

Opinion

Citistates report: Is region going green - or just pretending?

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Conclusion of a four-part series.

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"Green" is in. President-elect Barack Obama says it. Top corporations are onto the idea. Environmentalists are basking in the new sunshine on their cause. But is the Charlotte region ready — or even interested?

For four months in this series we've advocated a chain of "great, green and global" for the Charlotte region's 21st-century success — transit first, more compact development, focus on solar development and more. But if there's a dangerously weak link in the chain, it's surely the "green."

Why? The region's development typically has come at the expense of safeguarding its natural resources. There's been frequent inattention to assaults on water and air quality. And the region has been slow to recognize the importance of reducing carbon emissions — the overwhelming environmental issue of our time.

This is not a ho-hum story about tree-hugging extremism. If Charlotte is to survive in a post-banking world it must reinvent itself. Going green will be a critical element of any region's reinvention. And it will be central to Charlotte's hopes to be a strong global player.

The problems are substantial. Consider Charlotte planner Michael Gallis' recent digitized analysis of the environmental networks of the Southeastern Piedmont, with Charlotte at its center. Gallis found massive human impacts on the entire landscape. Humans have negatively altered all of the major and most of the minor Piedmont streams. Starting with the first white settlers, they straightened waterways to run faster, cutting the river birch, pines and oak on the banks that previously retained water. They crashed through the swamps, cut through the forests.

The first generations cleared much of the flat land for farming; now suburbanization is consuming more and more of the forest. Roadways and settlement have severely fragmented the ecosystems throughout the region. The region is left with a natural landscape afflicted by fragmentation, depletion, pollution and now extinction of high percentages of the original native plant species.

Indeed, the 24-county area from the Blue Ridge Mountains to Rockingham lost more than 100 acres a day to development from 1976 through 2006, according to a UNC Charlotte study looking at satellite and census data. Mecklenburg County's figures were especially disturbing: 58 percent of the county was developed in 2006, more than quadrupling the 1976 figure of 13 percent. If that rate continued, development will have devoured 97 percent of the county by 2030. Open space will be shrunk to what UNCC's Professor of Architecture David Walters calls "less than a thimble-full."

To be sure, there are encouraging signs of regional progress on environmental issues, although the recession is slowing progress in many arenas. Welcome initiatives range from Duke Power's "save-a-watt" program and Bank of America's "green" buildings to Charlotte's considering creating a "green czar" position within city government. The Centralina and Catawba Regional Councils of Governments have spent years trying to promote an environmental angle to regional governance, most recently with their ambitious CONNECT effort (see story on 6F).

A Regional Environmental Summit last spring reviewed a big range of challenges, from energy to land use to preserving open spaces. Several major local corporations are looking into solar power and other green business opportunities. Because of big concerns about water supply, conservation groups are urging coordinated action to safeguard the Catawba and Yadkin River watersheds. Area businesses cooperate in a "Clean Air Works" program to cut back on noxious air during high-ozone

days, encouraging employees to, for example, carpool, use public transit or telecommute.

In addition, there's an active interest in conserving open land and in the exciting efforts of the Catawba Lands Conservancy and Trust for Public Land to launch an ambitious Carolina Thread Trail, a network of greenways straddling the state line and touching all the region's counties. In the face of endemic regional sprawl, the area does have a handful of more compact, energy-saving communities (the college town of Davidson, Fort Mill's Baxter development and others). Charlotte's City Council has adopted policies aimed at making its streets more pedestrian- and bike-friendly.

But does all that make the Charlotte metro area a truly "green" place, a top-tier American region forging comprehensive, regionwide green agendas, like Portland, Ore., Seattle or Chicago? Can it sit back comfortably and let "the powers that be" work things out? Hardly.

First, consider history. The region was locked in poverty from the Civil War to the mid-20th century, so it instinctively welcomes "growth" without much concern for its potential downsides. Reform is tough here. One strong thread in the region's cultural history, shaped by early Scots-Irish settlers, is a thorny local independence, with county-to-county and town-to-town competitiveness and — outside of Mecklenburg — strong antipathy to planning. The ideal of large home lots in woodsy locations (typically with wells and septic tanks) is deeply ingrained.

What about sheer numbers of people? The region has sputtered in population growth, well ahead of national averages. At roughly 1 million in 1960, today the 14 North and South Carolina counties studied in this report have about 2.4 million people, headed for some 3.6 million in 2030. What that means is a continued drumbeat of land and resource development demands, on top of an already strained natural environment.

Gobbling up acres

If that growth were focused in urbanized places, the danger to the region's environment might be minimized. But it's not. While Charlotte-Mecklenburg growth rates have been high, counties such as Union, Iredell, Cabarrus and York have also expanded rapidly, often with far fewer environmental safeguards, such as protections against clear-cutting, or anything beyond minimal public transportation options.

In Union and Cabarrus counties, for example, sprawling growth is gobbling acreage at a rapid pace, with development consuming 0.48 and 0.42 acres per person, roughly double Mecklenburg's 0.23-per-person average. Longer distances mean more driving and increased emissions of dangerous nitrogen oxides: Per-capita measures show such counties as Iredell, Catawba, Rowan and Chester emitting pollutants far more seriously than Mecklenburg or the regional average. (Cabarrus, to its credit, has recently adopted growth boundaries around developed areas in the hope of focusing growth into the towns and preserving agriculture, although it will take a while to see whether the policies make a clear difference.)

Another sprawl byproduct: climate change with the massive perils it poses, not just for rising seas across the globe but shifting climate belts, periods of intense storms and then intense drought, species loss and food emergencies. The Charlotte region's carbon footprint is among the nation's heaviest, according to a recent Brookings Institution study. The study rated 100 large regions from least footprint to biggest — and Charlotte ranked down at No. 72, with carbon emissions rising significantly faster than the national average.

The urban regions with aggressive climate strategies — from Burlington, Vt., to the San Francisco Bay region — aggressively engage government, businesses and nonprofits in setting goals and determining action steps. Some of their governments boast entire departments devoted to carbon and related eco-issues.

But not in the Charlotte orbit. Duke Energy says demand will oblige it to build another coal-burning power plant — notwithstanding coal's role as the world's leading source of carbon dioxide emissions, plus traces or worse of such dangerous chemicals as sulfur dioxide, nitrogen dioxide and mercury. (Duke says the plant will emit less carbon dioxide and other dangerous chemicals than the two it would replace.)

There's lots of interest in climate change among UNCC faculty, and many U.S. universities are

becoming regional leaders on the issue. But UNCC isn't among the 587 U.S. colleges and universities — UNC Chapel Hill included — whose presidents have pledged to reduce their greenhouse-gas impact to zero.

Charlotte's next challenge, if it's to shine green, is water. The nonprofit American Rivers group has declared the Catawba the nation's most imperiled river, and Monday held a press conference to deplore a lack of action by either of the Carolinas. Droughts in 2002 and in 2007-08 have raised concern about this great metropolitan region one day going dry. Water quality in the Catawba, on which 1.2 million people depend, is in danger of falling below acceptable limits.

Why? The Catawba usually provides a strong flow of clean water from its mountain headwaters, running rapidly through the tumultuous growth of real estate projects — and human demand — in the region. But development along and near its banks sends silt running off into streams, smothering such aquatic organisms as clams, eels and mussels that normally filter out contaminants. Silt affects water flows that used to be slower through naturally vegetated streams. Now, in heavy rainfall the streambeds are heavily eroded. Those eroded banks lose their ability to absorb water, so in times of low rainfall they can go dry. The city of Charlotte alone loses 13 billion to 31 billion gallons of water a year in runoff, according to American Rivers. That rainwater used to seep into the soil, where it was purified and helped replenish groundwater. Now, because of overpaving, it pours into sewers as polluted runoff and rushes in torrents into creeks and rivers, scouring the banks.

"The river," says Rick Gaskins of the Catawba Riverkeepers, "is a microcosm of the global warming issue. We're at a tipping point, because of the time it takes to turn things around."

It's true a new coalition of water directors along the river, joined by Duke Power (a major water user to cool its power plants), now focuses on the river flow. Last summer the coalition advanced such measures as once-a-week watering.

Water use soaring

Charlotte environmental lawyer David Franchina says, "The Catawba is just a chain of dams — not much river left." The big issue, he says, isn't the much-publicized legal maneuvering over transferring water between watersheds, but "how much, long-term, will the natural water system sustain?" Charlotte-Mecklenburg's current use of 90 million gallons a day, he notes, easily soars to 140 million gallons with spring and summer lawn watering. The projection for the next 50 years is ominous: Those numbers may as much as triple, well beyond the river's likely or even possible flow.

Add to that development pressures in the Yadkin-Pee Dee watershed, which represents a larger share of the region's geographic footprint and is heavily affected by today's sprawl development.

Another question mark about the Charlotte region's environmental credentials: Its slow progress in promoting new buildings that meet the U.S. Green Building Council's LEED (Leadership in Energy & Environmental Design) rating system for highly energy-efficient sustainable buildings. Such cities as Atlanta, Seattle, Washington, Boston, Philadelphia, San Francisco and Portland, Ore., have moved much more rapidly than Charlotte on this score. With Bank of America leadership, substantially more LEED-level construction is on its way. But no local city government codes require or emulate LEED standards, a step more progressive communities are taking. And the Charlotte City Council recently balked at adding an energy-saving green roof to a new city building, citing its cost.

Further, despite Charlotte-Mecklenburg's improved bus system and the opening of the Lynx light rail line, most of the region continues to rely overwhelmingly on private automobiles. Most counties have barely lifted a finger for effective public transport.

The bottom line: This is a city and a region that have a long way to go if they hope to safeguard natural assets and develop the range of "green" systems that will open the doors to environmental safety, public health, and eventually economic success in the 21st century.

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