US EPA ARCHIVE DOCUMENT

Transportation Control Measures: Strategies for Reducing Vehicle Miles Traveled and Greenhouse Gas Emissions

Local Programs for a Regional Issue

Jennifer Roberts, Chairperson
Board of County Commissioners
Mecklenburg County , North Carolina

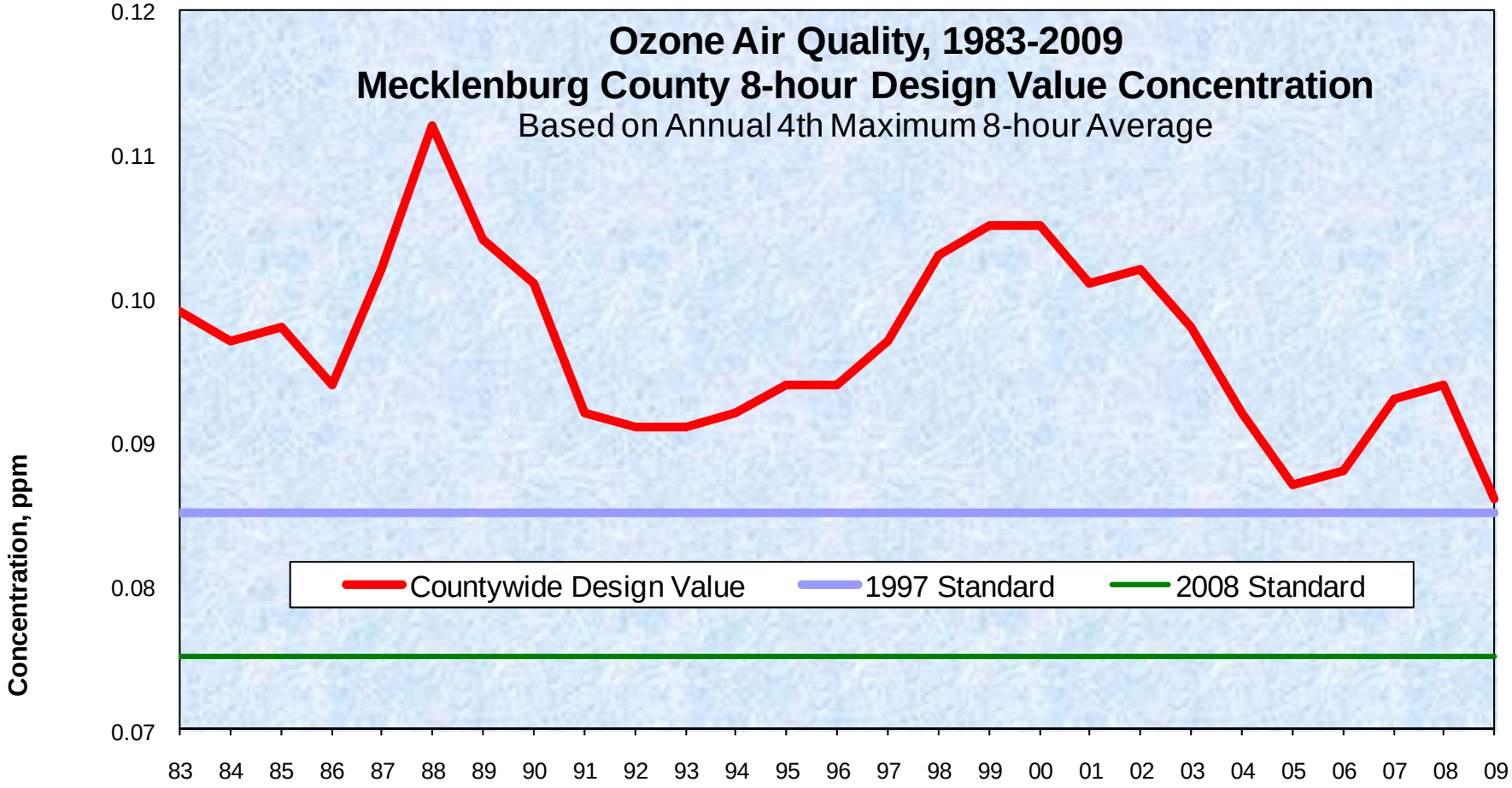
Who We Are

Population	
Charlotte	756,912
Mecklenburg County	963,363
MSA	1,800,000

Local Programs and Partnerships

- Mecklenburg County
  - Developing programs and partnerships to address our Regional air quality issues
- Program Highlights for Today
  - Clean Air Works!
  - Public Transportation
  - Greenway Connectivity
  - GRADE +

Our Air Quality Challenge



Another Solution?

- A public/private partnership to reduce ozone pollution
- Works with carrots, not sticks
- Encourages businesses and governments to adopt policies to reduce air pollution
  - Energy audits
  - Voluntary changes in business practices
- Encourages employees to fight pollution through transportation demand management

Funding

- Clean Air Works began with two years of public funding
- During that time, private industry devoted significant in-house and in-kind contributions to promote program
- In third and fourth years, program totally privately funded through foundation grants and contributions from business partners
- Now in its fifth year, the program utilizes a combination of CMAQ funding and private in-kind contributions

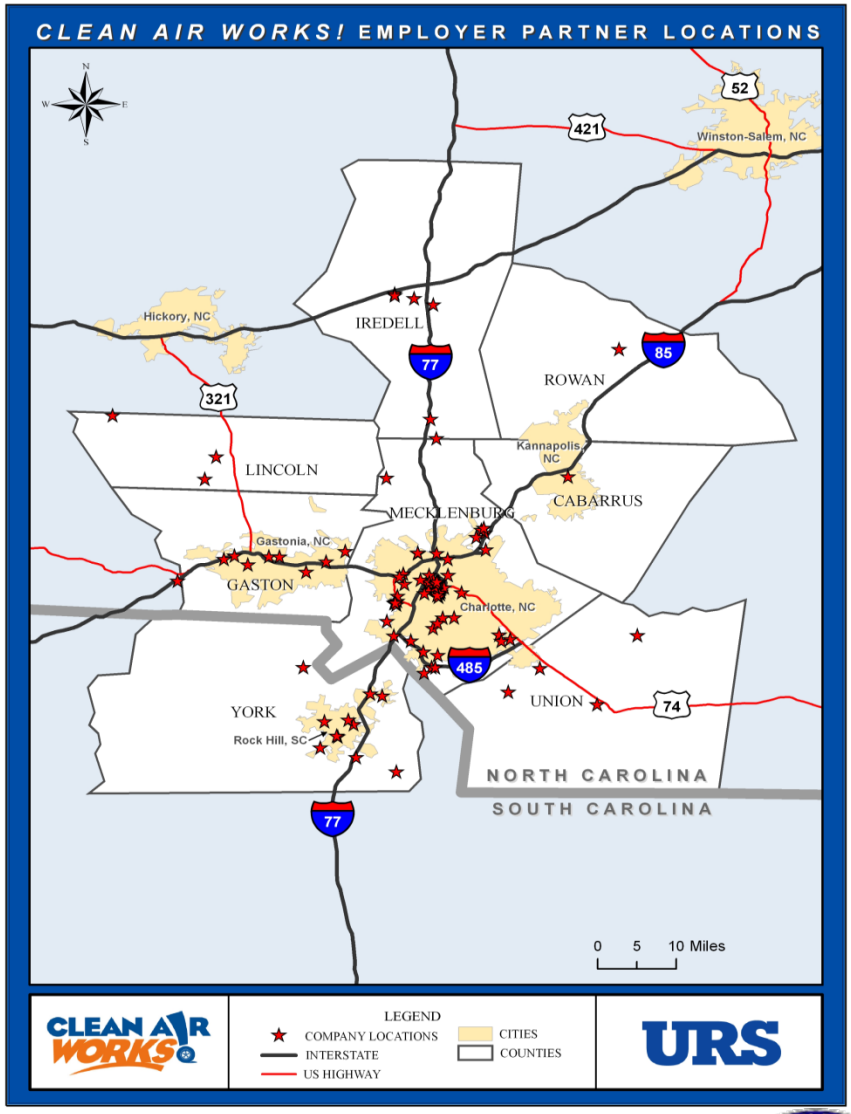
Administration

- Regional Air Quality Board, a group of elected officials, other public officials, and business leaders from across Charlotte/Mecklenburg region

- The Board has worked cooperatively to reduce program operating costs (from $1MM in year one to $250K in year 5), while expanding participation

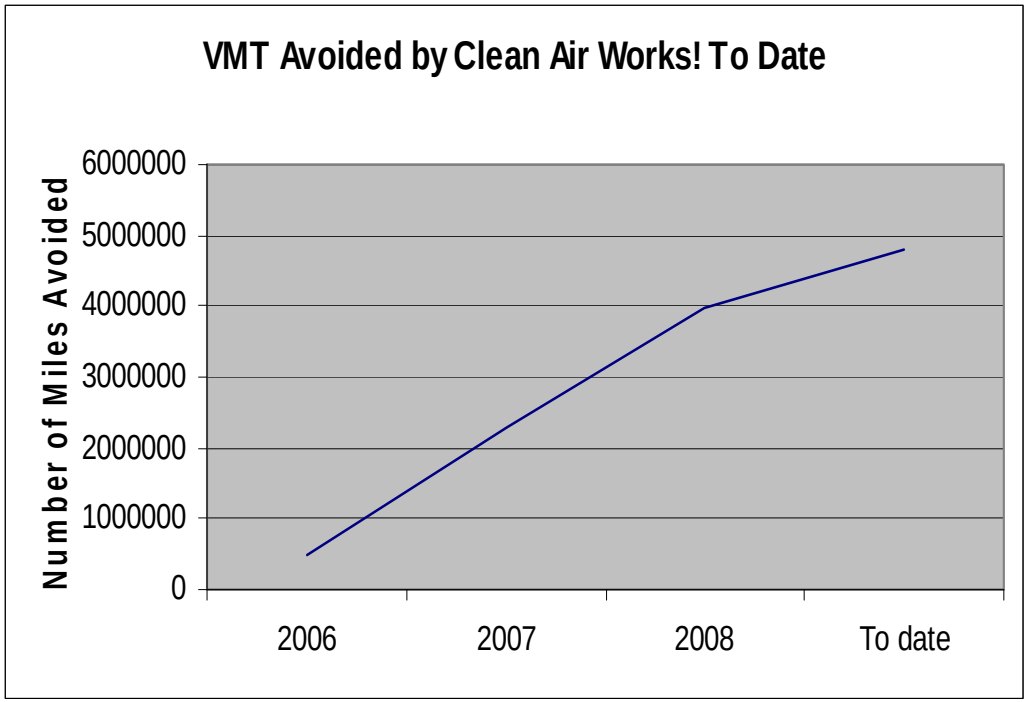
Results?

- 116 Partners to date
- Expanded to public-sector partnerships in 2009
    - •-Centralina Council of Governments and Charlotte-Mecklenburg Schools
- Continued emphasis on growth in 2010 – pursuing operational changes: biggest bang for the buck



Commute Reductions

- Over **45,000** commute trips have been avoided by CAW commuters in 2009
- Approximately **4.8 million miles** avoided since the inception of *Clean Air Works!*
- Approximately **280,000 lbs.** of NOx emissions avoided by CAW efforts to date
- Program uses information from active reporters only; real experience probably greater



Expansion of the effort – Interlocal Air Quality Compact

Through leadership of Centralina COG, Western Piedmont COG, Catawba Regional COG, and CONNECT Partnership

Effort designed to reach air quality stakeholders:

- Local governments
- State governments
- Chambers of Commerce
- Private sector; employers across region
- Non-profit environmental and health advocacy groups
- Regional transportation partners
- Public and private school systems; colleges and universities
- Other non-profits and faith communities

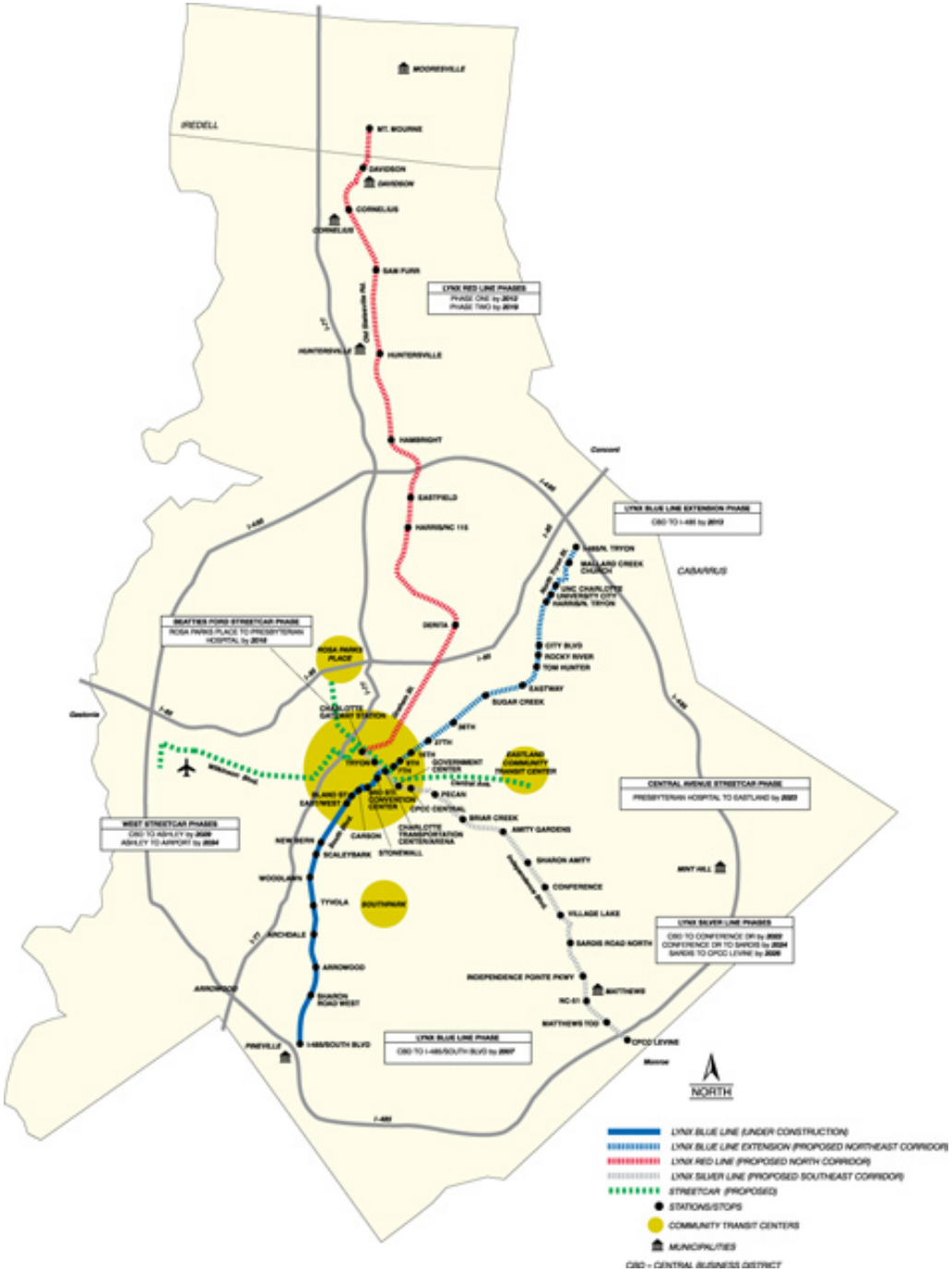
. . . and get them to COMMIT to reduce air pollution

Transportation Alternatives

- Public transportation CATS
  - Charlotte Area Transit System
  - ½ ¢ Transit Tax referendum 1998 and 2007
  - Revenue decline $71m FY08 to $56m FY2010
- Carpool/Vanpool
- Express busses into surrounding counties
- Telecommuting
- Greenways – bicycle commuters

2030 Transit Plan:

5 corridors and streetcar



South Rail Line
Opened Nov. 2007

Light Rail Success

- Daily ridership of LYNX light rail about 16,000
- Projections of ridership were at 9,100
- Over $1.4 billion of new development along line
- Ridership steady even in recession
- Average weekday ridership of overall system 81,000
- 2030 Goal: 25 miles of commuter rail, 21 miles of light rail, 16 miles of streetcar, 14 miles of bus rapid transit and an expanded network of buses and other transit services.

Mecklenburg County Greenways

Mecklenburg County
Park and Recreation
The Natural Place To Be...
www.parkandrec.com

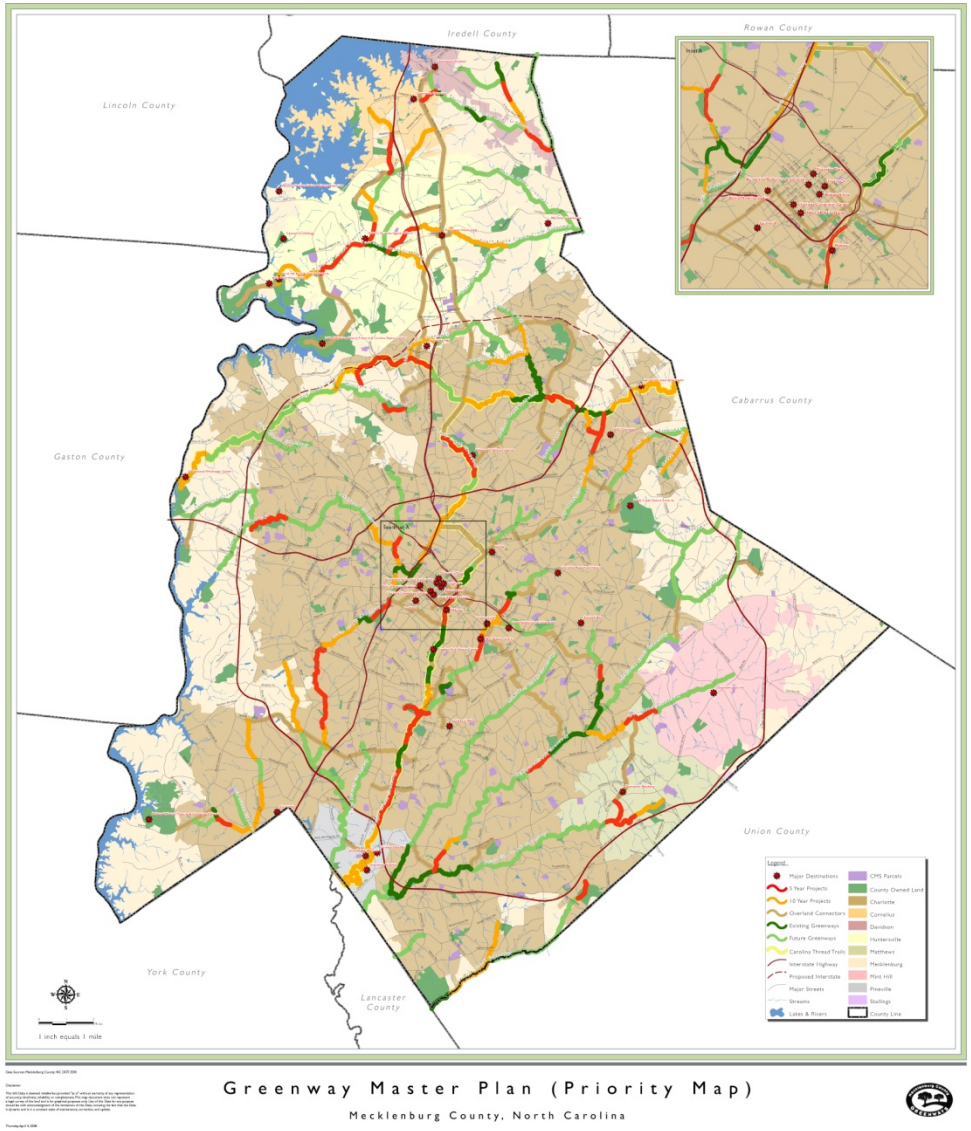
What Are Greenways?

Multi-objective corridors that

- Link neighborhoods, businesses, shopping, parks and schools
- Preserve natural areas for plants and animals
- Provide natural buffers along creeks and streams
- Offer convenient, safe, and accessible opportunities for recreation

NCDOT and the Federal grants have provided over $10M to our greenway system. This is a testament to their belief in our greenway system serving an important transportation function.

Mecklenburg County Greenways



- System is composed of creek and overland corridors
- Currently, over 30 miles of trail constructed along 14 greenway and overland trail corridors
- Updated greenway plan calls for additional 42 miles in five years and another 61 in ten years
- 2008 citizen survey cited walking and biking trails as #1 desired

Choosing the Next Greenway

The methodology for choosing where greenways will be built involves a ranking system that includes many factors:

- Available land
- No significant barrier to construction
- Developed miles per park region (for distribution around the county)
- Project partnerships
- Funding partnerships
- Located in a surrounding town
- Listed in other plans or studies (such as part of Carolinas Thread Trail, etc.)
- Connectivity to schools, parks, existing greenways, universities, etc.

In the Middle of It:
Design and Construction

LITTLE SUGAR CREEK GREENWAY

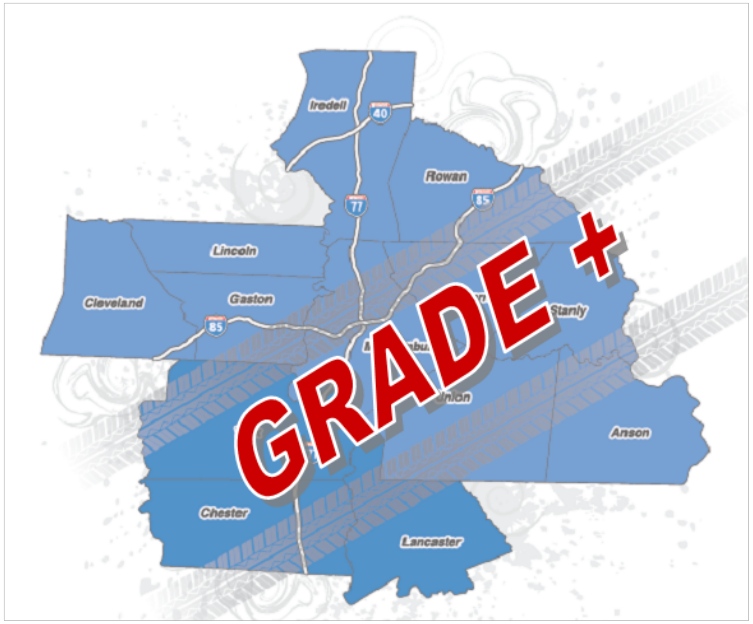
OVERALL MASTERPLAN

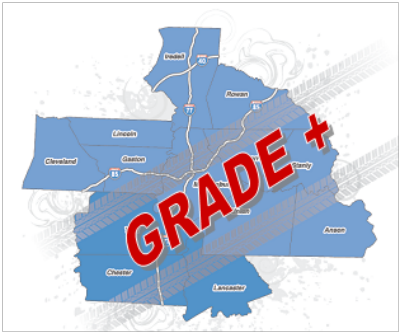
East 7th Street to Morehead Street

Elizabeth Park

Little Sugar Creek Greenway: Freedom Park

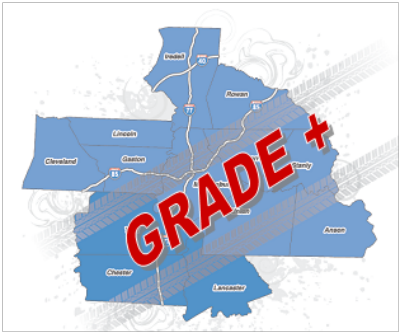
GRADE+
A Local Solution to a Local Problem





G**rants to **R**eplace **A**ging **D**iesel **E**ngines **Plus

- In 2007, Mecklenburg County Air Quality initiated GRADE to help fight the formation of ground level ozone…"SMOG"
- Locally administered, sub-grant reimbursement program for public or private diesel equipment owners
- Modeled after similar programs in Texas and California



G**rants to **R**eplace **A**ging **D**iesel **E**ngines **Plus

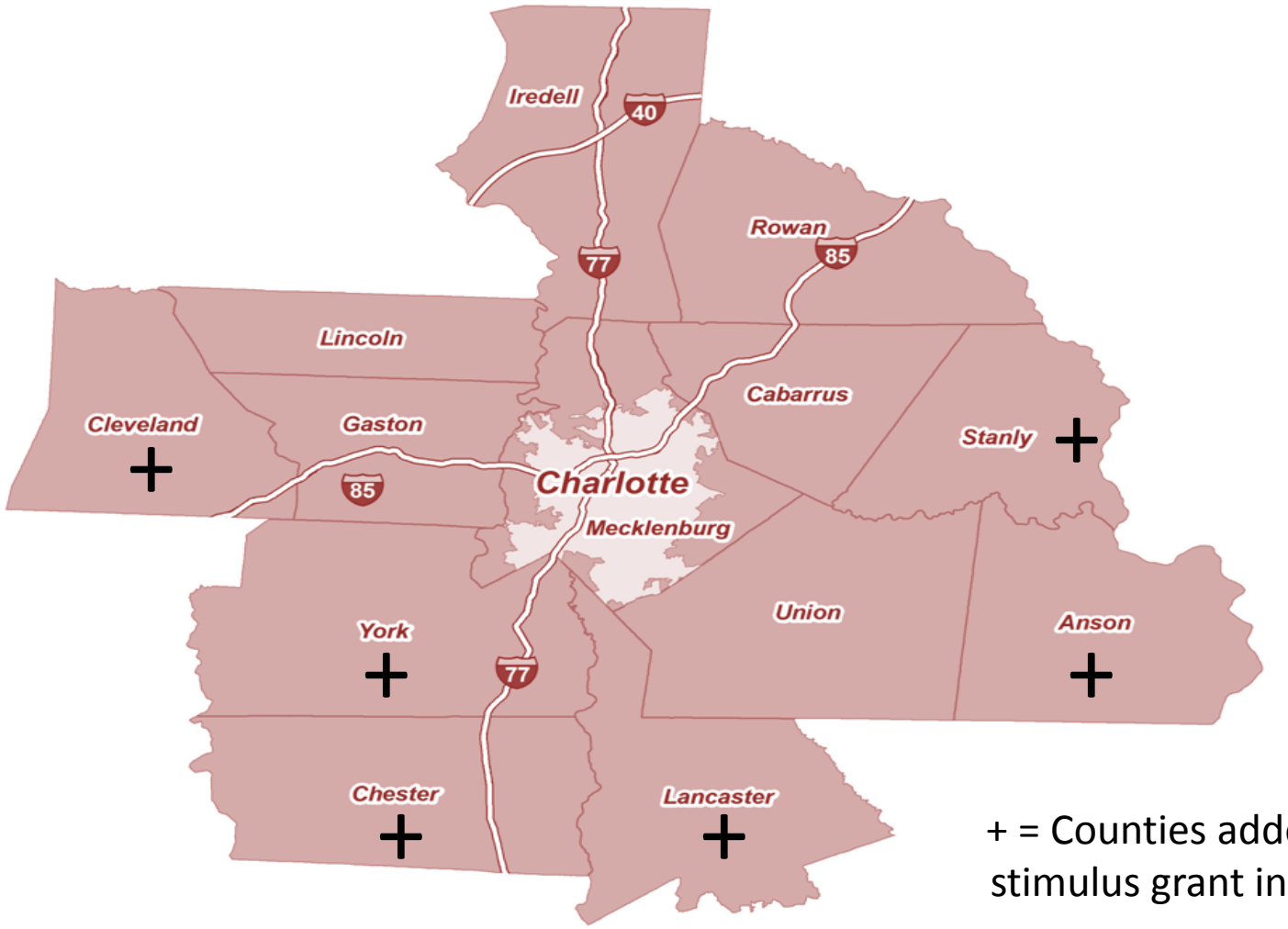
GRADE

- 7 North Carolina Counties
- Non-Road Construction Type Equipment
- 25 hp minimum size

GRADE+

- 13 North & South Carolina Counties
- All diesel sectors are eligible: Non-Road; Stationary; and On-Road
- 25 hp minimum size or 8,501 Gross Vehicle Weight for On-Road

North & South Carolina Coverage Area



+ = Counties added for stimulus grant in 2009

GRADE+ Project Types

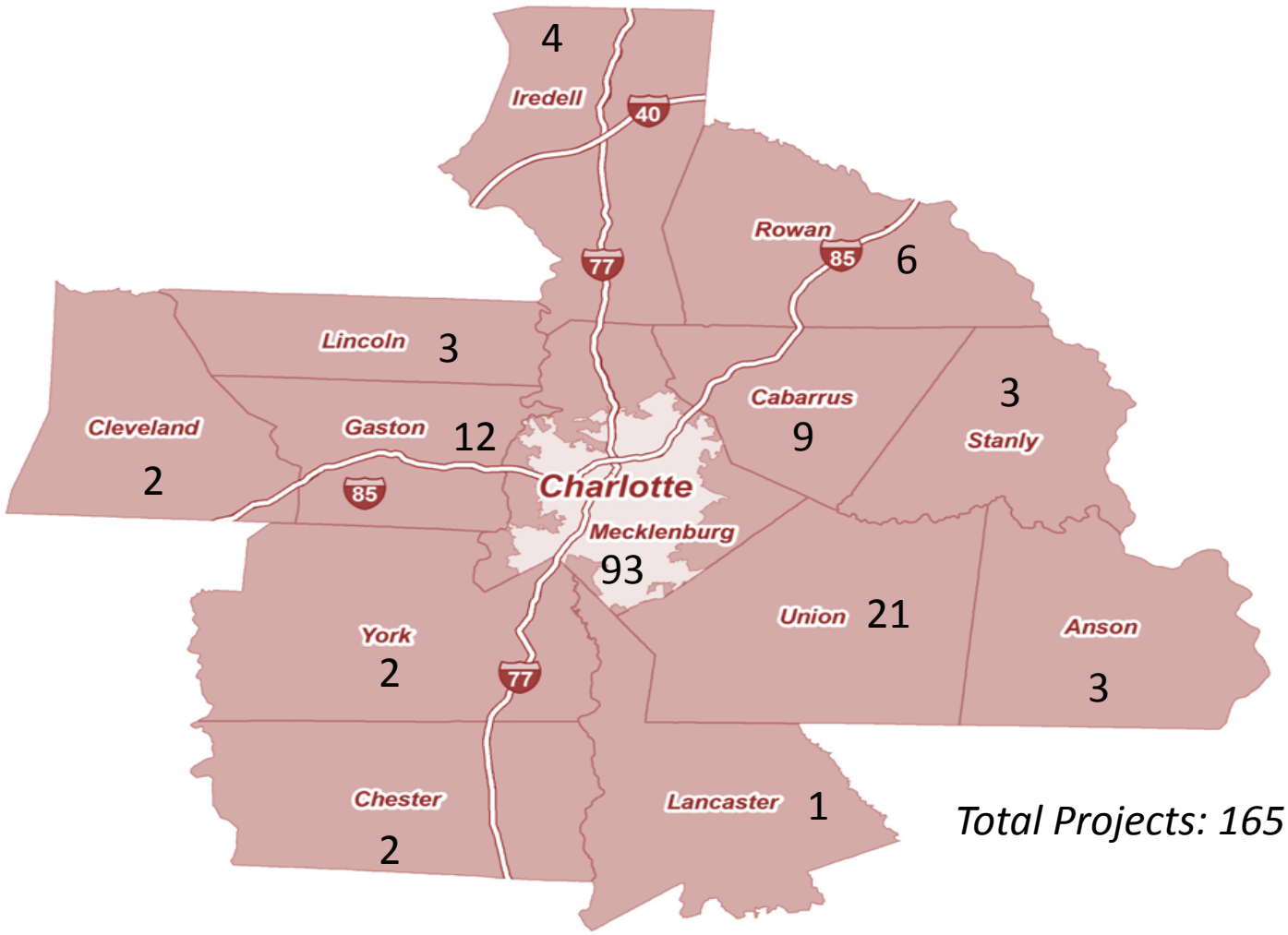
Repower:

An engine repower involves removing and destroying the engine from a piece of equipment and replacing the old “dirty” engine with a newer, “cleaner”, more emission stringent engine.

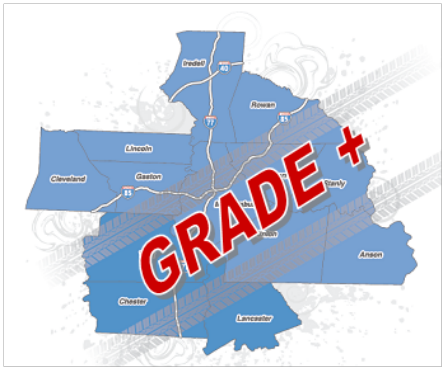
Replacement:

An equipment/vehicle replacement involves permanently removing an old “dirty” piece of equipment from service by completely destroying the engine and structural chassis components, and replacing the equipment/vehicle with a newer “cleaner” piece of equipment.

GRADE+ Regional Project Distribution

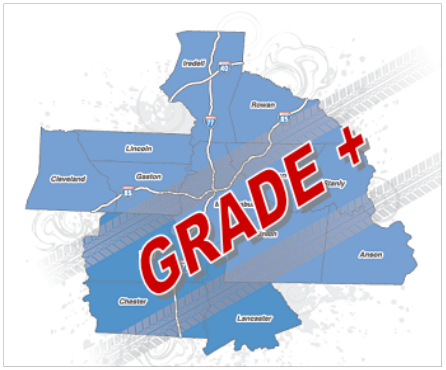


Total Projects: 165

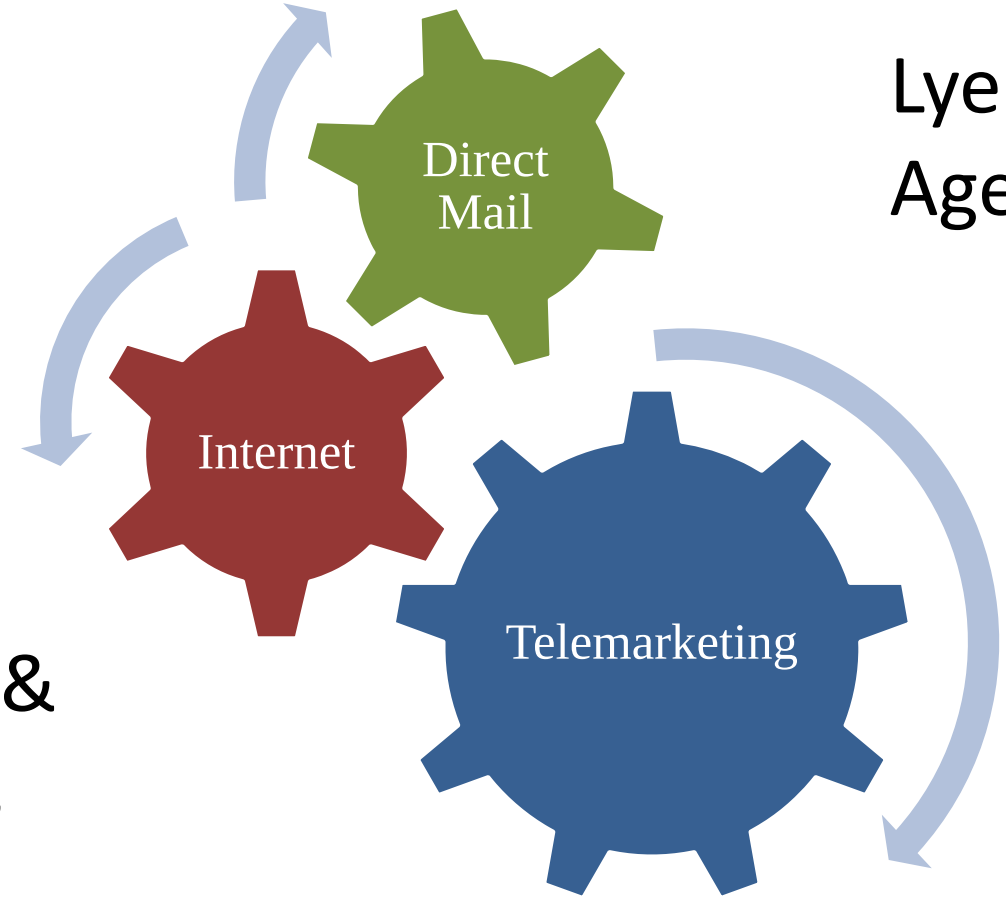


Keys to Success for an Incentive / Sub-grant Program

- Promotional campaign including both print/web materials and telephone outreach
- Simple application process
- Well defined selection criteria
- Manageable contract requirements
- Knowledgeable staff that can relate to customer base

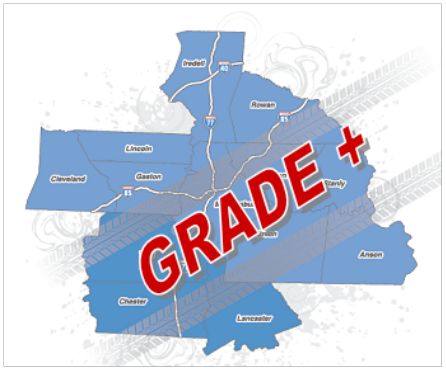


Marketing & Outreach



Lyerly Agency

Strategic Marketing & Associates, Inc.



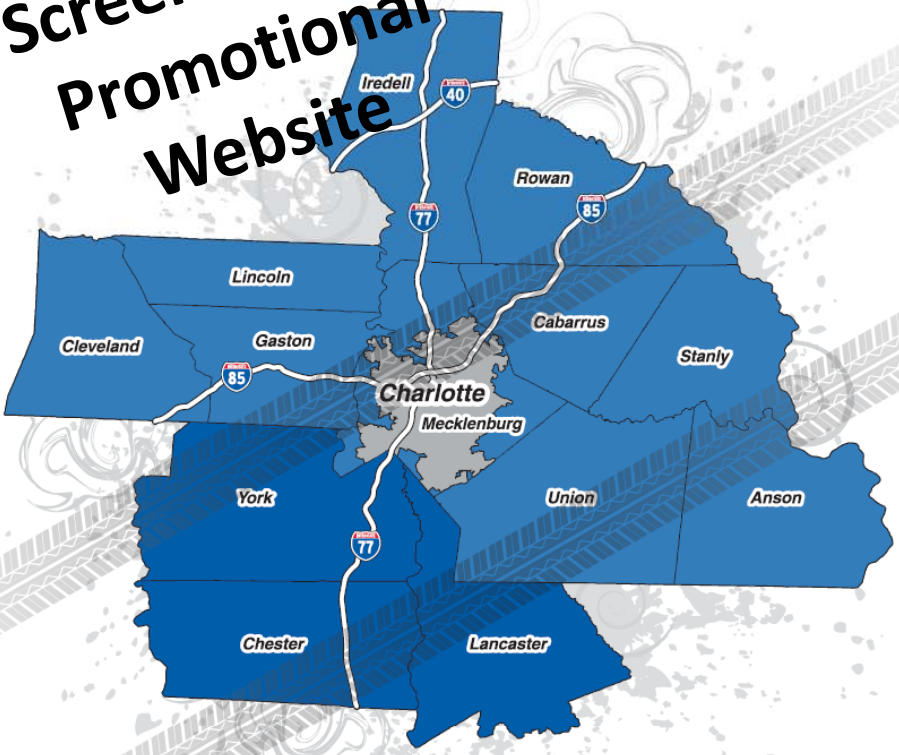
Telephone Campaign

- Over 9,500 personal telephone calls made to diesel owners.
- Produced 125 applications (A 300% increase from previous funding announcements)
- Increased website traffic.
- Resulted in a valuable database of diesel equipment and vehicle owners for future use.
- Proved to be more effective than direct mail alone

GRADE+ (Grants to Replace Aging Diesel Engines PLUS)

Applications Accepted August 31, 2009 – October 31, 2009

Screen Shot of Promotional Website



Here's Your Opportunity To Clean Up Your Equipment While We Clean The Air!

Over $1,100,000 In Grants Available

In conjunction with the American Recovery and Reinvestment Act, over $1,100,000 in funding has been made available to the GRADE+ Project. Over 100,000 public and privately owned equipment and engines (Non-Road Diesel, On-Road Heavy Duty Diesel and Stationary Diesel Equipment) in the 13-county, bi-state region of North and South Carolina are eligible to participate in this grant opportunity.

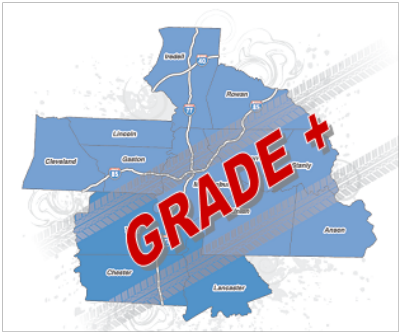
TO APPLY FOR A GRADE+ GRANT

Repower, Replace – Breathe Easier

GRADE+ grants now available make for an excellent opportunity for you to reduce maintenance costs and extend the life of your equipment while breathing easier financially with assistance from Stimulus Funds. By repowering or replacing old, high-emitting diesel engines with newer engines, models and technology that are certified by the EPA to meet a more stringent emission standard, we anticipate achieving over 166 tons of nitrogen oxides (NOx) reductions in our bi-state region

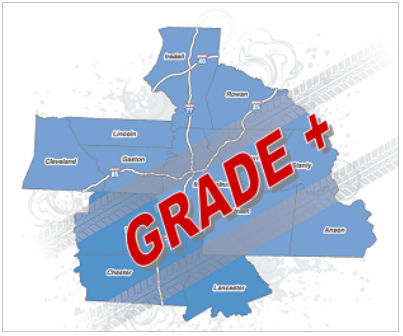
Eligible Bi-State Counties:

Anson, NC
Cabarrus, NC
Chester, SC
Cleveland, NC
Gaston, NC
Iredell, NC
Lancaster, SC
Lincoln, NC



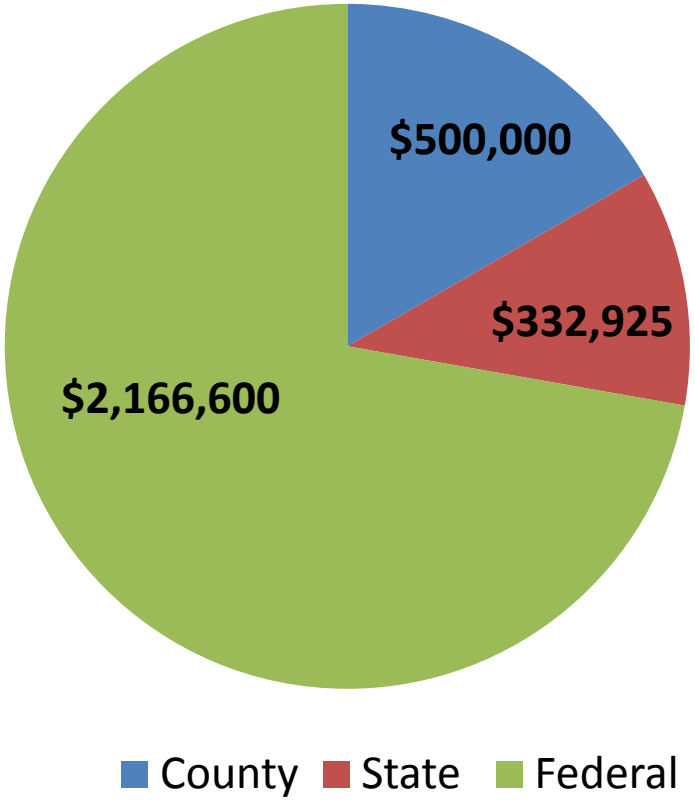
Project Activity

GRADE, GRADE+ Funding Sources Grants to Replace Aging Diesel Engines			
FY	**Funding Awarded**	**Projects Funded**	**Average Cost/Project**
2007	$308,119.29	9	$34,454
2008	$405,616.20	35	$15,542
2009	$220,625.00	13	$16,971
2010	$1,708,697.00	108	$22,867

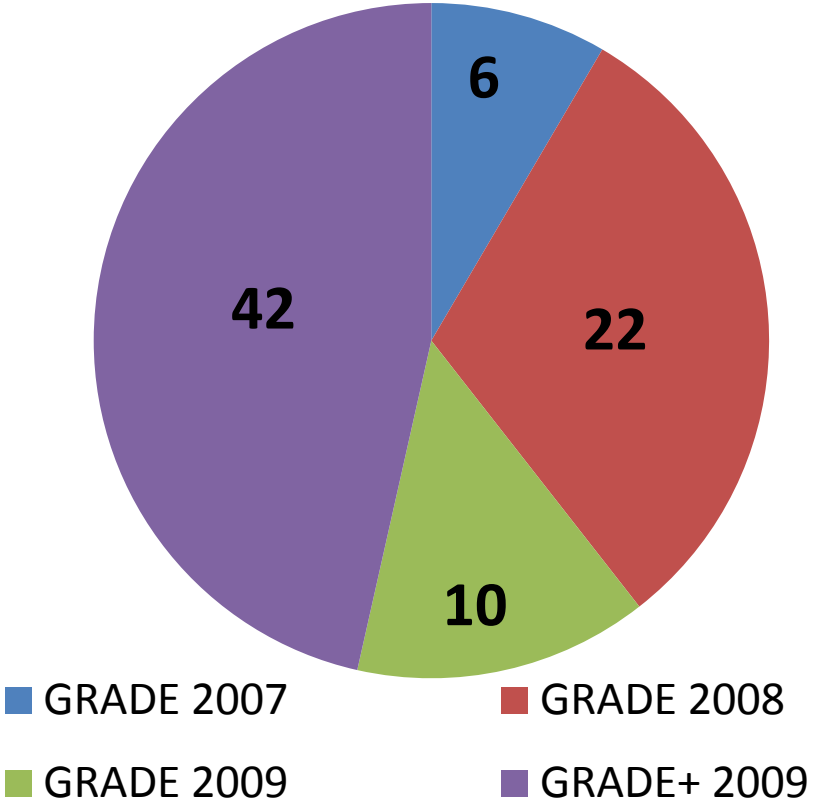


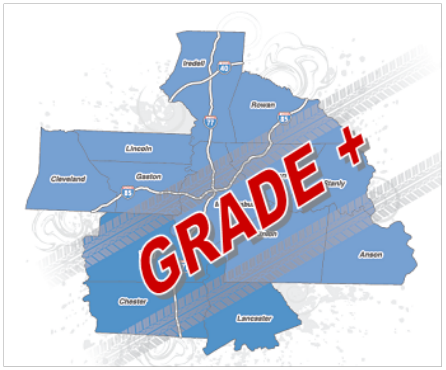
GRADE + Metrics

Sources of Funding



Expected NOx Reductions (tons/year)





*A **Real** Solution for **Regional** Attainment*

- GRADE+ has the capability of providing “R” & “R” to those communities interested in air quality improvements
- GRADE+ requires a significant commitment from all parties involved to be successful
- GRADE+ has a proven record of providing **Results**

Questions?

- Contact information:

- Jennifer Roberts, Commission Chair
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  jennifer.roberts@mecklenburgcountync.gov
  www.charmeck.org