

2018 Greene Tract Conceptual Plan (Preservation and Development Scenarios)

Overview

At the May 17, 2017 Managers, Mayors, and Chair (MMC) meeting, staff was requested to examine the development potential of the existing Greene Tract and provide three alternatives illustrating high, medium, and low development options. The MMCs requested that each alternative include specific elements including, but not limited to, a site for a future elementary school, a site for a future park, highlight environmental and cultural areas of significance, development potential, and preliminary road network and infrastructure.

The three alternatives included a project area of approximately 164 acres (104 acres in joint ownership and 60 acres in County ownership, as requested to be added to a comprehensive review) of land divided into sections based on the project area's environmental conditions, elements of the 2002 Joint Governments Resolution, Rogers Road Task Force report, Mapping Our Community's Future report, and previous land use discussions. The alternatives proposed various land uses and elements based on feedback from the community, previous planning efforts, staff, and local government leaders' objectives for the Greene Tract.

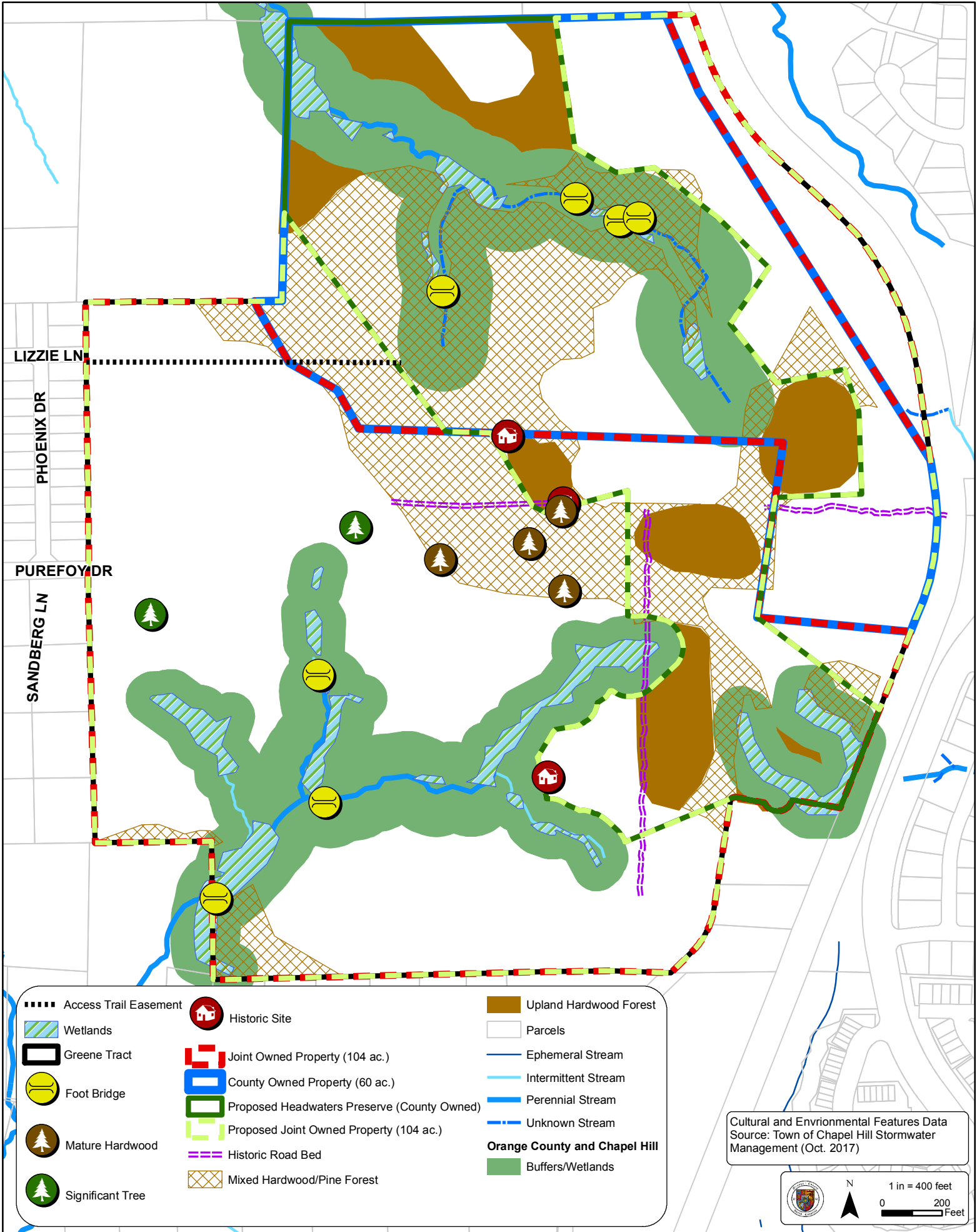
- **Environmental Features:** All three alternatives strive to protect areas of environmental concern including upland hardwood forests, wetlands, intermittent streams, and perennial streams located. These features are identified as areas of preserve which would not be developed in the future on all three alternatives. In *addition* to the acreage proposed for preserve, approximately 10 – 20% of the acreage proposed for development will be utilized for open space to provide areas of on-site preserve and connections to other areas of offsite preserve. Throughout the process, environmental staff from the Town of Chapel Hill, the Town of Carrboro, and Orange County provided feedback to develop alternatives which protected environmental areas and habitats located on the Greene Tract. Conceptual plans also included areas which may provide stormwater protections to the site.
- **Cultural Features:** Alternatives incorporated the location of cultural resources (i.e. footbridge, significant tree, historic homestead) in order to examine the protection and incorporation of these features in the future site design. For example, historical road beds and existing trails may be incorporated into the site design as a future greenway or trail system connecting the areas of preserve throughout the site.
- **Elementary School Site and Recreational Facility Site:** A school site is proposed on the southern portion of the Greene Tract. The original school site was originally proposed as part of the 18 acres designated for development in the Rogers Road Task Force Report. However, due to environmental constraints, the school site was relocated and is not included as part of the original acres identified for development. The proposed recreational facility site is also located on the southern portion of the Greene Tract in order to provide access to the future elementary school students. Chapel Hill—Carrboro City Schools staff was included in the process and provided support for the proposed school site and recreational facility site, which could also support community usage.
- **Development:** The proposed alternatives include areas for development in the short term. The location for future development was determined based on site elevations and proximity to existing public infrastructure. The proposed location focused on the northwest section of the site which was identified for housing (possible mixed-use) in the Rogers Road Task Force Report, but the program of density and affordability integration is a later stage.

- **Land Banking:** Alternatives include areas without critical environmental concerns or constraints for future land banking. These areas would remain undeveloped and preserved, but may be evaluated for development in the long term (10 – 20 years) depending on the needs of the community and planning partner approvals at that time.
- **Road:** The preliminary roadway design was based on existing environmental features and elevations contained on site. The proposed roadway network is similar to the 2017 concept plan, excluding the railroad crossing to Weaver Dairy Extension. Staff has explored the opportunity for an at-grade crossing to Weaver Dairy Extension Road with Norfolk Southern Rail. A new crossing at Weaver Dairy Extension would require the closing of possibly two to three at-grade crossings in other locations along the rail line. The proposed alternatives recognize a need for additional roadway connections similar to all previous planning efforts. Purefoy Drive would not be able to provide the only access to the site. Therein, future access to Eubank Road, Homestead Road, and second access to Rogers Road is noted.
- Further evaluation related to infrastructure (i.e. additional roadway connections), zoning standards, land use regulations, environmental features, cultural resources, and development decisions will impact and alter the proposed alternatives in the future.

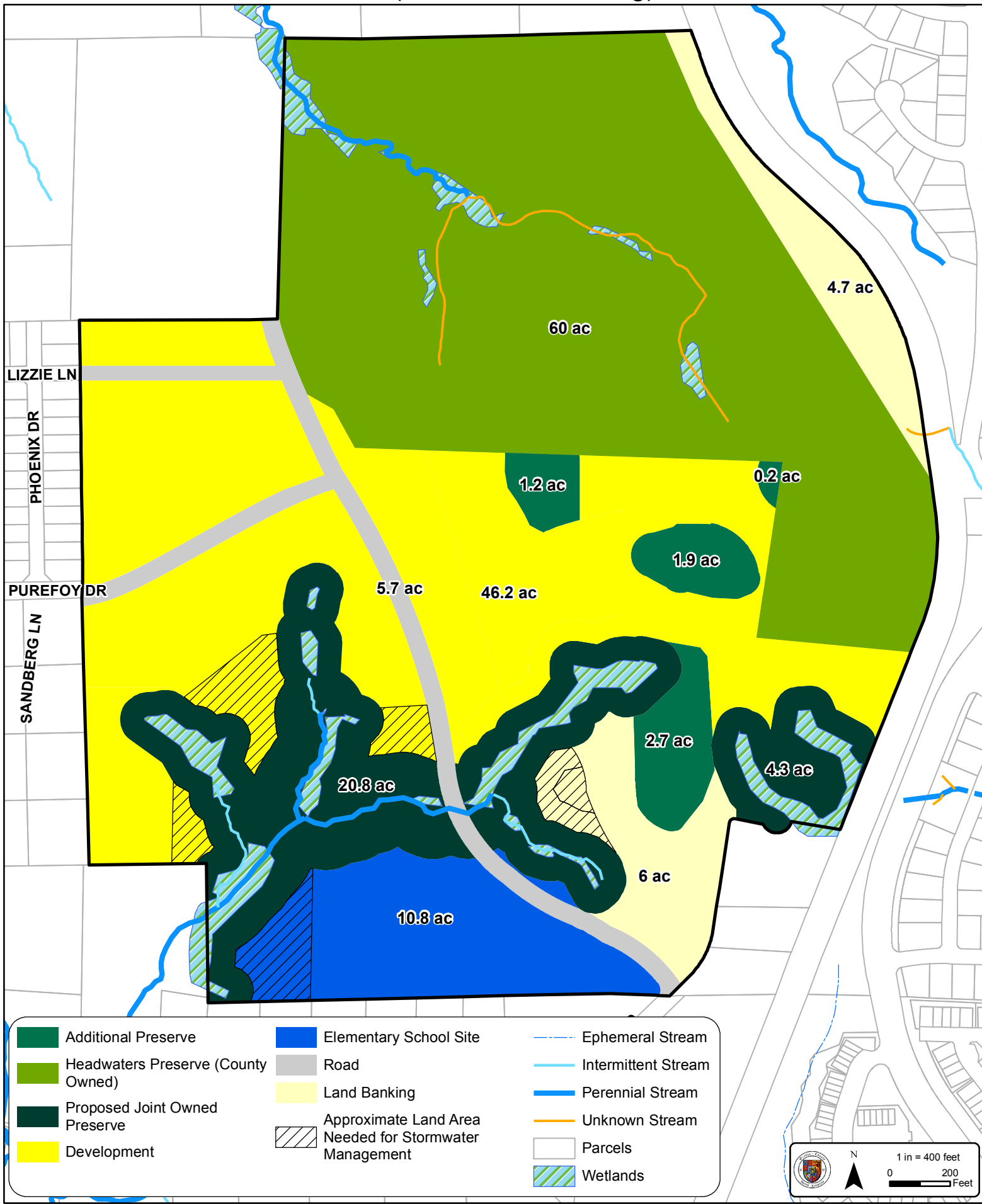
August 30 Managers, Mayors, and Chair (MMC) meeting

During the August 30 MMC meeting, attendees provided comments and recommendations regarding the proposed alternatives. One recommendation was for staff to examine the reconfiguration of the joint owned and county owned tracts. The purpose of this request was to determine the feasibility in adopting a revised resolution supporting the reconfiguration of these tracts. The 60 acres which are county owned will be established as prime preservation areas and be connected to the future joint owned preserve areas of the 104 joint owned lands. As a result, staff has amended the proposed conceptual plan based on the proposed reconfigured joint owned and county owned tracts. The amended plans and reconfigured tracts were drafted with environmental staff from the Town of Chapel Hill, the Town of Carrboro, and Orange County in order to create new parcels which endeavored to protect environmental features and habitats located on site.

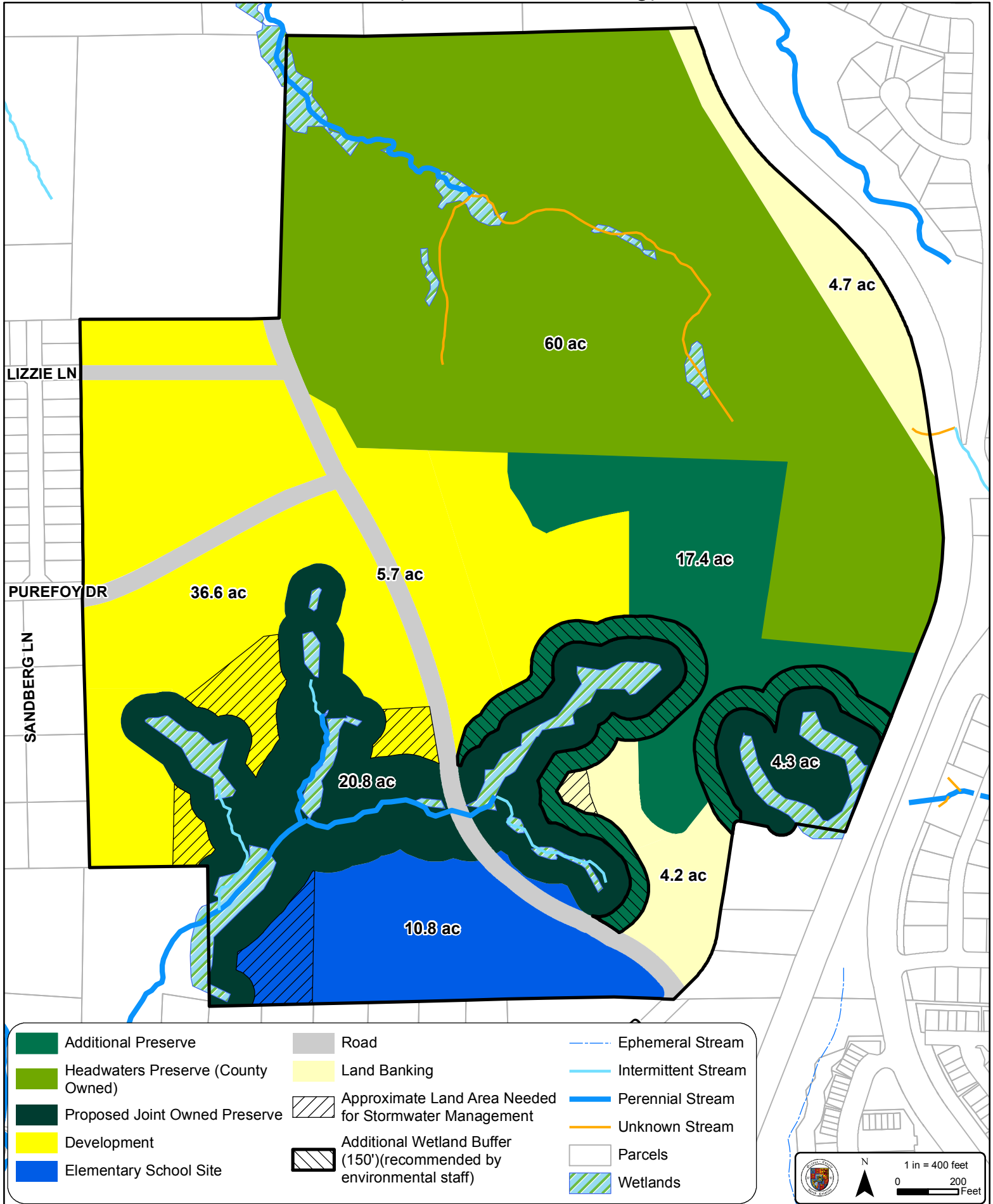
Attachment 5b Greene Tract - Environmental & Cultural Features



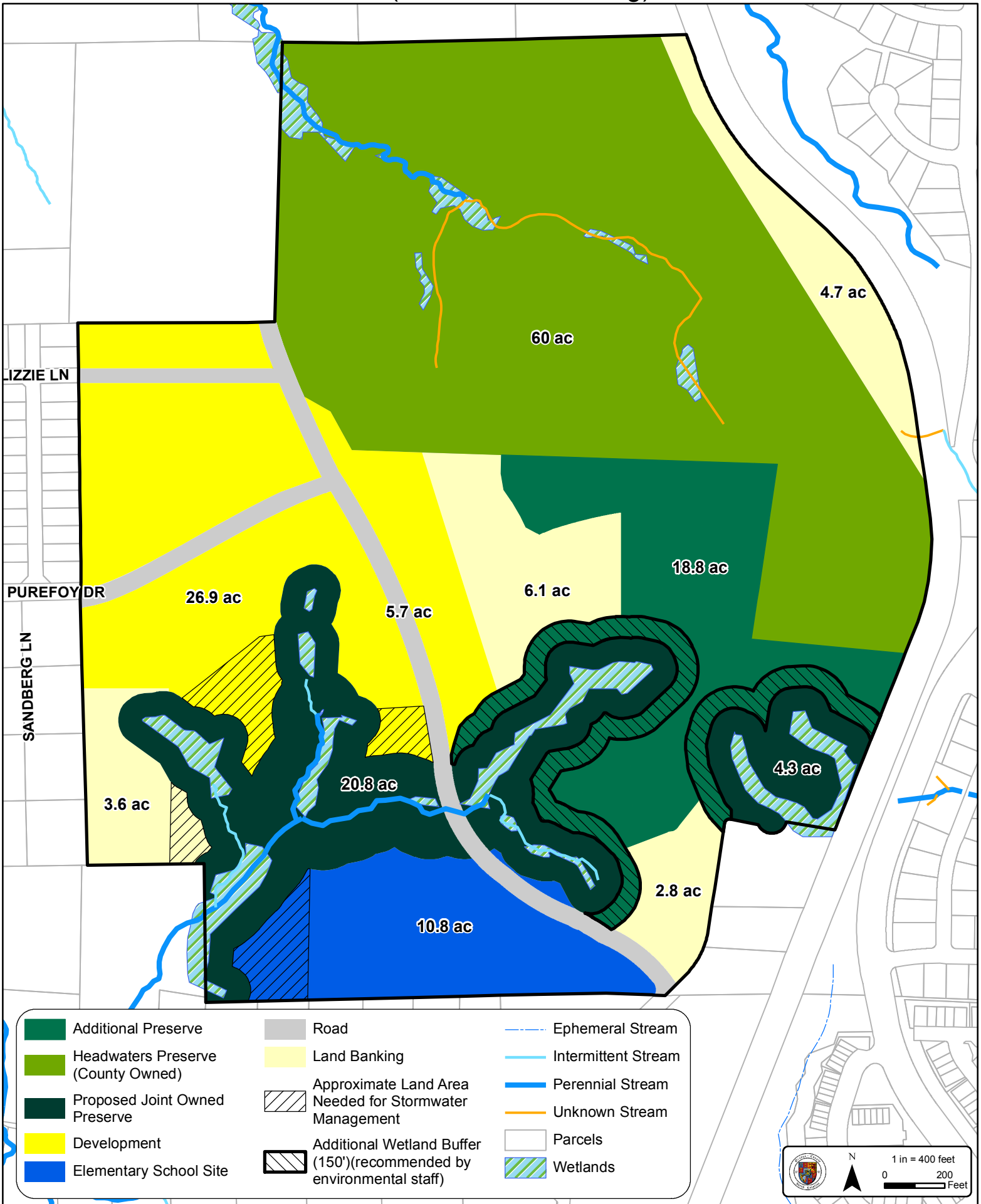
Greene Tract Land Use Conceptual Plan - Alternative 1 (High) (Headwaters Existing)



Greene Tract Land Use Conceptual Plan - Alternative 2 (Medium) (Headwaters Existing)



78 Greene Tract Land Use Conceptual Plan - Alternative 3 (Low) (Headwaters Existing)



Greene Tract Land Use Conceptual Plan

(Possible Modifications to Headwaters Preserve Areas)

Three alternatives were drafted which included a project area of approximately 164 acres of land divided into proposed land uses based on the project area's environmental conditions, elements of the 2002 Chapel Hill Resolution, Rogers Road Task Force report, Mapping Our Community's Future report, and local government leaders' objectives for the Greene Tract. All three proposed alternatives are based on possible modifications to the Headwaters Preserve areas.

Alternatives must provide three levels of development and incorporate:

- School site
- Recreational facility site
- Park space
- Natural preservation areas
- Development
- Road network and infrastructure
- Environmental buffers
- Cultural areas of significance

Additional consideration will be required for several elements of the Greene Tract:

- Roadway design
- Site infrastructure (i.e. water, sewer, fiber)
- Open space, recreational facility, and tree canopy preservation
- Environmental (i.e. wetlands, streams, buffers, stormwater regulations)
- Low Impact Development
- Cultural and historical features
- Density, land use, and zoning regulations
- Transit

- Further evaluation will impact and alter the proposed alternatives in the future
- Site plan review process will address additional land use issues and help shape the plan for the Greene Tract

Land Use Categories

Proposed Joint Owned Preserve: Includes areas of existing wetlands and streams located on the Greene Tract. Wetland and stream information is based on information collected from Town of Chapel Hill, Town of Carrboro, and Orange County staff. Buffer standards were determined based on a review of the Towns' and County's standards and utilizing the most restrictive. Additional analysis and delineation will be required moving forward. These areas would not be developed, but will remain as natural preserve areas in the future.

Additional Preserve: Includes areas for future preservation and upland hardwood forest which are not contained in the required preserve areas. In addition to the acreage proposed to be preserved, approximately 10 – 20% of the acreage proposed for development will be utilized for open space to provide areas of on-site preserve and connections to other areas of offsite preserve.

Proposed Headwaters Preserve (County Owned): Includes the original 60 acres designated for preservation by the Towns and County.

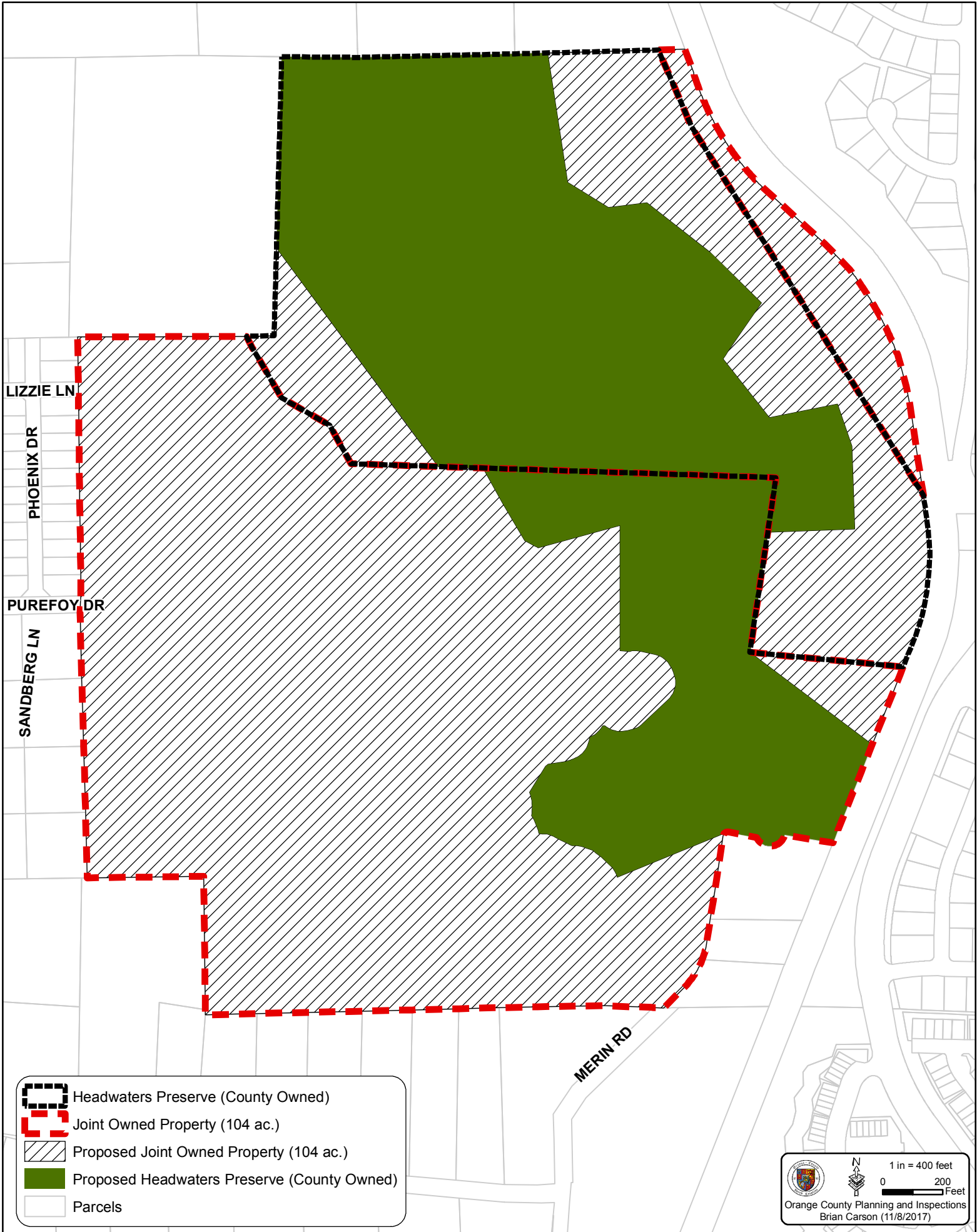
Elementary School Site: Includes acreages allocated for a future elementary school site. The proposed school site has been relocated to the southern portion of the site due to environmental constraints and is not included as part of the original 18 acres designated for development in the Rogers Road Task Force Report. Chapel Hill—Carrboro City Schools staff has reviewed the proposed alternatives and provides support for the proposed location.

Development: Includes areas proposed for development in the short term. The location for this category was determined based on site elevations and proximity to existing infrastructure. In addition, the proposed location for development includes the original 18 acres identified for affordable housing in the Rogers Road Task Force Report. Includes possible locations for on-site stormwater facilities.

Road: The preliminary roadway design was based on existing environmental concerns and elevations contained on site. The proposed alternatives recognize a need for additional roadway connections in the future.

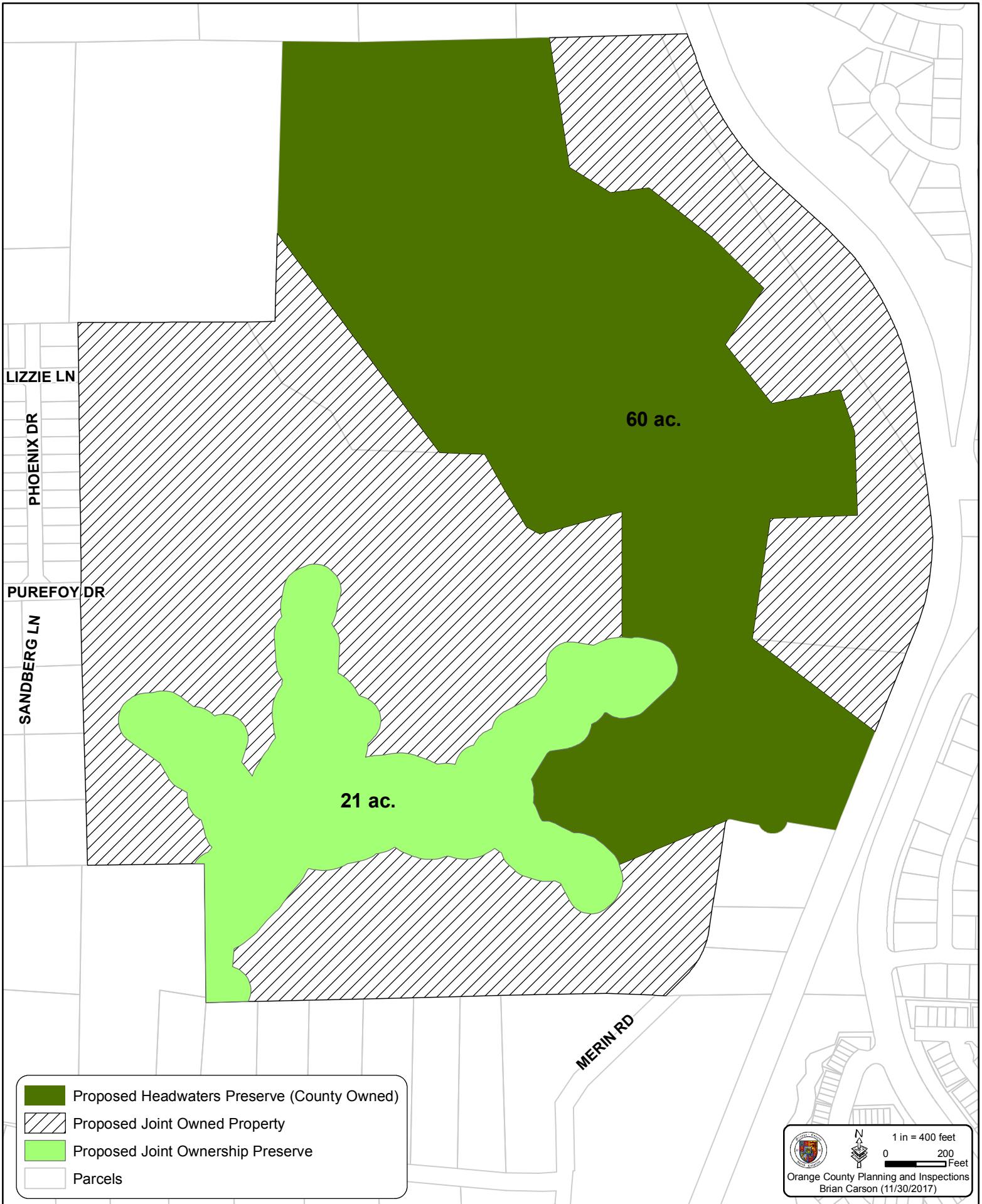
Land Banking: Includes areas without environmental concerns and access to infrastructure which may provide an opportunity for future development. These areas will remain undeveloped in the short term, but may be evaluated for development (i.e. residential, commercial, health services, and/or park/recreational facility) in the long term (10-20 years) depending on the needs of the community and planning partners at that time.

Possible Modifications to Headwaters Preserve Area⁸⁰

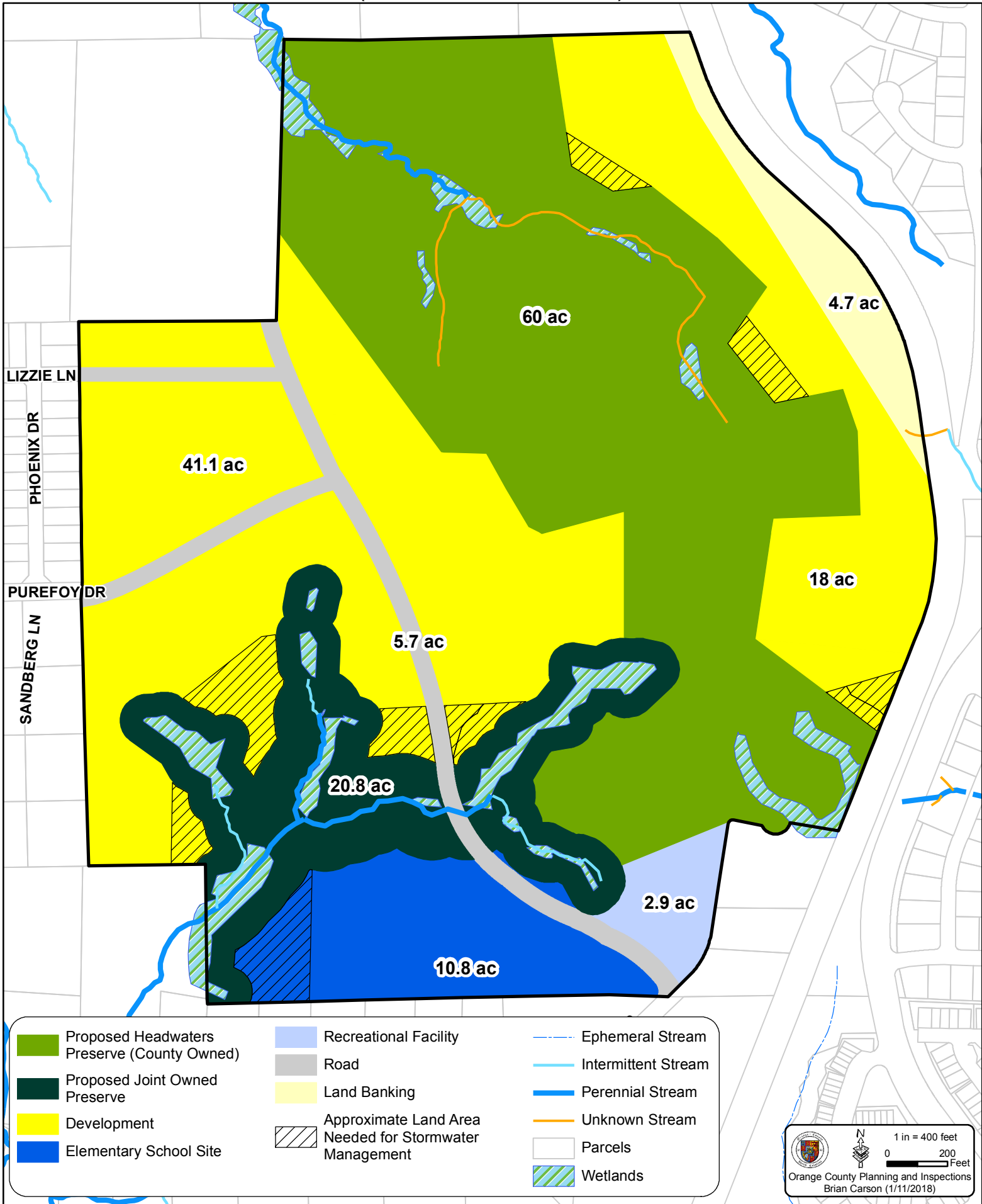


Possible Modifications to Headwaters Preserve Area

Total Preserve Area

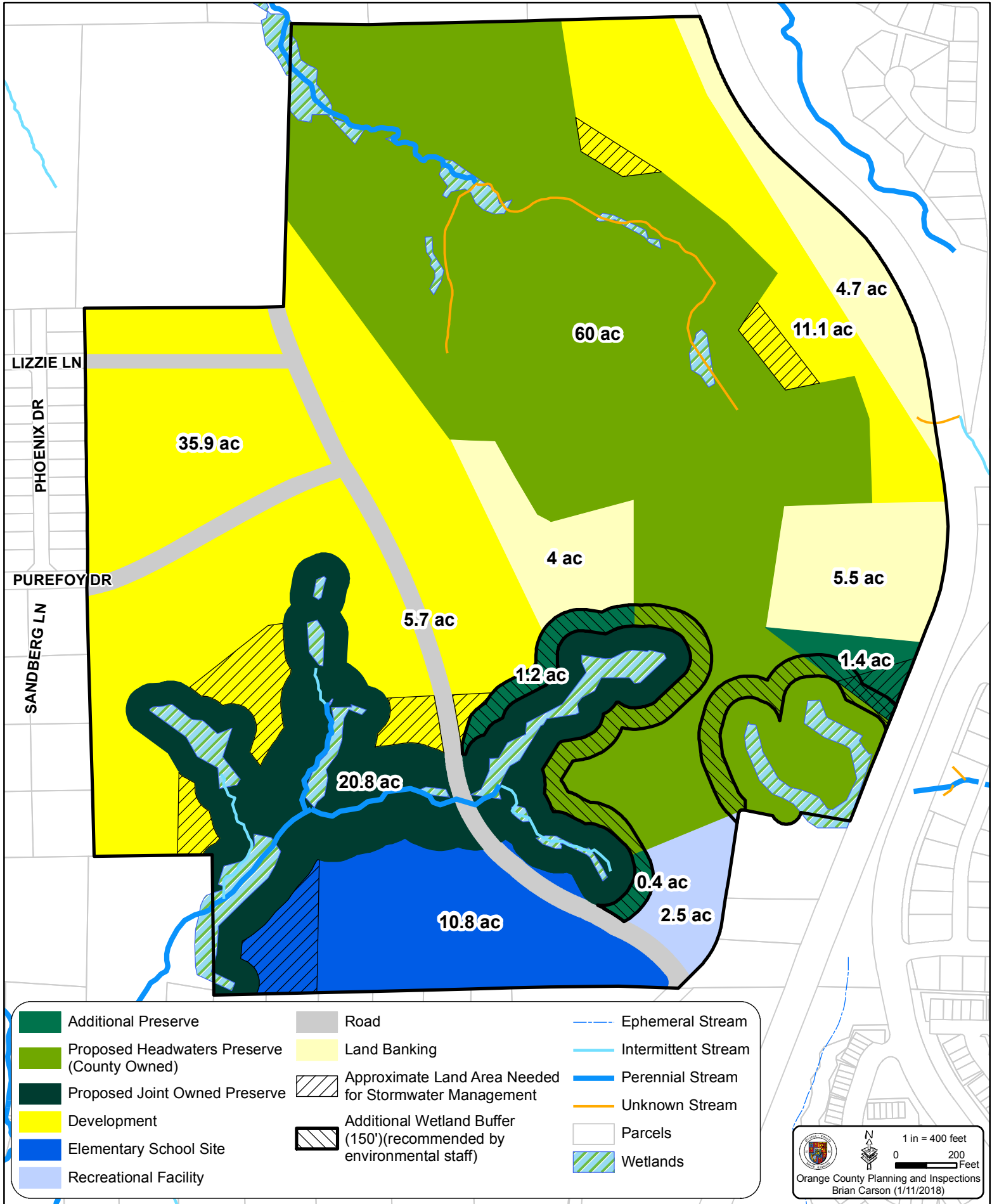


Greene Tract Land Use Conceptual Plan - Alternative 1 (High) (Headwaters Modified)

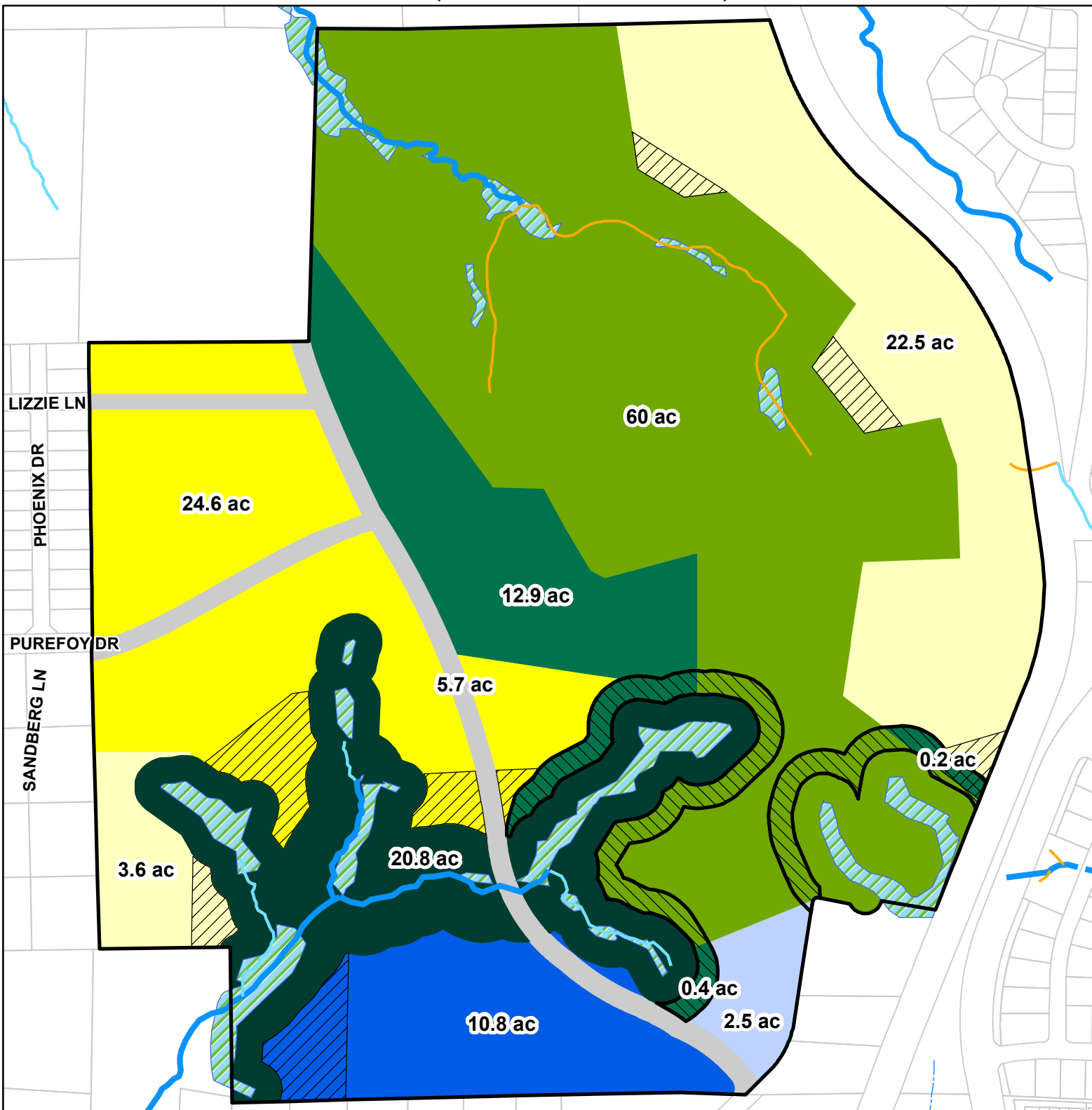


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|---|--|---------------------|
| Proposed Headwaters Preserve (County Owned) | Recreational Facility | Ephemeral Stream |
| Proposed Joint Owned Preserve | Road | Intermittent Stream |
| Development | Land Banking | Perennial Stream |
| Elementary School Site | Approximate Land Area Needed for Stormwater Management | Unknown Stream |
| | Parcels | Wetlands |

Greene Tract Land Use Conceptual Plan - Alternative 2 (Medium) (Headwaters Modified)



Greene Tract Land Use Conceptual Plan - Alternative 3 (Low) (Headwaters Modified)



Additional Preserve	Road	Ephemeral Stream
Proposed Headwaters Preserve (County Owned)	Land Banking	Intermittent Stream
Proposed Joint Owned Preserve	Approximate Land Area Needed for Stormwater Management	Perennial Stream
Development	Additional Wetland Buffer (150')(recommended by environmental staff)	Unknown Stream
Elementary School Site	Parcels	Wetlands
Recreational Facility		

1 in = 400 feet
 0 200 Feet
 Orange County Planning and Inspections
 Brian Carson (1/11/2018)

Alternative 1

Illustrates a high development option with the greatest amount of acreage designated for development compared to the other alternatives.

Preserve		Development		Land Banking	
20.8 ac.	20%	78.5 ac.	75.5%	4.7 ac.	4.5%
Based on 59.1 acres	Low Density (4-6 units/acre)	Medium Density (6-10 units/acre)	High Density (10-20 units/acre)		
	236 - 354	354 - 591	591 - 1182		

Pros

- More acreage designated for development in the short term
- Provides greatest opportunity for highest number of affordable housing and market rate housing to help meet housing demand in the urban area
- More acreage available for development to offset infrastructure costs
- Allows for double road frontage to offset road and infrastructure costs
- More development and residential units to support transit

Cons

- Additional stormwater treatment will be needed due to greater amount of potential development and increased impervious surfaces
- Protects the least amount of mixed hardwood/pine forest from short term development
- Only allows for the required 80 foot wetland buffer
- Depending on density, may have greater traffic impacts to Purefoy Drive and Merin Road

Alternative 2

Illustrates a moderate development option by shifting acreage away from the development land use with the transfer of acreage to additional preserve and land banking. Also allows for a 150 buffer along a portion of the existing wetlands located onsite.

Preserve		Development		Land Banking	
23.8 ac.	22.9%	66 ac.	63.4%	14.2 ac.	13.7%
Based on 47 acres	Low Density (4-6 units/acre)	Medium Density (6-10 units/acre)	High Density (10-20 units/acre)		
	188 - 282	282 - 470	470 - 940		

Pros

- Proposes 150 foot wetland buffer adjacent to wildlife corridor
- Allows for additional areas of preserve
- Provides opportunity for a mid-range of affordable housing and market rate housing to meet the general housing demand
- More acreage available for development to offset infrastructure costs
- Allows for double road frontage to offset road and infrastructure costs

Cons**Alternative 3**

Illustrates a low development option by shifting additional acreage away from the development land use category to the additional preserve and land banking.

Preserve		Development		Land Banking	
34.3 ac.	33%	43.6 ac.	41.9%	26.1 ac.	25.1%
Based on 24.6 acres	Low Density (4-6 units/acre)	Medium Density (6-10 units/acre)	High Density (10-20 units/acre)		
	98 - 147	147 - 246	246 - 492		

Pros

- Proposes 150 foot wetland buffer adjacent to wildlife corridor
- Allows for additional areas of preserve
- Strives to protect the existing wildlife corridor and provide for landscape connectivity
- Protects the greatest amount of Mixed Hardwood/Pine Forest from short term development
- Depending on density, may have less traffic impacts to Purefoy Drive and Merin Road

Cons

- Less acreage is available for development in the short term
- Provides lowest opportunity for affordable housing and market rate housing to help meet housing demand in the urban area
- Less acreage available for development to offset infrastructure costs
- Does not allow for double road frontage to offset road and infrastructure costs
- Less development and residential units to support transit

Affordable Housing Potential

Alternative 1 (High) – Potential Number of Residential Units			
Based on 59.1 Acres	Low Density 4 - 6 units/acre	Medium Density 6 - 10 units/acre	High Density 10 - 20 units/acre
		236 - 354 units	354 - 591 units
Potential Number of Affordable Housing Units			
15%	35 – 53 units	53 – 88 units	88 – 177 units
20%	47 – 70 units	70 – 118 units	118 – 236 units
35%	82 – 123 units	123 – 206 units	206 – 413 units

Alternative 2 (Medium) – Potential Number of Residential Units			
Based on 47 Acres	Low Density 4 - 6 units/acre	Medium Density 6 - 10 units/acre	High Density 10 - 20 units/acre
		188 - 282 units	282 - 470 units
Potential Number of Affordable Housing Units			
15%	28 – 42 units	42 – 70 units	70 – 141 units
20%	37 – 56 units	56 – 94 units	94 – 188 units
35%	65 – 98 units	98 – 164 units	164 – 329 units

Alternative 3 (Low) – Potential Number of Residential Units			
Based on 24.6 Acres	Low Density 4 - 6 units/acre	Medium Density 6 - 10 units/acre	High Density 10 - 20 units/acre
		98 - 147 units	147 - 246 units
Potential Number of Affordable Housing Units			
15%	14 – 22 units	22 – 36 units	36 – 73 units
20%	19 – 29 units	29 – 49 units	49 – 98 units
35%	34 – 51 units	51 – 86 units	86 – 172 units