Supplement to the

State of North Carolina's

Recommendation on Boundaries

For the 2008 8-Hour Ozone Standard

March 12, 2009
Revised October 28, 2011
Governor Beverly Perdue

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Introduction

The purpose of this document is to provide the State of North Carolina's revised recommendations on boundaries for the 2008 8-hour ozone standard.

On March 12, 2008, the United States Environmental Protection Agency (EPA) promulgated a revised 8-hour ozone National Ambient Air Quality Standard (NAAQS) of 75 parts per billion (ppb). On March 12, 2009, the State of North Carolina submitted its boundary recommendation for nonattainment areas based on the ambient air quality data for 2006-2008. However, in September 2009, the EPA announced that they were going to reconsider the 2008 ozone standard and postponed implementation of this standard. It was announced that the reconsideration of the 2008 ozone standard would be withdrawn on September 2, 2011.

The EPA is now moving forward with the implementation of the 2008 ozone standard. Since most states had submitted boundary recommendations in 2009, the EPA has advised states that they will use the boundary recommendations previously submitted and update them based on the 2008-2010 ambient air quality data. The EPA has requested states wishing to revise their boundary recommendations to submit them by October 28, 2011. The EPA also agreed to use 2009-2011 ambient air quality data for the designation process if a state planned to certify their 2011 data early.

North Carolina has elected to certify the 2011 ambient air quality data early and has made its revised boundary recommendations based on the 2009-2011 data.

Background

The Clean Air Act (CAA) requires the EPA to designate areas as attainment or nonattainment following the promulgation of a new NAAQS. The nonattainment boundaries are to be based on the data collected at the ambient air monitoring stations. The State and local air programs operate the ozone monitoring sites. The data is quality assured, and then submitted to the EPA where it becomes part of a national database. The CAA requires that the monitoring data be evaluated to determine which monitors meet the standard and which monitors violate the standard. For the 8-hour ozone standard, three years worth of data for each monitor is evaluated. The fourth highest daily maximum 8-hour average ozone value for each of the three years is averaged together, and the resulting average is then compared to the standard. The three-year average is referred to as the design value. With their action on March 12, 2008, the EPA revised the 8-hour ozone standard to 75 ppb. Therefore, a monitored three-year average of 75 ppb is considered to meet or attain the standard, while a three-year average of 76 ppb or greater is considered to violate the ambient standard.

North Carolina has evaluated the ozone monitoring data for the State for the three-year period of 2009-2011, and has determined that a total of 4 out of 40 monitors currently violate the 2008 8-hour ozone standard based on the pre-certified data for 2011. Figure 1 displays a map of the 2009-2011 8-hour ozone design values for North Carolina. This map and a table used for calculating the respective design values are included in Appendix A. The four violating monitors are all located in the Charlotte-Gastonia-Salisbury metropolitan area.

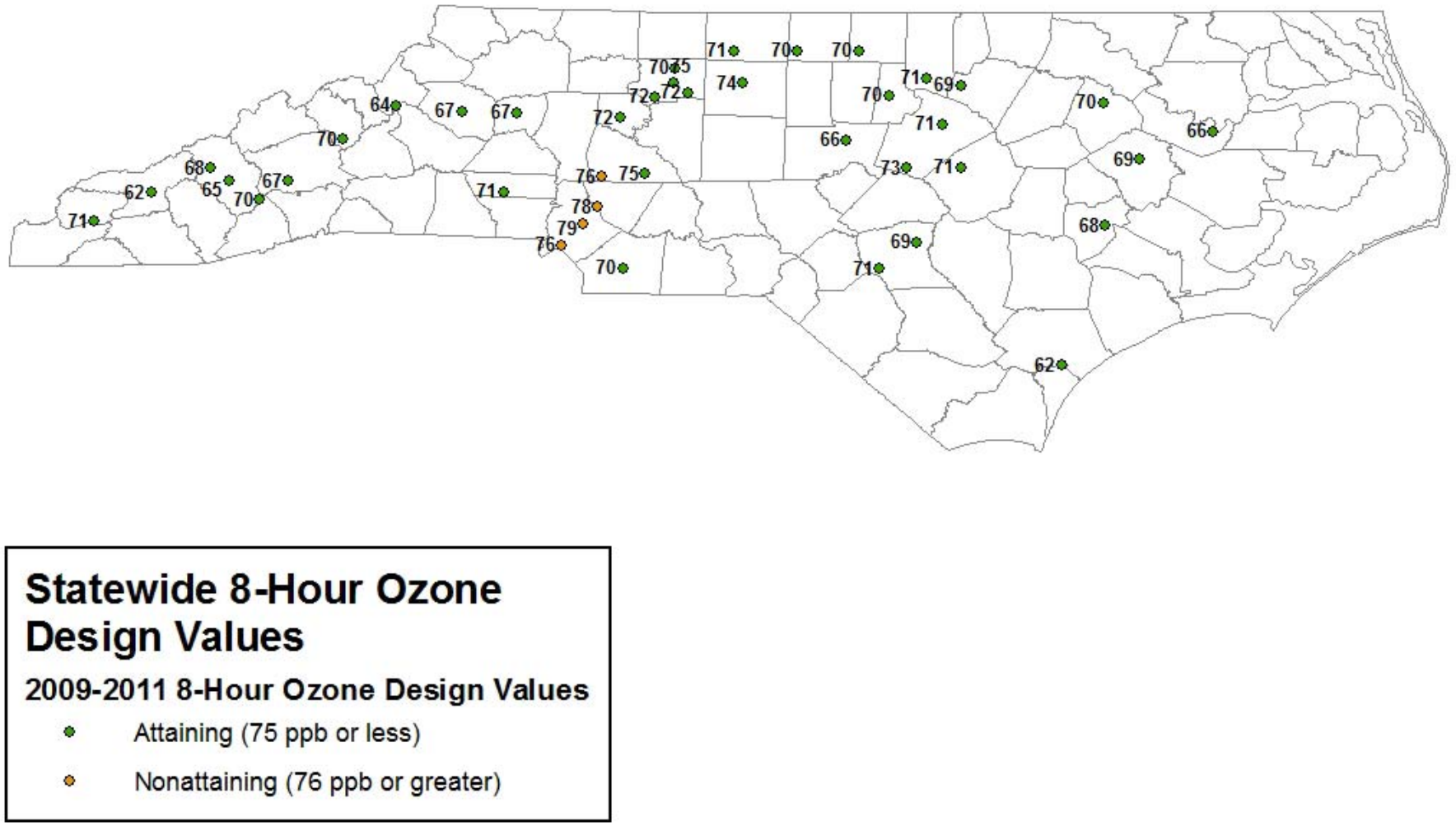


Figure 1: North Carolina's 2009-2011 8-Hour Ozone Design Values Map

(Please Note That All Design Value Concentrations Presented Above Are In Parts Per Billion (ppb) and that the 2011 ambient air quality data has not been certified)

Summary of Recommendations

The State of North Carolina's revised recommendations for the designation of areas of the state for the 2008 8-hour ozone standard is nonattainment for Cabarrus, Gaston, Lincoln, Mecklenburg, Rowan, Union Counties, a partial county nonattainment recommendation for Iredell County; and attainment designation for the remaining areas in North Carolina. The nonattainment area boundary recommendation for the Charlotte-Gastonia-Salisbury metropolitan area is displayed in Figure 2. This is the same area in North Carolina that was designated nonattainment for the 1997 8-hour ozone standard for the Charlotte-Gastonia-Salisbury metropolitan area. Table 1 summarizes North Carolina's recommendation of areas as nonattainment or attainment for the 2008 8-hour ozone NAAQS.

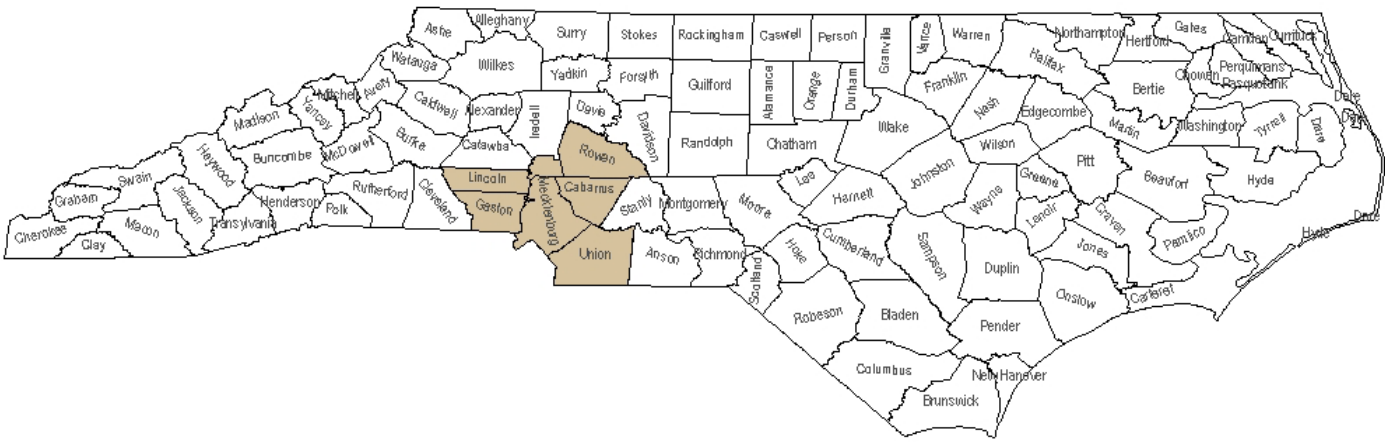


Figure 2: North Carolina's Revised Recommendation For 8-Hour Ozone Nonattainment Area Boundaries

Table 1 is North Carolina's revised recommendation of areas as nonattainment or attainment under the revised 8-hour ozone standard.

Table 1: North Carolina Boundary Recommendation for 8-Hour Ozone Standard

Designated Area	Designation Type
Charlotte-Gastonia-Salisbury Area:	Nonattainment
Cabarrus County	
Gaston County	
Iredell County (part)	
Davidson Township	
Coddle Creek Township	
Lincoln County	
Mecklenburg County	
Rowan County	
Union County	
Rest of State	
Alamance County	Attainment

Table 1: North Carolina Boundary Recommendation for 8-Hour Ozone Standard

Designated Area	Designation Type
Alexander County	Attainment
Alleghany County	Attainment
Anson County	Attainment
Ashe County	Attainment
Avery County	Attainment
Beaufort County	Attainment
Bertie County	Attainment
Bladen County	Attainment
Brunswick County	Attainment
Buncombe County	Attainment
Burke County	Attainment
Caldwell County	Attainment
Camden County	Attainment
Carteret County	Attainment
Caswell County	Attainment
Catawba County	Attainment
Chatham County	Attainment
Cherokee County	Attainment
Chowan County	Attainment
Clay County	Attainment
Cleveland County	Attainment
Columbus County	Attainment
Craven County	Attainment
Cumberland County	Attainment
Currituck County	Attainment
Dare County	Attainment
Davidson County	Attainment
Davie County	Attainment
Duplin County	Attainment
Durham County	Attainment
Edgecombe County	Attainment
Forsyth County	Attainment
Franklin County	Attainment
Gates County	Attainment
Graham County	Attainment
Granville County	Attainment
Greene County	Attainment
Guilford County	Attainment
Halifax County	Attainment
Harnett County	Attainment
Haywood County	Attainment
Henderson County	Attainment
Hertford County	Attainment
Hoke County	Attainment
Hyde County	Attainment

Table 1: North Carolina Boundary Recommendation for 8-Hour Ozone Standard

Designated Area	Designation Type
Iredell County (part)	Attainment
Barringer Township	Attainment
Bethany Township	Attainment
Chambersburg Township	Attainment
Concord Township	Attainment
Cool Springs Township	Attainment
Eagle Mills Township	Attainment
Fallstown Township	Attainment
New Hope Township	Attainment
Olin Township	Attainment
Sharpesburg Township	Attainment
Shiloh Township	Attainment
Statesville Township	Attainment
Turnersburg Township	Attainment
Union Grove Township	Attainment
Jackson County	Attainment
Johnston County	Attainment
Jones County	Attainment
Lee County	Attainment
Lenoir County	Attainment
Macon County	Attainment
Madison County	Attainment
Martin County	Attainment
McDowell County	Attainment
Mitchell County	Attainment
Montgomery County	Attainment
Moore County	Attainment
Nash County	Attainment
New Hanover County	Attainment
Northampton County	Attainment
Onslow County	Attainment
Orange County	Attainment
Pamlico County	Attainment
Pasquotank County	Attainment
Pender County	Attainment
Perquimans County	Attainment
Person County	Attainment
Pitt County	Attainment
Polk County	Attainment
Randolph County	Attainment
Richmond County	Attainment
Robeson County	Attainment
Rockingham County	Attainment
Rutherford County	Attainment
Sampson County	Attainment

Table 1: North Carolina Boundary Recommendation for 8-Hour Ozone Standard

Designated Area	Designation Type
Scotland County	Attainment
Stanly County	Attainment
Stokes County	Attainment
Surry County	Attainment
Swain County	Attainment
Transylvania County	Attainment
Tyrrell County	Attainment
Vance County	Attainment
Wake County	Attainment
Warren County	Attainment
Washington County	Attainment
Watauga County	Attainment
Wayne County	Attainment
Wilkes County	Attainment
Wilson County	Attainment
Yadkin County	Attainment
Yancey County	Attainment

Area Specific Recommendations on Boundaries for 8-hour Ozone Nonattainment

The revised recommendations address the designation area boundary criteria laid out in the December 4, 2008 memo from Robert J. Meyers, Principal Deputy Assistant Administrator entitled, "Area Designations for the 2008 Revised Ozone National Ambient Air Quality Standards". The designation recommendations are also consistent with the methodology behind the establishment of all existing and previous 8-hour ozone nonattainment area boundaries in North Carolina.

The purpose of the remainder of this document is to address the criteria that EPA established for considering boundaries less than the full Core Based Statistical Area (CBSA) or Combined Statistical Area (CSA) for nonattainment designation. The remaining documentation only addresses in detail those areas where North Carolina's revised recommendation is less than the full CBSA or CSA.

Charlotte-Gastonia-Salisbury Metropolitan Area Discussion

EPA's Presumptive 8-Hour Ozone Nonattainment Boundary:

The EPA's presumptive nonattainment boundary would include Anson, Cabarrus, Cleveland, Gaston, Iredell, Lincoln, Mecklenburg, Rowan, Stanly, and Union Counties.

North Carolina's Recommended 8-Hour Ozone Nonattainment Boundary:

North Carolina's recommended nonattainment boundary includes Cabarrus, Gaston, Lincoln, Mecklenburg, Rowan and Union Counties and the Townships of Davidson and Coddle Creek in Iredell County.

Charlotte-Gastonia-Salisbury CSA 8-Hour Ozone Design Values:

Table 2 below contains the design values for the monitors located in the Charlotte-Gastonia-Salisbury CSA, along with the fourth highest 8-hour average ozone concentrations for 2009 through 2011 which are used to calculate the design values. Figure 3 displays the design values in the monitor locations.

Table 2: Charlotte-Gastonia-Salisbury Regional Ozone Design Value Table

Monitoring Sites	County	Annual 4th Highest 8-hr Average			Design Value
		2009	2010	2011	2009-2011
Crouse	Lincoln	0.065	0.072	0.077	0.071
Arrowood	Mecklenburg	0.068	0.078	0.082	0.076
County Line	Mecklenburg	0.071	0.082	0.083	0.078
Garinger (Plaza)	Mecklenburg	0.069	0.082	0.088	0.079
Enochville	Rowan	0.073	0.078	0.078	0.076
Rockwell	Rowan	0.071	0.077	0.077	0.075
Monroe	Union	0.067	0.071	0.073	0.070

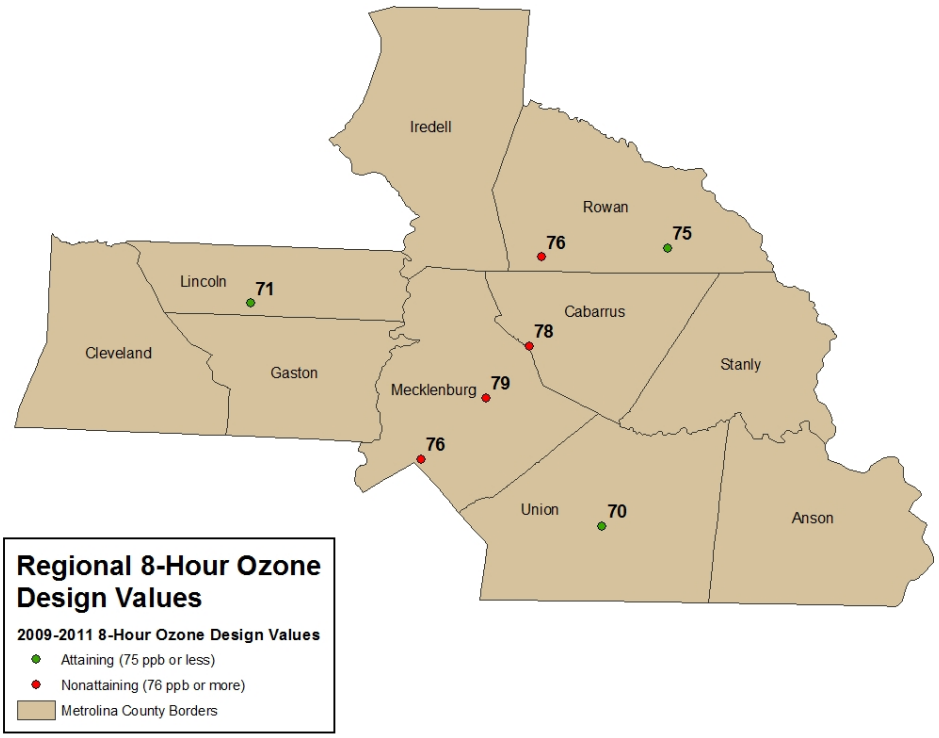


Figure 3: Charlotte-Gastonia-Salisbury Regional 2009-2011 8-Hour Ozone Design Values

Four of the monitors in the Charlotte-Gastonia-Salisbury metropolitan area currently measure the highest ozone values in the State. North Carolina recommends that the whole counties of Cabarrus, Gaston, Lincoln, Mecklenburg, Rowan and Union and the partial county of Iredell be designated as nonattainment. This is the same area in North Carolina that was designated nonattainment for the 1997 8-hour ozone standard for the Charlotte-Gastonia-Salisbury metropolitan area. Additionally, North Carolina effectively attained the 1997 8-hour ozone standard with this recommended nonattainment boundary area.

The counties not recommended and the partial county recommendation are discussed below, along with the 9 criteria the EPA identified in their nonattainment boundary guidance that should be addressed.

Anson County

This is a Micropolitan Statistical Area county within the Charlotte-Gastonia-Salisbury CSA, and it does not have a monitor located in the county. This is a mostly rural county with a low impact from commuting traffic into the urbanized core of the CSA. Therefore, North Carolina is recommending no portion of the county be designated as nonattainment.

Air Quality Data*:*

As shown in Figure 3 above, this area has 7 monitors with design values ranging from 70 to 79 ppb. The monitor located nearest Anson County is in neighboring Union County in Monroe with a design value of 70 ppb. On days when this monitor has the highest readings, the winds generally are out of the southwest. Since Anson County is east of this monitor, the emissions from this county are not expected to impact the air quality on days when this monitor would observe an exceedance of the 2008 ozone standard.

Emissions Data:
Based on 2009 emissions inventories, Anson County has annual point source emissions of 129 tons and 66 tons of nitrogen oxides (NOx) and volatile organic compounds (VOCs), respectively. There are no major point sources located within the county.

Population Density and Degree of Urbanization*:*
26,948 people live in Anson County. The northern portion of Anson County is a largely rural county with no census tracts having a population density greater than 250 people per square mile. Figure 4 below displays the population density map for the Charlotte-Gastonia-Salisbury CSA.

Traffic and Commuting Patterns*:*
Anson County has 828,400 Daily VMT, according to 2009 data. Anson County contributes less than half of 1 percent of the commuters who drive into Mecklenburg County to work each day. Based upon historic trends over the last ten years, the VMT are not expected to change significantly over the next ten years.

Growth Rates and Patterns*:*
The population in Anson County increased by 6.6% from 2000 to 2010, contrary to the 2000 census prediction that the population would decrease by 1.7% during this time period. However, even with the population increase, this is a very modest growth rate compared to the more urban areas of North Carolina and Anson County remains a very rural area. The population is expected to slightly increase from 2010 to 2020 by 1.9%. This county is not expected to grow enough to become a significant contributor to ozone exceedances in the Charlotte-Gastonia-Salisbury CSA.

Meteorology:
Winds across Anson County are climatologically from the southwest. With this climatological wind pattern, the emissions in the county are not expected to impact the ambient air quality in the CSA.

Geography/Topography:
There are no special geography or topography issues to consider in this region.

Jurisdictional Boundaries:
The existing 1997 8-hour ozone standard nonattainment area does not include Anson County and it is not included in North Carolina's recommendations for nonattainment areas under the 2008 8-hour ozone standard.

Level of control of emissions sources*:*
There are no major point sources to consider controls within the county. Mobile sources are another source of NOx emissions. The combined Federal and state control programs for mobile sources address these emissions. Anson County does not currently have an on-board diagnostic (OBD) based inspection and maintenance (I/M) program, but requires an annual visual inspection of emissions equipment. Low-sulfur gasoline is required statewide.

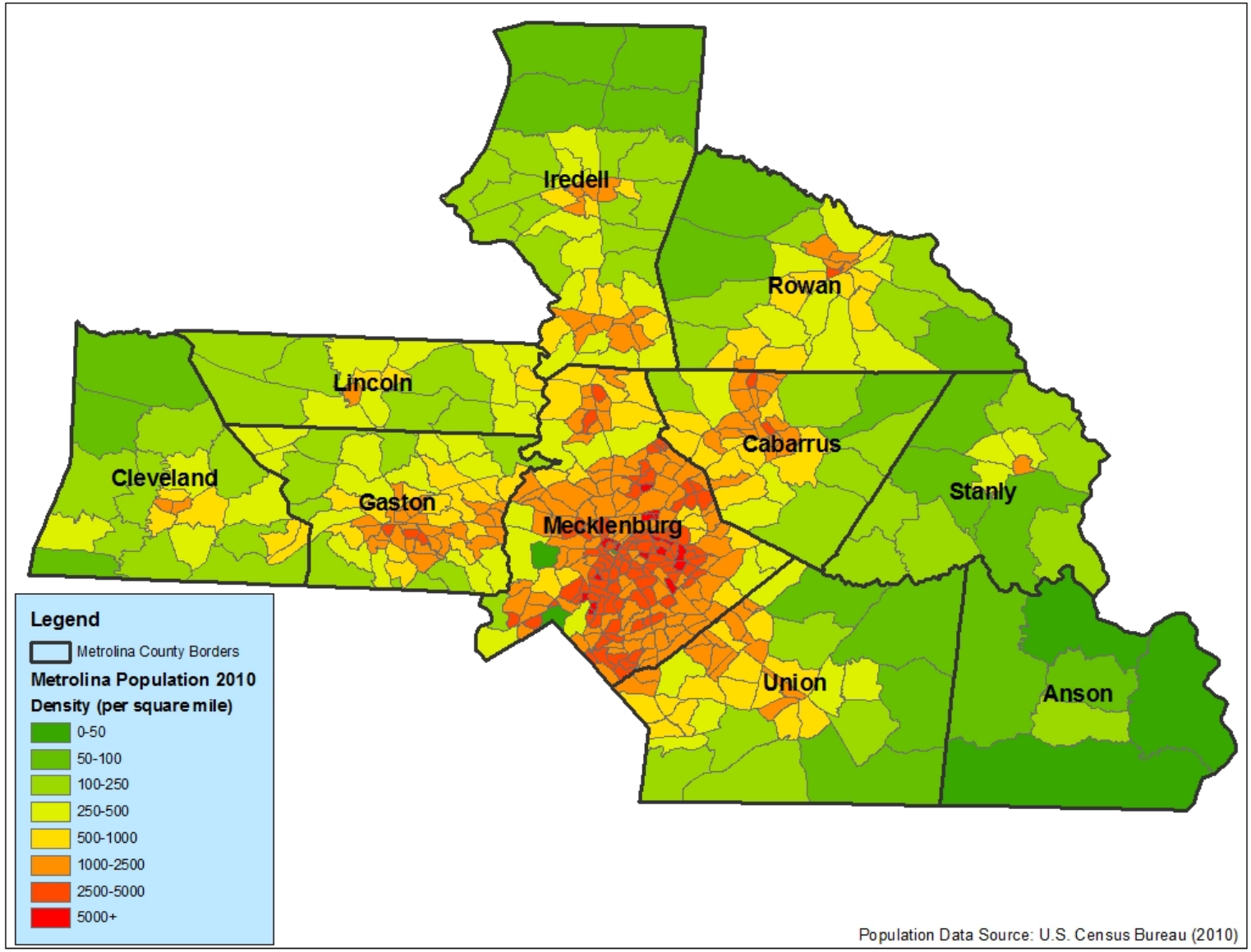


Figure 4. Population Density Map for the Charlotte-Gastonia-Salisbury CSA based on the 2010 Census

Cleveland County

This is a Micropolitan Statistical Area county within the Charlotte-Gastonia-Salisbury CSA, and it does not have a monitor located in the county. This is a mostly rural county with a low impact from commuting traffic into the urbanized core of the CSA. Therefore, North Carolina is recommending no portion of the county be designated as nonattainment.

Air Quality Data*:*

As shown in Figure 3 above, this CSA has 7 monitors with design values ranging from 70 to 79 ppb. The monitor located nearest Cleveland County is in neighboring Lincoln County in Crouse with a design value of 71 ppb. On days when this monitor has the highest readings, the winds generally are out of the southwest. Portions of Cleveland County are located southwest of this monitor, however, since there are no major NOx sources located in Cleveland County and this monitor is attaining the 2008 ozone standard, it is not likely that emissions from this county would contribute to a violation of the 2008 standard in the CSA.

Emissions Data*:*

Based on 2009 emissions inventories, Cleveland County has annual point source emissions of 150 tons and 412 tons of NOx and VOC, respectively. There is one major VOC point source in the county and no major sources of NOx.

Population Density and Degree of Urbanization*:*

98, 078 people live in Cleveland County. Cleveland County is predominantly a rural county with eleven large census tracks with 250 people or less per square mile. In Shelby, located in central Cleveland County, the population density ranges from 250 to 2500 people per square mile. In Kings Mountain, located in southeast Cleveland County, the population density is 500 to 1000 people per square mile. (See Figure 4)

Traffic and Commuting Patterns*:*

Cleveland County has 2,709,540 Daily VMT, according to 2009 data. Cleveland County contributes less than 1 percent of the commuters who drive into Mecklenburg County to work each day. Based on the historic trends, the VMT are expected to increase by less than one percent annually over the next ten years.

Growth Rates and Patterns*:*

The population of Cleveland Country grew by 1.9% between 2000 and 2010. The population in Cleveland County is expected to grow slightly between 2010 and 2020, with an increase of 3.2%. These are very small growth rates compared to other parts of North Carolina. This county is not expected to grow enough to become a significant contributor to ozone exceedances in the Charlotte-Gastonia-Salisbury CSA.

Meteorology:

Winds across Cleveland County are climatologically from the southwest, which is in the direction of the closest monitor located in Lincoln County. However, the Lincoln County monitor is attaining the 2008 ozone standard and there are no major NOx sources located in Cleveland County. Therefore, it is not likely that emissions from Cleveland County would contribute to a violation of the 2008 ozone standard.

Geography/Topography:
There are no special geography or topography issues to consider in this region.

Jurisdictional Boundaries:
The existing 1997 8-hour ozone standard nonattainment area does not include Cleveland County and it is not included in North Carolina's recommendations for nonattainment areas under the 2008 8-hour ozone standard.

Level of control of emissions sources*:*
Cleveland County currently has one major VOC point source and no major NOx sources. Since North Carolina is NOx limited with respect to ozone formation, controlling man-made VOC sources does not reduce ozone concentrations. Therefore, the level of control for this VOC source should not be of consideration for nonattainment boundary designation. Mobile sources are another source of NOx emissions. The combined Federal and state control programs for mobile sources address these emissions. Cleveland County currently has an OBD based I/M program and low-sulfur gasoline is required statewide.

Iredell County

This is a Micropolitan Statistical Area county within the Charlotte-Gastonia-Salisbury CSA, and it does not have a monitor located in the county. This is a high commuter county into the Charlotte area along the I-77 corridor. The northern portion of the county is rural, so the recommendation is for a smaller area than the entire county.

The recommendation is that the two townships in the southern portion of Iredell County, Coddle Creek and Davidson Townships, be designated as nonattainment.

Air Quality Data:
As shown in Figure 3 above, this CSA has 7 monitors with design values ranging from 70 ppb to 79 ppb. The monitor located closest to Iredell County is in neighboring Rowan County in Enochville with a design value of 76 ppb. However, on days when this monitor has the highest readings, the winds are generally out of the southwest, indicating that the emissions from the northern portion of Iredell County are not likely to contribute to the Enochville monitor's high ozone levels since this area is north and east this monitor. Since a significant amount of commuter traffic from the southern two townships travel into Mecklenburg County, the lower two townships may be impacting the ambient air quality data in this CSA. Therefore, North Carolina is recommending just the two lower townships be designated nonattainment.

Emissions Data:
Based on 2009 emissions inventories, Iredell County has annual point source emissions of 2,087 tons and 927 tons of NOx and VOC, respectively. There are some industrial sources in the county, including a natural gas pumping station, which is subject to the NOx SIP call.

Population Density and Degree of Urbanization:
159,437 people live in Iredell County and 65,385 people live in the two townships recommended as nonattainment, which is 41% of the County's population. The northern, eastern and western portions of Iredell County have low population density with 16 census tracks containing 250 people or less per square mile. Statesville, located in central Iredell County, has population density ranging from 250 to 2500 people per square mile. The southern portion of Iredell County, where Mooresville is located, is

more densely populated. Mooresville's population density ranges from 1000 to 2500 people per square mile (see Figure 4). This more densely populated area is located in the two townships being recommended for nonattainment.

Traffic and Commuting Patterns:
Iredell County has 5,762,800 average daily vehicle miles traveled (VMT), according to 2009 data. Iredell County contributes 2.02 percent of the commuters who drive into Mecklenburg County to work each day. Iredell ranks number 5 in the commuting counties into Mecklenburg. These VMT are expected to increase to approximately 7,300,000 by 2020.

Growth Rates and Patterns:
The population in Iredell County grew considerably from 2000 to 2010, increasing by 30%, and an additional growth of 17.2% is expected between 2010 and 2020. The majority of this growth occurred in the two southern townships being recommended for nonattainment. Figure 5 displays the percent growth between 2000 and 2010 for each township. Davidson Township's population growth was 90 percent and Coddle Creek Township's growth was 43 percent. All other townships were less than 40 percent with most being less than 20 percent.

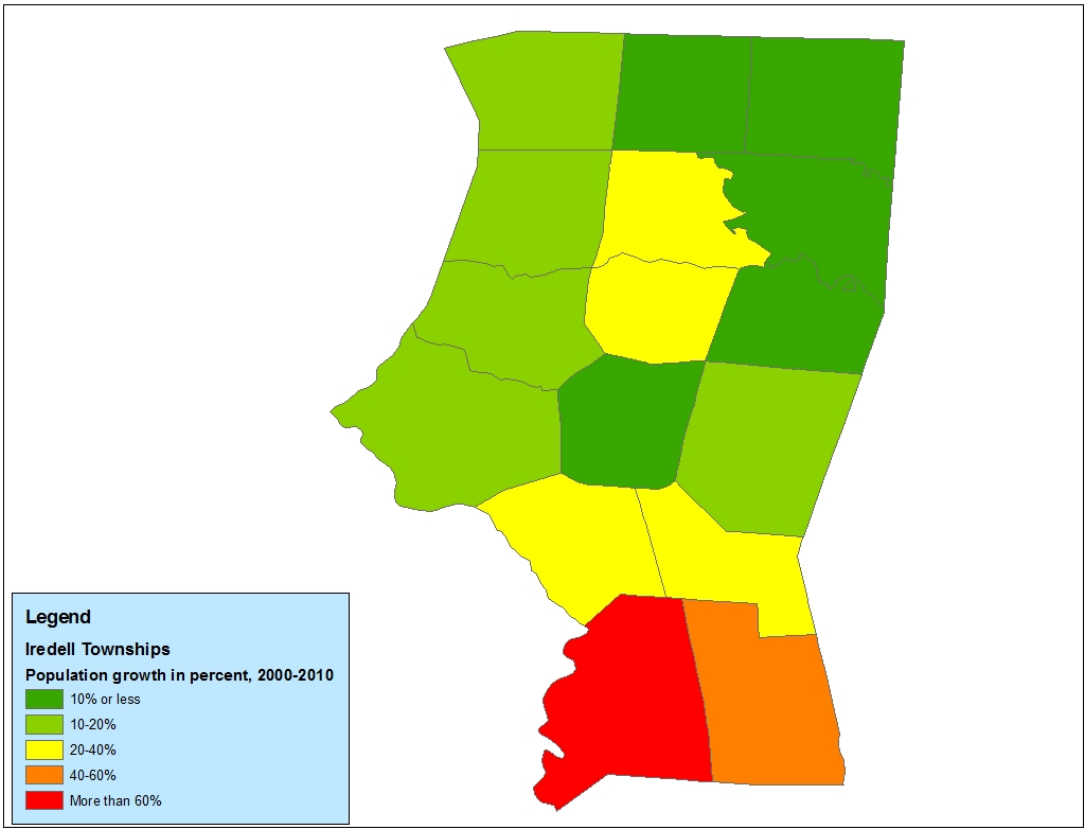


Figure 5. Percent Growth Between 2000 and 2010 for Iredell County

Meteorology:
Winds across Iredell County are climatologically from the southwest. With this climatological wind pattern, the emissions in the county are more likely to impact areas outside of the CSA. However, the

commuter traffic emissions from the southern two townships would still impact the air quality in the CSA even with southwest winds. Therefore, North Carolina is recommending just the two lower townships be designated nonattainment. On days when the winds are from the north, the emissions will add to the Charlotte area's pollution.

Geography/Topography:
There are no special geography or topography issues to consider in this region.

Jurisdictional Boundaries:
The existing 1997 8-hour ozone standard nonattainment area includes the southern portion of Iredell County, and is consistent with North Carolina's recommendations for nonattainment areas under the 2008 8-hour ozone standard.

Level of control of emissions sources:
Iredell County currently has 2 major point sources for NOx and one major point source for VOCs. The natural gas pumping station, located in Davidson Township, is subject to the NOx SIP Call and has taken permit limits to address the requirements of the NOx SIP Call. The other large NOx source is a glass manufacturer located just outside of the recommended nonattainment area, which burns only natural gas, a lower emitting fossil fuel. Mobile sources are another source of NOx emissions. The combined Federal and state control programs for mobile sources address these emissions. Iredell County currently has an OBD based I/M program and low-sulfur gasoline is required statewide.

Stanly County
This is a Micropolitan Statistical Area county within the Charlotte-Gastonia-Salisbury CSA, and it does not have a monitor located in the county. This is a mostly rural county with a low impact on commuting traffic into the urbanized core of the CSA. Therefore, North Carolina is recommending no portion of the county be designated as nonattainment.

Air Quality Data*:*
As shown in Figure 3 above, this CSA has 7 monitors with design values ranging from 70 to 79 ppb. The monitor located nearest Stanly County is in neighboring Rowan County in Rockwell with a design value of 75 ppb. On days when this monitor has the highest readings, the winds are generally out of the southwest. Since Stanly County is located south and east of this monitor and there are no large NOx sources located in this county, it is not likely that the emissions from this county would impact the air quality in the CSA when this monitor observes an exceedance of the 2008 ozone standard.

Emissions Data*:*
Based on 2009 emissions inventories, Stanly County has annual point source emissions of 269 tons and 371 tons of NOx and VOC, respectively. There is one major VOC point source and no major sources of NOx emissions in Stanly County.

Population Density and Degree of Urbanization*:*
60, 585 people live in Stanly County. Stanly County is a predominantly rural area with most of the county having a population density of 250 people or less per square mile. Albemarle, located in northeast Stanly County, is the only populous area with a population density of 1000 to 2500 people per square mile (Figure 4).

Traffic and Commuting Patterns*:*
Stanly County has 1,342,620 Daily VMT, according to 2009 data. Stanly County contributes less than 1 percent of the commuters who drive into Mecklenburg County to work each day. Based on historic trends, the VMT are expected to increase by less than 0.5% annually over the next ten years.

Growth Rates and Patterns*:*
The population in Stanly County increased slightly from 2000 to 2010 by a rate of 4.3%, with a further population increase of 7.3% expected from 2010 to 2020. This is a very modest growth rate compared to the more urban areas of North Carolina and Stanly County remains predominantly a rural area. This county is not expected to grow enough to become a significant contributor to ozone exceedances in the Charlotte-Gastonia-Salisbury CSA.

Meteorology:
Winds across Stanly County are climatologically from the southwest. With this climatological wind pattern, the emissions in the county are not expected to impact the air quality in the CSA.

Geography/Topography:
There are no special geography or topography issues to consider in this region.

Jurisdictional Boundaries:
The existing 1997 8-hour ozone standard nonattainment area does not include Stanly County and it is not included in North Carolina's recommendations for nonattainment areas under the 2008 8-hour ozone standard.

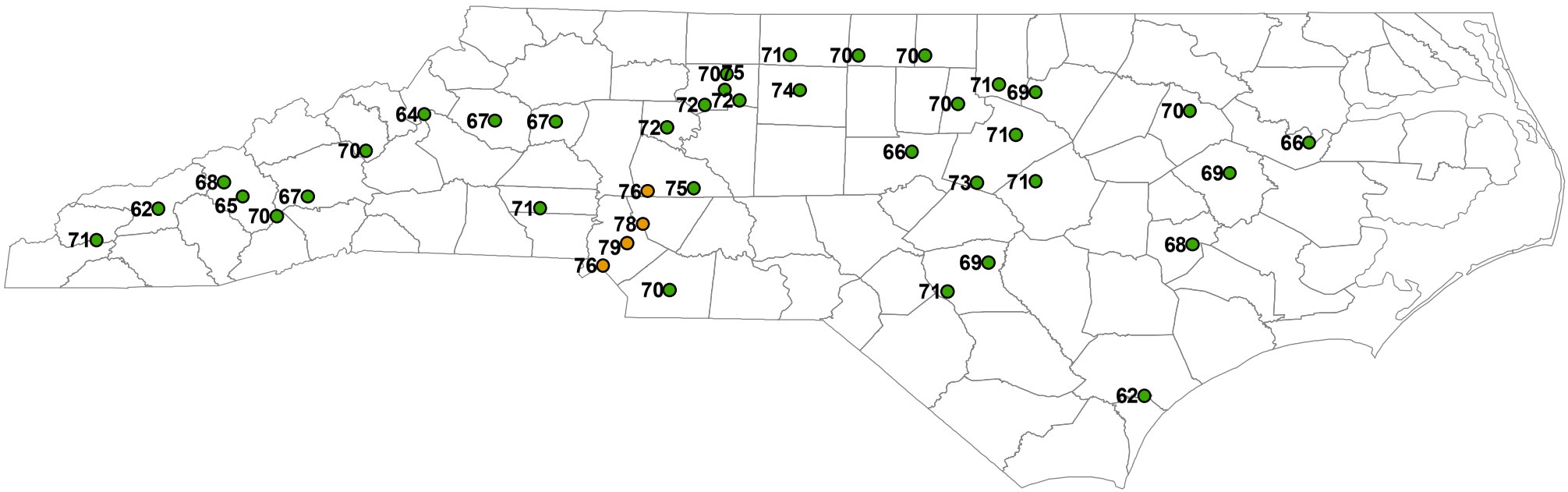
Level of control of emissions sources:
Stanly County currently has one major VOC point source and no major NOx sources. Since North Carolina is NOx limited with respect to ozone formation, controlling man-made VOC sources does not reduce ozone concentrations. Therefore, the level of control for this VOC source should not be of consideration for nonattainment boundary designation. Mobile sources are another source of NOx emissions. The combined Federal and state control programs for mobile sources address these emissions. Stanly County does not currently have an OBD based I/M program, but requires an annual visual inspection of emissions equipment. Low-sulfur gasoline is required statewide.

Appendix A

North Carolina's 2009-2011 8-Hour Ozone Design Values Map & Table

Region	Monitoring Sites	AIRS ID	2009	2010	2011	09-11
	Waggin Trail	37-003-0004	0.063	0.071	0.067	0.067
	Linville	37-011-0002	0.061	0.071	0.062	0.064
	Bent Creek	37-021-0030	0.064	0.071	0.067	0.067
	Lenoir	37-027-0003	0.064	0.071	0.066	0.067
	Cherry Grove	37-033-0001	0.067	0.073	0.070	0.070
	Pittsboro	37-037-0004	0.063	0.070	0.067	0.066
	Wade	37-051-0008	0.065	0.071	0.073	0.069
	Golfview	37-051-1003	0.066	0.073	0.076	0.071
	Cooleemee	37-059-0002	0.068			
	Mocksville	37-059-0003		0.072	0.072	0.072
	Durham Armory	37-063-0015	0.066	0.074	0.070	0.070
	Leggett	37-065-0099	0.066	0.072	0.072	0.070
	Hattie Ave.	37-067-0022	0.068	0.081	0.076	0.075
	Shiloh Church	37-067-0028	0.066	0.076	0.068	0.070
	Clemmons	37-067-0030	0.062	0.081	0.074	0.072
	Union Cross	37-067-1008	0.066	0.078	0.074	0.072
	Franklinton	37-069-0001	0.064	0.071	0.072	0.069
	Joanna Bald	37-075-0001	0.066	0.075	0.074	0.071
	Butner	37-077-0001	0.068	0.074	0.072	0.071
	Mendenhall	37-081-0013	0.072	0.076	0.076	0.074
	Waynesville	37-087-0004	0.060	0.070	0.065	0.065
	Frying Pan	37-087-0035	0.066	0.075	0.070	0.070
	Purchase Knob	37-087-0036	0.065	0.072	0.067	0.068
	Barnet Knob	37-099-0005	0.063			
	W. Johnston	37-101-0002	0.066	0.074	0.074	0.071
	Lenoir College	37-107-0004	0.064	0.069	0.071	0.068
	Crouse	37-109-0004	0.065	0.072	0.077	0.071
	Jamesville	37-117-0001	0.064	0.070	0.066	0.066
	Garinger	37-119-0041	0.069	0.082	0.088	0.079
	Arrowood	37-119-1005	0.068	0.078	0.082	0.076
	County Line	37-119-1009	0.071	0.082	0.083	0.078
	Castle Hayne	37-129-0002	0.060	0.062	0.064	0.062

Region	Monitoring Sites	AIRS ID					
			2009	2010	2011		09-11
	Bushy Fork	37-145-0003	0.065	0.074	0.072		0.070
	Pitt County Ag Center	37-147-0006	0.066	0.069	0.074		0.069
	Bethany	37-157-0099	0.068	0.074	0.071		0.071
	Rockwell	37-159-0021	0.071	0.077	0.077		0.075
	Enochville	37-159-0022	0.073	0.078	0.078		0.076
	Bryson	37-173-0002	0.060	0.066	0.060		0.062
	Monroe	37-179-0003	0.067	0.071	0.073		0.070
	Millbrook	37-183-0014	0.068	0.071	0.074		0.071
	Fuquay-Varina	37-183-0016	0.069	0.073	0.078		0.073
	Mt. Mitchell	37-199-0004	0.066	0.074	0.071		0.070



Statewide 8-Hour Ozone Design Values

2009-2011 8-Hour Ozone Design Values

- Attaining (75 ppb or less)
- Nonattaining (76 ppb or greater)