consider other sources of air pollution for emission reductions?

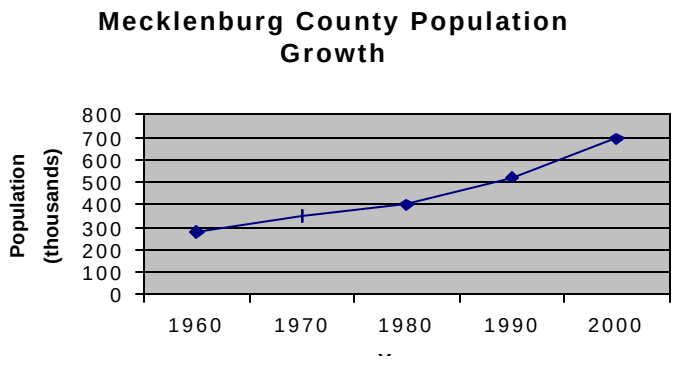
6. Air pollution is a regional problem requiring a regional solution. At the direction of the Mecklenburg County Board of Commissioners and the Charlotte City Council, the Stakeholder recommendations will be limited to Mecklenburg County.

7. Charlotte/Mecklenburg is fortunate to attract newcomers and is a rapidly growing metropolitan area; however the growth our community and business leaders strive for is creating more air pollution. Is dirty air is one of the price of progress? How do we continue to grow and prosper while improving and preserving our air?

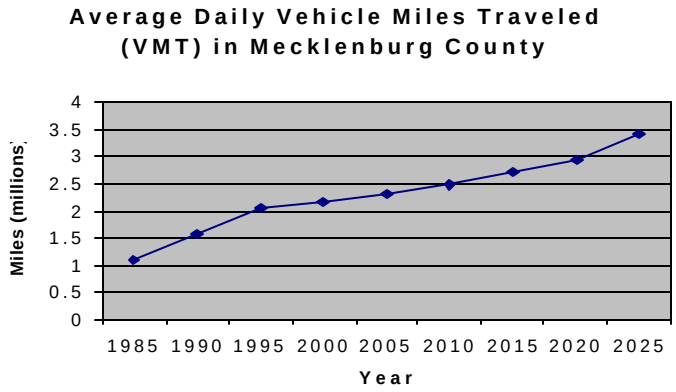
8. Our land-use habits have resulted in urban sprawl causing higher-mileage commutes to work and retail activities, worsening our mobile source emissions.

III. FINDINGS of FACT

1. Mecklenburg County is located in the center of a seven county metro area and has a population of over 625,000. Charlotte was one of the fastest growing cities in the US from 1990 to 1998. Most of this growth has been at very low densities, with the areas experiencing the most growth being those located at the edges of the County.

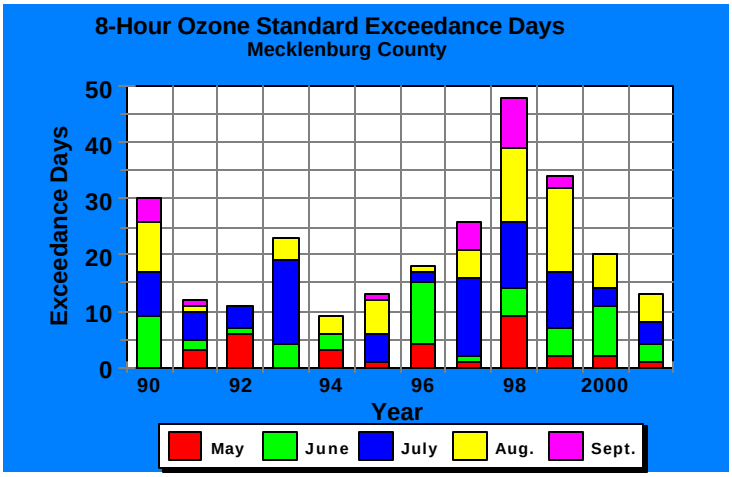


2. Mecklenburg County residents inhale air with ozone levels above the pending national health-based standard 20 -50 days each year. The trend for population and vehicle registration (associated with vehicle miles traveled) is currently upward, which are the primary local sources of ozone's precursor emissions.



3. Mecklenburg County was designated an ozone "attainment" area in 1995. In 1997, the USEPA promulgated the new 8-hour average standard of 0.08 PPM that was to replace the 1-hour average of 0.12 PPM. Implementation of the pending eight hour standard has been delayed due to legal actions; however the one-hour standard remains in effect.

   The last three years of monitoring data show the pending eight-hour ozone standard has been repeatedly exceeded in Mecklenburg County during the summer. The North Carolina Division of Air Quality has recommended to USEPA that Mecklenburg County along with eight surrounding counties be designated as an ozone non-attainment area. Federal application of the standard is expected to occur soon.



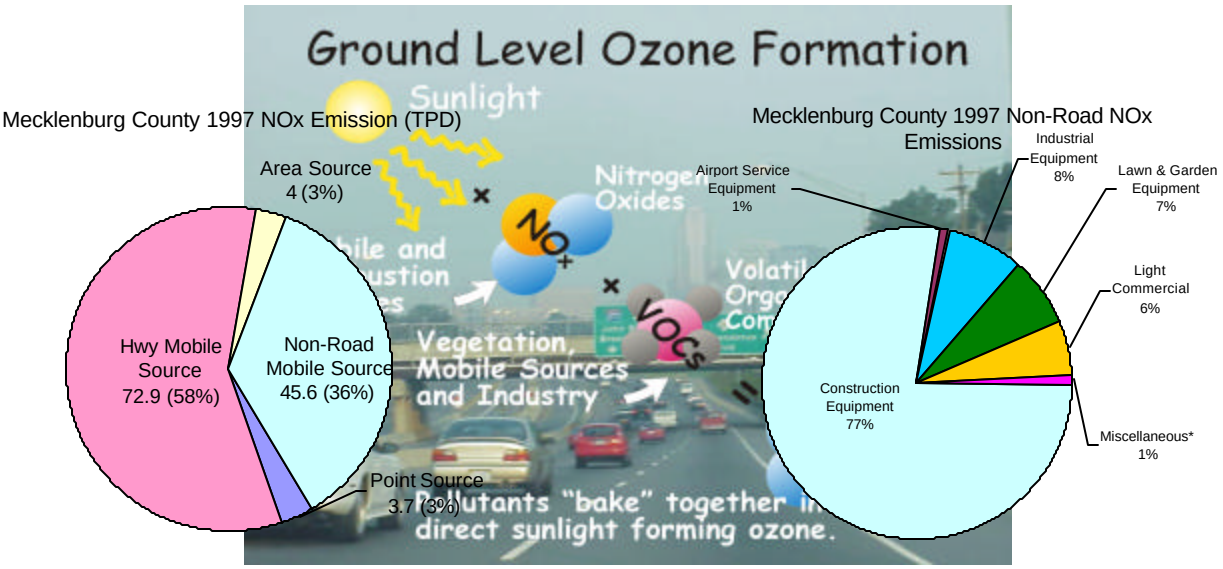
Mecklenburg County currently meets the national ambient standards for the other regulated pollutants; however current Mecklenburg County monitoring data shows that particulate matter sized ≤2.5 microns ("PM-2.5") is expected to be a serious health and compliance issue under the pending federal air quality standard.

4. Ozone is an irritant for everyone. Exposure to ozone irritates the eyes, lung tissue and breathing passages, and decreases lung function. Symptoms of exposure to unhealthy ozone levels include coughing, headaches, and shortness of breath, chest discomfort, aggravation of asthma and sensitivity to allergens. Ozone reduces lung function in all of us; however it has greater effect on people with respiratory disease. Hospital admissions rise as ozone concentration increases.

   Ozone is also a strong oxidizer. Flora and fauna as well as man-made materials may be damaged by ozone at levels less than the current 1-hour standard (.12 ppm).

5. Ozone is not released directly into the atmosphere but is formed by a reaction of volatile organic compounds ("VOC") and nitrogen oxide ("NO_x") in the presence of sunlight and heat. Generally, the highest ozone concentrations occur on hot, sunny days under low wind or stagnant conditions. VOC emission sources include vegetation, surface coatings, gasoline, various consumer products and mobile sources. NO_x is a by-product of combustion and the typical sources are utility and industrial boilers, motor vehicles and off-road vehicles.

In Mecklenburg County, the majority of the NO_x emissions inventory as well as significant amounts of VOCs are generated by mobile sources such as cars, trucks and construction equipment.



6. Early ozone control strategies in the 1980s focused on reducing VOC emissions and met with significant success. Ozone levels in Mecklenburg declined through the eighties into the mid-nineties. Through emissions inventorying and modeling, the North Carolina Division of Air Quality has determined that NO_x is now the more important pollutant in the ozone battle for Charlotte/Mecklenburg. (Although VOC reductions will still be needed to control reduce ozone levels, NCDAQ does not know how much VOC reduction is necessary or where they are needed. More study is needed.)

7. *Smart growth* is growth that allows a community to grow and expand its economy in a manner that protects the environment, expands living, working, and travel choices and strategically targets public resources to address community-wide needs.

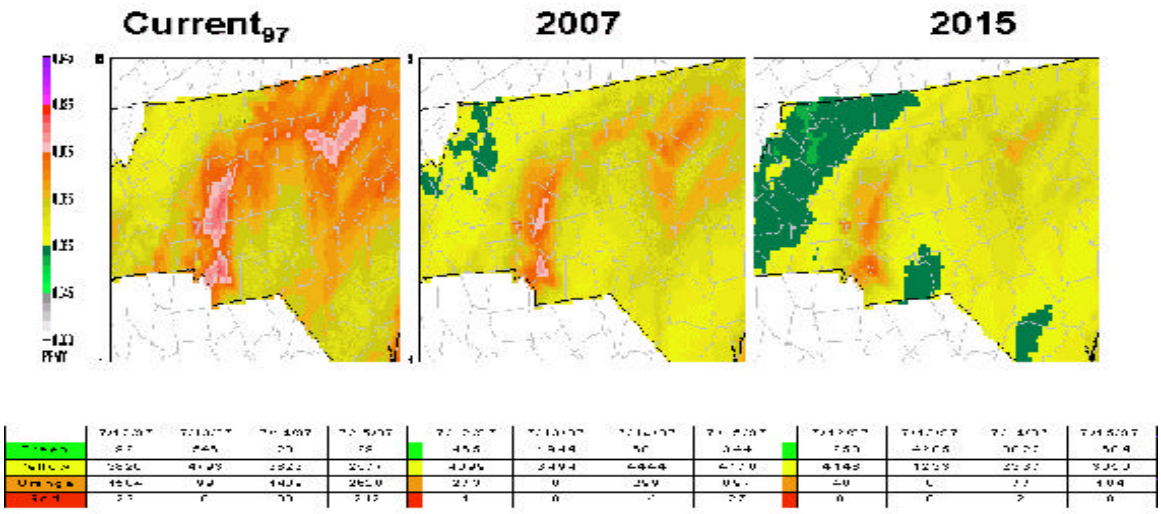
   Charlotte/Mecklenburg adopted the 2025 Transit/Land Use Plan in 1998. The goals of the plan are to support the centers and corridors land use plan, to give people a choice in the mode of travel, to develop a regional transit system and support economic growth and sustainable development. This plan proposes a light rail system, commuter rail and bus rapid transit, expanding the bus and vanpool service and explores the use of low-emission vehicles and fuels.

8. Since 1990 the federal conformity regulation has required that transportation projects not cause, or worsen, violations of air quality standards. A conformity lapse can mean the delay or stoppage of road and transit design work, right-of-way acquisition, new construction, and permitting. Additionally, serious conformity lapses have resulted in lawsuits in other communities, slowing and further complicating the conformity process.

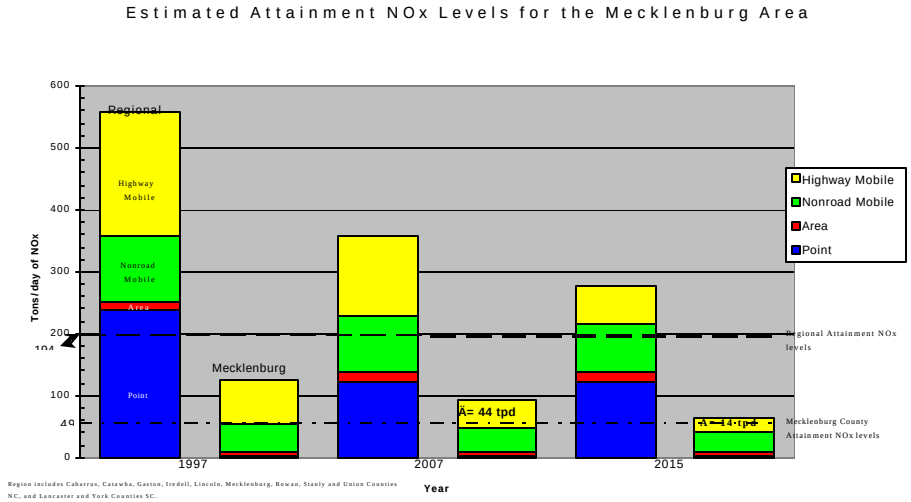
9. The Mecklenburg County Commissioners can adopt more stringent air contaminant regulations than those adopted by the North Carolina Environmental Management Commission (EMC) by obtaining "special permission" from the EMC, and only if such regulations would "result in more effective air pollution controls than applicable standards promulgated by the Commission."

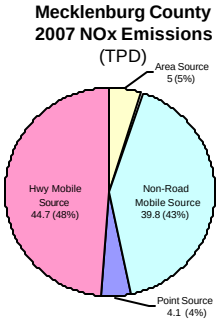
10. The Mecklenburg County Commissioners are authorized to expend "tax funds, non-tax funds, or any other funds available to finance an air pollution control program."

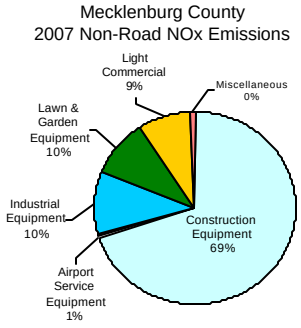
Modeling Results



11. Sophisticated computer modeling performed by the North Carolina Division of Air Quality (NCDAQ) currently projects that federal and state pollution control measures in place or planned will reduce ozone levels sufficiently by 2015 to meet the pending eight hour NAAQS throughout the state except for the three monitoring sites in Charlotte/Mecklenburg. These measures will reduce emissions from the largest sources and in the most cost effective manner. To achieve attainment with the eight-hour ozone standard in 2007, NCDAQ estimates that as much as an additional 44 tons per day of NO_x reductions will be necessary over and above what will be in effect. Eight years later, in 2015, additional state and federal requirements will be in effect; however it is still estimated that 14 tons per day of NO_x reductions will be needed for Charlotte/Mecklenburg to achieve attainment. (Fewer NO_x reductions are projected to be necessary in the future, since the state and federal requirements will have had more time to take effect.)







12. Non-federal feasible local emission reduction options were identified from Dallas and Houston Texas, the California Air Resources Board, Chicago, Illinois and others.

IV. CONCLUSIONS

1. Non-attainment status for the federal ambient ozone standard is harmful to flora and fauna and Charlotte/Mecklenburg's environment, economy and health. Excessive ozone causes detriment to the environment by damaging plants. Excessive ozone causes detriment to the economy by

inhibiting business growth, decreasing housing values, increasing medical costs, damaging man-made materials and crops, and by reducing visibility, which impacts tourism. Excessive ozone levels are harmful to all; and children, the elderly and adults who are active outdoors are most at risk. Repeated exposure to ozone may have cumulative as well as short-term health effects.

2. The current and planned state and federal air quality regulations have helped and will continue to help reduce the ozone problem, but currently these efforts alone are not predicted to be adequate to eliminate unhealthy ozone days in Charlotte/Mecklenburg as measured by the pending eight-hour standard. Additional locally feasible emission control actions need to be taken. We need to effectively manage growth in our region to reduce traffic and other related mobile emissions.

3. Ozone non-attainment status is will impact new and existing businesses because they will be subject to more stringent emission regulations for industrial processes.

4. Mass transit infrastructure development is needed to reduce transportation related emissions by providing transportation choices, focusing and promoting pedestrian and transit supportive development, and reducing trips and trip lengths.

5. A lapse in conformity would have huge effects on Charlotte/Mecklenburg's transportation projects such as delays, loss of funding and potentially lawsuits as recently happened in Atlanta and Houston. Smart growth, mass transit development and emission reductions will aid in the County's conformity demonstration.

6. Innovative control measures for area and mobile on-road and off-road sources can result in important emission reductions of NO_x and VOC.

7. Changing people's habits through awareness, education and motivation is one key to decreasing mobile and area source emissions.

8. Investments in mass transit, sidewalks, bike lanes, bicycle facilities, are needed to reduce transportation related emissions. Employing transit and non-single occupancy vehicle transportation options and intensified and mixed-use development patterns built on existing infrastructure can reduce vehicle miles traveled (VMT) and NO_x.

9. People are becoming more cognizant of air quality issues and the inability to meet healthy air standards will make our area less attractive as a relocation or tourist destination.

10. Ultimate success is dependent on a combination of all of the following: federal and state laws and regulations, local involvement and initiatives and local regional cooperation and coordination.

V. BREATHE STAKEHOLDERS CONSENSUS RECOMMENDATIONS FOR LOCAL AIR EMISSION CONTROLS

The *Breathe* Stakeholders have learned that there are many causes of poor air quality and likewise its solutions. Determining how to improve our air quality is complex. Over 60 control options were considered, each with many possible variations. We heard from federal, state and local experts on planning, transportation, air quality, and health. The combined stakeholder and staff hours for 16 two-hour meetings totaled over 1500 hours. Staff research and preparation time is estimated at 3000 hours.

In accordance with our charge, summarized below are the controls we found most suitable and feasible for Charlotte/Mecklenburg. The charge focused our efforts on quantifiable emission reduction strategies relative to ozone levels and its precursor emissions specific to Mecklenburg County; and required a consensus process. (Consensus is the process groups use for making high quality decisions that are acceptable to and supportable by all of its members.)

It is expected that a combination of voluntary, incentive based and mandatory programs will be necessary, both to be acceptable and to achieve the desired air emission reductions. Unless specifically stated or inherent in the control measure, it is recommended that all three approaches be evaluated and presented for consideration during adoption/implementation.

Smoking Vehicles: Charlotte City Council to require Charlotte/Mecklenburg Police Department to actively enforce the North Carolina smoking vehicle statute and require repairs (NCGS 20-128.1 – "Control of Visible Emissions").

Leaking Gas Cap Checks: Replace automobile leaking gas caps, which release volatile organic compounds into the atmosphere. This type of program provides an incentive to the public to obtain a free gas cap leak check and replace the cap if it is found leaking.

Fleet Scrappage: Remove older, higher polluting vehicles from the "community fleet" with an accelerated vehicle retirement (scrappage) program, which encourages vehicle owners to voluntarily retire their vehicles sooner than they would have otherwise. (Vehicles can also be replaced or upgraded via other strategies that would result in a less polluting vehicle.)

Accelerate Replacement of Heavy Duty Diesel Non-Road Fleets - public/private: Accelerate the replacement/turnover of non-road diesel fleets with new engine technology being introduced in 2001 - 2005 (Tier 2) and 2006 - 2008 (Tier 3). (Applicable to engines > 50

horsepower.) Accelerate fleet turnover by providing incentives such as sales tax credits for citizens and companies that replace older vehicles with Tier 2 vehicles over the next 5 - 10 years. Subject non-road diesel fleets include bulldozers, excavators, backhoes, graders, forklifts and similar machinery. (Vehicles can also be replaced or upgraded via other strategies that would result in a less polluting vehicle.)

Accelerate Replacement of Heavy Duty Diesel On-Road Fleets - public/private: Accelerate the replacement/turnover of on-road diesel fleets with new engine technology scheduled for introduction in 2004 and 2007. Affected on-road fleets are primarily dump trucks, garbage trucks and buses. Develop incentive programs to accelerate vehicle turnover. (Vehicles can also be replaced or upgraded via other strategies that would result in a less polluting vehicle.)

Accelerate Replacement of Gasoline Powered On-Road Fleets - public/private: Accelerate the replacement/turnover of on-road gasoline powered fleets with hybrid low emission vehicles and/or new engine technology scheduled for introduction in 2004 (Tier 2). (Vehicles can also be replaced or upgraded via other strategies that would result in a less polluting vehicle.)

Accelerate Replacement of Gasoline Powered Equipment - public/private: Accelerate equipment turnover by providing incentives for citizens and companies that replace older equipment with types meeting California standards over the next 5 - 10 years. Gasoline powered (spark ignition) engines include chainsaws, lawnmowers, and generators.

Participate in Regional Initiative to Seek Early Introduction of Ultra-Low Sulfur Diesel Fuel: Participate in a multi-state regional effort to bring ultra-low sulfur diesel fuel to the southeast earlier than scheduled. Ultra-low sulfur fuel (15 ppm sulfur) is scheduled to become available in 2006; however, ultra-low sulfur fuel can be available now if the market demands are adequate. Using ultra-low sulfur fuel without retrofit technology results in a decrease in emissions. On-Road fleets are primarily dump trucks, garbage trucks and buses. Non-Road fleets include bulldozers, excavators, backhoes, graders, and forklifts.

Local Government Construction Projects (heavy duty off-road fleets): Specify in the bidding process that contractors must achieve emission reductions relative to standard practice. Methods might include using diesel equipment retrofitted with exhaust control technologies or other clean diesel/alternate fuel engines to reduce emissions. The available retrofit technologies include: diesel oxidation catalysts, diesel particulate filters, enhanced combustion modifications and crankcase emission controls (PM, CO, VOC, toxics); selective catalytic reduction, lean NOx catalyst technology and engine modifications (NOx).

Local Government/Community Energy Conservation: Conserve energy, reduce air pollution and save money by applying several existing programs such as – the Energy Star Program, Urban Forestry, and the Urban Heat Island Initiative. ("Urban heat islands" are caused by a shortage of green space and a concentration of dark-colored, impermeable surfaces that absorb heat in urban areas, resulting in higher temperatures, which not only increase ozone in an area, but also increase electrical usage.)

Develop an energy plan that directs each local government to reduce energy use and urban summertime atmospheric temperatures. This could include retrofitting local government buildings/schools and streetlights for energy efficiency, promoting cooler "white roofs", promoting transportation alternatives, and encouraging resource reduction and recycling and composting. Promote use of more reflective glass, efficient buildings, tougher energy use standards, "white roofs" on new houses, native plants, and add more trees for new and existing structures throughout the county.

A Community Energy Conservation plan could expand this voluntary program to new and modified construction in all sectors. To be required it would need approval of State Building Code Council.

Urban Forestry: Trees reduce the need for air conditioning, reduce the heat island effect in urban areas, and reduce energy usage. Promote tree ordinances in all jurisdictions establishing minimum tree preservation and planting standards for new development; and promote strategic tree planting, street trees, and parking lot trees. Promote the "Urban Forests Program."

Mass Transit (Transportation Choices): Enhance and aggressively support, and promote Charlotte's mass transit program and future plans, which are designed to provide multiple transportation options to the public. The only local mass transit choice that is currently available is the transit bus. Examples of future options are bus rapid transit, commuter passenger service offered by trains on existing rail systems, and a diesel multiple unit or "light rail."

Commuter Choice Program: Establish voluntary employer programs with vehicle miles traveled goals and incentives. Use compressed work weeks or flexible work hours, which helps reduce traffic congestion during the peak driving hours by spreading out the number of vehicles on the roadway over a longer period of time. Such programs can include employers offering a tax-free transit/vanpool benefits. Carpooling/vanpooling is an option in which employees living in the same area agree to ride to work together rather than to drive their individual vehicles to work. Promote telecommuting as an option in which an employer allows an employee to perform their job tasks either from home or from a designated telework center.

Enhanced Air Quality Education/Motivation (Outreach - Communication): Fund and implement an aggressive program to educate and motivate individuals to take actions to minimize ozone pollution. These programs would occur year 'round with added emphasis on ozone season (May – September) and ozone episodes. They can include a wider distribution of educational materials, increased media alerts, promotion of the NC Air Awareness program, and others. A goal would be to increase business and industry participation in the NC Air Awareness program by a specified percent.

Episodic Programs: Ozone season is from May to September. Many strategies can be applied during specific ozone events or episodes (such as code orange and/or red days). Episodic program(s) should be developed as incentive based with documented commitments obtained from participants. Participants are expected to be government and local businesses of all types who would commit to actions such as: restricting/limiting/eliminating early-morning operation of heavy construction equipment and/or morning use of small gasoline-powered lawn care equipment; scheduling heavy construction, landscaping, and mowing activities outside of morning hours, or delaying certain activities to non-ozone action days; placing idle restrictions on drive-thrus, (airport, banks, restaurants); offering free or discounted mass transit: promoting and selling cleaner burning gas powered equipment (*e.g.*, edgers, blowers, and chainsaws during summer ozone season).

Regional Consortium: Establish a regional air quality consortium involving the local county and municipal governments in the Charlotte region from both NC and SC to develop a set of mandates and voluntary initiatives to improve air quality in the region. Develop an agreed upon user fee based revenue stream to fund air quality initiatives.

Funding: "Environmental user fees" are the preferred funding mechanism subject to prescribed conditions. The purpose of a user fee policy would be for those who pollute to pay. Since mobile sources, both on-road and off-road are the primary cause of our ozone problems, we should focus our attention on this segment of the problem. A dedicated funding source is absolutely essential to the effectiveness of the above recommendations. A knowledgeable task force should be appointed to research develop and recommend a set of feasible user fees.

Program Cost(s): While, control measure effectiveness (defined by cost per ton of pollutant removed) was considered for options comparison purposes, individual program administration costs have not been estimated. As a principle, it was assumed that user fees would fund the programs, therefore not raising property taxes. First year costs are expected to in the range of $750,000 - $1,000,000, with "marketed" voluntary promotional programs (to be effective) estimated at

$500,000 and six professional staff and associated cost for administration of the program(s) estimated at $400,000.

VI. WORTHY OF FUTURE CONSIDERATION

Many control measures were found worthy of consideration but fell short of meeting our requirements for inclusion as full-fledged recommendations. Reasons included difficulty in implementation, inability to adequately quantify or determine cause and effect relationships, or their overall generalness and lack of specificity. Some were considered as guiding principles. Nonetheless, we believe strongly that each of these ideas has merit for improving air quality and we urge ongoing investigation and evaluation of the following concepts for future consideration:

Continue to apply and expand smart growth principles throughout all local jurisdictions; thereby intentionally altering the urban environment to improve air quality. Examples of smart growth are transit oriented development, and infill development, pedestrian oriented development, brownfields reclamation and development, concentration and mixed-use of activity centers, strengthening downtowns, and balancing location of housing and employment opportunities. Smart growth includes policies, programs, or actions such as zoning regulations, design controls, "green development" practices, and incentive programs to encourage smart growth. Examples include incentives to locate on transit corridors, encouragement of mixed business and residential uses and use of "Location Efficient Mortgages" (LEM). (LEMs promote housing located in areas offering access to local goods and services that are more densely populated and are served by public transit; and allows the borrower to shift the savings from transportation to housing under the underwriting criteria of the LEM.)

Promote alternative fuels for public and private on-road fleets where and when feasible: Alternative fuels include bio-diesel, electricity, ethanol, hydrogen, liquefied petroleum gas, methanol, natural gas, P-series fuels, and solar energy as well as hybrid gasoline/electric. Consider joining and participating in the Clean Cities program, which promotes energy conservation and non-reliance on foreign gasoline.

Seek to manage the vehicle miles traveled (VMT) growth rate. Encourage transportation-related land use strategies that reduce VMT, Promote multi-modal mobility including biking and walking, support market mechanisms, and provide relevant information to Planning Commissions. Set voluntary targets.

Information concerning Charlotte/Douglas International Airport operations and emissions was received and considered during the course of deliberations. Airport operations were specifically

identified as a result of what Dallas, Texas had evaluated when they developed their ozone attainment plans. The airport was dropped from specific consideration, since it was determined that the airport would not be able to provide detailed emission information within the *Breathe* schedule and also because none of the recommendations exempted the airport from applicability. Aviation Director, Jerry Orr, has committed to providing detailed air emissions information to staff in the near future.

VII. "SELLING THE INVISIBLE"

Cleaning up something we cannot see, smell or touch is a difficult concept to explain, to understand and to sell. The causes and control of air pollution are complex, broad and have multiple levels, (small to large sources, unlimited by geography, controlled by many jurisdictions and levels of government, affected by individuals as well as groups). It is grounded in science but fraught with future uncertainties. Ozone is predicted to improve but how much and when? Are we sure? We do know that all the cheap and big pollution reductions have been accomplished or are "in the works" and there is no "silver bullet" that will solve the problem.

We commend our elected officials for recognizing the need to act. For the good of us all, it is important to act locally, while promoting encouraging and supporting regional, state and federal actions.

We urge our elected officials to continue acting by directing:

- *Immediate implementation of feasible local actions that require no new funding,*
- *The appointment of an expert panel to develop and recommend user fee funding options, and*
- *Staff to develop implementation/operational plans and program cost estimates incorporating the above recommendations.*

REFERENCES / SPEAKERS

Don Willard, Air Quality Director, Mecklenburg County: "Let's Clear the Air"

Sheila Holman, Chief of Attainment Planning, North Carolina Division of Air Quality: "Ozone and North Carolina's Plans for Attainment"

Marvin Bethune, Mecklenburg County Attorney: "The Legal Authority of Mecklenburg County to Enact Local Air Pollution Control Measures"

David Hyder, Air Quality Specialist, North Carolina Department of Transportation: "Conformity, the Linkage Between the State Implementation Plan for Air Quality and Transportation Improvement Plans (TIP)"

Jeff Francis, Air Quality Monitoring Chief, Mecklenburg County: "Mecklenburg County Air Quality Monitoring and Data"

Randy Poole, Air Quality Supervisor, Mecklenburg County: "The State Implementation Plan (SIP) Function and Process"

Dr. David John McKee, Office of Air Quality Planning and Standards, United States Environmental Protection Agency: "Health & Environmental Impacts of Ozone"

Debra D. Campbell, Assistant Director, Charlotte/Mecklenburg Planning Commission: "Charlotte/Mecklenburg's Land Use Planning Initiatives and Air Quality"

Dr. Dave Martin, Professor of Economics, Davidson College: "The Economic and Development Impacts that Poor Quality Air Episodes and Non-attainment Status May Have on Mecklenburg County"

Christopher Klaus, Principal Transportation Planner, North Central Texas Council of Governments: "The Dallas-Fort Worth State Implementation Plan Process for Ozone Attainment"

Ron Tober, Chief Executive Officer, Charlotte Area Transit System: "Giving People a Choice: Developing a Regional Public Transportation System"

T.J. Orr, Aviation Director, Charlotte/Douglas International Airport: "Airport Emissions"

APPENDICES

Clean Air Policy – Mecklenburg Board of County Commissioners

Clean Air Resolution – Charlotte City Council

Stakeholder Charge - Mecklenburg Board of County Commissioners

Table of Control Options Considered

Recommended Local Control Option Analyses

Summary Table of Recommended Controls