8. SERVE

IN THIS CHAPTER:

- **Challenges and Opportunities**

- **Policy Direction**

- **How We Will Achieve Our Vision**

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Cary strives to be a leader in excellent service and infrastructure provision and remains on the cutting edge of information technology and utilities. While endeavoring to provide services at affordable rates, the Town will implement long-term sustainable practices and solutions to ensure a high quality of life for generations to come.

CARY VALUES:

Respecting Nature and the Environment
Cary will preserve and protect our environment. This includes being good stewards of our finite natural resources. Paramount is the conservation of water resources and the protection of watersheds, including Jordan Lake, to maintain a high quality water supply for our future.

Providing Comprehensive and Top Quality Facilities and Infrastructure
Cary will provide comprehensive facilities and utility services to residents, businesses and institutions. Public infrastructure is provided in conjunction with development, coordinated with private investments, and is well-maintained.

Providing High Quality Public Services
Cary will provide high quality public services and customer service that continue the Town's legacy of excellence, including being one of the safest mid-sized communities in the nation. The Town's quality services yield a clean and attractive community, a reputation for open communication and responsiveness, and a supportive environment for residents and businesses.

CARY COMMUNITY PLAN ➡ 2040

8. SERVE

CHALLENGES AND OPPORTUNITIES

Acknowledging that an increasing population is a natural outcome of being part of an economically thriving region, the Town has a major responsibility to plan and provide its essential public services for this growing residential and employment base. Services include roads, water, wastewater, solid waste, emergency services, and balancing and mitigating the effects of all of these on the environment. This population growth will require that we meet the needs of today without compromising our ability to meet the needs of those in the future. We must consider the impacts of our decisions on all of the different systems that we rely on, and we must innovate to be as efficient as possible in delivering the services that our citizens and businesses rely on.

Fiscal Impacts of Development and Aging Infrastructure

Just as Cary is seeing its housing and commercial developments begin to age, the vast infrastructure network that serves these developments is also aging. For example, the Town has over 280 miles of storm drain pipe, some of which dates back to the nineteenth century. This network, in addition to other major infrastructure networks, will not only need routine maintenance but will also need rehabilitation or replacement over time.

The Town of Cary has the opportunity to consider the fiscal impacts of public infrastructure and land development patterns. Having experienced rapid outward growth over the past half-century, Cary has benefited from new high-value development that typically covered the cost of the additional infrastructure needed to support new developments such as residential subdivisions or shopping centers. Within the next 10 years, the Town will begin to exhaust new greenfield development opportunities and face a paradigm shift: It will need to meet the challenge of sustainably maintaining and replacing infrastructure within already developed areas in the face of increasing maintenance costs.

A large and growing number of studies have determined that there are public fiscal implications to the way that cities grow and develop. Municipal fiscal impacts are largely determined by types of land use, property value, types and size of housing, density of development, location, and distance from community facilities. These development characteristics impact the cost of municipal services including roads, water/wastewater, stormwater, fire and police protection, and solid waste collections. Long term costs associated with providing future services and maintenance must be considered.
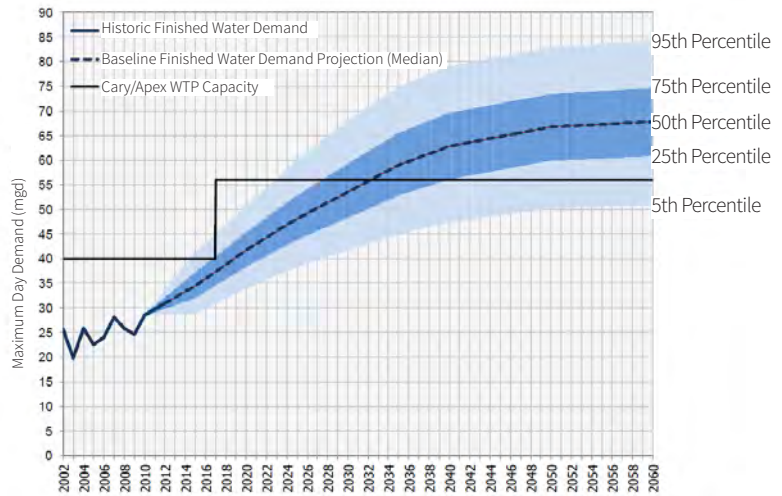

Long-term maintenance costs of infrastructure systems are important to consider when planning for future growth.

Future Water and Sewer Needs

Cary operates the jointly-owned Cary/Apex Water Treatment Facility, supplied with water from Jordan Lake, to serve almost 180,000 people in Cary and Morrisville along with the Wake County portion of Research Triangle Park and RDU Airport. Providing high quality and safe drinking water is one of the Town's important service directives. The Town's wastewater is treated at its North and South Cary Water Reclamation Facilities (WRFs), as well as at the Western Wake Regional Water Reclamation Facility co-owned with the Town of Apex. The Town has an extensive reclaimed water system and distributes reclaimed water to businesses and residents near the North and South WRFs, the Wake County portion of Research Triangle Park, and USA Baseball. The Town regularly updates its long range water resources plans and system master plans to ensure adequate infrastructure and capacity for water, wastewater and reclaimed water is in place at the right time. Wise management of the Town's water resources, and working closely with its neighboring communities, play an increasingly critical role in ensuring adequate water resources.

Maximum Daily Finished Water Demand Forecast

This chart displays the maximum day finished water demand forecast for the Towns of Apex, Cary, and Morrisville, plus RDU Airport and RTP South, through 2060. The service area will likely require additional water supply and treatment capacity by 2032.

Waste Challenges

As the population of Cary increases and waste streams change, the Town will need to be able to meet increasing demands on waste collection services while maintaining a cost-effective program. Waste reduction, composting, and recycling are important for reducing demands on waste collection services and landfill capacity. These ongoing efforts, and others, have resulted in a decrease in waste generated per person since 2006. This has resulted in a landfill waste diversion rate of over 50 percent, including yard waste. In order to balance yearly operational costs and support the long term goal of working within our region to ensure a long landfill life, the Town will continue to focus on recognizing, responding, and adjusting to change. The Town will also continue to examine technological and operational opportunities to become more efficient in its solid waste services.

The Town of Cary offers many opportunities to compost and recycle materials. The Town provides residential curbside collection for a wide assortment of recyclable materials, and helps educate the public about composting and recycling

Energy, Sustainability, and Environmental Stewardship

Population growth puts development pressure on our natural systems. Higher population results in increased energy consumption, increased solid waste, increased traffic, increased air pollution, increased impervious surface, and fragmentation of natural habitat. The Town seeks to balance the effects of a growing population with efforts to manage, conserve, and innovate on behalf of environmental quality and environmental health. The Town is and will continue to be a leader in sustainability as these efforts yield benefits in health, safety, fiscal stability, and economic stability.

A key sustainability issue is energy. There is a great need for dedicated effort and innovation, both in energy efficiency as well as diversification of fuel types. In a concerted effort to reduce energy use, costs, and emissions, the Town adopted an operational Strategic Energy Action Plan in 2012. The plan has demonstrated efficiencies as well as cost and emissions savings in the Town fleet, buildings, water and wastewater operations. The Town was one of the first municipalities in North Carolina to work with Duke Energy Progress to convert our streetlights to energy efficient light emitting diode (LED) fixtures. Diversification of energy sources builds resiliency, and as such the Town has been increasing the number of solar generation facilities, both public and privately owned, as well as piloting alternative vehicle technologies like electric vehicles. The Town also provides public electric vehicle charging in several locations.
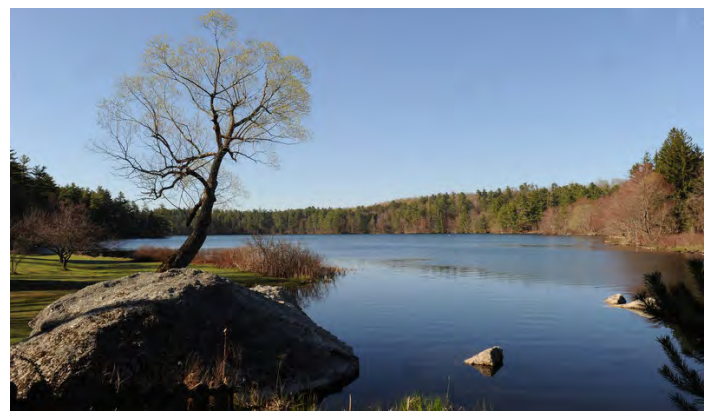
Opportunities exist in Cary to protect and connect existing environmentally sensitive areas. Protection of these areas would help to maintain their ecological value and serve the community as it evolves over time. Intact natural systems perform multiple critical ecosystem services that have economic value.

Watershed stormwater management has proved to be a cost-effective adjunct approach in concert with water-treatment technology in keeping drinking water clean. Water sources can become polluted when sediment, fertilizers, pesticides, oil, and other chemicals wash into them from streets, parking lots, and lawns. Providing natural vegetated buffers along the sides of streams and other drinking water sources can be critical in reducing the amounts of such pollutants that reach reservoirs, lakes, and watercourses.

Cary has the ability to celebrate its agricultural history and support locally produced agriculture while connecting citizens with opportunities to learn about agriculture and food systems.

As part of our on-going commitment to the environment, the Town of Cary participates in solar projects where it makes operational and fiscal sense. Renewable energy is a great option for reducing the environmental impact of operations. The Town currently has a 1.89 megawatt solar energy farm, funded by a public-private partnership, located at the Town's South Cary Water Reclamation Facility. The solar farm generates electricity that is sent back to the grid.

Innovative Technology

Technology will play an increasingly important role in future communities by promoting economic development and enhancing consumer choices by diversifying modes of communication, improving efficiency in services and utility through the smart grid, and extending high speed internet access. Google has announced plans to install a fiber-optic networks in select cities across the United States, which boasts internet speeds up to 100 times faster than traditional broadband. In January 2015 Google selected Cary as one of its next communities for fiber deployment and in June 2015 construction began on its fiber network in the Triangle. AT&T's gigabit speed service update also provides a fiber-optic network within the town. In addition to deploying smart water meters to all of its customers through the Aquastar Program, Cary is a municipal participant in the North Carolina Next Generation Network, a regional initiative focused on stimulating the deployment of next generation broadband networks primarily focused on business and education in North Carolina.

Resilience and Adaptation

Resilience is the ability to return to normal after an upset or disturbance. This concept can be applied to any number of unplanned upsets that can affect municipalities and the services they provide. Examples are fiscal upsets like recessions, upsets related to a weather event like a tornado or hurricane, upsets related to the regional transportation network on which we rely, or unpredictable weather. Resilience planning is used to consider possible risks for these upsets and to plan for how to return to normal within a period of time. Adaptation considers when it might be prudent to adjust to a new set of conditions.

Public Safety

Cary is considered one of the safest cities in the nation, ranking in the top five mid-sized cities with the lowest crime rates in the United States. To ensure that Cary remains one of the safest cities in the nation, the Town of Cary Police Department provides exemplary policing. Also, the Town of Cary Fire Department provides an innovative and efficient approach to emergency response, fire code application and public fire education.

With the Town's growth and outward expansion, it becomes increasingly important for public safety providers to analyze the distribution and concentration of staff and facilities to provide adequate service. Cary is currently divided into three GeoPolicing districts to enable patrol and school resource officers to become experts on the needs, issues, and concerns of the citizens within the areas they serve. The Fire Department currently operates out of nine geographically dispersed fire stations to serve Cary citizens, with more stations being added as Cary grows.

The aging and diversifying population also has implications for public safety in Cary. There will likely be a greater demand placed on emergency management services for health-related care.

Access to fiber-optic cable networks is growing throughout Cary.

Cary's A-Team sits ready for future winter storms.

Cary Fire Station 8, on Mills Park Drive, implemented Leadership in Energy and Environmental Design (LEED) principles. These include the use of high-efficiency equipment to reduce energy usage, using the Town's reclaimed water line to reduce water usage, and bicycle storage. Fire Station 8 is also the office for one of the Police Department's GeoPolicing districts.

POLICY DIRECTION

In order to respond to the challenges and opportunities for Cary's public services, and to provide reliable, affordable, and excellent services and facilities to the community in a way that protects the environment and anticipates growth and changes occurring throughout the region, the Town's public facilities and services policies are:

Policy	Policy Intent
Policy 1: Provide Services and Facilities for Current and Future Generations That Balance High Quality and Affordability	
Provide public services, utilities, and facilities that meet the short-term and long-term needs of residents and businesses, while remaining responsible to the environment. Balance high quality and affordability of service.	The intent of this policy is to maintain a balance of high quality and affordability in providing public facilities and services to members of the community today, while ensuring that resources and services will be available to a growing regional population. Services and infrastructure will support development; however, development patterns should help to ensure high quality provision of services. Development patterns should support infill, redevelopment, compact development and traditional development. Town buildings will be constructed to be high-performing "green" buildings, with a commitment to lifecycle costing, energy efficiency, water conservation, and waste reduction.
Policy 2: Provide Safe, Reliable Water and Wastewater Service	
Prepare for future population increases by maintaining and adding to Cary's foundation of sustainable water and sewer services. Continue to provide reliable services, protect and maintain high quality drinking water and wastewater infrastructure. Continue to maintain high quality reclaimed system and water conservation programming.	The intent of this policy is to proactively address the issue of water and wastewater service provision, which will be affected by growing populations, redevelopment and infrastructure needs, and volatile weather patterns that will subject the region to threats like flooding and droughts. Water is becoming a regional issue and inter-jurisdictional coordination is necessary to maintain adequate service while reducing risk. In order to protect Jordan Lake and other water sources, the Town will continue to foster collaboration between regional partners.
Policy 3: Encourage Environmentally Responsible Stormwater Management	
Support initiatives that encourage environmentally responsible stormwater management by addressing floodplain management, watershed protection, control of illegal discharges and sediment erosion.	The intent of this policy is to address storm events and water quality using educational and regulatory initiatives, and public infrastructure, that enhance the community. These methods will manage nitrogen and phosphorous loads and other runoff pollutants in Cary's streams, and protect the water quality of Jordan Lake. The Town will also continue to meet or exceed N.C. Division of Water Resources rules for controlling nitrogen runoff in the Neuse River basin and the Cape Fear River Basin and meet stormwater regulations of the Federal Clean Water Act. In order to protect properties from the threat of flooding and erosion, the Town will continue to provide guidance to citizens with drainage issues. The Town will continue to protect water quality and flooding risk through development regulations including watershed protection overlays, nutrient control, erosion and sediment control, floodplain management, urban transition buffers, and other tools. Additionally, use of decentralized green infrastructure as part of streets and other public infrastructure will be explored and implemented where effective.

Policy	Policy Intent
Policy 4: Ensure Long-Term, Cost-Effective, and Environmentally-Responsible Disposal of Waste	
Continually ensure long-term, secure, and environmentally-responsible disposal of waste.	The intent of this policy is to continue to provide convenient waste and recycling services for residents and businesses while promoting reuse, preventing unlawful disposal, and expanding composting practices through policies and public education.
Policy 5: Protect and Restore Open Space and the Natural Environment	
Protect and restore environmentally significant areas and either preserve or create green infrastructure throughout the Town and within the built environment.	The intent of this policy is to manage and protect the natural environment, particularly areas of environmental significance such as wildlife habitats and corridors, wetlands, stream buffers, contiguous forests, and other important natural features. The Town will look for opportunities to protect or create interconnected ecosystems. A complementary intent of this policy is to incorporate natural features into the built environment for aesthetic, economic, quality of life, and sustainability purposes, in part using and preserving native plants. This policy also supports green building techniques that enhance or add to green infrastructure resources in the Town, including along roadways as part of either private or Town-driven projects.
Policy 6: Improve Air Quality	
Promote strategies that create a healthy community by improving air quality and reducing air pollution from development, buildings, transportation, and industry.	The intent of this policy is to improve the health of Town residents and decrease air pollutants, like greenhouse gasses, by encouraging changes in the built environment, transportation systems, business practices, and household habits. This policy will enable initiatives that address the causes and effects of climate change. Better air quality can be achieved through a comprehensive set of strategies that encourage conservation, increased efficiencies, new building technologies, alternatively fueled vehicles and infrastructure, forest protection, and urban development that makes walking, biking, and public transportation viable modes of transportation.
Policy 7: Improve Energy Efficiencies and Sustainable Energy Practices	
Support sustainable energy practices by promoting energy conservation and alternative energy use and production.	The intent of this policy is to lower utility bills, decrease reliance on traditional energy sources, promote a green economy, increase resiliency and self-reliance through energy efficiency and the local production of energy, and decrease emissions, such as greenhouse gases. The Town will support and promote green building features, especially where higher density development occurs. The Town will promote any chosen policies through public outreach initiatives, recognition, and through leading by example.

Policy	Policy Intent
Policy 8: Integrate Concepts of Resiliency and Adaptation into Planning Practices	
Support resiliency of all municipal services by identifying potential risks and planning ahead for solutions.	With regard to the Town's municipal operations and provision of public services, resiliency refers to the ability to provide and maintain acceptable levels of service in the face of exceptional circumstances that could otherwise impede those operations and services. Adaptation refers to making changes or adjustments in the methods, manner, or type of services provided, in order to respond to changing conditions over time. The intent of this policy is to proactively plan for resiliency and adaptability when developing facility and operational plans for town services, in order to maximize the Town's ability to respond to predictable and unpredictable change. For example, planning for and adapting to predictable change might include planning Town services for an aging population, climate change, or planning for replacement of aging water and sewer lines. Examples of planning for resiliency in the event of unpredictable change might include planning for service delivery in the event of loss of a major town employer, major swings in fuel or energy prices, or even a market crash or recession.
Policy 9: Preserve and Protect the Urban Tree Canopy	
Promote the retention of – and addition to – the tree canopy within Cary's planning area.	The intent of this policy is to support retaining and/or adding to our community's tree canopy, particularly within developed areas. The urban tree canopy is the layer of trunks, branches, and leaves that cover the ground when viewed from above (i.e., the Town's tree cover). One objective of this policy is to strive to protect portions of existing canopy as new development occurs, particularly hardwood canopy. Another objective is to plan and design new development with ample and strategically-located deciduous tree plantings such that new development will have an ample tree canopy at maturity. Trees are a vital part of Cary's aesthetic and environmental health. In 2016, the Town of Cary was recognized as a Tree City USA by the Arbor Day Foundation, for the 33rd year in a row.
Policy 10: Support Local Food Systems	
Support locally grown and produced foods in Cary.	The intent of this policy is to support a healthy community by providing opportunities for people to grow their own food and to purchase locally grown food in farmers markets. Implementation includes education and recreational opportunities that connect citizens with Cary's agricultural heritage, as well as basic gardening and cultivation methods.

Policy	Policy Intent

Policy 11: Support Expansive and Cutting-Edge Information Technology Infrastructure

Support the provision of high speed and affordable communication services – such as digital and wireless -- for businesses and community members throughout Cary.	The intent of this policy is to allow for the provision of high quality, affordable, and competitive communication services for personal and business use by working with providers to expand fiber networks, advocating for efficient delivery of services on behalf of local consumers, and continuing to be an active member in the NC Next Generation Network. The intent of this policy also provides support for wireless technologies.

Policy 12: Provide Exemplary and Timely Emergency Services

Manage health and safety through provision of exemplary emergency services – such as police, fire, and rescue services – throughout the community.	The intent of this policy is to support emergency services provided by the Town while ensuring that these services are provided efficiently, sustainably and in a timely manner. The Town will continue to keep up with the pace and type of growth, and with the varying needs of our changing population, by being proactive instead of reactive. Fostering a feeling of personal safety through public education, as well as a visible, responsive public safety presence will continue to develop relationships with citizens and actively engage the community.

HOW WE WILL ACHIEVE OUR VISION

1 Provide and Promote Safe, Reliable, Technologically Progressive and Environmentally Responsive Public Services

The Town will continue to be a service leader by integrating technology into the delivery of our services to achieve efficiency, reduce impacts on the environment, and to improve the quality of life for our community. When possible, the Town will work with public and private sector partners to implement technologies in a practical manner that is in keeping with our core values. The Town will look for opportunities to work with local universities to take advantage of their academic and technical knowledge.

Major Actions:

- Identify and implement policies, programs, and practices needed to place Cary in the top 10% of comparable communities for key measures of quality of life. The Town should select indicators or metrics to be tracked over time, such as:

  - Feet of pipe (storm drain, water, wastewater)
  - Miles of roads
  - Water produced for consumption
  - Wastewater treated
  - Energy consumed
  - Protected open space
  - Habitat protected/restored
  - Number of stormwater retention devices

  - Air quality
  - Water quality
  - Tree canopy
  - Vehicles miles traveled
  - Average vehicle miles per gallon efficiency
  - Average distance to a greenway or park
  - Solid waste diversion rate
  - Miles of greenway

  - Miles of sidewalk
  - Miles of bike lanes
  - Walk score
  - Crime rate
  - Response time to emergency calls
  - Housing costs
  - Transportation costs
  - Average income
  - High-speed internet access

- Identify pressing public service challenges facing the Town of Cary and recommend approaches for addressing them on an ongoing basis.

- Create a Town of Cary Smart City/Strategic Innovation Plan to identify and remove barriers to innovation. This cross-functional plan - with an emphasis on emerging technologies - will unify organizational efforts and create cohesive strategic direction.

2 Promote Green Practices That Will Leave An Environmentally Safe and Desirable Community for Future Generations

Major Actions:

- Provide regional leadership among communities contributing to and affected by nutrient loads to Jordan Lake with the objective of agreeing on a science-based program to protect the future quality of the lake. The Town will continue to support the state's Jordan Lake rules and implement Jordan Lake nutrient management strategies in our jurisdiction. Implementation of a nutrient management strategy for the stressed ecosystem is needed to mitigate future drinking water treatment challenges and associated increasing costs. The Town believes that a science-based approach to managing Jordan Lake's water quality will have a net positive benefit for our citizens and for the communities in the watershed. The Town will work with state officials and other stakeholders as we chart a course for the future of the Jordan Lake watershed.

- Create a Town of Cary Sustainability Plan to integrate concepts of sustainability into the Town's planning practices, processes, and service delivery.

3 Respond in an Exemplary Manner to Present-Day Emergencies While Anticipating Future Challenges

Major Actions:

- Identify new service needs or service areas that may be necessary to address shifts in population, demographics, and the environment.
- Expand support for homeless and high-cost-burdened families.
- Identify opportunities to integrate emerging technologies or alternative service models into emergency operations.

RELATED POLICY DIRECTION IN OTHER CHAPTERS

This plan has been organized to address specific topics in specific chapters; however, the policies listed throughout this plan are very much interrelated. Listed here are the policies included in other plan chapters that relate to the Town's policies on public services and facilities.

	Live: Fostering Strong Neighborhoods	Work Assuring Continued Prosperity	Shop: Creating Vibrant Destinations	Engage: Experiencing the Cary Community	Shape: Guiding Community Growth	Move: Providing Transportation Choices
Serve: Meeting Community Needs		Policy #1: Grow A Sustainable and Diversifying Workforce Policy #2: Enhance Locational Appeal to Businesses and Workers Policy #3: Retain and Grow Existing Cary Businesses Policy #5: Attract New, High Value Businesses Policy #7: Ensure the Economic Growth and Vitality of Downtown Policy #12: Transform Selected Office Parks into Employment Mixed Use Centers		Parks, Recreation & Cultural Resources Master Plan Goals #1, #3, #4, #5, #8, #9 Public Art Master Plan Vision	Policy #1: Distribute Commercial Centers, Mixed-Use Centers, and Destination Centers Across Town Policy #4: Support and Facilitate Redevelopment and Infill Development Policy #5: Support the Revitalization of Targeted Development Corridors Policy #8: Preserve and Maintain Cary's Attractive Appearance and Quality of Development	Policy #1: Ensure Safety for All Users and Modes Policy #2: Apply Multimodal Street Designs Policy #3: Design Transportation Infrastructure to Address Land Use Context Policy #4: Focus Investments on Improving Connections and Closing Gaps Policy #5: Minimize Thoroughfare Widths Policy #6: Improve Pedestrian and Bicycle Crossings Policy #7: Target Transit Investments Policy #8: Ensure a Well-Maintained System