

NEEDS ASSESSMENT

With the population of both the City and the Rock Hill Urban Services Area projected to increase by nearly 24 percent over the next ten years, the protection of natural resources must remain a top priority. The City has been a leader in the management of its natural resources, protection of environmentally sensitive areas and open space, as well as its efforts to promote recycling and reuse. Community leaders have embraced and implemented a number of strategies toward energy and resource conservation and continue to promote “green” building and design practices; however, there are additional measures that can be done to ensure greater sustainability. The City must continue to monitor the effectiveness of regulatory policies and procedures regarding natural resources and promote environmental education programs that stress protection of fragile areas and wildlife. To meet this challenge, the City must recognize and exercise responsible stewardship of our natural resources in a way which preserves them for future generations.

Growth Management

The City continues to struggle to balance the demands of continued development with the protection of natural resources. Natural resources are under increasing stress from development pressures brought by population growth as open spaces dwindle and environmentally sensitive areas are threatened. Reconciling and balancing the demands of often competing objectives -the economic growth of today versus natural resource protection for the future- is a major challenge that must be addressed.

The issue of growth management (balancing growth with resource preservation and provision of services) is reiterated in the Population, Community Facilities, Housing, Land Use, and Priority Investment Elements.

In 2005, Rock Hill initiated development of a Growth Management Study for the unincorporated portions of the Rock Hill USA in response to recent tremendous growth to provide the City with a roadmap to guide future annexation and utility extension decisions. Three alternative future growth scenarios were analyzed: (1) Status Quo Development– continuation of current development patterns, densities and land uses occurring throughout the Rock Hill USA, including the periphery; (2) Phased Development– phased growth mechanisms are put in place to direct development in stages to create a more uniform development pattern throughout the Rock Hill USA over time; and (3) Corridor East Development– growth is focused on the eastern portion of the Rock Hill USA with higher density development in suitable locations including mixed uses and transit-oriented development patterns. These future growth areas were based upon a set of *Growth Management Study Guiding Principles* adopted by City Council. The guiding principles include:

1. The future City limits should be regularly shaped, without “holes”.
2. Growth should be guided to enhance the natural environment and community character.
3. There should be balance between residential and commercial uses, emphasizing employment.
4. New development should be accompanied by mechanisms to pay for additional services.
5. Development should be targeted to areas that are most suitable to accommodate it.
6. Growth should be coordinated with York County and Rock Hill Schools.

The Priority Investment Element focuses growth in targeted areas to minimize potential environmental impacts.

After careful consideration of potential land use and environmental impacts, public facility planning issues, and intergovernmental coordination issues, the City has embraced the Corridor East Growth Strategy. Of the three growth scenarios, the Corridor East Growth Strategy best preserves environmentally sensitive land and open space throughout the Rock Hill USA rather than at the periphery while encouraging concentrated mixed-use development, in-fill projects, and transit supportive initiatives in the urbanized areas near I-77 and US-21. Specific growth management tools will need to be implemented to support and reflect the priority of this area. In addition, greater collaboration and coordination with all planning partners (York County, South Carolina, Rock Hill Schools and other adjacent municipalities and counties)

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will be necessary to ensure consistency in implementation. Environmentally-conscious policies and practices need to be incorporated into the City's growth strategies to promote sustainable development.

Water Conservation

In recent years, South Carolina has experienced some of the worst drought conditions it has seen in decades. With abnormally high temperatures and little rainfall between 2006 and 2009, Rock Hill enacted water restrictions to curtail the amount of water consumption and adopted a comprehensive Drought Response Ordinance. Although the drought severity level is not as critical as it has been in recent months due to above normal rain events, the state is still in a ten-year drought cycle. As the Rock Hill area continues to grow and braces for a long-term rainfall deficit, the community must learn to be better stewards of its limited water resources by conserving and increasing awareness. Water conservation efforts need to be considered continually and not only during times of drought. Furthermore, concerns have been raised regarding the long-term adequacy of the region's drinking water supply given the continued growth pattern within Rock Hill and the surrounding region that relies on the Catawba River for drinking water.

Water Quality

Rock Hill already has regulations in place to protect environmentally sensitive areas including Lake Wylie, the Catawba River, perennial and intermittent streams, wetlands, steep slopes, and floodplains. Riparian buffer standards limit adjacent development and land disturbing activities within the buffer zones but only apply to new construction. Existing structures and lots subdivided prior to the enactment of the Ordinance are exempt from stream and wetland buffer standards. A more comprehensive approach to better managing stormwater run-off and improving water quality throughout Rock Hill should be considered. In order to protect streams and wetlands within urbanized developed areas, programs should be implemented to assist property owners in voluntarily restoring degraded streams and vegetating stream banks.

In early 2008, the section of the Catawba River adjacent to the City and the Rock Hill USA was named the most endangered waterway in the nation by American Rivers, an environmental advocacy group, based on its potential overuse and the region's persistent drought. Concerns have been raised as to whether there will be enough water to sustain future generations since it is the primary source of drinking water for the entire region, as well as its quality for consumption, biodiversity, and recreational purposes. The community needs to better promote the Catawba River as a threatened natural resource and ensure that policies are in place to adequately protect it.

The City needs to continue to make water quality a high priority by reducing impervious surfaces, discouraging irrigation wells, encouraging environmentally sound drainage and flood control practices, as well as sustainable management of stormwater for small and large scale development, consistent with its NPDES Phase II Stormwater Program. The use of low impact development (LID) design techniques should be strongly encouraged, particularly in large scale development projects, to minimize impervious areas and capture, filter, store, evaporate, and infiltrate stormwater runoff on-site.

Air Quality

Air quality is an important issue for Rock Hill due to its location within the Charlotte Non-attainment Area, a federally-designated area that does not meet health-based National Ambient Air Quality Standards (NAAQS) for certain pollutants. The community will need to meet the 75ppb (parts per billion) standard for ozone to have the non-attainment designation removed. Implementation strategies and action plans are currently being developed to improve the region's air quality. In addition, the adopted RFATS Rapid Transit Plan identifies the US-21 corridor as the preferred alignment for a rapid transit system centered on Bus Rapid Transit. Implementing transit and transit

supportive land use and zoning policies is a long-term solution for reducing vehicle emissions. As Rock Hill continues to grow, it must ensure that healthy levels of air quality are maintained.

One of the most effective ways to reduce emissions is to decrease vehicular travel miles by locating employment centers near residential areas. However, attracting high employment generators to the region may become increasingly difficult due to increased federal and local regulations for non-attainment areas. In order to reduce vehicular travel miles, additional incentives may be needed to attract new businesses to Rock Hill.

Initiatives that support energy efficiency and conservation, cleaner fuels, and cleaner fleets should be promoted. Public projects that support these concepts should be given high priority and funding opportunities should be sought from the American Recovery and Reinvestment Act of 2009 and other sources.

Air quality is a major health and safety concern recognized in the Transportation Element.

Open Space

The continued rapid pace of land development and its location in outlying areas of the City and the Rock Hill USA is threatening the supply and quality of Rock Hill's open space resources. Open space provides a variety of benefits, which includes protecting ESAs and defining the aesthetics and character of the community. Open space can include natural areas such as environmentally sensitive areas, parks and recreation areas, scenic areas, and trails and greenways.

The need to embrace a more multimodal transportation system is identified in the Transportation Element.

In April 2008, City Council adopted the *Trails and Greenways Master Plan Update* which includes an inventory and map of existing and proposed trails and greenways within the Rock Hill USA. It also provides a Trails and Greenways Implementation Action Plan, outlining recommendations on trail design, placement, prioritization and funding, scheduling (Capital Projects Schedule); as well as background and recommendations on local and regional

coordination. The City needs to continue to implement the recommendations outlined in the *Trails and Greenways Master Plan Update* and seek funding to complete the proposed projects to enhance the City's trails and greenways system. One of the strategies of the *Trails and Greenways Master Plan Update* is to develop a bicycle-friendly community program. Bicycle transportation strategies are incorporated in the RFATS 2035 Long Range Transportation Plan and the Transportation Element of this Plan. Strategies should be developed to more effectively promote cycling through road and bike path construction, bicycle accommodation on transit systems, traffic safety, mobility education and public relations.

Open space needs have been identified in the northwest and southwest portions of the City. In addition, concerns about the lack of public access to open space, particularly to the Catawba River, need to be addressed.

An Open Space Plan was adopted by City Council in 2006 with the previous update of the Natural Resources Element, which identifies key open space focus areas (OSFA) targeted for protection. In May 2008, the City amended its Zoning Ordinance to require proposed development within designated OSFAs to set-aside 35 percent of the site as permanent open space or develop as a conservation subdivision development (CSD). Although many of the OSFAs are outside its jurisdiction, the City requires a Project Standards Agreement for development outside the City limits seeking City utilities. Developers of property containing unique natural features or environmentally sensitive lands should be strongly encouraged to develop as a conservation subdivision development.

Partnerships / Intergovernmental Coordination

Natural resource protection is of regional concern. Therefore, greater emphasis needs to be placed on partnerships and coordination. The City needs to coordinate its ESA protection efforts with other organizations and other local governments, such as York County, Lancaster County, Duke Energy,

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the Catawba Regional Council of Governments, and resource protection groups to ensure consistent and mutually supportive initiatives, particularly in the unincorporated Rock Hill 2020 Planning Area. Better coordination is needed between the City and County to encourage CSD in the unincorporated OSFAs. The City needs to also examine ways of coordinating open space implementation with its regional partnerships such as York County government, Rock Hill Schools, Duke Energy, and other organizations. In addition, greater coordination with York County, adjacent jurisdictions and non-profit organizations is needed to support and implement regional trail and greenway initiatives such as the Carolina Thread Trail.

Education / Public Awareness

The most critical components of natural resource preservation are education and public awareness of environmentally-conscious practices. Policies and programs should be established to educate, promote awareness, and incentivize green building practices, water conservation and the use of reclaimed water, and measures to improve air quality. This education is essential in assisting homeowners and developers understand the importance of being more environmentally-conscious about building construction and site design as well as modifying human behaviors that may otherwise adversely impact our natural resources.

The City and its partners should expand its work on educating the public regarding the value of ESAs and natural resources and the role citizens need to play in their protection. The Catawba River should be promoted as the community's most valuable and threatened natural resource. Increased public awareness and access to recreational opportunities should be pursued along the Catawba "blueway" trail. Opportunities to incorporate environmental education components within greenways should be explored.

More emphasis should be placed on educating homeowners and existing business owners on the benefits of retrofitting properties with small-scale LID best management practices such as the use of permeable and porous pavements; rain barrels, cisterns and other catch systems; bioretention areas (rain gardens), and grass swales. Also, design professionals and engineers should be trained on the ecological and economic benefits of natural resource preservation and energy efficiency, such as CSD, LID best management practices, tree and open space preservation, energy efficient systems, and other environmentally-friendly construction and design practices. Businesses should be encouraged to switch to reusable or recyclable products.

By following the 2020 Priority Policy Directions identified in the Vision 2020 Plan Summary, Rock Hill can better balance the demands of growth with natural resource protection now and into the future. These include:

- *Focus on Redevelopment and Infill*
- *Achieve Sustainability*
- *Plan for Dave Lyle Corridor East*
- *Enhance Mobility and Connectivity*
- *Promote Redevelopment and Infill Development Along Key Corridors*
- *Create Livable Places*
- *Leverage Resources through Partnerships and Coordination*