

Balancing Natural Resources and Economic Growth

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Introduction

Striving for economic growth while maintaining the natural resources that make Chattanooga, TN special can often be seen as a “versus” situation. This paper will discuss how to balance the pursuit of economic growth while preserving natural resources. There is currently a lack of available land for new industry and existing businesses to expand, and any current agricultural and recreational sites are resources that local neighborhoods and city officials have voiced wishes to preserve. This sentiment is further echoed by the establishment of Chattanooga as a National Park City. The Chattanooga Chamber of Commerce, charged with delivering economic development services for the region, is investing in infill development as an approach to utilize current city spaces by redeveloping older unused industrial sites for business needs while incorporating green space.

Chattanooga’s History

Over the past 75 years, Chattanooga has evolved from a city with a reputation for industrial pollution to the first National Park City in North America. A city within Hamilton County, Chattanooga is found along the Tennessee River and is only a two-hour drive from major cities such as Nashville, Atlanta, Knoxville, and Huntsville. In 1969, the Department of Health, Education and Welfare (HEW) named Chattanooga the "worst city in the nation for particulate air pollution.” In the 1960s and 1970s, Chattanooga had a strong industrial focus, and the lack of regulation on emissions from factories, iron foundries, tanneries, railroads, and coal furnaces led to high levels of ambient particulate matter. Nitrogen dioxide pollution, primarily from vehicle emissions and a TNT (trinitrotoluene- a powerful non-nuclear explosive) plant which produced munitions for the U.S. military from 1941-1947, and ground-level ozone pollution (smog) caused

by chemical emissions, were significantly above national standards. The city's topography, being located between the ridge and valley Appalachian Mountains and Cumberland Plateau, exacerbated the situation. This created temperature inversions causing cold air to flow down from the mountains into the valley and become trapped beneath a layer of warm air, therefore locking in the pollution. These issues, combined with declining scenery and growing national claims about pollution-related illnesses, motivated citizens, government officials, and industrial leaders in Chattanooga and Hamilton County to act. In late 1969, citizens of Chattanooga approved a new air pollution control ordinance. This ordinance established the Air Pollution Control Board and Bureau, which set constraints on nearly all activities generating pollution in Hamilton County. Within three years of the air pollution control ordinance, notable pollution sources returned to non-toxic levels and now complied with the local ordinance. This achievement brought Chattanooga back into headlines for more positive reasons. Following on the heels of environmental improvements, public-private partnerships were created and yielded accomplishments such as the creation of the 16-mile Chattanooga Riverwalk and Chattanooga Area Regional Transportation Authority's (CARTA) electric shuttle buses to make transportation in downtown Chattanooga more accessible and energy efficient. The Tennessee Aquarium opened in 1992, and became foundational in Hamilton County's tourism industry, which served as a catalyst for the revitalization of downtown and the riverfront. Since its opening, The Chattanooga Aquarium has attracted more than 26 million visitors and generates \$187 million in annual economic impact for the city.

Case Study: Enterprise South Industrial Park

Improvements of Chattanooga's environmental challenges continued with the mandated cleanup of the TNT manufacturing facility at the former Volunteer Army Ammunition Plant. TNT

production shut down in 1977 and much of the site was vacant until 2001 when a Resource Conservation and Recovery Act (RCRA) corrective action order prompted cleanup and redevelopment of the 6,439 acre site. The manufacturing of TNT contaminated soil and groundwater at the site, but the Environmental Protection Agency (EPA), the Army, the Tennessee Department of Environment & Conservation (TCED), local government, and private industry partners collaborated in a successful cleanup of 21 out of the 23 identified problem spots identified by the EPA. The long-term strategy for cleaning up and repurposing this site was to attract major industrial companies as this was one of the premier economic development sites in the Southeast due to the logistical advantage of on-site rail and proximity to Interstate-75. During the redevelopment, the Army sold 3,000 acres of the site to the City of Chattanooga and Hamilton County for commercial reuse and 1,200 acres of that became Enterprise South Industrial Park which broke ground in January of 2003. The other half of the total site, 3,000 acres, was transferred to the city and county to be set aside as a nature park for recreation that includes 40 miles of nature trails and biking paths, historic preservation, and wildlife protection. The new Enterprise South Industrial Park enabled the city and county to be in a good position to attract new industry. In 2008 Enterprise South Industrial Park became home to the Volkswagen facility, marking the first presence in the United States for the German multinational automotive manufacturer. Volkswagen was committed to finding a location where local leaders and the workforce would be partners and help the company achieve its growth goals. Chattanooga provided a construction-ready site and initiatives for hiring and training new workers. Volkswagen developed a 1.9 million square foot facility for \$1 billion and the state agreed to a \$229.7 million incentives package to prepare the plant site. The plant became operational in 2011 and today employs 5,239 people. Volkswagen's decision to locate to Chattanooga has led to a

deep supplier network in the area, adding direct and indirect jobs into the region, and the industrial park expanded to include various industries and now serves as a significant economic hub for the region. Two more major companies followed suit in the industrial park area. Gestamp Corporation built a \$90 million stamping plant to produce metal automotive components, which has created 1,239 jobs across its three plants and Amazon created a \$90 million order fulfillment center that now employs 1,472 people. Volkswagen continued to grow in Chattanooga and in 2019, they announced a 750,000 square foot expansion and 1,000 new jobs. In 2020, Volkswagen began construction at the industrial park on a \$22 million facility that became the company's North America electric vehicle battery testing center. Volkswagen's operations in Chattanooga have helped to create more than 12,000 net jobs with \$643 million in annual payroll.

While Volkswagen's development yielded job opportunities and new business investment, the company's values also added to the direction of sustainability Chattanooga is aiming for. This plant is the only LEED (Leadership in Energy and Environmental Design) Platinum certified auto manufacturing facility in the world and includes a 66-acre solar park with more than 33,000 solar panels, a rainwater reuse program, and a process for painting that cuts carbon dioxide emissions by 20-percent. This exemplifies intentional industrial development that balances industry growth while preserving Chattanooga's outdoor assets.

Infill Development

Using Enterprise South Industrial Park as a stimulus for future developments, economic developers continued to think strategically about creating economic opportunities for the city and county while using the limited available land. One key strategy is infill development, which

focuses on repurposing vacant or underused buildings and parcels within urban or suburban areas. By redeveloping older, unused industrial sites to meet modern business needs, while also incorporating green space in plans, this approach makes efficient use of existing city infrastructure and supports sustainable growth.

Properties suitable for repurposing typically fall into two categories: brownfield sites—properties with environmental contamination—and greyfield sites, which are previously developed lands that are underused or economically obsolete. The EPA estimates that there are more than 1,700 brownfields in Tennessee since 1996 and working towards productive reuse. While the cleanup of this type of site can take more time than it would to develop a greenfield, undeveloped land that has never been built on or used for industrial purposes, the benefits can outweigh the challenges. Reinvesting in these properties improves and protects the environment, optimizes current resources, helps against the expansion of cities into surrounding rural areas, facilitates job growth, and increases local tax bases. The use of an existing site can also reduce the need for new roads and utilities, lessen the damage to the environment, revitalize neighborhoods, improve local amenities, and can lead to the construction of new housing options.

There are currently two infill development projects in progress in Chattanooga, The Bend and the new Lookouts Stadium. The Bend development, once the site of iron and steel mills in the Tannery Flats manufacturing district, carries a century-long history. Tannery Flats manufacturing was an early industrial district between Cameron Hill and the Tennessee River. This was part of a much larger manufacturing district that extended south along the river toward Lookout Mountain.



(Left) a historic image of Tannery Flats and (Right) a rendering of what is to be the Bend development

The Bend development, owned by Urban Story Ventures which is a real estate development group, will take the abandoned industrial land and create 120-acres along the Tennessee River that will consist of industrial space, commercial and retail developments, residential listings, and entertainment and recreation. The developer is planning 14 acres for public parks and green space, and other improvements include streets, sidewalks, utilities and sewer lines. The plans also include a corporate campus to attract regional, national and international business. Already two companies, Novonix and Micronics, have industrial facilities integrated in the development project. The total project has received \$500 million in investment; more than \$198 million in public improvements are planned, and projected jobs at The Bend are over 2,000 by the time the buildout is complete. The Bend will create a new built environment connected to downtown that will help bring opportunities and is set to be the biggest riverfront development since the Tennessee Aquarium shaped Chattanooga's downtown in the 1990s.

The new Lookouts Stadium is currently under construction and is repurposing a 140-acre brownfield site that was the former U.S. Pipe/Wheland Foundry site. Both the U.S. Pipe and Wheland foundry were large employers for Chattanooga for over 100 years. Founded in 1887, U.S. Pipe was one of the nation's top iron fabricators but has been vacant since it closed in 2006.

The Wheland Foundry site began operations in 1866, producing a variety of cast iron products including automotive parts, until its closure in 2003.



(Left) U.S. Pipe/Wheland Foundry site as it is today and (Right) a rendering of what is to be the new stadium

The new \$120 million ballpark will be part of a larger development in the South Broad District and managed By New City Properties and owned by the Joint City-County Sports Authority Board. It is set to open in April 2026. The plans include keeping access to the Riverwalk and the preservation and adaptive reuse of the historic foundry buildings. The park will be used by AA Chattanooga Lookouts, have 15,000 square feet of retail, 17,240 square feet of office space, and residential options. The new stadium will also serve as a multi-use venue that hosts various events year-round and will be pivotal for Chattanooga as it will most likely spur further infill development. The 30-year projection will produce \$2.3 billion in regional economic impact. As well as \$1.1 billion in development within the district and new tax revenue generated for county schools will reach \$186 million. The Lookouts Baseball management team is responsible for demolishing the current stadium in its location near the Tennessee Aquarium. Once demolished, the land gets reverted to River City Company for redevelopment. This new area will be known as Hawk Hill and will be a mix of commercial and dense residential.

North America's First National Park City

Along with exciting redevelopment projects, Chattanooga is making news as North America's First National Park City. This designation is awarded to cities that emphasize and celebrate their natural surroundings and outdoor spaces. "The outdoors is our competitive advantage. It's at the heart of our story of revitalization, and it's core to our identity..." said Chattanooga Mayor Tim Kelly. This title represents an effort led by residents, leaders, and organizations to weave nature into the urban landscape and promote a lifestyle centered around outdoor activity. The initiative aims to improve public health, expand access to nature, encourage outdoor recreation, and boost the local economy. This recognition as a National Park City is an opportunity to elevate Chattanooga and foster more conscious development.

The Role of the Chattanooga Chamber of Commerce

The Chattanooga Area Chamber of Commerce is comprised of two entities that work together: The Chamber Foundation, a 501(c)3 non-profit organization, and the Chamber of Commerce, a 501(c)6 for-profit organization. The mission of the Chamber is to champion member businesses and promote regional economic growth and the foundation side specifically delivers economic, community, and leadership development services to all eligible businesses. The Chamber's role in economic development is to facilitate growth opportunities for the community by attracting new investment, retaining current industry, increasing job availability, and assisting with workforce training through local colleges, apprenticeships, and skills training. To ensure progress and accountability, the Chattanooga Chamber has a five-year strategic plan called *Chattanooga Climbs Higher*. This plan includes developing workforce skills for the new economy, creating more high-quality jobs, growing stronger businesses, and increasing regional

prosperity for all. Quantitatively the goal is to create 5,000 new jobs with an average wage of \$60,000 and attract \$1.5 billion in investment by 2029. Target and subsector target industries include advanced manufacturing, professional and support services, future technology, and software and IT. Though Chattanooga has an industrial legacy, the chamber seeks to recruit and retain talent in the other sectors.

To attract development projects that align with this strategic plan, the Chattanooga Chamber navigates city, county, and state requirements while collaborating with local city and county elected officials, state stakeholders, and works closely with TVA (Tennessee Valley Authority) and utility provider EPB (Electric Power Board) to ensure that infrastructure can support utility needs. Hamilton County and City of Chattanooga officials play a significant role in supporting economic development projects. When there is an impactful economic development project, the Chamber collaborates with city and county officials and the Industrial Development Board to explore financial tools such as:

- Tax Increment Financing (TIF)
- Payment in Lieu of Tax (PILOT)
- Job training grants
- Job tax Credits

These incentive mechanisms are intended to encourage private investment in public infrastructure and community services. For the two major infill development projects that are in progress, the Bend and the new Lookouts Stadium, a TIF was identified as the appropriate financing tool and The Chamber implemented the TIF application, then enlisted the city, county, and state to utilize this incentive to support both the Bend and Lookout Stadium. How the TIF

will work is that improvements will be made up front and then repaid through property tax and sales tax collections in the district. Some Tax revenue would go toward supporting affordable housing. Both the Bend and Lookout Stadium plans include Class A office space that will enable the chamber to market and attract new talent in a few target industries including medical, technology, transportation and logistics, and professional services. Further support from the Chamber will include promoting prospects that align with pivoting from advanced manufacturing to professional and support services, future tech, and software and IT. For both projects, the Chamber will aid in public and media relations work, as well as market the development area once plans are revealed to the organization.

Project Description

The Chattanooga Chamber of Commerce is starting to prioritize infill development as an approach to utilize current city spaces by redeveloping older unused industrial sites for business needs while incorporating green space. The goals the Chattanooga Chamber hope to accomplish through infill development are to strike a healthy balance between urban expansion and environmental stewardship, being intentional with the industries the Chamber recruits in order to reflect the push toward mindful economic growth, learn from Chattanooga's history for purposeful industrial development, and navigate and mitigate land use conflicts effectively.

There are some obstacles that will be faced, such as pushback from some in the community for redevelopment plan proposals, working to get financial incentives that will benefit the new or expanding businesses and community needs, and possible tax revenue delays.

Economic Development projects require partnerships that include multiple agencies such as The Chattanooga Chamber of Commerce, the City of Chattanooga, Chattanooga City Council,

Hamilton County, Tennessee Economic and Community Development (TNECD), the Industrial Development Board, developers such as Urban Story Ventures property management and New City Properties, and TVA and EPB to support infrastructure and utility needs. Prioritizing the work of identifying and repurposing unused sites for business needs will be ongoing and successes will come at various times along the way. While infill development has begun for the Bend and the new Lookout Stadium, these projects will take time. The Chamber will use knowledge gained from helping the development of these two sites to be purposeful with future industrial growth while preserving green spaces. As well as looking to other leading examples of balancing industrial growth and natural resources such as Enterprise South Industrial Park, the home of Volkswagen, Amazon, Gestamp, and many other major employers. This industrial park sits next to 3,000 acres that makes up the Enterprise South Nature Park. While this is just one example, it reflects the growing industry values and the community benefits received from the park. Another successful infill development is Nippon Paint which opened a new facility at the former Tubman site in East Chattanooga, creating 150 jobs.

Conclusion

Balancing economic growth with the preservation of natural resources is not a “versus” situation, but rather an opportunity to pursue sustainable development strategies that reflect Chattanooga’s unique identity and community values. As land availability for new industry becomes increasingly limited, and as residents and city leaders express a strong desire to protect agricultural, recreational, and natural spaces, infill development has emerged as a practical and forward-looking solution. Through strategic reuse of underutilized industrial sites, infill development can meet multiple objectives: attract new investment, support the expansion of existing businesses, grow the workforce, and enhance tax revenue. All while preserving and

integrating the natural assets that define Chattanooga. This approach aligns with Chattanooga's commitment to sustainable, community-driven growth.

The Chattanooga Chamber of Commerce plays a role in this effort, seeking to be more intentional in the recruitment of businesses and promote expansion in ways that honor both economic priorities and the community's needs. By identifying available properties, leveraging city-owned land, exploring incentives for redevelopment in historically underserved communities, and collaborating regionally to increase site offerings, the Chamber is working to overcome the region's shortage of shovel-ready industrial sites and landlocked business constraints. Infill development offers a powerful tool to balance economic opportunity with environmental preservation, ensuring Chattanooga can grow sustainably while remaining true to the outdoor values that make it exceptional.

Resources

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