APRIL 2021

Sustainable Stormwater Management Strategy for a Thriving City

Contents

Introduction

Managing runoff from rainfall, reducing flooding risks, and protecting and improving the quality of surface waters are at the core of Charlotte Storm Water Services.

Our focus is improving surface waters and conveying rainwater safely through well-maintained storm drainage systems so our city thrives for the benefit of all. To craft a well-defined vision for the next five years, Charlotte Storm Water Services initiated a strategic planning process in August 2020. The strategic plan helps guide investments, allocate resources, and assure that long-term priorities are achieved. We will move this plan forward as a local and national stormwater leader, focusing on environmental stewardship, infrastructure resiliency, fair regulations, community engagement, equitable service delivery, and responsible financial management. This, coupled with an unwavering commitment to our mission and values, will advance our organization, benefit our city, and make our team proud.

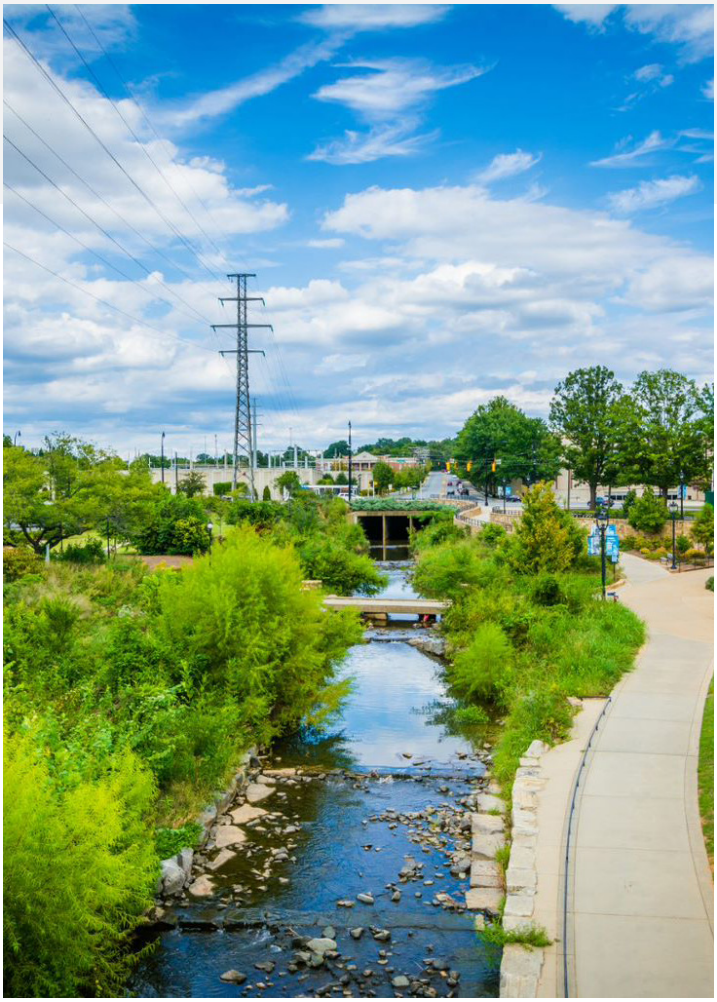
Process

Charlotte Storm Water Services' strategic planning process was designed to provide:

+ A shared vision of Charlotte Storm Water Services' goals and priorities. Organizations driven by a clear purpose and shared values have a greater capacity to succeed.
+ A collective understanding of the available resources, the environment, and the principles upon which strategies will be based.
+ Acceptance of the direction of the strategic and operating plans, which will be integrated into day-to-day operations.

To achieve success, Charlotte Storm Water Services' strategic planning process involved input from a broad group of internal and external stakeholders and consistent communication of progress in crafting the organization's vision, mission, values, and overall strategic plan. Major elements of the process included:

+ **Stakeholder Input:** Input was obtained from Charlotte Storm Water Services' leadership team, employees, and external stakeholders through a combination of interviews, a virtual public input session, an online employee survey with more than 80 responses, and two employee focus groups. The Storm Water Advisory Committee (SWAC) also provided valuable feedback for the organization's strategic plan.
+ **Foundation Workshop:** A Core Strategic Planning Team (Core Team), consisting of members of Charlotte Storm Water Services' senior management, met to consider stakeholder input and to draft the organization's mission, vision, values, and priorities.
+ **Strategy Workshop:** The Core Team reviewed input from the stakeholder engagement exercises to further define the priorities and to develop the preliminary measures and strategies.
+ **Core Team Review:** After documenting the Strategy Workshop results, the Core Team reviewed and revised, as needed, the elements of Charlotte Storm Water Services' strategic plan.



Environmental Scan

Charlotte Storm Water Services' operating context was documented through:

+ Analysis of community demographics and other external influences (Community Profile)
+ Considerations of stakeholder input, key industry trends, and their potential impact on the organization
+ The organization's strengths, opportunities, aspirations, and results (SOAR)

Community Profile

Charlotte's economic success is tied to successful management of urban runoff and protection of stream health.

A Watershed View

The rolling topography, clay soils, prevalence of small streams and rainfall are defining characteristics of the Eastern Piedmont Region of the United States. Abundant natural vegetation and dense tree cover are key to the natural landscape, particularly around stream corridors.

The major river basins of Charlotte, the Catawba and the Yadkin, both start in the North Carolina Appalachian Mountains and eventually flow into the Atlantic Ocean in South Carolina. European settlers that moved to the area around 1750 chose to build near the crossroads of two Native American trading paths between the Catawba and Yadkin rivers, now the heart of Uptown Charlotte. Grain mills and saw mills dotted the banks of local creeks, which were also used for drinking and bathing. The City of Charlotte was officially incorporated in 1768 and became the Mecklenburg County seat in 1774.

Watershed Impacts Accompanied Growth

Over the years, Charlotte grew into a major textile manufacturing and railroad hub. By the 1900's, raw sewage was routinely dumped into streams and still decades later in the 1950's, some industries were piping contaminated factory wastewater directly into them. In 1970, a study found that fish had disappeared from Little Sugar Creek and many streams and popular swimming holes were full of bacteria. This scenario was playing out in urban areas nationwide in the years preceding passage of the Clean Water Act in 1972.

In the 1970s and 1980s, the city's modern-day banking industry took off, prompting major development and growth. While this growth has provided Charlotte with a vibrant economy, it has also led to vast increases in roads, parking lots, rooftops and other impervious surfaces. Charlotte has 2.2 billion square feet of impervious surfaces preventing rain from soaking into the ground. Just one inch of rainfall over the 300-square-mile footprint of Charlotte equates to over five billion gallons of water, enough to fill 16 Bank of America stadiums. The portion of this water that cannot soak into the ground, runs off and flows into the vast storm drainage system connecting to natural streams.

As urbanization occurred and impervious surfaces increased, so did excess runoff contributing to street and structure flooding. The natural stream network was supplemented with manmade culverts, gutters, ditches, and channels that follow the topography of the land. As decades passed, new regulations lagged, resulting in some homes, businesses, and even public infrastructure being constructed in low-lying flood prone areas. Pipes were often placed into natural streams to increase developable land. As a result they often flooded streets and structures, while causing significant stream impacts through the loss of vegetative stream buffers and degraded surface water quality. Indeed, this was happening nationwide in most urbanizing centers.

The enactment of the Clean Water Act and the National Flood Insurance program raised awareness nationwide about watershed protection and flooding associated with urbanizing areas.

Charlotte Today

Charlotte's fast growth has led to its recognition as the 15th largest city in the United States and the city continues to be one of the fastest growing in the country. The first light rail line started operating in 2007, prompting an explosion of development along the rail corridor. As the light rail expanded over the years, its corridors have continued to benefit from new apartments, offices, shopping, and restaurants. With an estimated population of over 885,000 in 2019, the city has grown by more than half a million people since 1980. To accommodate continued buildout, Charlotte's man-made storm drainage systems doubled in size from 1993 to 2018. Today this system has grown to include more than 150,000 storm drain inlets, 3,800 miles of drainage pipes underground, and 2,400 miles of open ditches and streams.

Charlotte Storm Water Services is helping the city recover from storm drainage-related impacts stemming from decades of growth, while implementing innovative stormwater management solutions that prepare us for the future. These solutions include continual improvements to existing development regulations and construction methods to help prevent drainage issues.

Reliable storm drainage infrastructure underpins and supports a thriving city and the quality of life residents enjoy. Storm Water Services rehabilitates and replaces thousands of feet of drainage infrastructure each year to reduce flood risks and rehabilitates ponds, streams, and wetlands. It is critical that over time the storm drainage system is maintained and improved, and the quality of streams and surface waters is improved.

FY20 Quick Stats

12,480
feet of rehabilitated pipe

14,720
feet of stream improvement in progress

28,880
feet of pipe installed

3,780
resident concerns reported through 311

800+
projects managed

49,800+
stormwater assets inventoried

260+
projects complete

1,600+
pollutant control measures inspected

Storm Water Services in the Community

Stormwater utilities work year-round to manage runoff from rainfall, reduce flooding, restore floodplains, improve infrastructure, and protect surface water quality. A stormwater utility is different from other water-focused utilities in a variety of aspects. In addition to underground storm drainage pipes which carry rain and are connected to streams and creeks, a major part of the stormwater system is above ground. These surface components that are critical to drainage, conveyance, and surface water quality. Examples include roadside ditches, curb and gutter sections, storm drain inlets, headwalls, retention basins, and green infrastructure. Drainage and roadways are integrally connected to the surface waters. Stormwater systems are also relied upon to support public safety, and stormwater utilities need to provide support during severe storms.

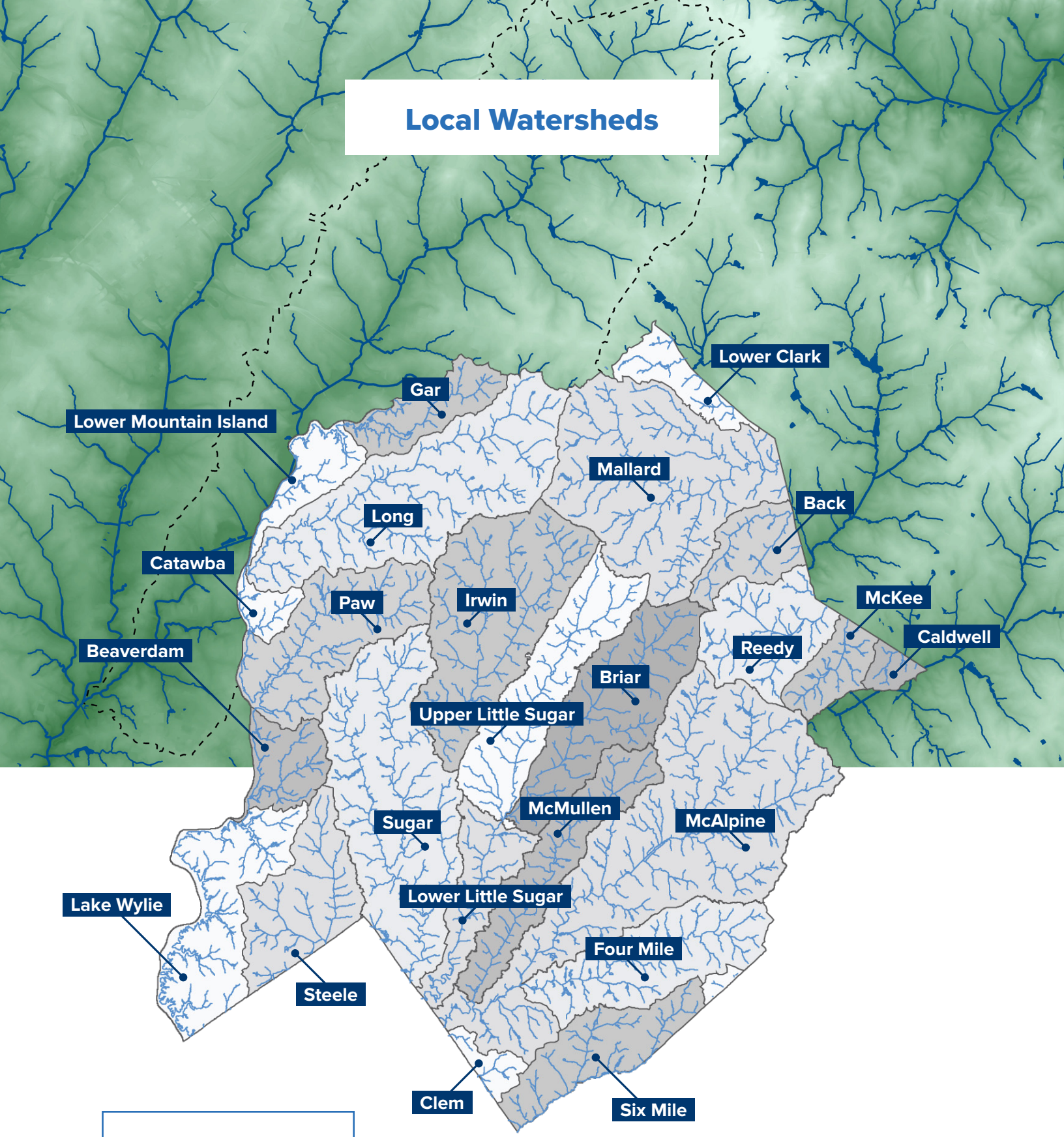
Throughout the country, stormwater utilities have evolved differently, depending on the history of the city in which they are located. In many cities, including Pittsburgh, Boston, and St. Louis, portions of the sanitary sewer and storm drainage systems were initially a combined system. In these systems, combined pipes may be overwhelmed by rain, causing sewer overflows that release untreated sewage into the environment. Cities with combined systems have focused on managing stormwater to reduce overflows. In all North Carolina cities and in most of the south, the storm drainage system is separate from sanitary sewer infrastructure. While combined sewer overflows may not be a concern in Charlotte, other surface water quality challenges exist from polluted runoff that directly enters the storm drainage system.

During the period of major growth in the late 1980s, City and County leaders and citizen advisory groups developed the framework for a funded program to support the stormwater initiatives that would reduce flooding and pollution in local waterways. In 1993, Charlotte Storm Water Services was created, and Mecklenburg County Storm Water Services followed in early 1994. Both of these organizations began maintaining the existing and already aging storm drainage system in Charlotte and Mecklenburg County. Throughout the City and County, the storm drainage system, which includes the streams and creeks, is inextricably linked. Because of this system connection, a partnership between the City and County is strategically important to community success. The City and County have implemented an interlocal agreement to provide collaborative stormwater services, focused on ensuring the runoff from rain drains safely to streams and is as clean as possible. This collaborative effort created the first stormwater utility in North Carolina and one of the first in the nation. The map on the following page provides a visual of watersheds, streams, and creeks within the City and County.

Investments in aging storm drainage systems are funded through the Charlotte Storm Water Services fee. These investments help to ensure that rain runoff drains quickly from streets and neighborhoods, protecting life and property and keeping flooding at bay. Investments in infrastructure also relate to removing pollutants from stormwater to protect streams, rivers, and lakes from the environmental effects of urbanization.

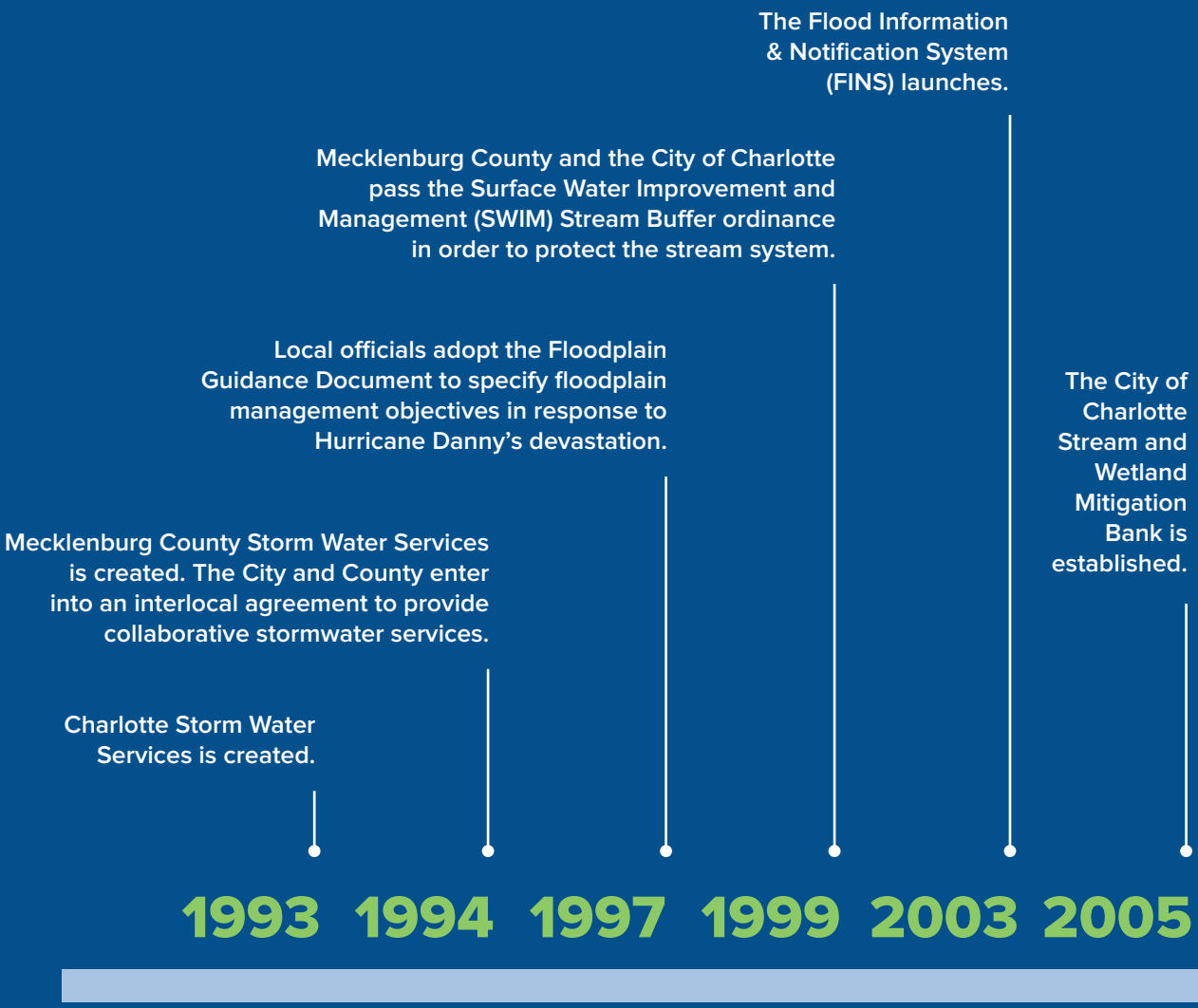
Charlotte's rapid population growth and urbanization is expected to continue, and the infrastructure investments made by Charlotte Storm Water Services are building resilience and an enduring quality of life for Charlotte. Through this strategic plan, Charlotte Storm Water Services is committing to focus on the safety and future of Charlotte.

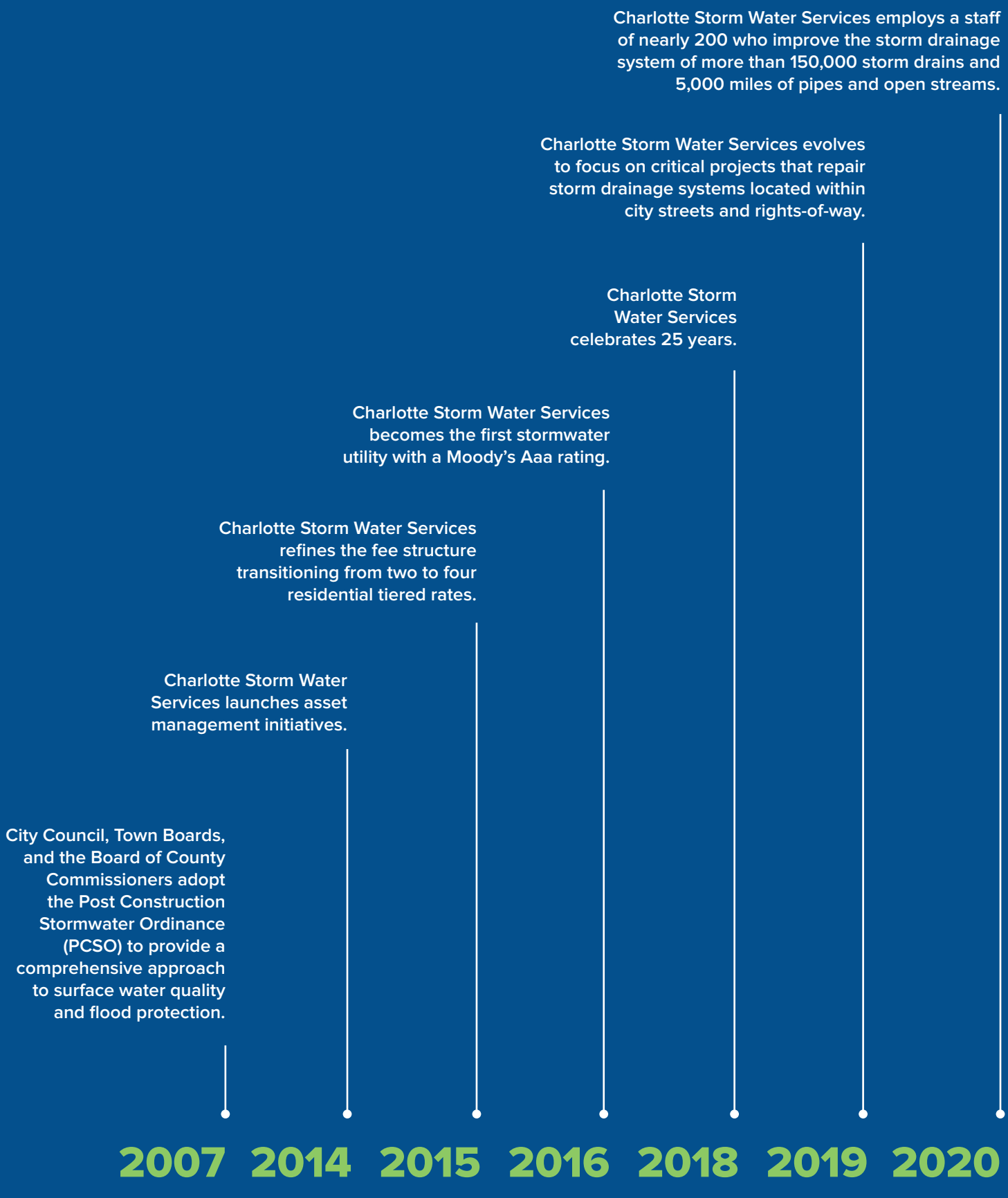
Local Watersheds



Our Journey

Charlotte Storm Water Services has improved the storm drainage system and reduced the risk of street and structure flooding across the Queen City. Over the past 25+ years, the organization has grown to nearly 200 dedicated individuals. Follow our journey below, including major innovations and milestones.




Charlotte Storm Water Services employs a staff of nearly 200 who improve the storm drainage system of more than 150,000 storm drains and 5,000 miles of pipes and open streams.
Charlotte Storm Water Services evolves to focus on critical projects that repair storm drainage systems located within city streets and rights-of-way.
Charlotte Storm Water Services celebrates 25 years.
Charlotte Storm Water Services becomes the first stormwater utility with a Moody's Aaa rating.
Charlotte Storm Water Services refines the fee structure transitioning from two to four residential tiered rates.
Charlotte Storm Water Services launches asset management initiatives.
City Council, Town Boards, and the Board of County Commissioners adopt the Post Construction Stormwater Ordinance (PCSO) to provide a comprehensive approach to surface water quality and flood protection.
2007
2014
2015
2016
2018
2019
2020

Industry Trends and Local Context

Charlotte Storm Water Services' role is essential to the growth and vitality of the City of Charlotte.

To achieve continued success, the organization must address national, state, and local trends and regulations as it works to implement its strategic plan.

The Core Team reviewed operating trends and determined how each trend impacts Charlotte Storm Water Services and whether the trend supports or inhibits continued success. After summarizing how the trend affects the region and the Core Team's expectations for future impacts, the Core Team considered potential responses and actions that Charlotte Storm Water Services could take to address these trends.

The following key trends, expectations for the future, and potential Charlotte Storm Water Services responses helped guide the development of the Strategic Plan.

TREND 1:

Population Growth and Economic Development

The Current Situation

Charlotte's quality of life is high, and growth has been significant in the area because of the healthy economy and a lower cost of living relative to other large U.S. metro areas. According to the U.S. Census Bureau, the population in Charlotte in 2019 was 885,700, representing a 20.4 percent increase since 2010. This growth is expected to continue to increase.

Charlotte Storm Water Services plays a vital role in economic development as well-functioning storm drainage systems are a basic need for a growing city. Population density is increasing quickly along light rail corridors, which has led to more redevelopment and infill development projects. Storm drainage infrastructure may not always exist to support this increasing density. Additionally, the increase in development has led to more impervious area, with streams and ditches being filled-in. Creative reuse of urban spaces like pocket parks and street retrofits for pedestrian and bicycle treatments can also jeopardize drainage systems if not properly addressed. These conditions can create flooding and surface water quality issues and puts greater demand on an already stressed storm drainage system.

As the capacity needs grow, aging infrastructure will be further stressed and will need to be addressed. There are storm drainage drawbacks to the shift towards infill development that must be accounted for in ordinances, policies, and programs. Additionally, Charlotte Storm Water Services has found fewer and more costly opportunities over time to improve impaired waterways which increase demands on the program. Sustainable natural resources are key to the growth and economic development of the city.

Potential Charlotte Storm Water Services Responses:

+ Invest further in stormwater data, technology, and staff
+ Prioritize asset needs, particularly in areas of redevelopment
+ Strategically meet the needs of development partnerships
+ Educate partners and counterparts about the importance of stormwater and surface water quality
+ Communicate the investments Charlotte Storm Water Services has made to increase visibility of the organization's work
+ As growth patterns change, be nimble and proactive to support economic development

TREND 2:

Operating Context

The Current Situation

Charlotte Storm Water Services operates as both a joint utility with Mecklenburg County and as a unit of the City of Charlotte. City Council and City leadership are developing a vision for the future of Charlotte; focus areas of the City may direct Charlotte Storm Water Services to shift its efforts based on changing ideas of the future of the the program. City Council has a high regard for the long history of Charlotte Storm Water Services, and ongoing stormwater education and communication helps strengthen that foundation.

Charlotte Storm Water Services is sound financially and has the funding and staff capacity to complete the work that needs to be done now. While there are plans for future revenue increases to support identified future needs, those needs continue to grow and the ability to dedicate new resources to stormwater projects may be limited.

Potential Charlotte Storm Water Services Responses:

+ Enhance communication to the City Council and City Manager's Office with a focus on sharing our work and building trust
+ Determine whether Charlotte Storm Water Services will do a broader range of work in the future, and if so, adjust the financial model appropriately
+ Constantly keep track of and monitor the resource needs to fund and complete projects

TREND 3:

Regulatory and Environmental Impacts

The Current Situation

Charlotte Storm Water Services is governed by state and federal mandates to protect and improve surface water quality. However, this governance does not always provide Charlotte Storm Water Services the needed flexibility to update local regulations and requirements to adjust to implement the most effective program. Current regulations focus sufficiently on new and greenfield development but fall short on redevelopment. Stormwater systems associated with new development must be reviewed and approved by Charlotte Storm Water Services, and many stormwater assets resulting from new development are transferred to the City for ownership and maintenance. In contrast, Charlotte Storm Water Services has limited review authority related to infill development and redevelopment. If the existing storm drainage system around infill projects is inadequate, it stresses the capacity of the storm drainage system and may lead to flooding and affect surface water quality.

The surface waters within the city are classified as impaired by the state. This means these degraded areas are not able to meet their intended use of recreation and of supporting fish populations. This is primarily caused by the effects of impervious surfaces and of urbanization. Once labeled as impaired, the state may develop a Total Maximum Daily Load (TMDL) for these waters. TMDLs establish the maximum amount of a pollutant allowed in a waterbody and serves as the planning tool for restoring surface water quality. State and federal regulations, such as the Clean Water Act and National Pollutant Discharge Elimination Systems permits, require the City to improve impaired streams.

Potential Charlotte Storm Water Services Responses:

+ Increase funding for Clean Water Act compliance and surface water quality improvement projects
+ Develop additional, cost-effective watershed improvement tools
+ Consider the resources needed to address infill development
+ Continue participating in the City's Unified Development Ordinance process
+ Develop capacity to inform and potentially change legislation for how Charlotte Storm Water Services can improve surface waters

TREND 4:

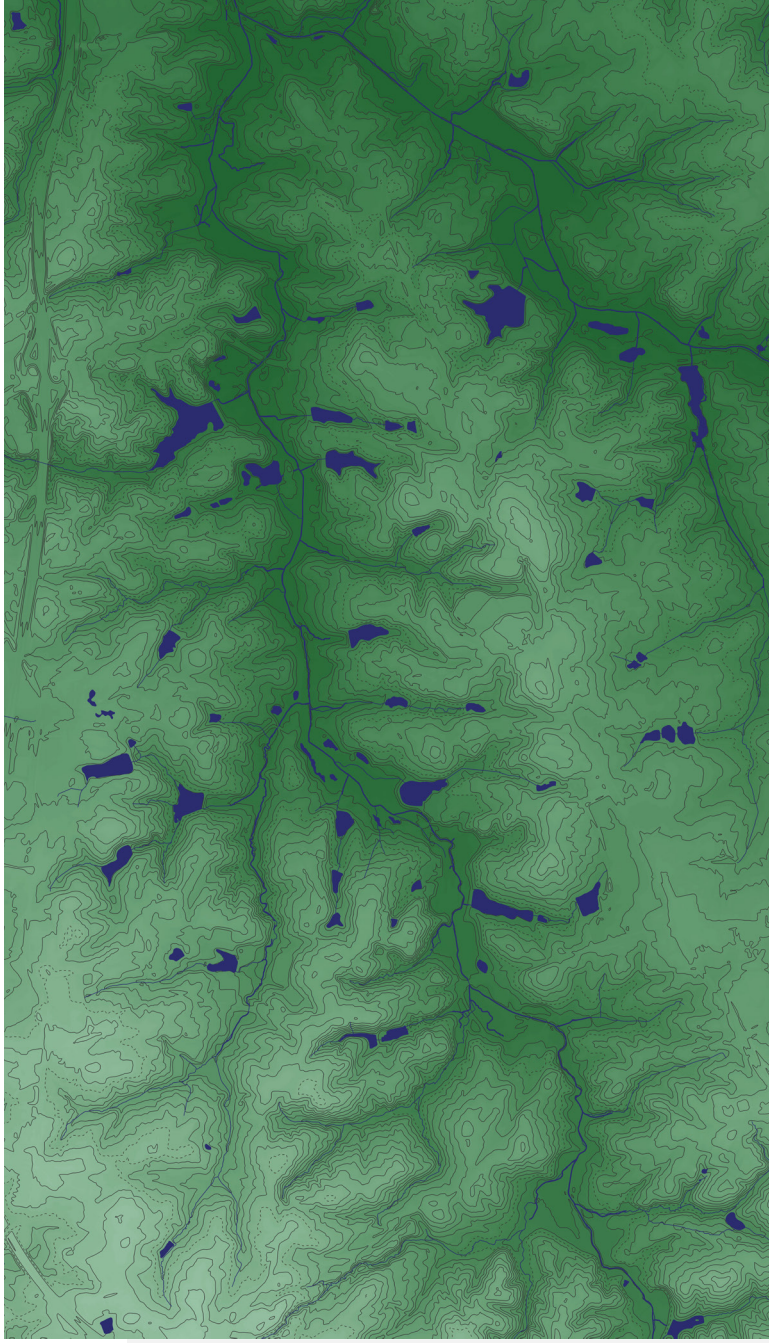
Risk Profile

The Current Situation

There are a variety of risks which may impact Charlotte Storm Water Services. The current potentially impactful risks of the organization includes aging infrastructure, environmental change, development regulation, and the COVID-19 pandemic. Continuing to minimize the risks and their impacts is important to organizational success. Charlotte Storm Water Services' capacity to address these risks varies and the risk profile will continue to evolve. Keeping up with necessary maintenance and repair activities is difficult, given the speed at which infrastructure is aging. The aging infrastructure within Charlotte puts stress on the current storm drainage system, which increases the risk of flooding during high-intensity storms. Further, changes in climate and environmental conditions may impact storm and watershed characteristics. Charlotte Storm Water Services needs to proactively manage the condition of the storm drainage system and make appropriate improvements to impaired streams. The organization's limited ability to regulate infill development projects does not promote the City's ability to come into compliance with surface water quality standards. Non-compliance with surface water quality standards expose the City to the financial risk of additional regulations. Additionally, operating during the COVID-19 pandemic presents many unknowns and the pandemic may introduce business continuity risks relating to supply chain, contractors, and consultants.

Potential Charlotte Storm Water Services Responses:

+ Develop a strong maintenance program to extend the life of the storm drainage system and balance remaining useful life of assets with available funding to minimize risks
+ Consider the risks associated with taking on new systems to help property owners with private drainage
+ Assess the potential for increasing rainfall intensity to properly size systems, reduce the risk of flooding, control future costs, maintain service to fee payers, and improve surface water quality outcomes
+ Schedule preventative maintenance activities that should happen for streams
+ Implement additional cost-effective regional projects to improve surface water quality
+ Review Charlotte Storm Water Services' response to the COVID-19 pandemic and incorporate findings into future business continuity plans



TREND 5:

Community and Stakeholder Expectations

The Current Situation

The community highly values clean surface waters, and City Council has prioritized sustainability and natural resources. Residents and stakeholders depend on Charlotte Storm Water Services to comply with the Clean Water Act, provide adequate storm drainage systems, and protect surface water quality. At the same time, community understanding of the storm drainage system and the system's responsible parties will be necessary for the organization to continue to be successful.

Charlotte Storm Water Services' fees are used to support community-wide stormwater needs; however, the fees are often viewed by residents as a payment for a service that they may receive on their private property. Expectations of services provided by Charlotte Storm Water Services on private property are high, and relatively recent changes in levels of service have widened the expectation gap. Resource limitations have resulted in longer-than-planned wait times for projects. The Charlotte Storm Water Services fee is a separate item on residents' Water Services Bill, mailed through a partnership with Charlotte Water. While the Charlotte Storm Water Services fee is a relatively small portion of the total bill, residents often consider the cost of the entire bill when discussing affordability. The issues of affordability and equity will continue to be important within the Charlotte community.

The Charlotte community is also becoming more diverse as the international community represents 16.5% of the city population, which exceeds the 13.5% national average for foreign-born population percentage. Roughly 21.5% of the city's population speak a language other than English at home. The most common foreign languages spoken in the area are Spanish, Hindi, Mandarin, and Cantonese. Language access will continue to be important for the growing community.

Potential Charlotte Storm Water Services Responses:

+ Manage Charlotte Storm Water Services' messaging and vocabulary to set appropriate expectations
+ Identify potential affordability and equity needs and tools to deliver equitable service throughout Charlotte
+ Focus on increased communication and education for residents and the community about Charlotte Storm Water Services
+ Use diverse tools for communication to increase information access, especially as population demographics change
+ In conjunction with the City's ADA compliance initiatives, provide equally effective communication to all

TREND 6:

Workforce

The Current Situation

In recent years, Charlotte Storm Water Services has grown rapidly in size and the organization is continuing to grow. The candidate pool is limited, and Charlotte Storm Water Services has found it difficult to find qualified talent while competing with the private sector. If recruitment continues to be a challenge, current staff may struggle to meet the increasing demands of the growing city. The population in Charlotte is also becoming more diverse each year. As Charlotte Storm Water Services grows, it is important to continue evolving as a workforce to ensure the organization reflects the community we serve.

Remote work due to COVID-19 has scattered the team physically, which means that onboarding new employees has been rethought and internal communication requires additional effort. The need for work-from-home options and increased flexibility is likely to continue. The workforce is vital to Charlotte Storm Water Services' success, so recruitment, equitable pay, and succession planning will continue to be focus areas for the organization.

Potential Charlotte Storm Water Services Responses:

+ Complete a workforce study, review internal alignment, and reorganize if needed
+ Develop plans to onboard staff and keep the team connected in a more virtual environment
+ Broaden the search for new talent and look for opportunities to do more virtually

TREND 7:

Technology

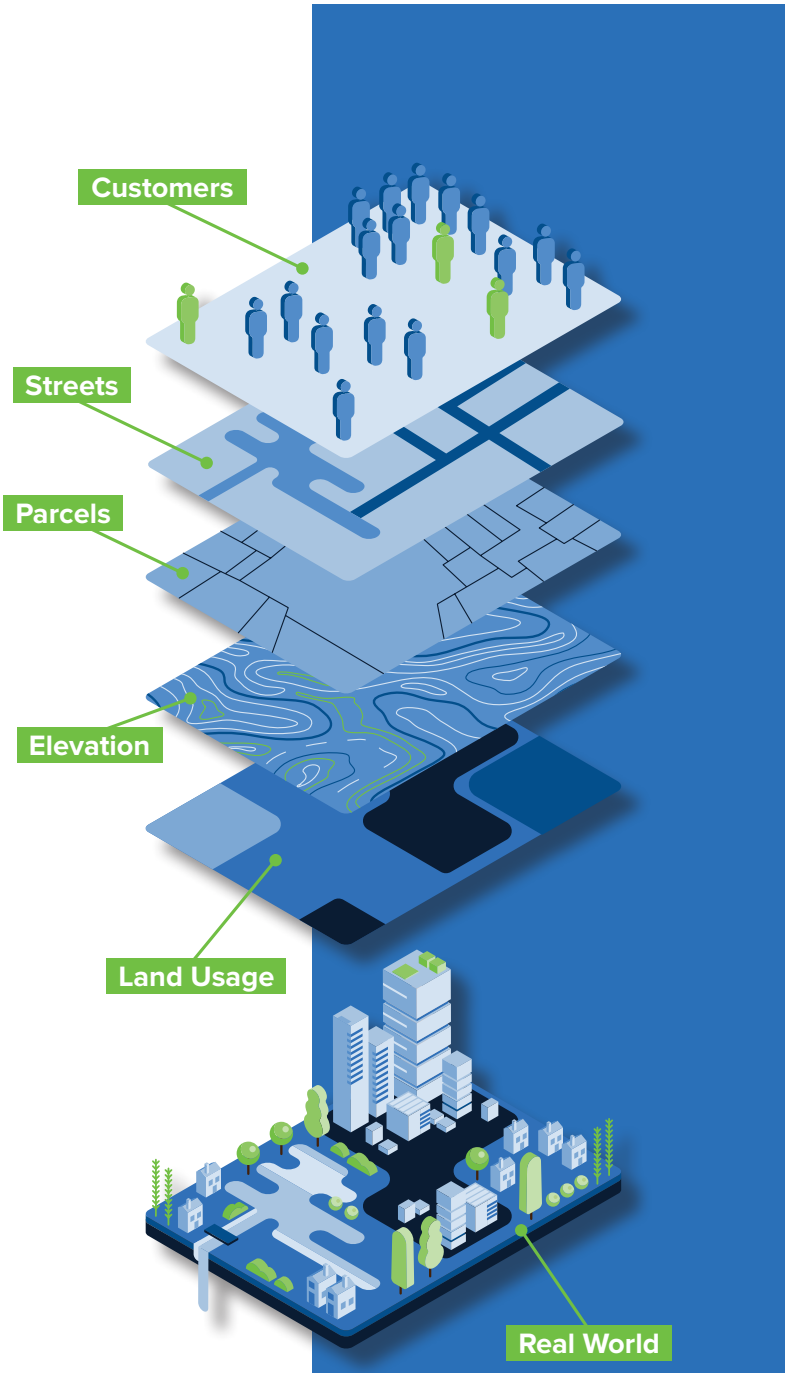
The Current Situation

Charlotte Storm Water Services depends on the City Innovation & Technology Department for technology support. Sometimes the City-wide technology solutions need to be customized to meet the specific software needs of the organization. Charlotte Storm Water Services leverages a number of software platforms to manage data related to infrastructure, surface water quality, regulatory compliance, and the services it provides to stakeholders. These include a computerized maintenance management system, Geographic Information System (GIS), billing, and accounting—all managed separately across multiple software platforms. As Charlotte Storm Water Services works towards more robust asset management capabilities, data that is currently housed in different platforms will need to be better connected. As part of the City-wide response to the COVID-19 pandemic, technology solutions to support remote working have been incorporated. Many Charlotte Storm Water Services staff began working from home with the capability to access needed software platforms and stay connected virtually.

Residents are increasingly likely to access information via social media and the City's website. Social media has made it easier for residents to immediately share concerns with the City. Interactions on social media are anticipated to rise and it will continue to be important to have a strong social media presence and an up-to-date website.

Potential Charlotte Storm Water Services Responses:

+ Identify and implement a technology asset management solution for Charlotte Storm Water Services
+ Ensure Charlotte Storm Water Services has an appropriate level of engagement and influence when new software is procured
+ Leverage the online experience and virtual tools to better engage residents and provide opportunities for feedback



Strengths, Opportunities, Aspirations and Results

Charlotte Storm Water Services used a Strengths, Opportunities, Aspirations, and Results (SOAR) analysis to form the basis for its strategic plan.

This technique, which is a component of Appreciative Inquiry, is part of the environmental scan and provides valuable input to the plan development process in the following manner.

Strengths provide input to the development of a mission and vision that build upon what the organization does extremely well. When prioritized, these include Charlotte Storm Water Services':

+ Dedicated and talented employees
+ Strong financial management
+ Innovative service delivery
+ Strong partnerships

Opportunities help the Core Team develop strategies to identify and explore innovative approaches to meet future needs. Major opportunities fell into the categories of:

+ Mission-driven workforce
+ Environmental stewardship
+ Infrastructure management
+ Development services
+ Communication and outreach
+ Financial stewardship

Aspirations focus on the expectations or hopes of internal and external stakeholders. Charlotte Storm Water Services' most compelling aspirations are to be known as:

+ Be sustainable, equitable, and resilient
+ Improve surface water quality
+ Have a strong brand and presence that is understood by employees, stakeholders, and the community
+ Be a high quality, comprehensive service provider

Results help to determine how progress will be measured. Some of the most significant indicators include:

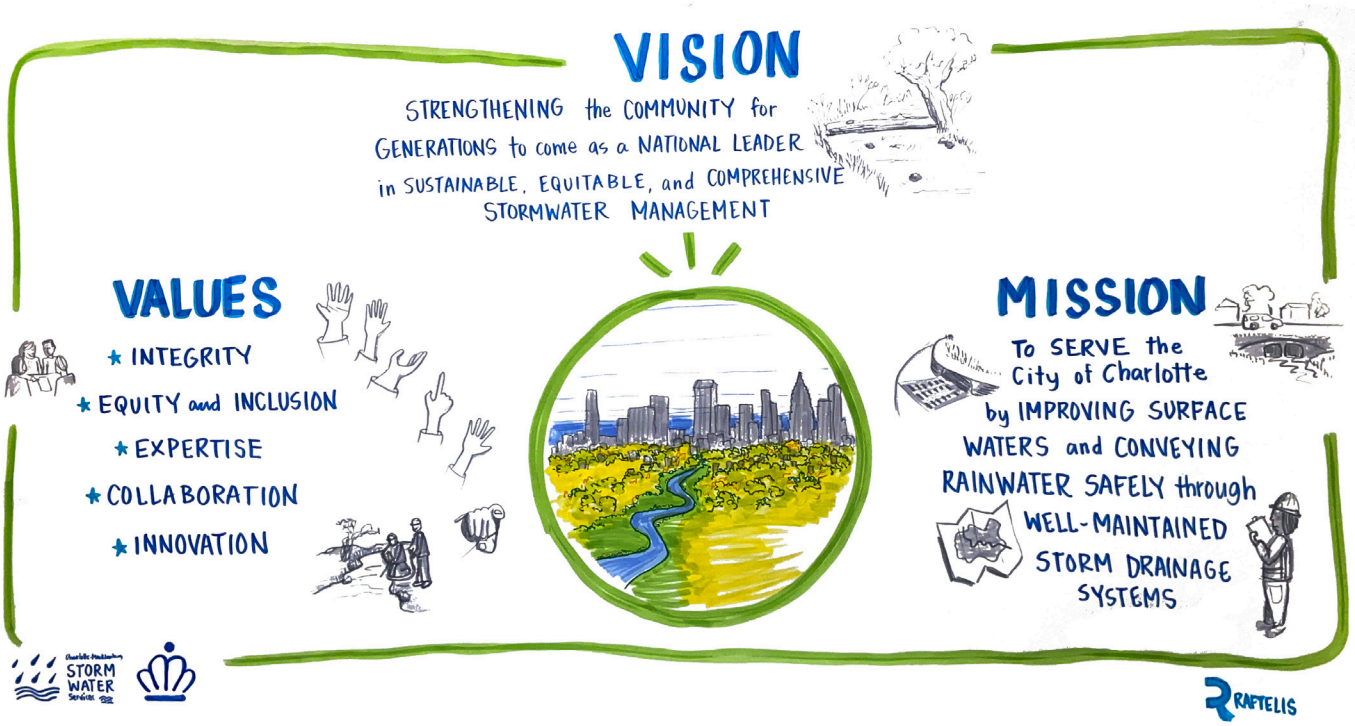
+ Regulatory compliance
+ Employee development
+ Reliable infrastructure
+ Informed stakeholders
+ Financial strength

Strategic Direction

This strategic plan serves as a blueprint for future decision making.

Furthermore, this plan provides a structure by which annual strategic reviews can be accomplished to ensure that priorities and their associated measures retain their relevance over time. By laying out a course of action, this plan represents a disciplined process for making the fundamental decisions that will shape Charlotte Storm Water Services' future.

The strategic plan contains the organization's mission, vision, values, priorities, measures, and strategies. It addresses Charlotte Storm Water Services' current challenges and helps continue success in operations and resource and asset management.



Mission

The mission describes the organization's purpose and role within the service area. After carefully considering these factors, the Core Team stated:

To serve the City of Charlotte by improving surface waters and conveying rainwater safely through well-maintained storm drainage systems

Vision

Ultimately, implementation of this plan will enable Charlotte Storm Water Services to achieve its desired future state as articulated in its vision, which is:

Strengthening the community for generations to come as a national leader in sustainable, equitable, and comprehensive stormwater management

Values

The Core Team considered Charlotte Storm Water Services' most deeply held beliefs, which it would like every member of the organization to embrace. Those values were then organized into the following value statement.

Charlotte Storm Water Services excels through our commitment to:

+ **Integrity** – Adhering to the highest standards of professionalism to preserve trust
+ **Equity and Inclusion** – Ensuring all voices are valued to provide services equitably for the benefit of all
+ **Expertise** – Leading the way as stormwater professionals with knowledge and experience
+ **Collaboration** – Leveraging the power of partnerships and teams to achieve our mission
+ **Innovation** – Continuous implementation of new approaches that improve services

Priorities

Priorities represent the most important issues that must be addressed to achieve the desired future.

Mission-Driven Workforce

To ensure a diverse team that is engaged, highly skilled, and committed to excellence

Charlotte Storm Water Services recognizes that our employees are crucial to improving surface waters and conveying rainwater safely. The organization will foster an environment of knowledge sharing and focus on attracting, developing, and retaining a diverse workforce of highly capable and dedicated professionals.

Environmental Stewardship

To protect and improve the quality of streams and other surface waters

Clean streams, rivers, and lakes are a key element of sustainable, healthy communities. Charlotte Storm Water Services will use a balance of reliable data and innovative tools to implement policies and projects that better the environment and surface waters for the City of Charlotte.

Infrastructure Management

To continuously assess and improve storm drainage to protect public safety and ensure long-term sustainability

Storm drainage systems convey rainwater to reduce flooding, protect property, and ensure public safety. Charlotte Storm Water Services will provide the proactive inspection, maintenance, and renewal of infrastructure to keep the storm drainage system operating effectively.

Development Services

To develop, implement, and enforce regulations that support the city's growth and address drainage needs

Stormwater regulations should balance economic benefits of new and redevelopment activities with the need for responsible development that incorporates adequate storm drainage systems to safely convey rainwater. Charlotte Storm Water Services will encourage collaboration among internal and external development stakeholders to promote regulatory engagement, efficient review and inspection processes, and increased compliance with design and construction standards.

Communication and Outreach

To enhance understanding of our mission, foster credibility, and encourage community involvement

Effective communication internally and externally will help build community understanding and support of stormwater management practices. Charlotte Storm Water Services will communicate with the community about our purpose and ongoing projects and will prepare employees to be stormwater ambassadors in all interactions with residents and stakeholders.

Financial Stewardship

To responsibly manage finances, fund key programs, and maintain customer affordability

Supporting key programs to improve surface waters and convey rainwater safely depends on appropriate operating and capital funding. Charlotte Storm Water Services is committed to long-term financial planning, optimizing funding to support project delivery, and ensuring the fees align with projections while staying affordable.

Measures and Strategies

Measures define accomplishments for each priority, and strategies are key resource allocations that should be made over the next several years. These critical elements of the strategic plan, as well as the mission, vision, values, and priorities, are presented on the strategic framework included on the following page.

STRATEGIC FRAMEWORK

MISSION

To serve the City of Charlotte by improving surface waters and conveying rainwater safely through well-maintained storm drainage systems

VISION

Strengthening the community for generations to come as a national leader in sustainable, equitable, and comprehensive stormwater management

VALUES

Charlotte Storm Water Services excels through our commitment to:

Integrity – Adhering to the highest standards of professionalism to preserve trust

Equity and Inclusion – Ensuring all voices are valued to provide services equitably for the benefit of all

Expertise – Leading the way as stormwater professionals with knowledge and experience

Collaboration – Leveraging the power of partnerships and teams to achieve our mission

Innovation – Continuous implementation of new approaches that improve services

PRIORITIES

MISSION-DRIVEN WORKFORCE

To ensure a diverse team that is engaged, highly skilled, and committed to excellence

ENVIRONMENTAL STEWARDSHIP

To protect and improve the quality of streams and other surface waters

INFRASTRUCTURE MANAGEMENT

To continuously assess and improve storm drainage to protect public safety and ensure long-term sustainability

DEVELOPMENT SERVICES

To develop, implement, and enforce regulations that support the city's growth and address drainage needs

COMMUNICATION AND OUTREACH

To enhance understanding of our mission, foster credibility, and encourage community involvement

FINANCIAL STEWARDSHIP

To responsibly manage finances, fund key programs, and maintain customer affordability

STRATEGIES	MEASURES
1. Maintain the ability to attract and recruit highly capable professional staff 2. Foster an environment of knowledge sharing and creative problem solving 3. Provide industry leading training and development opportunities 4. Evaluate and improve organizational approach to balance workloads, span of control, and employee compensation 5. Use a staff team to consider and advise leadership on matters of diversity, equity, and inclusion	• Number of qualified applicants for key positions • Percentage of internal applications received for key positions • Voluntary turnover rate • Percentage of positions with defined career ladders
6. Support the development and use of innovative watershed improvement tools and techniques 7. Ensure sufficient internal and external operational capacity to support continued compliance with the NPDES permit 8. Identify and implement impactful surface water quality improvement projects	• Linear feet of stream improved • Number of NPDES annual permit violations • Number of legislative advocacy efforts • Number participants in educational outreach efforts and volunteer opportunities • Number of surface water quality systems being managed
9. Leverage risk-based assessment methodologies to guide long-term capital and operational investments 10. Advance the use of system data and technologies to enhance predictive maintenance programming 11. Ensure capability and optimize capital project delivery 12. Evaluate organizational needs and invest in integrated technology systems	• Operational activities (linear feet of pipe inspected, catch basins cleaned, pipe cleaned, etc.) • Percentage of assets renewed annually • Actual vs. projected capital spending • Rate of project delivery vs. five-year surge/CIP schedule
13. Ensure appropriate regulatory engagement, coordination, and oversight to support development activity 14. Evaluate options for regulating activities within public drainage easements 15. Ensure adequate organizational capacity for stormwater inspections 16. Actively engage with and support the City of Charlotte's Development Center	• Percentage of cooperative service delivery targets with other departments and stakeholders met (e.g., levels of service established, number of standard operating procedures, service level agreements) • Number of ordinances and regulations reviewed and/or updated • Number of permits issued • Number of development compliance/enforcement activities (plan review, inspection, etc.)
17. Equip employees with resources and knowledge to be effective Storm Water Services ambassadors 18. Use diverse and innovative tools to effectively communicate our purpose, programs, projects, and value in support of community objectives 19. Leverage engagement and outreach opportunities to enhance stakeholder understanding of our mission	• Number of education or information-sharing engagements with City Council members, other departments, and management • Number of people reached through messaging campaigns • Annual community survey results
20. Ensure fees align with long-term operations and capital projections 21. Optimize funding streams and cash flow to support capital project delivery 22. Meet all bond covenants and City Council financial policies 23. Identify and pursue alternative funding/revenue sources	• Annual financial policies/targets • Bond ratings • Affordability targets • Total annual revenues from new/alternative revenue sources • Annual evaluation of cost recovery requirements for mitigation banks, permitting, inspection activities, etc.

Strategic Communication

Through this strategic plan, Charlotte Storm Water Services is committed to effective internal and external communications.

Effective communication is critical not only for the successful implementation of the plan, but also for Charlotte Storm Water Services' overall success. Communicating effectively is an attribute of all the organizations' strategic priorities and is vital to successfully accomplishing objectives.

Effective Strategic Plan communications can be accomplished through several efforts, including:

+ Ensuring a consistent, streamlined flow of communication internally and externally
+ Implementing an outreach and engagement plan
+ Increasing internal communications about organizational priorities and progress
+ Expanding collaborative efforts with local environmental groups to share resources and develop public education programs
+ Increasing partnerships and collaborations with other City departments and developing City-wide understanding of stormwater
+ Providing equally effective communication to all

Community Engagement Stats

1,860
reached at community events

2,200
volunteers

152,000
website visitors

1.5M
reached with utility bill inserts

6M
reached with educational messages

“Change is the law of life. And those who look only to the past or present are certain to miss the future.”

- John F. Kennedy

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Charlotte-Mecklenburg STORM WATER Services