

# Charlotte has an ozone problem

**And if it's not fixed by a 2010 deadline, federal road money could evaporate.**

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Charlotte's surging population – and the cars that we drive – have put the region in jeopardy of not meeting federal clear-air standards.

Since early May, Charlotte hasn't been in “conformity” with federal air-quality goals that try to limit the amount of ozone in the air. If Charlotte can't show by next spring that its road-building plans won't make the air worse, the federal government might cut off highway funding for the region.

“This will potentially impact a number of projects throughout the region,” said N.C. Transportation Secretary Gene Conti. “It's a very difficult environment.”

Cars, trucks and off-road vehicles such as bulldozers produce 80 percent or more of ozone-forming compounds, called nitrogen oxides, in Mecklenburg County.

Ozone, an irritating gas that forms in summer heat and sunlight, can make children with asthma gasp for breath. It also can be dangerous to the elderly and people with heart and lung disease.

Despite years of trying to reduce vehicle emissions, Mecklenburg likely will come up short in meeting a federal ozone standard by the 2010 deadline, said county air-quality director Don Willard.

Recognizing those long odds, state officials withdrew a cleanup plan filed with the Environmental Protection Agency and will refile after this summer's ozone season. They hope that if ozone levels stay low for the next few months, federal regulators will grant a one-year extension to the compliance deadline.

The county can't show conformity with federal air standards if it doesn't have an EPA-approved cleanup plan.

But even if EPA grants an extension, a larger problem looms: an even tougher ozone standard enacted last year. The standard will drop to 75 parts per billion, down from 84. For the last two summers, Charlotte has been at 93.

The county will have to meet that standard as early as 2016.

“For me, the issue is how you reach the (new standard),” Willard said. “The bottom line is not conformity, but how a newer standard can be attained.”

## Long work commutes

Cars are cleaner than they were a generation ago because of federal engine standards and improved designs. But Charlotte struggles with ozone because of growth that adds thousands more cars to its roads each year.

While public transit use has increased significantly in recent years, people moving to the city's suburbs face long commutes to work. In many new subdivisions, it's hard to reach any other destination without getting into a car.

The sum of all that driving – called vehicle miles traveled or VMT – has historically grown even faster than the city's population rate. As mileage accelerates, so does pollution.

“The problem is that VMT keeps going up, even if emissions per car goes down,” said Donnie Redmond, planning chief for the state's Division of Air Quality. “It really is a struggle.”

Four-dollar-a-gallon gasoline, followed by a hard recession, means we drive less now. But experts aren't sure whether the trend will continue.

### **Calculating air quality**

With its long history of air pollution, Charlotte once before faced road-building delays. In the late 1990s, the city couldn't prove its road plans wouldn't make ozone and carbon monoxide worse.

Some road work temporarily stalled, but the city eventually satisfied federal regulators.

State and city engineers navigate a complex maze of air-quality calculations to keep the city in good graces with those federal officials.

They start with a state-produced emissions “budget” for the Charlotte region that estimates pollution from vehicles, factories and sources as small as lawnmowers.

Problems pop up when emission estimates, plugged into computers, predict that too much pollution will result.

That happened when the Charlotte Department of Transportation told the state that the city's vehicle tailpipes would spit out 32 tons a day of nitrogen oxides. When the state used that estimate, it forecast ozone levels higher than the federal limit.

CDOT later revised its estimate to 34 tons. That put the city even further out of compliance.

Charlotte transportation officials now hope that when they again submit new emission estimates, a younger – and cleaner – fleet of cars will offset the growing vehicle numbers.

The problem, however, is recession-weary consumers aren't buying new cars like they did in the past.

### **‘Déjà vu with Atlanta’**

For a vision of Charlotte's possible future, look to Atlanta, which has grappled with the Clean Air Act for decades.

In the 1990s, a coalition of environmental groups filed lawsuits against the Georgia Department of Transportation, claiming the area's ambitious road-building plans would further erode air quality. Their litigation stopped several highways from being built, and led to cancellation of a 70-mile expressway.

Charlotte's air trouble "is déjà vu with Atlanta," said David Farren of the Southern Environmental Law Center, which challenged the Atlanta highway plans.

Farren believes that planning groups, in Charlotte, Atlanta and other cities, use too-optimistic projections to meet their pollution budgets.

"There are so many different assumptions that you can use to change the formula and thereby change the result," Farren said. "But the real teller is: What do those ozone monitors show?"