

Piedmont Together

Comprehensive Regional Plan



PIEDMONT
together

Community Choices. Regional Solutions.

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PIEDMONT TOGETHER:

A Framework for Prosperity

Purpose and Background

The Piedmont Triad is a 12-county region of mill towns — large and small, urban and rural. For nearly two centuries, furniture, textile and tobacco manufacturing has been the life-blood of our region. However, over the past 20 years nearly half of our manufacturing jobs have been lost (nearly 100,000 jobs lost over the past three decades) and most of our mills are closed. Practically every city and town in the Piedmont Triad has abandoned manufacturing sites that are providing little or no job opportunities or property tax revenue.

In 2010 the Piedmont Authority for Regional Transportation (PART) received a grant from the U.S. Department of Housing and Urban Development enabling our region to undertake a three-year effort to develop a regional plan for greater prosperity in communities across our region. In partnership with the Piedmont Triad Regional Council (PTRC), this planning effort addresses a wide range of issues, including jobs, housing, transportation, climate adaptation, green infrastructure, demographic shifts, food systems, energy efficiency, and healthy communities.

Large amounts of data were collected, mapped and analyzed to provide a framework of factual information for the planning effort. Among many other things, we noted that while most people used to live and work in the same community, today 63 percent of our region's jobs are located in Forsyth County and Guilford County. Currently we move not only goods and raw materials, but also 30 percent of our workforce, which travels to another county for employment. The average family in the Piedmont Triad spends 50 percent of their income on combined housing and transportation costs. In rural counties 30 percent of the housing stock consists of manufactured housing, which is often isolated from job opportunities and basic necessities. 95 percent of all trips made in our region are made in an automobile. Transit, walking and biking are statistically nonexistent transportation modes for nearly 80 percent of the

people in the Piedmont Triad. 21 percent of our region's low-income persons live greater than 1 mile from the nearest grocery store. Between 2002 and 2007 our region lost over 137,000 acres (215 square miles) of farmland.

Yet our region's population is growing and this growth offers our region new and exciting opportunities. By 2040 our region is projected to grow by 400,000 people. 100 percent of this growth will be from minority populations. Increases in our housing stock will be needed to accommodate this growth. The average household size is shrinking and the younger generation places a different value on homeownership as part of the American Dream than did their parents. New employment opportunities will be created, and the skills and training necessary for these emerging jobs will be

"If we had eliminated racial inequities in 2011, the GDP would have been \$1.2 trillion higher. Getting people in jobs that pay family supporting wages, having people educated so that they can get the best jobs that their abilities will allow them to be able to do. These things allow people to create wealth for the nation."

~ Angela Glover Blackwell, founder and CEO of PolicyLink.

vastly different than 20 years ago. Fresh local food production and distribution will continue to grow and be an important part of our regional economy.

So what will the next three decades bring? 2040 is closer than 1980! Our region has changed, and will continue to change. Our response to these changes will determine our place in the state, national and global marketplace. To improve our prosperity, increase our housing and transportation choices, and embrace and capitalize on our growing diversity we will need innovative approaches. However, no single investment or isolated strategy will fully address the economic, social and environmental challenges we face. Our best road to inclusive prosperity requires multiple local and regional actions meeting both local and regional interests. Successful implementation of the many strategies proposed by Piedmont Together will require audacious leadership that is willing to take calculated risks and pursue new, transformative approaches. This will require collaboration amongst local and regional planning agencies, and engagement with community and private sector leaders.

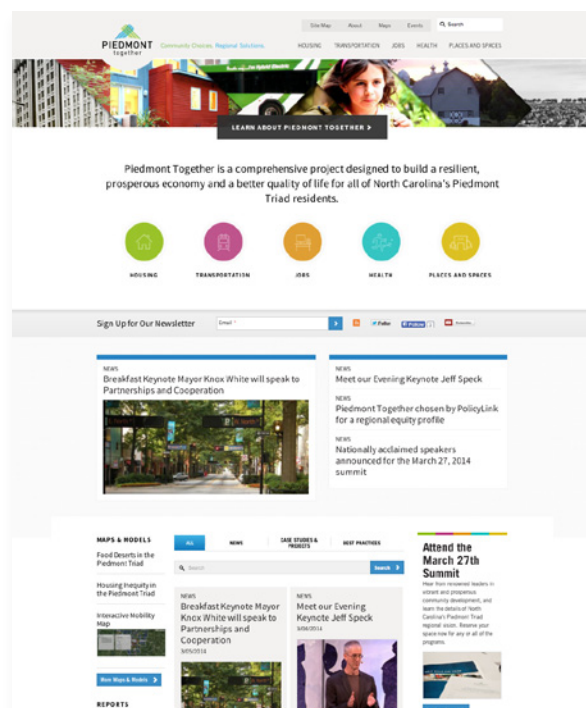


Piedmont Together is an ambitious effort to help Triad citizens and officials envision a more prosperous future for communities across our region. The project's thorough assessment of past and current conditions and careful consideration of potential future challenges and opportunities provides a broad framework for prosperity. This framework is based on detailed factual information and a rich set of community values. Public, private and non-profit partners have worked collaboratively to identify and evaluate a wide range of resources, tools and best practices currently available and needed in the future to maintain and enhance our quality of life, strengthen our economic well-being, and protect our natural and built environments as we grow and prosper.

Contents

An interactive project website and multiple civic engagement meetings provided many opportunities for citizens and officials throughout the region to provide input. A future vision for the region was developed using feedback from civic engagement activities. Using “If-Then” questions, three possible “Piedmont Vision Narratives” were developed and then used to test alternative growth scenarios for the region. A robust set of goals, objectives and strategic actions were then drafted to reflect the data collected, input gathered, and opinions offered.

Five primary focus areas were established for the Piedmont Together regional plan: Jobs, Housing, Transportation, Healthy Communities, and Places and Spaces. The goals, objectives and strategies recommended in the plan cut across all five focus areas and are supported by multiple community engagement sessions, eight local design workshops, and numerous studies. The Piedmont Together web site (www.piedmonttogether.org) provides access to the focus areas, elements and resources used to develop the plan, including focus area summaries, recommendations and detailed studies. The strategies recommended in the plan are searchable and progress on their implementation will be tracked over time.

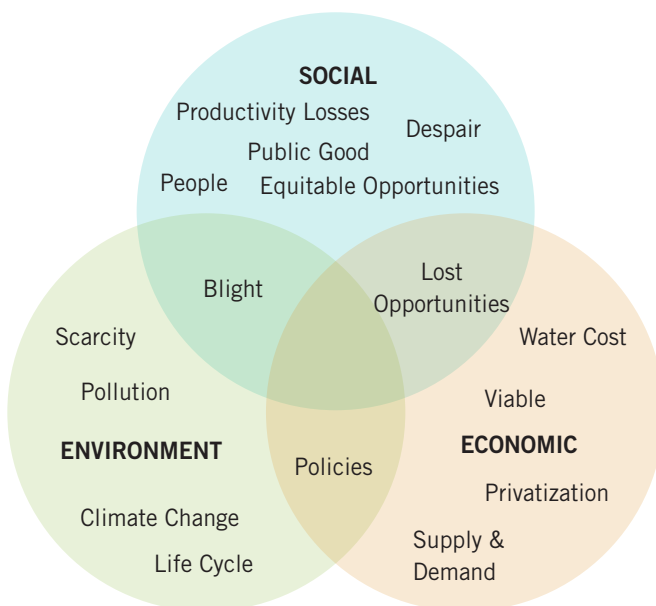


The Equity Lens: Achieving Prosperity for All in the Piedmont Triad

By 2040 the Piedmont Triad will look different than it does today, and be vastly different than it was in 1980. The future of the region depends on our economy's ability to respond affirmatively to these ongoing demographic shifts. In the United States the gap between rich and poor is growing wider, and significantly higher numbers of blacks and Latinos live in poverty. The same trend is evident in the Piedmont Triad. What will this mean for our region's economy if this trend continues? What do these trends mean to our ability to host a prepared workforce that is attractive to businesses? What do these trends mean to our ability to produce world-class innovative thinkers that are needed to grow our economic resilience and prosperity? What can be done to fix the deeply ingrained problems that are the root cause of these trends?

Equity is “just and fair inclusion into a society, where ALL can participate and prosper.”

Equity requires intentionality. It is the lens through which all planning should occur. Equity in planning



“If this nation wants to have a middle class, be competitive in the global economy, we need to make sure that the people who are going to be the future are ready for the future. Inequality is bad for growth. We need to make sure that people can get jobs that support their families.”

~ Angela Glover Blackwell, founder and CEO of PolicyLink.

connects people to opportunities and results in the development of opportunity-rich, vibrant communities. Equity, done well, increases residents' capacity to improve their quality of life, and contribute to building and sustaining a strong regional economy. Without the equity lens, too much of our region's most valuable asset, our human capital, is being left without the ability to participate in our region's economy.

Equity and inclusion embody approaches that create healthy, vibrant, communities of opportunity where all can participate and prosper. Equitable outcomes are produced when planning integrates land-use, transportation, economic development and environmental stewardship. Equitable planning and development brings together the collective wisdom of government, community and the private-sector; and focuses on supporting and improving the lives of people.

The idea of providing “Opportunities for Everyone” must receive more than lip service. Viewing community and economic development through the lens of equity is essential for our region's economic future. The following six principles developed in partnership with PolicyLink for the Piedmont Triad and are put forth as our equity lens.

PRINCIPLE 1: Ensure that all residents can live in communities of opportunity by supporting robust affordable housing programs and policies and take concrete steps to eliminate discrimination in rental and homebuyer markets.

“When I use the term ‘equity,’ I mean just and fair inclusion. We have been leaving too many people behind. And it’s not only hurting them, it’s hurting our economy.”

~ Angela Glover Blackwell, founder and CEO of PolicyLink.

PRINCIPLE 2: Equitably distribute the amenities and infrastructure investments that make all communities livable by using infrastructure investments as opportunities to increase physical access to opportunities for low-income communities — transit access, quality schools, and job centers.

PRINCIPLE 3: Prioritize health and safety concerns by creating incentives for the location of quality grocery stores and produce markets in poor neighborhoods, achieving environmental justice, and locating parks and bike and pedestrian paths to increase access to physical activities in poor neighborhoods.

PRINCIPLE 4: Strengthen the political voice of dispersed, low-income and ethnic residents.

PRINCIPLE 5: When public funds are spent on redevelopment and economic development projects, leverage expenditures to create jobs that first go to local residents and that pay a livable wage.

PRINCIPLE 6: Develop a communications and technology infrastructure to facilitate information flow to people who are impacted by decisions that impact them and their community.

As each Goal is obtained, as each Objective is considered, as each Strategy is implemented it must be done through the lens of equity ensuring that each of the six principles are being met.

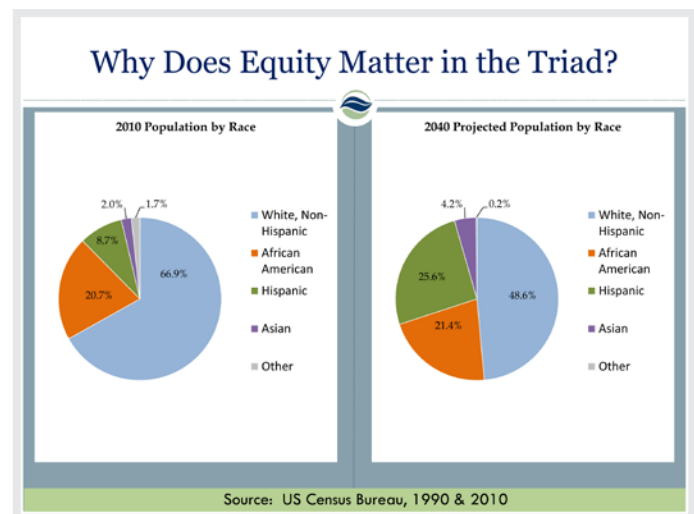
The Equity Lens

In using “equity” as a guiding principle, we believe in creating communities that provide equal access to opportunity.

Equity is “just and fair inclusion into a society, where ALL can participate and prosper.”

Equity requires intentionality; it is the lens through which all planning should occur. Equity in planning connects people to opportunities and results in the development of opportunity rich, vibrant communities. Equity, done well, increases residents’ capacities to improve their quality of life, and contributes to building and sustaining a strong regional economy.

With the region’s growth and changing demographics (<http://piedmonttogether.org/content/future-piedmont-triad-demographics>), the Piedmont Triad is set to become more diverse, and we want to ensure our communities remain inclusive places to live, work, and raise families. Piedmont Together believes in recognizing our region’s demographic changes and in working to build a better future for all of our residents. Therefore, the principle of equity relates to each of the plan’s five main focus areas: Housing, Transportation, Jobs, Health, and Places & Spaces.



In our vision for the Piedmont, everyone should have access to:

Fair housing with more choices and increased affordability, like those found in neighborhoods with mixed residential options public transportation, for the ability to travel to and from work, whether living in a rural or urban county

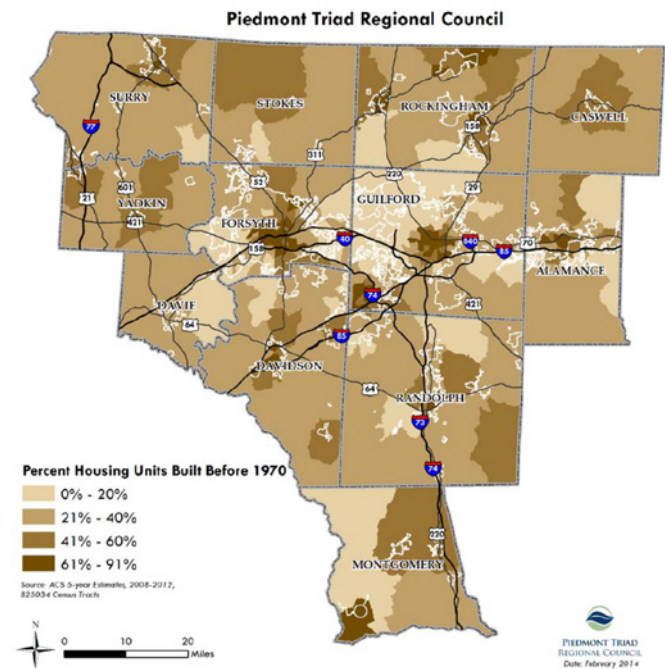
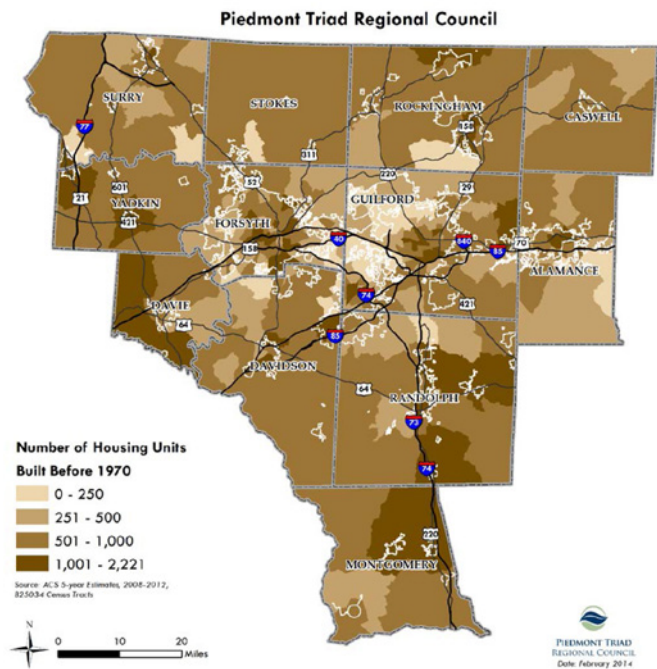
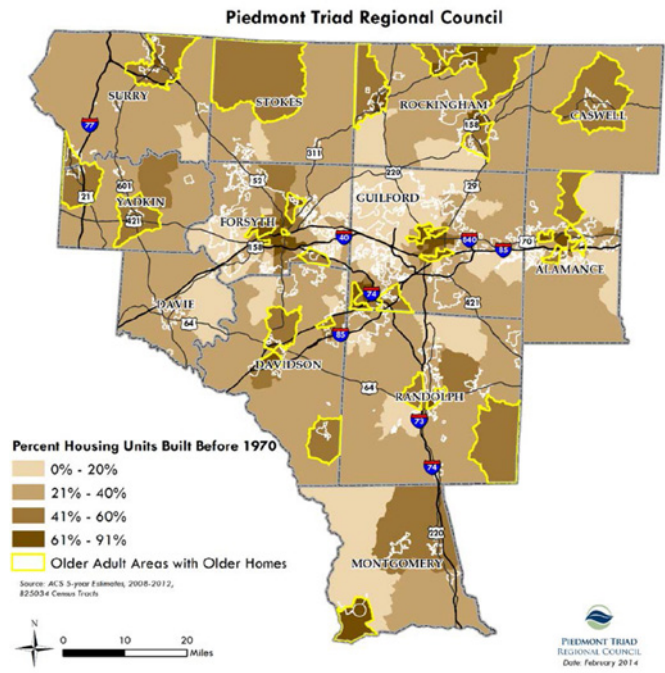
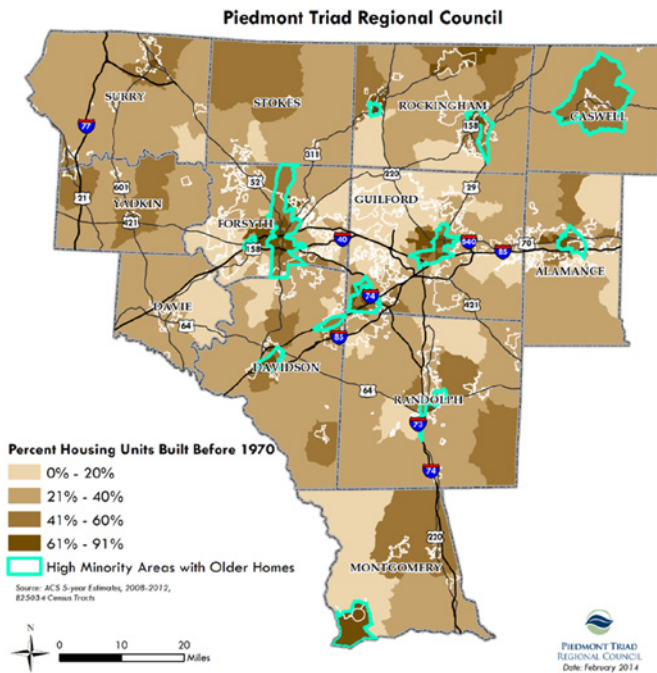
A job in the competitive “new” economy

Affordable and convenient health care

A preserved natural environment and a built environment that promotes healthy communities

How Have We Attempted to Assess Equity in the Piedmont Triad?

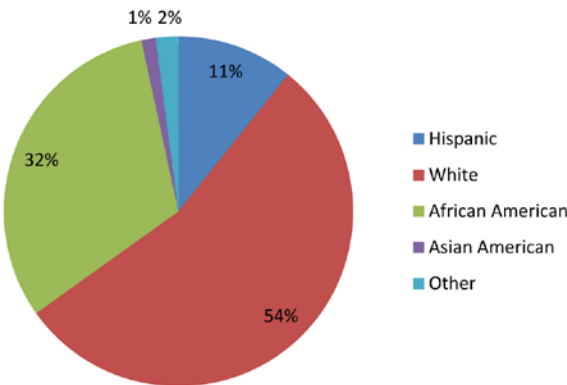
Our assessments indicate that older houses appear to be disproportionately owned by minorities and older adults (65+). These homes are more likely to have asbestos fibers, lead-based paint, and poor insulation, exposing residents to greater environmental and financial risks.



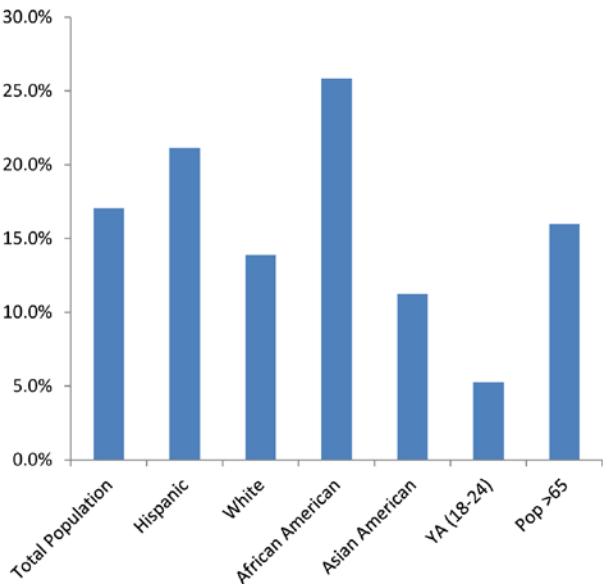
How Have We Attempted to Assess Equity in the Piedmont Triad?

Our assessments indicate that food deserts have disproportionately high populations of minorities, especially those who are living in poverty. If not better served with grocery stores, farmers’ markets, and other outlets, these communities of color will continue to have poor access to healthy foods, putting them at greater health and financial risk than the rest of the region’s population.

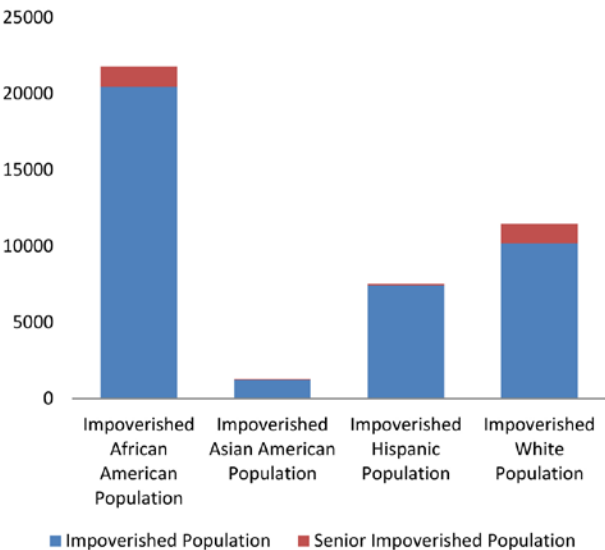
Piedmont Triad Communities Within Food Desert Population



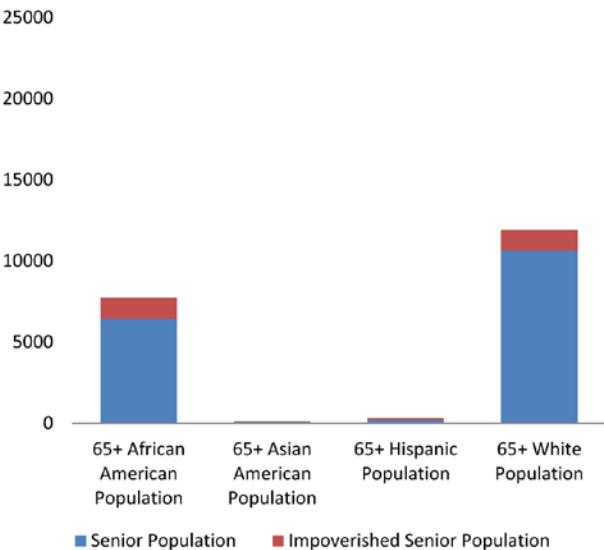
Impact of Food Deserts Upon Piedmont Triad Communities



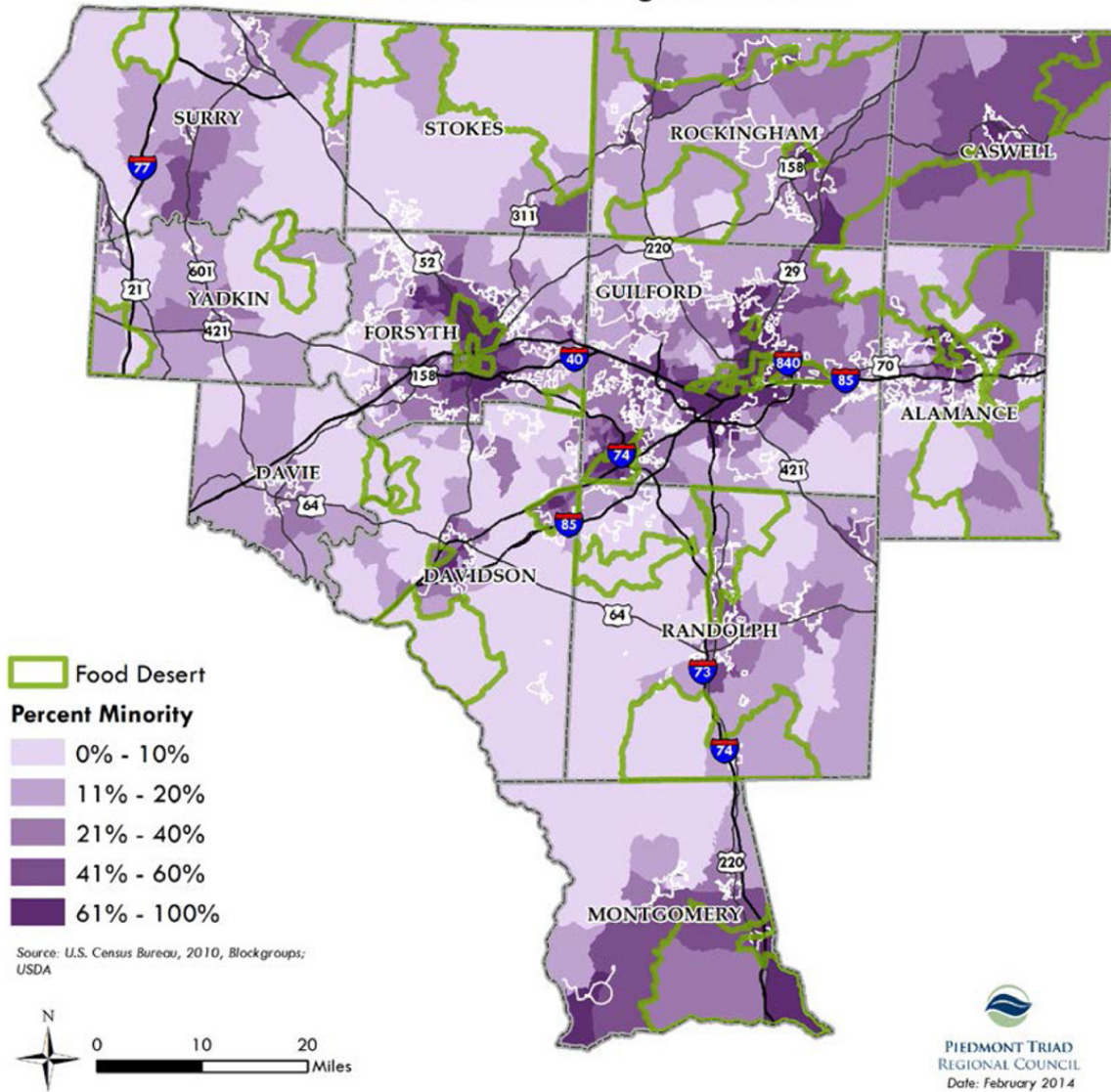
Impoverished Population in Piedmont Triad Food Deserts
Total Pop. 40,298



Senior Population in Piedmont Triad Food Deserts
Total Pop. 17,471



Piedmont Triad Regional Council



VISION

Expand housing choices for everyone — especially those whose choices have been limited by loss of employment, low wages, fixed incomes or discrimination.

The Regional Advantage

Nearly every city and town in the Piedmont Triad has a vacant mill or factory that could be redeveloped for housing and other mixed uses. In several towns, developers have transformed industrial buildings into lofts, apartments and “live-work” dwellings, and they have found singles, small families and “empty nesters” eager to live in these renovated places.



Accomplishments

- A Regional Assessment of Fair Housing is underway, with Burlington, Greensboro, High Point and the four-county Surry HOME Consortium collaborating on an in-depth analysis and action plan to overcome obstacles to fair, affordable housing. When completed in September 2014, this will help cities and counties plan locations for future housing funds and also meet HUD requirements.
- With support from Piedmont Together, the Housing Authority of Winston-Salem received funding from HUD to start planning for revitalizing Cleveland Avenue Homes and making the East Winston neighborhood an attractive mixed-use environment for new residents and businesses.
- Homelessness service providers have formed a working group to create a Regional Homelessness Network.
- Partnering with the City of High Point, Wynnefield Properties is developing Addington Ridge, a 55 apartment Low Income Tax Credit family property, in an “opportunity-rich” area near Wendover Avenue and Penny Road, close to jobs and services.
- The Enclave, a 68 apartment community, was rescued from foreclosure, rehabilitated and completed by a partnership of Forsyth County and the City of Winston-Salem NC Housing Foundation. This is a great example of how federal and state funds can convert problem properties into community assets.



GOAL

Providing more housing choices.

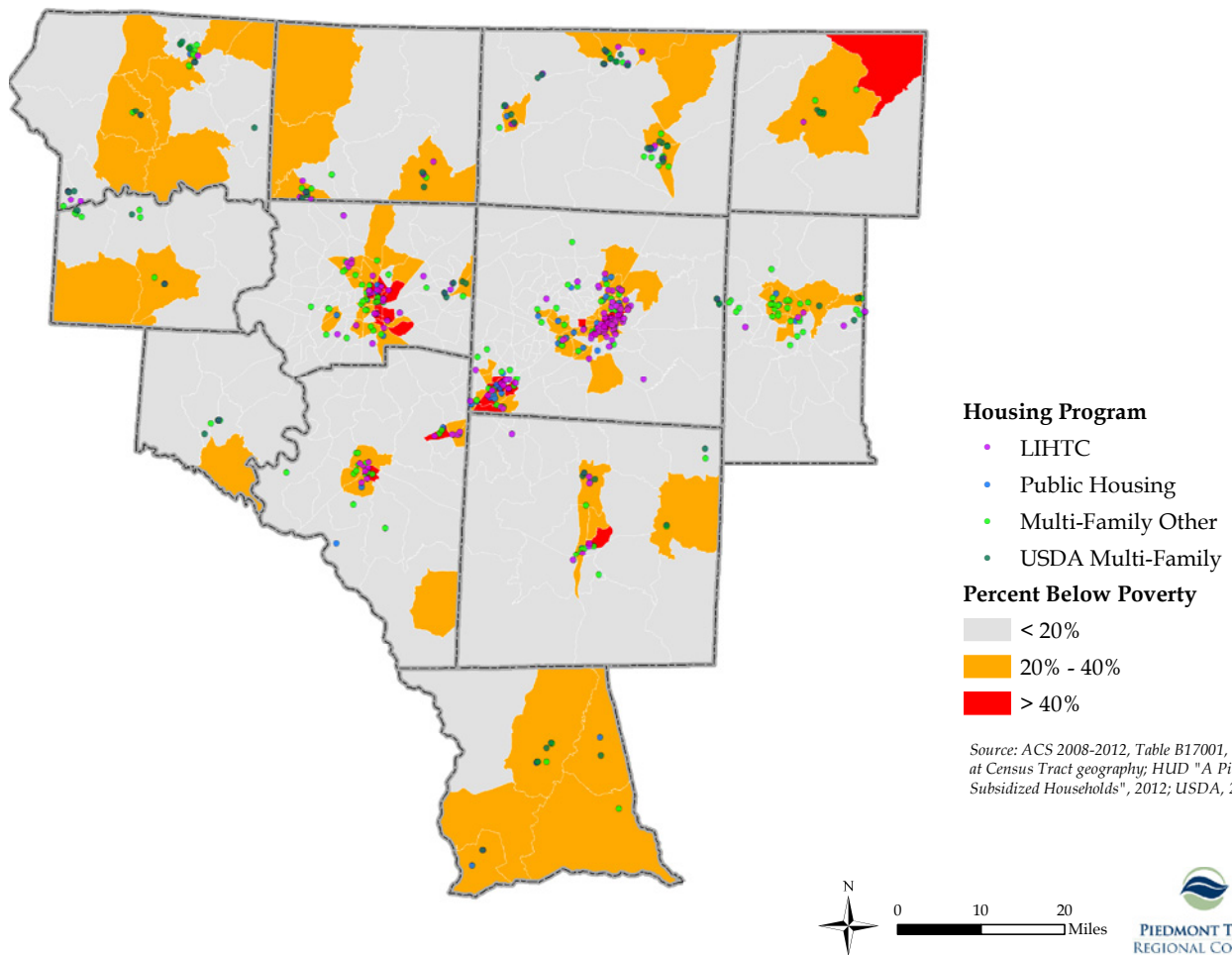
Objective 1

Stimulate more housing close to jobs, services and transit.

Strategies

- Develop a Regional Assessment of Fair Housing and use it to guide future housing investments.
- Target federal and state funding to promote mixed use/mixed income communities near employment centers.

Poverty Status and Subsidized Housing in the Piedmont Triad



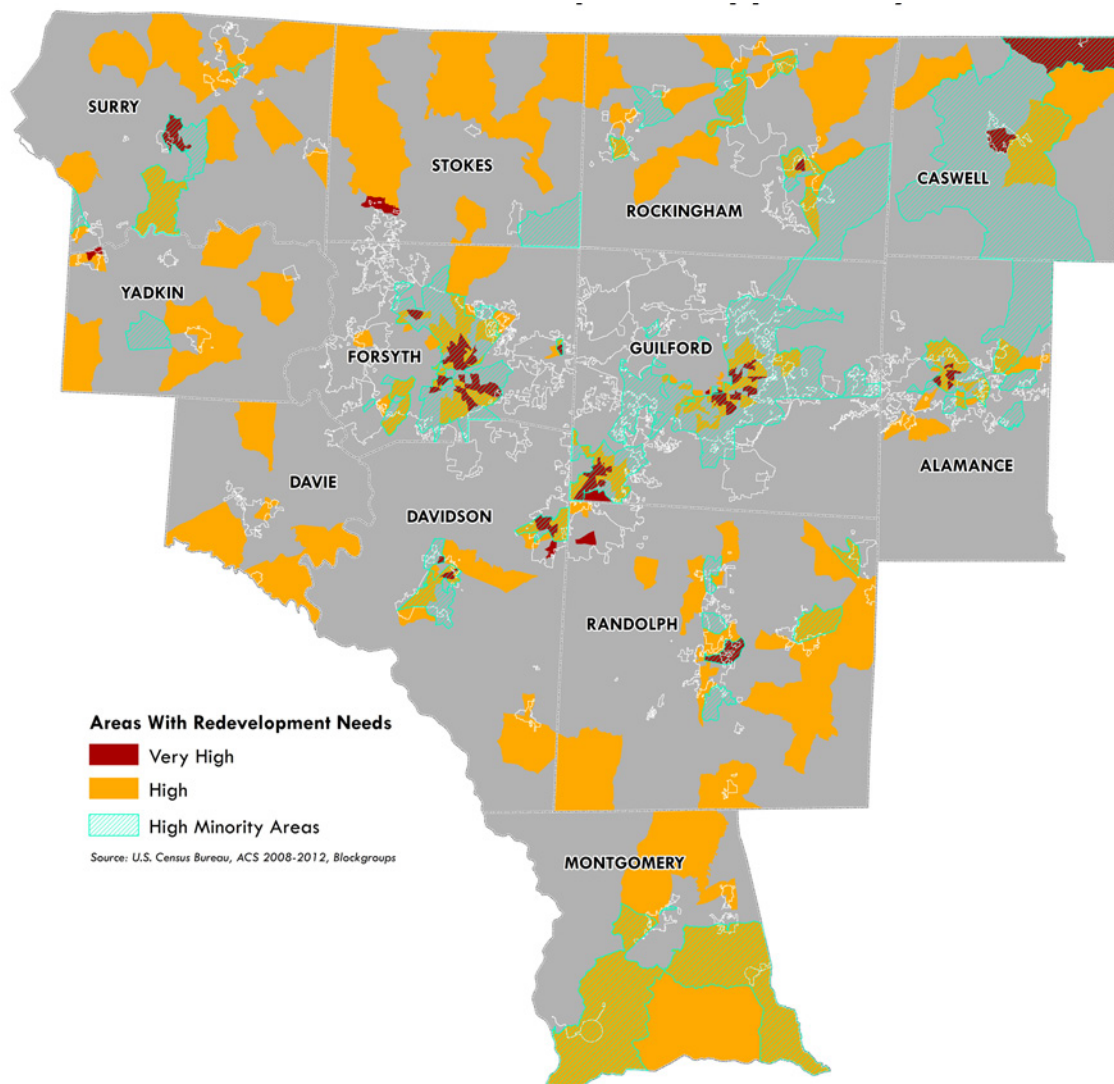
Objective 2

Strategies

Revitalize Redevelopment Opportunity Areas, increasing investment and infill in select areas.

- Target federal and state funding toward areas designated by municipalities to revitalize existing neighborhoods that are close to services, schools and employment centers.
- Develop model infill housing incentives and encourage local implementation.
- Build partnerships between public agencies, private investors and community-based groups to plan and fund redevelopment projects.

Potential Redevelopment Opportunity Areas



Objective 3

Promote mixed income development.

Strategies

- Encourage use of voluntary inclusionary policies that offer market-based incentives for mixed income housing.
 - Use federal, state or local funding to incentivize a mix of incomes in new developments.
 - Leverage state and federal assistance to convert abandoned mills and factories into mixed use/mixed income developments.
-

Objective 4

Decrease the number of homeless persons in the region.

Strategies

- Establish a regional network of homeless service providers to solve common problems and help find funding.
 - Improve transportation options between homeless shelters, jobs and services.
 - Increase awareness of homelessness among elected officials and community groups.
 - Using a Housing First model, coordinate services to stabilize individuals and families in residential settings.
 - Deliver skills training to help homeless people find jobs and increase income.
-

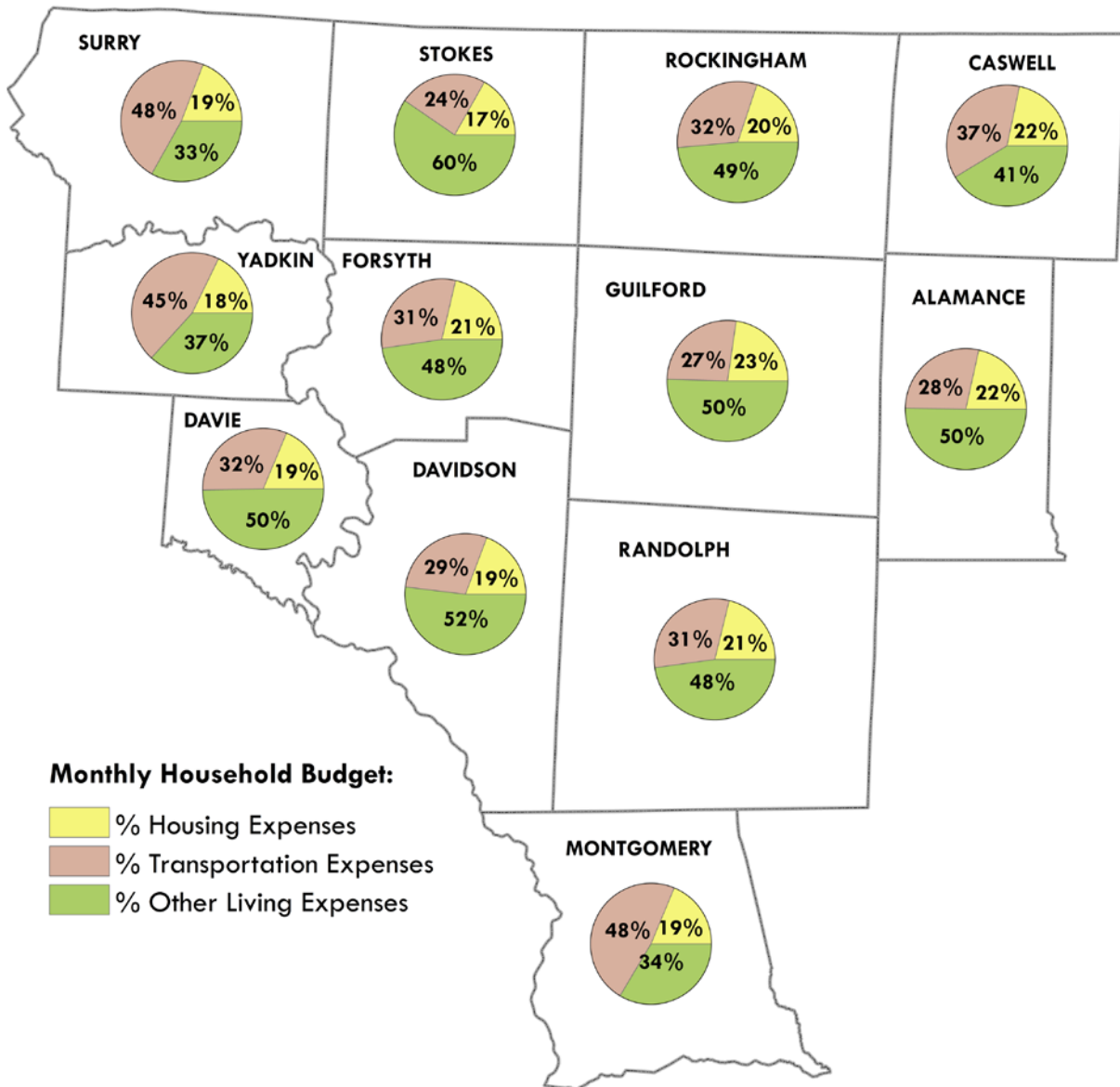
Objective 5

Convert foreclosures into assets.

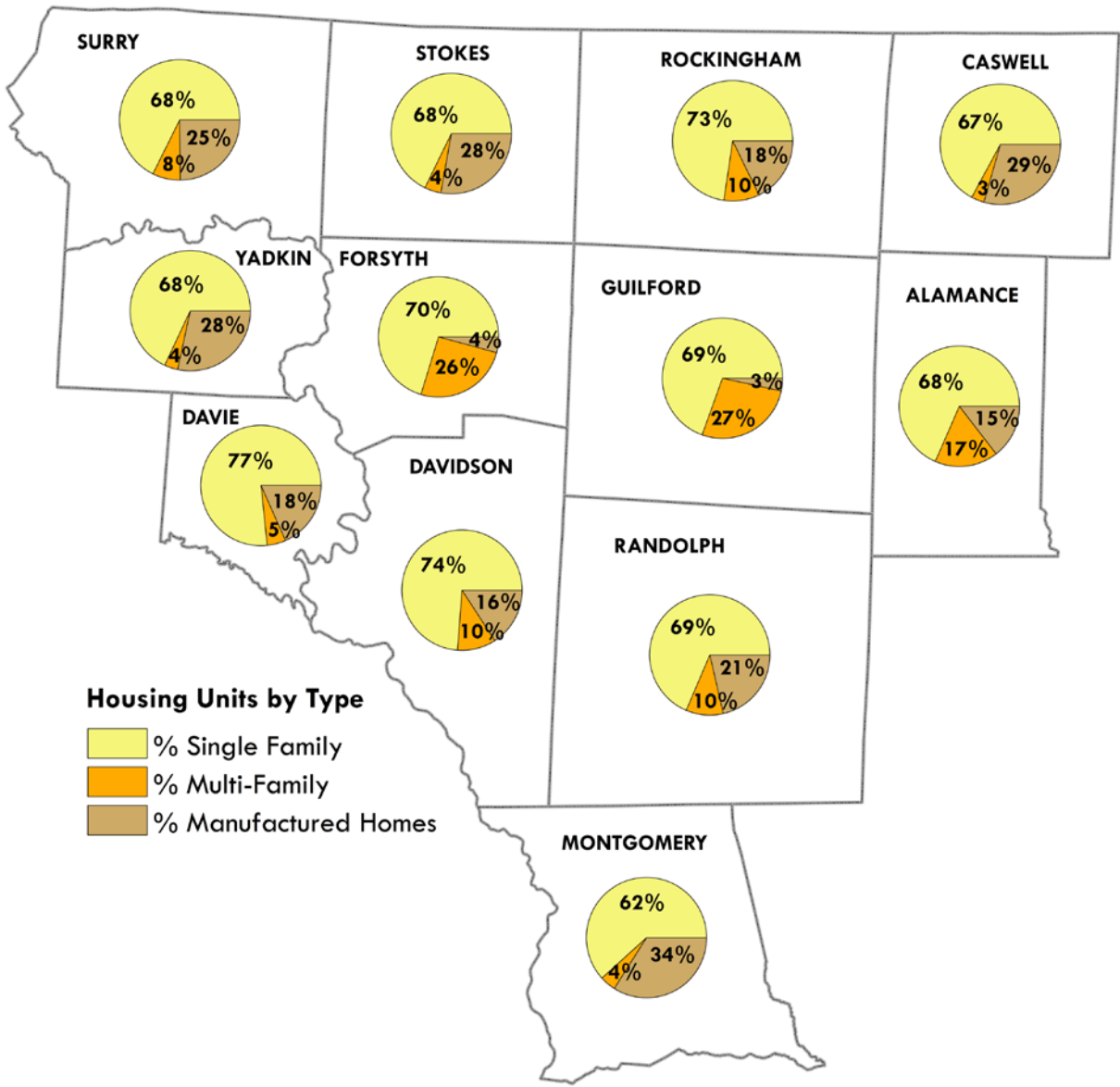
Strategies

- Develop a regional land trust, a partnership between banks, local governments, and community foundations, to purchase, redevelop, and resell foreclosed housing.
- Pursue funding to transform foreclosed properties into new homeownership opportunities, transitional and scattered site rental housing.

Household Housing and Transportation Costs in our Region



Regional Housing Choices



VISION

In the future, the Piedmont Triad should have the infrastructure for multiple safe, efficient, and affordable modes of travel throughout our communities and across the region. Freight movement in the region will remain a driving economic force. To protect this asset, the region includes freight movement in the planning and prioritization of the regional transportation infrastructure. Providing more transportation options on a regional scale will help us maintain minimal congestion and create new advantages to provide an attractive lifestyle and a welcoming environment for businesses to thrive and create more job opportunities.

The Regional Advantage

Everyone living in the Piedmont Triad should be able to exercise their right to invest in a home in a location of their choice while having the freedom to travel about the region to access jobs and economic opportunity. The region is positioned mid-point along the Atlantic coast, with close proximity to numerous ports, several interstates cross the region, and our highways are not congested. Providing more transportation options on a regional scale will help us maintain minimal congestion and create new advantages to provide the choices and redundancies necessary to support commerce and a robust middle class.

Accomplishments

- The Transit Alliance of the Piedmont has formed to promote transit.
- The regional transportation network has been identified.
- Transportation planners are integrating freight movements into the regional travel demand model.



GOAL 1

Provide more transportation choices through the development of safe, reliable, and economical transportation infrastructure and services to decrease household transportation costs, reduce our nation's dependence on foreign oil, improve air quality, and promote public health.

Objective 1

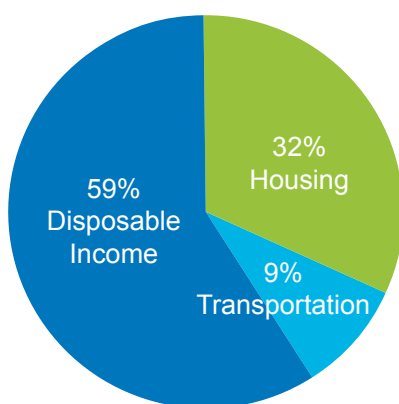
Establish and enhance a robust network of multi-modal transportation choices at the statewide, regional, county and municipal levels involving highways, passenger and freight rail, regional and local transit, streets, para-transit services, sidewalks, cycling infrastructure, and recreational trails and greenways.

Strategies

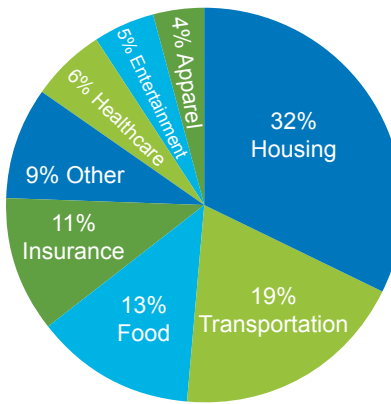
- Identify a regional transportation network that focuses on the movement of goods and people connecting urban centers to small towns, and the region to the State and beyond.
- Request MPOs and RPOs to adopt the Sustainable Street Network Principles developed by the Congress for New Urbanism as a framework for developing street networks in local communities.
- Request MPOs, RPOs, cities and towns to adopt the North Carolina Complete Streets Manual as a policy statement for the decision making process to enhance transportation infrastructure in local communities.
- Request MPOs and RPOs to develop Long Range Transportation Plans that focus on the integration of multi-modal transportation infrastructure with the location of housing and job centers.
- Update the Regional Transit Development Plan and revisit funding and implementation priorities. Go to <http://www.partnc.org/rtdp.html> for more detail.
- Encourage each community to develop a comprehensive mobility transportation network tailored to their needs that integrates with the regional network.

Percentage of Income Spent on Housing and Transportation

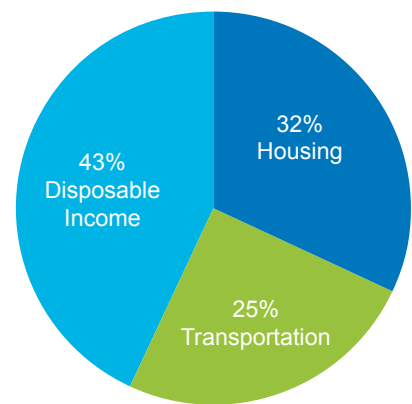
Location Efficient Environment



Average American Family



Auto Dependent Exurbs



Objective 2

Conduct local research and education on the benefits of a multimodal regional network.

Strategies

- Conduct a study on the economic benefits resulting from the development of fixed-guideway systems within the region.
- Conduct a study that addresses the potential health benefits and cost savings from the development of more sidewalks, bike lanes, and expansion of transit service.
- Develop and distribute an educational toolkit promoting the benefits of a robust multimodal network on energy independence, improving air quality, public health and economic development.
- Establish a citizen's advocacy group to promote the benefits of public transit.

Objective 3

Establish a structure to locally fund and promote the development of a regional transportation network.

Strategies

- Establish a locally dedicated funding source for transportation infrastructure improvements.
- Invest in multiple modes of transportation for pedestrians, cyclists, and transit riders as part of the roadway network.
- Support the use of PART funding mechanisms (sales tax, vehicle registration fee) for mobility infrastructure improvements.

Objective 4

Increase options for daily transportation needs for a health conscious transportation system through the creation of walkable and bikeable communities.

Strategies

- Create incentives for people to walk, bike and use public transit as part of their transportation options.
- Within town and city centers, concentrate on providing the safe infrastructure for walking and cycling as a means of daily transportation, not just recreation.
- Reconfigure existing road infrastructure so that it is hospitable for modes of transportation other than the automobile.
- Reestablish historical patterns of mixed land uses within walkable distances with increased connectivity to create an environment in which walking and biking is a social norm.
- Encourage communities to adopt the NCDOT Complete Streets manual.



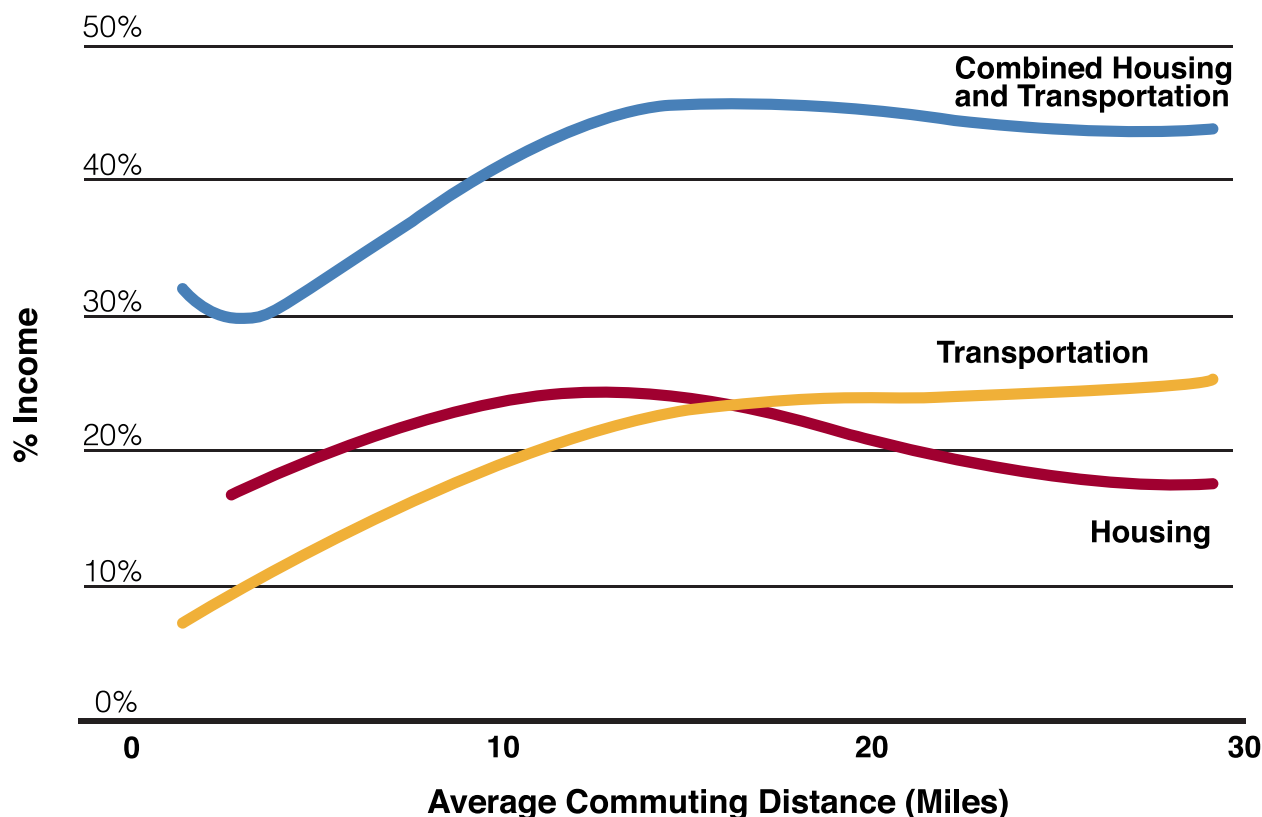
Objective 5

Evaluate the roles and responsibilities of existing transportation organizations and agencies in order to be competitive for federal and state funding, reduce redundancies in planning and operations, and be better stewards of transportation resources.

Strategies

- Define roles among NCDOT, PART, MPOs and RPOs to streamline transportation planning and funding reflective of organizational mission and responsibilities.
- Study the potential benefits of creating a regional MPO.
- Develop a list of regionally significant projects that are managed or coordinated by PART.

Housing and Transportation Cost Burdens by Commute



Source: Center for Neighborhood Technology

GOAL 2

Maintain and enhance the region’s competitive edge as a freight transportation and logistics hub along the Eastern Seaboard by focusing on facilities and infrastructure planning, improving coordination and cooperation among stakeholders.

Objective 1

Develop a comprehensive vision for freight infrastructure in the region.

Strategies

- Convene a Freight Roundtable consisting of key stakeholders.
 - Prepare educational materials related to freight infrastructure for planners and elected officials.
 - Develop a freight component for the Regional Travel Demand Model.
 - Establish regional freight infrastructure improvement priorities.
-

Objective 2

Develop a multimodal freight network strategy in the region designed to create, protect and maintain transport links, connecting intermodal facilities and appropriate modes, both public and private. As an example, the transport hub at Memphis includes water, air, truck and rail intermodal facilities. The various independent facilities are tied together by excellent roads so that the freight flows that have to move from one facility to another can do so with minimal problems.

Strategies

- Conduct a feasibility study to identify the location and operational characteristics for a multimodal freight facility in the region.

Objective 3

Maintain a low level of traffic congestion in the region along Unlimited Truck Routes.

Strategies

- Identify, communicate and employ mitigation techniques along alternate routes to redirect traffic during times of high congestion.
 - Utilize NCDOT message boards within the region to facilitate the efficient movement of traffic along the system of alternate routes in response to accidents, construction and other incidents which create congestion.
 - Incorporate Smart Road Technology in the planning and design of future truck routes.
 - Lower automobile VMT's through the expansion of public transit, car pool, van pooling and ride sharing.
-

Objective 4

Expand logistics educational and career opportunities for the Piedmont Triad workforce.

Strategies

- Establish a local scholarship and/or Two & Two program for Logistics students.
- Expand the capacity of the local education system to accommodate more students and degree offerings.
- Continue to foster the relationships among the educational institutions and freight carriers.
- Promote Logistics as a career path beginning at the high school level.

VISION

The Piedmont Triad has a wide range of economic assets, resources, and opportunities — urban and rural, large and small, wealthy and underserved. This plan acknowledges and shows appreciation for our region’s past and inspires us to pursue the new technologies and thinking of the future. Developed in conjunction with the Piedmont Triad Regional Council’s Comprehensive Economic Development Strategy (CEDS), this plan underscores the importance of equity among our citizens, sustainable growth, and building more resiliency in our local economies and communities. While there are many key challenges, this plan affirms our strong belief in the strength of collaboration and our willingness to work together for a better tomorrow.

The Regional Advantage

By marshaling resources and fostering collaboration at a regional scale, we have the potential to build a resilient economy. As an adopted plan, the CEDS can be combined with other regional councils and ultimately make our region eligible to compete for assistance under multiple Economic Development Administration programs.

Accomplishments

The Comprehensive Economic Development Strategy for the Piedmont Triad Region was unanimously adopted by the Piedmont Triad Regional Council Board of Delegates on February 19, 2014.



GOAL 1

Build on and improve sectors of the Piedmont Triad's regional economy which are vital to our economic mix, are growing or emerging, or are unique to our region.

Objective 1

Assess and affirm the most promising urban and rural industrial clusters of the region.

Strategies

- Affirm the land use, road reconfiguration and airport business plans and projections with the PTI Airport Authority and all adjacent jurisdictions.
 - Explore opportunities for community college, university and private sector engagement and technology transfer.
 - Engage local hospitals, college nursing and public health programs, community colleges, K–12 and other relevant parties to begin a comprehensive healthcare training program for the region.
 - Initiate a world-class customer service training program (e.g. event and facility management, restaurant and call center operation).
 - Assess the market for rural tourism demand (e.g. bed and breakfast, “dude ranch,” NC wine country day trips and overnight stays).
 - Develop a partnership with NC Cooperative Extension and home food processing experts to mentor willing and able home cooks to develop more local food products for the market. (e.g. Jenny's Pickles).
 - Assess the viability of developing fish hatchery and processing facilities.
 - Explore opportunities to develop alternative energy technologies (e.g. biomass, solar).
-

Objective 2

Develop select low location-quotient areas of opportunity in the region.

Strategies

- Access current arts and performance studies to determine opportunities for artistic business opportunities and create a database and map of performance and gallery venues.
- Focus manufacturing efforts on targeted processes and products that use techniques that are new and different from generations earlier or those commonly used in low-cost foreign operations. Migrate away from products and processes that are simple and labor intensive and can easily be displaced by cheaper competition.
- Incorporate technological advances such as 3-D printing and robotics into the mix of producing capacity.
- Develop energy/fuel training and processing capacities.
- Expand the business opportunities behind recycled waste and recycled products.

- Evaluate the potential for expanded use of geothermal heatpumps in the region for cooling and heating.
- Retool current and former manufacturing operations to become green industry component manufacturers for wind, solar and biomass technologies.

Objective 3

Develop “Talent Clusters” through education, mentoring and internship programs.

Strategies

- Develop or expand curricula in selected industrial clusters to benefit from industry-specific education or training.
- Develop or expand curricula in 3-D Printing.
- Develop or expand curricula in Robotics.
- Develop or expand curricula in Solar Energy.
- Develop or expand curricula in Application Development (Coding).
- Foster development of Talent Clusters around Local Expertise.

Objective 4

Develop collaborative economic development processes.

Strategies

- Assess the current legal and legislative status of inter-jurisdictional agreements and legislation.
- Evaluate the interest in and the opportunity for inter-jurisdictional business parks.
- Maximize the economic development potential of the Piedmont Triad International Airport.
- Establish rural partnerships to provide for scale-appropriate business parks.
- Investigate urban/rural partnerships using less expensive rural land and urban amenities as a means for collaboration.

Objective 5

Establish a strong focus on entrepreneurship and self-sustaining economic development efforts.

Strategies

- Assess our region’s current practices and capacity for entrepreneurial mentorship and internship opportunities.
- Promote and support direct entrepreneurial education, mentorship and internship efforts.
- Promote and support direct entrepreneurial technical assistance efforts.
- Promote and support the development of entrepreneurial-friendly work spaces and facilities.
- Promote and support entrepreneurial business capital formation.
- Explore development of, and support for web-based infrastructure to access entrepreneurship assistance (e.g. on-line regional resource wizard).

GOAL 2

Build on and improve the fixed assets of the region — transportation, utilities, connectivity, healthcare, support systems, and the natural environment.

Objective 1

Expand the reach and increase the upload/download speeds of broadband internet service throughout the region.

Strategies

- Pursue rapid development and implementation of the NC Next Generation [Broadband] Network Initiative (NCNGN) to deliver ultra-fast bandwidth at highly affordable prices (beyond Winston-Salem).
 - Make other urban areas of the region aware of the NCNGN Initiative and encourage their engagement.
 - Build upon NC Broadband programs (e.g. BIP, Middle Mile) to bring high speed broadband to rural areas of the Piedmont Triad.
 - Establish local Wi-Fi in downtowns and heavily trafficked areas in each community (e.g. Lexington).
-

Objective 2

Enhance transportation options.

Strategies

- Complete the urban beltways around Greensboro and Winston-Salem.
 - Complete the planned Interstate and NC highway improvements.
 - Expand regional (PART) and local mass transit system and funding options.
 - Encourage the use of car-sharing, bike-sharing and ride-sharing services.
 - Increase lower-cost air transportation options.
-

Objective 3

Maximize the efficiency of public utilities and solid waste management efforts.

Strategies

- Optimize existing landfill space to maximize its lifespan.
- Begin the process of studying long-term solid waste disposal options.
- Pursue water and wastewater reduction and efficiency programs.
- Conduct a region wide water and wastewater system assessment to identify existing and potential future service areas, treatment and delivery capacities, and system demands and maintenance requirements.
- Pursue a region wide water and wastewater system funding initiative to identify top-priority needs and assist local governments to apply for and administer grant funds (e.g. EDA, CDBG, CWMTF, DENR Water Infrastructure Fund, Appalachian Regional Council) and implement projects.

Objective 4

Encourage reduced energy use.

Strategies

- Adopt programs to promote reduced household energy use to retain more dollars in the community.
 - Encourage local governments and school boards to adopt sustainability policies and conduct audits covering water, energy and vehicle use.
-

Objective 5

Prepare industrial land for development.

Strategies

- Seek local government accommodation for the development of shovel ready industrial sites.
 - Seek local government accommodation for the redevelopment of existing shuttered or underutilized industrial sites.
 - Seek inter-jurisdictional collaboration on site development.
 - Assess the desirability, necessity and feasibility of public/private partnerships for business/industrial park development.
-

Objective 6

Encourage increased healthcare facility access.

Strategies

- Support increased use of clinics to provide quick, accessible healthcare assistance, especially in less densely populated areas.
- Create public/private/healthcare/non-profit coalitions to deliver maximum preventative health and treatment services while avoiding expensive duplication and lost opportunities (e.g. include hospitals, county governments, county health and social services departments, county schools, doctors, dentists, nutritionists, psychologists, drug stores).

GOAL 3

Provide opportunities for a high quality of life in communities throughout the region.

Objective 1

Enhance the vitality of the region's downtowns.

Strategies

- Initiate facade and beautification programs for downtown buildings, sidewalks and streetscapes.
 - Promote engaging community activities and cultural offerings.
 - Support private sector activities and investments.
 - Access outside assistance (e.g. NC STEP and NC Main Street Programs for small towns).
-

Objective 2

Promote the agricultural economy by organizing greater connectivity among local farms and urban centers.

Strategies

- Create Food Policy Councils in each county of the Piedmont Triad.
 - Develop local Farmers Markets.
 - Develop a Region-wide Local Food Network.
 - Establish Regional and Local Food Processing and Distribution Co-ops and Collectives.
-

Objective 3

Promote greater community connectivity.

Strategies

- Enhance pedestrian, biking and trail options.
 - Pursue greater public transit options for dependent and non-dependent riders (especially in and among urban centers).
 - Increase social connectivity, including engaging diverse communities, newcomers and young and elderly adults.
-

Objective 4

Develop connections in and among communities for cultural and recreational facilities and programming.

Strategies

- Pursue development of after-school shared-use libraries.
- Pursue the development of shared-use parks and athletic fields.
- Pursue the development of Public/Private/Non-profit partnerships for community centers, arts and performance facilities, youth, teen and elderly centers.

Objective 5

Strategies

Promote the efficient and sustainable use of land and resources.

- Foster the efficient and sustainable use of land resources to increase the benefits and reduce the costs of future growth.
- Build vibrant, lively and attractive neighborhood and town centers with a mix of higher-density uses in areas communities identify as most appropriate.
- Provide more housing choices with greater access to jobs and services.
- Pursue Farmland and Open Space Protection.
- Promote “Leadership in Energy and Environmental Design” (LEED) and green construction support.
- Provide connectivity planning and support.
- Promote sustainable practices among citizens, local businesses and governmental organizations.

Piedmont Triad Region Employment, 2000–2010

County	2000	2010	Change 2000-10	% Change 2000-10
Alamance County	64,650	54,889	(9,761)	-15.1%
Caswell County	3,772	3,081	(691)	-18.3%
Davidson County	50,449	38,754	(11,695)	-23.2%
Davie County	11,076	9,485	(1,591)	-14.4%
Forsyth County	182,486	172,659	(9,827)	-5.4%
Guilford County	279,686	256,841	(22,845)	-8.2%
Montgomery County	11,895	8,482	(3,413)	-28.7%
Randolph County	51,260	44,372	(6,888)	-13.4%
Rockingham County	33,534	26,622	(6,912)	-20.6%
Stokes County	7,461	6,892	(569)	-7.6%
Surry County	36,515	27,423	(9,092)	-24.9%
Yadkin County	10,304	9,079	(1,225)	-11.9%
Piedmont Triad	743,088	658,579	(84,509)	-11.4%

Source: NC Department of Commerce, Division of Employment Security

GOAL 4

Invest in and develop the human capital of the region — the youth, workforce, disenfranchised, and those with underdeveloped capacity.

Objective 1

Promote excellent baseline education.

Strategies

- Support greater high-quality childcare opportunities (e.g. 4-star and 5-star).
 - Seek K–12 enhancements to provide greater connectivity to existing and emerging job opportunities and more efficient use of limited resources.
 - Promote greater use of inclusion programs (e.g. English as a Second Language classes).
-

Objective 2

Provide accessible and affordable supplemental education for workplace engagement.

Strategies

- Seek more internships and On-the-Job Training for greater education/industry connectivity.
 - Develop more mentoring programs.
 - Promote increased training-to-work efforts for the long-term unemployed with increased focus on individual situations and additional attention to current efforts.
-

Objective 3

Develop greater levels of economic capacity through greater educational attainment, more knowledge, and networked relationships.

Strategies

- Develop the skills, knowledge and capacity of multiple individuals (i.e. the “talent cluster”) necessary to meet the needs of existing and emerging top-priority identified industrial clusters.
 - Promote greater citizen achievement of a bachelor degree.
 - Promote increased “Massive Open Online Course” (i.e. MOOC) involvement.
 - Create a culture of education throughout the region.
 - Create greater access to personal network and global connectivity.
-

Objective 4

Promote increased civic engagement.

Strategies

- Encourage the re-formation and growth of participatory civic leadership organizations.
- Build more civic participation in K–12 education.
- Introduce transformational processes and practices into communities.

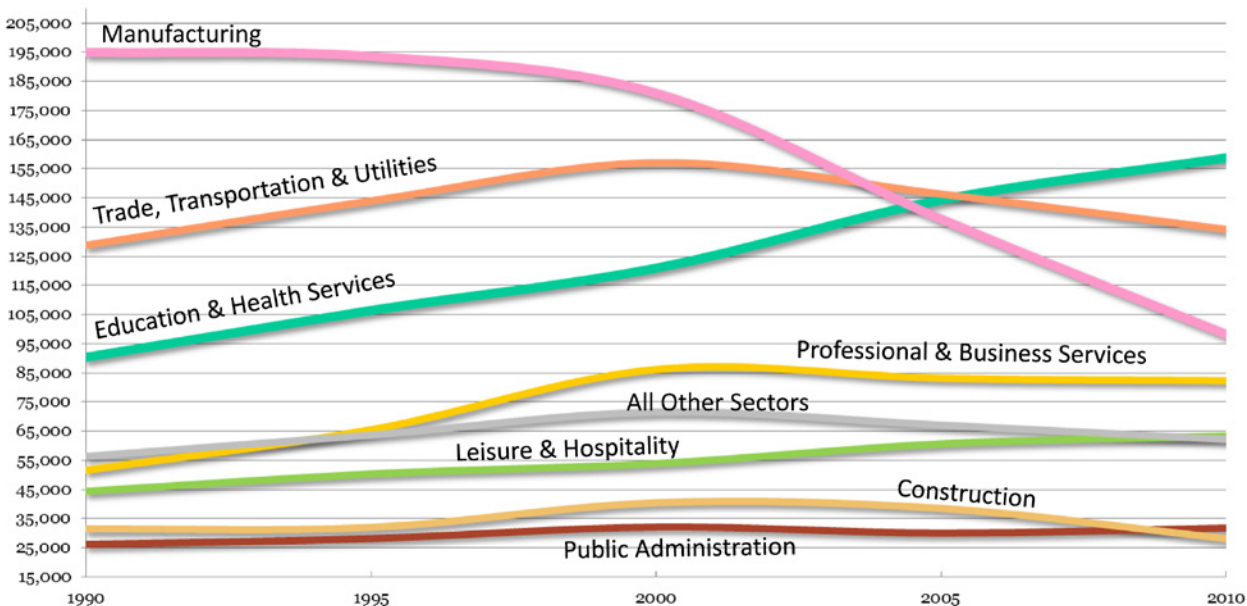
Objective 5

Encourage the inclusion of prosperity-enhancing components beyond wages in economic development recruitment and local ED contracts.

Strategies

- Expand the inclusion of healthcare insurance coverage or contributions for employees and their families in economic development incentive contracts.
- Include a match in local economic development incentive contracts for companies providing transportation alternatives to help employees get to and from work (e.g. bus, rail, vanpool, ride-sharing).
- Include a match in local economic development contracts for companies providing high quality (i.e. 4-star and 5-star) child care for their employees.

Piedmont Triad Region Employment by Sector, 1999–2010



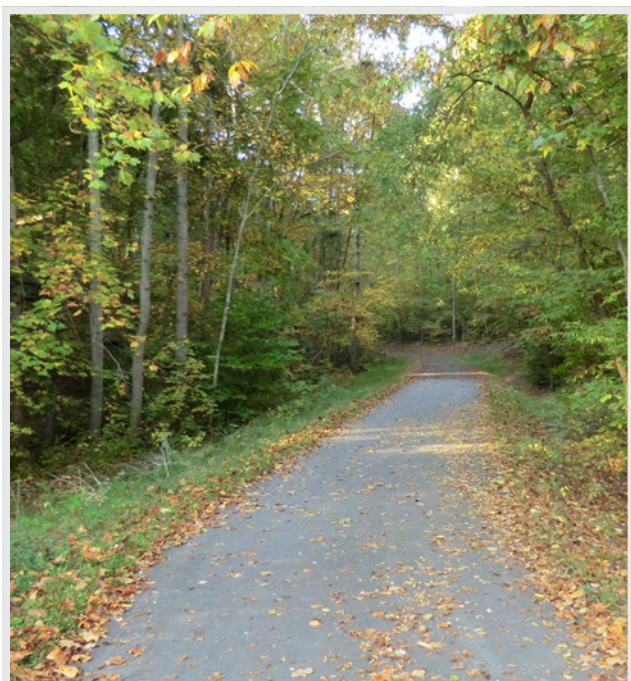
VISION

Ensure the Piedmont Triad remains one of the premier locations for quality of life, recreation, active transportation and health. Through collaborative public and private partnerships, access and education for local, healthy food for all populations will grow. Strategies and actions will increase understanding of community health and emphasize construction and preservation of walkable and bikeable communities.

Working together to develop regional policies that support local food distribution, recreation access, active transportation and tobacco free environments and leveraging regional partnerships to develop fiscal and organization resources will ensure communities, regardless of size, will have access to healthier choices and opportunities.

The Regional Advantage

By leveraging best practices and concepts for local communities, while identifying appropriate regional initiatives for partners to coalesce around, the Piedmont Triad can build healthier, more livable communities.



Accomplishments

- Created a regional map of low food access areas and area farmer's markets for the Piedmont Triad.
- Compiled an action plan to address healthy food access and healthy community design for the Piedmont Triad.
- Conducted a health impact assessment (HIA) on a local transit project in partnership with the Piedmont Triad Rural Planning Organization.
- Produced an Incubator Farm Planning Toolkit in partnership with the Piedmont Conservation Council, Center for Environmental Farming Systems (CEFS) and Elon University.
- Funded production of a Cold Storage and Aggregation Facility Feasibility Study.
- Funded creation of agricultural fact sheets about organic and sustainable farming in the Piedmont based on USDA agricultural census information.
- Supported local applications for CDC and DHHS grants through support letters and technical review in partnership with Piedmont Grown.

GOAL 1

Value communities and neighborhoods by enhancing the unique characteristics of all communities: healthy, safe, walkable and bikeable — rural, urban, or suburban.

Objective 1

Provide a safe infrastructure for walking and bicycling as an alternative means of transportation.

Strategies

- Establish a locally dedicated funding source for alternative transportation and leverage federal resources.
- Encourage public/private partnerships in providing greenway facility funding.
- Establish Complete Streets policies locally for any road improvement or maintenance projects.
- Establish policies and programs that incentivize building design that supports active transportation (e.g. showers, bicycle parking).



Objective 2

Develop capacity for health impact assessments in the Piedmont Triad.

Strategies

- Provide education and training to elected officials around the process and value of health impact assessments.
- Conduct a survey for public agencies gathering familiarity with and propensity to use Health Impact Assessments (HIAs).
- Develop an education campaign illustrating the link between public health and community planning.

Objective 3

Encourage larger healthcare providers to open satellite offices in underserved urban areas, town centers and employment generators.

Strategies

- Establish local ordinances that incentivize locating healthcare facilities in convenient locations.
- Provide tax abatement for smaller healthcare campuses.

GOAL 2

Value rural landscapes and productive farmland, while supporting healthy local food consumption.

Objective 1

Develop a region-wide, sustainable production and transportation network for fresh food from local farms and community gardens.

Strategies

- Initiate efforts to link resources from multiple non-profit organizations, such as Piedmont Grown, with public health departments, agriculture extension and soil and water conservation districts, local farming groups and others.
 - Develop partnerships between local colleges and growers/farmers to provide educational and extension courses in USDA regulations and innovative farming methods, while also exploring land preservation incentives provided by the state.
 - Support a Region Wide Local Foods Network to better connect local farmers and processors with local restaurants, food co-ops, grocery stores, farmers markets and families.
-

Objective 2

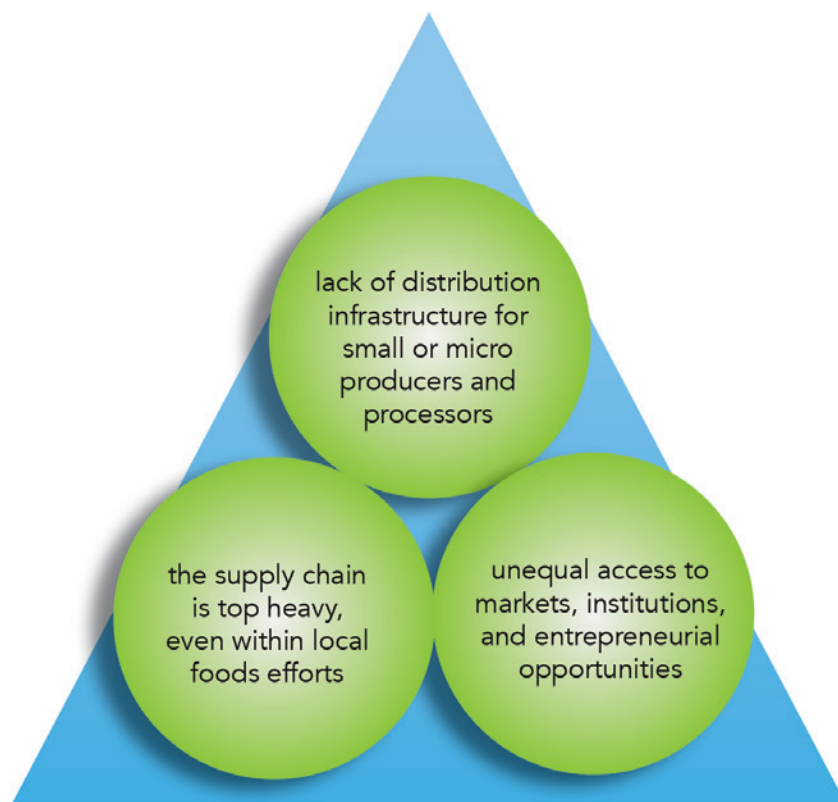
Preserve productive farmland by identifying targeted growth areas for higher density development while simultaneously, limiting the extension of infrastructure into agricultural lands.

Strategies

- Develop an educational campaign that identifies the economic impact of Piedmont farms and agribusiness while also explaining the potential loss due to sprawling patterns of development.
- Create, distribute and promote adoption of incentive-based ordinance language that encourages farmland preservation through cluster development.



Issues and Opportunities in the Piedmont Triad Local Food System



GOAL 3

To promote a regional, decentralized network of cold storage and aggregation enterprises geared toward assisting small-scale producers engage with new markets and wholesale buyers, and increase the profitability of a diversity of food and farm businesses.

Objective 1

Integrate small-scale, independent local food aggregation and cold storage business support and development into the Piedmont Triad region economic and community development efforts.

Strategies

- Provide and maintain an up-to-date online hub for resources related to technical support, foundation or other grant support, and access to financing that is specific to local foods aggregation and cold storage.
- Ensure that food system resource information provided is relevant to and accessible by all farmers, small business owners, and entrepreneurs. Consider Spanish-language translations of some materials, and use language that is clear and not reliant on industry jargon using multiple outlets not part of the local food movement.

Objective 2

Facilitate private sector efforts to locate existing and potential sites and facilities for the aggregation and cold storage of local foods. Promote the “clustering” of food and farm businesses, while also recognizing the economic development potential that small-scale aggregation and storage holds for rural regions of the Piedmont Triad.

Strategies

- Encourage the use of NC Growing Together’s Local Food Infrastructure Inventory through promoting the tool in regional development online and print materials. (<http://www.cefs.ncsu.edu/statewide-infrastructure-map.html>)
- Facilitate the coordination between growers, buyers, and producers through promoting the use of existing directories such as Piedmont Grown (<http://www.piedmontgrown.org/>) and Local Harvest (<http://www.localharvest.org/>).
- Work in tandem with local economic development offices and agencies (especially those in the more rural parts of the Piedmont Triad) to ensure that they have access to Food System resources.

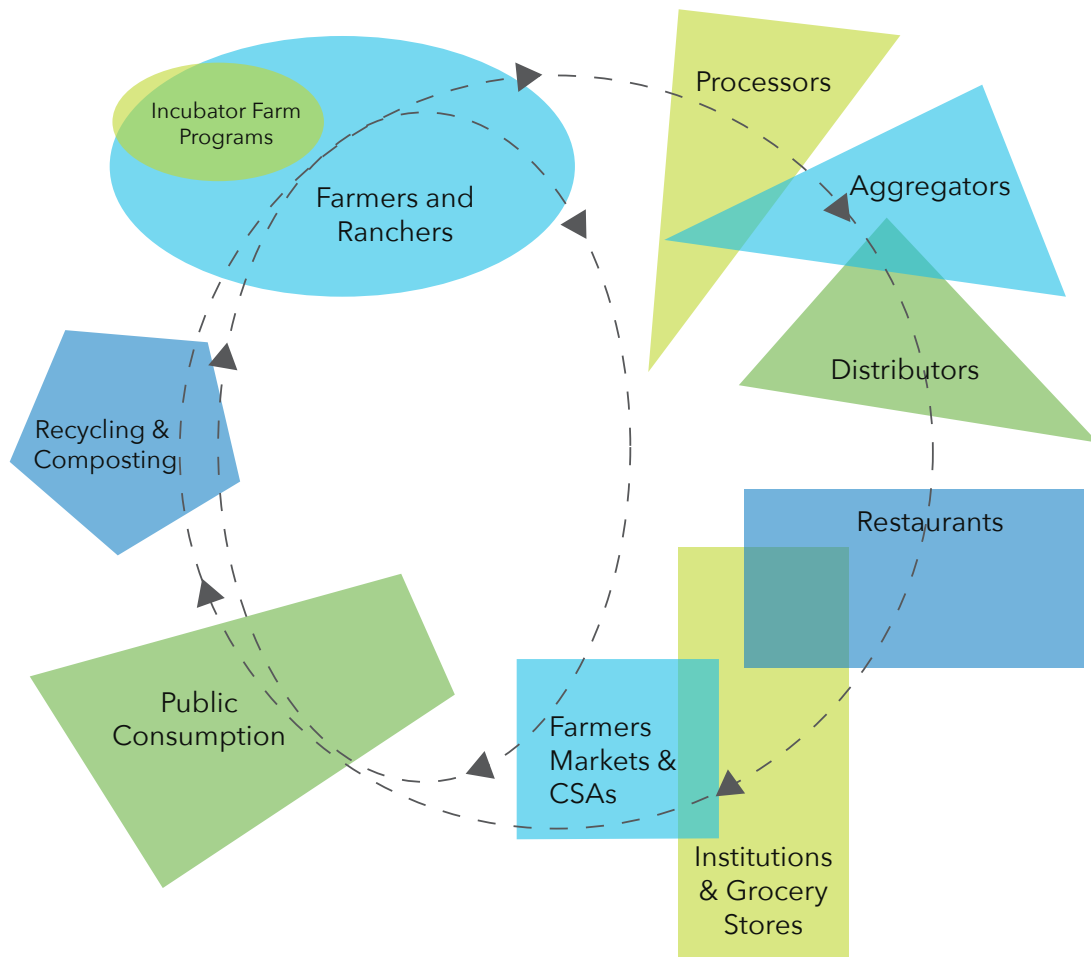
Objective 3

Build connections between Piedmont Triad local food system efforts and University, Cooperative Extension, and other partners that can provide on-going technical assistance regulatory expertise to food and farm businesses.

Strategies

- Inform the appropriate University and Cooperative Extension partners of the Piedmont Triad region’s commitment to developing aggregation and cold storage capabilities for food and farm businesses (specifically those addressing the needs of small-scale producers) so that potential partnerships can be identified and pursued.
- Actively share information on conferences, workshops, and seminars that pertain to aggregation and cold storage of local foods on Piedmont Triad websites. Examples include the National Good Food Network (NGFN) Food Hub Conference in Raleigh (March, 2014) and various seminars conducted by NC State’s Fresh Produce Safety department (<http://ncfreshproducesafety.ncsu.edu/>).

Diagram of a Food System



VISION

As our region grows, wise choices now help ensure future development maintains and enhances our quality of life, strengthens our economic well-being and conserves our natural and built environments. Careful stewardship of our land, air, water, cultural and energy resources enables us to be more resilient. Strategic investments in interconnected networks of natural, agricultural and recreational hubs and corridors provide the green infrastructure necessary for healthy ecosystems and wildlife habitats, and valuable recreation, tourism and agricultural opportunities. Focused investments to expand transportation, housing and energy production choices improve the connectivity and efficiency of our communities and provide a wide range of economic, social and environmental benefits to communities across our region.

The Regional Advantage

Working together to foster the efficient and sustainable use of land, resources and energy, we can grow and diversify our economy while maintaining our health and high quality of life. By focusing most new development in existing urban service areas, we enhance downtown vitality, conserve our rural and natural areas, promote greater connectivity, and provide more employment, housing and transportation choices.

Accomplishments

- Developed and used a Regional Development Patterns Scenario Model to show where new homes and jobs might go based on existing trends and 3 alternative growth scenarios. The best outcomes of each scenario were combined to form a recommended Hybrid Growth Scenario supporting greater efficiency, connectivity and conservation.
- Funded and hosted a Dollars and Sense: The True Cost and Benefit of Downtown Development workshop and final report.
- Funded a Regional Housing and Market Analysis Report.
- Funded and hosted eight Local Design and Redevelopment Workshops in communities throughout the region.
- Funded and hosted a Green Infrastructure in the Piedmont Triad webinar.
- Conducted a region wide Green Infrastructure Survey including nearly 300 participants.
- Funded and conducted an Extreme Weather Preparedness at the Regional Level workshop.
- Researched and produced a Regional Energy Report.
- Research and produced a Regional Green Infrastructure Report.
- Researched and produced a Regional Climate Adaptation Plan.
- Produced and mapped a Piedmont Triad Green Infrastructure Inventory.

GOAL 1

Promote the efficient and sustainable use of land and resources.

Objective 1

Foster the efficient and sustainable use of land resources to increase the benefits and reduce the costs of future growth.

Strategies

- Focus most new development and infrastructure investments in existing communities where services and infrastructure already exist.
 - Pursue growth policies and regulations to support the efficient use of existing water, sewer and transportation infrastructure.
 - Identify and protect environmentally sensitive conservation areas and habitats and farm and forest lands.
 - Encourage infill, reuse and redevelopment of existing urban areas before developing rural farm and forest lands.
 - Encourage new development to be designed to accommodate future re-use and redevelopment.
 - Encourage new development that balances economic, social and environmental community interests.
 - Foster the assessment, clean-up and redevelopment of old commercial and industrial sites (i.e. brownfields).
 - Encourage transportation, water and sewer infrastructure plans that support and incorporate sustainable community development patterns and principles.
 - Encourage land development plans and ordinances that support proposed road functions and incorporate sustainable community patterns and principles.
 - Incentivize and streamline the approval process for the kind of sustainable development patterns communities decide they want in the future.
-

Objective 2

Build vibrant, lively and attractive neighborhood and town centers with a mix of higher-density uses in areas communities identify as most appropriate.

Strategies

- Foster functional, pedestrian-friendly and attractive design that supports economic, environmental and social interests.
- Identify top-priority opportunity areas for redevelopment of under-utilized sites into mixed-use reinvestment areas and corridors which are accessible by multiple modes of transportation.
- Support site planning for redevelopment areas in our region's communities to serve as sustainable reinvestment pilot projects.
- Pursue flexible land use policies and regulations allowing higher densities and a wider mixture of uses in redevelopment areas and town centers.

Objective 3

Strategies

Provide more housing choices with greater access to jobs and services.

- Incentivize affordable housing options, especially along major transit corridors.
 - Foster collaborative partnerships between public and private sectors in the provision of affordable housing.
 - Encourage development of housing, jobs and services in close proximity to one another.
-

Objective 4

Strategies

Pursue Farmland and Open Space Protection.

- Support the Voluntary Agricultural District program.
 - Support land conservation and open space protection efforts.
 - Identify programs that protect land and water quality in rural areas (e.g. WHIP, EQIP, NC-WRP) and insure they are in place in the region.
-

Objective 5

Strategies

Promote Leadership in Energy and Environmental Design (LEED) and green construction support.

- Consider LEED-affirmed permit fee rebates.
 - Allow reduced permit fees for green energy installations (e.g. solar, geo-thermal, etc).
 - Provide information, resources and best practice advice to developers regarding LEED certification.
-

Objective 6

Strategies

Provide pedestrian connectivity planning and support.

- Connect sidewalks, trails and bike paths to provide a more complete network of transportation choices — especially among major residential areas, employment and commercial areas, and community landmarks and gathering areas.
-

GOAL 2

Enhance the economic and social vitality of our region's downtowns.

Objective 1

Initiate façade and beautification programs for downtown buildings, sidewalks and streetscapes.

Strategies

- Establish façade and awning loan or grant programs.
 - Pursue budgeted town streetscape improvements (e.g. light posts, hanging plants/flowers, benches).
 - Consider a downtown service district fee to provide specific additional services (e.g. street cleaning, trash collection, repair, security).
-

Objective 2

Promote engaging community activities and cultural offerings.

Strategies

- Create or expand downtown arts or food festivals highlighting offerings from local businesses.
 - Establish regularly scheduled downtown “days” or “nights” with music, food, business bargains and festivities.
-

Objective 3

Support private sector activities and investments.

Strategies

- Consider permit fee reductions for downtown up-fits, redevelopment and development of vacant land (i.e. infill).
 - Encourage efforts to promote downtown businesses (e.g. downtown directories, maps, online advertising).
 - Work with non-profit organizations to fill long-term unleased space to keep unfilled space at a minimum.
 - Encourage local business shopping promotions.
-

Objective 4

Access outside assistance (e.g. NC STEP and NC Main Street Programs for small towns).

GOAL 3

Promote the agricultural economy by organizing greater connectivity among local farms and urban centers.

Objective 1

Strategies

Create Food Policy Councils in each county of the Piedmont Triad.

- Ensure broad levels of participation in programs to address food sustenance and hunger issues (e.g. local schools, social service organizations, churches).
 - Facilitate cooperation among food policy councils to maximize their impact.
-

Objective 2

Strategies

Develop local Farmers Markets.

- Initiate a process (e.g. led by the local Food Policy Council) to build or expand a farmers market using public and private resources.
 - Contact potential agricultural participants to gauge interest and a preferred scope of market operations (e.g. days, hours, facilities).
-

Objective 3

Strategies

Develop a Region-wide Local Food Network.

- Perform an assessment of market supply/demand and opportunities.
 - Explore formation of a region-wide distribution system to deliver fresh produce and farm products from rural counties to urban markets (e.g. Piedmont Triad Farmers Market in Colfax).
-

Objective 4

Strategies

Establish Regional and Local Food Processing and Distribution Co-ops and Collectives.

- Identify the production capacity of existing or potential agricultural products (e.g. grape production for wine, purple sweet potatoes, hops for beer).
 - Work with current processors to expand capacity or create a new processing facility as necessary to provide a local bulk market for agricultural products (e.g. a former grist mill or grain elevator, grape processing or winery; Biofuels processing; Inland fish processing).
-

GOAL 4

Promote greater community connectivity.

Objective 1

Enhance pedestrian, biking and trail options.

Strategies

- Add connective pieces to existing infrastructure (e.g. sidewalks, trails, bike lanes) to provide safe and convenient pedestrian and bicycle transportation options between residential areas and work, school and commercial centers in communities.
 - Pursue grant opportunities — e.g. Parks and Recreation Trust Fund (PARTF), others to access funding for pedestrian and bike system expansion.
 - Create community bike-share programs that provide a healthy transit option, reduce automotive traffic and add a sense of vibrancy to communities.
-

Objective 2

Pursue greater public transit options for dependent and non-dependent riders (especially in and among urban centers).

Strategies

- Enhance public transit by increasing access, connectivity, reliability and timeliness for dependent riders and to encourage non-dependent riders to elect to use public transit systems.
 - Explore electric or bus trolley systems for downtown mobility in urban centers to provide an attractive transit option and enhance economic development opportunities in downtown areas.
-

Objective 3

Increase social connectivity, including engaging diverse communities, newcomers and young and elderly adults.

Strategies

- Encourage communities to provide inclusive community outreach and engagement efforts in all neighborhoods that build relationships, help to identify and affirm a diversity of interests, and encourage everyone to contribute to the good of the community.
 - Establish community-wide events that engage and celebrate the diversity of the entire community.
-

GOAL 5

Increase the Resilience of the Region's Existing Green Infrastructure and Decrease the Piedmont Triad's Vulnerability to Climate Change.

Objective 1

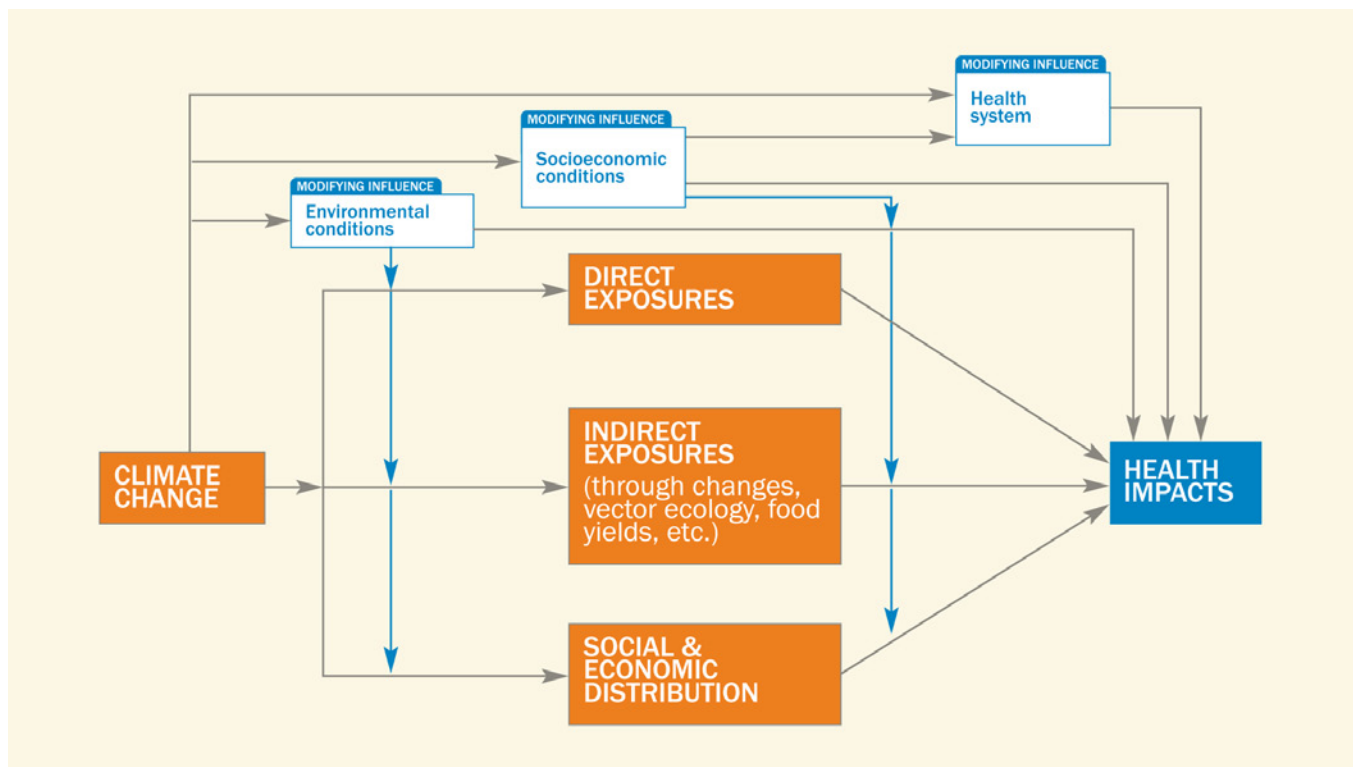
Protect the Piedmont Triad's Water Supply and Quality.

Strategies

- Protect water quality for drinking water, recreation, and ecological habitat purposes through watershed management, low impact development, and using best management practices for all land uses.
- Protect water supplies through watershed management, utilizing water conservation pricing, infrastructure maintenance, and employing new, more efficient plumbing standards including water reuse. (CAE related)
- Manage Stormwater: Collaborate with the regional council and municipal/county stormwater management and planning departments on integrated watershed plans that factor in climate change and use innovative measures to manage stormwater.

Pathway by Which Climate Change May Affect Human Health

Source: Confalonieri U, Menne B, Akhtar R, et al. Climate Change 2007: Impacts, Adaptation and Vulnerability. In: Parry ML, Canziani OF, Palutikof JP, van der Liden PJ, Hanson CE, eds. Contributions of Working Group II to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change. Cambridge, UK: Cambridge University Press: 391-431.



- Manage sediment: Collaborate with the regional council, municipal planning departments, and county agricultural organizations (Soil and Water Conservation Districts) on practices and policies that minimize erosion and stabilize streambanks to reduce sediment loss.
- Adopt a regional green infrastructure plan and implement key principles of regional green infrastructure and urban green design.

Objective 2

Ensure the Persistence of the Triad's Agricultural Heritage.

Strategies

- Work with NRCS, NCSU Cooperative Extension, and other partners to develop outreach strategies that ensure all federal and state programs that promote sustainable agricultural practices are available to the region's farmers.
- Work with public, non-profit, and private sector partners to make farming a viable lifestyle and career for younger generations.
- Assess which crops are most vulnerable to climate change impacts (hotter, drier summers; wetter, warmer winters) and develop a mitigation or adaptation strategy to either ensure the success of existing crops or promote the transition to new staple crops. (CAE related)
- Work with public, non-profit, and private sector partners to promote "Farm-to-Fork" food systems that both support the local agricultural sector and promote healthier communities.
- Identify weaknesses in the existing regional food distribution system and address them with the institution of new farmers markets, commissaries, and/or food centers.
- Identify communities that do not have access to healthy, affordable foods, and develop a program to deliver locally-grown foods to them.

Objective 3

Preserve Piedmont Triad Plants, Trees, Wildlife and Natural Landscapes.

Strategies

- Identify natural features that provide multiple public benefits such as hunting or swimming, better assess their economic value to the region, and develop a regional marketing strategy to promote them throughout the state and the Southeast.
- Identify urban communities without access to tree canopy cover, recreational resources like parks or greenways, and/or natural landscapes, and develop plans to rectify this inequity. (CAE Related)
- Identify priority species and habitats that remain unprotected.
- Revisit and update approved urban plantings lists to favor or encourage native North Carolina Piedmont species which are heat and drought tolerant. (CAE Related)
- Identify those species most vulnerable to the Triad's anticipated impacts from climate change (hotter, drier summers; wetter, warmer winters) and develop a transition or mitigation strategy for their survival. (CAE Related)

- Identify species most effective at providing ecosystems services, but especially stormwater management and urban heat island mitigation and prioritize their use throughout all communities. (CAE Related)
- In both the urban and rural environments, track invasive species and the migration of species northward and up slope as climate changes. (CAE Related)
- Adopt a regional green infrastructure plan and implement key principles of regional green infrastructure and urban green design.

Objective 4

Decrease the Piedmont Triad's vulnerability to wildfires.

Strategies

- Monitor and track conditions conducive to wildfire hazard.
- Identify areas most vulnerable to wildfires based on climate change predictions for hotter, drier summers.
- Work with state and federal forestry services and land owners to manage lands and reduce wildfire risk.
- Continue and bolster wildfire risk education.

Objective 5

Reduce the Vulnerability of Piedmont Triad Residents to Health Risks Associated with Weather Related Hazards.

Strategies

- Track public health trends such as rates of asthma and heat-related hospital visits based on heat waves and other weather events.
- Increase efforts related to maintaining the well-being of persons whose work requires them to be exposed to the elements, educating employers as well as employees with particular focus on agriculture and landscaping businesses. (CAE Related)
- Develop an outreach strategy with EMS programs and the health care system to ensure that the region's most vulnerable populations are aware of the risks of hotter, drier conditions, flash flooding, and other climate change impacts, and that they are aware of what relief resources they may rely upon for safety and shelter.
- Monitor changes in rates of infections of vector borne diseases according to weather events such as summertime flooding. (CAE Related)
- Enhance all urban tree canopies to at least 40% coverage to mitigate the urban heat island effect. This coverage must be universal to all communities and ensure equity of distribution. (CAE Related)
- Develop a relocation transition strategy for those living in floodplains so that they can live in safer conditions. (CAE Related)
- Create the built environment with ecological services in mind in order to take advantage of mitigation of natural weather extremes through green infrastructure.

Objective 6

Engaged and Responsible Businesses and Government Sectors.

Strategies

- Work with businesses and governments to analyze their vulnerability to climate change and take action.
- Take particular note of the tourism and outdoor recreation markets which are very strong in the Piedmont Triad and very susceptible to extreme weather events.
- Development mechanisms to appropriately value working and wild lands reflecting the economic and ecological services these lands provide.
- Work with energy providers on innovative ways that do not rely on chemical spraying or the destruction of tree canopy to decrease the vulnerability to weather related hazards of energy delivery systems.
- Adopt a regional green infrastructure plan and implement key principles of regional green infrastructure and urban green design.

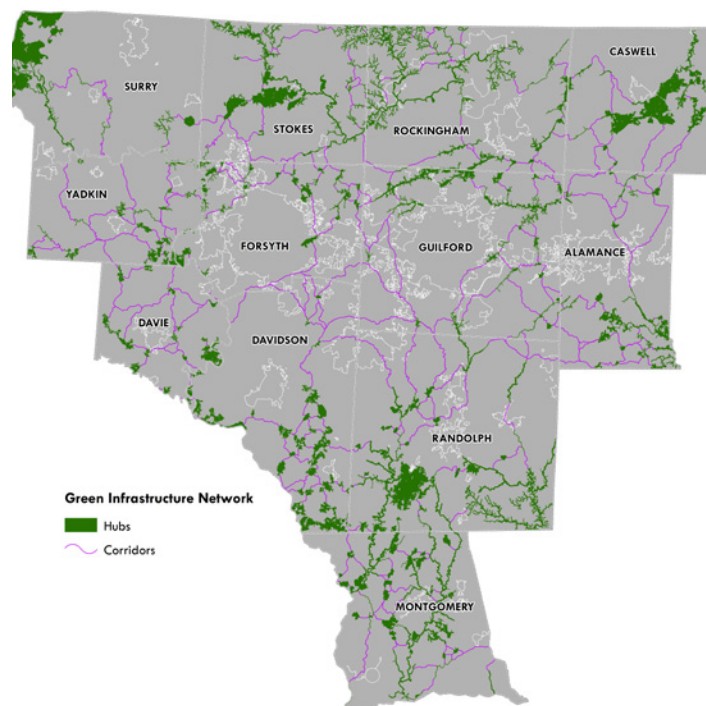
Objective 7

Plan for Future Challenges.

Strategies

- Use the Consortium Oversight Committee to assign and oversee climate adaptation implementation efforts, assess plan implementation, recommend revisions, and report to towns, counties and all Piedmont Triad residents on implementation progress.
- Adopt a regional green infrastructure plan and implement key principles of regional green infrastructure and urban green design.

Green Infrastructure Network



GOAL 6

Improve long-term energy security, economic well-being, and air quality in the Piedmont Triad through energy efficiency and renewable energy technologies.

Objective 1

Increase the number of renewable energy projects.

Strategies

- Invest in electric and thermal solar energy technologies.
 - Investigate feasibility of a large-scale biomass processing facility for agriculture and forestry waste and perennial crops.
 - Improve existing hydropower facilities.
 - Continue expansion of landfill gas recovery projects (LFG).
 - Investigate smart grid and energy storage potential opportunities.
 - Encourage use of residential geothermal heat-exchange systems.
 - Explore and pilot the development of shared renewable energy.
 - Develop or expand educational programing on energy efficiency.
-

Objective 2

Increase the number of energy efficiency projects.

Strategies

- Improve energy efficiency at the residential scale through identifying and weatherizing homes built prior to 1975 building code requirements.
 - Increase the use of energy efficient appliances through education, incentive and buyback programs.
 - Investigate market structures that minimize upfront investment in energy efficiency technologies during construction for commercial facilities.
 - Identify funding mechanisms to make large scale energy-efficiency improvements to industrial facilities.
 - Identify energy-efficiency retrofit opportunities and establish a funding mechanism for commercial and industrial buildings.
 - Work with nonprofit agencies, Duke Energy and North Carolina's Department of Commerce and Agriculture to simplify retrofit processes for residential, commercial and industrial building owners.
 - Develop or expand educational programing on renewable energy.
 - Pursue Energy Star certification for K–12 schools.
-

Energy Efficiency and Clean Energy Development Opportunities in the Southeast

Barrier	Opportunity	Policy Support
Some biomass crops compete with traditional crops, driving up prices for staples such as corn and the derivative products (e.g. pork, poultry). Land values also prohibit the growth of biomass for energy production.	Grow dedicated biomass crops such as switchgrass and short-rotation woody crops. These crops can be grown on land under contract with the Conservation Reserve Program, which are already under contract to grow permanent vegetation, or on marginal lands.	<ul style="list-style-type: none"> ·Encourage the use of the optimal biomass production zones by biomass growers by providing biomass tax incentives, zoning for biomass, increasing farmer education regarding opportunities, and connecting farmers with investors/power producers.
Biomass supply and demand market is immature. High risk for both biomass suppliers and energy developers.	Reduce investment risk and support the early stages of the biomass market formation by encouraging co-firing biomass in existing coal power plants.	<ul style="list-style-type: none"> ·Include the biomass portion of co-firing in clean energy policies. ·Implement policies that encourage near-term carbon dioxide reductions. ·Implement carbon taxes or tradable carbon permits. ·Provide technical support and education to biomass suppliers and plant operators.
Utilities revenue structures provide little incentive to promote energy efficiency.	Separate utility revenues from sales and place a value on efficiency in the electricity market.	<ul style="list-style-type: none"> · Strengthen decoupling policy, implement integrated resource planning process that values efficiency as a resource, and establish incentives for effective utility-led efficiency programs.
Local resources are distributed. Distributed generators face barriers to entering market.	Encourage the use of local energy resources by providing a favorable market for third-party power producers.	<ul style="list-style-type: none"> ·Implement or strengthen interconnection standards and net metering policies. · Allow net metering for system sizes of 2MW and increase total program size limits. · Standardize interconnection standards for all utilities. ·Refer to the Interstate Renewable Energy Council for model rules and standards.
Lack of public knowledge and experience with efficiency and renewable energy technologies.	Strengthen government clean energy leadership through increased demonstration of efficiency and renewable energy technologies on and in public buildings.	<ul style="list-style-type: none"> · Set EERE requirements for state facilities. ·Model legislation and best practices designed to facilitate the implementation of EERE in public buildings is available from the Energy Services Coalition [http://www.energyservicescoalition.org/]
Lack of incentive for manufacturers to reduce energy usage of appliances. Lack of incentive for builders to reduce energy usage of buildings.	Align the interests of manufacturers and builders with those of customers through policy updates.	<ul style="list-style-type: none"> ·Implement energy efficiency standards on appliances and update building efficiency codes. ·Model state-level legislation for setting appliance efficiency standards is available from a variety of sources, including the Energy Services Coalition and the Appliance Standards Awareness Project.
The largest hydroelectric resources that are easily permitted have already been developed.	Develop incremental hydro resources and small hydroelectric facilities.	<ul style="list-style-type: none"> ·incentivize utilities to increase efficiency at existing dams through retrofits. ·Make tax credits and financing available for small hydroelectric facilities.
High energy intensity of water heating.	Reduce energy needs through increased efficiency in water use and water heating.	<ul style="list-style-type: none"> ·Financial incentives (tax credits/rebates) for solar water heaters and WaterSense and EnergyStar labeled appliances.

Source: Southeast Regional Clean Energy Policy Analysis

Objective 3

Boost the regional economy and keep dollars local through energy efficiency and renewable energy projects.

Strategies

- Promote the development of energy efficient and renewable technology programs and partnerships through research facilities and in the college and university systems.
 - Identify contaminated lands which may be unsuitable for traditional development and investigate suitable renewable energy opportunities.
 - Utilize the regions' strong network of existing infrastructure from vacant factories and mills to foster the production of new energy technologies.
 - Identify a funding mechanism to support an early program stimulus investing in energy efficiency and renewable energy technologies.
 - Encourage or provide incentives to business and policy leaders to implement efficiency measures or utilize energy from renewable resources.
-

Objective 4

Adopt energy efficiency policies and programs for local governments.

Strategies

- Conduct an energy audit on all municipal and county facilities and address shortfalls.
 - Require LEED certification or increased energy efficiency standards on new government buildings.
 - Provide incentives to developers using energy efficient technologies (e.g., expedited permitting).
 - Improve energy efficiency of local government operations (e.g., buildings, vehicle fleets).
 - Encourage water efficiency measures through ordinances, education, leak detection, conservation pricing of water and sewer services, plumbing efficiency standards and landscape irrigation ordinances.
-

Objective 5

Reduce emissions through improved transportation systems.

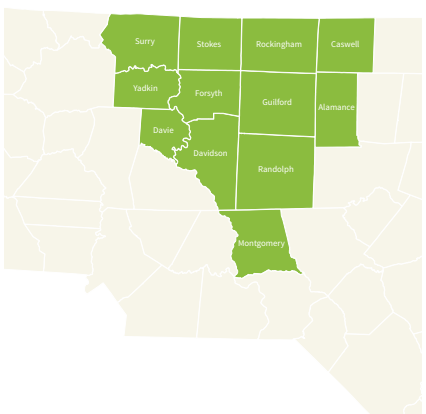
Strategies

- Support the development of fuel efficient vehicles and use of alternative fuels.
- Improve the general efficiency of the transportation network.
- Support alternative modes of transportation including mass transportation, greenways, and car/bicycle sharing programs.
- Encourage counties and municipalities to purchase alternative fuel vehicles and train staff on efficient driving techniques.

FROM PLAN TO IMPLEMENTATION

The wealth of data collected will benefit the region for years to come, but the true impact of Piedmont Together will come from the accomplishments of several goals, numerous objectives and many strategies. It is not imperative that every strategy be completed because not every strategy needs to be considered by every city, town or county. The plan provides a menu of options and best practices from which to choose the most suitable strategies.

Piedmont Together's success will rely on the entire region and not one or two single agencies. Over the next 12 months, several steps will need to be taken to demonstrate success and a willingness to move forward as a region.



First the plan will be presented for approval to the Piedmont Authority for Regional Transportation (PART) and Piedmont Triad (PTRC) boards. Then the plan will be presented to the Piedmont Triad Partnership (PTP) leadership and to each MPO and RPO in the region. Following the presentations, each agency will be asked to approve the plan. This will establish the plan's shared vision for the region.

Secondly, Piedmont Together will need to maintain a visible presence by:

- Using the Consortium Oversight Committee as an oversight group that would meet quarterly, be responsible for implementation oversight and planning the 3rd Annual Livable Community Summit;
- Maintaining PiedmontTogether.org as a web portal and communications tool; and
- Continuing to identify a project manager(s).

Third will be to continue the work. Several strategies have already been accomplished and others are in progress. The accomplishments are listed in the plan. Those in progress or coming up soon are listed below:

- Maintain Scenario Modeling Tool and make it available to MPOs, RPOs, PART and other jurisdictions for planning purposes;
- Update and refresh the Regional Transit Development Plan;
- Develop an Equity Profile in partnership with PolicyLink (in progress);
- Initiate a Regional Opportunities Mapping Project;

- Identify and monitor 10 to 12 indicators related to the Focus Areas to track the success of the effort; and
- Conduct a Regional Assessment of Fair Housing Plan (in progress).

During this period Piedmont Together will need to work with our current partners to maintain momentum. Additionally Piedmont Together will need to reach and invite other entities to join the consortium and to actively participate in implementing the plan's objectives. After the region's entities and agencies approve the plan, the project team will begin presenting it to each city, town and county in the region. Each local governing body will be asked to endorse the plan, place a link to the Piedmont Together web site on their web site, appoint several community leaders or agencies to participate in ongoing work activities, and to accept a customized list of strategies for future consideration.



One of the Consortium's first tasks will be to identify resources to continue the work. Several items could quickly be put into place including:

- Assign 501c3 status, currently in place with PTRC, to Piedmont Together to assist with receipt of future funding from foundations and other private interests.
- Confirm administrative assistance from PART and PTRC.
- Affirm local assistance from Community Foundation of Greater Greensboro and statewide assistance from Z. Smith Reynolds Foundation.
- Review and apply for Federal Grants tied to strategies.

With resources for continuing the efforts identified, the Consortium can then look at shifting the communication focus. The move from plan to implementation might call for Piedmont Together to closer align its effort with federal and state programs. A campaign title for the implementation phase might be "Building a Better Piedmont Triad: Steps towards Economic Resiliency."

In closing, planning for communities never stops. Investing to our future will continue, adjustments will be made due to shifting conditions, and citizens will always be part of the conversation. Our challenge as a region is to not maintain the status quo. Every community must plan smarter, make wiser investments, be more flexible, become more action-oriented, and give everyone a voice in the process.

Contributing Reports and Supporting Publications



Civic Engagement

Strengths and Challenges in the Piedmont Triad (SCPP Phase 1 Civic Engagement Summary)

<http://piedmonttogether.org/content/strengths-and-challenges-piedmont-triad>

If-Then Survey Report

<http://piedmonttogether.org/content/if-then-survey-results>

Piedmont Together Public Engagement Report

<http://piedmonttogether.org/report/piedmont-together-public-engagement-report-december-2013>

Development Patterns

Regional Scenario Modeling

<http://piedmonttogether.org/report/regional-scenario-modeling-report>

The Triad: An Interconnected Web

<http://piedmonttogether.org/content/triad-interconnected-web>

Equity

Equity in the Piedmont Triad

<http://piedmonttogether.org/report/equity-piedmont-triad>

Food Systems

Piedmont Triad Food System Analysis

<http://piedmonttogether.org/report/piedmont-triad-food-system-analysis>

Housing

Piedmont Triad Fair Housing Equity Assessment

<http://piedmonttogether.org/report/regional-fair-housing-equity-assessment>

Piedmont Triad Market Trends, Preferences and Opportunities to 2025 and 2040

<http://piedmonttogether.org/content/piedmont-triad-market-trends-preferences-and-opportunities-2025-and-2040>

Jobs and Economic Development

Regional Profiles of Broadband Utilization in NC

<http://piedmonttogether.org/content/regional-profiles-broadband-utilization-nc>

Triad Tomorrow: The Comprehensive Economic Development Strategy for the Piedmont Triad

<http://piedmonttogether.org/report/triad-tomorrow-comprehensive-economic-development-strategy-piedmont-triad>

Physical Environment

Climate Adaptation Report

<http://piedmonttogether.org/report/climate-adaptation-report>

Green Infrastructure Report

<http://piedmonttogether.org/report/green-infrastructure-report>

Planning for the Energy Future

<http://piedmonttogether.org/report/planning-energy-future>

Transportation

Mobility Report

<http://piedmonttogether.org/report/mobility-report>

Piedmont Triad Plug-In Electric Vehicle Readiness Plan

<http://piedmonttogether.org/content/piedmont-triad-plug-electric-vehicle-readiness-plan>

Vision

Building a Vision: Development Process for the Implementation Goals, Objectives and Strategies

<http://piedmonttogether.org/content/building-vision-development-process-implementation-goals-objectives-strategies>

These and other reports can be found at <http://piedmonttogether.org>

Acknowledgements



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Consortium Oversight Committee

Aging, Disability and Transit Services of Rockingham County	North Carolina Department of Environment and Natural Resources
Allstate -The Bluiett Agency	North Carolina Department of Transportation
Beloved Community Center of Greensboro, Inc.	Northwest Piedmont Rural Planning Organization
Center for Creative Economy	Partners Ending Homelessness
Center for Design Innovation	Partnership for Community Care
Center for New North Carolinians	Piedmont Authority for Regional Transportation
City of Asheboro	Piedmont Conservation Council
City of Burlington	Piedmont Grown and Town of Biscoe
City of Greensboro	Piedmont Triad Regional Council - Planning Department
City of High Point	Piedmont Triad Rural Planning Organization
City of Lexington	Rockingham County Planning Department
City of Randleman	Southwest Renewal Foundation of High Point
City of Winston-Salem	Sustainability Resource Center
City-County Planning Board (Winston-Salem/ Forsyth County)	Sustainable Business Network of Winston-Salem
Dan River Basin Association	Triad Intrapreneur
Davidson County Planning Department	Town of Cooleemee
e-NC Authority (now part of the NC Dept. of Commerce)	Town of Elkin
Environmental Stewardship Greensboro Forsyth County	Town of Kernersville
Forsyth Futures	Town of Lewisville
Greensboro Housing Coalition	Town of Mayodan
Greensboro Urban Area MPO	Town of Oak Ridge
greenschemes	Town of Pleasant Garden
Healthy Alamance	Town of Rural Hall
High Point MPO	Town of Walnut Cove
Housing Authority of Winston-Salem	Town of Yanceyville
Memios, LLC	Transition Greensboro
North Carolina Center for Global Logistics	Triad Economic Development Corporation
North Carolina Department of Commerce	Village of Clemmons
	Winston-Salem State University
	Winston-Salem Urban Area MPO
	YMCA of Northwest North Carolina

And the 5,000+ residents of the Piedmont Triad who attended work group meetings, civic engagement events, Livable Communities Summits and kept up with the project digitally.