

# Vision Holly Springs

## Comprehensive Plan



## SECTION 6: NATURAL RESOURCES

Adoption Date: November 18, 2025

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# INTRODUCTION

The Town of Holly Springs is facing the challenge of balancing rapid urban growth with the protection of critical natural resources. Protection of the Town's environmental heritage is a critical component of its future land use strategy, and to succeed, it must implement strategies and goals which allow sustainable growth while safeguarding important natural assets. This Chapter identifies existing natural resources in Holly Springs, critical environmental issues, and a list of strategies intended to mitigate these issues and provide the basis for resource conservation and sustainable land use management.

Holly Springs aspires to be a green, sustainable community. It provides services which bolster opportunities for outdoor recreation, resource management and open space conservation. This includes the Parks, Recreation and Greenways Master Plan<sup>1</sup>, the Town's Urban Forestry Program<sup>2</sup>, and various public initiatives, such as the Bass Lake Spillway Project and Eagles Landing Park<sup>3</sup>. The Town enforces regulations which enhance the integration of open space preservation requirements and resource conservation.<sup>4</sup> These initiatives are tremendously important, and the relevance of environmental protection shall grow in the wake of Holly Spring's continued development and growth. This necessitates an update in the Town's assessment of these resources and the potential objectives employed to protect them.



<sup>1</sup> Town of Holly Springs. *Parks, Recreation, and Greenways Master Plan*. Holly Springs, NC: Town of Holly Springs, March 2021, [https://www.hollyspringsnc.gov/DocumentCenter/View/43591/Sec3\\_PRGMasterPlan\\_Sup7?bidId=](https://www.hollyspringsnc.gov/DocumentCenter/View/43591/Sec3_PRGMasterPlan_Sup7?bidId=).

<sup>2</sup> Town of Holly Springs. "Urban Forestry." Town of Holly Springs, NC. Accessed July 29, 2025, <https://www.hollyspringsnc.gov/1769/Urban-Forestry>.

<sup>3</sup> Town of Holly Springs. "Parks & Recreation Projects." Town of Holly Springs, NC. Accessed July 29, 2025, <https://www.hollyspringsnc.gov/550/Parks-Recreation-Projects>.

<sup>4</sup> Town of Holly Springs. *Unified Development Ordinance*, § 4 "Open Space and Conservation." Holly Springs, NC. Accessed July 29, 2025, <https://www.hollyspringsnc.gov/DocumentCenter/View/37681/Section-4-Open-Space-and-Conservation>



## Objectives

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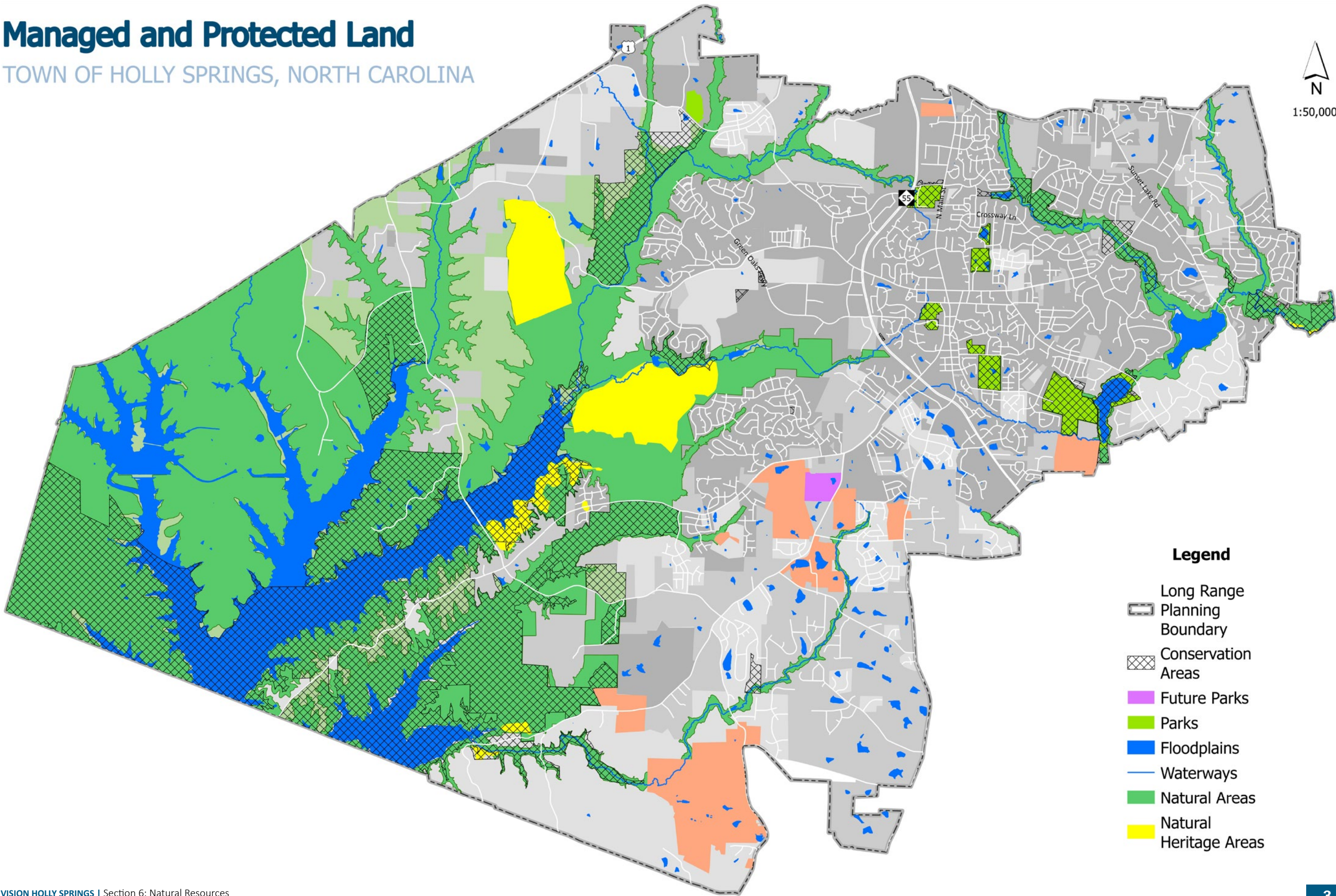
As Holly Springs continues to grow, it remains committed to ensuring that progress does not come at the expense of its natural environment. The Town recognizes that sustainable development depends on careful stewardship of the land, water, and ecological systems that define its unique character. Building on existing plans and initiatives, these objectives establish a framework for integrating environmental conservation into all aspects of land use and community planning.

The following objectives are designed to guide policy decisions, development practices, and public investments that collectively protect and enhance the Town's natural resources. They emphasize balancing growth with ecological preservation, promoting native landscapes, improving water quality, and ensuring long-term access to green and open spaces for residents and wildlife alike.

- 1 Balance development with conservation.
- 2 Preserve and enhance the ecology, natural resources, and habitat of Holly Springs.
- 3 Encourage forest and mature tree protection and promote re-forestation in areas designated by the Tree Preservation Ordinance.
- 4 Work with the existing contours of the land by minimizing grade changes of native topography when permitting development, as feasible.
- 5 Provide for and invest in connected greenways, open space areas, land conservation, parks, and access to water resources.
- 6 Support the public acquisition of lands that are environmentally sensitive for passive public recreation and/or conservation purposes.
- 7 Regulate uses to minimize damage toward environmentally sensitive areas, and when feasible, direct development away from sensitive areas.
- 8 Protect aquatic species and their habitat through protection of water quality by preventing point and non-point source pollution of local waterways.
- 9 Work with landowners and developers to use tools such as grants and conservation easements to protect natural, cultural, and historic resources.
- 10 Discourage the use of exotic species of plants and trees in landscapes and beautification efforts; encourage native species and low water usage plant materials.
- 11 Develop programs and regulations that comply with Federal and State regulations to offer the most natural resource protection.

# Managed and Protected Land

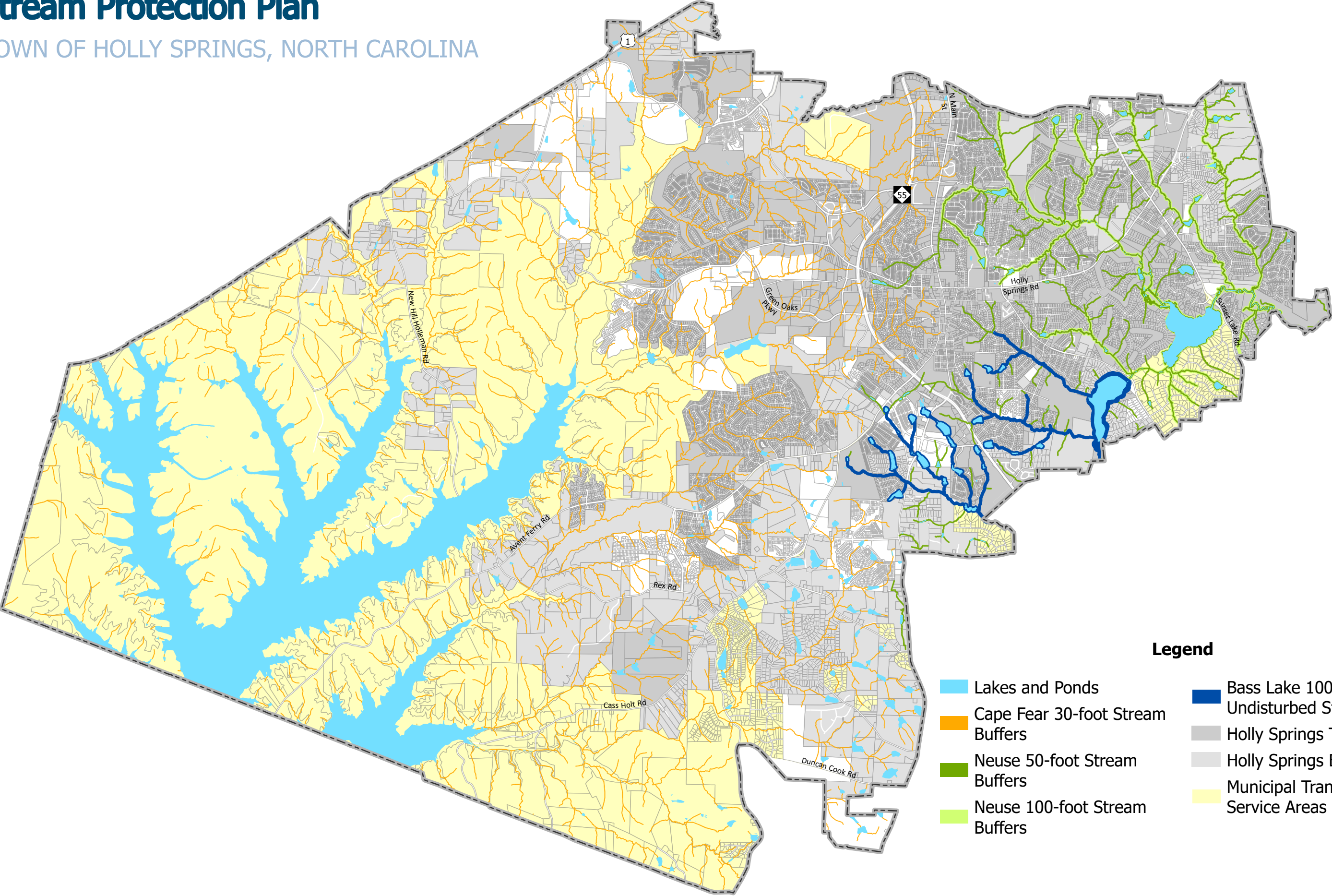
TOWN OF HOLLY SPRINGS, NORTH CAROLINA



# Stream Protection Plan

TOWN OF HOLLY SPRINGS, NORTH CAROLINA

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1:65,000



**Legend**

- Lakes and Ponds
- Cape Fear 30-foot Stream Buffers
- Neuse 50-foot Stream Buffers
- Neuse 100-foot Stream Buffers
- Bass Lake 100-foot Undisturbed Stream Buffer
- Holly Springs Town Limits
- Holly Springs ETJ
- Municipal Transition Service Areas

# NATURAL RESOURCES OVERVIEW

## *Topography and Geological Features*

Land topography is a determining factor in the designation and development of appropriate land uses. The topography of the Town consists of rolling hills with an elevation range of approximately 200 ft. above sea level to approximately 500 ft. above sea level. The steeper slopes in the Town are generally located along ridgelines extending from the south to the northeast where the rolling hills reach higher elevations, as depicted on the map below.<sup>5</sup>

Grading to produce more suitable land for construction causes changes to topography. The Town has worked to alleviate this land transformation through required Erosion and Sediment Control approvals for the grading of areas greater than 20,000 square feet. Other efforts include minimizing the grading of steep slopes and encouraging the use of natural topography in development project design and construction.

The Generalized Geological map of North Carolina (1991) indicates that the geology of Holly Springs is comprised of Triassic sedimentary rocks and Late Proterozoic to Early Paleozoic metamorphic rocks. The Triassic rocks comprise a majority of the Town's future growth area. Dividing the two different categories of rock is an inactive fault line—the Jonesboro Fault- which lies just west of Highway 55.<sup>6</sup>

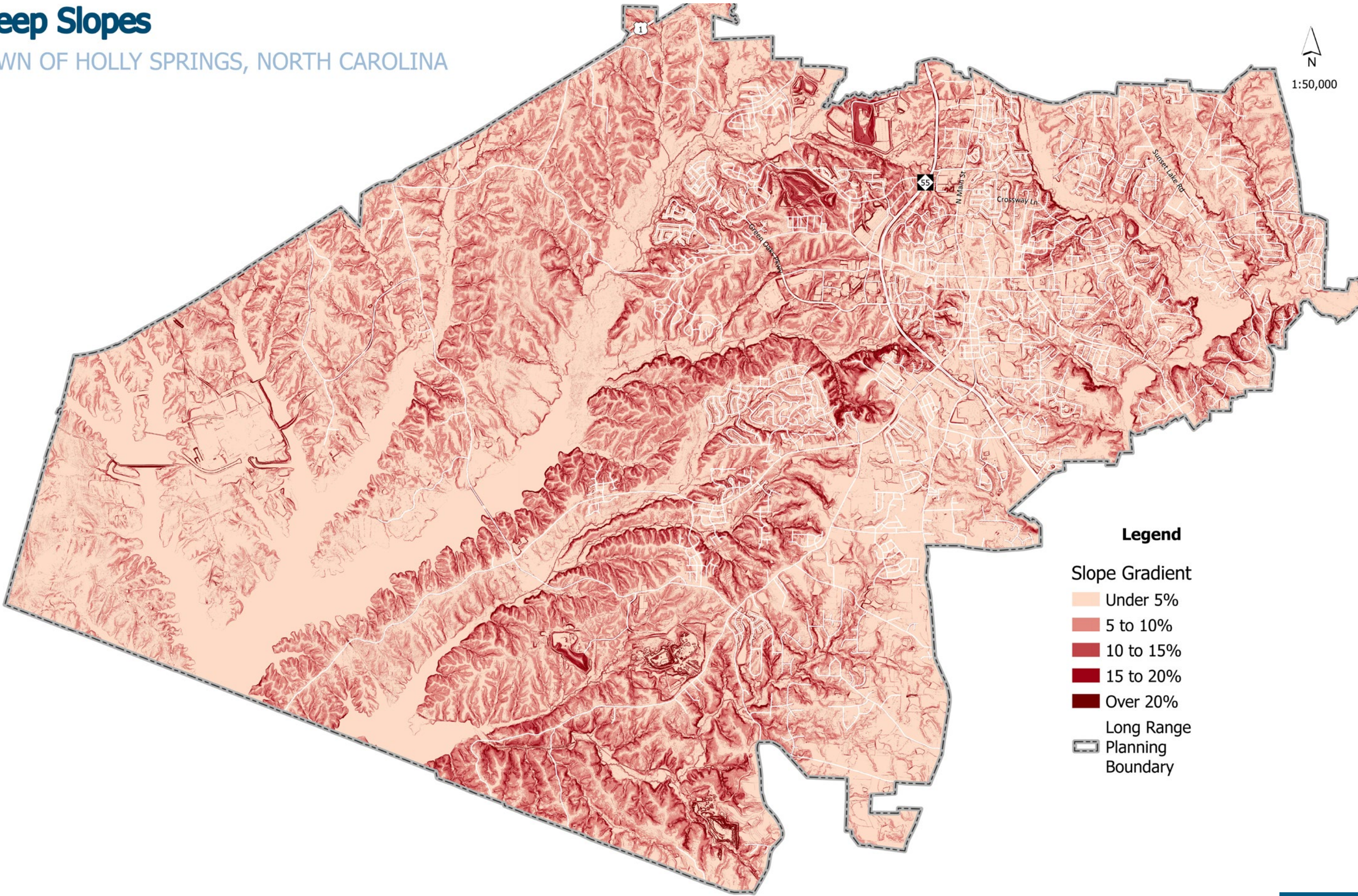
<sup>5</sup> National Oceanic and Atmospheric Administration (NOAA), *Digital Elevation Model (DEM) Data via Data Access Viewer* (Silver Spring, MD: Office for Coastal Management, NOAA, 2025), accessed July 29, 2025, <https://coast.noaa.gov/dataviewer>.

<sup>6</sup> North Carolina Department of Environmental Quality, *Generalized Geologic Map of North Carolina* (Raleigh: North Carolina Geological Survey, North Carolina Department of Environment, Health, and Natural Resources, 1991), map.



# Steep Slopes

TOWN OF HOLLY SPRINGS, NORTH CAROLINA





## Soils and Drainage Capacity

Holly Springs contains a diverse array of soil types that significantly influence land development, agricultural practices, and environmental management. According to the USDA Natural Resources Conservation Services (NRCS), there are 54 distinct soil classifications within the Town of Holly Springs, predominately consisting of sandy loam varieties. These soils are categorized into various series, each with unique characteristics affecting their suitability for construction, vegetation growth, and water drainage.

Soil Classifications are broad categories used to describe soil properties and behavior for land management, agriculture, construction, and environmental planning. Classifications group soils based on drainage, texture, hydric status, and/or land capability.



### 1. **Drainage Class:** How water moves through the soil

- **Well-drained:** Water moves freely; rarely saturated.
- **Moderately well-drained:** Water drains somewhat slowly; may stay wet briefly.
- **Somewhat poorly drained:** Water drains slowly; soil often wet.
- **Poorly drained:** Water drains very slowly; saturated for long periods.



### 2. **Hydric vs. Non-Hydric:** Identified wetlands

- **Hydric Soil:** Soils that are saturated long enough to develop anaerobic conditions, typically supporting wetland vegetation.
- **Non-Hydric Soil:** Soils that are not wet enough to create wetland conditions.



### 3. **Textural Classes:** Based on the proportion of sand/silt/clay

- Ex: sand, sandy loam, loam, clay loam, silt loam, clay



### 4. **Land Capability Classes:** USDA system for agriculture

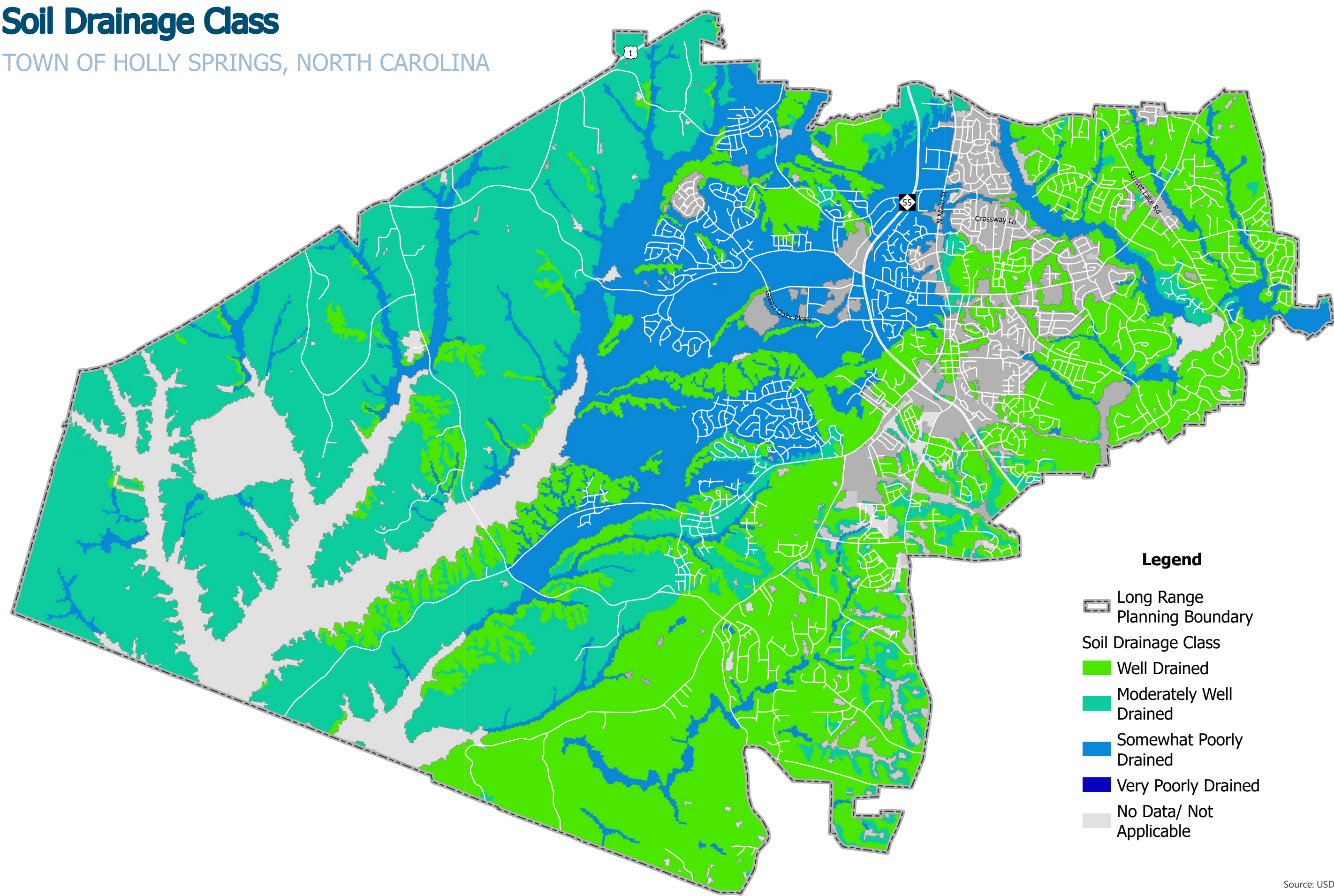
- Classes I-VIII based on limitations for farming such as erosion risk, drainage, and/or slope<sup>7</sup>

<sup>7</sup> Ditzler, Craig. *A Glossary of Terms Used in Soil Survey and Soil Classification*. Washington, DC: U.S. Department of Agriculture, Natural Resources Conservation Service, 2017. [https://www.nrcs.usda.gov/sites/default/files/2022-08/A\\_Glossary\\_of\\_Terms\\_Used\\_in\\_Soil\\_Survey\\_and\\_Classification.pdf](https://www.nrcs.usda.gov/sites/default/files/2022-08/A_Glossary_of_Terms_Used_in_Soil_Survey_and_Classification.pdf)

# Soil Drainage Class

TOWN OF HOLLY SPRINGS, NORTH CAROLINA

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## Legend

- Long Range Planning Boundary
- Soil Drainage Class
  - Well Drained
  - Moderately Well Drained
  - Somewhat Poorly Drained
  - Very Poorly Drained
- No Data/ Not Applicable

Source: USDA NRCS, Esri

In the eastern portion of Holly Springs, soil is generally well-drained. This condition supports good infiltration of water, reducing surface runoff and making the land more suitable for residential and commercial development, as well as infrastructure construction. However, because water drains quickly through these soils, groundwater in the area may be more vulnerable to contamination from surface pollutants, requiring careful stormwater management and protective measures near wells and water supply areas.

In the western portion of Holly Springs, soils generally range from somewhat poorly drained to moderately well-drained. Areas with moderately well-drained soil can still support development but may require additional planning for stormwater management, such as detention basins or engineered drainage systems. High concentrations of somewhat poorly drained soil, particularly in the northwestern part of the Town, pose greater challenges for development. Poor drainage can lead to waterlogged soils, increased risk of flooding, and difficulties for plant growth, which can compromise landscaping, open space areas, and the stability of building foundations.<sup>8</sup>

Poorly drained soils, where they exist in localized areas, are typically the least suitable for development. These areas are prone to ponding and slow water infiltration, making construction more costly due to the need for soil modification, drainage improvements, or elevated building foundations.<sup>9</sup> Conversely, well-drained soils are generally the most favorable for development, supporting both vegetation and structural stability while minimizing erosion and runoff concerns. Well-drained areas for new development should be prioritized while implementing mitigation strategies such as buffers and soil amendments in areas with moderately or poorly drained soil areas in order to maintain environmental quality and reduce developmental risks.<sup>10</sup>



## Erosion Control

Over half of the soil in Holly Springs is classified as having a moderate erosion hazard, indicating that while they are generally stable, they are still susceptible to soil loss if they are not properly managed during land-disturbing activities. Without proper precautions, excavation, grading, or construction in these areas can result in significant sediment runoff, increased turbidity in local streams, and the loss of topsoil that supports vegetation.

The Erosion and Sediment Control Program enforces compliance with state and local regulations and reviews site plans to ensure that adequate measures are included to reduce runoff and soil displacement. By requiring the incorporation of erosion control practices into the design phase and during construction, Holly Springs protects local waterways, maintains soil health, and reduces long-term maintenance costs associated with stormwater infrastructure.<sup>11</sup>

<sup>8</sup>Town of Holly Springs. *Natural Resources. Amended Supplement #5*. Holly Springs, NC: Town of Holly Springs, 2017. <https://www.hollyspringsnc.gov/DocumentCenter/View/514/Natural-Resources?bidId=>

<sup>9</sup>Soil Survey Staff, *Natural Resources Conservation Service, U.S. Department of Agriculture. Web Soil Survey*. Washington, DC: USDA NRCS. Accessed September 15, 2025. <https://websoilsurvey.nrcs.usda.gov/app/>

<sup>10</sup>Poole, Chad, Mohamed Youssef, and Wayne Skaggs. *Basic Information for Determining Drain Spacing on North Carolina Soils*. Raleigh, NC: North Carolina State University Cooperative Extension, 2025. <https://content.ces.ncsu.edu/basic-information-for-determining-drain-spacing-on-north-carolina-soils>

<sup>11</sup>Natural Resources Conservation Service. "Soil Science." *U.S. Department of Agriculture*. Accessed September 15, 2025. <https://www.nrcs.usda.gov/conservation-basics/natural-resource-concerns/soil/soil-science>

# WATERSHEDS, FLOODPLAINS, AND STREAM CORRIDORS

Holly Springs hosts two major river basins: the Neuse River Basin and the Cape Fear River Basin. The Basin Divide runs along the Highway 55 corridor, splitting the Town into separate watersheds.

## Cape Fear River Basin

The western portion of the Town hosts the Cape Fear River Basin and the Harris Lake Watershed, a subbasin of the Cape Fear which includes nine tributaries. Harris Lake is at the terminus of drainage from all these streams. It is a constructed body of water owned by Duke Energy Progress, who uses the water for cooling at the Shearon Harris Nuclear Power Plant<sup>12</sup>. Various natural resources exist around the Lake, including the Harris Game Lands, managed by NC Wildlife Resources Commission, and Harris Lake Park, managed by Wake County and host to a native longleaf pine forest<sup>13</sup>.

## Neuse River Basin

The eastern portion of the Town hosts the Neuse River Basin and the Middle Creek Watershed, a subbasin of the Neuse which includes two tributaries. Located in this watershed, downstream from Holly Springs, are Sunset Lake and Bass Lake. Both are manmade, with Sunset Lake being an impoundment that empties into Middle Creek. Critical natural resources are present around these lakes. Bass Lake is bordered by Sugg Farm, a 117-acre parkland known for local festivals and gatherings<sup>14</sup>. Bass Lake is also surrounded by a 1.9-mile mulch trail, connecting the lake to Sugg Farm and other greenway networks<sup>15</sup>.

<sup>12</sup>North Carolina Wildlife Resources Commission, *An Overview of the Shearon Harris Reservoir Largemouth Bass Fishery (2007–2017)* (Raleigh, NC: NCWRC, September 2017), <https://www.ncwildlife.gov/media/2922/download?attachment>.  
<sup>13</sup>Wake County Government, “Harris Lake Historic & Natural Significance,” *Harris Lake County Park*, accessed July 29, 2025, <https://www.wake.gov/departments-government/parks-recreation-open-space/all-parks-trails/harris-lake-county-park/harris-lake-historic-natural-significance>  
<sup>14</sup>Town of Holly Springs, “Sugg Farm at Bass Lake Park,” *Parks, Facilities & Greenways*, Town of Holly Springs, NC, accessed July 29, 2025, <https://www.hollyspringsnc.gov/758/Sugg-Farm>.  
<sup>15</sup>Town of Holly Springs, *PRG Master Plan*, March 2021.

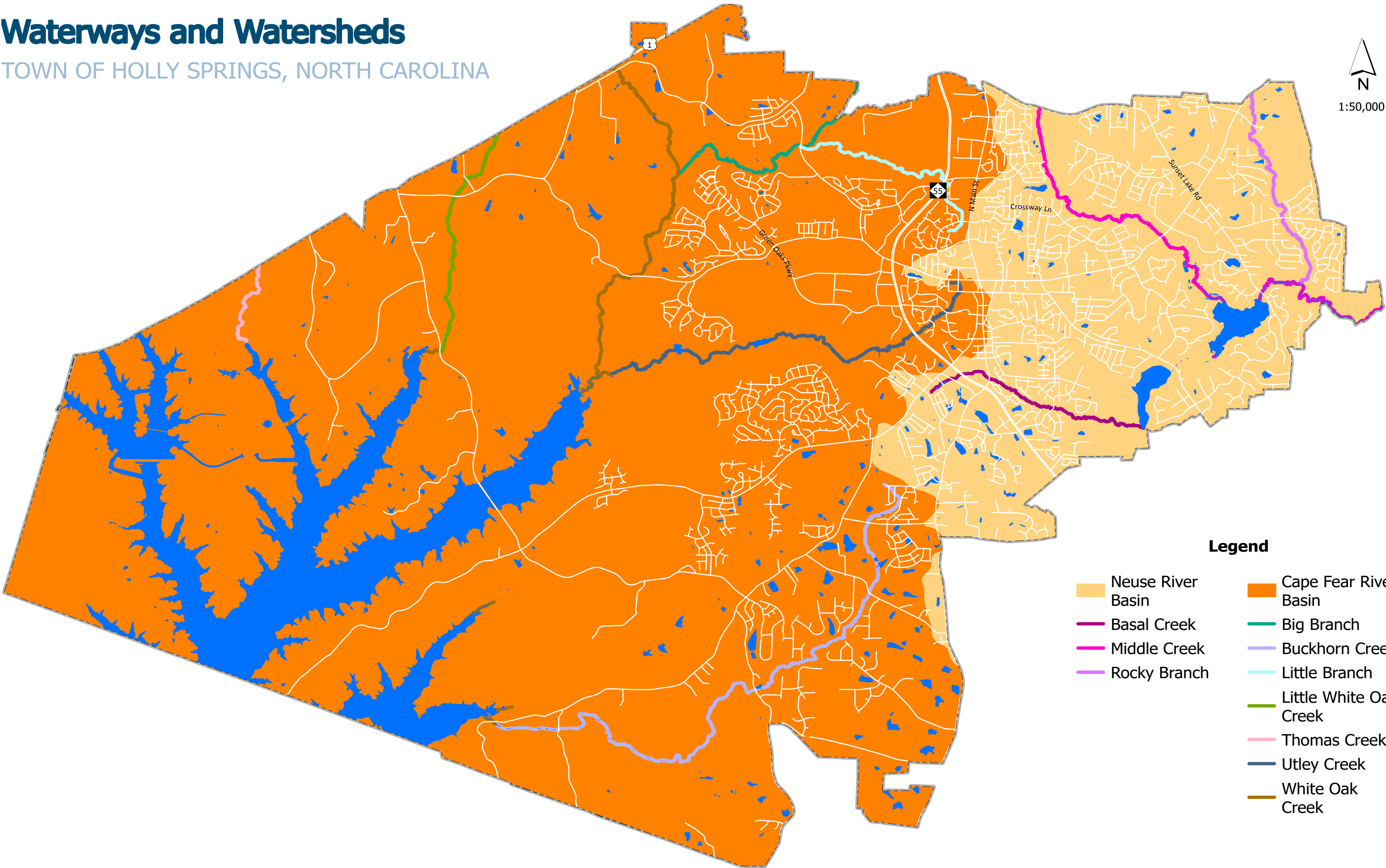
### RIVER BASINS AND SUB-BASINS LOCATED IN HOLLY SPRINGS

River Basin	Watershed	Tributary/Stream
Cape Fear	Shearon Harris Reservoir	Buckhorn Creek
		Jim Branch
		Cary Branch
		Utle Creek
		Little Branch
		Big Branch
		White Oak Creek
		Thomas Creek
		Norris Branch
Neuse	Middle Creek	Basal Creek
		Rocky Branch

Source: 1:24,000 (7.5 minutes) topographic quadrangle maps provided by the US Geological Survey

# Waterways and Watersheds

TOWN OF HOLLY SPRINGS, NORTH CAROLINA



- Legend**
- |                   |                        |
|-------------------|------------------------|
| Neuse River Basin | Cape Fear River Basin  |
| Basal Creek       | Big Branch             |
| Middle Creek      | Buckhorn Creek         |
| Rocky Branch      | Little Branch          |
|                   | Little White Oak Creek |
|                   | Thomas Creek           |
|                   | Utley Creek            |
|                   | White Oak Creek        |



## Surface Water Classification

Surface waters in North Carolina are assigned classifications that establish the “best uses” to be protected under state water quality standards.<sup>16</sup> These classifications guide management and regulation under the Clean Water Act and State rules, and can include supplemental designations for additional protections.<sup>17</sup> Within the Cape Fear River Basin, streams tied to Harris Lake and the Holly Springs area fall under this framework, with classifications reflecting both ecological function and vulnerability to urbanization pressures.<sup>18</sup> Common classifications relevant to streams in the region include the following:

- **WS-I through WS-V:** Watershed protection for public water supplies, with WS-I providing the most stringent protections.
- **Class C:** Supports aquatic life and secondary recreation.
- **Class B:** Supports primary recreation, such as swimming.
- **Supplemental designations:** High Quality Waters (HQW) and Outstanding Resource Waters (ORW) provide additional protections for water quality and ecological health.

Because growth in Holly Springs continues to increase impervious surface coverage and runoff, those classifications serve as critical management tools, ensuring that stormwater programs, conservation buffers, and development regulations align with state standards to maintain aquatic health and protect local drinking water as well as recreational resources.

## Water Quality

The North Carolina Department of Environmental Quality (DEQ), Division of Water Resources (303(d)) lists those streams that are not meeting water quality standards or those that have impaired uses, in accordance with the federal Clean Water Act. Middle Creek appears on the 2022 303(d) list with a rating as fair based on narrative criteria to protect aquatic life in fresh water. The rating given in this stretch of stream is primarily based upon turbidity associated with sediment from stream erosion/urbanization and runoff associated with development.<sup>19</sup>

<sup>16</sup>North Carolina Department of Environmental Quality. "Classifications." Accessed September 15, 2025. <https://www.deq.nc.gov/about/divisions/water-resources/water-planning/classification-standards/classifications>

<sup>17</sup>U.S. Environmental Protection Agency. North Carolina Classifications and Water Quality Standards. Washington, DC: U.S. Environmental Protection Agency, 2014. Sections .0100-.0200, Classifications and Water Quality Standards Applicable to Surface Waters and Wetlands of North Carolina

<sup>18</sup>North Carolina Administrative Code. "15A NCAC 02B .0311 – Cape Fear River Basin." North Carolina Division of Water Resources. Accessed September 15, 2025. 15A N.C. Admin. Code 02B .0311 - CAPE FEAR RIVER BASIN | State Regulations | US Law | LII / Legal Information Institute

<sup>19</sup>North Carolina Department of Environmental Quality, 2022 Final 303(d) List. Division of Water Resources. Raleigh, NC: State of North Carolina, March 30, 2023. Accessed July 29, 2025, <https://edocs.deq.nc.gov/WaterResources/DocView.aspx?dbid=0&id=3170580&cr=1>

The Middle Cape Fear Local Watershed Plan completed in 2004, provides a more detailed assessment of local tributaries tied to Harris Lake. Streams with lower impervious surface coverage surrounding the stream corridor were determined to be healthier than streams with greater impervious surface area.<sup>20</sup> The harmful impacts of impervious surfaces include limiting the absorption of water and causing runoff to travel across the land collecting sediments, nutrients and toxins that are carried to streams and creeks of the watershed.

The stream classifications in the study were defined as follows:

- **A functioning stream corridor:** Less than 5% impervious area.
- **An at-risk stream corridor:** Between 5 and 10% impervious area.
- **An unstable stream corridor:** Greater than 10% impervious area.

Regulations to protect the watersheds in Holly Springs include Conservation Buffer and Open Space regulations, the Town's NPDES Phase II stormwater program, the Erosion and Sediment Control Program, and the Stream & Wetland Protection and Flood Damage Prevention ordinances.

In 2013, the Cape Fear River Basin Restoration Priorities (RBRP) report and the Middle Cape Fear Watershed Plan updates reaffirm many of the concerns first identified in 2004, while expanding recommendations for management. The updated findings emphasized that watershed stressors in the Middle Cape Fear, including tributaries connected to Harris Lake and the Holly Springs area, stem largely from riparian buffer loss, bank erosion, sedimentation, and the continued expansion of impervious surfaces tied to urban development. The plan highlighted the need for riparian buffer restoration, stormwater best management practices (BMP), and land preservation to mitigate these impacts and maintain overall stream health. For the Town of Holly Springs, these recommendations directly align with existing local protections such as the Town's NPDES Phase II Stormwater Program, erosion and sediment control measures, and conservation buffer requirements, underscoring the importance of maintaining and strengthening these programs as growth continues to increase impervious surface coverage in the watershed.<sup>21</sup>

## Floodplains

A floodplain is an area that is subject to full and partial flooding. In addition to providing natural flood control, floodplains offer erosion control, protect water quality, serve as an area for groundwater recharge and act as aquatic and terrestrial habitats.

The Federal Emergency Management Agency (FEMA) federally designates and regulates floodplains with drainage areas that are typically equal to or larger than one square mile. Updated Flood Insurance Rate Maps (FIRM) shows the FEMA and State Regulated 100-year and 500-year future floodplains and identified hazard areas.<sup>22</sup>

In addition to the floodplain areas identified on the FIRM, the Town regulates locally identified floodplain areas. Fill to create buildable areas is prohibited in designated floodplains and residential structures are not allowed unless specific elevation and permitting criteria are met. Strict design standards that go beyond State and Federal regulations must be followed for permits to be approved.<sup>23</sup>

<sup>20</sup>North Carolina Department of Environmental Quality, Division of Mitigation Services. *Functional Status Memo 4: Middle Cape Fear River Basin*. Raleigh, NC: State of North Carolina, June 2004, [https://files.nc.gov/ncdeq/Mitigation%20Services/Watershed\\_Planning/Cape\\_Fear\\_River\\_Basin/Middle\\_CapeFear/Functional%20Status\\_Memo4.pdf](https://files.nc.gov/ncdeq/Mitigation%20Services/Watershed_Planning/Cape_Fear_River_Basin/Middle_CapeFear/Functional%20Status_Memo4.pdf)

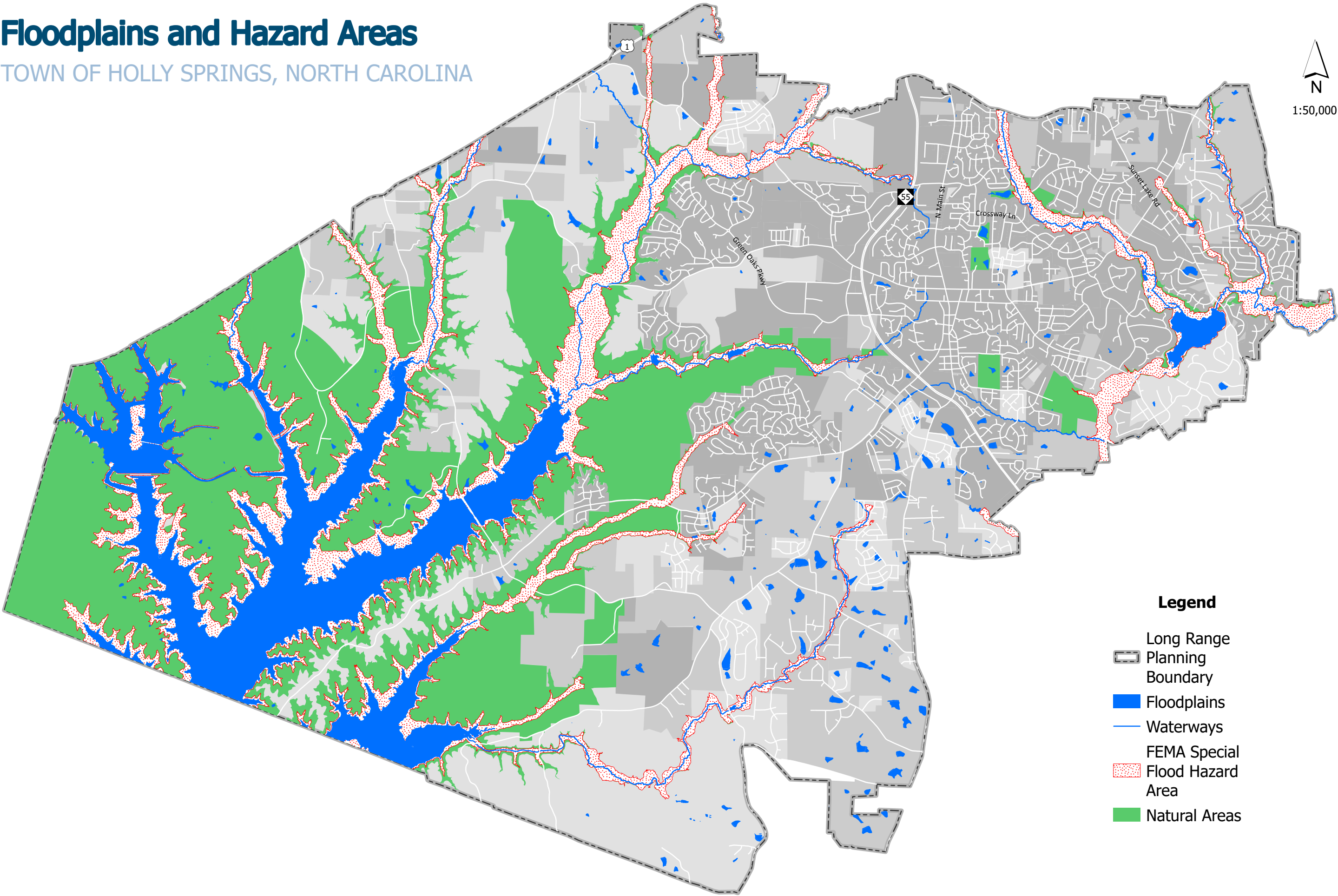
<sup>21</sup>North Carolina Department of Environmental Quality. *Kenneth and Parker Findings and Recommendations Summary*. Raleigh, NC: North Carolina Department of Environmental Quality, January 2013. [https://files.nc.gov/ncdeq/Mitigation%20Services/Watershed\\_Planning/Cape\\_Fear\\_River\\_Basin/Middle\\_CapeFear/Kenneth%20and%20Parker%20Findings%20and%20Recommendations%20Summary%20012013.pdf?](https://files.nc.gov/ncdeq/Mitigation%20Services/Watershed_Planning/Cape_Fear_River_Basin/Middle_CapeFear/Kenneth%20and%20Parker%20Findings%20and%20Recommendations%20Summary%20012013.pdf?)

<sup>22</sup>NC OneMap, North Carolina Effective Flood Zones, North Carolina Department of Environmental Quality, NC OneMap program, accessed July 29, 2025, <https://www.nconemap.gov/maps/a178aae74ee347d786e853e5a442eea2/explore>.

<sup>23</sup>Town of Holly Springs, *Code of Ordinances, Chapter 8, Article III, "Flood Damage Prevention,"* accessed July 29, 2025, [https://library.municode.com/nc/holly\\_springs/codes/code\\_of\\_ordinances?nodeId=PTIIICOR\\_CH8EN\\_ARTIIIFLDAPR](https://library.municode.com/nc/holly_springs/codes/code_of_ordinances?nodeId=PTIIICOR_CH8EN_ARTIIIFLDAPR).

# Floodplains and Hazard Areas

TOWN OF HOLLY SPRINGS, NORTH CAROLINA



**Legend**

- Long Range Planning Boundary
- Floodplains
- Waterways
- FEMA Special Flood Hazard Area
- Natural Areas

## Riparian Buffers

Riparian buffers provide water quality protection and environmental benefit by filtering pollutants suspended in runoff, providing bank stabilization and sustaining wildlife habitats. The Town's Unified Development Ordinance regulates riparian buffers in addition to the North Carolina Neuse Buffer Rules. In the Cape Fear River Basin, the Town's standards protect a 30-foot area from the top of the bank on each side of intermittent and perennial features. The Neuse River Basin has 50-foot State regulated buffers measured from the top of the bank on each side. The Town has adopted more restrictive 100-foot buffers for perennial features in the Neuse River Basin. These include a 100-foot undisturbed buffer for perennial features that drain into Bass Lake.<sup>24</sup>

## Wetlands

Wetlands are areas saturated by surface or ground water at a frequency sufficient to support unique wildlife habitats and soil conditions. These include swamps, marshes, bogs, wet meadows and similar areas. Wetlands provide important water quality controls by filtering pollutants and mitigating flood and sediment impacts.

In Holly Springs, wetlands are generally located along the stream corridors, lakes or ponds of the area. The Town's wetlands are regulated by the Army Corps of Engineers, which requires the replacement of wetlands when they are disturbed and controls the amount of development that can occur in a wetland. The Town assists the Corps by identifying and requiring development projects containing wetlands to receive approval from the Corps prior to issuing construction approvals.<sup>25</sup> Furthermore, because wetlands are generally located along the stream corridors, they often coincide with the Town's floodplain regulations.

## Groundwater

Groundwater is an important source of drinking water that is recharged through the percolation of water through soil or through aquifer recharge areas. Groundwater is generally susceptible to over-pumping in areas where recharge endures a slower process or pollution in areas where substantial recharge occurs.

A groundwater recharge area exists in Holly Springs, east of Duke Energy lands and extending south into Fuquay-Varina. In this area the groundwater is replenished through percolation of water into the aquifer. The Town helps alleviate groundwater impacts using Stormwater Control Measures (SCMs) in the Post-construction Stormwater Ordinance. The Town feels that NPDES stormwater requirements may induce SCMs as an appealing option for developers to promote techniques that regulate infiltration.<sup>26</sup>

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<sup>24</sup>Town of Holly Springs, UDO, § 4.8 "Conservation Buffer Areas."

<sup>25</sup>Town of Holly Springs, Section 6: Mitigation for Secondary and Cumulative Impacts, in Secondary and Cumulative Impacts Management Plan, accessed July 30, 2025, <https://www.hollyspringsnc.gov/DocumentCenter/View/10216/Section-6-Mitigation-for-Secondary-and-Cumulative-Impacts?bidId=>.

<sup>26</sup>Town of Holly Springs, Code of Ordinances, Chapter 8, Article V, "NPDES Phase II and NSW Post-Construction Stormwater," accessed July 29, 2025, [https://library.municode.com/nc/holly\\_springs/codes/code\\_of\\_ordinances?nodeId=PTIICOR\\_CH8EN\\_ARTVNPPHIINSPONSST](https://library.municode.com/nc/holly_springs/codes/code_of_ordinances?nodeId=PTIICOR_CH8EN_ARTVNPPHIINSPONSST)



# FORESTLANDS AND TREE CANOPIES

Forestlands in the Town of Holly Springs offer numerous benefits that enhance quality of life. They serve as vital habitats, nesting grounds, and food sources for local wildlife, while also supporting water recharge, reducing runoff and soil erosion, and filtering pollutants. With proper management, these forestlands represent a natural, renewable resource that will ultimately contribute to the Town's long-term quality of life. The Town seeks to minimize mass grading during development whenever feasible, in order to preserve existing trees, protect natural habitats, and maintain the established urban tree canopy.

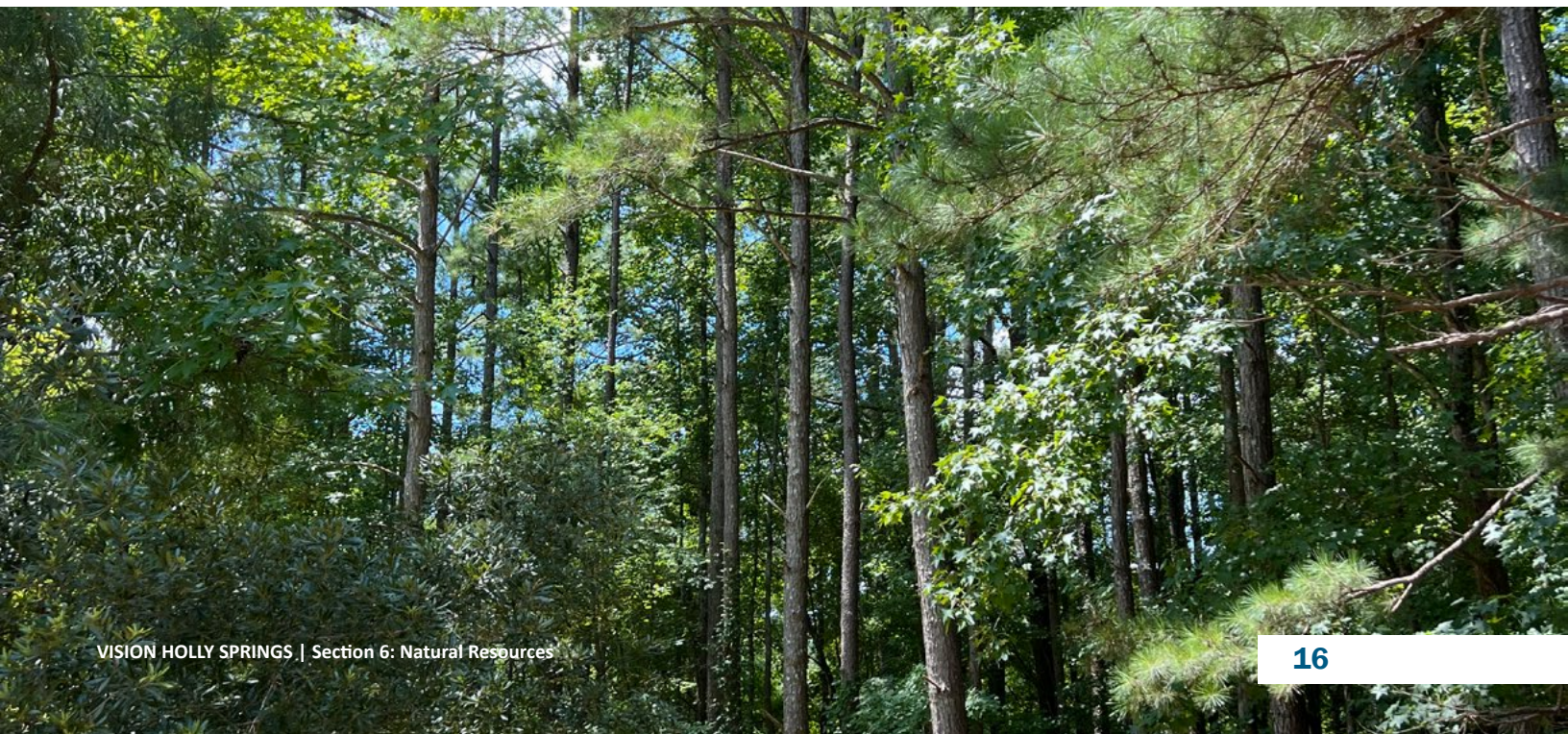
Most of the Town's forestlands are in the west, around the Harris Lake area. To the east, forests are more scattered. Typical forests in Holly Springs include pine, oak, sweet gum, black gum, red maple, sycamore, and eastern red cedar. The most dominant forest type is coniferous cultivated pine. As mentioned earlier, Harris Lake County Park hosts a Piedmont Longleaf Pine Forest, a rare type of forest community that is slowly being restored through state-wide conservation efforts.

## *Canopy Coverage and Reforestation*

The greatest threat to the forestlands of Holly Springs is the spread of low-density residential land. As more development occurs, the Town will continue to lose forestlands, impacting the quality of the environment and natural habitats. In 2023, Wake County completed a Tree Canopy Coverage Assessment. This study found that, from 2010-2020, Wake County lost 11,122 acres of tree canopy, a land area more than double the size of William B. Umstead State Park. Within this trend, Holly Springs showed a distinct split: the southwestern part of the Town experienced significant gains in canopy coverage, while the northeastern part saw notable and significant losses.<sup>27</sup>

The study also reported that, as of 2020, canopy cover among Wake County's twelve core municipalities averaged 60.5% within ETJ and 42.8% within corporate limits, providing very important context for growth pressures that the Town of Holly Springs will begin to face. Part of this study involved the identification of Potential Planting Areas (PPAs) using an analysis composite vulnerability index that combined 10 weighted measures of community vulnerability. Each individual planting area was assigned a priority rank from Very High to Very Low. Concentrations of elevated priority PPAs were observed in western Wake County, within and near the Holly Springs area.

<sup>27</sup>Wake County Government. *Wake County Land Cover Analysis & Tree Canopy Assessment*. 2023. Accessed July 30, 2025, [https://s3.us-west-1.amazonaws.com/wakegov.com.if-us-west-1/s3fs-public/documents/2023-09/Wake%20County\\_FINAL\\_pages\\_R\\_0.pdf](https://s3.us-west-1.amazonaws.com/wakegov.com.if-us-west-1/s3fs-public/documents/2023-09/Wake%20County_FINAL_pages_R_0.pdf)



## Urban Forestry

To combat the loss of tree coverage, the Town has spearheaded various tree planting and urban forestry initiatives. In 2018, Holly Springs earned its status as a Tree City USA, which includes the implementation of a Tree Preservation Ordinance that aims to preserve native forest stands as well as large individual trees.<sup>28</sup> The Town also has open space requirements for residential developments to protect forest resources, and the UDO provides credits for preserving existing vegetation in order to decrease the need for new plantings.<sup>29</sup> As part of the 2023 Wake County Tree Canopy Coverage Assessment, possible planting locations were identified among bare soil and vegetation cover types.

The locations were narrowed to sites that are at least 200 square feet within municipal planning jurisdictions and one acre in unincorporated areas. Utility easements, rights-of-way, recreational fields, and active agricultural or horticultural sites were filtered out. Holly Springs can use this data to establish priority PPAs for tree conservation and protection in its comprehensive plan, integrating them with proposed parks, greenways, and open spaces in the Parks, Recreation and Greenways Master Plan. This information can also be leveraged to encourage planting on both public and private property through outreach, education, and volunteer programs, while applying existing tree protection standards in the Holly Springs UDO to new developments to target priority PPAs.<sup>30</sup>

The Tree Advisory Committee (TAC) is the administrative body responsible for maintaining the Town of Holly Springs' good standing with Tree City USA and for administering the annual street tree replacement program within urbanized areas. The Committee provides essential information to help residents understand the value of tree preservation and proper maintenance. It also oversees the various components required to meet Tree City USA standards, including organizing the annual Arbor Day event and leading community outreach and educational efforts. Through these efforts, the TAC plays a central role in promoting sustainable urban forestry and engaging the community in the care and appreciation of the Town's trees.

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<sup>28</sup>Town of Holly Springs. "Urban Forestry." Town of Holly Springs, NC.

<sup>29</sup>Town of Holly Springs, UDO, § 4.4 "Tree Preservation Areas."

<sup>30</sup>Wake County Government. Wake County Land Cover Analysis & Tree Canopy Assessment. 2023. Accessed July 30, 2025, [https://s3.us-west-1.amazonaws.com/wakegov.com.if-us-west-1/s3fs-public/documents/2023-09/Wake%20County\\_FINAL\\_pages\\_R\\_0.pdf](https://s3.us-west-1.amazonaws.com/wakegov.com.if-us-west-1/s3fs-public/documents/2023-09/Wake%20County_FINAL_pages_R_0.pdf)



## Managed and Protected Lands (VADs and Natural Heritage Land)

The Town of Holly Springs hosts several Voluntary Agricultural Districts (VADs), encompassing approximately 21 parcels, primarily in the southern region of the Town where growth pressure is greatest<sup>31</sup>. VADs are voluntary programs that encourage landowners to maintain their property for agricultural or forestry purposes, typically through a 10-year conservation agreement, while providing protection from nuisance lawsuits and eligibility for certain preservation incentives<sup>32</sup>. Landowners can apply if their property meets minimum acreage and bona fide farm use requirements. VADs help preserve rural character, act as buffers between high-intensity development and natural areas, and promote community awareness of sustainable land use practices. Promoting VAD enrollment can support the Town's goals for agricultural preservation, forestland protection, and strategic growth management.

Five Natural Heritage Areas are also present in Holly Springs. Natural Heritage Areas are sites (terrestrial or aquatic) which contain special biodiversity significance due to the presence of rare species, unique natural communities, and important ecological characteristics. Within Holly Springs, most of the sites are privately owned with protection areas existing as easements on the land. Natural Heritage Areas in Holly Springs include the Harris Longleaf Pine Forest, Utley Creek Slopes, Hollemans Crossroads, and the Jim Branch and Buckhorn Creek Forests.

Additional lands protected in Holly Springs include the various parks and greenways owned by the Town. These include land areas such as Bass Lake, Sugg Farm, Mim's Park, and the future Eagle's Landing Park.

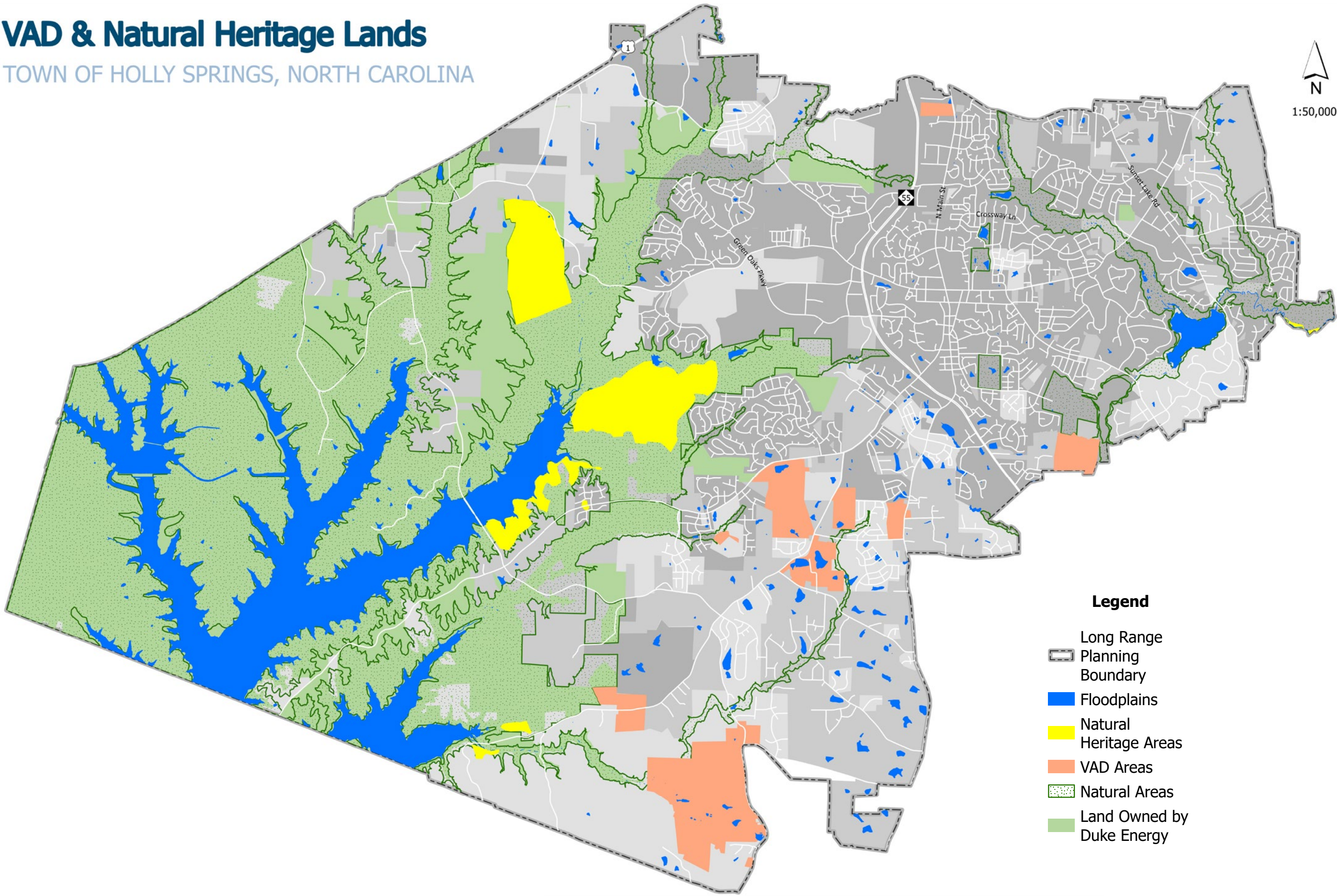
<sup>31</sup>NC Department of Agriculture & Consumer Services. *Voluntary Agricultural District Program* <https://www.ncagr.gov/divisions/farmland-preservation/vad>

<sup>32</sup>Orange County, NC. *Voluntary Agricultural District Benefits*. <https://www.orangecountync.gov/757/Voluntary-Agricultural-District-Benefits>



# VAD & Natural Heritage Lands

TOWN OF HOLLY SPRINGS, NORTH CAROLINA



**Legend**

- Long Range Planning Boundary
- Floodplains
- Natural Heritage Areas
- VAD Areas
- Natural Areas
- Land Owned by Duke Energy

# ENDANGERED SPECIES AND WILDLIFE

The wildlife in Holly Springs includes many different species of mammals, amphibians, reptiles, birds, and fish. Of these, the US Fish and Wildlife Service has identified four species listed as threatened and five species listed as endangered.<sup>33</sup>

SPECIES	SPECIES TYPE	STATUS
Red-cockaded Woodpecker	Bird	Threatened
Neuse River Waterdog	Amphibian	Threatened
Cape Fear Shiner	Fish	Endangered
Carolina Madtom	Fish	Endangered
Dwarf Wedgemussel	Clam	Endangered
Yellow Lance	Clam	Threatened
Atlantic Pigtoe	Clam	Threatened
Michaux's Sumac	Flowering Plant	Endangered
Harperella	Flowering Plant	Endangered

<sup>33</sup>U.S. Fish & Wildlife Service, *Information for Planning and Consultation (IPaC): Official Species List for a Specified Project Location*, accessed July 30, 2025, URL: <https://ipac.ecosphere.fws.gov/location/RCIOH3WJ6NDJLLD63QLCQC4Q2A/resources>.



## Vulnerable and Protected Habitats

Although not listed, the Town has voluntarily established a preserved habitat for the Tiger Salamander. The habitat is a 40-acre area along Middle Creek, north of Holly Springs Road. Most of the habitat is protected because it is part of the floodplain area. In the area that is not part of the floodplain, there is an existing sewer line making the area susceptible to development. If development does occur in this location, regulations are in place to preserve the area's landscape buffers.

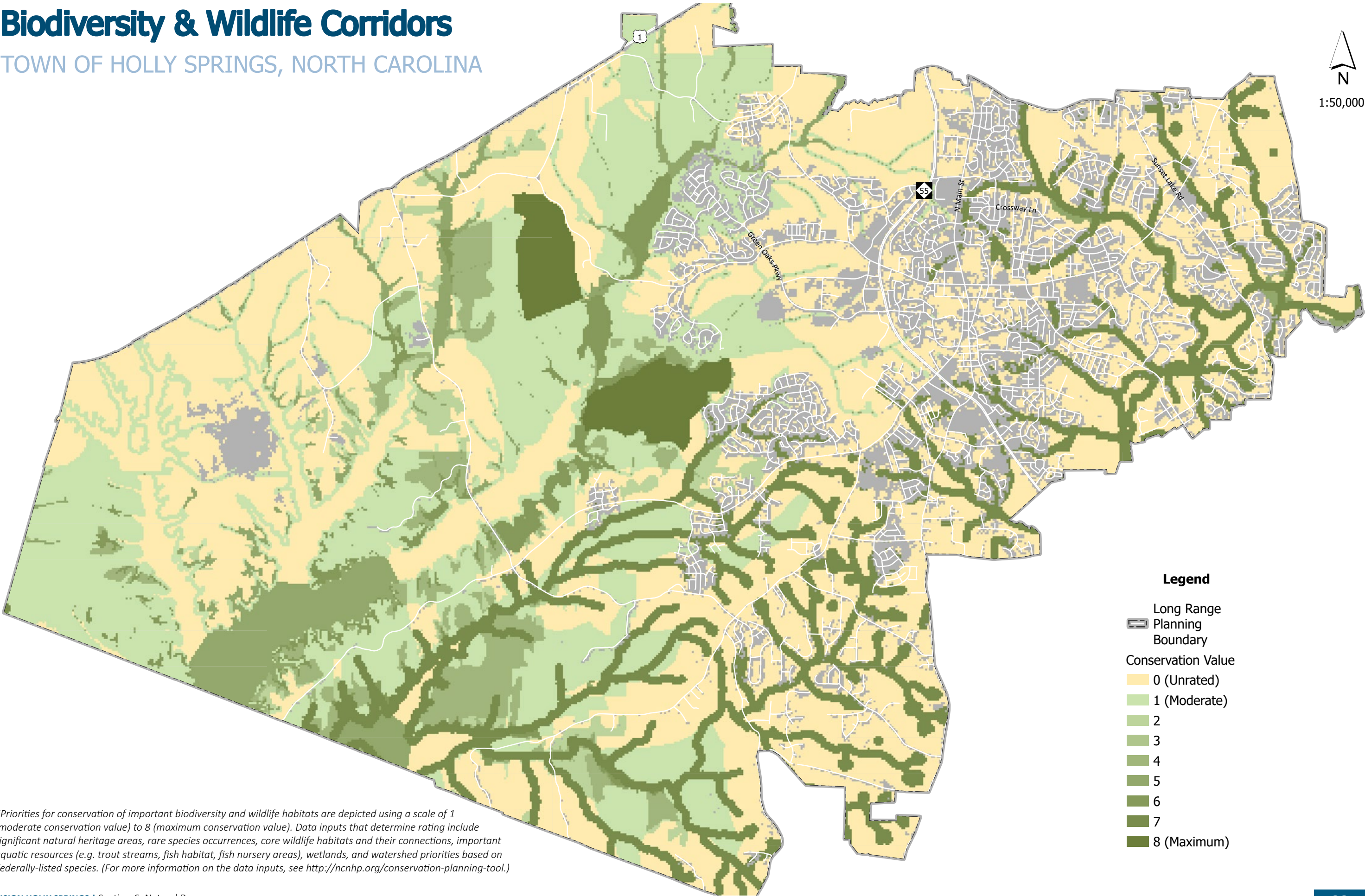
Data from the NC Natural Heritage Program, under the Department of Natural & Cultural Resources, identifies and ranks healthy and sustainable ecosystem areas in Holly Springs. These areas represent environments which foster rich habitats and biodiversity and are critical for sustaining vulnerable species and maintaining wildlife corridor connections.<sup>34</sup>

***Water quality deterioration and loss of habitat threaten wildlife in Holly Springs. Both threats are typical impacts of increased development. The existing Town regulations for protection of wildlife habitat and quality include Stream and Wetland Protection and Flood Damage Prevention ordinances, open space and riparian buffer requirements, the Erosion and Sediment Control Program, stormwater runoff control requirements and the Tiger Salamander Preserve.***

<sup>34</sup>North Carolina Natural Heritage Program, North Carolina Conservation Planning Tool (CPT) – Biodiversity/Wildlife Habitat Assessment, May 2025 (Raleigh, NC: NC Department of Natural and Cultural Resources, 2025).

# Biodiversity & Wildlife Corridors

## TOWN OF HOLLY SPRINGS, NORTH CAROLINA



*\*Priorities for conservation of important biodiversity and wildlife habitats are depicted using a scale of 1 (moderate conservation value) to 8 (maximum conservation value). Data inputs that determine rating include significant natural heritage areas, rare species occurrences, core wildlife habitats and their connections, important aquatic resources (e.g. trout streams, fish habitat, fish nursery areas), wetlands, and watershed priorities based on Federally-listed species. (For more information on the data inputs, see <http://ncnhp.org/conservation-planning-tool>.)*

# IMPLEMENTATION PLAN



Ensure that future Community Investment Plans (CIPs) and operating budgets responsibly sustain an adequate level of service for all community facilities through strategic funding allocation.

ACTION NUMBER	ACTION/TASK	DEPARTMENTS	TIMEFRAME
1.1	Perform an annual review to strengthen UDO provisions to ensure new development respects the region’s natural landform, vegetation, hydrology, and ecological systems.	Development Services	Ongoing
1.2	Update conservation subdivision standards to create an ordinance that preserves and buffers streams, floodplains, wetlands, and riparian corridors.	Development Services	Ongoing

Key	
Near-Term	1 to 2 years
Medium-Term	3 to 5 years
Long-Term	6 to 10 years
Ongoing	Continuous

## 2

Improve and expand the Urban Forestry Management Program to enhance tree conservation, climate resilience, and community livability through science-based practices, ordinance refinement, and public participation.

ACTION NUMBER	ACTION/TASK	DEPARTMENTS	TIMEFRAME
2.1	Complete annual review and update the tree preservation standards in the UDO to enhance conservation and canopy protection which could include tree preservation standards in the UDO to enhance conservation and canopy protection.	Development Services	Near-Term
2.2	Build on Tree City USA designation by establishing community tree planting and maintenance programs to promote volunteer involvement and education.	Development Services, Public Works, Parks + Recreation	Near-Term
2.3	Develop public education campaigns highlighting the ecological, health, and economic value of trees.	Development Services, Information Technology, Public Works	Near-Term
2.4	Prepare and maintain an Urban Forestry Master Plan outlining treescape improvements, canopy goals, and Priority Protection Areas (PPAs).	Development Services	Medium-Term
2.5	Consider utilizing the tree inventory to identify PPAs for incorporation into a new Urban Forestry Master Plan.	Development Services	Medium-Term
2.6	Consider aligning tree conservation measures with tree maintenance requirements to ensure long-term tree health and community resilience.	Parks + Recreation, Public Works	Medium-Term
2.7	Consider utilizing technology (LiDAR, UAV) to improve canopy data accuracy, efficiency, and cost-effectiveness.	Development Services	Medium-Term

### Key

Near-Term	1 to 2 years
Medium-Term	3 to 5 years
Long-Term	6 to 10 years
Ongoing	Continuous

# 3

Establish clear and updated standards for street tree planting, preservation, and maintenance to enhance community aesthetics, environmental health, and roadway safety throughout Holly Springs.

ACTION NUMBER	ACTION/TASK	DEPARTMENTS	TIMEFRAME
3.1	Conduct a peer review of current street tree policies to identify best practices and regional benchmarks.	Development Services	Near-Term
3.2	Integrate tree preservation and planting standards into all roadway design and reconstruction projects.	Development Services, Utilities + Infrastructure	Near-Term
3.3	Identify priority corridors for retrofitting street tree planting to expand canopy coverage.	Development Services, Public Works	Near-Term
3.4	Update the UDO, Development Procedures Manual, and Engineering Design and Construction Standards to reflect species selection, planting, and maintenance best practices.	Development Services, Public Works	Near-Term

Key	
Near-Term	1 to 2 years
Medium-Term	3 to 5 years
Long-Term	6 to 10 years
Ongoing	Continuous

# 4

Expand the Town’s role in protecting endangered and threatened wildlife through proactive management, habitat conservation, and public education initiatives that enhance biodiversity and ecological resilience.

ACTION NUMBER	ACTION/TASK	DEPARTMENTS	TIMEFRAME
4.1	Develop and distribute public education campaigns on coexistence with wildlife and conflict prevention.	Development Services	Near-Term
4.2	Establish monitoring and management programs for invasive species to increase awareness, containment, and eradication.	Development Services, Parks + Recreation	Medium-Term
4.3	Integrate wildlife habitat conservation and restoration strategies into the development process.	Development Services	Medium-Term
4.4	Revise the UDO to expand Open Space/Conservation standards to include wildlife habitat protection and corridor preservation.	Development Services	Medium-Term
4.5	Identify and establish Habitat Protection Areas (HPAs) for endangered and threatened species, as listed on page 18, similar to the Tiger Salamander protection area.	Development Services	Medium-Term
4.6	Consider increased protections, as allowed by NCGS, around seasonal pools, intermittent streams, and buffers supporting water-dependent species.	Development Services	Medium-Term
4.7	Identify and establish strategies and/or ordinances that seek to minimize mass grading during development whenever feasible, in order to preserve existing trees, protect natural habitats, and maintain the established urban tree canopy.	Development Services	Medium-Term
4.8	Collaborate with county and state agencies to fund and implement aquatic restoration and protection initiatives.	Development Services, Utilities + Infrastructure	Long-Term
4.9	Collaborate with regional experts and organizations to implement sustainable wildlife management practices and minimize human-wildlife conflicts.	Development Services, Parks + Recreation	Ongoing

Key	
Near-Term	1 to 2 years
Medium-Term	3 to 5 years
Long-Term	6 to 10 years
Ongoing	Continuous

# 5

Enhance water resource management policies to protect wetlands, streams, and overall water quality through strategic planning, infrastructure investment, and sustainable stormwater management practices.

ACTION NUMBER	ACTION/TASK	DEPARTMENTS	TIMEFRAME
5.1	Enhance greenway development to improve access and connectivity, while reduce impacts to water quality.	Parks + Recreation, Development Services, Public Works	Near-Term
5.2	Annually review an Asset Management Plan for water, sewer, and reclaimed systems to ensure system integrity and prioritize capital investments.	Development Services, Utilities + Infrastructure	Near-Term
5.3	Align master plan goals with regional watershed planning efforts and coordinate with Wake County, NCDEQ, and regional utility partners.	Development Services, Utilities + Infrastructure	Near-Term
5.4	Review annually to maintain, update, or expand green infrastructure SCMs to improve water quality and reduce runoff as necessary.	Development Services, Utilities + Infrastructure	Medium-Term
5.5	Incorporate wetland and stream buffer restoration projects into the CIP to protect sensitive ecosystems and reduce sedimentation.	Public Works, Utilities + Infrastructure	Long-Term
5.6	Annually review and update the coordinated long-range Water Resource Master Plan, integrating water, wastewater, reclaimed water, and stormwater systems.	Development Services, Utilities + Infrastructure	Ongoing
5.7	Review the UDO annually to identify strategies that direct growth away from flood prone areas.	Development Services	Ongoing
5.8	Enhance floodplain connectivity to improve water quality.	Development Services	Ongoing

## Key

Near-Term	1 to 2 years
Medium-Term	3 to 5 years
Long-Term	6 to 10 years
Ongoing	Continuous



# APPENDIX

# APPENDIX

## Holly Springs Project Community Engagement Summary

The Comprehensive Plan and infrastructure planning should reflect the needs and values of the Town's residents. As such, the development of the Comprehensive Plan was guided by community engagement that was carried out to ensure transparency and collect feedback from residents.

To gather feedback from residents, the Town hosted multiple events with a focus on Section 4 (Community Facilities), Section 5 (Utilities & Infrastructure), and Section 6 (Natural Resources) of the Comprehensive Plan.

### *Farmers Market and Holly Springs Salamanders Baseball Game Outreach*

At both of these events, two booths were set up—one by Town staff and one by Kimley-Horn—to facilitate public engagement and provide information regarding the comprehensive plan. The Town's booth served as a general resource for questions related to Holly Springs and ongoing development initiatives. Kimley-Horn's booth focused specifically on the Comprehensive Plan, aiming to engage attendees around proposed Comprehensive Plan updates. The booth featured two display boards: one illustrated the current status and direction of the Comprehensive Plan, while the other offered a trivia game designed to draw interest and participation.



### *Developer's Breakfast and Online Survey*

In addition to more public facing outreach, the project team solicited feedback in person from the development community at the annual Holly Springs Developer's Breakfast and then supplemented the in-person event with an online survey. The survey sought to gather feedback on challenges and priorities related to the role water, sewer, stormwater, and fiber infrastructure plays in development decision making as well as the ease with which developers can deliver projects. Over 40 individuals provided feedback via the survey, and the full results are included in this appendix.

### *Stakeholder Interviews*

Stakeholder interviews were conducted to gather focused, expert insights from key sectors of the community to help shape infrastructure, utility, and development strategies that align with the Town's growth objectives. Participants included staff from the Town of Holly Springs and Wake County, emergency service providers, and members of the development community, each offering valuable perspectives to inform the Comprehensive Plan.



## Holly Springs Comprehensive Plan Stakeholder Meeting Summary

The Holly Springs Comprehensive Plan Stakeholder Meeting brought together Wake County staff and community representatives to align on waste management, farmland preservation, and recreation priorities. The landfill remains a critical part of county infrastructure with significant remaining capacity, no current expansion plans, and recent improvements such as transfer station upgrades, a mattress shredder addition, roadway expansions, and ongoing reconstruction of the gas energy facility following a fire. These efforts are aimed at improving efficiency, safety, and environmental stewardship without the need for new capital investments in expansion.

Farmland and conservation were another major focus. Wake County, with consultant Equinox, is developing a Farmland Preservation Plan to guide both short- and long-term strategies. Priority areas have already been identified within the Holly Springs extraterritorial jurisdiction (ETJ), and efforts are underway to secure conservation easements and promote Voluntary Agricultural Districts (VADs). Stakeholders encouraged stronger municipal involvement in these initiatives and recommended that Holly Springs update its Unified Development Ordinance (UDO) to include farmland protections within town limits, similar to neighboring Cary. Sugg Farm was highlighted as a successful model of conservation and innovation, operating under a private conservation easement and offering incubator opportunities for new farmers. Expanding cooperative agreements with the County could help leverage the farm as both a community asset and a source of local food access through the Holly Springs Farmers Market.

Recreation and open space also featured prominently. Stakeholders emphasized the need for more greenways, improved connectivity to county parks, and stronger open space regulations to ensure that new development contributes to the community's recreational fabric. Wake County's ongoing Harris Lake master plan update and potential Crowder County Park expansion present opportunities for further coordination. The growing popularity of mountain biking, driven in part by closures at Lake Crabtree, has placed additional demand on Holly Springs facilities, underscoring the need for more trail development. Similarly, the rising use of parks by schools for athletic events points to the need for clearer scheduling and shared-use strategies. Preserving additional land for greenways and park facilities was seen as critical to maintaining quality of life as the town grows.

### **In terms of next steps, stakeholders agreed on four key priorities:**

- 1. Formalizing municipal–county coordination on landfill, conservation, and recreation issues.**
- 2. Updating ordinances to strengthen farmland preservation and open space protections.**
- 3. Expanding recreational resources with an emphasis on connectivity and sustainability.**
- 4. Engaging local farmers, schools, and residents to ensure development reflects community values.**

Overall, the meeting highlighted the importance of collaborative planning and forward-thinking policies. By balancing growth with conservation and recreation, Holly Springs is positioned to honor its agricultural heritage while creating a resilient, vibrant future for its residents.

## Duke Energy Coordination Meeting Summary

A coordination meeting between the Town of Holly Springs and Duke Energy was held to review updates to the Comprehensive Plan and discuss infrastructure coordination. The Town provided an overview of the Comprehensive Plan process, which began in February 2025. Data collection and public engagement occurred throughout the summer, and draft documents were released in the fall for review by the public, Planning Board, and Town staff. The current update includes Sections 4, 5, and 6 of the plan, covering Community Facilities, Infrastructure and Utilities, and Natural Areas. Section 5 focuses on Town-owned utilities such as potable water, sanitary sewer, reclaimed water, stormwater, and fiber optic infrastructure, while privately owned utilities are not included.

Key elements of the update were discussed, including fire stations, sanitary sewer infrastructure, and waterline infrastructure. The Town currently operates three fire stations, with two additional stations programmed in the Community Investment Plan. Long-term projections indicate a need for up to ten stations at full build-out, and the Community Facilities map identifies future emergency service facility search areas. For sanitary sewer infrastructure, the Future Regional Pump Station Locations map outlines potential sites aligned with the Future Land Use Map. Areas designated as Natural Areas are not expected to generate sewer flow. Sanitary sewer force mains will be required to convey flow from proposed pump stations to downstream facilities, and detailed routing studies will be conducted during future design phases. Coordination with Duke Energy will occur when alignments intersect with power facilities. Regarding waterline infrastructure, the Future Water Infrastructure map shows proposed water mains needed to support build-out, generally following existing roadways such as Rex Road. Final routing studies will include coordination with Duke Energy where infrastructure may intersect transmission corridors or be near Duke-owned property.

Duke Energy expressed interest in partnering with the Town to ensure safe and efficient coordination of infrastructure projects near power transmission mains and overhead lines. They emphasized the importance of early engagement to maintain safety standards and separation requirements. The Town agreed to include language in the Comprehensive Plan stating that proposed pipelines and facilities located near or crossing power transmission lines shall be coordinated to meet applicable safety and separation requirements.



# Holly Springs Comprehensive Plan

## Project Engagement

VIEWS

1,134

PARTICIPANTS

44

RESPONSES

255

COMMENTS

134

How does water and sewer infrastructure influence your decision-making process for new development?

Water and sewer infrastructure is crucial. As a Civil Engineer, my clients and development partners need access to water and sewer to support our development projects. Extending and upgrading water and sewer infrastructure from offsite locations is often too costly for a private developer to bare alone and results in the loss of quality development projects.

6/9/2025

⬆ 5 Agree

Most of my clients, will decide not to develop a property of public water and sewer are not available.

6/9/2025

⬆ 4 Agree

And let them go elsewhere. Sorry but they need to be responsible.

6/9/2025

⬆ 1 Agree

First and foremost, everyone needs clean water. That includes removal of dirty water too. We must plan ahead for an over abundant supply. Storm water handling is another critical issue. Removing trees completely as has been approved in the past and recent, must come to an end.

6/9/2025

⬆ 3 Agree

Water and sewer costs are through the roof. Developers need to share a part of this burden.

5/27/2025

⬆ 3 Agree

If that was all they were being required to pay. At Kildaire, they are also required to build the Edwards Drive extension.

6/12/2025

Without access to water and sewer infrastructure, development is not feasible. The sooner we can get an answer on utility availability, the better. The current requirement for determining utility availability along with rezoning approval is onerous and makes clarity on project feasibility very challenging or impossible. Our understanding is that there is significant availability in the system, but unlocking availability at rezoning has created a surplus of availability that new projects are unable to tap into.

6/11/2025

⬆ 2 Agree

Lack of sewer capacity stops E&M Johnson Enterprises, Inc. cold. Whenever a potential developer calls with an Interest in our land, I tell them to contact Holly Springs Development Services first. There is no use wasting my time because Holly Springs' outlandish requirements just kill the deal. We will not go under contract until something can be done.

6/12/2025

👍 1 Agree

The availability is critical for making a decision to invest time and money into a development project.

6/11/2025

👍 1 Agree

It influences the viability of new development.

6/11/2025

👍 1 Agree

Since we are a host community for Wake County for the landfill, we shouldn't be charged. Let the other towns pay a little more to cover us since we are providing the area for their use. The increase for our water is outrageously expensive as well.

6/10/2025

👍 1 Agree

What decision making rights do we have when it comes to new development? It's a matter of the town taking land and holding it hostage by restricting development while still taking in taxes year after year. The combination of your restrictive comprehensive plan that wants high density residential and commercial on our property ( Sunset Lake), coupled with the lack of available water and sewer infrastructure is simply tying our hands. We want to sell to a developer! But we cant due to your restrictions and lack of sewer infrastructure. You have really failed your residents by your lack of planning for this much needed infrastructure.

6/9/2025

👍 1 Agree

Availability of water and sewer is critical for developments, along with properly scoping the amount of work to ensure adequate capacity of the existing infrastructure.

6/9/2025

👍 1 Agree

it is crucial

6/9/2025

👍 1 Agree

If the necessary infrastructure is not in place, the financial burden shifts to property owners. As a result, funds that could be allocated for future infrastructure improvements and maintenance are not able to grow.

6/2/2025

👍 1 Agree

Critical. Having a comprehensive plan to expand the Town's service area is critical in decision making. Ensuring the projects develop within the vision of the Town would ideally gain the support needed by staff and board members.

6/2/2025

👍 1 Agree

Very much so, it dictates how we develop and choose parcels for development. Without enough water and sewer we cannot continue to develop

5/27/2025

👍 1 Agree

---

We are putting a strain on our current system. New developments need to pay for any increase in improvements to the water system. Our current costs are thru the roof. \$95 a month for a one person home is ridiculous!

5/27/2025

⬆ 1 Agree

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Water costs have been going up and new development means increased demand, especially given the high demand industrial processes have for water. Considering new development needs to take into account our finite water supply.

5/27/2025

⬆ 1 Agree

---

Water and sewer infrastructure is a key component when deciding where to invest in development. This comes in two forms. First, availability and second, whether the municipality uses access to infrastructure as a negotiating tool to drive up housing costs or to require the developer to take on cost burdens that are typically the town's responsibility.

6/24/2025

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In most cases this is a do or die for all our projects. Most developers will extend public water and sewer lines provided the availability of easements. Of biggest concern is when the rights of way for DOT roads are not owned fee simple by them.

6/20/2025

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Reasonable distance to utilities is vital. Capacity is vital.

6/18/2025

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Very much so. No utilities or capacity, the project does not move forward.

6/18/2025

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It has to be available and/or cost effective to bring it to the property

6/12/2025

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The availability of water and sewer at the site, capacity and required downstream upgrades.

6/12/2025

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The availability of water and sewer infrastructure is critical to any project. The earlier we know about current or planned infrastructure, capacity, and required upgrades or improvements means we can decide if a project is viable or not early in the due diligence phase of a potential project. If a project is not viable, many times it is due to water and sewer infrastructure availability.

6/11/2025

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We need reliable and clean systems.

6/10/2025

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Public water and sewer availability/capacity play into all new developments

6/10/2025

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I would rather water infrastructure than well water

6/10/2025

We need to slow down on the amount of residences coming into our worn which could put a strain on our pocketbooks. As mentioned by others, developers need to share in the cost of water and sewer usage.

6/10/2025

Developers need to be made to made to cover the cost of their water water and sewer installations rather than passing upon to the citizens. I am in a condo with one single water main into the building. 16 units Are on that water line. In other words we don't have single water lines. On several occasions in the last couple of years we have been charged exorbitant amounts over \$1K at a time, And then on top of that each one of the 16 units has an individual charge on our condo bill Even though we don't have individual lines into the building. So we are being charged twice for something we don't even have.

6/9/2025

Your lack of sewer infrastructure is limiting my ability to develop my property. You say that developers often times pay for these upgrades, NOT TRUE. They simply ask the OWNER to reduce their price. So yes sewer infrastructure is extremely important but you're making the land owner pay for these upgrades which is not fair. We need better sewer infrastructure planning from Holly Springs.

6/9/2025

Will my property perk OK before I invest in it.

6/9/2025

want to know that we are no longer using fluoride treatment?

6/9/2025

Not sure how this differs from the previous question. It's critical

6/9/2025

I live outside city limits and water pressure is always an issue so its something to consider

6/9/2025

NA. I am outside the water system

5/28/2025

Sewer infrastructure is a huge determinant of whether or not development makes sense and is even feasible in Holly Springs. The knowledge that pump stations and/or forcemains are at capacity makes it financially unfeasible to develop in certain areas of town. Without a fee structure to pay into larger system upgrades, there is no way for some parcels to work - they can't get enough residential units to support the upgrades needed downstream.

5/28/2025

That is the most dominant factor. Town of HS desperately needs these infrastructure and has been trying to make unreasonable demands from their developers for infrastructure improvement. The part near Holly Springs road and sunset lake road will never be developed unless the town is thoughtful and expect developers to pay for the whole infrastructure.

5/27/2025

So leave it undeveloped. The status quo is unacceptable. Developers don't build here for public good - they do it for profit - there's are infrastructure costs that they need to share. We don't need more corporate welfare.

6/12/2025

\* What are the top two (2) challenges you face regarding water infrastructure in your development projects?

4%	Other	Rank: 1.00	1 ✓
14%	Capital Improvement Plan (CIP) project timelines	Rank: 1.25	4 ✓
46%	Proximity	Rank: 1.38	13 ✓
54%	Capacity	Rank: 1.40	15 ✓
7%	Data Availability	Rank: 1.50	2 ✓
46%	Timing of other / adjacent development projects	Rank: 1.54	13 ✓

28 Respondents

\* What are the top two (2) challenges you face regarding sewer infrastructure in your development projects?

4%	Other	Rank: 1.00	1 ✓
48%	Proximity	Rank: 1.31	13 ✓
67%	Capacity	Rank: 1.33	18 ✓
37%	Timing of other / adjacent development projects	Rank: 1.60	10 ✓
15%	Data Availability	Rank: 1.75	4 ✓
4%	Capital Improvement Plan (CIP) project timelines	Rank: 2.00	1 ✓

27 Respondents

Are you developing in the following geographical areas (multi-select) and are there challenges related to water and sewer in these areas?

65%	Inside Holly Springs ETJ (green)	13 ✓
40%	Inside Holly Springs Planning Boundary (light green)	8 ✓
25%	Redevelopment Inside Town Limits (dark green)	5 ✓
20%	Greenfield Inside Town Limits (dark green)	4 ✓

20 Respondents

Inside the HS ETJ off Sunsetlaket road, 100% the lack of water and sewer is limiting my ability to develop this property

6/9/2025

1 Agree

Water Capacity is a huge concern. Timing needs to be nailed down

6/20/2025

"Main is coming from Sanford, but how do we tie in if a connection to a main is not permitted?"

"Moving forward without knowing if there is availability per water allocation policy is risky and frustrating.

6/11/2025

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## Poll Questions 'Other' Responses:

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Main is coming from Sanford, but how do we tie in if a connection to a force main is not permitted?

6/11/2025

Moving forward without knowing if there is availability per water allocation policy is risky and frustrating.

6/11/2025

Prospect of putting in more residences nearby will cause our area to be over saturated as developers is now looking to build on Grigsby near the Fair Hill Subdivision

6/10/2025

ETJ on Sunset Lake near 540

6/9/2025

Arbor Creek

6/9/2025

medium green

6/2/2025

light green

6/2/2025

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Are you developing in specific areas where there are challenges related to water and sewer? If so, provide any specific areas and challenges below. (for example, Business Park area, Northeast Gateway, Southwest Corridor, Downtown, North Main Street, etc.)?

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Northeast Gateway (multiple developers have come to me but no sewer answers) Southwest Corridor has proximity issues.

6/18/2025

North East Gateway - no sewer capacity and development requirements prohibit development at Kildaire, Holly Springs Road, and the 540 Interchange.

6/12/2025

Duncan Cook Road area

6/12/2025

Northeast Gateway. There are so many owners that own property in this area that have no reasonable timeline or information about ever being able to connect to Town utilities.

6/11/2025

Not looking in these areas, but know that NE Gateway and SW are without available utilities.

6/11/2025

As a consultant, we try to steer our clients to areas where there is known capacity (or can be verified through a study) and the only unknown would be if Council will approve allocation. If there are doubts, speaking with staff early helps us inform our clients.

6/11/2025

Grigsby near Fair Hill

6/10/2025

Yes. Our property is affected by lack of sewage infrastructure. We are located on the corner of Sunset Lake and 540. Closer to the holly springs intersection.

6/9/2025

Not currently. Our current site is along N Main Street.

6/9/2025

Southwest Corridor

6/2/2025

Yes. Holly Springs Road close to Sunset Lake Road.

5/27/2025

#### \* How should the Town prioritize investments in water and sewer utilities?

64%	Treatment plant upgrades	Rank: 1.36	14 ✓
36%	Gravity sewer to unserved areas	Rank: 1.38	8 ✓
50%	Regional pump stations	Rank: 1.45	11 ✓
32%	Waterline extensions to unserved areas	Rank: 1.71	7 ✓
0%	Other		0 ✓

22 Respondents

## Are there specific regulatory or compliance hurdles related to water and sewer service that impact your developments?

Yes. You standards are more stringent than industry standards , causing limitations. You are more strict than NCDEQ requirements for flow and capacity. This leads to oversizing, where developer and owner share the extra burden/cost.

6/9/2025

2 Agree

The lack of a regionalized utilities in NC, including Holly Springs, makes it very difficult to work in most municipalities. Instead of working to figure out how to serve the development community, everything is a bargaining chip. This allows the municipalities to force developers to cover the costs but at the expense of those who serve and make up the backbone of the community. Most of these costs are passed on to consumers so ultimately, they are the ones paying for the improvements. The average sales price for a listed home in Holly Springs is north of \$600k.

6/24/2025

No

6/20/2025

Not allowing private pump stations severely limits development.

6/18/2025

no

6/12/2025

Timing of capacity notification. The response time from Town of HS utilities was significantly delayed. Further clarity upfront on capacity constraints. Please do not make individuals go through six months of trying to get a response from the Town.

6/11/2025

The Water Allocation Policy that we are unsure is actually legal (has anyone challenged it?) does not have enough options to move from a Tier 2 or 3 to a Tier 1. The limited options make it hard to move tiers.

6/11/2025

none that I can think of at this time.

6/10/2025

I am okay with rules and regulations that are more strict than other communities. It is our way of maintaining high standards in Holly Springs.

6/9/2025

The Town's standards are typically more stringent than industry standard and other requirements of the area. Resulting in effort by the developer to confirm sizing/capacity and potentially resulting in oversizing of existing infrastructure.

6/9/2025

The Town's standards are more strict than NCDEQ requirements for sewer flow and for water capacity, which results in upgrades to existing lines, born by the developer and oversizing of new lines which benefit the Town, at the expense of the developer.

6/9/2025

Requirement to stub to every upstream property needs to be revisited. Logical stubs to lower areas is ok. Stubbing to an adjacent property that is at a high point should warrant easier exceptions from staff.

6/2/2025

The Town's requirement that "Sanitary sewers shall be designed to carry the projected peak flow at no more than ½ full" is limiting. Maybe this should be revised or apply only to new infrastructure and not considered when evaluating existing infrastructure for capacity. The State of NC only requires that sanitary sewers be designed to carry the average daily flow at half full (Minimum Design Criteria for the permitting of Gravity Sewers-Section III.D.1.c).

5/28/2025

No, it is only lack of capacity

5/27/2025

Can you share any experiences where water and sewer infrastructure significantly impacted your project timeline or budget?

The WRMP process makes it difficult to plan project phasing and timelines and cash flow.

6/11/2025

👍 1 Agree

3 developers who wanted to develop our land, had to back out because of lack of Sewer capacity. No pump station, and the waste water treatment center was not going to be able to acomodate our project. This is really impacting out ability to sell

6/9/2025

👍 1 Agree

No

6/20/2025

Regional pump station requirement has killed more projects than I can count.

6/18/2025

Edwards Drive Mixed-Use by Akridge Kettler. This Rezoning addresses the development of approximately 76.74 acres bordered to the south by future NC 540, to the west by Sunset Lake Road and to the east by Kildaire Farm Road. The property is comprised of four tax parcels, PIN 0760111738 (the "Johnson Tract"), PIN 0750915352 (the "Byler Tract"), and PINs 0750813459 and 0750815984 (the "Francis Tract")(collectively, the "Property"). The Johnson Tract is within the Town limits and the Byler and Francis Tracts are within the Town's Extra Territorial Planning jurisdiction.

6/12/2025

The availability of sewer to serve the southwest portion of Town and future significant upgrades to existing infrastructure that will be required.

6/12/2025

We were unable to successfully transact on a property given the delays, lack of certainty, lack of clarity, and lack of assistance from the Town staff.

6/11/2025

We have a project that was part of a PUD that allocated sewer capacity for the PUD. We were limited to 1100 gpd, even though the sewer system had adequate capacity. We were held to the allocated flow, which reduced the size and quality of the project.

6/9/2025

My project was put on hold even though my project's sewer requirement was infinitesimal to the point of ridiculousness.

5/27/2025

Is there a development-related policy in another North Carolina municipality, regarding water and sewer, that you would like to see implemented in Holly Springs?

Water and sewer policies should not be tied to aesthetic standards - PERIOD.

6/18/2025

⬆ 1 Agree

City of Raleigh is a perfect example on clarity, planning, and responsiveness.

6/11/2025

⬆ 1 Agree

Make fees in-line with other Wake County municipalities.

6/11/2025

⬆ 1 Agree

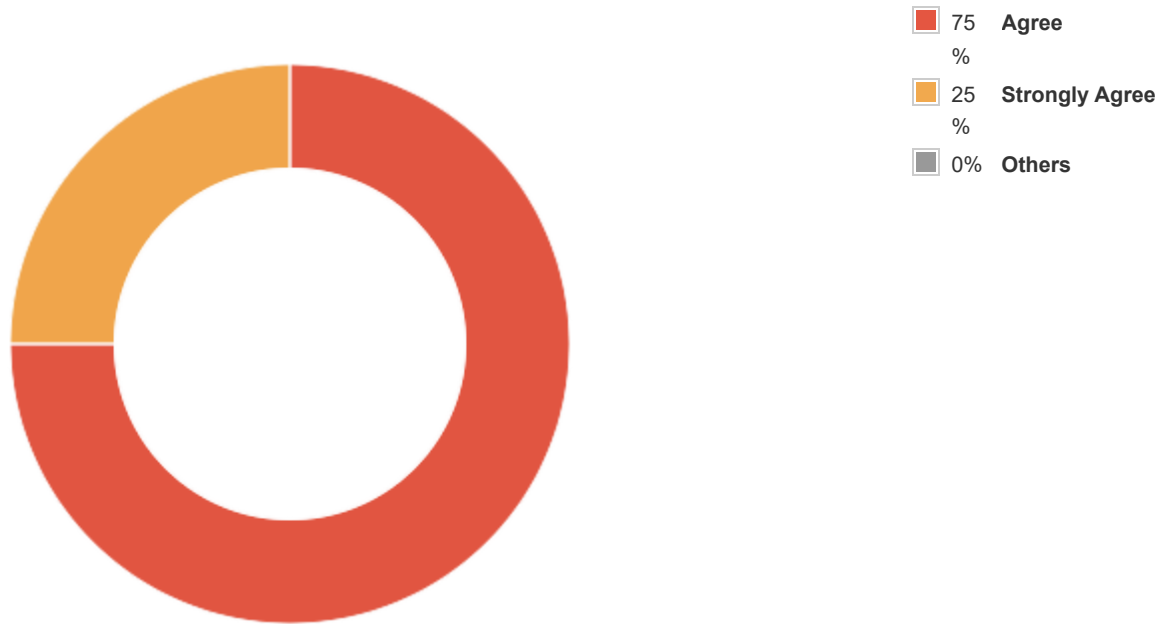
Yes. Shared costs. In Sanford, for example, if a community requires improvements to water or sewer infrastructure, the town voluntarily pays for the portion of the improvements that benefit the community and the do not tack on other burdens such as parks, 8' wide walking paths, light improvements, etc, beyond what is reasonable. I currently know of 2 landowners in Holly Springs' ETJ that will never be able to sell their property based on the town's current policies.

6/24/2025

No

6/20/2025

What is your perspective on the following statement: Stormwater and flood regulations in Holly Springs benefit and protect the community.



20 respondents

Yes it seems adequate

6/9/2025

I somewhat agree. Holly Springs sometimes requires an unreasonable amount of stormwater studies that already meet the peak flow requirements and treatment standards. Those studies provide no benefit, only cost. If peak flow has been accomplished below existing conditions, what is the point of an extensive flood study offsite?

6/9/2025

Have you encountered any issues related to stormwater management in your development projects (for example, SCM sizing, FEMA/local flood studies, erosion control, etc.)?

Local flood studies being required at zoning aren't as useful as they seem on the surface. So little engineering has been done at zoning, it is impossible to know the true impact of any proposed development on flood elevations.

5/28/2025

2 Agree

no

6/20/2025

Having them all reviewed together along with the Town Package (even if special study) is helpful for scheduling and being able to react on the design side.

6/10/2025

no

6/10/2025

no

6/9/2025

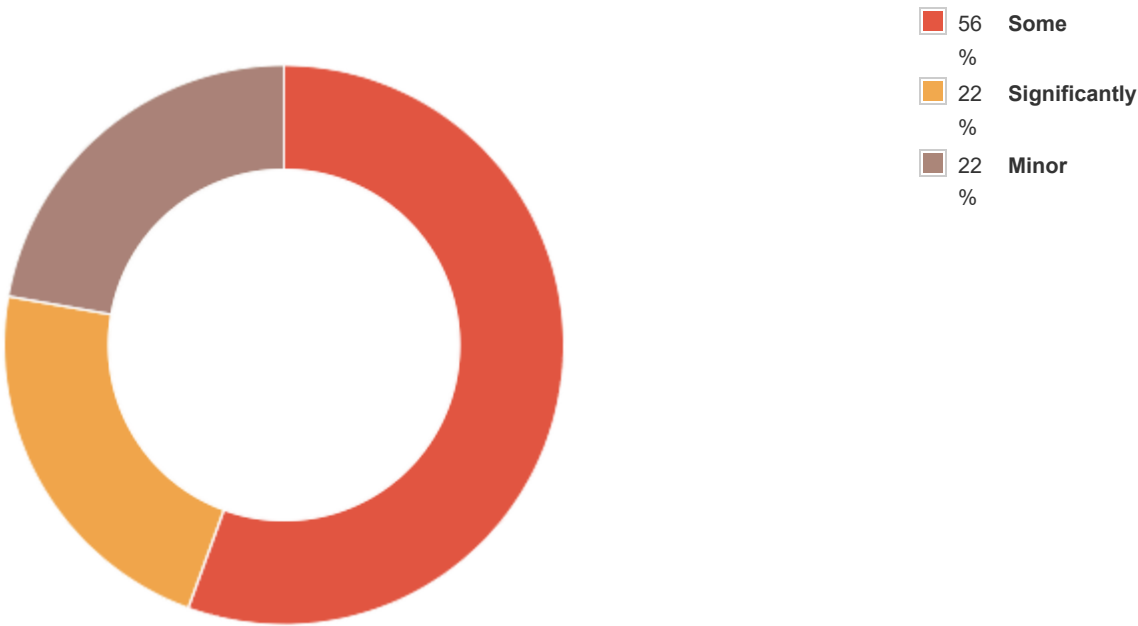
Not yet

6/9/2025

No

5/27/2025

How do existing community facilities influence your decision-making process for new development (for example, Parks, Schools, Greenways, Fire Stations, Police Stations, etc.)?



18 respondents

minimal impact. HS is a desireableo area with plenty of amenities today. We need the capacity to build our projects

6/9/2025

1 Agree

Parks, Schools and Greenways more than anything

6/20/2025

no

6/9/2025

What additional community facilities do you think are needed to support the existing community and future growth? (for example, Greenways, Sidewalks, Town Square / Plaza areas, Fire Stations, Police Stations, etc.)

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We need to continue to improve downtown holly springs as our community's core, but we also need to allow for housing and development around what is currently the outer edge. In planning for this, HS needs to consider how a divers set of products can benefit all members of the community, build into your plan the ability to offer cottage homes and (real) mixed use.

6/24/2025

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I think Growth Nodes with a town square type feel strategically placed within your Planning District would greatly improve traffic and the ability to provide density around the nodes.

6/20/2025

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Sewer

6/11/2025

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Places for teens, I don't know what this would be, because teens don't talk to us adults - but they say everything is boring and there is nothing to do. Maybe phone charging stations in public spaces and wifi would at least get them outdoors.

6/11/2025

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Stop building neighborhoods. We like to see trees!

6/10/2025

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More Greenways

6/10/2025

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none

6/9/2025

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Power is critical. Developers having to pay to bury power infrastructure handcuffs development goals and is not realized by the community.

6/9/2025

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Start with burying power. The Town tries to make the developers bury power in and around downtown and the cost sometimes exceeds the entire site budget. UGE is safer, more reliable, and easier to maintain. Stop with the hap-hazard "public art spaces". Good example, in front of Lowe's Home Improvement, that space was provided to meet the code and it's an eye sore. More thought could have been placed on that space by the Town and development community.

6/9/2025

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Town square/park for people to hang out downtown and stay in the area longer. A park like Cary's downtown park would make the area much more desirable.

6/9/2025

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How can development projects better integrate with the surrounding natural environment?

I've always liked the idea of regulating that natural corridors flow between projects. That way it isn't just fragments of vegetation based on a calculation, but a requirement that the tree coverage extend across the site in a linear manner connecting with adjacent natural areas for wildlife corridors (naturally occurs on sites with streams).

5/28/2025

 1 Agree

Have a more robust plan with divers product and communicate what the town's vision is to the development community.

6/24/2025

Cluster subdivisions with community open spaces connecting to natural features.

6/20/2025

Everyone understands that alley-loaded houses look nice, but they are not as environment friendly as just having one car-oriented lane either in front or behind the house, not both in front and behind. The Town should be okay with alley loaded homes that front on a green OR front loaded lots that allow some people to enjoy the back yard that they really want. Maybe you have them put a sidewalk between back yards so that there is a protected pedestrian area aside from the sidewalk on the street. Allow creativity in design rather than requiring the alley loaded with a wide road on the front - this is just extra infrastructure for developers to build and taxpayers to maintain. The road widths in your cross-sections are really wide and create more impervious surface. Suggest looking at some cross-sections that have less impervious surface, yet meet safety for pedestrians.

6/11/2025

More state parks, less housing developments

6/10/2025

Stop clear cutting for a new development. Leave as many healthy existing trees as possible, And not just on the perimeter of the development. Plant more mature trees within the development, ie, streets, neww yards, etc.

6/9/2025

n/a

6/9/2025

What other challenges related to infrastructure, community facilities, and natural areas have you faced while developing in Holly Springs?

Disconnect between the Town staff and the Town Council. Projects can go through with positive feedback from Town staff and rejected from the Town Council.

6/11/2025

The unknown costs of development that pop up at different points throughout the development process. Whether that is a "voluntary" contribution, additional off-site improvements, etc. Knowing the unknowns AS EARLY in the process as possible allows the development community to decide early on if they are able to make a project work. HS has increasingly added "volunteer" contributions and requests late in the process and have made a project not viable after much money in Due Diligence has been spent. We get it, every municipality wants developers to cover some costs, the community may expect it, Council may expect it - we just want to know upfront what that may be.

6/11/2025

It is getting VERY crowded. Traffic is horrible any time of the day. We moved here because we liked things simple. Now it's becoming a confusing city.

Stop building useless buildings (we don't need more banks/dentists/mattress stores...) we want out trees and beautiful landscape back

How about putting that money into improving security cameras and ticketing people who run red lights...

6/10/2025

Main Street is too crowded with traffic and instead of widening the road with additional lanes, you allow developers to come in and build more residences and businesses so we have more traffic problems than we've had. In the 21 years that I've lived here, I've seen a lot of change but I also see that the worn allows for overgrowth and it needs to stop. Widen Main Street. Also we need a traffic light at the corner of Main Street and Maple! The back-up is ridiculous at times, specifically rush hour and holidays or when there are events or voting. The request for a traffic light seems to have fallen on deaf ears and something needs to change to allow it to happen! Too many in the area off of Grigsby complain about the problem and nothing gets done about it.

6/10/2025

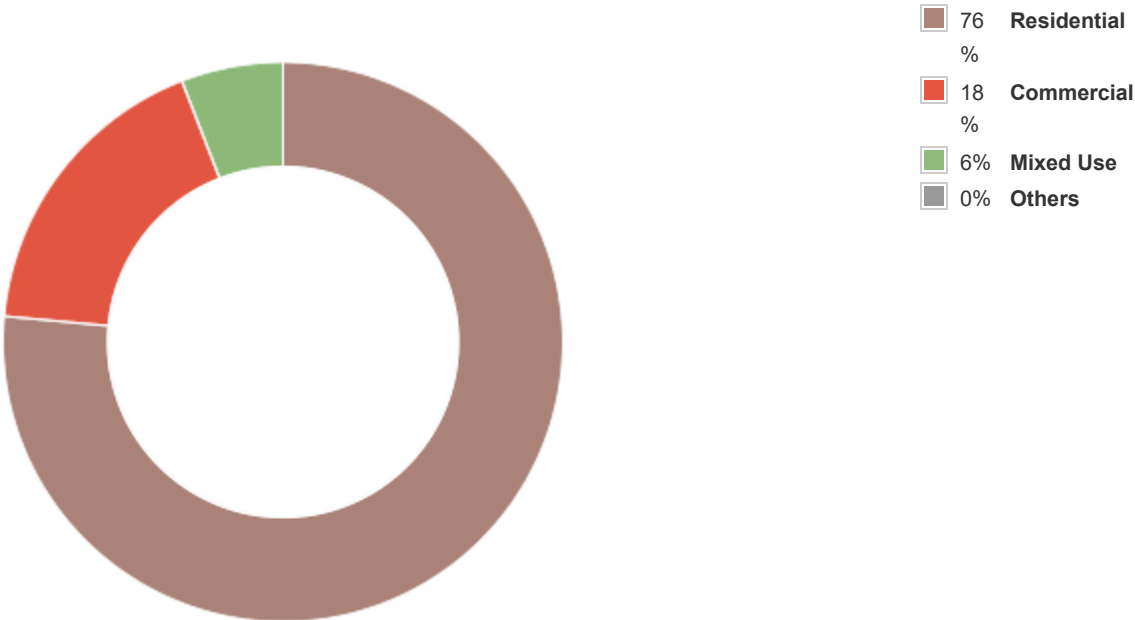
not that im aware of

6/9/2025

Access to buried power is a challenge. The implementation of Super Streets have congested a corridor that was previously operating at a poor level of service and made it worse.

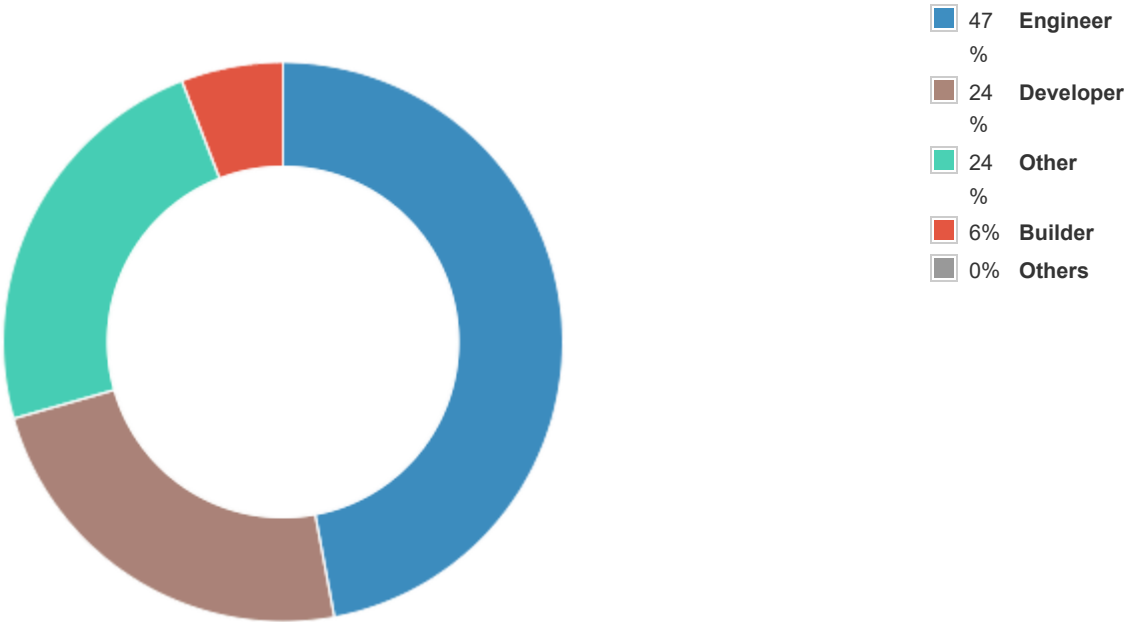
6/9/2025

What is your primary market sector?



17 respondents

What is your role in development?



17 respondents