



Planning, Development & Inspections

TEL (PLANNING) 919 856 6310
TEL (INSPECTIONS) 919 856 6222

A Division of Community Services
P.O. Box 550 • Raleigh, NC 27602
www.wakegov.com

To: Wake County Planning Board
From: Tim Maloney, Director
Subject: Unified Development Ordinance Text Amendment OA-01-23
Date: July 19, 2023

Request

That the Planning Board recommend approval to the Wake County Board of Commissioners the following amendment to the Wake County Unified Development Ordinance (UDO):

1. Amend the standards for Section 19-32 *Minor Subdivisions* that regulate when a minor subdivision may be used; and amend the total number of new lots allowed when combined with a second minor subdivision or a minor-limited subdivision.

Applicant

Wake County Planning Development and Inspections

Amend the standards for Section 19-32 Minor Subdivisions that regulate when a minor subdivision may be used; and amend the total number of new lots allowed when combined with a second minor subdivision or a minor-limited subdivision.

Background

The Wake County UDO offers several options when a customer wants to subdivide their land. The most familiar, and commonly seen around our community, is called a “regular” subdivision, which is used for large subdivisions. Regular subdivisions are required to apply a variety of regulations including right of way and easement dedication, transportation and roadway improvements, stormwater control infrastructure, and pedestrian and trail considerations, among other requirements. These regulations are applied to plan for future growth in and around the proposed subdivision, and to minimize its impact on the environment. The review and approval process for a regular subdivision can take several months. It requires a three-step process (Preliminary Plan Approval, Construction Plan Approval, and Record Plat Approval) and involves detailed technical review by various county departments and external stakeholders such as NCDOT and municipalities.

Another option offered to subdivide land is a “minor” subdivision. This option is specific to subdividing land into 3 lots or less, among other restrictions. The minor subdivision provides an expedited review process with fewer requirements, making it quick and easy to navigate for customers seeking a small subdivision. With this approach, regulations such as right of way and

easement dedication, transportation and roadway improvements, stormwater control infrastructure, and pedestrian and trail considerations are not applied like they are to regular subdivisions. Because of this, the review and approval time is much quicker than a regular subdivision. Wake County established the minor subdivision many years ago for the sole purpose of easing requirements and expediting review of small subdivisions.

A third option for subdividing land was established more recently through state law in 2017. Pursuant to NC Session Law 2017-10, local jurisdictions must offer a “minor-limited” option that allows no more than 3 lots, among other restrictions. This option, mandated by law, has some of the same standards and characteristics as the minor option, such as expedited review and eased development requirements (right of way and easement dedication, transportation and roadway improvements, stormwater control infrastructure, and pedestrian and trail considerations are not applied to minor-limited subdivisions).

Analysis

In 2017, when the new state law mandated the minor limited subdivision option, it was uncertain how it would integrate with the minor subdivision the County already offered. Now, several years later, we are starting to experience an unforeseen consequence whereby applicants are leveraging a combination of the minor and minor-limited subdivision and circumventing the intent of these options (3 lots or less). What’s happening is applicants are combining the two subdivision options and achieving a lot yield anywhere from 9 lots up to 18 lots. Subdivisions of this size should be developed as a regular subdivision. When this approach is leveraged, critical development regulations are not applied as they would be if it was developed as a regular subdivision. No right of way and easement dedication is applied, transportation and roadway improvements are not required, stormwater control infrastructure devices are not implemented, and pedestrian and trail considerations are not included.

Although not a trend yet, there is concern that this approach is moving in that direction. To address it, staff is proposing several key amendments to UDO Section 19-32 Minor Subdivisions that: 1) require small subdivision applications pursue the minor-limited option first, if the criteria for that option can be satisfied. If not, then the minor subdivision option may be used. 2) reintroduce ability to combine two minor subdivisions in sequence. The UDO offered this approach before the 2017 law but was removed thereafter; and 3) limit the number of lots to 5 when combining the minor and minor-limited option or combining two minor options. Without these proposed amendments, staff expect to see more subdivisions bypass regulations that are critical to accommodating growth and infrastructure within our community.

In addition, this proposed amendment has implications on the Wake County Comprehensive Plan (PLANWake). Adopted in 2021, the plan established a principle to direct growth toward the municipalities by promoting annexation so that utilities and other urban services are provided in areas we know are positioned for urbanization. To accomplish this, the UDO was amended to include a new tool called Municipal Transition Standards (MTS). The tool requires proposed developments (regular subdivisions) in municipal growth areas to seek annexation and utility extensions to serve the development. When applicants leverage the minor and minor limited subdivision option, and create larger subdivisions, they bypass the MTS tool that requires municipal annexation and utility connection. The proposed amendment furthers the Wake County Comprehensive Plan by increasing opportunities to make these important municipal connections.

Staff met with the Raleigh/Wake County Homebuilders Association (HBA) on this amendment. They had one suggestion that was incorporated into the amendment. That change was reintroducing the ability to do two minor subdivisions in sequence, achieving a total of 5 lots.

Overview of Changes

1. *Require the Minor Limited Option First:* When an applicant seeks a small subdivision, they will be required to pursue the minor-limited subdivision option first, if the criteria for that option can be satisfied. If they do not meet the criteria, then the applicant may pursue the minor subdivision option.
2. *Reintroduce the Ability to Combine Two Minor Subdivision Options:* Prior to the 2017 law that mandated the minor-limited subdivision option, the County allowed the combination of two minor subdivisions that could yield a total of up to 5 lots. When the law became effective, the County eliminated the ability to combine two minor subdivisions. This amendment proposes to reintroduce the ability to combine two minor subdivisions and achieve a total of up to 5 lots.
3. *Limit the number of lots to 5 when combining Minor and Minor-Limited Subdivision options:* This amendment will limit the number of lots to 5 when combining the minor and minor-limited options.

Staff Findings

The proposed amendment:

1. Addresses concern about large subdivisions circumventing development regulations by leveraging the minor and minor-limited subdivision options.
2. Preserves the intended purpose of expediting the review of small subdivisions with eased development regulations.
3. Establishes a maximum total lot yield of 5 for small subdivisions, which matches what it was in 2017 before new law introduced the minor-limited subdivision option.
4. Furthers the goals of PLANWake by directing growth toward the municipalities.

Staff Recommendation

Staff recommends that, in the matter of OA-01-23, the Planning Board finds that the adoption of this proposed text amendment is consistent with the Wake County Comprehensive Plan and Wake County Unified Development Ordinance and are reasonable and in the public interest and hereby make a motion to recommend approval to the Wake County Board of Commissioners.

Attachments

1. OA-01-23 Text Amendment
2. Motions Page
3. Presentation

19-32 Minor Subdivisions.



19-32-1 **Generally.** The minor subdivision approval process requires the Planning Director's review and approval of a record plat, which, upon recordation with the Register of Deeds, actually creates the proposed lots and easements. No lot proposed to be created through the minor subdivision of a parcel may be sold or offered for sale until a record plat showing the subdivision has been approved by the Planning Director as complying with all applicable provisions of this ordinance, and has been recorded with the Wake County Register of Deeds.

19-32-2 **Applicability.** The minor subdivision procedures of this section may be used only for land divisions that cannot meet the criteria of Section 19-31 minor-limited subdivision and comply with all of the following criteria:

- (A) Creates no more than three lots with direct access to a new, existing or extended private road or to an existing public road;
- (B) Does not involve any new public road;
- (C) Does not involve the extension of public wastewater or water lines;
- (D) Does not land-lock or prevent development of the remainder of the parcel or abutting property;
- (E) Does not create any new or residual parcels that do not comply with the requirements of this ordinance or other applicable state or local regulations;
- (F) Is not located, wholly or substantially, in a flood hazard area; and
- (G) A total of no more than 5 lots being created with the combination of two minors or a combination of one minor and/or one minor-limited of a parent tract within 5 years. ~~Only one minor subdivision of the parent tract is allowed within any five-year period.~~

19-32-3 Application Submittal and Acceptance.

- (A) **Submittal.** A person seeking approval of a record plat for a minor subdivision must submit an application for minor subdivision record plat approval to the Planning Director.
- (B) **Application Contents.**
 - (1) The application must:
 - (a) Include, with sufficient copies for necessary referrals and records, those application forms, maps, plans, and other documents prescribed by the Planning Director;
 - (b) Include the property owner's signed authorization for submittal of the application;
 - (c) Indicate the site's relationship to adjacent development and improvements;
 - (d) Depict the nature and scope of the proposed subdivision and any associated development;
 - (e) Identify and depict the boundaries and area of all proposed lots and other parcels;

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- (f) Identify and depict the boundaries of all existing and proposed rights-of-way and easements;
 - (g) Indicate significant topographical, environmental physical and built features of the subdivision site and surrounding area;
 - (h) Be accompanied by an environmental assessment describing plans for any proposed community or wastewater systems;
 - (i) Be accompanied by a traffic impact analyses if required pursuant to Sec. 15-12;
 - (j) Affect proposed dedications and restrictions; and
 - (k) Show how the subdivision complies with all applicable provisions of this ordinance and all applicable requirements for recording set forth in the North Carolina General Statutes.
- (2) The Planning Director may waive one or more application submittal requirements by certifying in writing that such information is unnecessary in the particular case to determine compliance with applicable regulations.
 - (3) Plans must be prepared by a licensed designed professional authorized by the North Carolina General Statutes to perform such work.
- (C) **Fee.** The applicant must also submit the fee prescribed for the type of application by the Board of Commissioners.
- (D) **Acceptance.**
- (1) The Planning Director must review a submitted application to determine whether it includes all of the information required by paragraph 19-32-3(B).
 - (2) If the application does not include all of the information required by paragraph 19-32-3(B), the Planning Director must notify the applicant of the submittal deficiencies and invite the applicant to revise the application to correct the deficiencies.
 - (3) If the application includes all of the information required by paragraph 19-32-3(B), the Planning Director must accept the application as complete.

19-32-4 Withdrawal of Application. An applicant may withdraw an application for minor subdivision record plat approval at any time by submitting written notice of withdrawal to the Planning Director.

19-32-5 Staff Review.

- (1) After accepting an application as complete, the Planning Director must refer it to appropriate staff for review.
- (2) The review staff must review the application, determine whether the record plat complies with all applicable regulations, identify any noncompliant features of the plat, and, whenever feasible, suggest modifications to correct the noncompliant features.
- (3) The Planning Director must notify the applicant of the identified noncompliant features and suggested modifications, and invite the applicant to discuss the review staff comments.
- (4) The Planning Director must make every reasonable effort to process, review, and decide applications for minor subdivision record plat approval in a timely manner, consistent with the need to fully consider the proposed plat's compliance with applicable regulations.

19-32-6 Opportunity to Revise Application.

- (A) Following receipt of the review staff comments and any discussions thereof with the Planning Director, the applicant must either:

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- (1) Request that the Planning Director take action on the application as submitted; or
 - (2) Notify the Planning Director of an intent to revise the application to address staff comments and submit a revised application to the Planning Director.
- (B) If the applicant submits a revised application, the Planning Director must determine whether it continues to comply with submittal requirements. After accepting a revised application as complete, the Planning Director must refer it to appropriate staff, who must review it for correction of previously identified noncompliant features.
- (C) Any application for a minor subdivision must comply with all applicable provisions of this ordinance that are in effect at the time that final approval is sought. In the event that an applicant withholds resubmittal of the revised application for more than two years from the date of the original application, then that submittal must be processed in the same manner as a new submittal, including the payment of a new application fee in accordance with the fee schedule in effect at the time of filing.

19-32-7 Staff Action. Following the applicant's request for staff action on the original application, or staff review of a revised application, the Planning Director must review staff comments, and, based on findings regarding the application's compliance with all applicable provisions of this ordinance, approve the application as submitted or deny the application.

19-32-8 Notice of Decision. The Planning Director must provide the applicant notice of the final decision on the application, and must file a copy of the decision in the Planning Department office. If the application is denied, the notice must include the reasons for the denial.

19-32-9 Appeal of Decision. Any person aggrieved by the Planning Director's decision to approve or deny an application for minor subdivision record plat approval may appeal the decision in accordance with Sec. 19-41.

19-32-10 Plat Certifications.

- (A) **Approval.** Upon approval of the application, the Planning Director must enter the following certification on the approved record plat:

I, _____, Planning Director and Review Officer of Wake County, certify that this plat creates a subdivision subject to and approved in accordance with the Wake County Unified Development Ordinance, and that it meets all statutory requirements for recording. This approval expires if not recorded before _____.

Date Planning Director/Review Officer

- (B) **Dedications.** If the approved record plat shows or otherwise includes offers to dedicate to the public any rights-of-way, easement, open space, or recreation area for roads, utilities, recreation facilities, or other public improvements, the Planning Director must also enter the following certification on the approved record plat:

Wake County hereby accepts, for the use and benefit of the general public, the rights-of-way, easements, open spaces, and recreation areas shown or otherwise provided for on this plat as dedicated for public roads, public utilities, public recreation facilities, and other public improvements. This acceptance does not include the county's acceptance of any responsibility to construct, install, or maintain the roadway, utility line, recreation facility, or other public improvement intended to be constructed or installed within the right-of-way, easement, open space, or recreation area.

Date Planning Director/Review Officer

- (C) **Acceptance.** Recordation of an approved plat with the above signed certification constitutes public acceptance of the public dedication, authorizing the use of the dedicated right-of-way, easement, open space, or recreation area for public road access and associated public purposes, utility service, or open space or recreation use (as appropriate), including the construction or installation thereon, in accordance with County and State regulations, of roadways, associated stormwater management improvements and erosion and sedimentation control devices, utility lines and facilities, recreation facilities, and other public improvements appropriate to the public purposes to which the right-of-way, easement, open space, or recreation area is dedicated.

19-32-11 **Plat Recordation.** The Planning Director's approval of a minor subdivision record plat is contingent on recordation of the plat by the Wake County Register of Deeds within 15 days after the approval date and submittal of an authorized copy of the recorded plat to the Planning Director.

19-32-12 **Improvements.** If an approved minor subdivision involves any associated improvements (such as a private road, public road widening, water supply or sewage disposal system other than individual wells and septic systems, stormwater management facilities or easements, erosion and sedimentation control devices, or any other improvements required as part of the minor subdivision approval), the construction or installation and maintenance of such improvements are subject to the provisions of Sec. 8-20, Sec. 8-21, and, as applicable, Sec. 8-22.

[OA 04/14 May 2, 2005 (Amended on 3/19/2018 by OA 02-17)]

MOTION FOR CONSISTENCY (1ST MOTION)

MOTION IF TEXT AMENDMENT IS CONSISTENT WITH THE COMPREHENSIVE PLAN AND UDO

In the matter of OA-01-23, I move that the Planning Board adopt and offer to the Board of Commissioners the following recommended statements finding that the proposed text amendment is consistent with the Wake County Comprehensive Plan and Wake County Unified Development Ordinance (UDO). The purpose of the Wake County Comprehensive Plan and the Wake County UDO, as seen in Article 1-22, is to provide a guide for the physical development of the county, preserve and enhance the overall quality of life of residents, and establish clear and efficient development review procedures. The text amendment included herein accomplishes this as described in the following statements.

1. The amendment to Section 19-32 *Minor Subdivisions* modifies the County's requirements for minor subdivisions by regulating when a minor subdivision may be used; and amend the total number of new lots allowed when combined with a second minor subdivision or a minor-limited subdivision.
2. The amendment addresses concern about large subdivisions circumventing development regulations by leveraging the minor and minor-limited subdivision options.
3. The amendment preserves the intended purpose of expediting the review of small subdivisions with eased development regulations.
4. The amendment establishes a maximum total lot yield of 5 for small subdivisions, which matches what it was in 2017 before new law introduced the minor-limited subdivision option.
5. The amendment furthers the goals of PLANWake, the Wake County Comprehensive Plan, by directing growth toward the municipalities.

MOTION FOR APPROVAL (2ND MOTION)

In the matter of OA-01-23, I move that the Board finds that the adoption of this proposed text amendment is consistent with the Wake County Comprehensive Plan and Wake County Unified Development Ordinance and is reasonable and in the public interest and hereby make a motion to recommend approval of this proposed text amendment to the Wake County Board of Commissioners.

Wake County Unified Development Ordinance Amendment OA-01-23

July 19, 2023

Tim Maloney, Planning Development and Inspections Director



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Goal: Direct growth toward the municipalities.

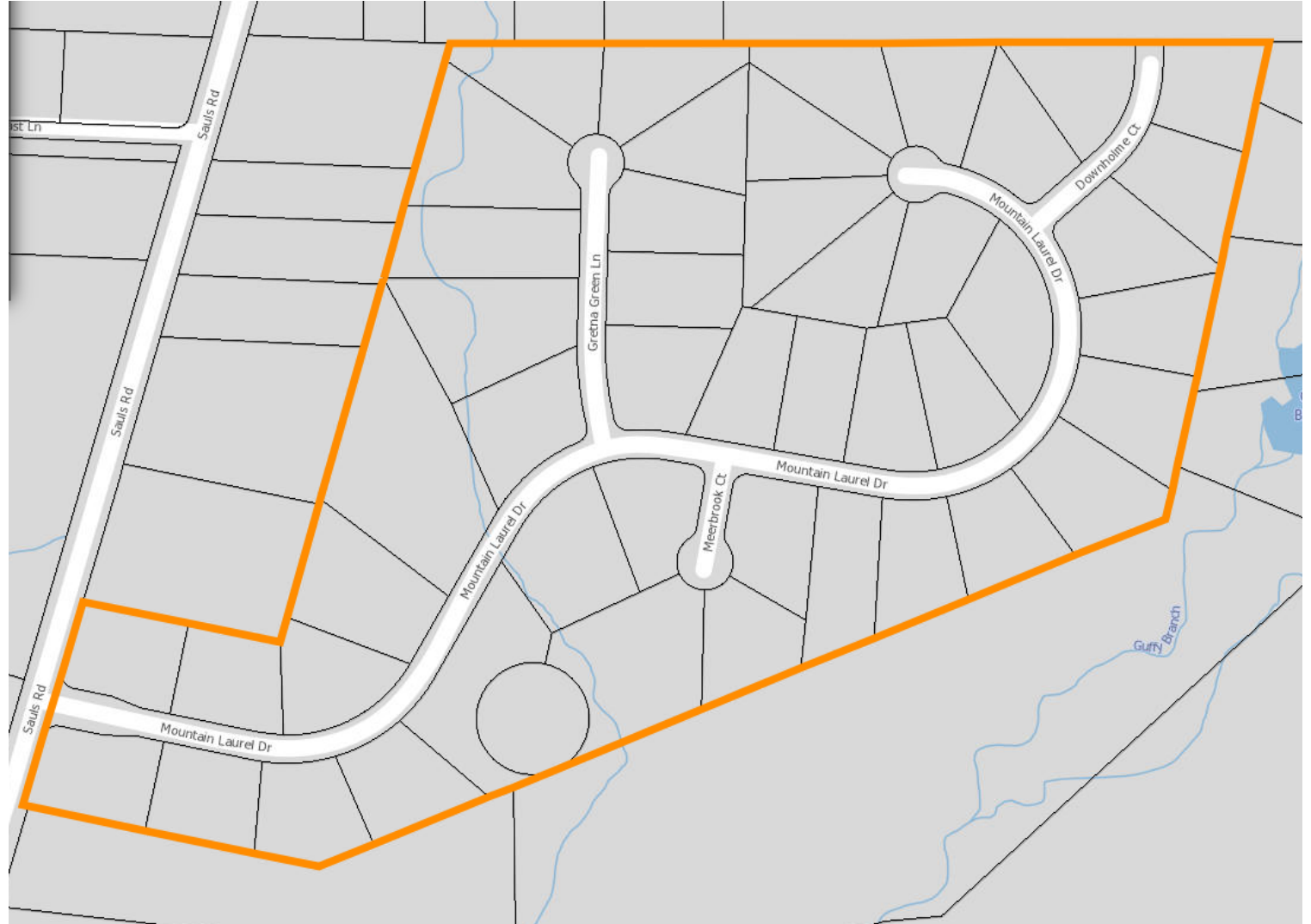
Promote annexation when possible so that utilities and other urban services are provided in areas we know are positioned for urbanization.

Initiative: Established Municipal Transition Standards (MTS)

Amended the Unified Development Ordinance to require proposed developments in municipal growth areas to seek annexation and utility extensions to serve the development.

Regular Subdivision

- More than 3 lots
- Several step process for review and approval
- A variety of development standards apply



Regular Subdivision Standards

- Right of way dedication required.
- Interconnectivity of roads and stub roads to future development required.
- Off-site road improvements, such as turn lanes, are required.
- Driveway access to thoroughfares is restricted (shared driveways not allowed).
- Set aside for municipal utility easements to accommodate future utility extensions are required.
- Annexation and connection to public utilities required when possible.
- Pedestrian/trail considerations required (trail easement dedication).
- Stormwater measures must be applied.

Small Subdivision Options

1. Exempt

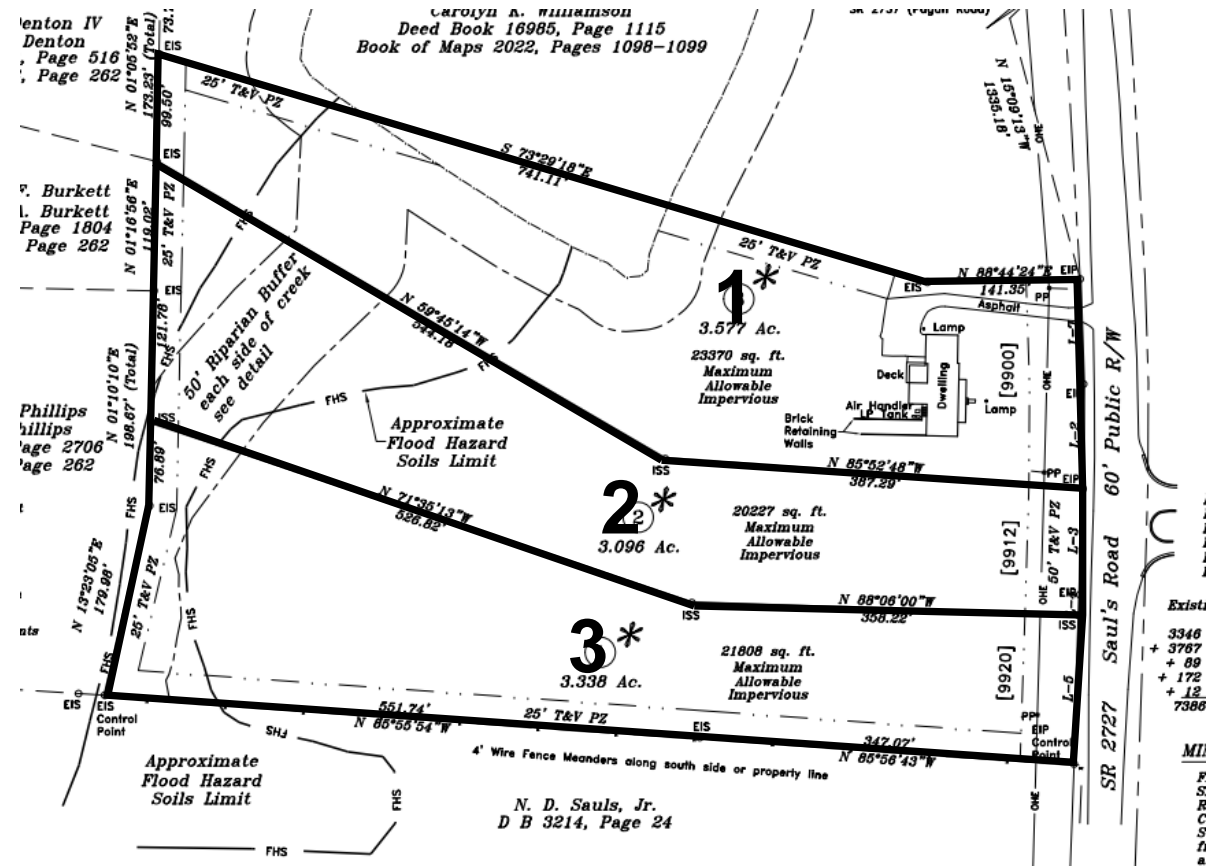
- Parent tract and new lots need to be at least 10 acres.

2. Minor

- No more than 3 lots.
- 5 year period between subsequent subdivisions.

3. Minor-Limited (NC Session Law 2017-10)

- No more than 3 lots.
- Parent tract must be greater than 5 acres.
- Parent tract must be in single ownership.
- 10 year period between subsequent subdivisions.



These options are designed to expedite review and ease regulations for small subdivisions.

Background – State Law

NC Session Law 2017-10 (S131)

- Sets the requirements for Minor-Limited subdivision.
- Intended to expedite the approval and ease restrictions on small subdivisions.
- Created in response to jurisdictions that did not already have a minor subdivision option.

Background – Issues

- Wake County already had an expedited review for small subdivisions (Minor: 3 lots or less).
- We're expecting a trend where applicants/owners start leveraging both Minor and Minor-Limited (and at times the Exempt) to achieve subdivisions larger than these options intended (9 lots and more).
- These larger than intended subdivisions are bypassing development standards applicable to “regular” subdivisions.
- Subsequent to the 2017 law establishing minor-limited subdivisions, the County considered eliminating the minor subdivision option.
- It was unclear at that time how the minor and minor-limited options would work in concert with each other.

Regular Subdivision Standards

- Right of way dedication required.
- Interconnectivity of roads and stub roads to future development required.
- Off-site road improvements (turn lanes) pursuant to the transportation plan.
- Driveway access to thoroughfares is restricted (shared driveways not allowed).
- Set aside for municipal utility easements required.
- Annexation and connection to public utilities required when possible.
- Pedestrian/trail considerations required.
- Stormwater measures must be applied.

Standards Not Applied to Small Subdivisions

- ~~Right of way dedication required.~~
- ~~Interconnectivity of roads and stub roads to future development required.~~
- ~~Off-site road improvements, such as turn lanes, are required.~~
- ~~Driveway access to thoroughfares is restricted (shared driveways not allowed).~~
- ~~Set aside for municipal utility easements to accommodate future utility extensions are required.~~
- ~~Annexation and connection to public utilities required when possible.~~
- ~~Pedestrian/trail considerations required (trail easement dedication).~~
- ~~Stormwater measures must be applied.~~

Example

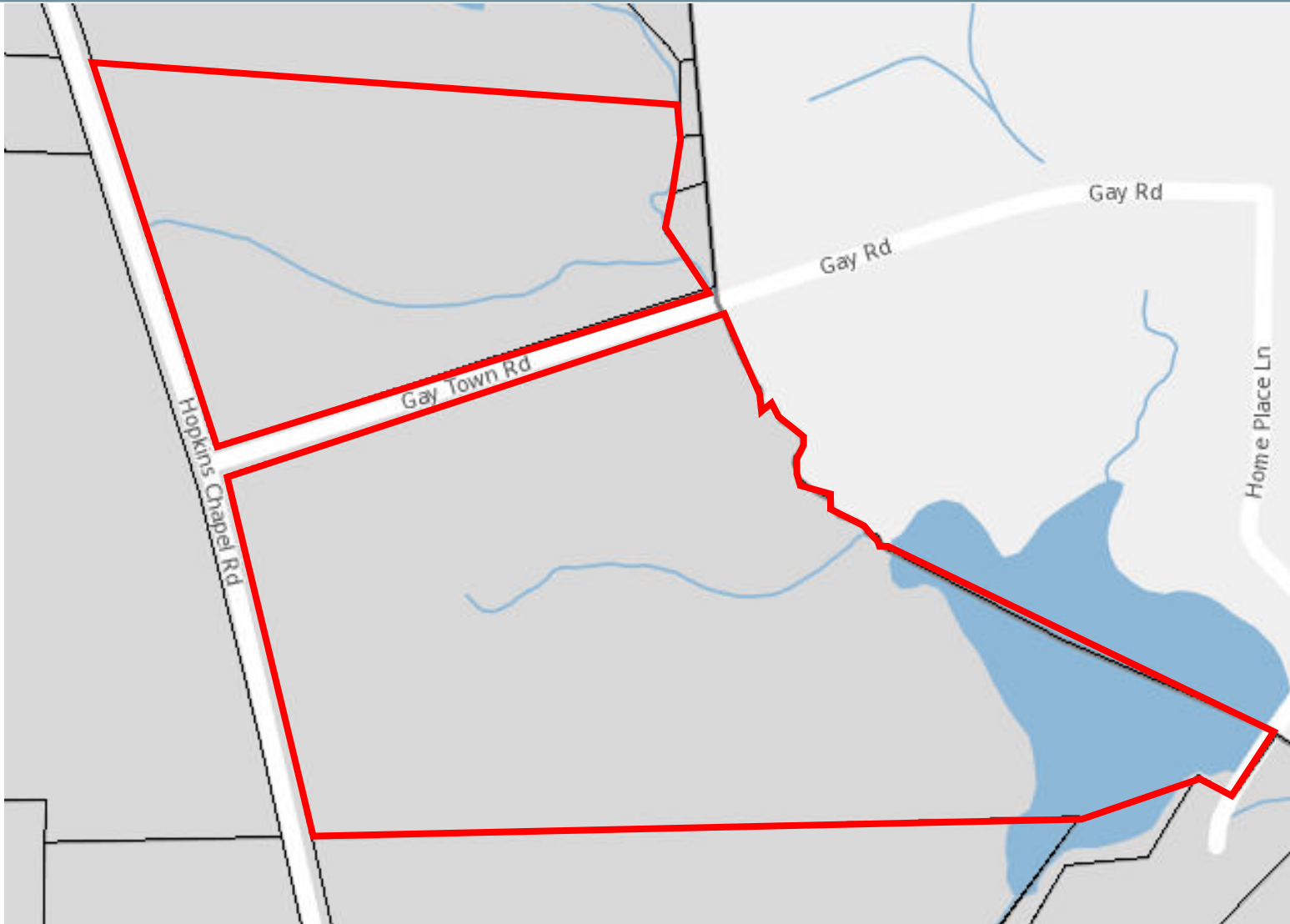


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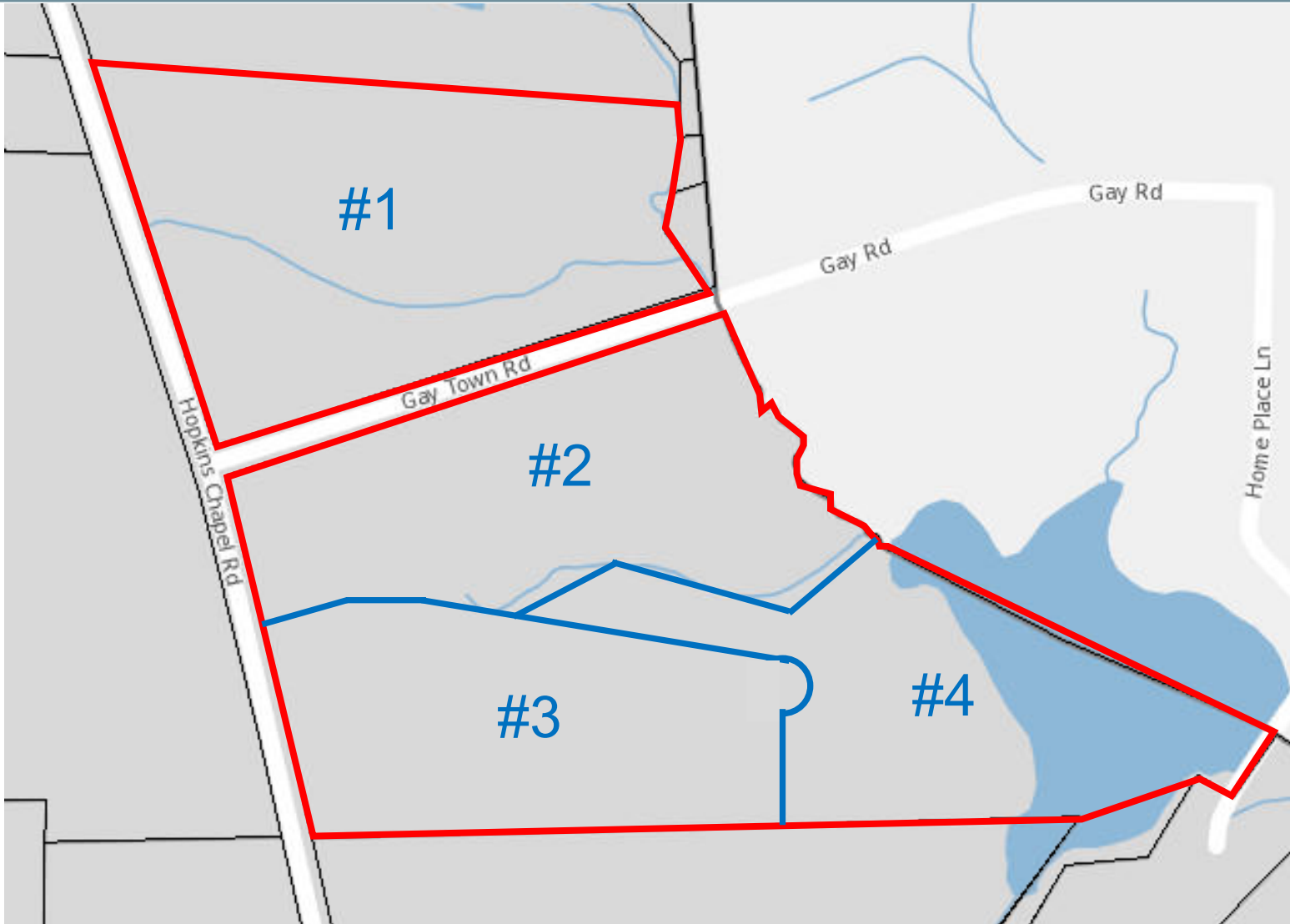


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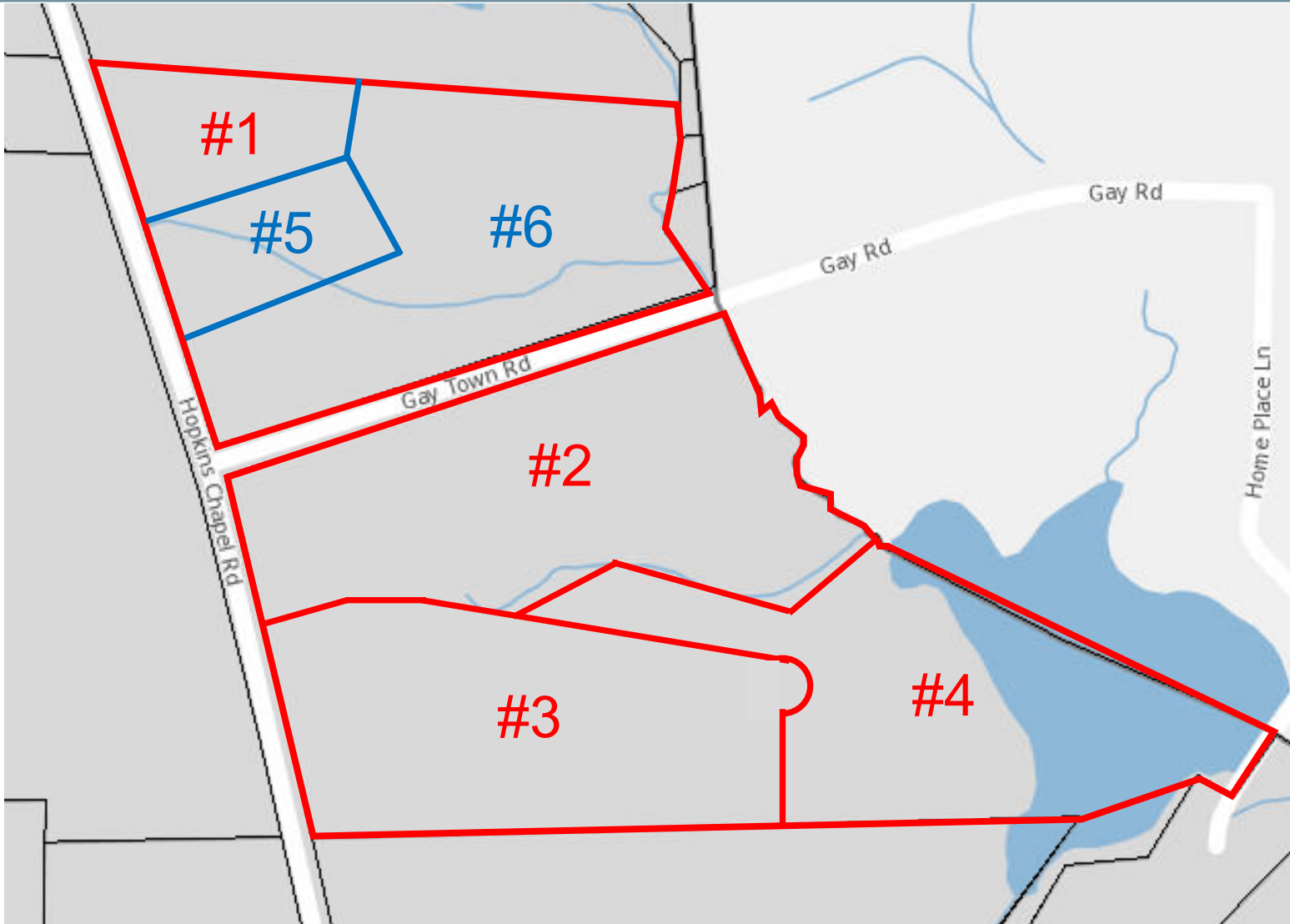
Parent Tract @ 45.5 Acres



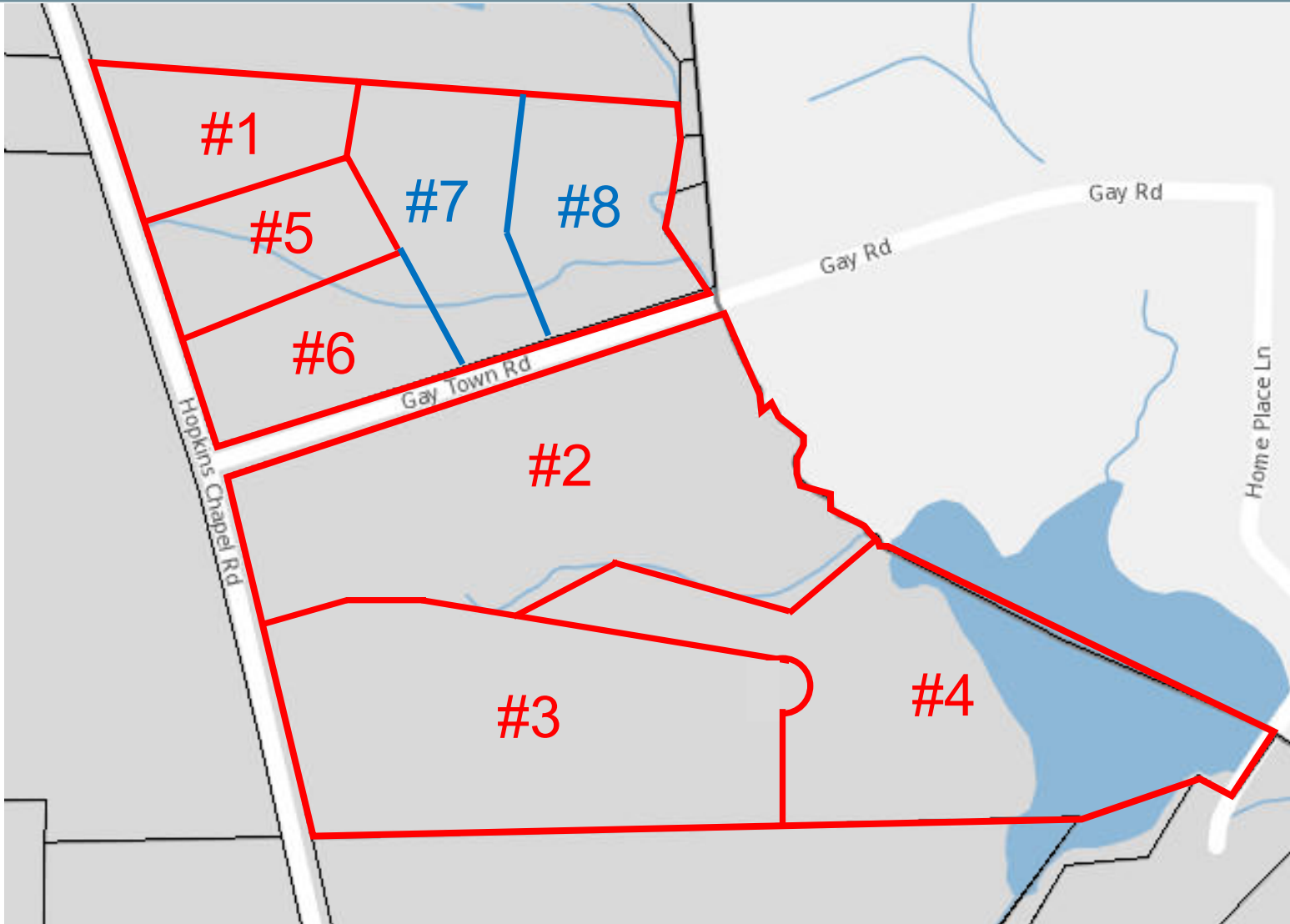
Lots 1 thru 4



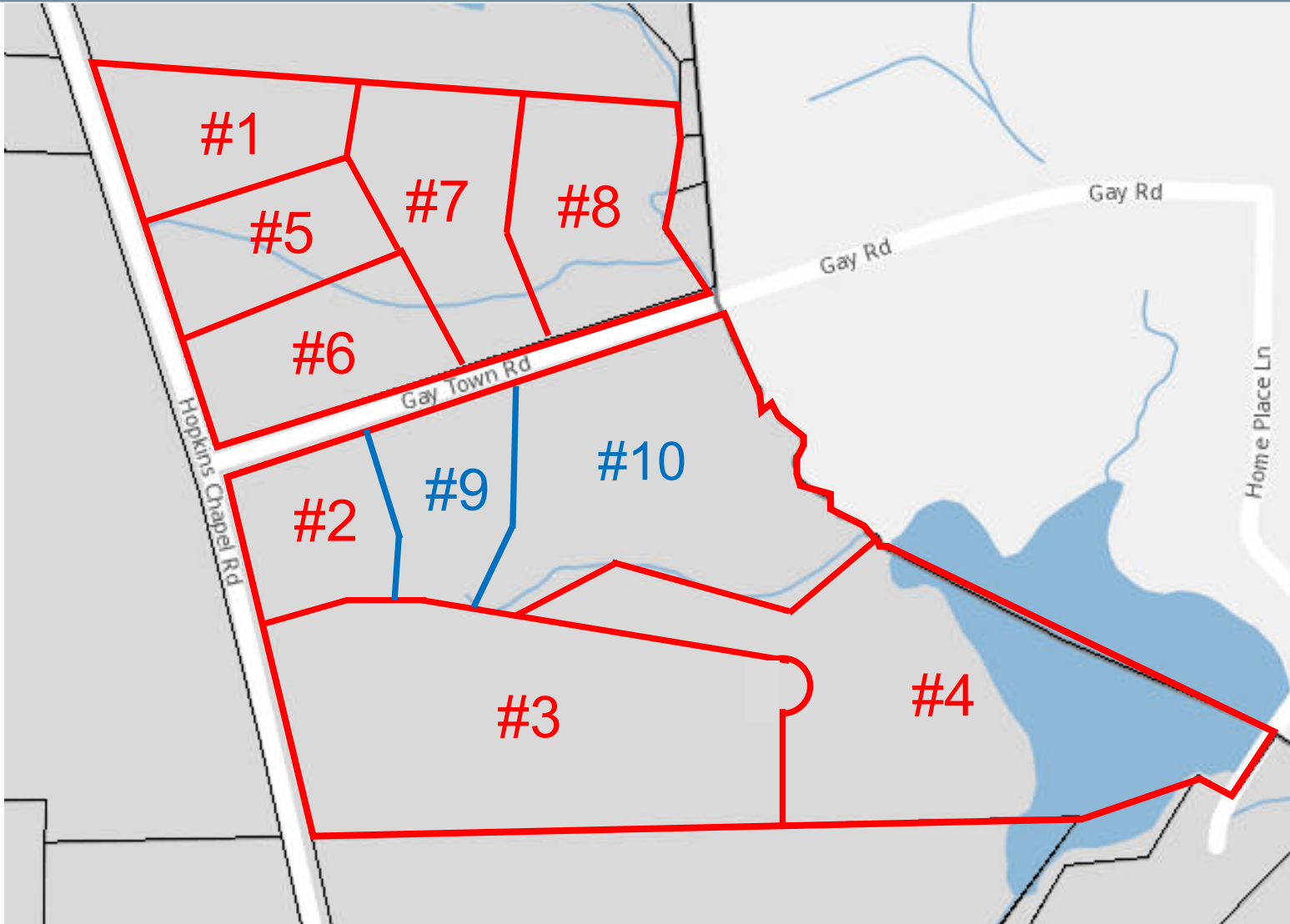
Lots 5 and 6



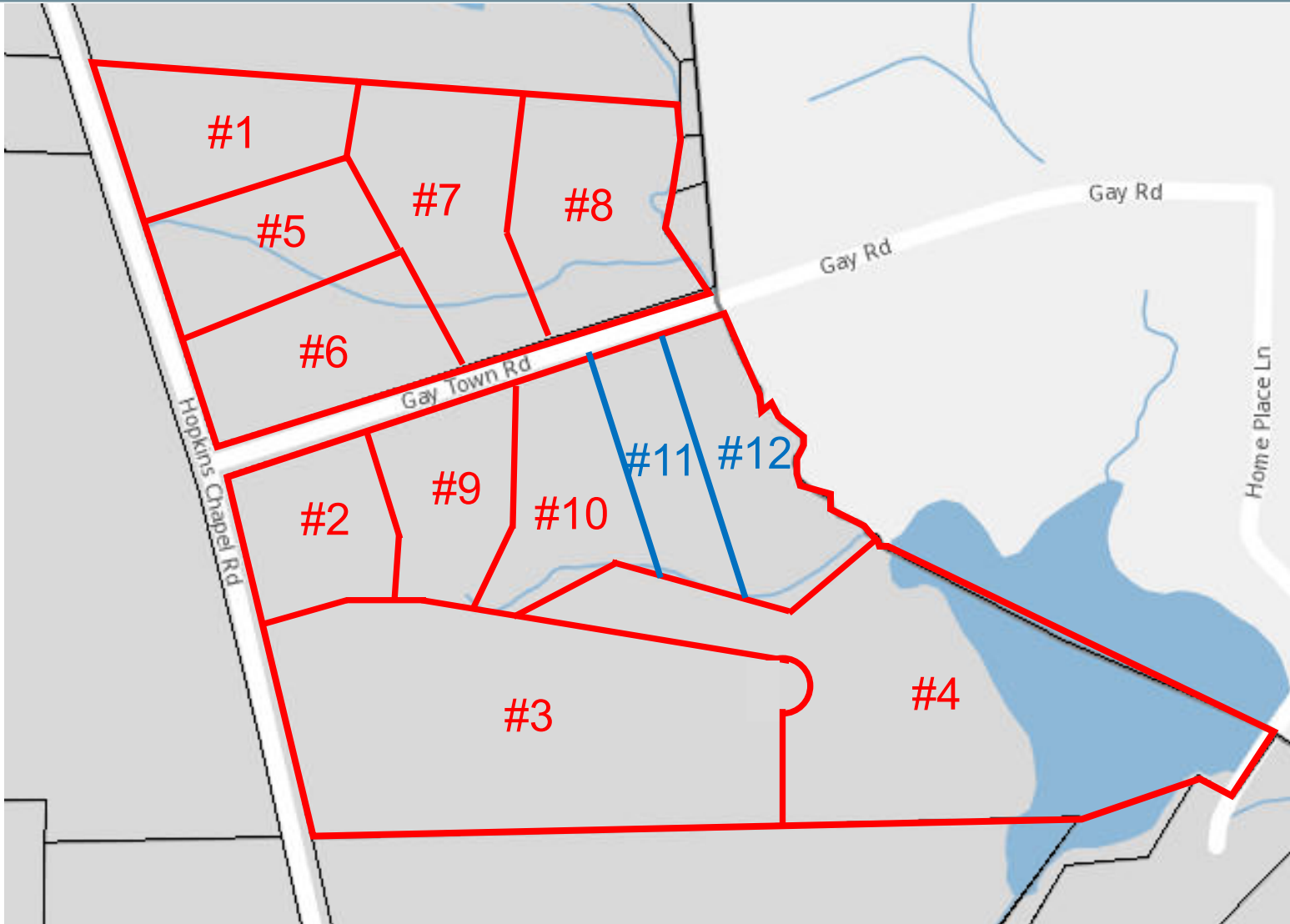
Lots 7 and 8



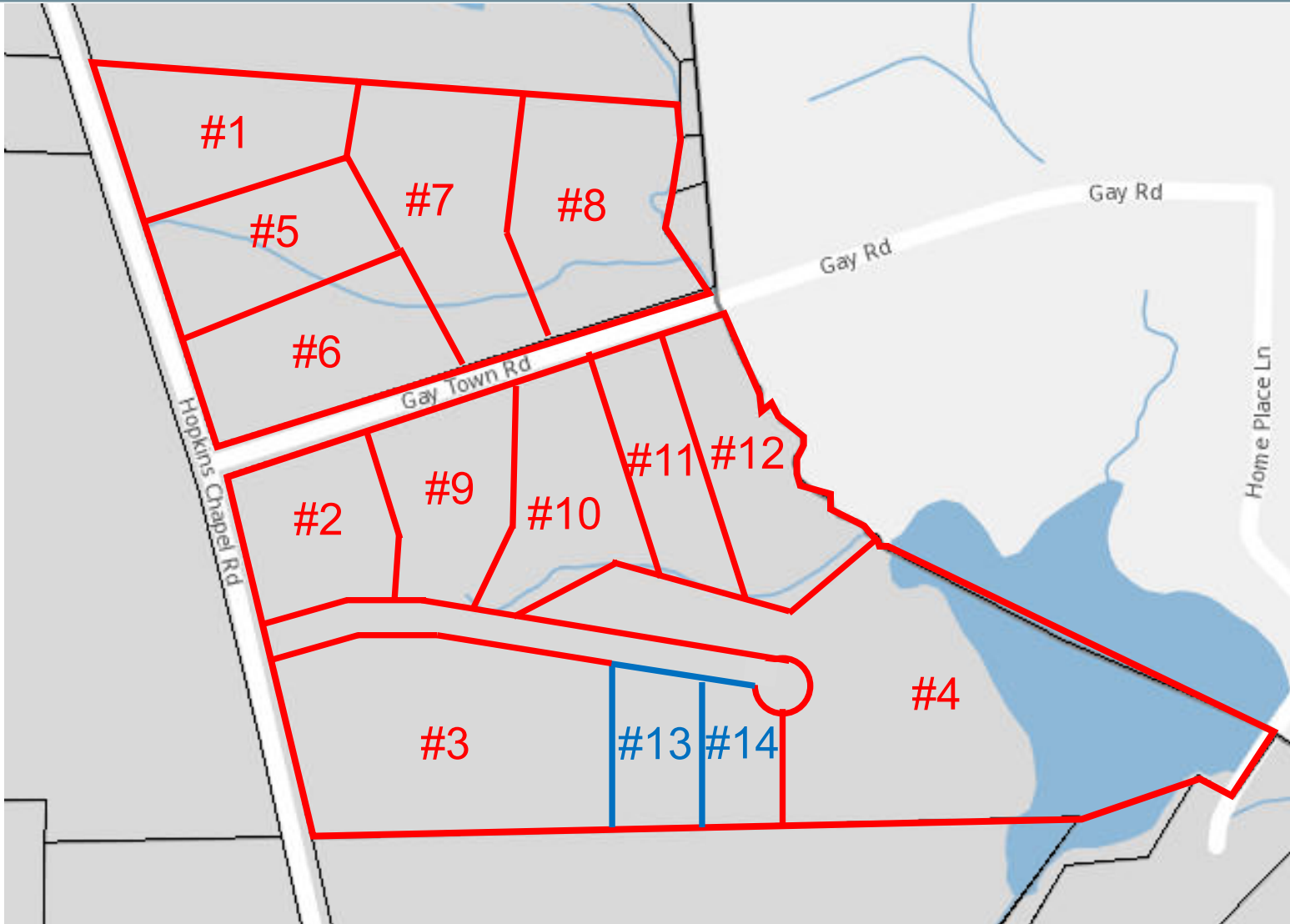
Lots 9 and 10



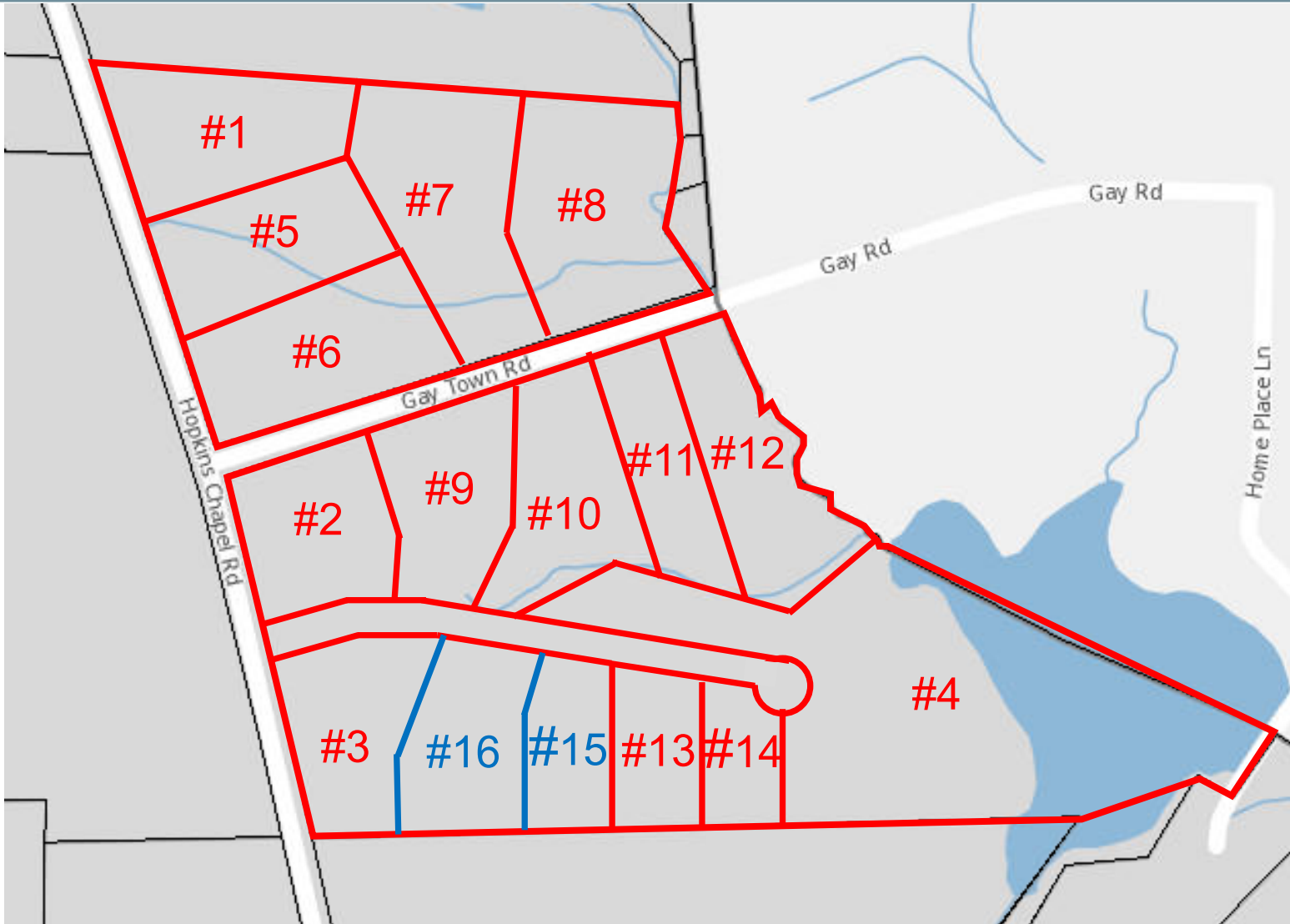
Lots 11 and 12



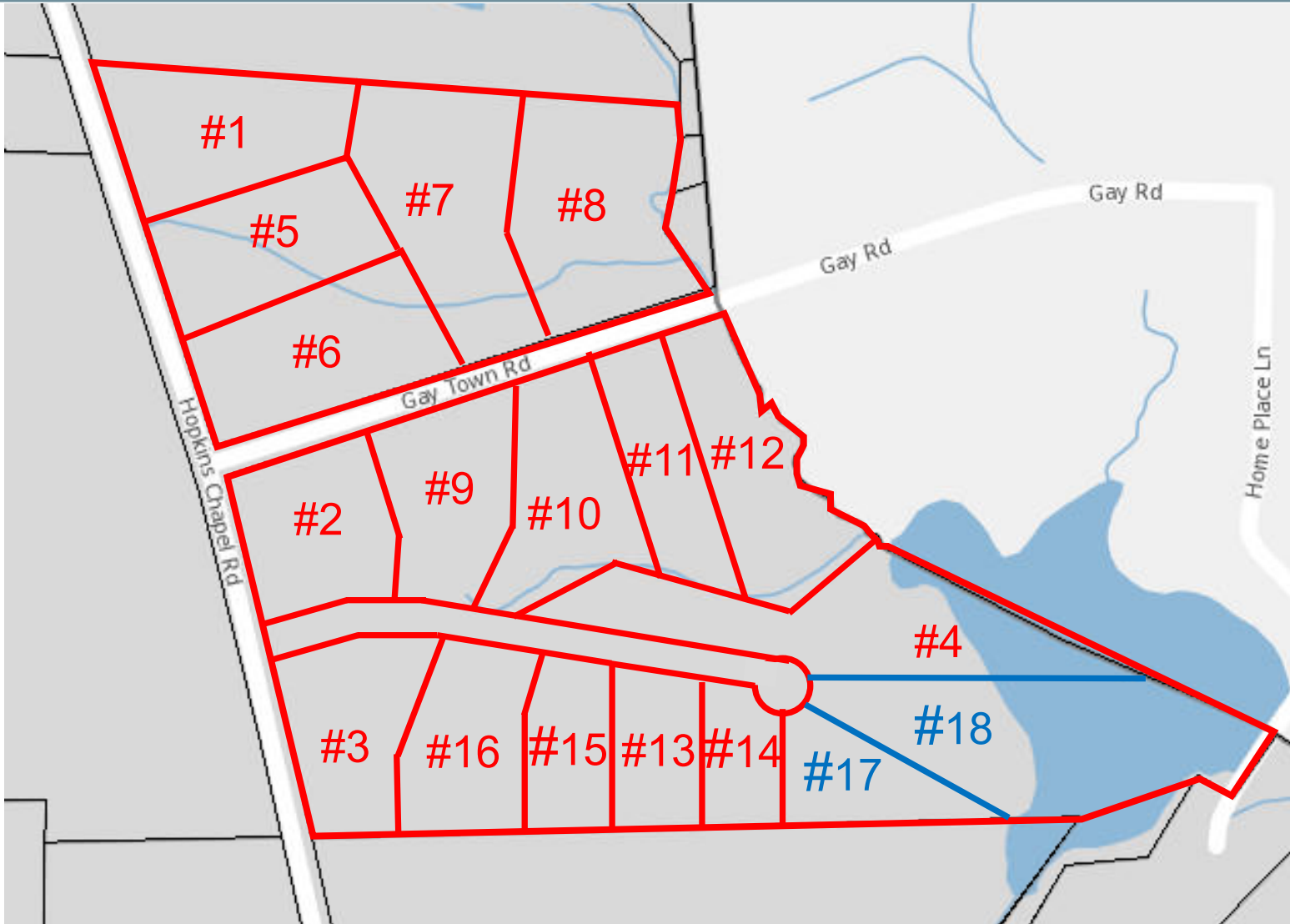
Lots 13 and 14



Lots 15 and 16



Lots 17 and 18



Proposed Changes



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Proposed Amendment

Require the Minor Limited Option First:

- When an applicant seeks a small subdivision, they will be required to pursue the minor-limited subdivision option first, if the criteria for that option can be satisfied.
- If they do not meet the criteria, then the applicant may pursue the minor subdivision option.

Proposed Amendment

Reintroduce the Ability to Combine Two Minor Subdivision Options:

- Prior to the 2017 law that mandated the minor-limited subdivision option, the County allowed the combination of two minor subdivisions that could yield a total of up to 5 lots.
- When the law became effective, the County eliminated the ability to combine two minor subdivisions.
- This amendment proposes to reintroduce the ability to combine two minor subdivisions and achieve a total of up to 5 lots.

Proposed Amendment

Limit the number of lots to 5 when combining Minor and Minor-Limited Subdivision options:

- This amendment will limit the number of lots to 5 when combining the minor and minor-limited options.

Analysis of Lot Yield for Small Subdivisions

Type	Prior to 2017 Law Max. Lot Yield	Current Max. Lot Yield	Proposed Max. Lot Yield w/ Two Minors	Proposed Max. Lot Yield Combo Minor and Minor- Limited
Minor	3	3	3	2
Second Minor	2	-	2	-
Minor-Limited	-	6	-	3
Total Lot Yield	5	9 (plus)	5	5

Staff Findings

1. Addresses concern about large subdivisions circumventing development regulations by leveraging the minor and minor-limited subdivision options.
2. Preserves the intended purpose of expediting the review of small subdivisions with eased development regulations.
3. Establishes a maximum total lot yield of 5 for small subdivisions, which matches what it was in 2017 before new law introduced the minor-limited subdivision option.
4. Furthers the goals of PLANWake by directing growth toward the municipalities.

Staff Recommendation

That the Wake County Planning Board:

1. Recommend that the Board of Commissioners adopt the statement of consistency for Ordinance Amendment 01-23 as presented;

and by separate motion

2. Recommend that the Board of Commissioners adopt Ordinance Amendment 01-23 as presented.

Public Comment



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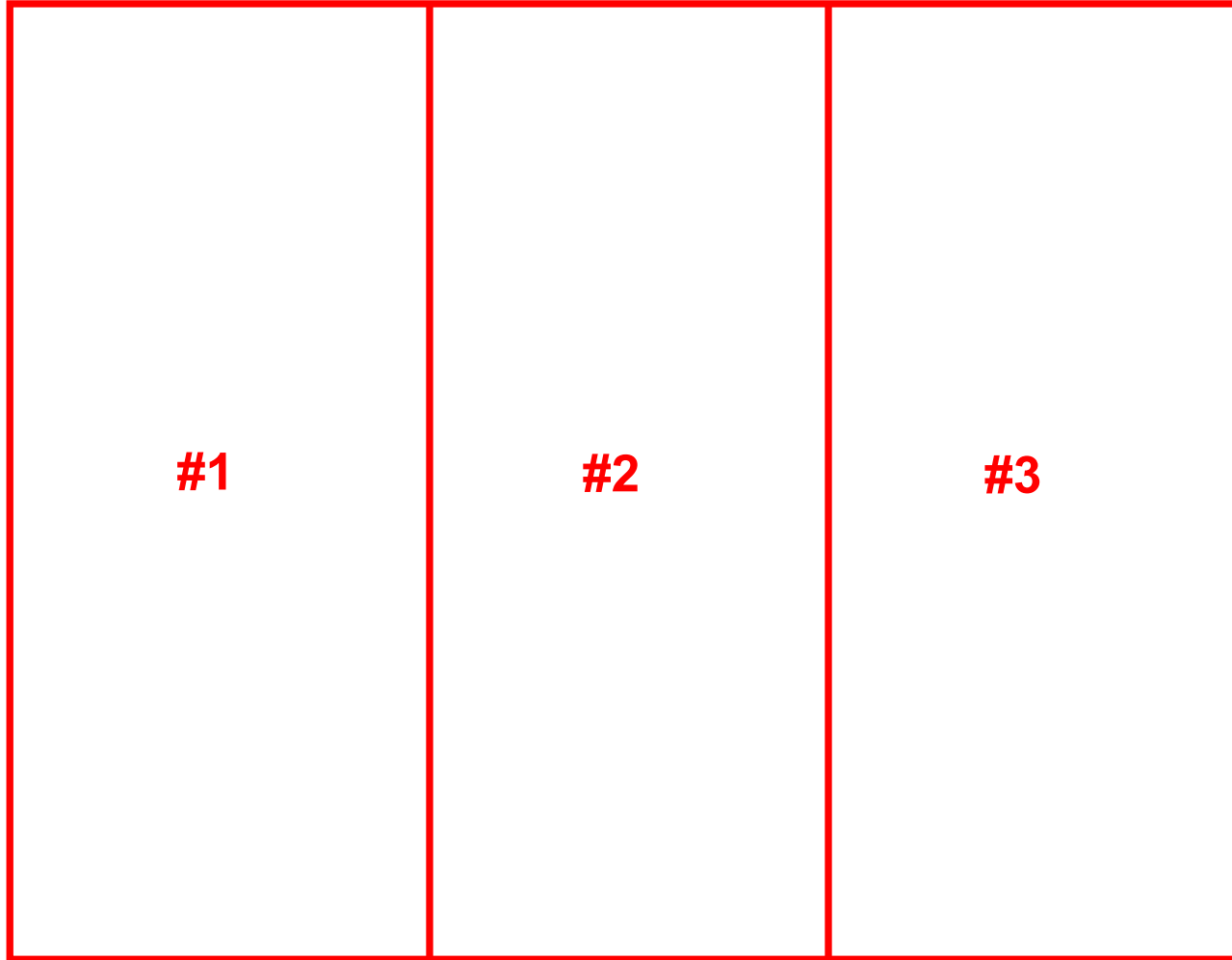
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Example – Proposed Amendment



Parent Tract

Example – Proposed Amendment

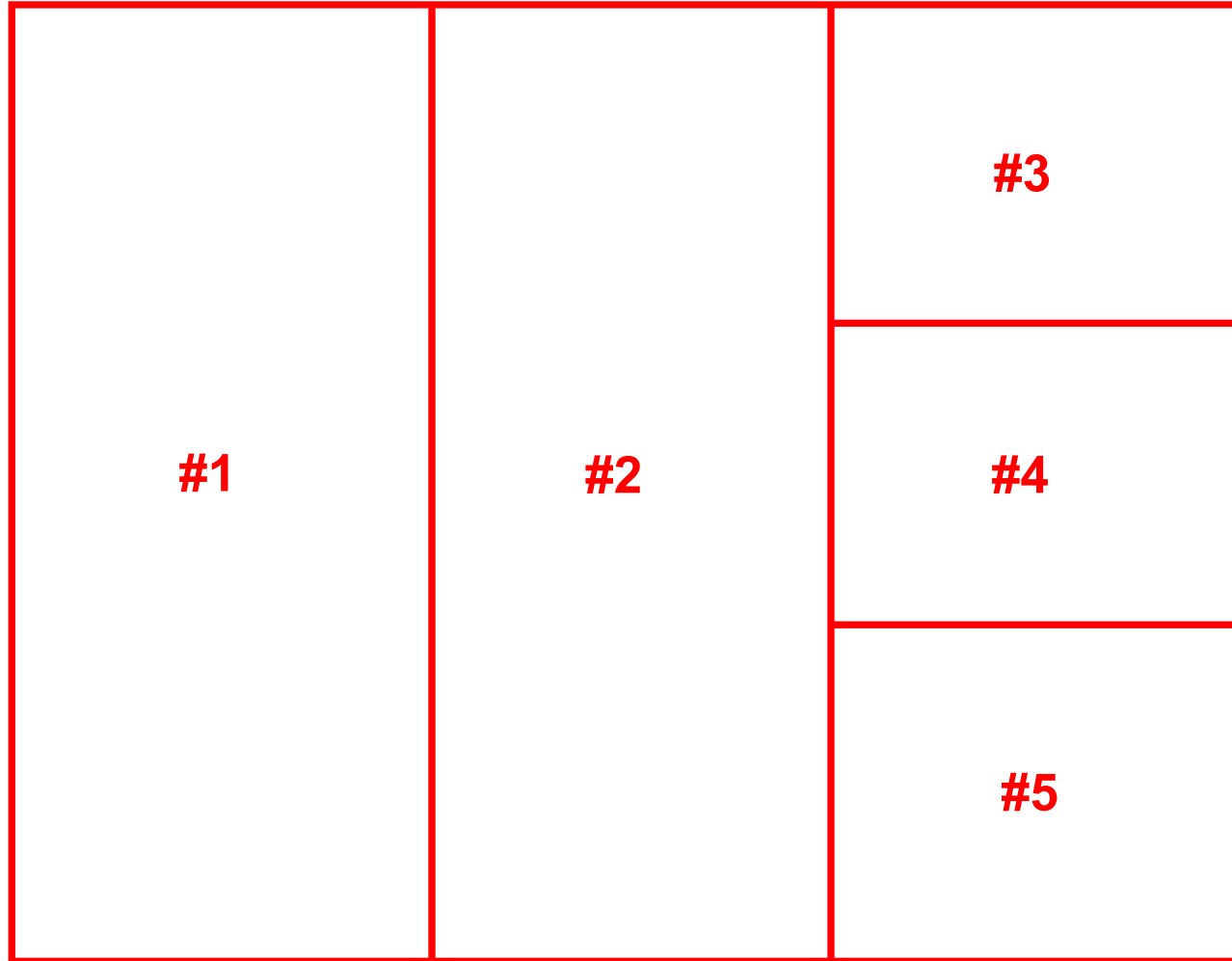


Step 1:

Minor or Minor-Limited

Lot Yield = 3

Example – Proposed Amendment



Step 2:

Minor or Second Minor

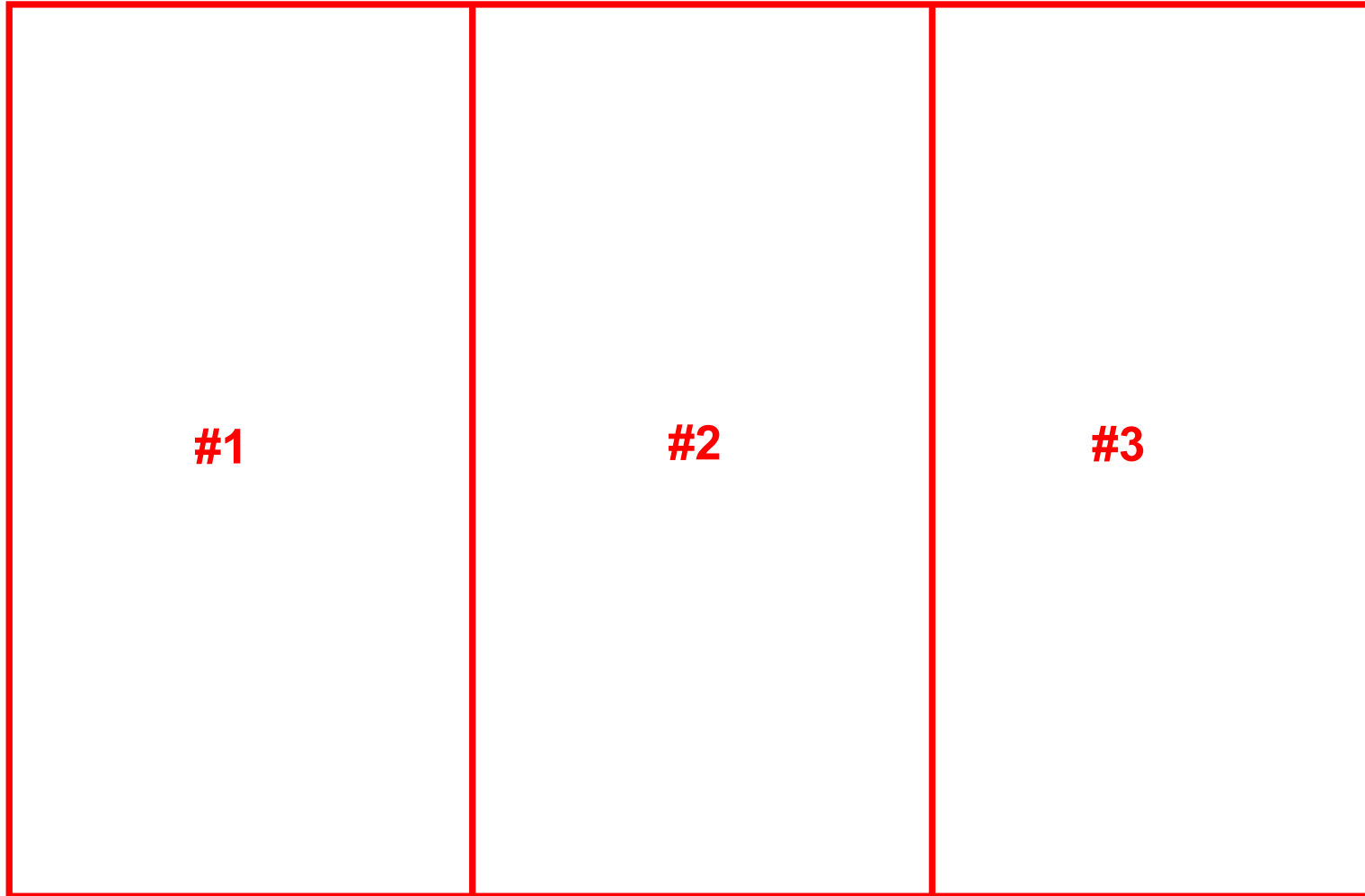
Total Lot Yield = 5

Example – Current Situation



Parent Tract

Example – Current Situation



Step 1:
Minor-Limited
Lot Yield = 3

Example – Current Situation

#1	#2	#3	#4	#5	#6	#7	#8	#9
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Step 2:
Minor
Lot Yield = 9



LOWER NEUSE
AREA PLAN

Wake County Planning Board

July 19, 2023

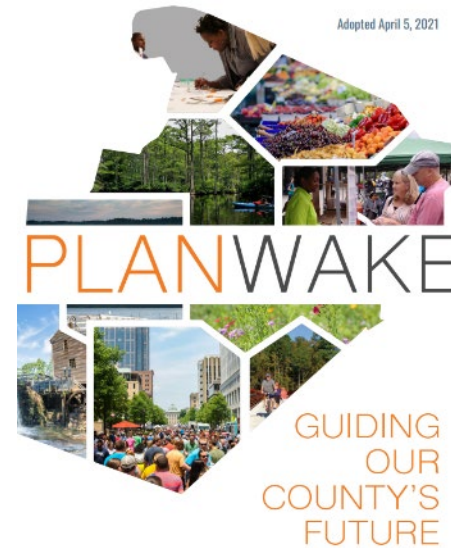
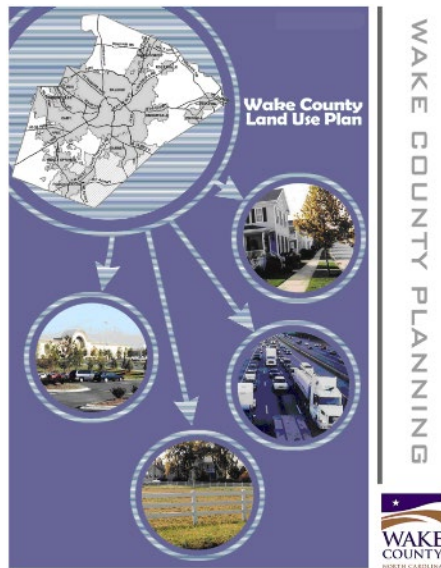
Topics

- Study Area Boundaries and Kick Off
- Basics about the Lower Neuse Study Area
- Study Next Steps and Schedule
- Planning Board Ask/ Role
- Review of Likely Issues
 - Procedural
 - Specialized

Land Use Planning Documents

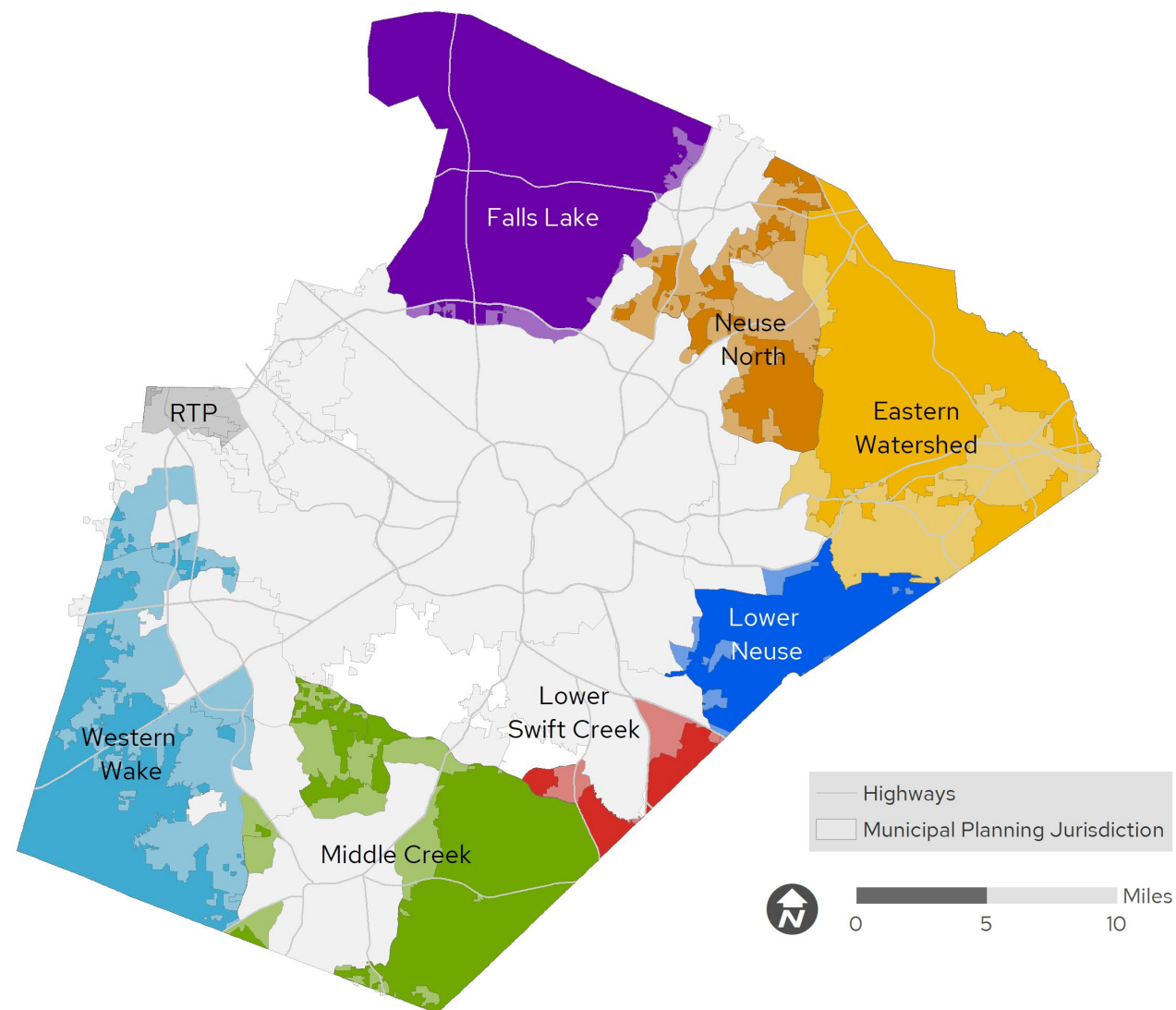
- Adopted document that plans for future growth while maintaining resources, the environment, and the public health, safety, and welfare
- Fluid and dynamic – living documents – amended and updated

Former plan
adopted in
1997–1999

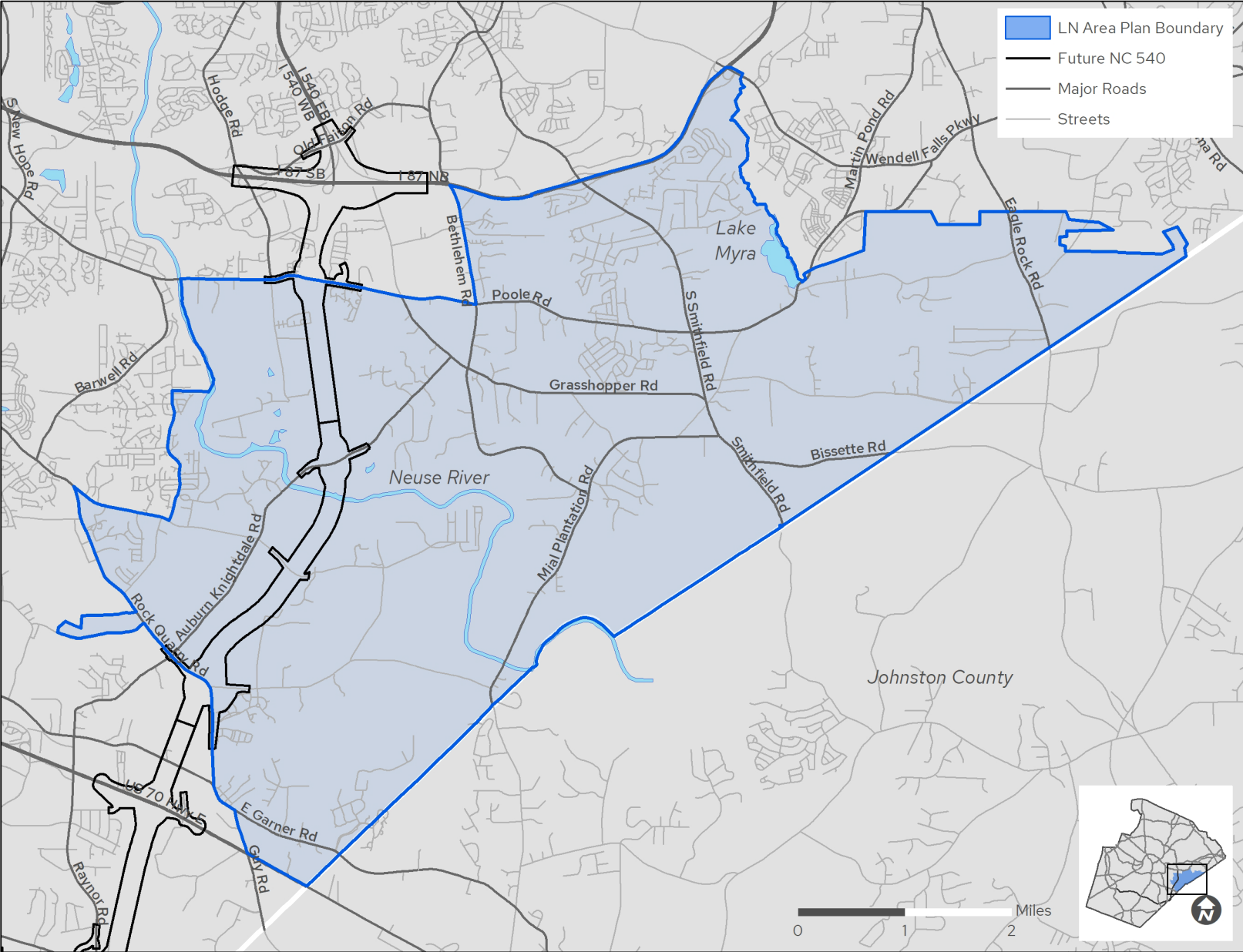


Current plan
adopted in
April 2021

Updated Area Plan Boundaries



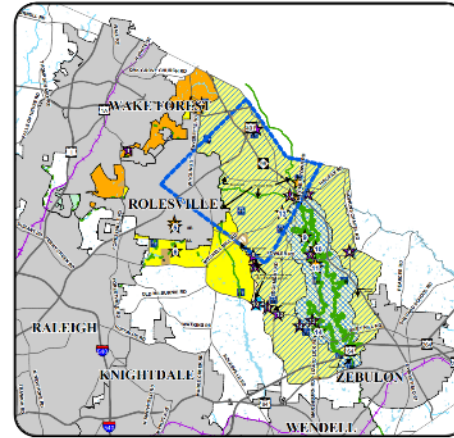
Lower Neuse Area Plan



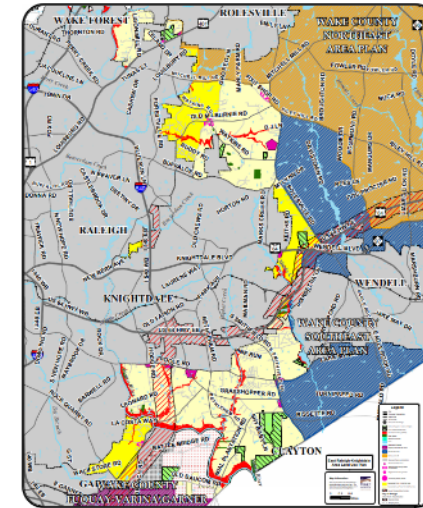
Land Use Planning

Area Land Use Plans (ALUPs)

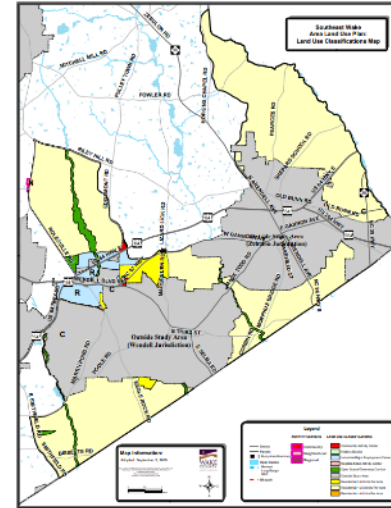
- Five plans
- Localized plan developed with extensive municipal and public input
- Currently, ALUPs still governing documents until updates are adopted (~ two years)
- Falls Lake not part of any current ALUP



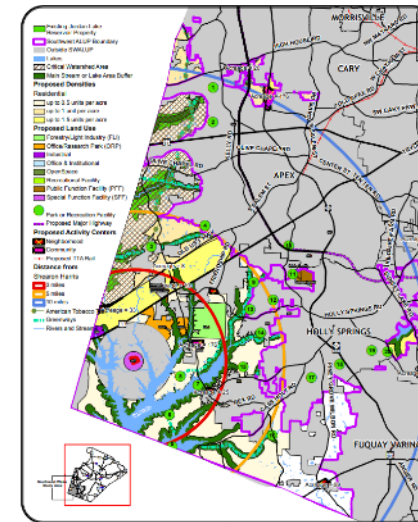
**Northeast
ALUP (2001)**



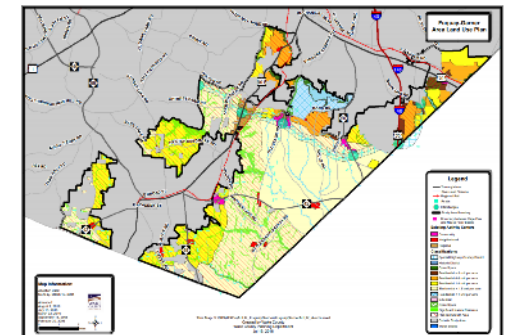
**E. Raleigh/Knightdale
ALUP (2003)**



**Southeast ALUP
(2000)**



**Southwest Wake Area
Land Use Plan (2007)**

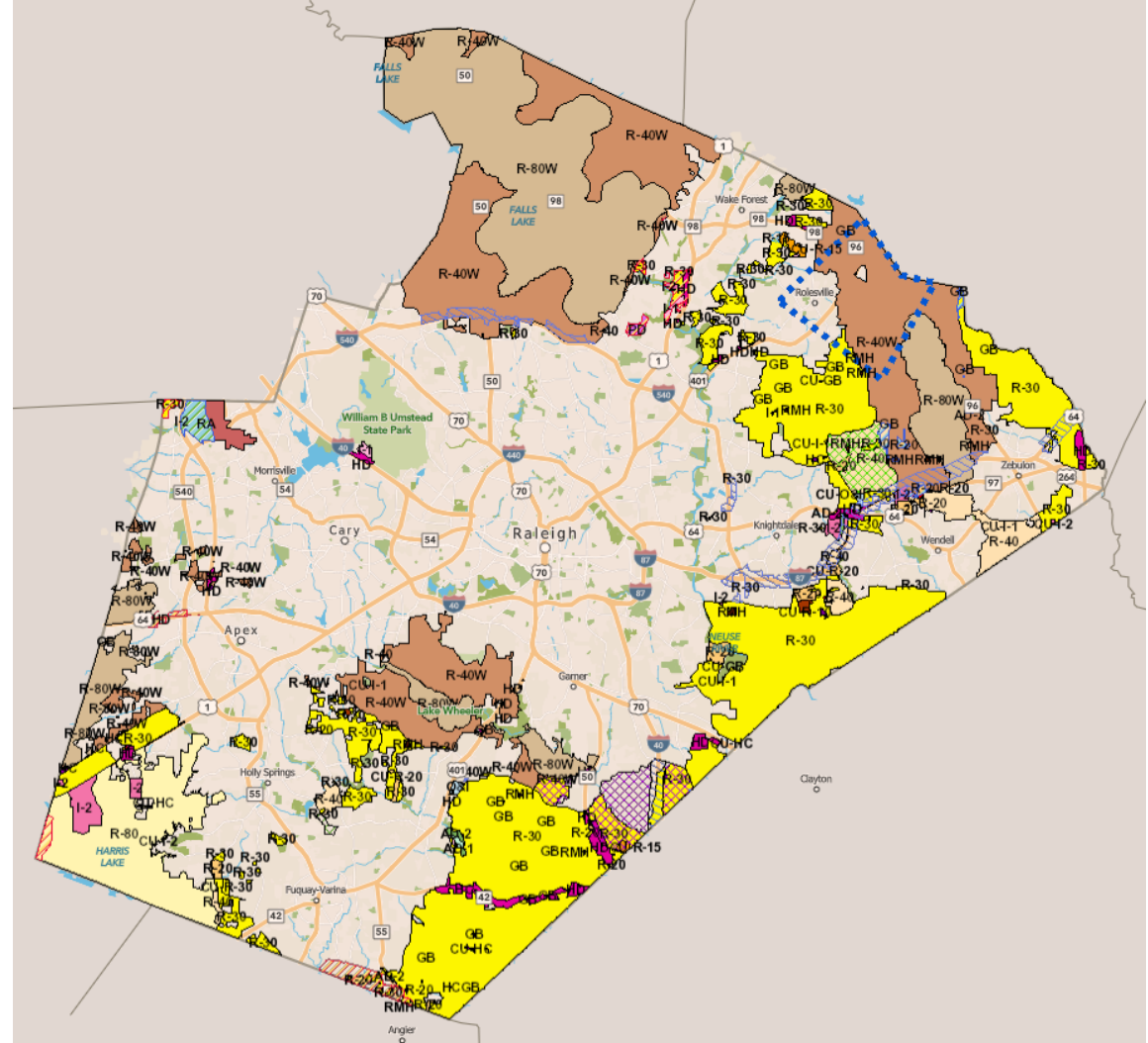


**Fuquay/Garner
ALUP (2004)**

Planning in Wake County

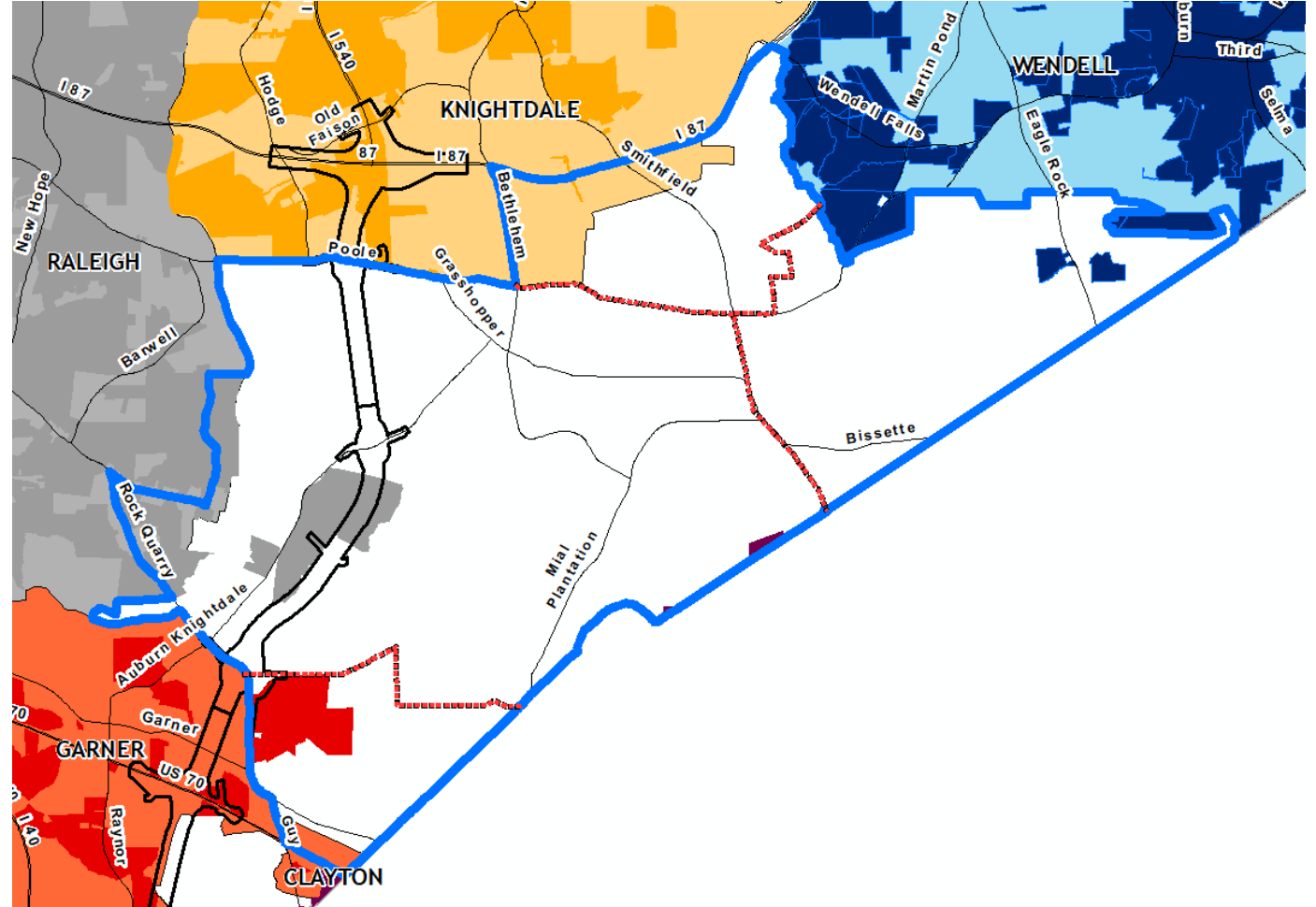
- County Zoning Districts
 - Watershed Districts
 - Overlays
- Unified Development Ordinance (UDO)
 - Permitted Uses
 - Requirements

City of Raleigh
iMaps

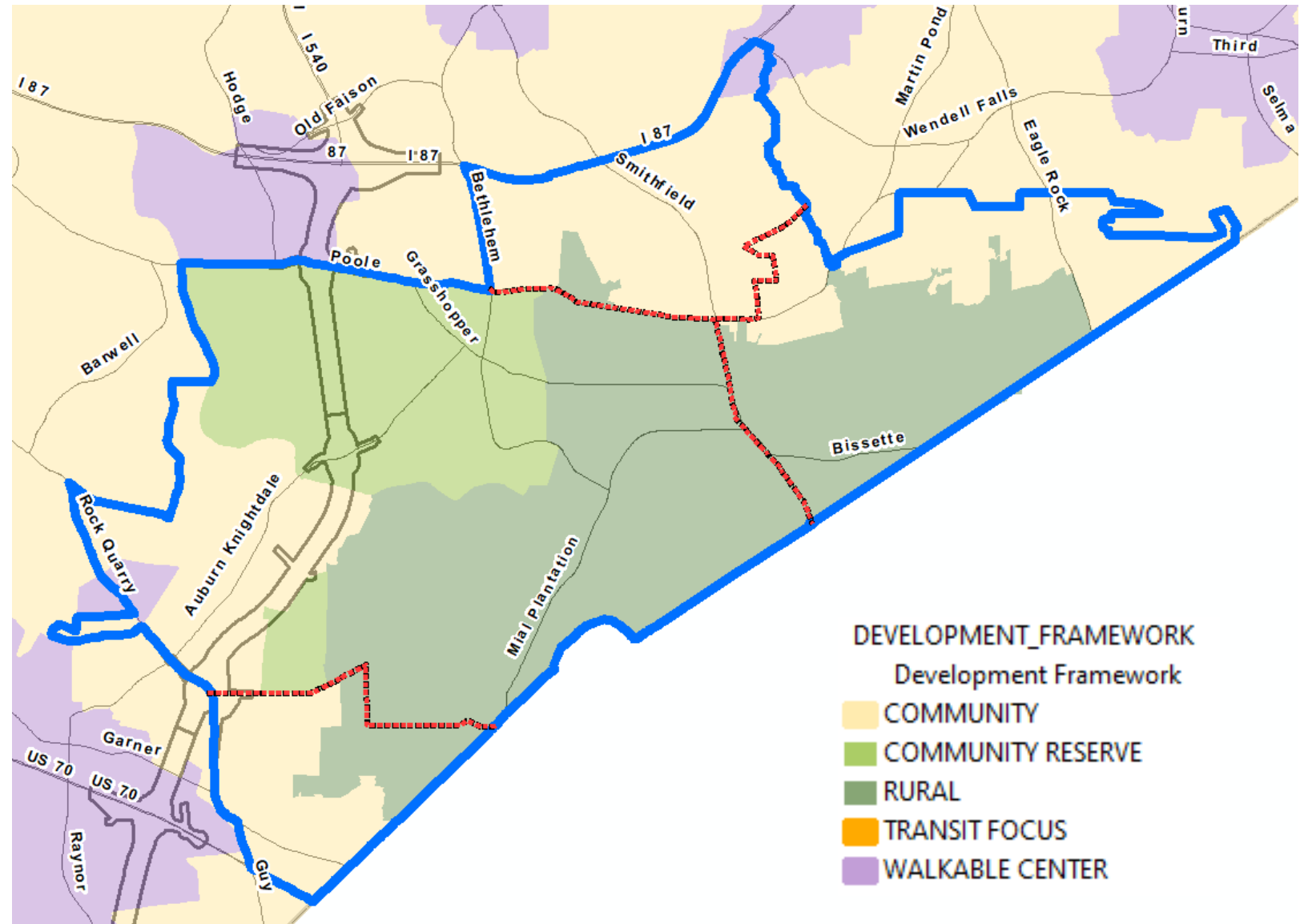


Lower Neuse and Jurisdiction

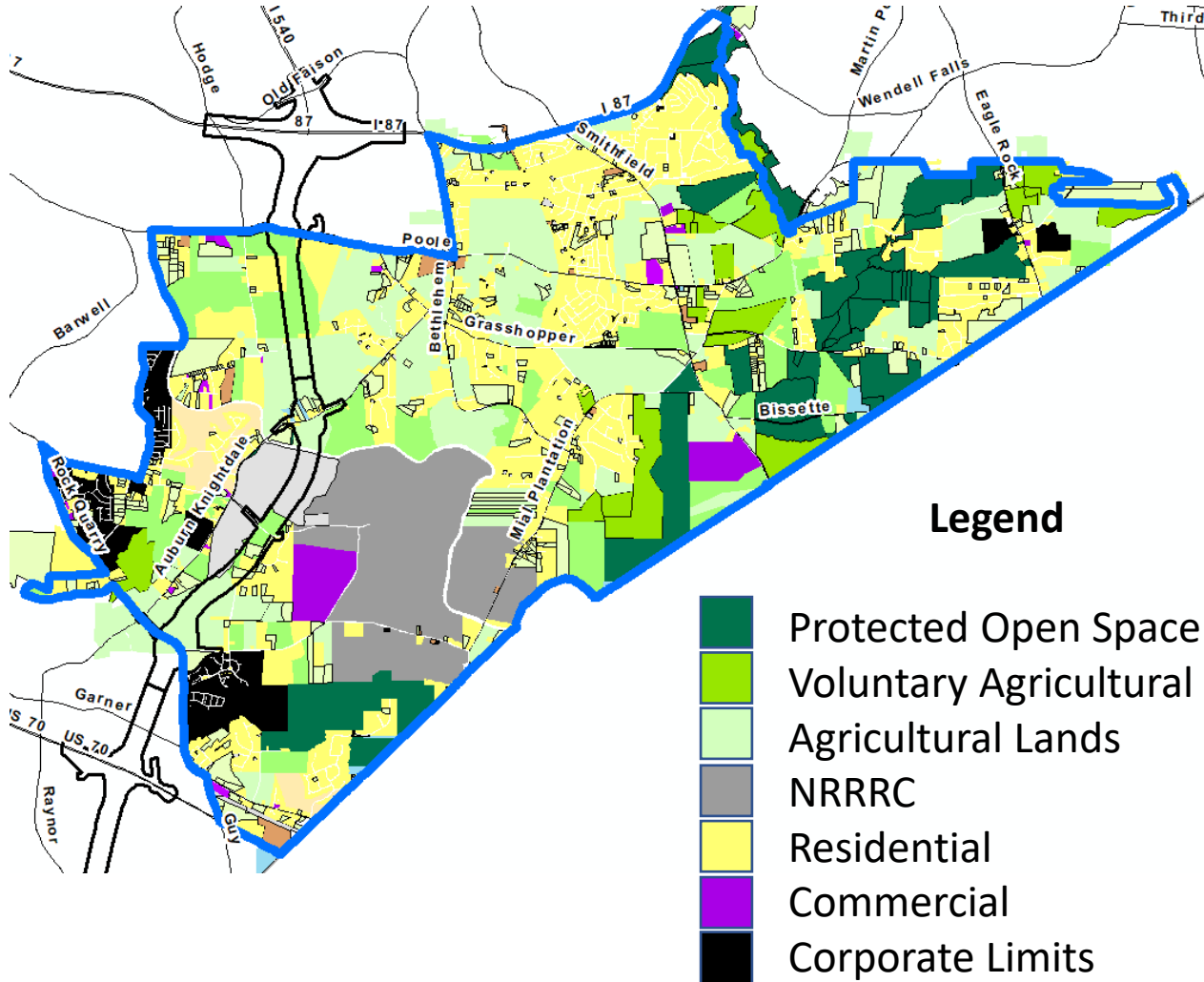
- Corporate Limits
- Extra-Territorial Jurisdiction (ETJ)
- Unincorporated Wake County



LN and PLANWake Development Framework



LN Area Plan



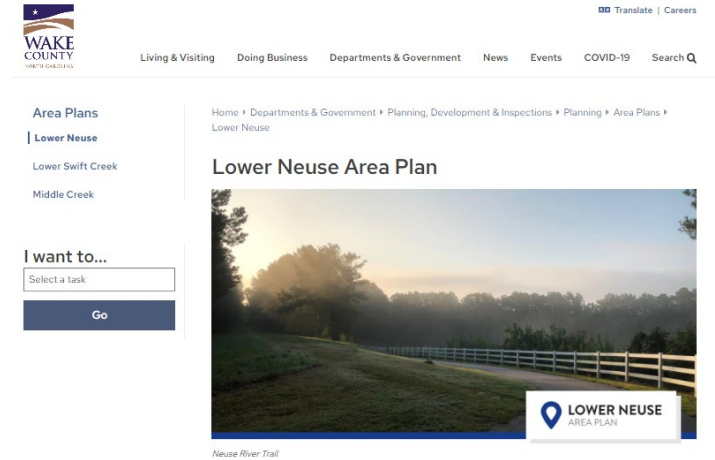
Overview

	Total	Wake County Only
Population	16,962*	12,639*
Area	20,500 acres 32 sq. miles	19,000 acres 30 sq. miles
Subdivisions	122 (5,000 acres)	108 (4,500 acres)
Voluntary Agricultural Districts (VADs)	25 (1,478 acres)	25 (1,478 acres)
Activity Centers	4	4
NC 540, Neuse River Resource Recovery Center		

*2020 Census Data

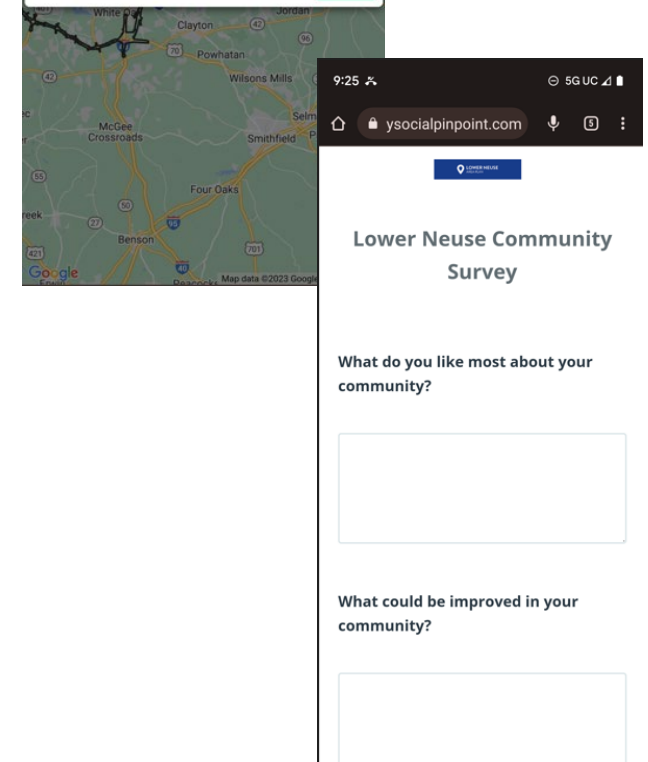
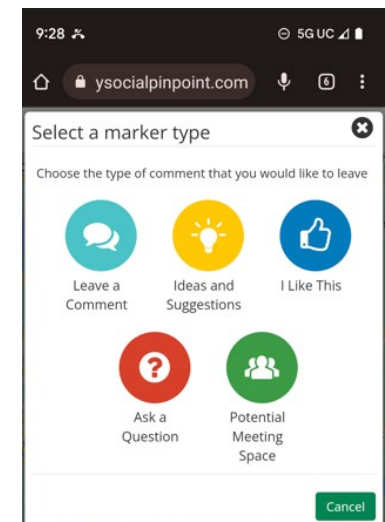
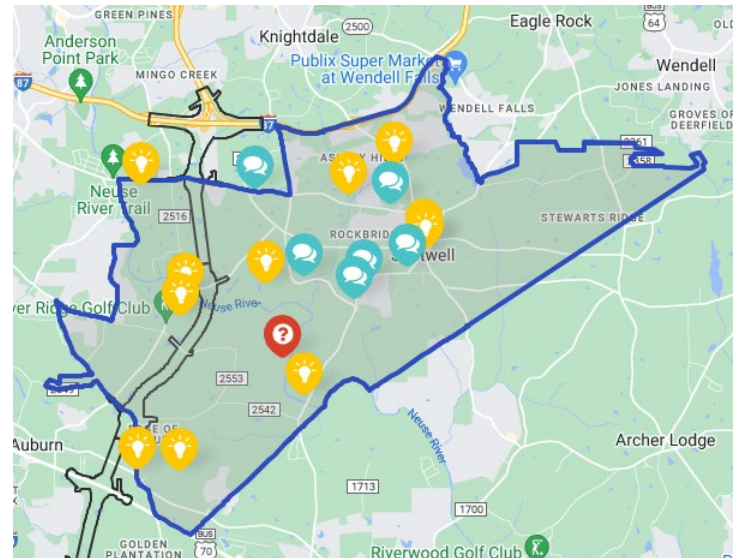
Community Engagement

- Website www.wake.gov/In
 - Background info (story map)
 - Surveys (2)
 - NEW Proximity & Access
 - Interactive Map
- Social Media
- Email Listservs
- Road Signs



Where is the Lower Neuse Area Plan?

The Lower Neuse (LN) Area Plan includes about 23 square miles, or 15,000 acres located near the lower Neuse River on the eastern county limits extending from the edge of Raleigh to the boundary with Johnston County. Click below to see this area on a map.



LN Area Plan - Engagement



578

Total Visits ⓘ

138

Unique Users

1:31

Avg Time (min) ⓘ

28

Unique Stakeholders

30

Comments

14

Survey Responses

Timeline

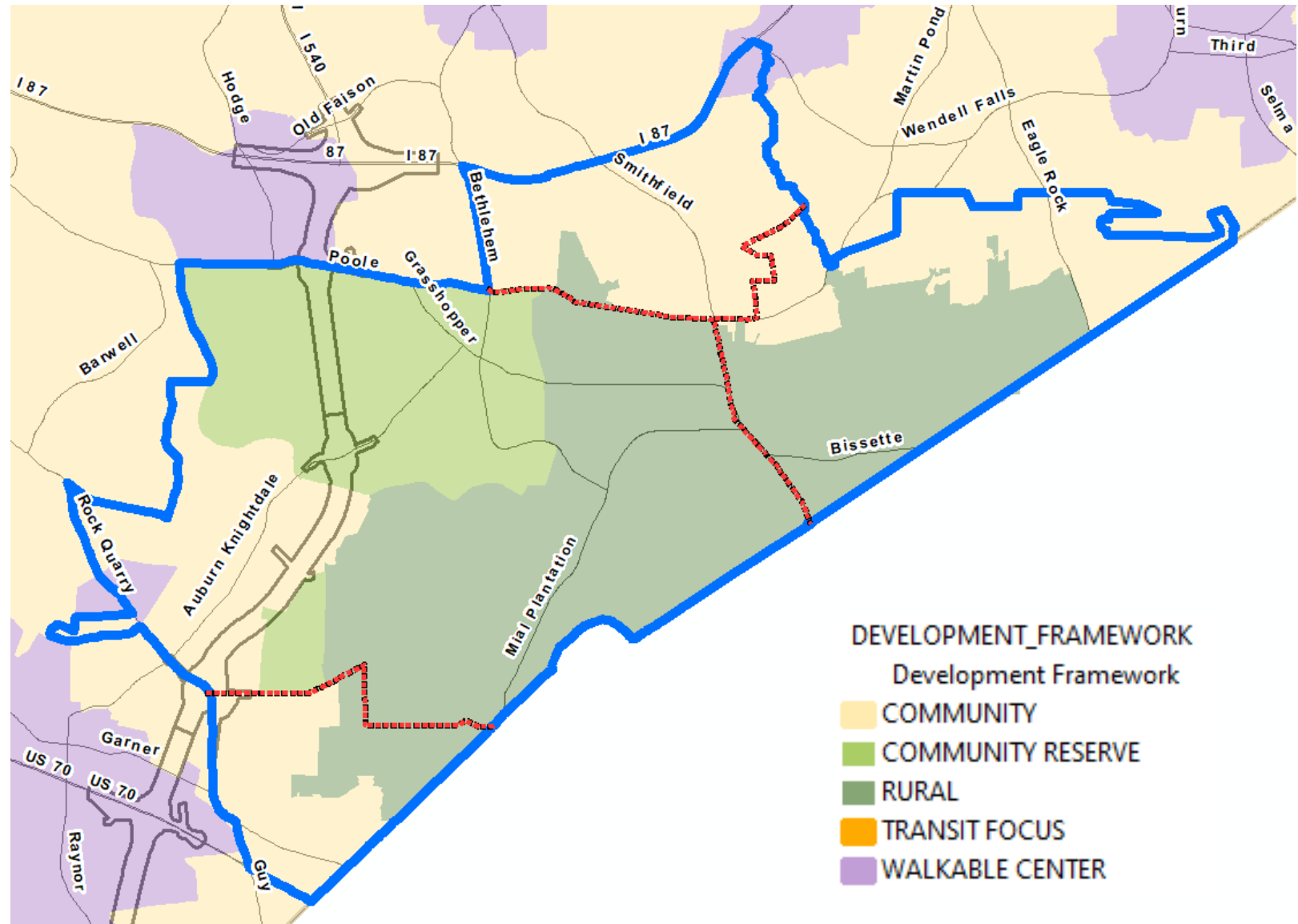


Planning Board Ask /Role

- Presentations/ Discussion at Sub-committee meetings
- Attendance at community meetings
- Decisions on recommendations

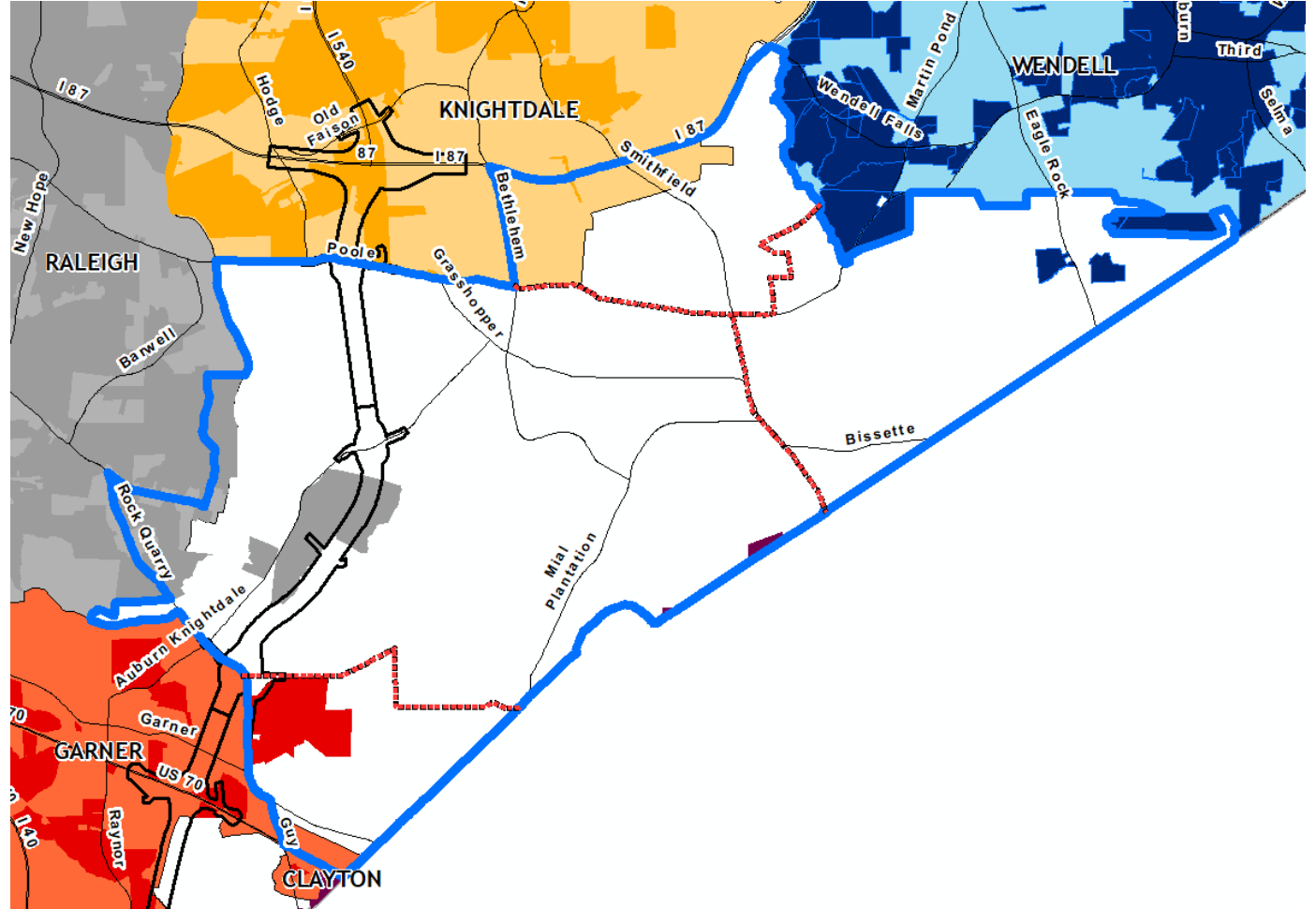
Procedural Updates

- Agricultural Future Landuse
- Community Reserve Designation
- Activity Centers to Multi-Use Districts



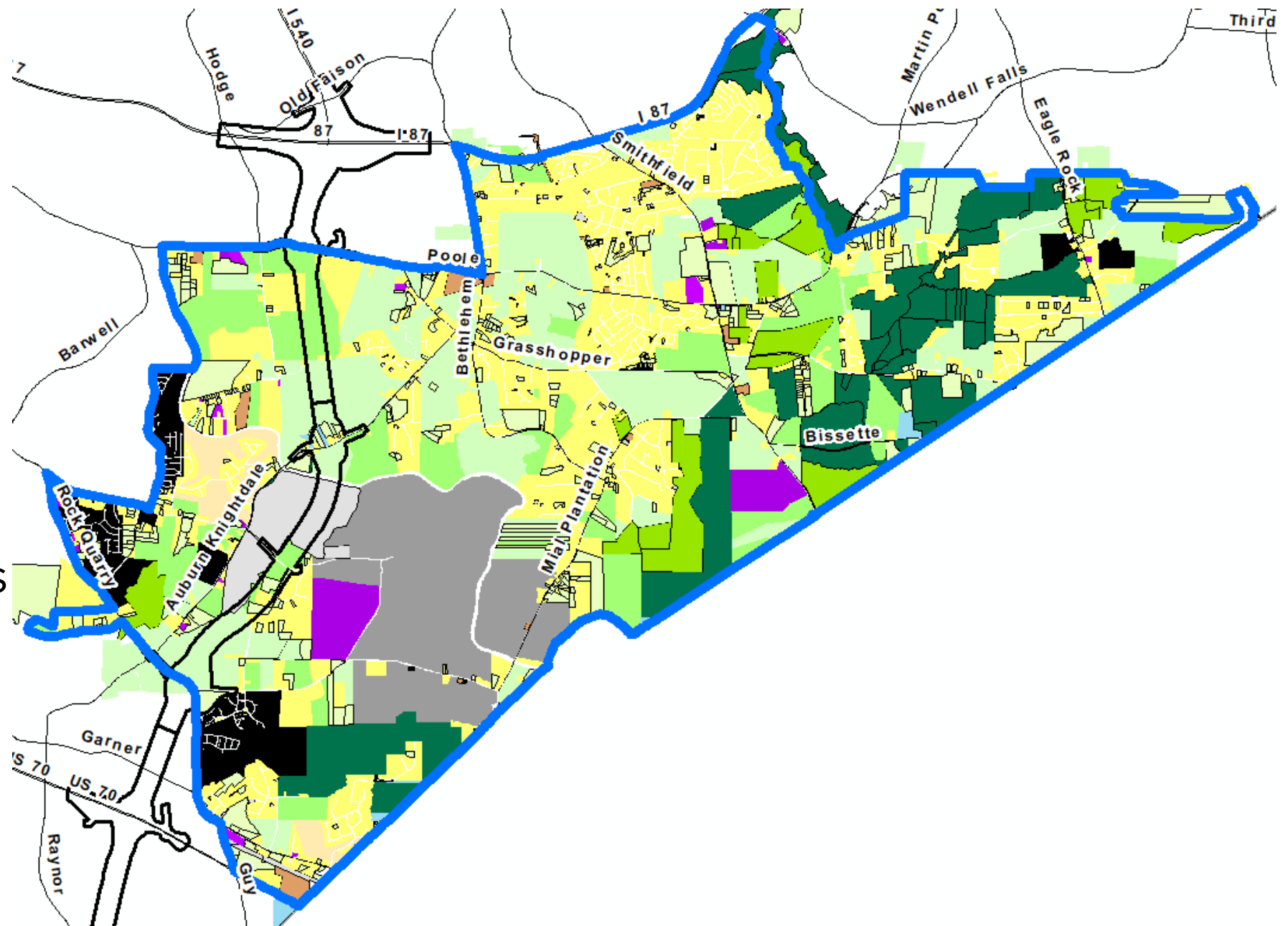
Specialized Updates

- Smithfield / Poole
- Lake Myra
- NC 540 (2027)
- Open Space Parcels
- Neuse River
- Activity Centers



Specialized Updates

- Smithfield / Poole
- Lake Myra
- NC 540 (2027)
- Open Space Parcels
- Neuse River
- Activity Centers



Wake County Land Cover Analysis and Tree Canopy Assessment

July 19, 2023

Tim Maloney, Director of Planning, Development and Inspections
Bill Shroyer, Senior GIS Analyst

@wakegov



wakegov.com

Funding

- American Rescue Plan Act (ARPA) funding
 - \$5.7 billion directly available to North Carolina
 - \$217 million in State and Local Fiscal Recovery Funds (SLFRF) to Wake County
- Wake County's goals for ARPA funding
 - Primary = Public health needs
 - Secondary
 - Economic impacts spurred by the pandemic
 - Systemic community challenges
 - Planning and preparation for future events



Emphasis on Public Health

1. Environmental benefits
2. Mental and emotional benefits

Diversity,
equity and
inclusion

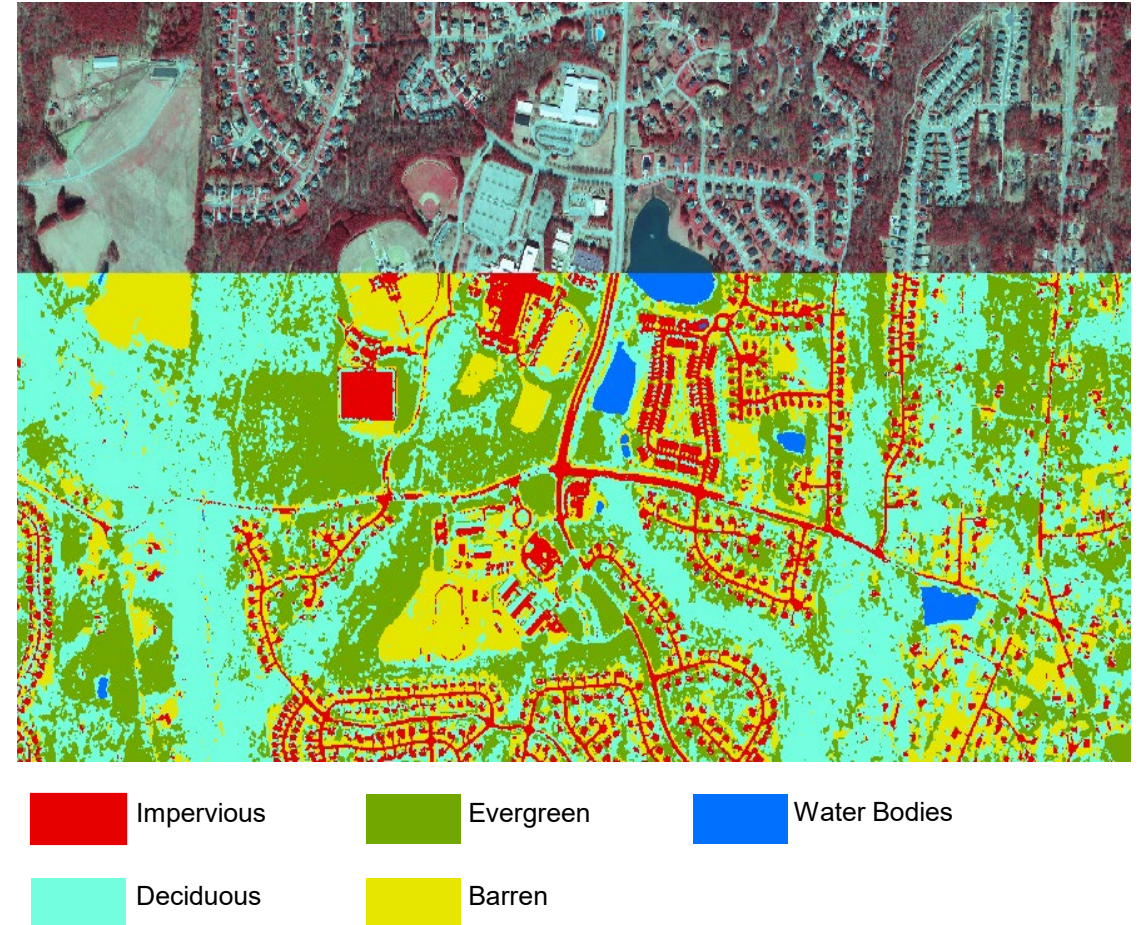
Board Goals

- ✓ Community Health and Vitality
- ☐ Economic Strength
- ☐ Education
- ☐ Great Government
- ✓ Growth and Sustainability
- ☐ Public Safety



Purpose and Scope

- Produce a robust measurable Land Cover dataset.
- Quantify the reality of tree loss within Wake County from 2010-2020.
- Identify priority planting areas to support environmental, social and health benefits.
- Provide actionable data and deliverables for all core municipalities within Wake County.



Collaboration



Consultant

- Davey Resource Group (DRG)



Project team

- Staff – Planning, Environmental Services and Facilities Design & Construction
- Municipal partners – Cary, Morrisville and Raleigh



Representatives from the twelve core municipalities.



Land Cover Analysis

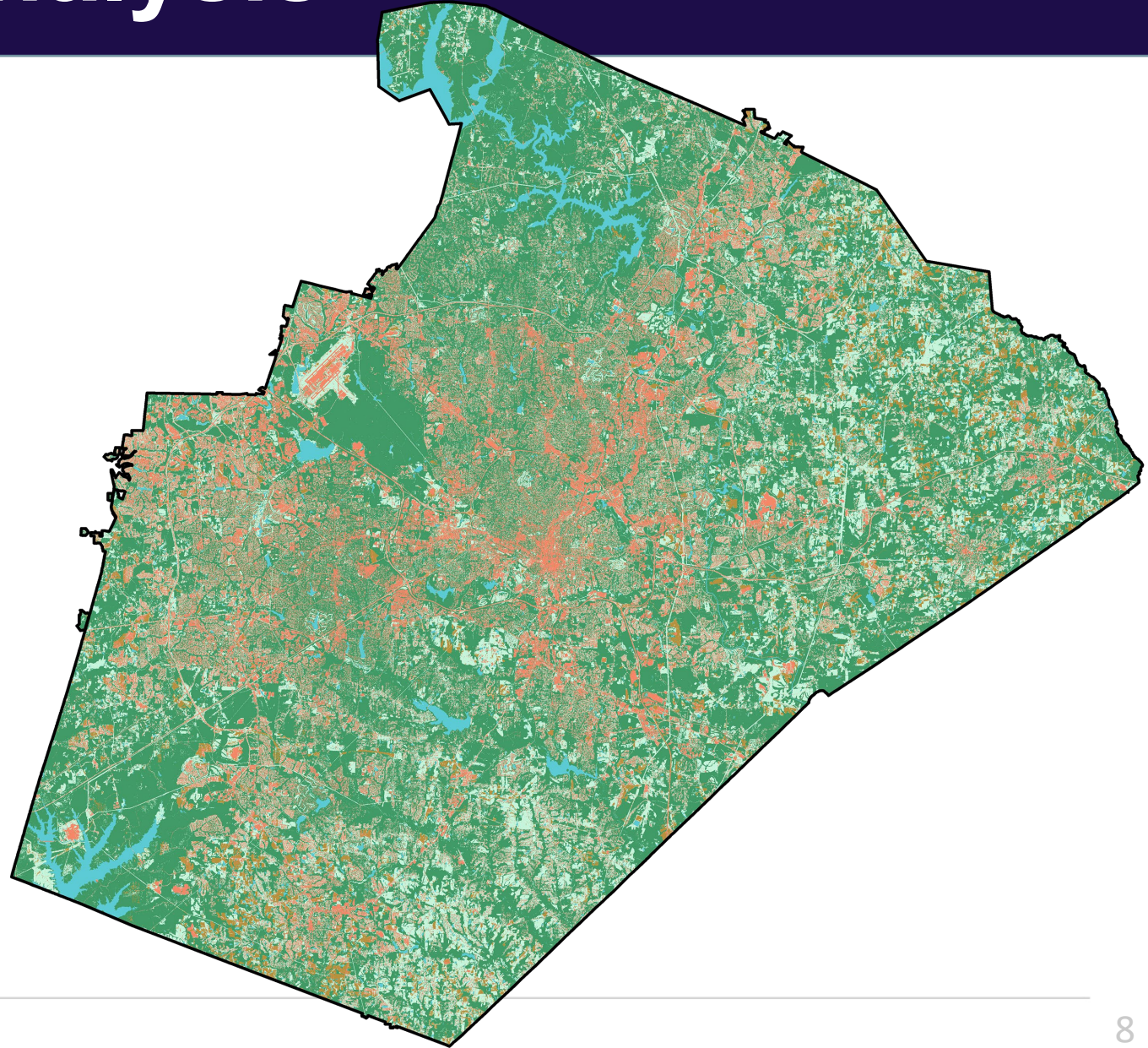
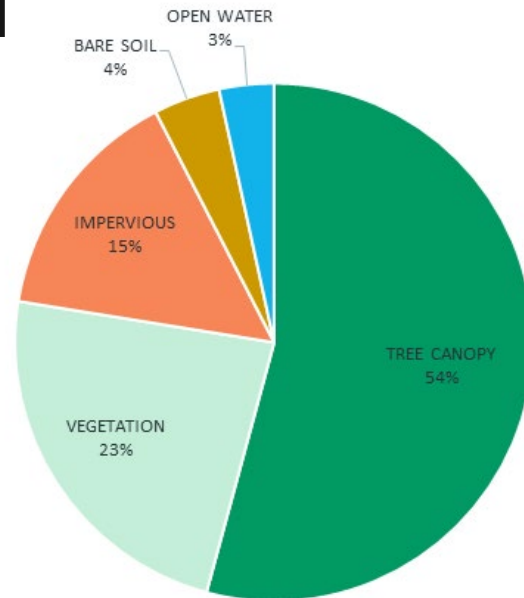
Method

- Procure the best available aerial imagery.
 - National Agriculture Imagery Program (NAIP 2010 & 2020)
- Conduct an analysis of the total Land Cover dataset for Wake County.
 - Impervious surface
 - Tree canopy
 - Water bodies
 - Barren land areas
- Differentiate forest health and measurable tree canopy.
- Identify tree cover benefits and possible health related impacts.
 - Urban heat island
 - Stormwater
 - Social equity

2020 Land Cover Analysis

Land Cover Classes

1. Tree canopy
2. Impervious surface
3. Vegetation
4. Bare ground
5. Open water



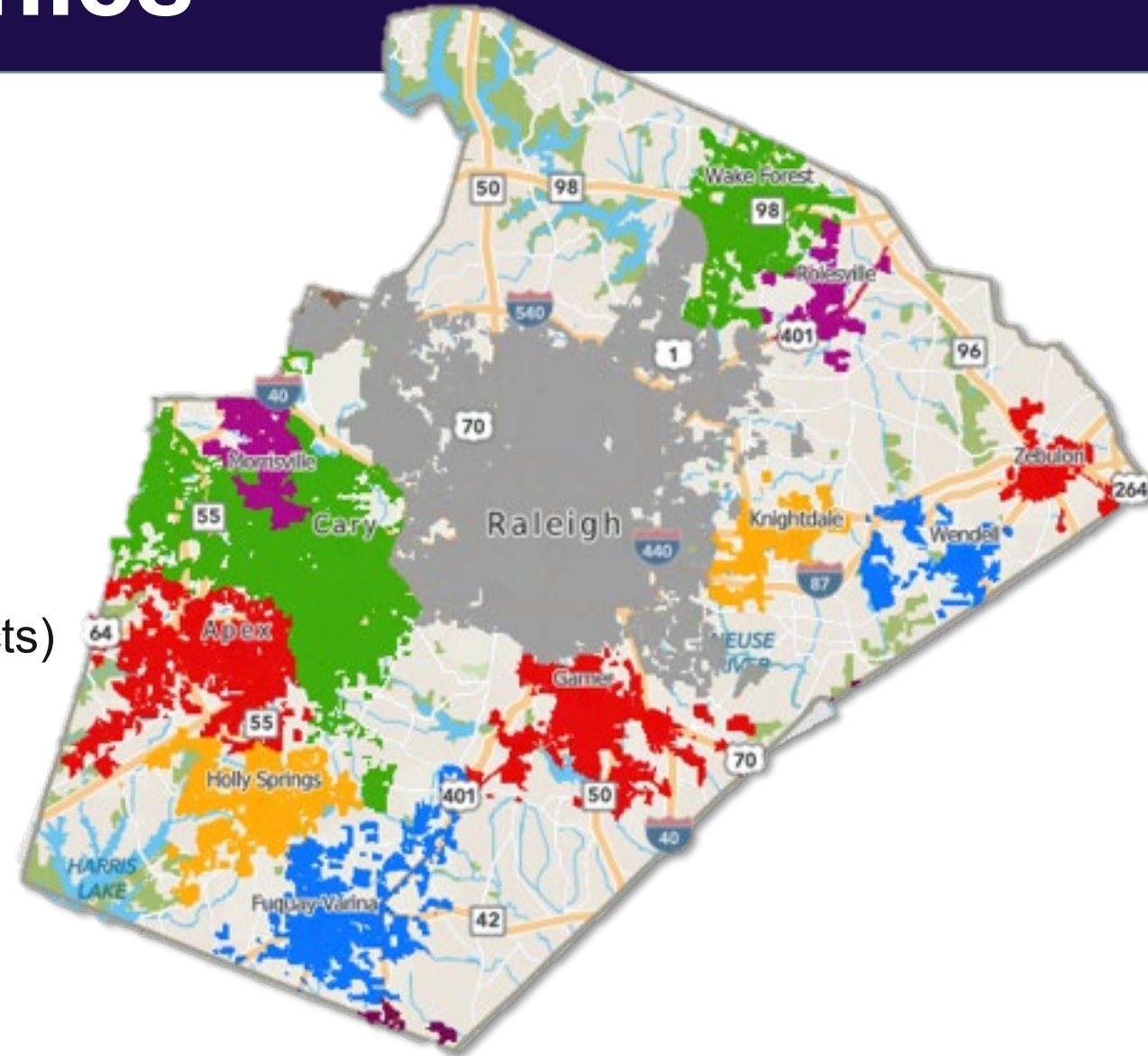
Land Cover Data

JURISDICTION	ACRES	CANOPY	IMPERVIOUS	VEGETATION	BARE GROUND	OPEN WATER
Unincorporated	220,257	60%	6%	24%	4%	6%
Apex	24,199	50%	20%	23%	5%	1%
Cary	43,817	49%	26%	19%	2%	3%
Fuquay Varina	29,386	45%	14%	29%	9%	2%
Garner	25,290	56%	16%	23%	3%	1%
Holly Spring	20,456	55%	14%	22%	7%	1%
Knightdale	16,121	52%	14%	28%	4%	1%
Morrisville	6,304	34%	38%	23%	4%	1%
Raleigh	116,191	51%	26%	21%	2%	1%
Rolesville	8,157	52%	11%	29%	7%	2%
Wake Forest	14,449	46%	24%	26%	4%	1%
Wendell	10,062	50%	11%	30%	7%	2%
Zebulon	8,849	50%	12%	27%	10%	2%

Land Cover Geographies

Geographies Analyzed

- ❑ Corporate limits
 - Planning Jurisdiction
 - Extraterritorial Jurisdiction (ETJ)
- ❑ Census boundaries
 - Census Block Groups
 - Census Tracts (Qualified Census Tracts)
- ❑ Watersheds
- ❑ Parks & Open Space
- ❑ Municipal Transition Areas

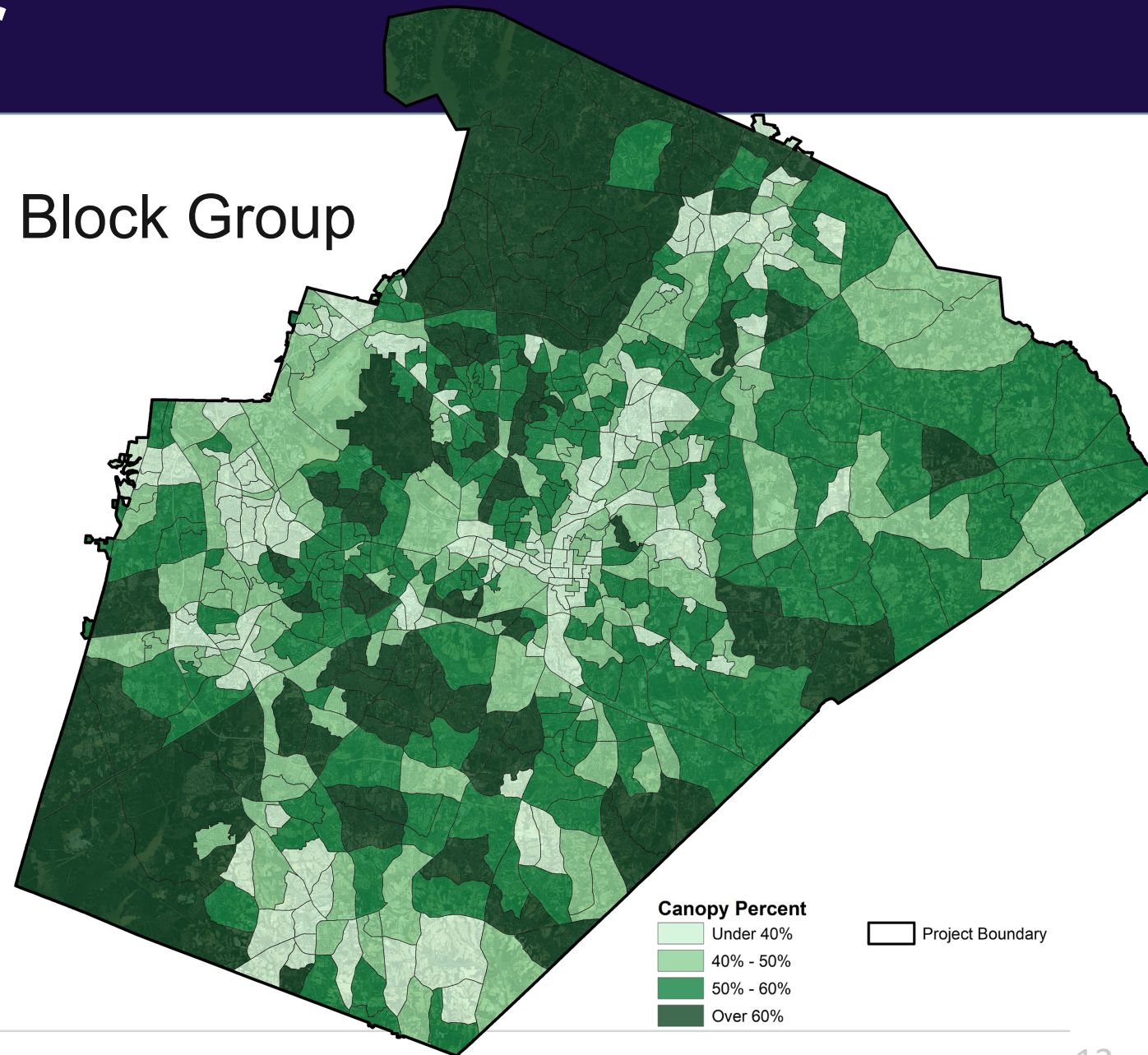
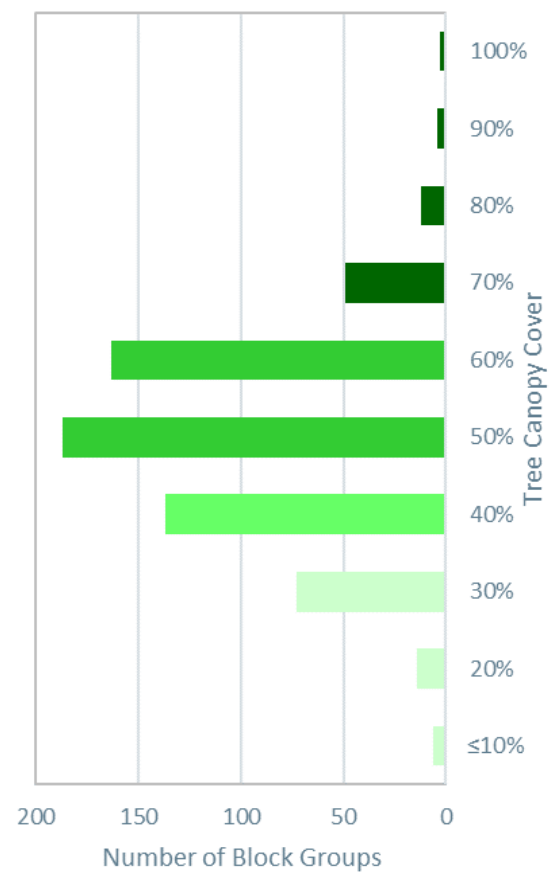




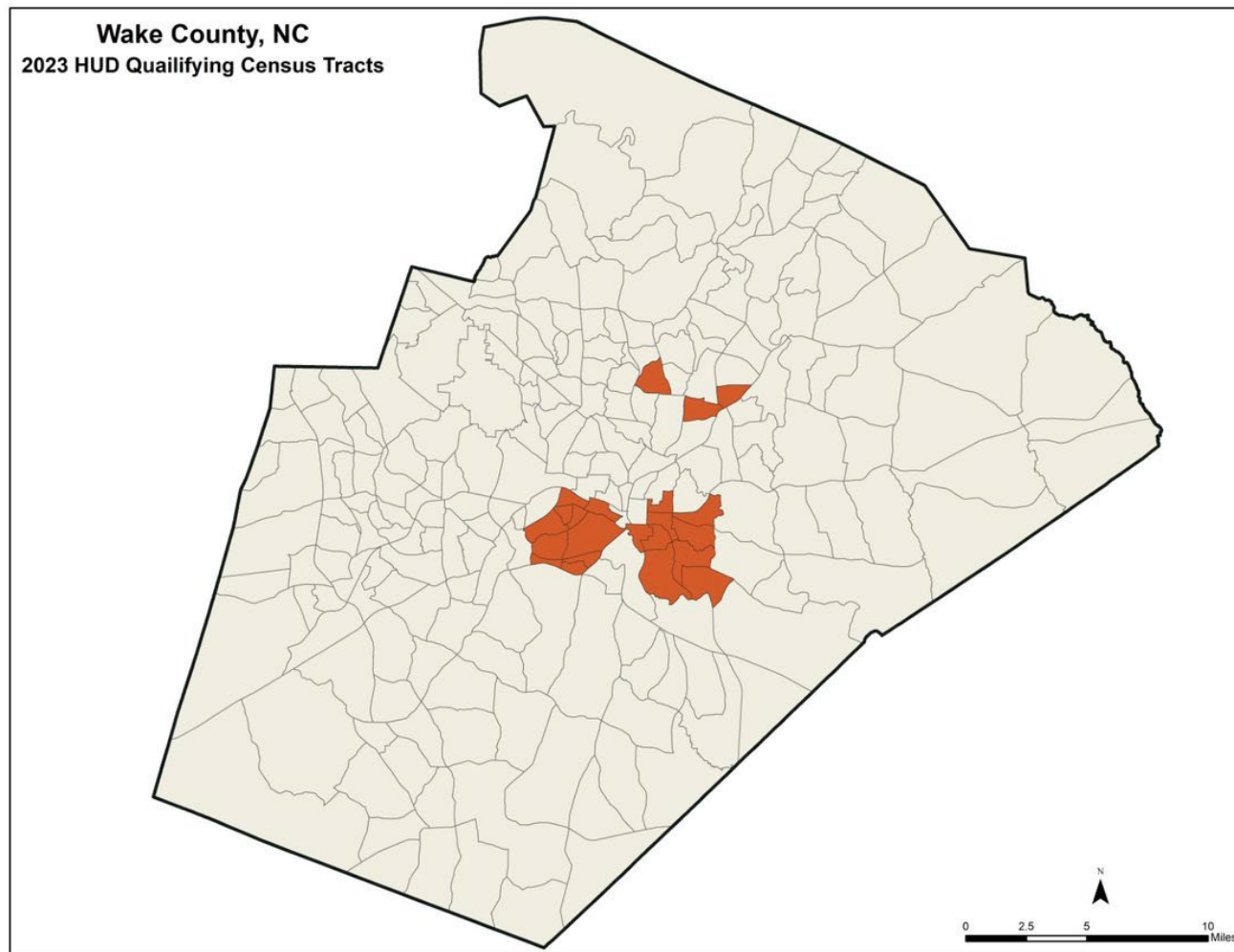
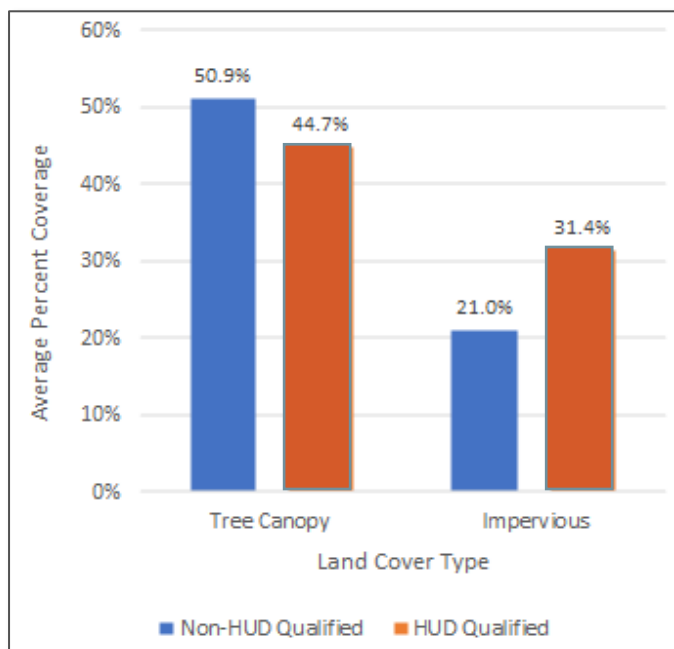
Tree Canopy Assessment

Tree Canopy Cover

2020 Canopy Cover by Census Block Group



2023 Qualified Census Tracts



Historical Canopy Change

Canopy change from 2010-2020

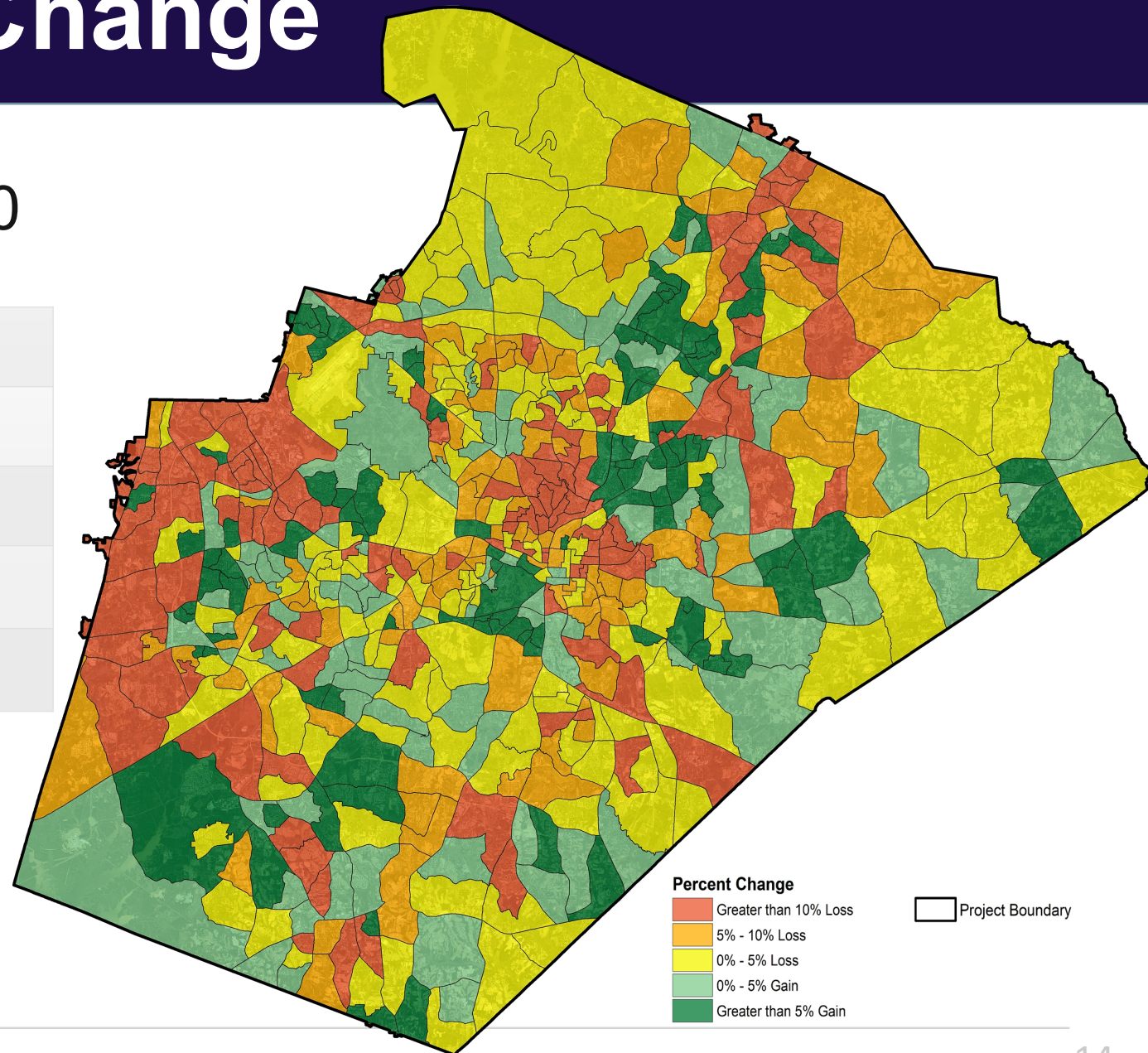
2010 Canopy Acres: 56.24%

2020 Canopy Acres: 54.21%

Net Loss: 11,122 canopy acres

Relative Change: 3.61%

Absolute Change: 2.03%



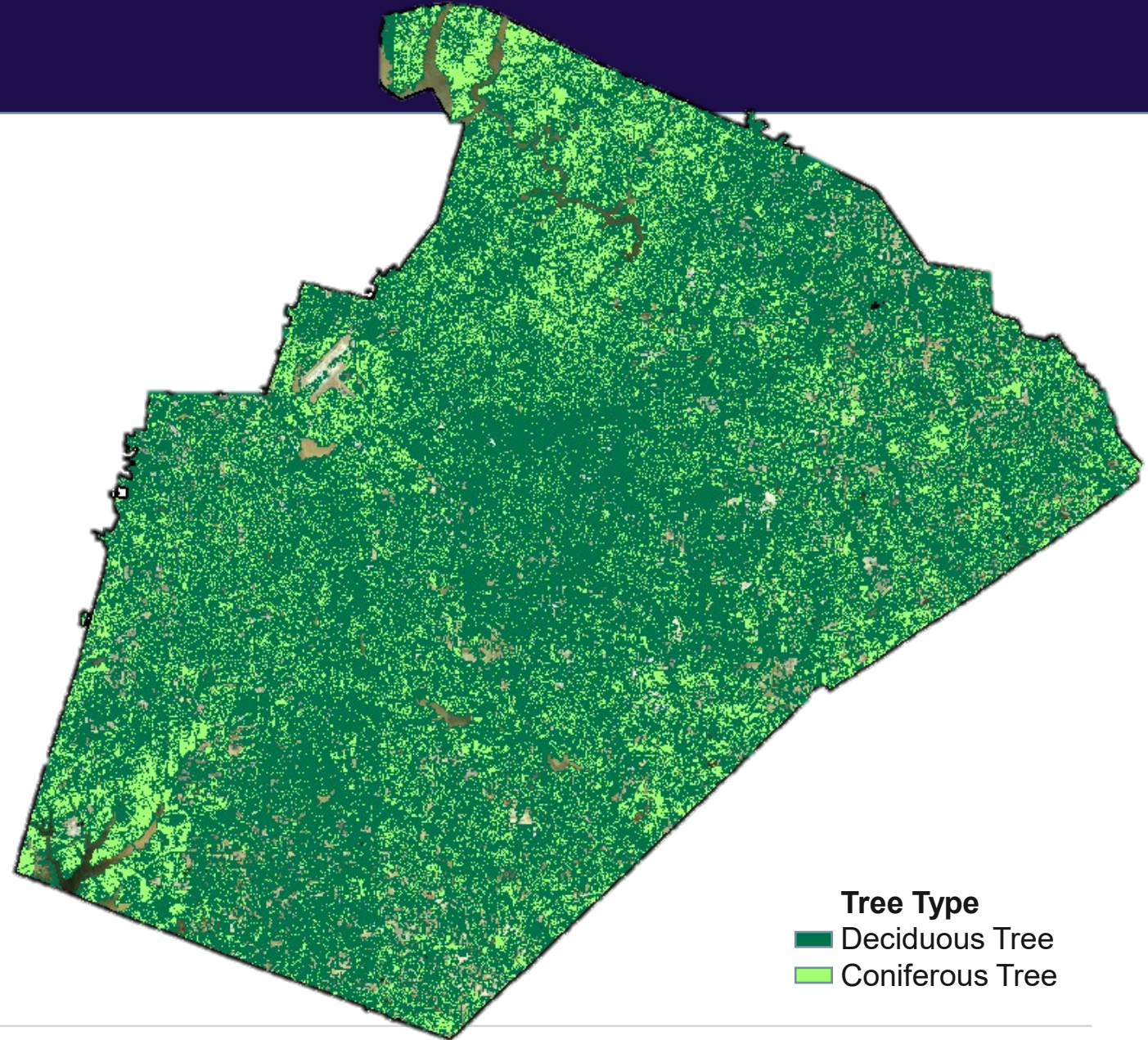
Canopy Type

2020 Canopy Type

Canopy Acreage: 54.21%

Deciduous: 70.49%

Coniferous: 29.51%



Canopy Health

2020 Canopy Health

Very Good Condition: 17.90%

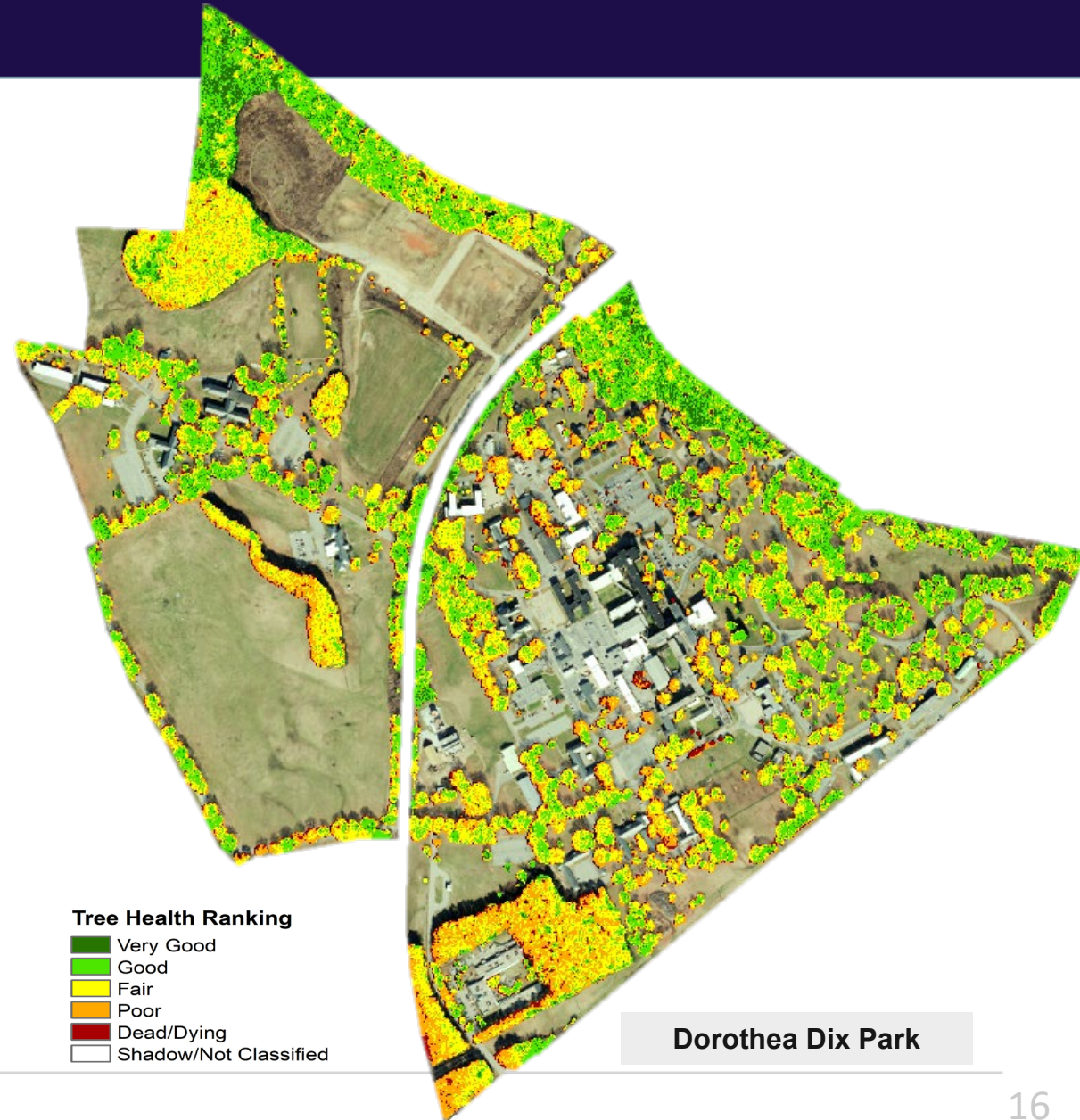
Good Condition: 33.43%

Fair Condition: 29.26%

Poor Condition: 14.93%

Dead/Dying: 3.75%

Shadow/Not Classified: < 1%





Planting Area Analysis

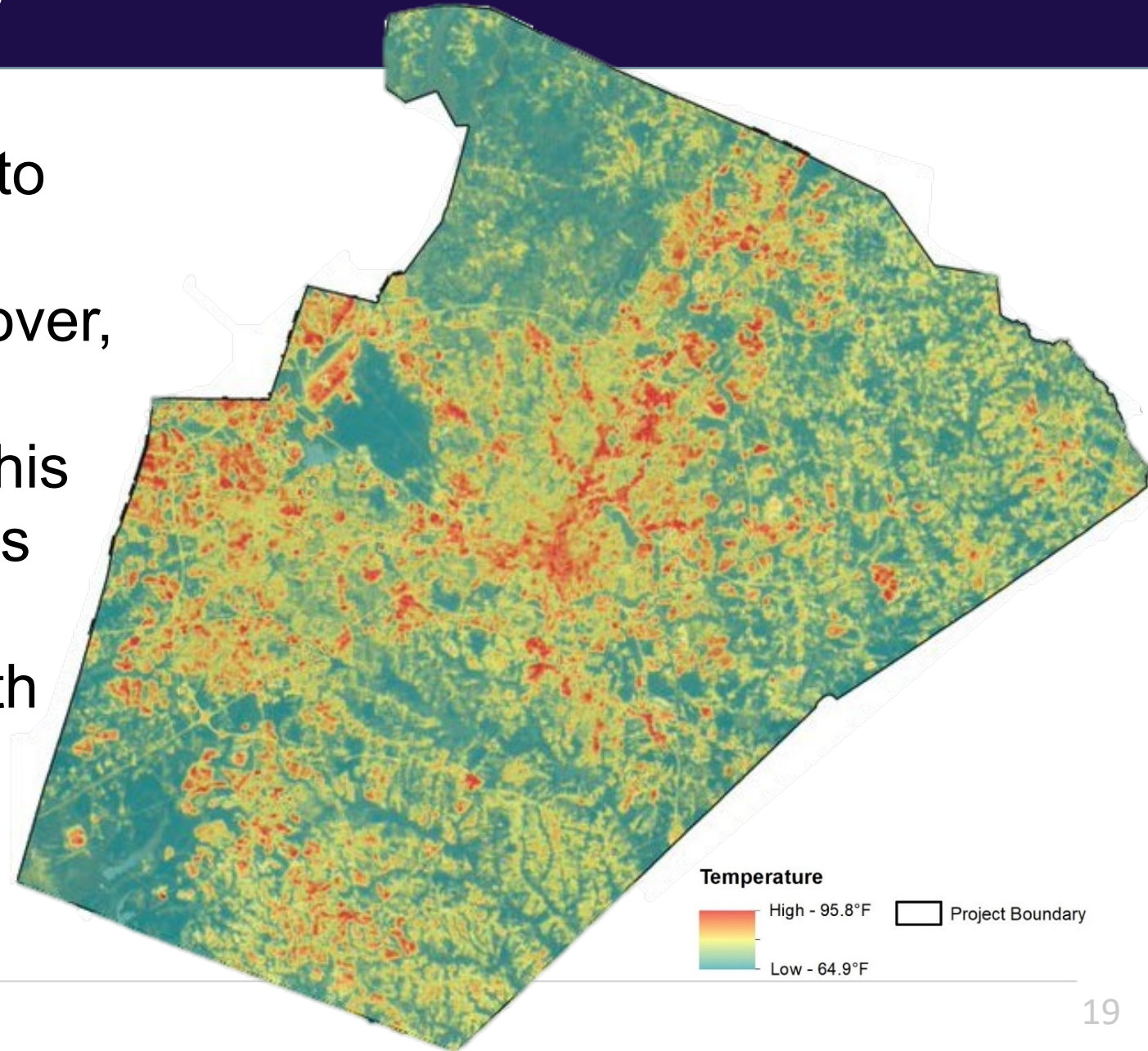
Planting Priority

Process for determining planting priority.

1. Identify realistic planting areas
 - Exclude areas such as utility corridors, golf courses and visible cropland
2. Perform a vulnerability assessment
 - Urban heat islands
 - Social equity
 - Stormwater
3. Prioritize the planting areas

Urban Heat Islands

Urban areas are often subject to higher temperatures due to a relatively low amount of tree cover, compared to rural areas. Researchers have found that this urban heat island (UHI) effect is largely due to the removal and replacement of tree canopy with impervious surfaces.

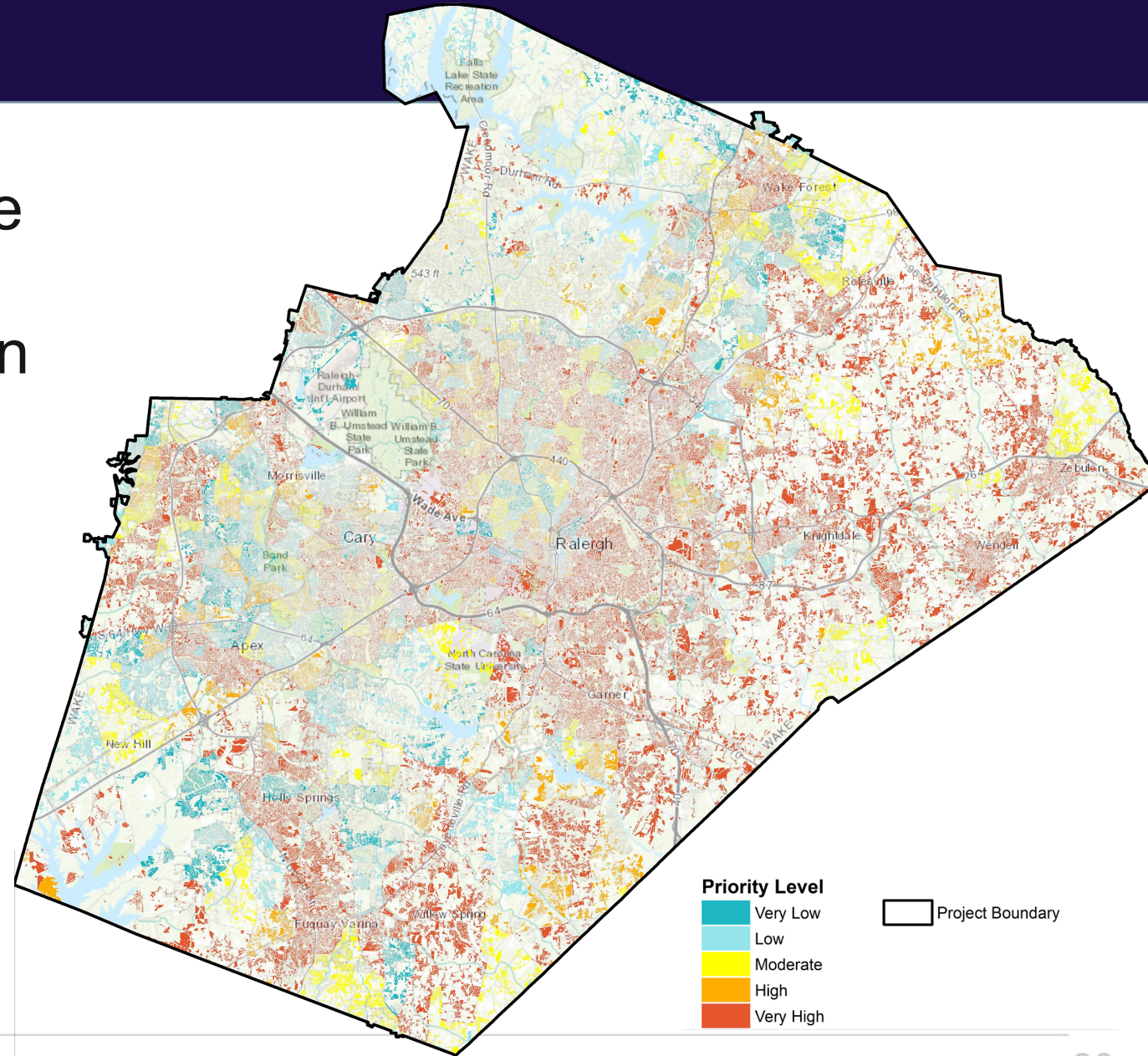


Social Equity

Areas where tree canopy can be expanded to maximize benefits that will have the most impact on human health, economics and wellbeing.

Sample parameters:

- Social Equity Index
- Age group
- Education
- Median household Income
- Mental health
- Asthma prevalence

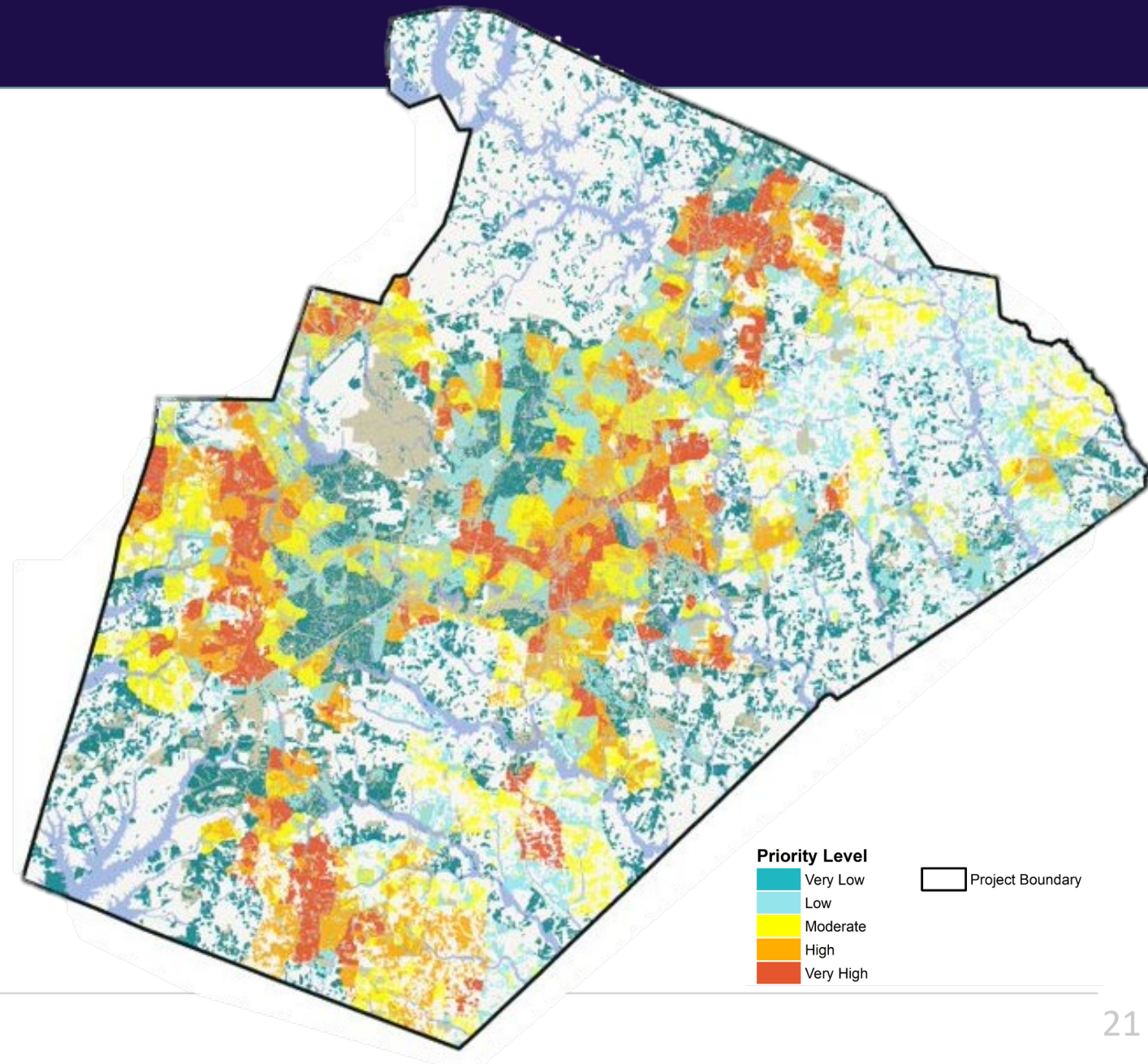


Stormwater

Areas where tree canopy can be expanded for better stormwater management.

Environmental assessment:

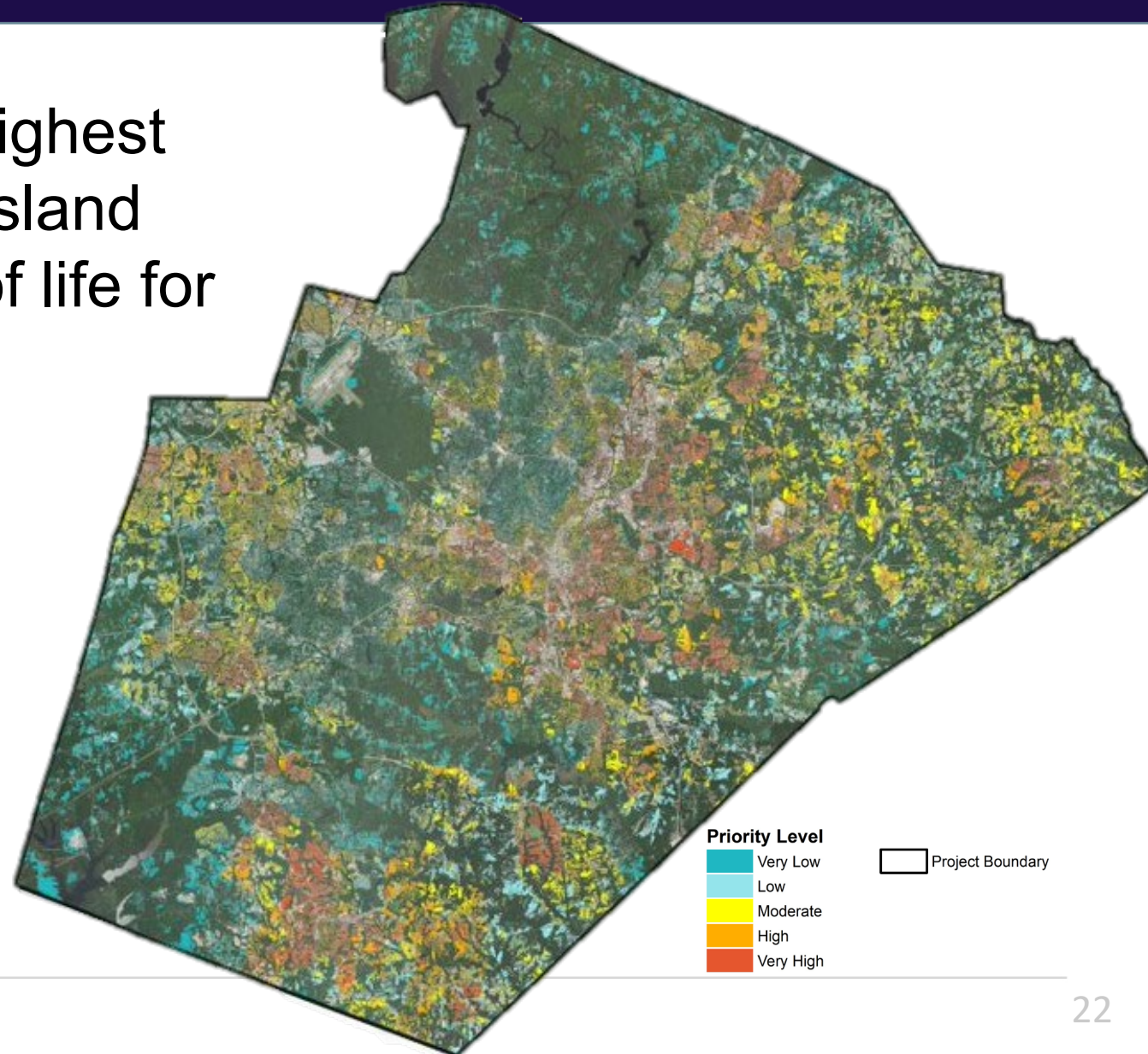
- Floodplain proximity
- Air quality
- Stormwater benefits
- Soil erosion
- Runoff



Composite of Priority Planting Areas

Areas that, if planted, have the highest potential to improve urban heat island effect, water quality and quality of life for Wake County's residents.

Priority Rank	Total Sites	Acres
Very Low	89,489	20,181
Low	80,422	21,416
Moderate	73,164	16,990
High	79,600	13,611
Very High	82,204	10,263



Tree Planting Opportunity



Over 1.53 million potential tree planting sites on public and private property were identified in Wake County.

Canopy Benefits and Next Steps

Canopy Benefits

“Wake County’s trees have collectively removed more than 10 million tons of carbon from the atmosphere, valued at \$1.7 billion. Each year, they provide benefits totaling more than \$1.5 billion in air pollution removal, carbon sequestration, and stormwater capture.”

- Davey Resource Group



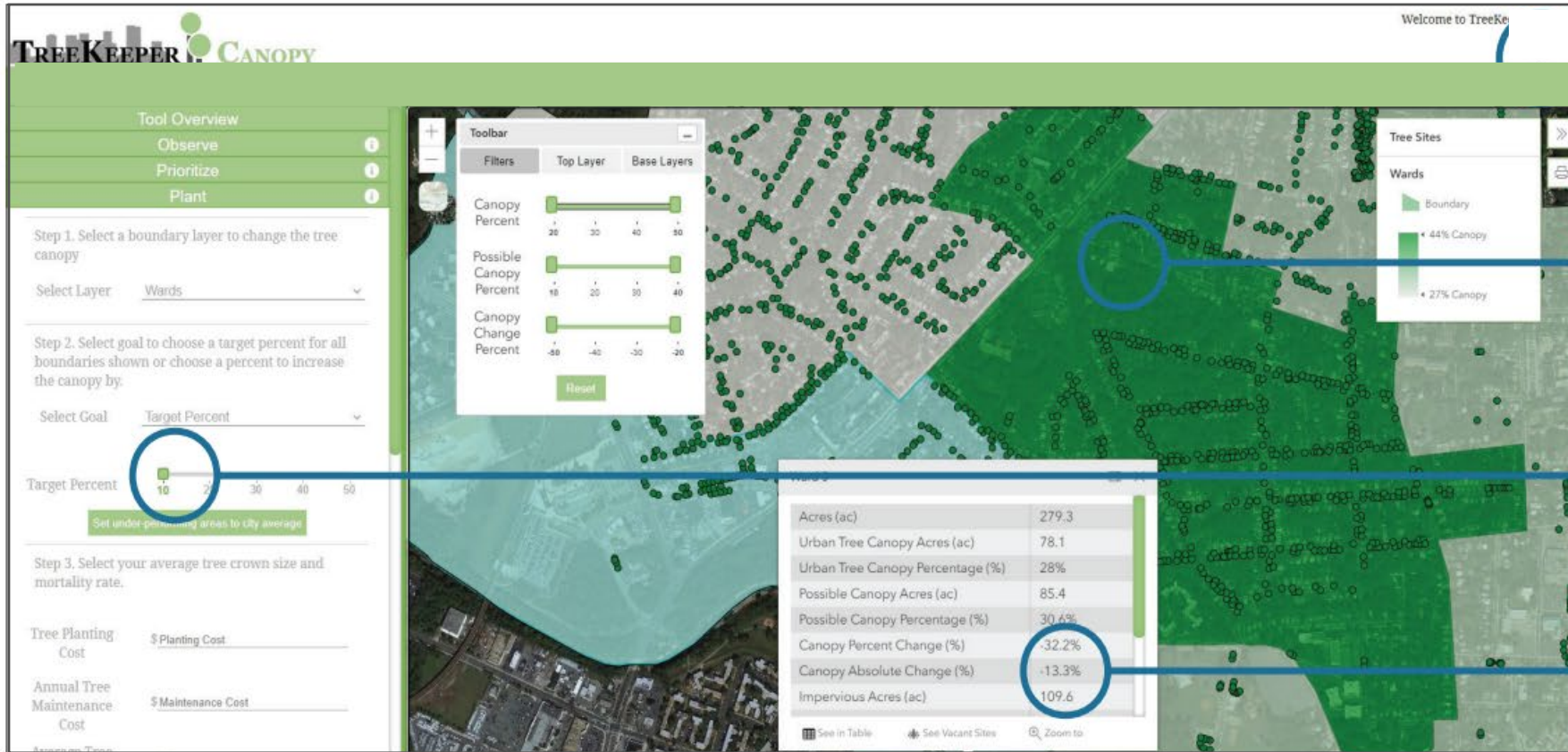
Operationalizing Data



TreeKeeper Canopy Software

- Interactive tool that makes data observations quick and easy.
- Prioritize and plan tree plantings using environmental and social equity data.
- Make data-driven decisions that can fuel program budgets and encourage support of your sustainability programs.
- Create custom tree canopy goals and projections.
- Share the benefits of your tree canopy and promote the value of community trees.

Tree Canopy Visualization



INTEGRATE TREEKEEPER DATA

VISUALIZE TREE CANOPY ASSESSMENT RESULTS

PRIORITIZE TREE CANOPY GOALS

EXPLORE TABULAR DATA INSTANTLY

Next Steps

- Finalize the project summer 2023.
- Present the report findings to municipal partners.
- Make the report and associated tools public.
- Create educational resources with a focus on canopy benefits.
- Work with stakeholders on operationalizing data.
- Consider a follow-up analysis in five to ten years.



Discussion