



THE LOOP TRAIL

FEASIBILITY STUDY
MARCH 11, 2021

The opinions, findings, and conclusions in this publication are those of the author(s) and not necessarily of the Department of Transportation, State of Georgia or the Federal Highway Administration.

Prepared in cooperation with the Department of Transportation, Federal Highway Administration and the Atlanta Regional Commission



TABLE OF CONTENTS

Acknowledgments.....	5
Executive Summary	6
Letter from Sugarloaf CID.....	9
Project Overview	
Project Goals + Objectives.....	12
Regional Value.....	14
Need + Purpose.....	16
Project Framework.....	18
Existing Conditions	
Overview	22
Project Area.....	24
Demographics	26
Relevant Studies	30
Projects + Developments	40
Preliminary Alignment Review.....	42
Existing Land Use.....	44
Parks + Open Space.....	46
Utilities + Infrastructure.....	50
Transportation + Mobility Network.....	54
Cultural + Historic Resources.....	56



Public Engagement

Public Engagement	60
Process	62
Meetings.....	64

Concept Plan

Concept.....	66
Context Zones.....	68
Alignment.....	72
Segment Impact Analysis Summary	77
Segment Enlargements.....	78
Trail Experiences and Features	110

Implementation Plan

Implementation Plan	114
Project Coordination.....	116
Cost Estimate, Funding, and Next Steps.....	118

Appendices

Appendices.....	120
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Appendix A: Environmental Report

Appendix B: Cost Estimate Summary

Appendix C: List of Utilities

Appendix D: List of Figures

Appendix E: Public Meeting Minutes



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EXECUTIVE SUMMARY

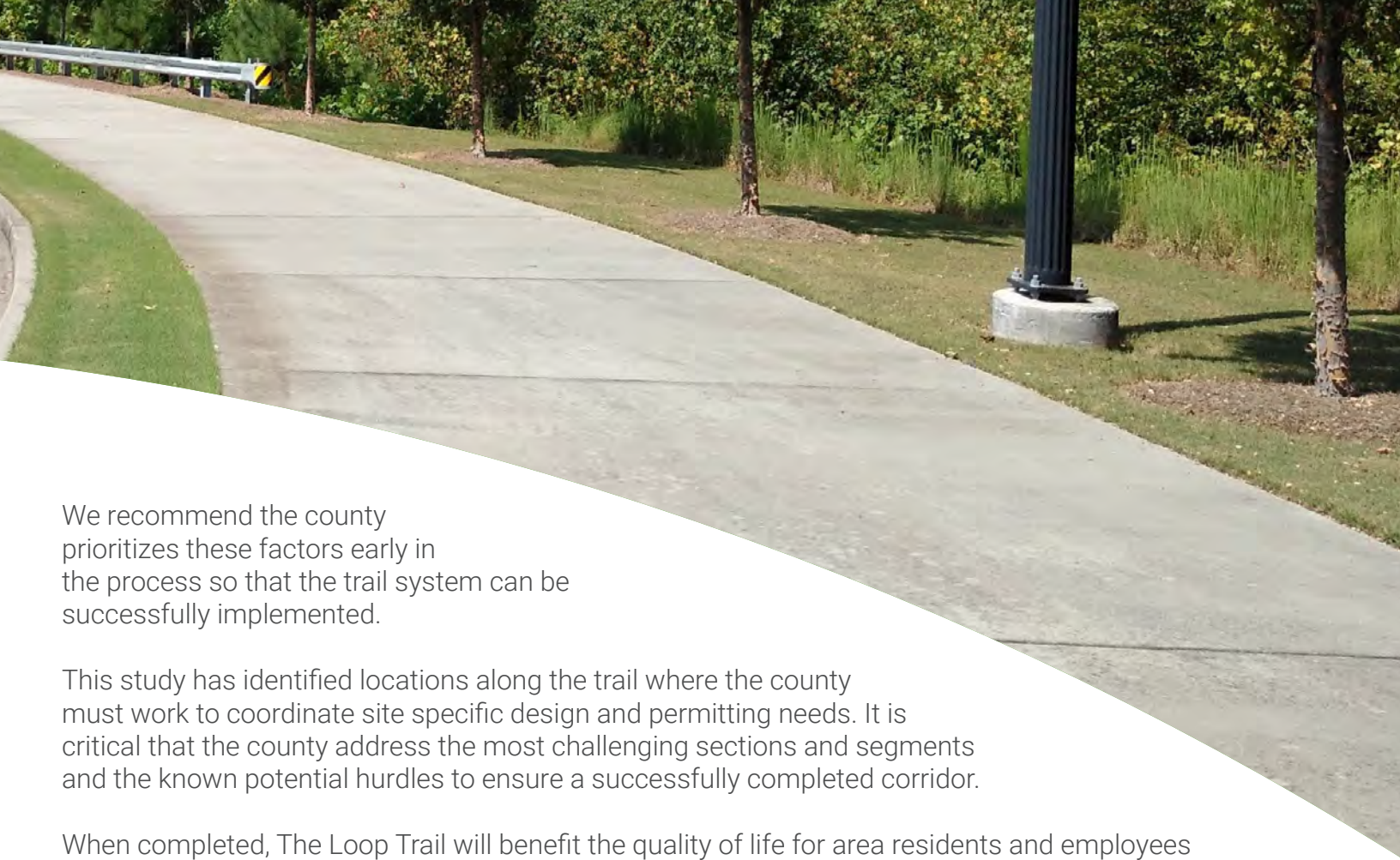
Gwinnett County is maturing into a well-respected hub of residential communities, unique vibrant commercial business opportunity zones and centers of industrial production. The County is an award-winning regional leader in the development of parks and recreation facilities along with the successfully implementation of transportation advancements to cope with explosive growth within the past three decades.

The County supported the study and construction of several transportation and recreation trail segments including the Western Gwinnett Pathway in the area that is between Duluth, I-85, Suwanee and the Chattahoochee River. The County and Sugarloaf CID have recognized the outstanding need to address the connections in between the parks and the varied developments that lie within this area. Therefore, Gwinnett County and Sugarloaf Community Improvement District (CID) pursued grant funds from the Atlanta Regional Commission to provide a more detailed assessment to support the requirements to implement the next phases for a uniform corridor.

Through the engagement of a core team consisting of Gwinnett County staff and local CID members, identification and inclusion of local stakeholders and the general public, we were able to develop a detailed plan of action for this proposed loop trail system. This study report can be followed by county leaders to raise funds, allocate resources and identify easements to acquire in order to make this alternative transportation and trail of recreational value a reality.

In order to keep the project process moving and meet grant funding deadlines during the 2020 COVID pandemic, we employed web-based platforms, including Social Pinpoint mapping and survey websites as well as WebEx virtual public meetings with incorporated PigeonholeLive application polling tools. Through this process we have identified the trail corridor and provided information on the main challenges of implementing The Loop Trail, including:

- The funding of design, permitting and construction.
- Acquisition of temporary easements and right-of-way.
- Reconciling safety between vehicular and pedestrian/bicycle traffic at intersections and driveways.
- Sensitivity in design in dynamic natural floodplain and wetland areas.
- Ongoing coordination with municipalities and CID's.



We recommend the county prioritizes these factors early in the process so that the trail system can be successfully implemented.

This study has identified locations along the trail where the county must work to coordinate site specific design and permitting needs. It is critical that the county address the most challenging sections and segments and the known potential hurdles to ensure a successfully completed corridor.

When completed, The Loop Trail will benefit the quality of life for area residents and employees of local businesses. Additionally, the trail will contribute to the improvement of the county's status as an attractive destination for visitors by increasing availability of alternate modes of transportation, reducing traffic and providing new facilities for recreation.

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The Loop Trail is more than a transportation project. It is a vision for connecting our community.

The Sugarloaf Community Improvement District (CID), in partnership with Gwinnett County and the Atlanta Regional Commission, has completed this study to lay the groundwork for the Loop Trail, a signature trail in the Gwinnett Trails Master Plan. The Loop Trail study is an analysis of an approximate 14-mile segment of a 17-mile trail that will link to major destinations in our community. Once complete, this project will connect the Infinite Energy Center and the Sugarloaf CID to Gwinnett Place Mall, McDaniel Farm Park, Peachtree Ridge Park, the Suwanee Creek Greenway, and the Western Gwinnett Pathway.

Together with our partners, the Sugarloaf CID is working to shape the future of Gwinnett's Downtown. The CID represents commercial property owners who have formed a self-taxing district to fund infrastructure and quality of life improvements in the Sugarloaf business district. In addition to providing funding for this study, the Sugarloaf CID and its stakeholders were involved in the development of this plan through public outreach, core team meetings, and public meetings. As a regional activity center and Livable Centers Initiative (LCI) area, we support the development of new connections to make it easier for workers, residents, and visitors to walk and bike to destinations in our community. Trail connections will also help provide more pedestrian and bicycle connections to transit.

The Sugarloaf CID serves as a business and entertainment center for Gwinnett County, and with dense, mixed-use redevelopment currently underway around the Infinite Energy Center, the need for trails and greenspace access will only continue to grow.

This feasibility study and concept design report serves as an important first step in connecting our community with the Loop Trail, and we look forward to our continuing work with Gwinnett County and our other partners to implement this transformative project.

Sincerely,



Alyssa Davis
Executive Director
Sugarloaf Community Improvement District

A photograph of a white, single-story house with a wide porch. A large, mature tree with green and yellowing leaves stands in the foreground, partially obscuring the house. The house has a blue metal roof and a red brick chimney. The porch has white railings and columns. The ground is covered with fallen leaves and a low stone wall is visible in the foreground.

PROJECT OVERVIEW

This study illustrates the feasibility alignment process for the construction of the Loop Trail. In addition, the goal is to leverage the trail as a catalyst to economic development and as a legitimate multi-modal transportation alternative.

Once completed, the Loop Trail will be a significant amenity, drawing people to this part of the County. This trail is a key facility to connect multiple communities and destinations with human powered transportation, including Duluth, Gwinnett Place, the Infinite Energy Center, Suwanee and the interstitial neighborhoods. The trail will also connect to Shorty Howell Park, McDaniel Farm Park, and Suwanee Creek Park.

The Loop Trail is identified as a Signature Trail in the Gwinnett Countywide Trails Master Plan. The Gwinnett Countywide Trails Plan envisions approximately 310 miles of walking and biking trails throughout the County. Once complete and connected to the Western Gwinnett Pathway, these trails will form a 17-mile loop serving a large area of northern Gwinnett.

The Loop Trail is a cornerstone in many of the County's long-term future goals to be "vibrantly connected." The trail provides a needed connection that magnifies the effectiveness of trail infrastructure projects already in place or ongoing in this area of Gwinnett, including the Suwanee Creek Greenway and the Western Gwinnett Pathway. Through a series of trail spurs, the Loop Trail also will connect to the proposed Piedmont Pathway, another Signature Trail in the Countywide Trails Master Plan.

The Loop Trail project is a joint effort between Gwinnett County, the Sugarloaf CID, and ARC. The studies completed leading up to this feasibility study identified the need of the project and also the desires of the surrounding communities to bring the trail connection to fruition.

The process of developing the best alternative for the trail's route involved coordinating with staff of Gwinnett County, the Sugarloaf CID, the Gwinnett Place CID, a core team advisory committee, a stakeholder advisory group, and two public meetings. Based on community and stakeholder feedback the team established a proposed alignment for the trail, taking into account its proximity and access to community destinations and overall trail safety.



PROJECT GOALS + OBJECTIVES

The Loop Trail study area includes multiple neighborhoods, commercial businesses, parks and destinations. The following are primary goals and objectives developed through an iterative process involving core team members, stakeholders and the public.

GOALS

1. Leverage the trail as a catalyst for economic development and as a legitimate multi-modal transportation alternative.
2. Support and implement the County's mantra of being "vibrantly connected."
3. Uphold the goals in the Sugarloaf Livable Centers Initiative Plan (Sugarloaf LCI).
4. Fulfill the vision of a Signature Trail, as defined by the Gwinnett Countywide Trails Master Plan, which is to be one of the hallmark trails of Gwinnett's system.

OBJECTIVES

1. Provide human-scale transportation alternatives.
2. Provide opportunity for recreation in the form of biking, walking, running, roller blading, and other pedestrian activities.
3. Provide access to existing County amenities and destinations.
4. Connect to the Western Gwinnett Pathway.
5. Connect to the Suwanee Creek Greenway.
6. Connect to and encourage the development of other trails.

Figure 1. Gwinnett Countywide Trails Master Plan.



REGIONAL VALUE



REGIONAL VALUE

The Loop trail is part of a broader effort with the capacity to transform and shepherd Gwinnett into its future.

The trail is identified as a Signature Trail in the recent Countywide Trails Master Plan created by Gwinnett County's Departments of Transportation and Community Services in partnership with the County's 16 cities and CIDs. It will provide many opportunities to bolster the County's planned transit network as well as connections to the Western Gwinnett Pathway and the Suwanee Creek Greenway.

The Loop Trail study area, located in Gwinnett County, is home to a number of significant cultural and commercial resources including the Infinite Energy Arena, Shorty Howell Park, McDaniel Farm Park, Peachtree Ridge Park, schools, several churches, and residential neighborhoods.



The Loop Trail will provide a critical connection between the existing Western Gwinnett Pathway and the Suwanee Greenway Trail. The County is focusing heavily on the expansion of trails to allow for safe alternatives and the connection of these trails will help to further non-motorized connectivity throughout the Metro Atlanta region. (Rendering of the Loop Trail from the Gwinnett Countywide Trails Master Plan).

NEED + PURPOSE

NEED

Several studies have explored trail segments to connect parks, other trails and significant community activity centers in the western portion of Gwinnett County. Trail segments designed and/or constructed within this area are of benefit, but no study has examined the overall area for a continuous trail or alternative alignments. There is a significant need for a comprehensive planning effort for alternative mode transportation that connects activity centers, including the Gwinnett Place Mall, Infinite Energy Center and associated future mixed use developments, Shorty Howell Park, McDaniel Farm Park, Peachtree Ridge Park, Suwanee Creek Greenway, and Western Gwinnett Pathway as well as future transit routes. This planning study will evaluate a 14-mile segment of a 17-mile trail system to encompass these areas and provide both recreational and transportation infrastructure that will reduce the number of vehicular trips in this growing area.

PURPOSE

The proposed trail will be a combination of multi-use side paths running parallel to roadways and meandering paved trails through greenspace and parks. Starting west of Shorty Howell Park, the Loop Trail will provide opportunities for bicyclists, joggers, walkers and others to travel to the Gwinnett Place Mall area as well as the Infinite Energy Center and future developments near Sugarloaf Parkway and Satellite Boulevard. The purpose of the study is to improve bike and pedestrian connectivity between existing parks and trails to heavily traveled destinations and events to reduce traffic congestion and improve mobility and connectivity.

Funding for the Loop Trail Study comes from the ARC Transportation Improvement Program, Gwinnett County, and the Sugarloaf CID. With the Loop Trail proposed to cross much of its area, the Gwinnett Place CID also is playing an important role in guiding the development of the Loop Trail Study.

Figure 2. A native beautyberry along the alignment.



The study will produce a concept document with the project alignment, typical sections, cost estimates, and deliverable plan to position the Loop Trail for future funding opportunities.

Figure 3. Utility corridor in study area.



Figure 4. Boneset, a native species along the alignment.



Figure 5. Walkers in McDaniel Farm Park.

PROJECT FRAMEWORK

FEASIBILITY PROCESS OVERVIEW

The project team prepared this feasibility study that identifies the process of defining and evaluating alternatives in coordination with stakeholders and the public. It describes the preferred alternative and suggested implementation process.

This report documents the activity and results of four phases of work. This study references the concept design layouts, and includes the implementation cost opinions. Implementation of improvements by phase are included in the study recommendations with the implementation phases determined by prioritization of trail sections, each having its own logical termini. The identification and definition of the context zones will provide a dividing point for implementation phases.

Project Phases

1. Existing Plan Assessment
2. Potential Alignments and Project Features
3. Impact Analysis and Alternatives Evaluation
4. Stakeholder and Public Input
5. Final Scoping Study and Concept Design

PROJECT SCHEDULE

The project kicked off during the summer of 2019, and included a series of core team, stakeholder and public meetings, with iterative drafts for review at each milestone.

- Summer 2019: Loop Trail Kick-off
- Fall 2019: Core Team Meeting 1
- Jan 2020: Stakeholder Meeting 1
- February 2020: Core Team Meeting 2
- May 2020: Stakeholder Meeting 2
- July 2020: Public Meeting 1
- September 2020: Core Team Meeting 3
- October/November 2020: Stakeholder Meeting 3/Public Meeting 2
- December 2020: Core Team Meeting 4

The project milestones on the following page coincide with these meeting dates and identifies the specific tasks for each major milestone. The project, with final recommendations, was completed in December 2020.

PROJECT KICK-OFF SUMMER 2019

STAKEHOLDER AND PUBLIC INPUT

IDENTIFY CORE TEAM*,
COMMUNITY AND AGENCY
STAKEHOLDERS

PROJECT WEBSITE

CONDUCT MEETINGS WITH
GWINNETT COUNTY CORE TEAM

CONDUCT STAKEHOLDER AND
PUBLIC MEETINGS

EXISTING PLAN ASSESSMENT

REVIEW PREVIOUS PLANS
EXAMINE PROJECTS AND DEVELOPMENTS FOR
POTENTIAL CONNECTIONS AND IMPACTS

POTENTIAL ALIGNMENTS/PROJECT FEATURES

DEFINE PROJECT NEED AND PURPOSE
IDENTIFY DESIRED TRAIL CONNECTIONS
IDENTIFY TRAIL CONTEXT ZONES
DEFINE FEATURES AND CHARACTERISTICS FOR EACH
ZONE

IMPACT ANALYSIS AND ALTERNATIVES EVALUATION

IDENTIFY SAFETY CHALLENGES AND MITIGATION
MEASURES
CONDUCT ENVIRONMENTAL SCREENING
IDENTIFY UTILITY AND RIGHT-OF-WAY IMPACTS
EVALUATE A PROPOSED ALIGNMENT WITH ALTERNATIVE
SECTIONS

FINAL SCOPING STUDY AND CONCEPT DESIGN

PREPARE FEASIBILITY STUDY
PREPARE CONCEPT LAYOUTS AND CROSS-SECTIONS
PREPARE COST OPINIONS

FEASIBILITY STUDY COMPLETION WINTER 2020

EXISTING CONDITIONS

Existing Plan Assessment

This section examines the study area and region, identifies and summarizes existing planning studies, and takes a deeper dive into the project area in terms of existing conditions for land use, parks and open space, utilities and infrastructure, transportation and mobility network, cultural and historic resources, and environmental resources. Additionally, this section presents a review and analysis of the current preliminary alignment plan, proposed in the Gwinnett Countywide Trails Master Plan.



OVERVIEW

CONNECTING COMMUNITY

The proposed Loop Trail consists of segments of side path and off-road trails with the potential for off-road sections through parks, open space, and utility easements. Fully constructed, the Loop Trail will connect Suwanee, Duluth, the Sugarloaf CID and Gwinnett Place CID areas.

Major community access points for the trail include the intersection with the existing Western Gwinnett Pathway, Shorty Howell Park, McDaniel Farm Park, Peachtree Ridge Park and Suwanee Creek Park, in addition to access off Satellite Boulevard. Connecting existing development nodes, such as the Infinite Energy Center and other planned future developments, is a Gwinnett County goal for incentivizing community amenities.

TRAIL EXPERIENCE

Creating a multi-use trail in this location will provide a route for pedestrians and bicyclists as well as educational and recreational opportunities. It will also provide a safe outdoor amenity for residents and visitors to get exercise.

The Loop Trail will connect community nodes that are currently not walkable. It will act as a catalyst for expanding future trail segments to other communities and it will directly connect with other trails serving the area, including the Western Gwinnett Pathway and the Suwanee Creek Greenway. Additionally, the Loop Trail will be indirectly connected to Ivy Creek Greenway, Sugar Hill Greenway and the future Chattahoochee RiverLands trail system.

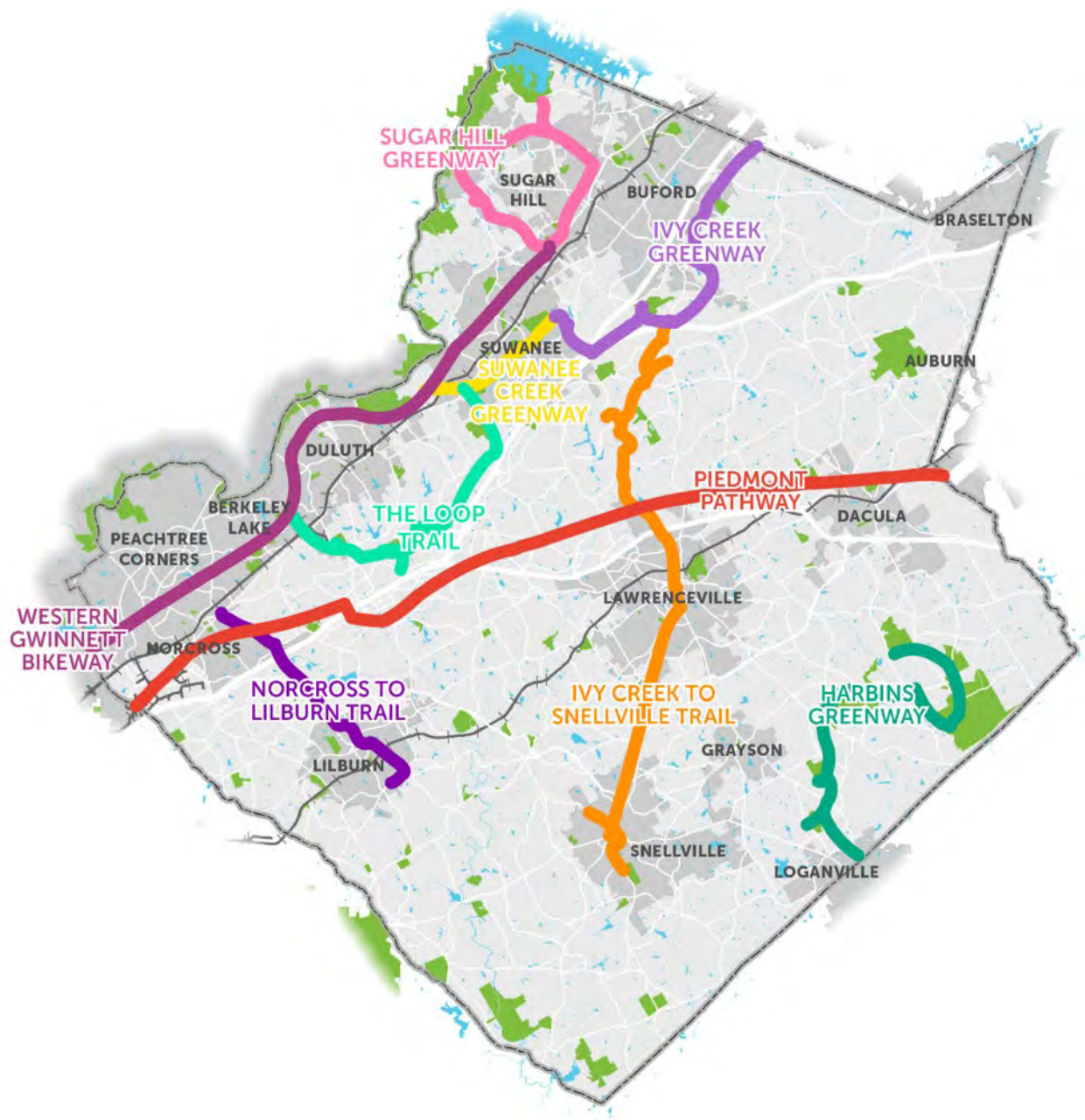


Figure 6. Signature Trails in the Gwinnett Countywide Trails Master Plan.

Figure 7. Embassy Suites near the Infinite Energy Center.



Figure 8. Construction in August 2019 at the Infinite Energy Center.



PROJECT AREA

This project area is bound to the north and west by the Chattahoochee River and to the east and south by Interstate 85. At full build-out, the 17-mile trail system will be a combination of multi-use side paths along roadways and meandering through greenspace and parks. It will provide bike and pedestrian connections between McDaniel Farm Park and Shorty Howell Park at the southwestern end of the study area to Peachtree Ridge Park and Suwanee Creek Park at the northeastern end of the study area.

This study is for a 14-mile section of the larger 17-mile loop to examine the feasibility of a trail connection that roughly follows the Satellite Boulevard corridor between Gwinnett Place Mall and McDaniel Farm Park to the Suwanee Creek Greenway and Western Gwinnett Pathway. A segment of trail from the intersection of Peachtree Industrial Boulevard and North Berkeley Lake Road NW to Pleasant Hill Road is already constructed as well as smaller sections along Satellite Boulevard. The trail will link to the Infinite Energy Center, Rogers Bridge, existing and future planned transit locations, Gwinnett Place CID, Sugarloaf CID, Duluth, Suwanee, Berkeley Lake, and other areas.

The trail along the Satellite Boulevard corridor will be a varied experience that intersects with strip malls, office parks, industrial areas, and residential areas that include single family homes and multi-family housing. Gwinnett Place Mall, prime for redevelopment, is just to the south of McDaniel Farm Park.

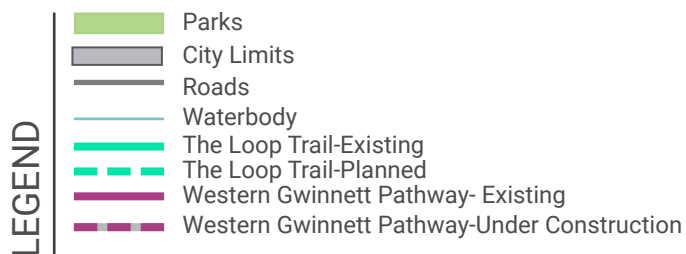
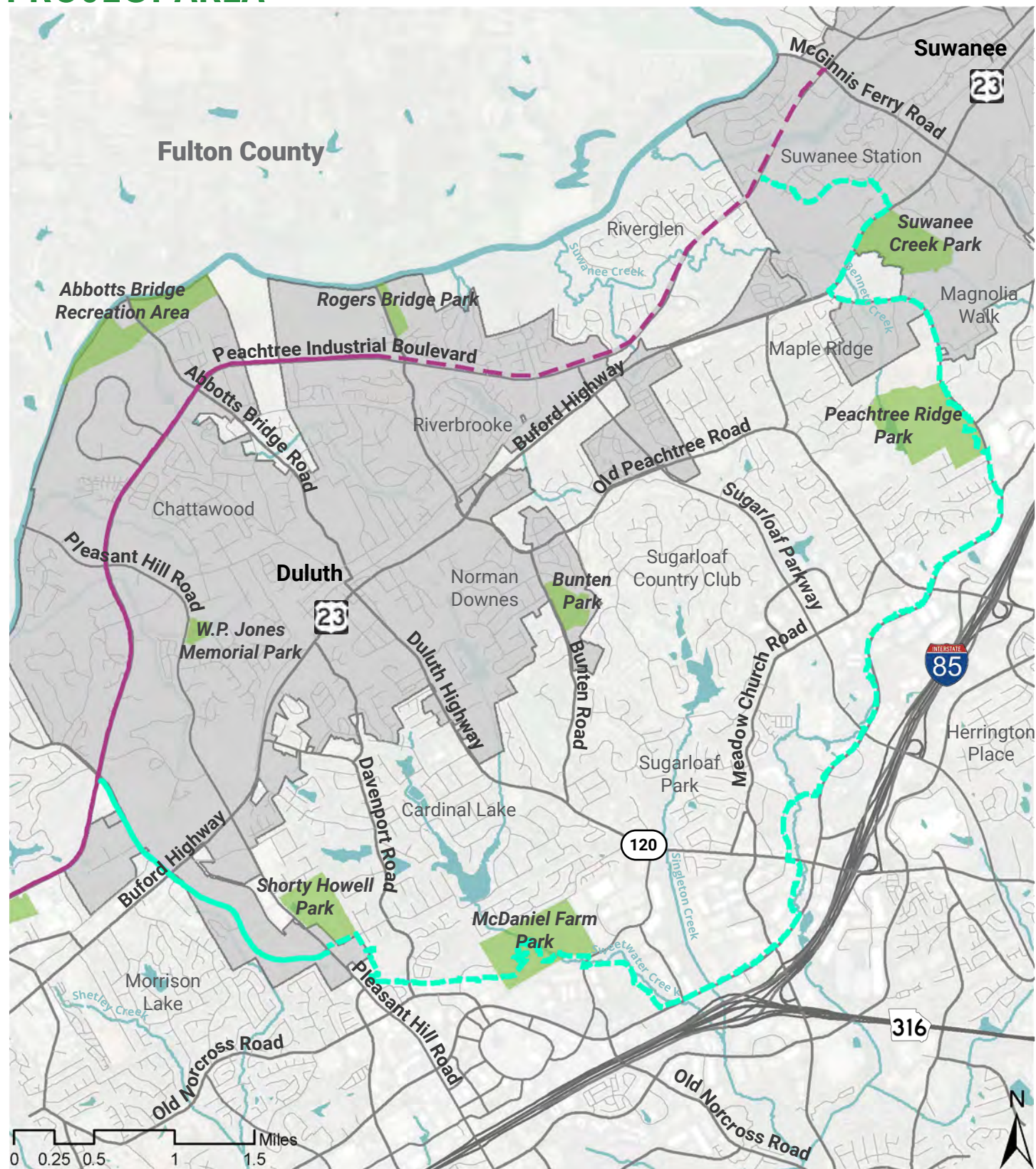
Buford Highway bisects the northwestern third of the study area, which is home to a multi-cultural and international community, thriving on the corridor's reputation as a regional foodie destination. The multi-cultural spirit of Buford Highway extends into the study area in small pockets near the Gwinnett Place Mall where many of the commercial tenants are reflective of the surrounding communities.

Several roads and highways intersect through the central portion of the study area including Davenport Road, Duluth Highway, Bunten Road, Old Peachtree Road and Sugarloaf Parkway. Parks that would potentially connect to the trail include Shorty Howell Park, McDaniel Farm Park, Peachtree Ridge Park, and Suwanee Creek Park.

Many streams reach into the study area bounds. In the southern portion of the trail corridor, Sweetwater Creek, Singleton Creek, and Lee Daniel Creek eventually feed into the Yellow River. In the northern portion of the trail corridor, Suwanee Creek, a tributary of the Chattahoochee River, and its associated wetland adjacent to Suwanee Creek Park.

The study area is poised to enjoy greater pedestrian connectivity and activation with more recreational opportunities and mobility for residents and visitors. The existing roads and streams have the potential to accommodate future interstitial trails to provide community connectivity between the northern and southern sections of the Loop Trail.

PROJECT AREA



DEMOGRAPHICS

Gwinnett County is a suburban county with a population of more than 900,000 people, with its geographic center approximately 30 miles northeast of downtown Atlanta. It is the second most populous county in Georgia and has the third highest per capita income in the state.

The unparalleled growth experienced by Gwinnett County over the past 20 years has greatly increased the demand for new trail facilities in the County to provide alternative transportation options.

According to the ARC, the population in Gwinnett County is expected to increase 57% (net increase of 490,601) by 2040.

For this report, census tracts that encompass the study area were used to analyze data. A total of 14 census tracts comprise the area with a total population of 94,588 people, a total land area of 45.21 square miles, and 34,950 total households.

POPULATION DENSITY

For this study, population density was measured using census data normalized by people per square mile. The area of greatest density within the Loop Trail study area is to the west of Gwinnett Place Mall, and ranges from 3,700 people/square mile to 4,700 people/square mile. The area contains Shorty Howell Park, the Berkeley Hills Country Club, and a significant number of multi-family housing properties. Improving trail connectivity in this area will serve a greater number of people and provide safe outdoor access for many living in smaller square footage units.

AGE

In the map on the right-hand page, one dot on the map is equivalent to 10 people. The majority of the population in this area is in the workforce, therefore that age group would greatly benefit from added mobility either to work or after hours and on the weekends for recreation. The study area has a higher percentage of people from the ages of 25 to 65 at more than 59%, particularly along I-85 as well as the census tract closest to Suwanee. The age group of 65+ makes up the smallest percentage of people in the area, at more than 6%. People 24 and under make up more than 34% of the study area.

RACE

People identifying as White, Hispanic, or Latino make up the majority of the study area at 51.5% of the population. The next highest percentage is Asian at 22.4%, and the third highest is Black or African American at 16.5%. In addition, 0.4% is American Indian/Alaska Native, 6.3% is other races, and 2.9% is two or more races. The greatest diversity in the study area is in the southern half, coinciding with higher population density and multi-family housing concentrated along Pleasant Hill Road, Shorty Howell Park, and west of Gwinnett Place Mall.

The Loop Trail is part of a broader effort with the capacity to transform and shepherd Gwinnett into its future. Understanding more about the people who live within the Loop Trail's reach provides insight into how to serve those populations with proposed access.

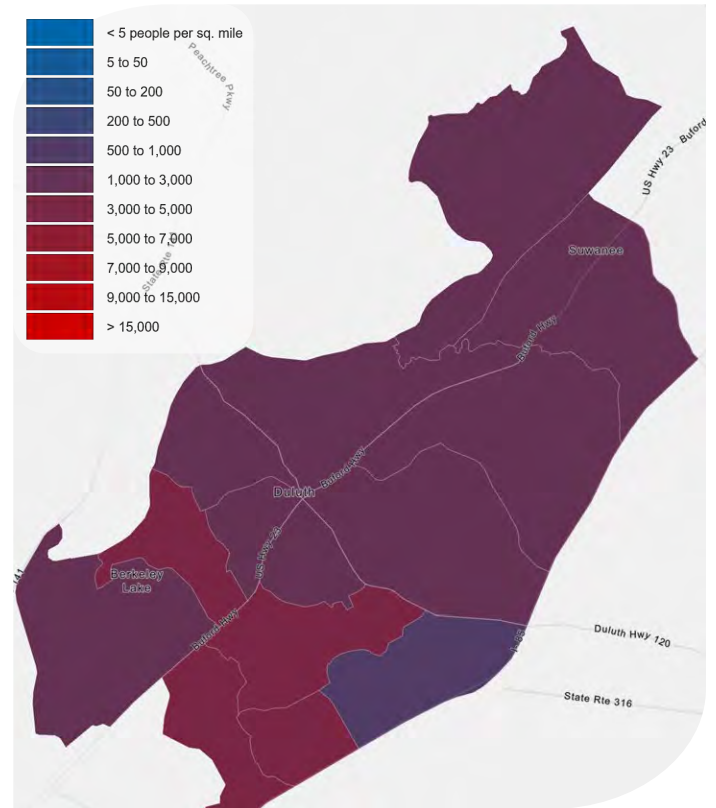


Figure 9. Population Density of the Loop Trail study area by census tract (2010, data from Social Explorer).

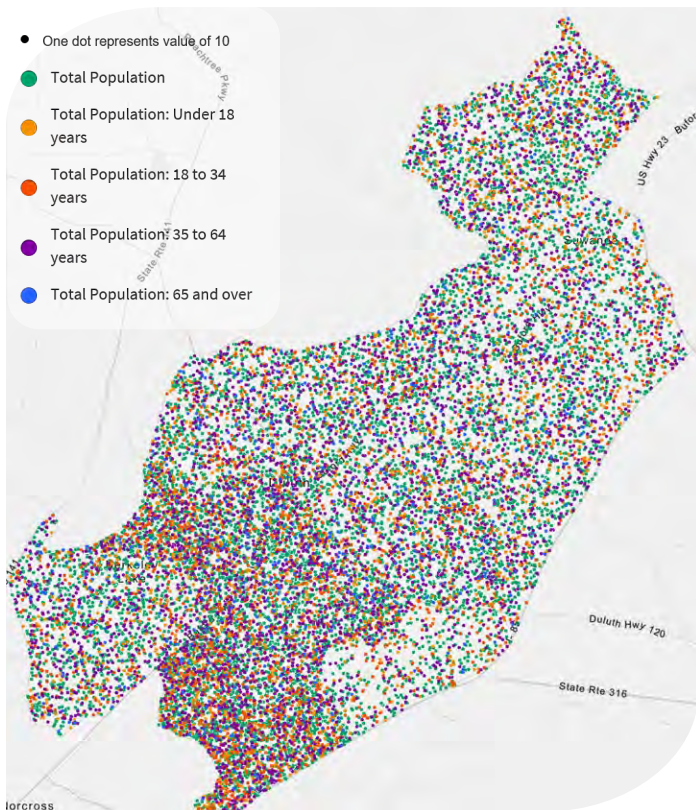


Figure 10. Age Range within the Loop Trail study area by census tract (2010, data from Social Explorer).

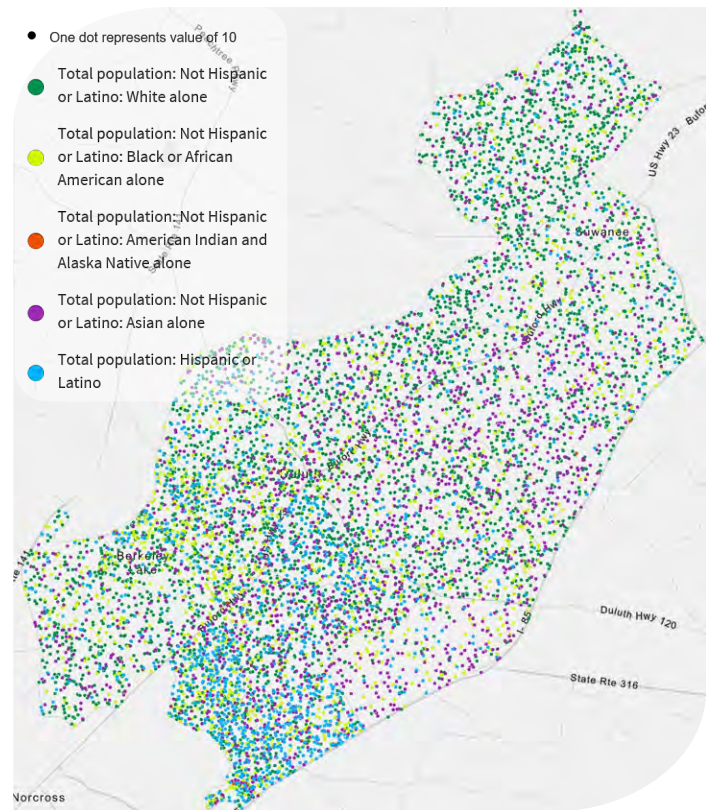


Figure 11. Racial composition within the Loop Trail study area by census tract (2010, data from Social Explorer).

HOUSEHOLD TYPES

Married-couple households are the predominant type in the study area at 53.5% (34,950 total households). The next highest percentage of household type is one householder living alone, at 23.6%, and then female householder with no husband at 12.2%.

Overall, 70.2% of households are family households and 29.8% are non-family households. Considering trail offerings and amenities that are family-oriented may be of interest for the Loop Trail's design.

INCOME

In the Loop Trail study area, income ranges from \$87,880 to \$157,962, projected in 2018 dollars. According to census.gov, the United States median household income from 2014-2018 was \$60,293, and in Georgia, it was \$55,679. Therefore, the study area boasts a higher median household incomes state-wide and nationally.

HOUSEHOLD OWNERSHIP

Of the total population within the study area, 60.9% of occupied housing units are owner-occupied and 39.1% of housing units are renter-occupied. The Loop Trail will provide greater access to the area's recreational and natural resources for all residents. The trail can be advertised as an amenity selling point for all residents because it will enhance quality of life.

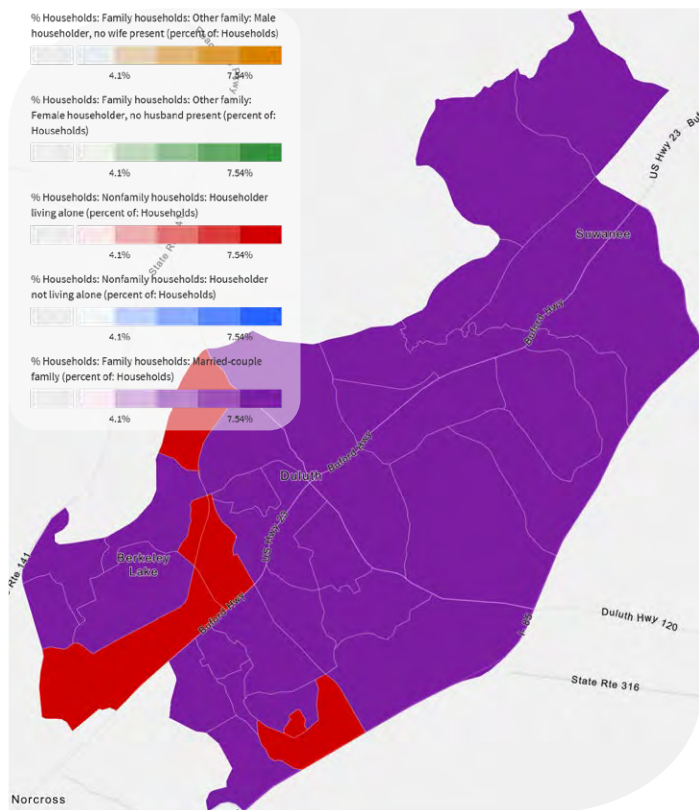


Figure 12. Household types for the Loop Trail study area by census tract (2010, data from Social Explorer).

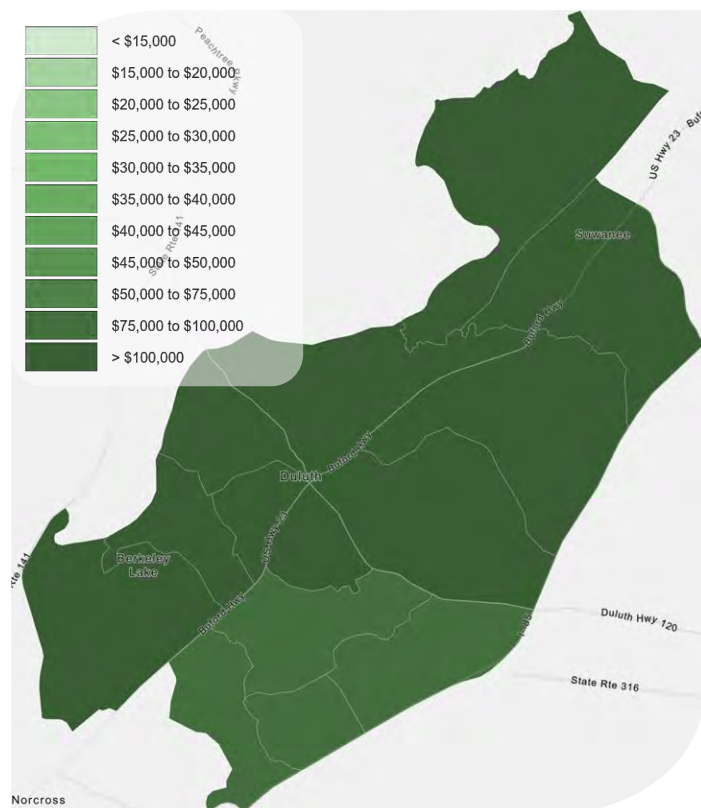
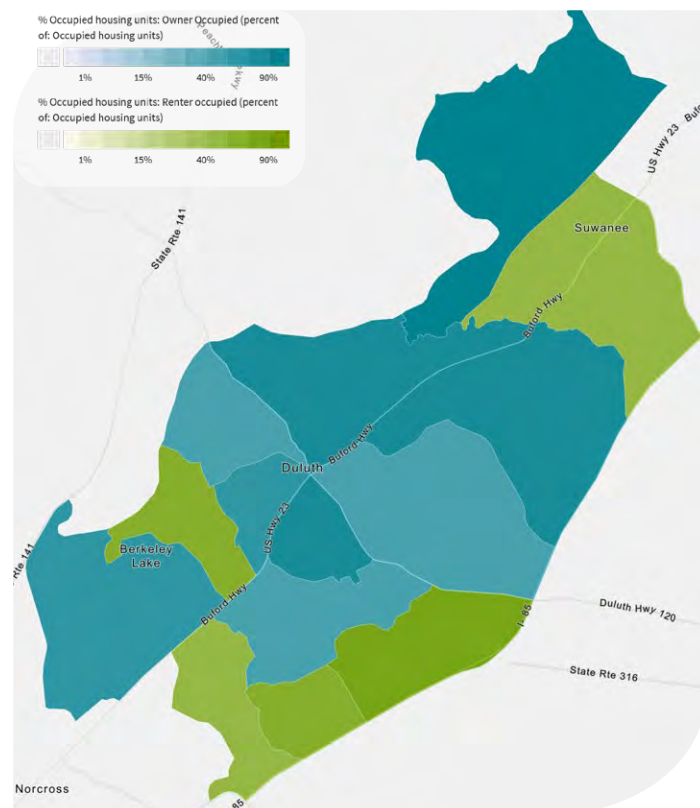


Figure 13. Median household incomes for the Loop Trail study area by census tract (2010, data from Social Explorer).



Owner and renter-occupied housing units for the Loop Study area by census tract (2010, data from Social Explorer).

RELEVANT STUDIES

This section includes a review of existing relevant studies to the project area and overarching findings, including a synopsis for each study. The studies include the Gwinnett Countywide Trails Master Plan, which was adopted in 2018, and several individual trail studies, including studies resulting from ARC's Livable Centers Initiative funding. The map following this spread, Regional Map with Proposed and Recent Projects, illustrates the projects highlighted in the relevant studies and recent development projects.

RELEVANT STUDY	YEAR	LOCATION
Sugarloaf LCI Master Plan	2002	Gwinnett County
Gwinnett County Open Space and Greenways Master Plan Update	2014	2014
Destination 2040, Gwinnett County's CTP	2015-2017	Gwinnett County
Gwinnett Countywide Trails Master Plan	2017-2018	Gwinnett County
Sugarloaf LCI Major Plan Update	2018	Gwinnett County
Gwinnett Way Transit Study	2016	Gwinnett County
Pedestrian and Bicycle Plan	2011	City of Suwanee
Forward Duluth 2040 Comprehensive Plan	2019	City of Duluth
Chattahoochee RiverLands	2020	Chattahoochee River - Multiple Jurisdictions
Gwinnett County Western Gwinnett Bikeway Extension (now known as the Western Gwinnett Pathway)	2017-Present	Gwinnett County
ACTivate Gwinnett Place Master Plan, Gwinnett Place CID	2017-Present	Gwinnett Place CID
Satellite Boulevard to Jimmy Carter Boulevard BRT Corridor Study	Current	Gwinnett County, CIDs

GWINNETT COUNTYWIDE TRAILS MASTER PLAN

April, 2018

The Gwinnett Countywide Trails Master Plan leveraged previous studies in the County, technical analysis, and a cohesive vision to provide a roadmap for creating a trails system that will serve transportation and recreation needs for Gwinnett's residents, employees, and visitors for years to come. The plan identifies three trail networks: Core Trail Network, Trails with Partners, and the Chattahoochee Trail Network (now known as the Chattahoochee RiverLands).

The Core Trail Network consists of trail segments "identified as the major backbone of the County's future trail system." Signature Trails are a subset of the Core Trail Network and are trails that will be the hallmarks of the system setting the identity and precedent regarding design, amenities, and facilities. The Loop Trail is a Signature Trail.

The Loop Trail, as presented in the Gwinnett Countywide Trails Master Plan, is comprised of four segments: McDaniel Farm (standard-use off-road trail), Satellite Boulevard (side path), Suwanee Creek Road (side path), and the Infinite Energy Center (side path).



Figure 14. The Gwinnett Countywide Trails Master Plan, GwinnettTrails.com.

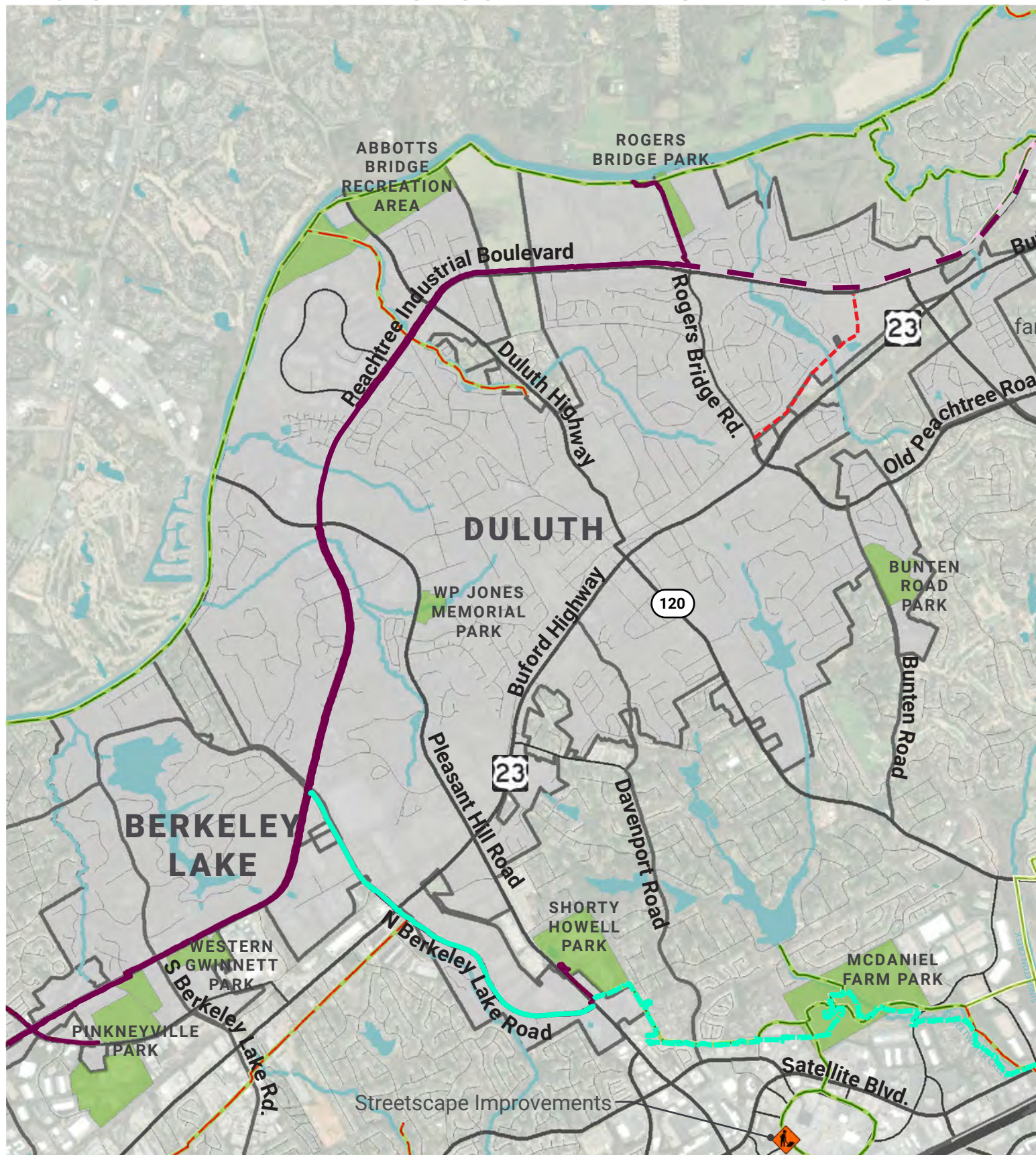
Plan Recommendations:

- Concrete trail at McDaniel Farm Park, asphalt for remaining segments
- Width range: 12 feet to 14 feet
- Potential amenities: Benches, restrooms, lighting, wayfinding banners

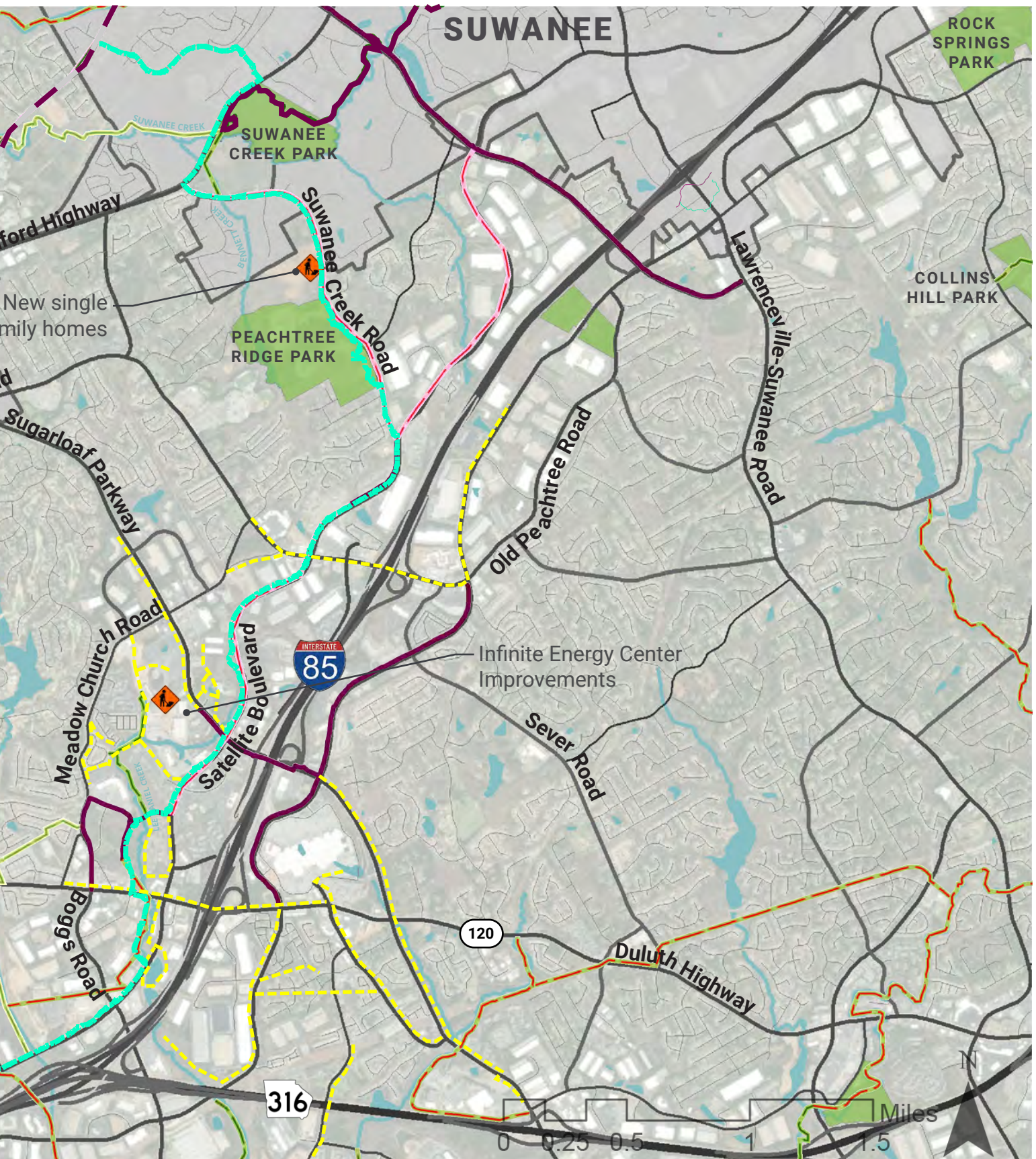
Plan Major Benefits:

- Direct access to Western Gwinnett Pathway, Suwanee Creek Greenway and City of Suwanee Trail System
- The Chattahoochee Riverlands Study has identified a 125 mile continuous multi-modal trail from Chattahoochee Bend State Park on the southern end of the corridor and to Buford Dam on the northern end. Upon completion, the Loop Trail will connect to the Western Gwinnett Pathway, which connects to the Chattahoochee RiverLands at McGinnis Ferry Road. This connection will ultimately provide a significant opportunity for recreational trail access for this portion of Gwinnett County.

REGIONAL MAP WITH PROPOSED AND RECENT PROJECTS



- | | | |
|---------------|-------------|---|
| LEGEND | City Limits | The Loop Trail- Existing |
| | Streams | The Loop Trail-Planned |
| | Waterbody | Built Multi-use Path |
| | Local roads | Multi-use Path- Under Construction |
| | Highway | Priority I - Proposed Greenway (Gwinnett Countywide Trails Master Plan) |
| | Parks | Tier I - Proposed Greenway (Gwinnett Countywide Trails Master Plan) |



- LEGEND**
- Tier II - Proposed Greenway (Gwinnett Countywide Trails Master Plan)
 - Tier II Proposed Multi-Use Path (Gwinnett Countywide Trails Master Plan)
 - Suwanee Station Connection
 - Sugarloaf CID Trails - Proposed (Sugarloaf LCI Major Plan Update)
 - Main Street Multi-use Trail (Forward Duluth 2040 Comprehensive Plan)
 - Recent Development Projects

CHATTAHOOCHEE RIVERLANDS

JULY 2020

The project focuses on reconnecting the Metro Atlanta region with the Chattahoochee River and its natural and recreational opportunities. With a focus on protection, restoration and equitable access, the plan aims to garner support in the coming decades to create a continuous public greenspace from the Buford Dam on Lake Lanier to Chattahoochee Bend State Park. Four goals make up a design framework:

- A safe, connected corridor
- An ecological refuge for the region
- A common ground for all
- A living legacy for future generations

Plan Recommendations:

- 100 mile multi-modal Greenway with 25 new and/or improved river crossings
- 104-mile Blueway with 42 water access points for motorized and non-motorized boating, connecting 26 parks
- 44 Tributary Trails connecting neighborhoods and cities to the river.

Plan Major Benefits:

- Continuous public greenspace and 125 mile multi-modal trail connecting 19 cities and seven counties
- Access for more than one million residents via a 15-minute bike ride
- Links suburban, urban and rural communities
- Linear network of Greenways, Blueways, parks, destinations

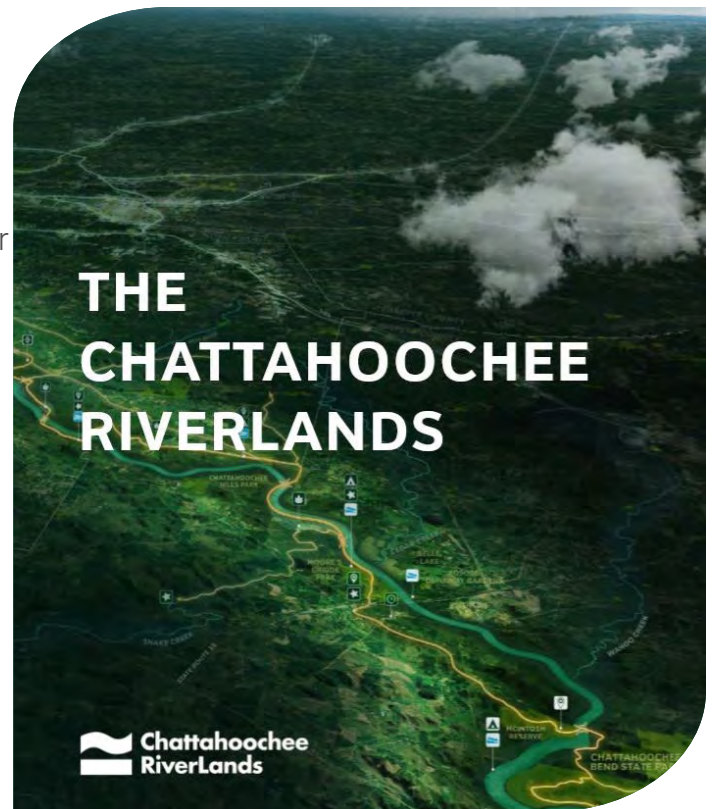


Figure 15. The Chattahoochee RiverLands report cover, <https://chattahoocheeriverlands.com/>

GWINNETT WAY TRANSIT STUDY

2016

Gwinnett County and three local CIDs including Sugarloaf, Gwinnett Place and Gateway85, are partnered to further study Bus Rapid Transit (BRT) recommendations along Satellite Boulevard to the OFS site on Jimmy Carter Boulevard (via Brook Hollow Parkway). The proposed BRT would parallel the I-85 corridor, running along Satellite Boulevard to the Infinite Energy Center.

Plan Recommendations:

Route alignment, station locations, station types, first and last mile connectivity, and surrounding area development recommendations.

Plan Major Benefits:

- Additional multi-modal transportation connectivity for pedestrians who use the Loop Trail.
- Planned and new parks connecting with the Gwinnett Parks system
- Support new investment in development



Figure 16. Bus Rapid Transit Corridor Study Rendering. 2016 Gwinnett Way Transit Study.

CONNECT GWINNETT: TRANSIT PLAN

JULY 2018

As a direct recommendation of the Destination2040, this report is a deep-dive transit study. There is a heavy focus on improving multi-modal transit routes within Gwinnett County with maps for individual route modifications or proposed new routes including regular bus routes, Express routes, Flex routes, BRT routes, and heavy rail routes over the course of multiple fiscal years for short, mid, and long range phases. The plan recommends first and last mile pedestrian and bicycle access improvements funding to extend the transit network and enhance multi-modal access to service.

Plan Recommendations:

- Encourages multi-modal connectivity and transit oriented development policies focused on non-vehicular alternative modes of transportation (throughout document)
- Encourages bike share and shared-use technologies to close the first/last mile connectivity gap
- Implement zoning to encourage alternative transportation including walking and biking

Plan Major Benefits:

- Expansion of alternative modes of transportation
- Identification of potential funding opportunities and financing plan (throughout document)
- Detailed maps of route improvements and new routes for multi-modal transportation with prioritized phasing (throughout document)

DESTINATION2040: GWINNETT COUNTY'S CTP

2017

Destination2040, Gwinnett County's Comprehensive Transportation Plan focuses on current and future transportation modes, a current needs assessment, and recommendations through the year 2040. With an extensive public engagement process, the plan identified the County's vision and goals, project priorities, provides policy recommendations, and implementation action plans.

Plan Recommendations:

- Continued repair of and completion of sidewalk gaps, per The Gwinnett Sidewalk Program
- Priority Bicycle Network as a policy tool for future bicycle infrastructure investments
- Primary Vision bike path connections are identified between areas with high-performing suitability scores

Plan Major Benefits:

- Policy recommendations encouraging multi-modal networks and complete streets
- Encouragement of Mixed-Use Development/ Increase Density in Activity Centers
- Increasing walkability, bikeability and multi-modal transportation

GWINNETT COUNTY WESTERN GWINNETT BIKEWAY EXTENSION 2017-PRESENT

Connecting seven cities and five large county and city parks, the Western Gwinnett Bikeway Extension (now known as the Western Gwinnett Pathway) provides a link along the north and western sides of Peachtree Industrial Boulevard from the Peachtree Golf Course west of Rogers Bridge Road to McGinnis Ferry Road, with a spur branching off at Suwanee Creek connecting to Suwanee Creek Park. A third spur connects to neighborhood trails.

Plan Recommendations:

- Main trail 10-12 foot multi-use asphalt trail
- Spur trail 10-12 foot multi-use asphalt trail, boardwalk, and one pedestrian bridge over Suwanee Creek
- 2-8 foot landscape strip Linear network of Greenways, Blueways, parks, destinations

Plan Major Benefits:

- Connects seven cities: Chamblee, Doraville, Peachtree Corners, Norcross, Berkeley Lake, Duluth, and Suwanee
- Links Fulton and Gwinnett Counties
- Links to the City of Suwanee trail network
- Improvement of pedestrian mobility/access and reduction of frequency and severity of pedestrian incidents in the corridor

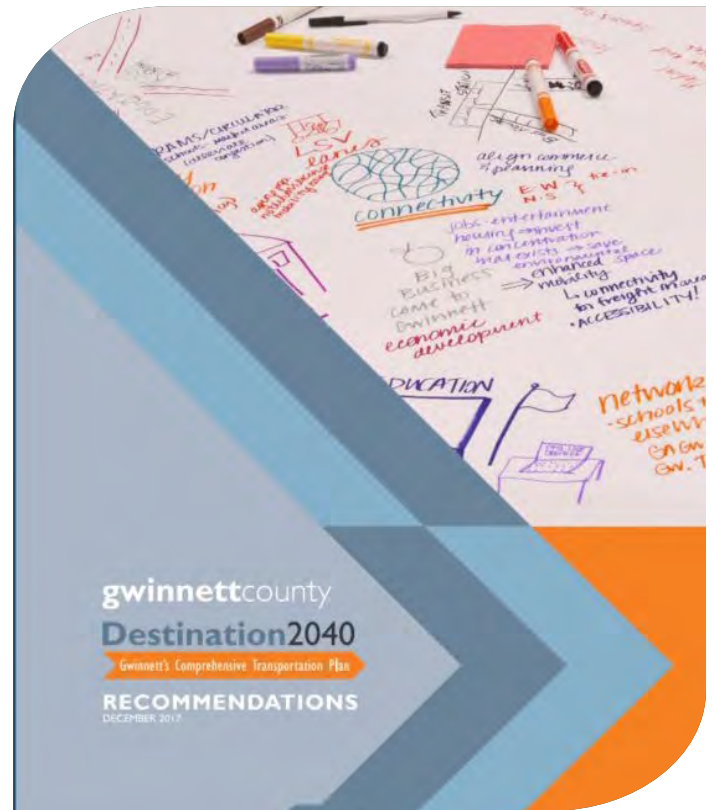


Figure 17. Destination2040: Gwinnett County's CTP report cover.

SUGARLOAF LCI MASTER PLAN

2018

The master plan study for Sugarloaf LCI aims to further improve Downtown Gwinnett and identifies three major development opportunities focused on mixed use entertainment, retail, and multi-modal transit access. At the core of the district is the Infinite Energy Center. The LCI master plan identifies the Loop Trail, the focus of this report. The Gwinnett County Open Space Greenways Master Plan Update was superseded by the Gwinnett Countywide Trails Master Plan in 2018.

Plan Recommendations:

- Redevelop three key areas: Downtown Gwinnett (mixed use entertainment), Sugarloaf Mills (mixed use TOD), Sugarloaf Neighborhood Node at Sugarloaf and Satellite (neighborhood oriented retail and TOD)
- Create a gateway to Gwinnett's Downtown at Sugarloaf Parkway and Satellite Boulevard
- Project T2.2 in the Sugarloaf LCI with a planning level cost of \$2,250,000
- Improve transit connectivity through studies, and transit enhancements including Sugarloaf Parkway with multi-modal improvements
- Improve pedestrian and bicycle accessibility and safety on Satellite Boulevard to spur multi-

modal improvements

- Pursue trail enhancements in the study area and leverage trail connectivity to attract mixed-use development

Plan Major Benefits:

- Multi-modal transportation and trail connectivity
- Mixed-use area for entertainment and retail, boosting economic opportunity and regional draw
- Bike and pedestrian friendly focus

WINNETT COUNTY OPEN SPACE GREENWAYS MASTER PLAN UPDATE

2014

The update of Gwinnett County's 2002 Open Space and Greenway Master Plan included coordination with the Unified Development Ordinance. The study identifies feasible greenway and trail routes to create an implementation plan. General recommendations for design guidelines and wayfinding standards outline allowable materials and trail standards.

The Greenways Master Plan identifies the Loop Trail as a combination of partially constructed Roadside Trail, Tier I Proposed Greenway, Tier I Proposed Roadside Trail, Tier II Proposed Roadside Trail, and a segment of Tier I Priority Greenway Trail. Tier I, Tier II, and Priority Greenways are the three greenway classifications as defined on page 19. Tier I Greenways require easements for construction, and Tier II Greenways do not require easements and Priority Greenways are prioritized for construction (already funded or identified as a recommended project in the 2013 Gwinnett County Parks and Recreation Capital Improvements Plan Update). Roadside Trails are identified as necessary to make connections between greenways.



Figure 18. The Sugarloaf LCI Trails Master Plan.

Plan Recommendations:

- Main greenway trail to be ADA, meet AASHTO, 10-12' minimum width, 12' preferred
- 25' minimum to 75' average right-of-way width
- Spur trails 8' wide, 2' minimum shoulders
- Materials: concrete, pervious concrete, asphalt, crusher run
- Boardwalks to equal width of main trail, non-toxic treated wood/composite lumber, rated for maintenance vehicle loads
- Additional Design Standards defined for Bridge/Overpass, Tunnel/Underpass, Retaining Wall, Safety Railing, Trailhead, At-Grade Intersections, Furniture, Fencing, Bicycle Stairway
- Wayfinding Standards

Plan Major Benefits:

- Simplification of original greenway system into feasible, prioritized and attainable elements
- Final plan included 400 miles +/- of potential greenway trails
- Coordination with Unified Development Ordinance (UDO)

ACTIVATE GWINNETT PLACE MASTER PLAN

2015

The plan identifies projects for investment to improve transportation, stormwater, connectivity and livability through an infrastructure framework. The plan targets mixed-use developments with the goal of connecting commercial centers through a trail network and public greenspace. An overarching goal is to shift from an auto-centric built environment to pedestrian and bike friendly public realm offerings.

Plan Recommendations:

- "Grand Promenade" linear park connecting the area as a multi-use path, lined with park space, cafes, plazas, play areas and multi-cultural gardens
- Connectivity to McDaniel Farm Park via a pedestrian bridge across Satellite Boulevard
- Signalized roundabout at Satellite Boulevard and Pleasant Hill Road
- Regional detention pond with extra storage capacity doubling as a park amenity
- Improving the Transit Center to promote alternative modes of transportation
- Rezoning or an overlay to encourage dense redevelopment

Plan Major Benefits:

- Infrastructure improvements over the next 10 years
- Connected public spaces, greenspace, and trails to existing parks



Figure 19. ACTivate Gwinnett Place Multi-Modal Green Corridor Master Plan

- Construct the Rodgers Bridge multi-use bridge connection to Johns Creek
- Encouraging mixed-use development within the Sugarloaf Activity District, a gateway to Duluth
- Buford Highway South Corridor district feasibility exploration of a linear park or multi-use path on the western side of the highway; and potential for park-and-rides adjacent to the Pleasant Hill Road interchange
- Encouragement of the redevelopment to mixed-use for the North Buford Highway District
- Develop the Duluth Highway Corridor District

FORWARD DULUTH 2040 COMPREHENSIVE PLAN

2019

The Forward Duluth 2040 Comprehensive Plan was adopted in 2019 and identifies several key elements that are relevant to the Loop Trail. For Duluth's Downtown Core District and Core Neighborhood District character areas, the plan recommends a re-focusing to pedestrian-friendly development in addition to a connecting trail system. Interstitial connections in the long term will provide connectivity for the City's residents and visitors, a great many of which live within the central portion of the Loop Trail area. Duluth's residents and employers will directly benefit in multiple ways from the implementation of the Loop Trail.

Plan Recommendations:

- For Downtown Duluth to be pedestrian- and bicycle-friendly, and to phase out auto-centric uses
- Encouragement of higher density development in Downtown and in the Core Neighborhood

PROJECTS AND DEVELOPMENTS

INFINITE ENERGY CENTER IMPROVEMENTS

2021

Expansion and renovation of the Infinite Energy Forum is underway and will include 60,000 additional square feet of meeting space and upgrades to the convention space and ballroom. The parking decks around the Infinite Energy Center were completed at the end of 2019, adding capacity for 3,500 more vehicles.

A 348 room, four-star hotel, the Westin Atlanta Gwinnett Hotel broke ground in January of 2020, to service events at the convention center. The partnership is with Concord Hospitality.

Additionally, plans are underway for a 118-acre mixed-use district called Revel which is slated to include entertainment, office, residential, restaurant, and retail to complement the attractions at the Infinite Energy Center and to encourage visitors to come early and stay late. While the original development partner is no longer involved in the project, the Gwinnett Convention and Visitors Bureau is working with a new development partner on the mixed-use district plans.

SUGARLOAF PARKWAY CORRIDOR IMPROVEMENTS

2019-2020

The project encompasses widening Sugarloaf Parkway from I-85 to the new signal at the Infinite Energy Center parking deck entry and improvements to traffic flow and aesthetics at the intersection of Sugarloaf Parkway and Satellite Boulevard. Traffic/vehicular improvements include the addition of lanes and turn lanes as they impact traffic flow into and out of the Infinite Energy Center along with the extension of sidewalk connectivity. Funding is by Gwinnett County SPLOST and the Sugarloaf CID.



Figure 20. Front entrance at Infinite Energy Center

BUFORD HIGHWAY CORRIDOR REDEVELOPMENT PLAN

2013

The redevelopment plan dissolved the 444-acre Tax Allocation District (TAD) #1 and established a much smaller TAD #2. The Duluth and Buford Highway corridor underwent a transformation, particularly in the downtown area. One of the key goals of the TAD is to continue the redevelopment process. Investment in civic space, parks, infrastructure, and transportation improvements encouraged revitalization through private investments. Eight potential redevelopment project sites were identified as feasible for redevelopment, with a number of them already revamped since document adoption.



Figure 21. Duluth Town Green

GWINNETT PLACE DRIVE MALL BOULEVARD COMPLETE STREETS PROJECTS

2020

Construction plans are underway to transform Mall Boulevard and Gwinnett Place Drive into complete streets per the ACTivate Gwinnett Place plan. Mall Boulevard will become a three lane road, adding a six foot wide sidewalk to the south side and landscape buffer strip between the road and walk. On the north side of the street will be a 38-foot wide corridor for a linear park-like greenspace with a multi-use corridor for cyclists and pedestrians. The schematic design phase for the work is complete.



Figure 22. Gwinnett Place Drive/Mall Blvd Complete Streets rendering

PRELIMINARY ALIGNMENT REVIEW

CORRIDOR CHARACTERISTICS AND CHALLENGES

This preliminary alignment review identifies and summarizes the challenges associated with implementation of the Loop Trail. The map to the right shows the Loop Trail as identified in the Countywide Trails Master Plan. Safety challenges include crossing locations, frequent driveways, steep grades, security risks, proximity to roadway (due to limited right-of-way), and roadside conditions. As a part of this review, four major categories (access to parks and commercial centers, neighborhood connections, stream crossings, and road crossings) were reviewed carefully to validate the preliminary alignment and to provide mitigation measures in the proposed refinements. Specific alignment variations from the preliminary alignment are identified in the Preliminary Plan map as 'modified alignment' and discussed in Chapter 5, the Loop Trail Concept.

Access to Parks and Commercial Centers

Providing access to community destinations is important to encouraging trail use to reduce automobile trips. Access points to parks and commercial centers will improve with the implementation of this trail by providing connections critical for safe connectivity.

Neighborhood Connections

The alignment connects to multiple residential areas, including neighborhoods and apartment complexes. This connectivity is important to facilitate trail use and to reduce trips on the roadway network.

Stream Crossings

The Loop Trail has several locations where it crosses streams along its alignment. These crossings may require lengthening of culverts or construction of parallel bridge structures and are investigated further in the alignment recommendations. The biggest challenge will be crossing the stream and wetlands in the vicinity of Suwanee Creek Park.

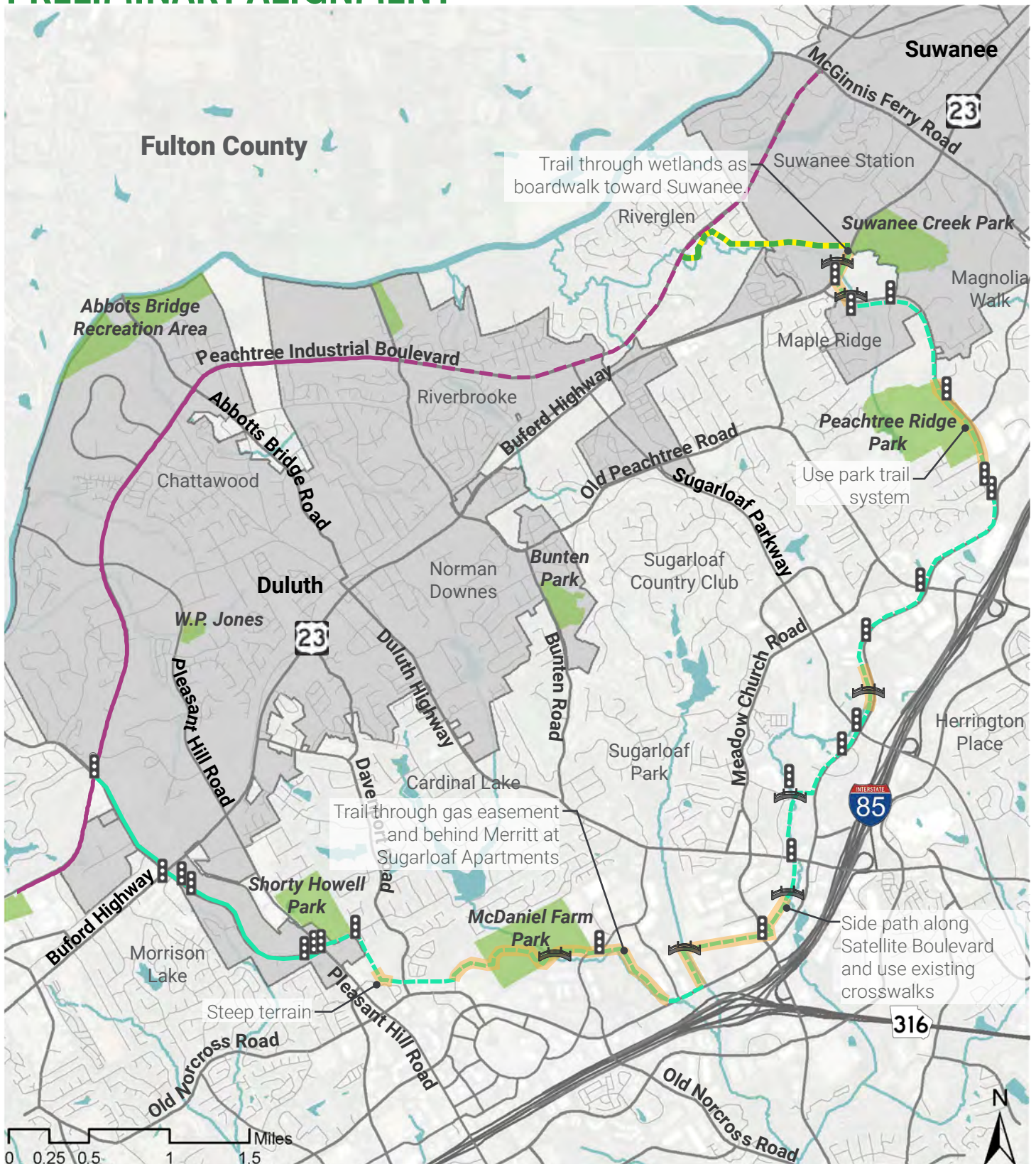
Road Crossings

The Loop Trail has several locations where it crosses roads, most often occurring at existing signalized intersections (intersections with traffic lights), which help facilitate crossing movements. These crossings are further evaluated under Transportation and Mobility.

A deeper dive of the corridor, beginning with initial mapping and field reconnaissance, considered available right-of-way and potential impacts to private property. Available topography assisted in determining the average grade of sections in the preliminary alignment to identify steep or sustained grades. This evaluation resulted in many of the modified alignment segments shown on the Preliminary Plan map.

Additionally, existing conditions along the trail alignment and in the study area are reviewed in the remainder of this chapter and include a careful evaluation of land use, parks and open space, utilities and infrastructure, transportation and mobility network, and environmental screening (including cultural, historic, and environmental resources).

PRELIMINARY ALIGNMENT



LAND USE

INFINITE ENERGY CENTER IMPROVEMENTS

The land use types within the study area vary significantly and, therefore, the experience of the proposed trail intersects with a multitude of conditions. There are concentrations of commercial, multi-family and medium-density housing, industrial, and office/professional along the transportation corridors of I-85, Satellite Boulevard, Buford Highway, and Peachtree Industrial Boulevard. The greatest amount of industrial, office, and professional land uses are located along the I-85 corridor.

A majority of the central part of the study area constitutes low-density residential (one-third acre to five acres), dotted with parks, institutional/public uses (schools, libraries). Neighborhoods and communities include Cardinal Lake Community, Colonial Grand at Pleasant Hill, Colonial Grand at McDaniel Farm Park, Merritt at Sugarloaf, Gables Sugarloaf, and Olde Savannah Square.

The study area corridor, approximately 650 acres, contains eight parks that total 643 acres. With the high number of residential dwellings, connectivity to the parks would significantly improve the quality of life for neighborhoods and multi-family areas along the corridors. With close adjacency to the Chattahoochee River, identifying connections to the future Chattahoochee RiverLands to the Loop Trail would unlock access to the river corridor and bring people off the RiverLands trail into the northern portion of the study area's retail, goods and services, and restaurant offerings.

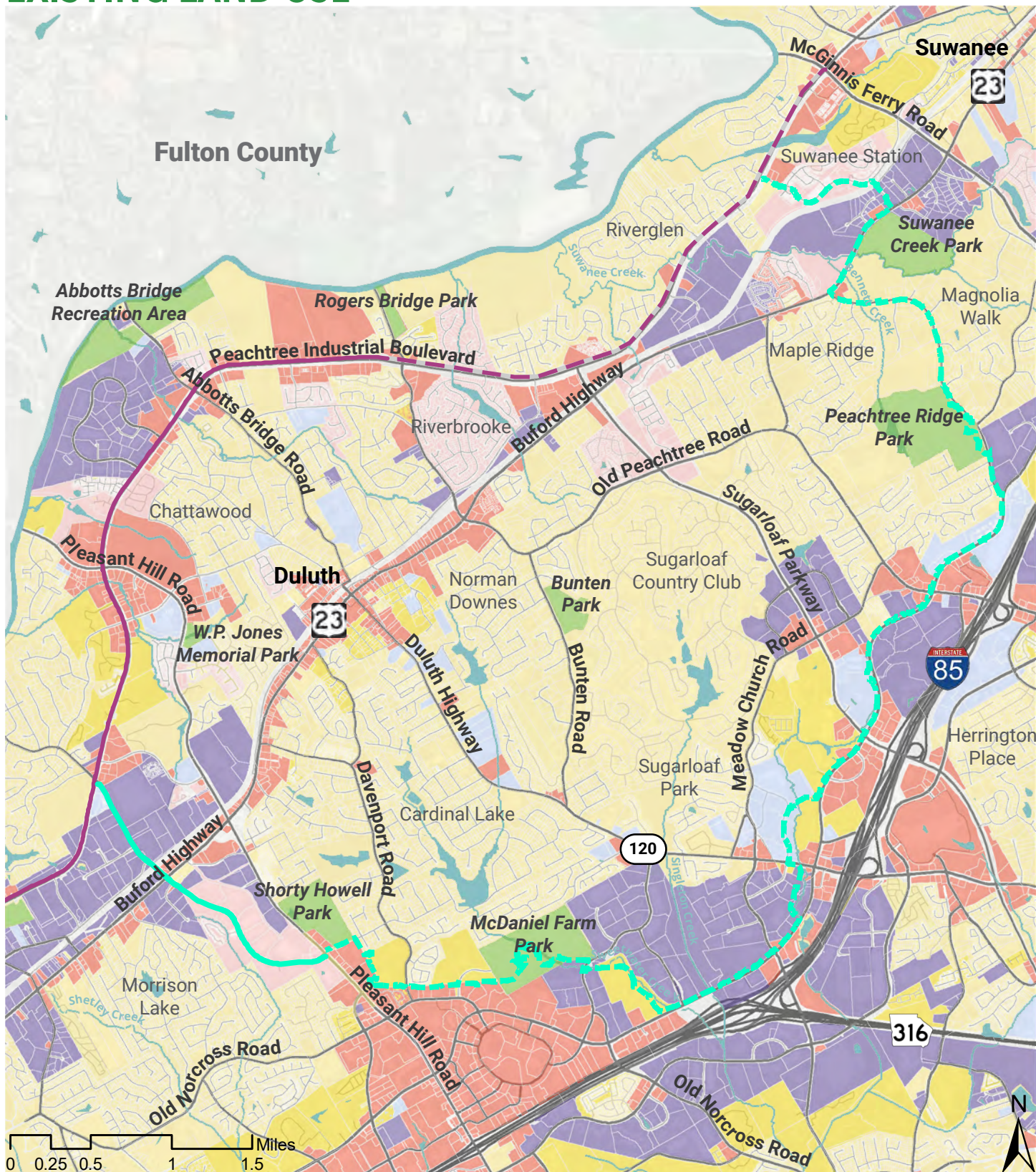
Institutional and public uses include the Infinite Energy Center (inclusive of the Hudgens Center for the Arts, and the Infinite Energy Forum). Connectivity in this area would benefit concert and convention goers, school kids or residents getting to and from work. Mixed-use is minimal in the study area but can serve as trail destinations and the trail can generate development interest. Notable mixed-use developments in the area include Sugarloaf Walk.

Industrial areas and office/professional parks are concentrated along the I-85 corridor as well as Satellite Boulevard. These properties and job centers stand to benefit from trail connectivity as they would provide a connection to multi-modal transit in addition to potential land value increases. Many of the properties, such as office parks and industrial, have a significant right-of-way, making it easier to align and connect particular segments of the trail with minimal impact to existing parcels.

Figure 23. Office/Professional land use in the study area.



EXISTING LAND USE



- LEGEND**
- Parks
 - Roads
 - Waterbody
 - The Loop Trail-Existing
 - The Loop Trail-Planned
 - Western Gwinnett Pathway-Existing
 - Western Gwinnett Pathway- Under construction

- Low Density Residential
- High Density Residential
- Planned Unit Development
- Commercial
- Office/ Institutional
- Industrial

PARKS AND OPEN SPACE

The study area provides approximately 6.8 acres of park land per 1,000 residents. On a national average, this is slightly lower than the 9.9 acres per 1,000 residents, which is a park metric recommended by the National Recreation and Parks Association. A great driver of the Loop Trail is to create better connectivity to the area's parks, making the park system into a linear recreation opportunity with park experiences.

Peachtree Ridge Park

Peachtree Ridge Park, 154 acres, is the largest park in the study area and includes three softball/baseball fields, a handicap accessible ball field, a football/multipurpose field with a lighted walking track, two soccer fields, outdoor basketball courts, a playground, a pavilion, grills, restrooms and an existing trail. The one-mile paved trail parallels Suwanee Creek Road and is appropriate to connect to the Loop Trail.

Suwanee Creek Park

Just north of Peachtree Ridge Park is Suwanee Creek Park (85 acres), a City of Suwanee Park, which is connected to the Suwanee Creek Greenway and Ivy Creek Greenway. The park offers an 18-hole disc golf course, and serves as the trailhead, with 100 parking spaces, for the Suwanee Creek Greenway. Much of the park is in a forested, natural state. The natural areas contain hard- and soft-surface trails. Challenges for this connection include navigating the creek's wetland, providing a pedestrian bridge crossing across Suwanee Creek, parallel to Buford Highway, and connecting to the existing trail system along steep grades.

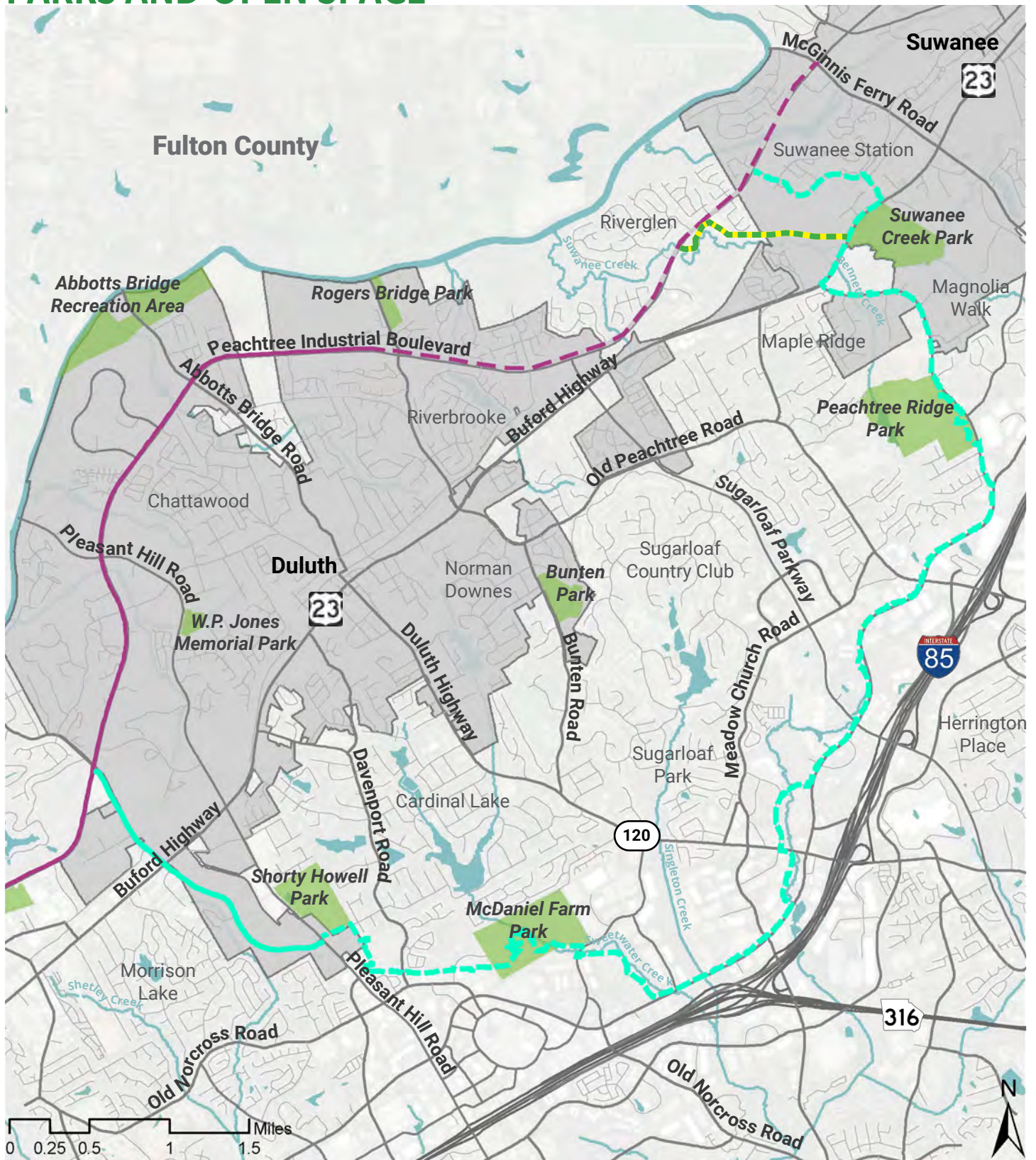
Figure 24. Peachtree Ridge Park paved trail.



Figure 25. Bike rental and restroom in Suwanee Creek Park.



PARKS AND OPEN SPACE



- LEGEND**
- Parks
 - Roads
 - Streams
 - Waterbody
 - Duluth city limits
 - Suwanee city limits
 - The Loop Trail-Existing
 - The Loop Trail-Planned

- Western Gwinnett Pathway-Existing
- Western Gwinnett Pathway- Under Construction
- Lower Suwanee Greenway- Planned

Rogers Bridge Park

Rogers Bridge Park (16.98 acres) sits between the Chattahoochee River and Peachtree Industrial Boulevard. A City of Duluth Park, the property boasts a historic steel bridge that spans the Chattahoochee. Conceptual plans are in the works to restore the bridge for bike and pedestrian connectivity. The park is poised for greater connectivity once the Western Gwinnett Pathway is extended and the Rogers Bridge Trail and Chattahoochee RiverLands are constructed.

Abbotts Bridge Recreation Area

Part of the National Park Service (NPS) Chattahoochee River National Recreation Area, Abbotts Bridge (120 acres) is also located in Duluth. A parking lot accommodates 40 cars with some overflow on either side of the gravel entry road. One pavilion and adjacent restrooms can accommodate up to 150 people. A small field is located adjacent to the pavilion and the park also includes a boat ramp. A short distance from Peachtree Industrial Boulevard and the Western Gwinnett Pathway as well, this park will also be a critical trail connection.

Bunten Road Park

A City of Duluth park, Bunten Road Park (45 acres) is located along Bunten Road, one block from M.H. Mason Elementary School. Park amenities include baseball fields with concessions, two soccer fields, a 36,000 square-foot community center, a tennis facility, and a maintenance facility. The community center houses Duluth's recreation department headquarters and hosts events for youth and senior citizens. The park has paved and unpaved trails that meander through wooded park space. Connecting to this park in the future will provide a non-vehicular access for surrounding neighborhoods and a means to access the Loop Trail from the central part of the study area.

Figure 26. Rogers Bridge Park.



Figure 27. Abbotts Bridge Recreation Area.



Figure 28. Bunten Road Park.



Figure 29. WP Jones Memorial Park.



W.P. Jones Memorial Park

W.P. Jones Memorial Park (20.68 acres) is divided by a small stream running east/west. Due to the stream's location, the park has two entries. A small parking lot and tennis facility is located in the southern half of the site, with a restroom and storage building. On the northern half is a community center, playground, picnic shelter and soft surface trails. The park serves residential, office and a public library that are immediately adjacent. A link to the Western Gwinnett Pathway would provide this community park with connectivity to the Loop Trail.

Figure 30. Shorty Howell Park.



Shorty Howell Park

Shorty Howell Park (67 acres) is a Gwinnett County Park with amenities including an activity building for classes and rentals, a large community room and classroom, seven lighted youth baseball/softball fields, a football/multi-purpose field with a lighted walking track, a pavilion with grills, playgrounds, a lake, restrooms, and a 1.25 mile paved trail. Part of the paved trail is appropriate to

consider connecting to for the Loop Trail. Due to Shorty Howell's proximity to McDaniel Farm Park, connecting these two parks should be a priority and will be a short-term win for park access and enhanced recreational experience.

Figure 31. McDaniel Farm Park.



McDaniel Farm Park

McDaniel Farm Park (134 acres) with two entrances, is the site of a former cotton farm that still houses the original barn, carriage house, well house, chicken coup, blacksmith shed and restored tenant farmer house. Historic tours are available of the farm. The park includes a pavilion, grills, restrooms and three miles of paved and unpaved trails. Connecting the Loop Trail through the park on the existing paved trail segment will enhance connectivity and increase recreational opportunity.

UTILITIES AND INFRASTRUCTURE

There are utilities and infrastructure that support the community including, sanitary and stormwater sewers, drainage pipes, telecommunication and transmission poles, water and electrical lines. Careful coordination with utility companies is key moving forward to ensure all known conditions are documented and accounted for. Coordinating utilities upfront helps the County, CIDs, and design professionals better understand anticipated trail costs and points of significant coordination.

The Utilities and Infrastructure map illustrates the major crossings needed for this alignment. The locations highlighted on the map will require more significant infrastructure utility coordination than the rest of the trail corridor as the project moves forward and are described as follows:

1. Buford Highway: The southwestern end of the trail's crossing with Buford Highway is already constructed and is a well-utilized trail, however the intersection is very long and may pose difficulty for families to cross in the designated time. Consideration of pedestrian crossing improvements to this intersection as the remainder of the Loop Trail is constructed and becomes popular will help address safety issues and concerns.

2. Connecting from Shorty Howell Park to McDaniel Farm Park will require crossing Hill Drive and an easement between the commercial lining Pleasant Hill Road and the residential behind it, as well as connecting to and turning east on the existing petroleum easement to McDaniel Farm Park.

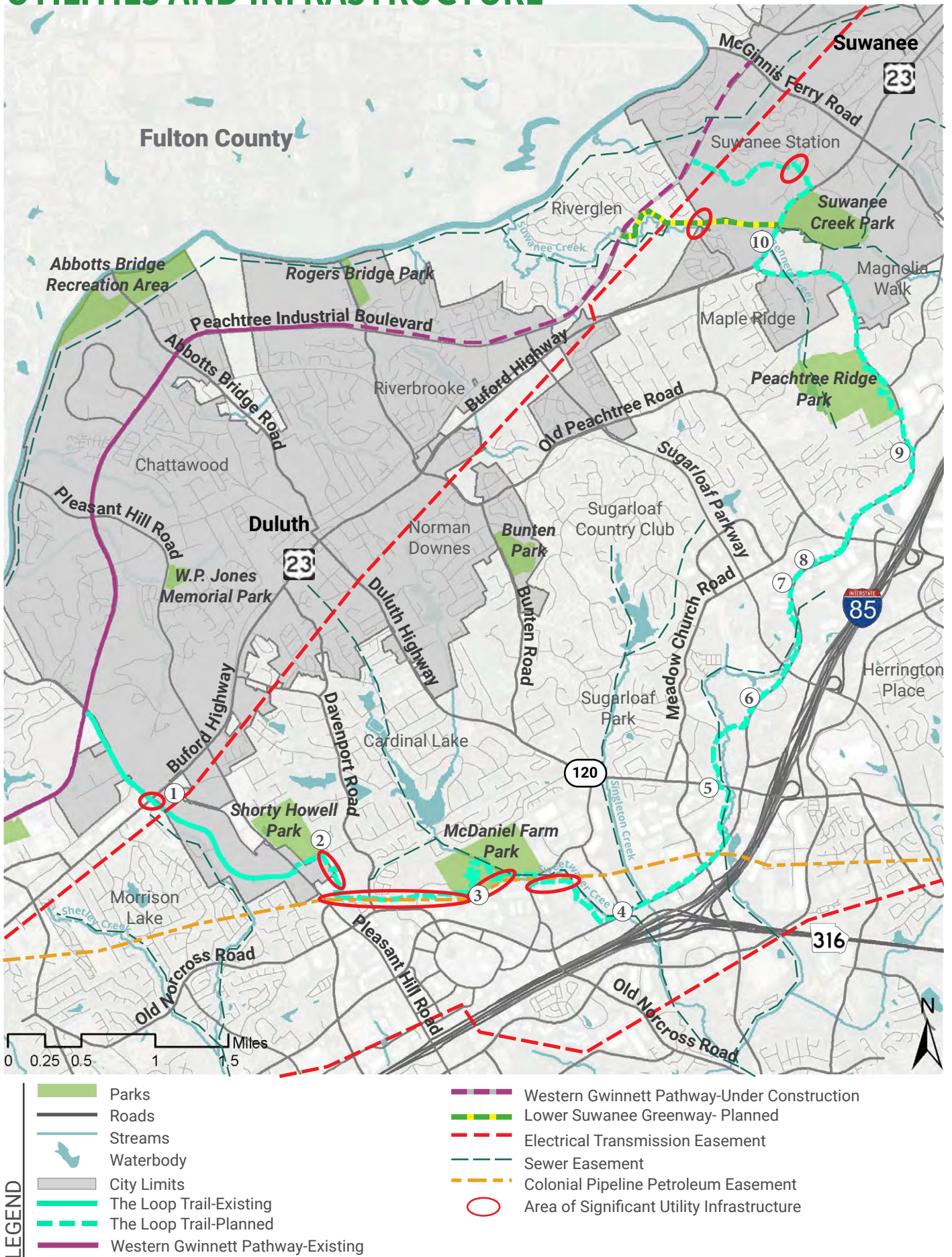
Figure 32. Intersection of North Berkeley Lake Road NW with Buford Highway.



Figure 33. Edge of commercial area from Hill Drive.



UTILITIES AND INFRASTRUCTURE



3. McDaniel Farm Park: Following an existing petroleum easement through a segment of the park will require coordination with the utility.

4. Departing from the pipeline easement the Loop Trail turns south along the eastern edge of Merritt at Sugarloaf and connects to Satellite Blvd, requiring right-of-way.

5. Just past Boggs Road the trail leaves Satellite Boulevard and follows a creek along the western side from SCM Group North America to Duluth Highway, just east of Bojangles, requiring an easement.

6. Due to steep slopes just beyond Sugarloaf Parkway, the trail departs from the roadside to engage in a wooded experience. This segment would require right-of-way from the property owner.

7. Between the Brookside Glen Homes (no driveway access on Satellite) to the UPS property, the existing conditions are steep and the trail will require a retaining wall to widen the path.

8. Along the UPS property is a large right-of-way, where the trail can separate from the road and travel through a tree-lined space. Right-of-way would be required from the property owner.

9. On Wildwood Road the trail travels north on the eastern side and would require additional right-of-way to provide separation of the trail from the narrow two-lane road. Just beyond the intersection with Taramore Drive, the trail would cross Wildwood, requiring a crossing signal, and connect with the existing trail in Peachtree Ridge Park.

10. Significant trail improvements are required for the trail segment following Bennett Creek, a tributary of Suwanee Creek. The trail departs the southern side of Suwanee Creek Road between Rising Fawn Trail and Eryn Circle, requiring a crossing signal. The alignment crosses the wetland of Bennett Creek and Suwanee Creek, to the north.

Figure 34. Petroleum easement looking east at Commerce Ave. NW.



Figure 35. Merritt At Sugarloaf apartment homes on Satellite Blvd.



Figure 36. Right-of-way along Duluth Highway between SCM Group and Bojangles.



Connecting to Suwanee Creek poses a challenge due to the environmental conditions and ability to access the site, with overhead power lines along the eastern side of Buford Highway. Coordination for construction equipment, such as cranes and the setting of a bridge structure to span Suwanee Creek, will require a significant amount of permitting and careful coordination during construction.

Figure 37. Right-of-way south of the Sugarloaf Business Center illustrating steep drops from the roadside.



Figure 39. Area in front of the UPS property that could accommodate a trail separated from the road, to protect existing trees.



Figure 38. Steep slopes between the Brookside Glen Homes and the UPS property requires wall improvements.

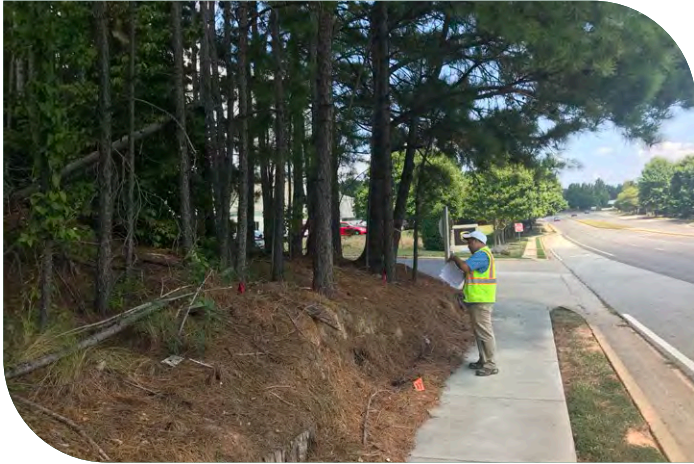


Figure 40. Wildwood Road, adjacent to Peachtree Ridge Park. A crossing is necessary in this location, to connect into the park.



Figure 41. Tangle of utilities and monitoring equipment on the east side of the vehicular bridge on Buford Highway, just south of Suwanee Creek Park.



TRANSPORTATION AND MOBILITY NETWORK

The study area is heavily car-centric and congested with intermittent connectivity for pedestrians through its sidewalk network. The Interstate-85 corridor parallels Satellite Boulevard, anchors the southeastern side of the study area, and Peachtree Industrial Boulevard on the northwestern side. Buford Highway bisects the northern third of the study area, and recently underwent pedestrian safety improvements with more improvements planned within the next 10 years. Multiple highways and roads intersect the study area's central portion, including, Pleasant Hill Road, Davenport Road, Abbotts Bridge Road/Duluth Highway, Old Peachtree Road and Bunten Road, Sugarloaf Parkway, and Meadow Church Road.

The Western Gwinnett Pathway is constructed up to Rogers Bridge Road. The Suwanee Creek Greenway begins at Suwanee Creek Park and travels to the northeast. Connecting the Loop Trail from Rogers Bridge to Suwanee Creek Greenway would close a significant gap in bike and trail infrastructure. In the southern portion of the study area a critical connection is from Shorty Howell Park to McDaniel Farm Park. Connecting these two greenspaces would provide an expanded recreational experience and greater pedestrian mobility for residents and visitors.

Satellite Boulevard, a direct route from McDaniel Farm Park to Peachtree Ridge Park, poses challenges of creek and road crossings but is critical to completing the Loop Trail. The Sugarloaf Mills Park-and-Ride provides opportunity for trail users to access the trail at a mid-point between the two parks. Additionally, a planned BRT is under study for the same corridor, providing an opportunity to enhance multi-modal options through trail and transit connectivity.

Existing bus routes in the study area are concentrated along I-85 and Satellite Boulevard. The farthest northwestern most bus route is 10B, which connects to Peachtree Industrial Boulevard. The Loop Trail route would intersect with many of the bus routes along Satellite Boulevard and also near the Gwinnett Transit Center, thus strengthening multi-modal connections.

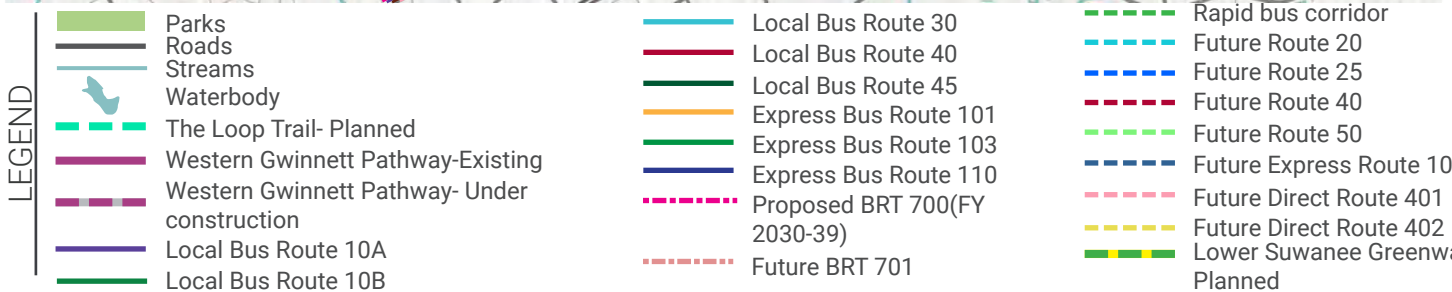
The planning process considered how potential trails would intersect major road transportation corridors, bus routes, and future planned transportation connectivity, such as the planned BRT, with a goal of further strengthening pedestrian connectivity. The preferred alignment will provide a regional multi-modal connection and a draw for future recreational and lifestyle oriented development.

Figure 42. A long crosswalk, without refuge, at Pleasant Hill Road.



This map illustrates the Suwanee, Georgia area, highlighting transit routes, parks, and landmarks. The map includes the following features:

- Transit Routes:**
 - Bus Routes:** 25 (Pleasant Hill Road), 10B (Sugarloaf Parkway), 10A (Meadow Church Road), 45 (Herrington Place), 101 (Sugarloaf Parkway), 110 (Meadow Church Road), 103 (Meadow Church Road), 104 (Meadow Church Road), 401 (Old Norcross Road), 40 (Old Norcross Road), 30 (Old Norcross Road), 20 (Old Norcross Road), 316 (Herrington Place), 402 (Herrington Place).
 - Light Rail:** 23 (Pleasant Hill Road), 25 (Pleasant Hill Road), 10B (Sugarloaf Parkway), 10A (Meadow Church Road), 45 (Herrington Place), 101 (Sugarloaf Parkway), 110 (Meadow Church Road), 103 (Meadow Church Road), 104 (Meadow Church Road), 401 (Old Norcross Road), 40 (Old Norcross Road), 30 (Old Norcross Road), 20 (Old Norcross Road), 316 (Herrington Place), 402 (Herrington Place).
 - Tram:** 23 (Pleasant Hill Road), 25 (Pleasant Hill Road), 10B (Sugarloaf Parkway), 10A (Meadow Church Road), 45 (Herrington Place), 101 (Sugarloaf Parkway), 110 (Meadow Church Road), 103 (Meadow Church Road), 104 (Meadow Church Road), 401 (Old Norcross Road), 40 (Old Norcross Road), 30 (Old Norcross Road), 20 (Old Norcross Road), 316 (Herrington Place), 402 (Herrington Place).
- Parks and Recreation:**
 - Abbotts Bridge Recreation Area
 - Rogers Bridge Park
 - Suwanee Creek Park
 - Peachtree Ridge Park
 - Bunten Park
 - W.P. Jones Memorial Park
 - Shorty Howell Park
 - McDaniel Farm Park
 - Sugarloaf Park
 - Magnolia Walk
- Landmarks and Neighborhoods:**
 - Chattawood
 - Riverbrooke
 - Norman Downes
 - Sugarloaf Country Club
 - Herrington Place
 - Sugarloaf Mills Park-and-Ride
 - Gwinnett County Transit Center
 - McGinnis Ferry Road
 - Maple Ridge
 - Riverglen
 - Cardinal Lake
 - Morrison Lake
- Major Roads:**
 - Peachtree Industrial Boulevard
 - Abbotts Bridge Road
 - Pleasant Hill Road
 - Buford Highway
 - Old Peachtree Road
 - Sugarloaf Parkway
 - Meadow Church Road
 - Old Norcross Road
 - Davenport Road
 - Bunten Road
 - McGinnis Ferry Road
- Scale and Orientation:**
 - Scale: 0 to 1.5 miles.
 - North arrow pointing up.



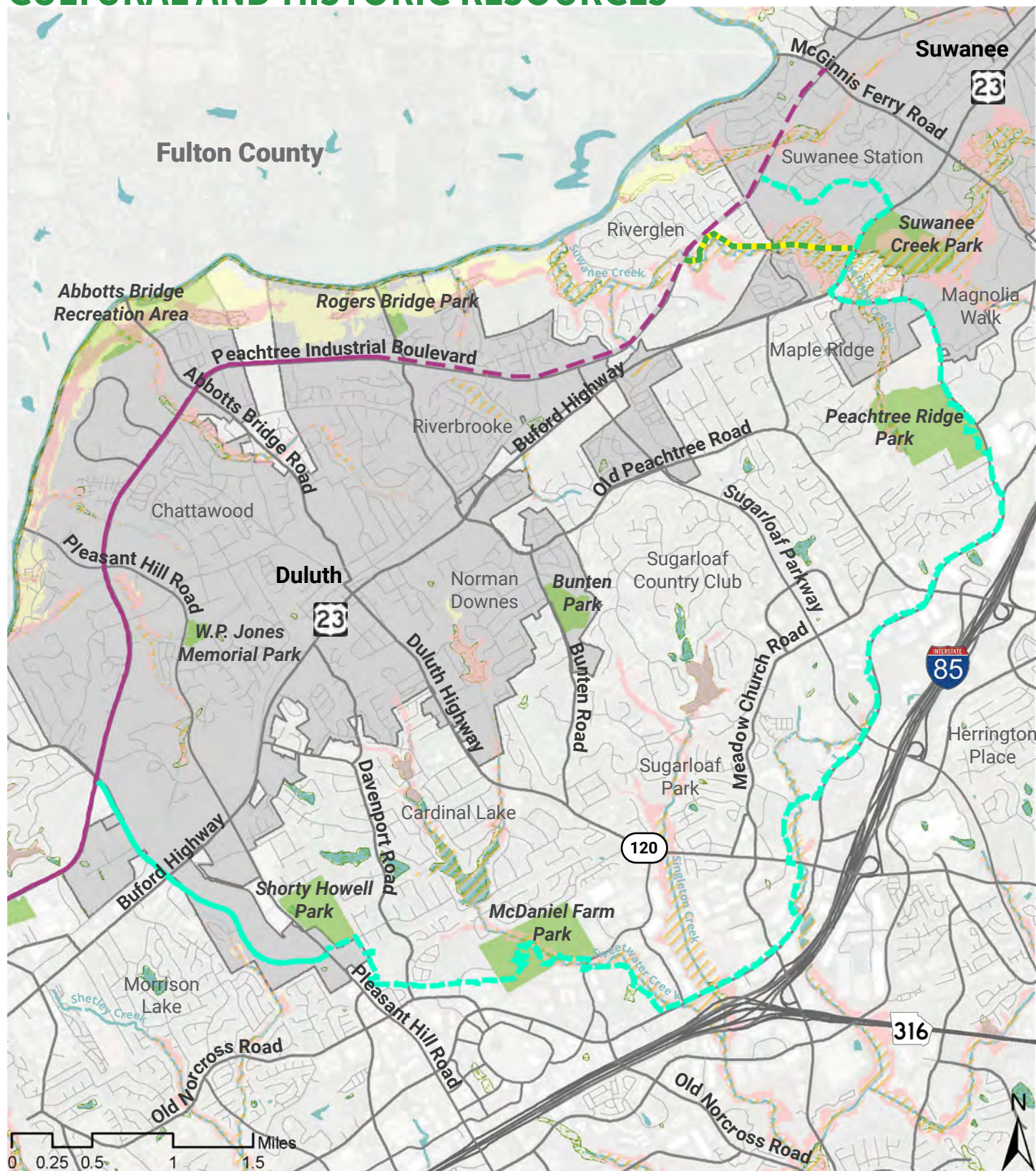
CULTURAL AND HISTORIC RESOURCES ENVIRONMENTAL SCREENING REPORT

This report identifies potential environmental design constraints along the proposed alignment. A 200-foot screening corridor from the centerline of the proposed alignment was established to analyze the study area for the presence of waters of the United States, protected species habitat, cultural resources, and environmentally sensitive areas, such as floodplains and wetlands.

Cultural Resources

A review of Georgia's Natural, Archaeological, and Historic Resources GIS (GNAHRGIS) and National Register of Historic Places (NRHP) websites indicated no presence of eligible historic sites within .5 miles of the proposed project route.

CULTURAL AND HISTORIC RESOURCES



ENVIRONMENTAL RESOURCES

Vegetation/Land Cover

The surrounding areas along the trail corridor consist of heavily developed residential, commercial, and industrial land use. Portions of the proposed trail corridor deviate from the existing right-of-way and onto undeveloped natural areas that contain floodplain and wetland boundaries. A trail diverging from a side path within the right-of-way to an off-road trail would typically consist of bridges and boardwalks around wetlands and other environmentally sensitive areas. Connecting residential, commercial, and industrial areas through these existing greenspaces would add to the network of trails found near the study area.

Water Resources

There are a total of 10 streams and fifteen wetland resources based on data from the National Hydrography Dataset (NHD) and National Wetland Inventory (NWI). The trail corridor closely aligns with existing creek corridors and available greenspace connecting the natural resources left from development in the area. A full stream and wetland delineation along the length of the final trail alignment would be necessary to identify all waters of the U.S. prior to permitting with local, state, and federal agencies.

Environmentally Sensitive Areas

A review of the US Environmental Protection Agency (EPA) NEPAassist portal identified 75 EPA facilities that are within .25 miles of the trail corridor. A total of four gasoline stations were identified within the 200-foot screening corridor. These are identified as potential environmental liabilities in the Environmental Liabilities Table. There were no superfund sites or brownfield sites within a quarter mile of the 200-foot screening corridor.

Threatened and Endangered Species

A review of the U.S. Fish and Wildlife Service Information for Planning Consultation (IPaC) identified two federally protected species known to occur in Gwinnett County. A final habitat survey along the corridor is required to confirm the absence of the endangered species and habitats. The two identified species are the Little Amphianthus (*Amphianthus pusilus*) and Black Spored Quillwort (*Isoetes melanospora*).

The full environmental screening report is included in Appendix A.

Figure 43. Crossing at Suwanee Creek



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PUBLIC ENGAGEMENT

Engaging members of the study area's community, stakeholders, Gwinnett County staff, Sugarloaf CID staff, and Gwinnett Place CID staff was a critical component of the planning process for the Loop Trail.



PROJECT WEBSITE

A project website provided information with links to the Gwinnett County, Sugarloaf CID, and Gwinnett Place CID websites. Information about the project and upcoming public meetings was posted to the website as well as an opportunity, through an interactive map feature, to provide specific feedback on the study area and trail alignment as well as to voice any other concerns. Consolidated results of the input and the project survey are included in the appendix of this report.

Interactive Map

The project website included an interactive map feature on Social Pinpoint (an online community engagement platform) for community members to provide specific, site-related feedback regarding the trail alignment.

Project Survey

The project survey included 13 questions ranging from interest in the trail, to preferred priorities of trail segments. 136 survey responses were completed by users on the project website.

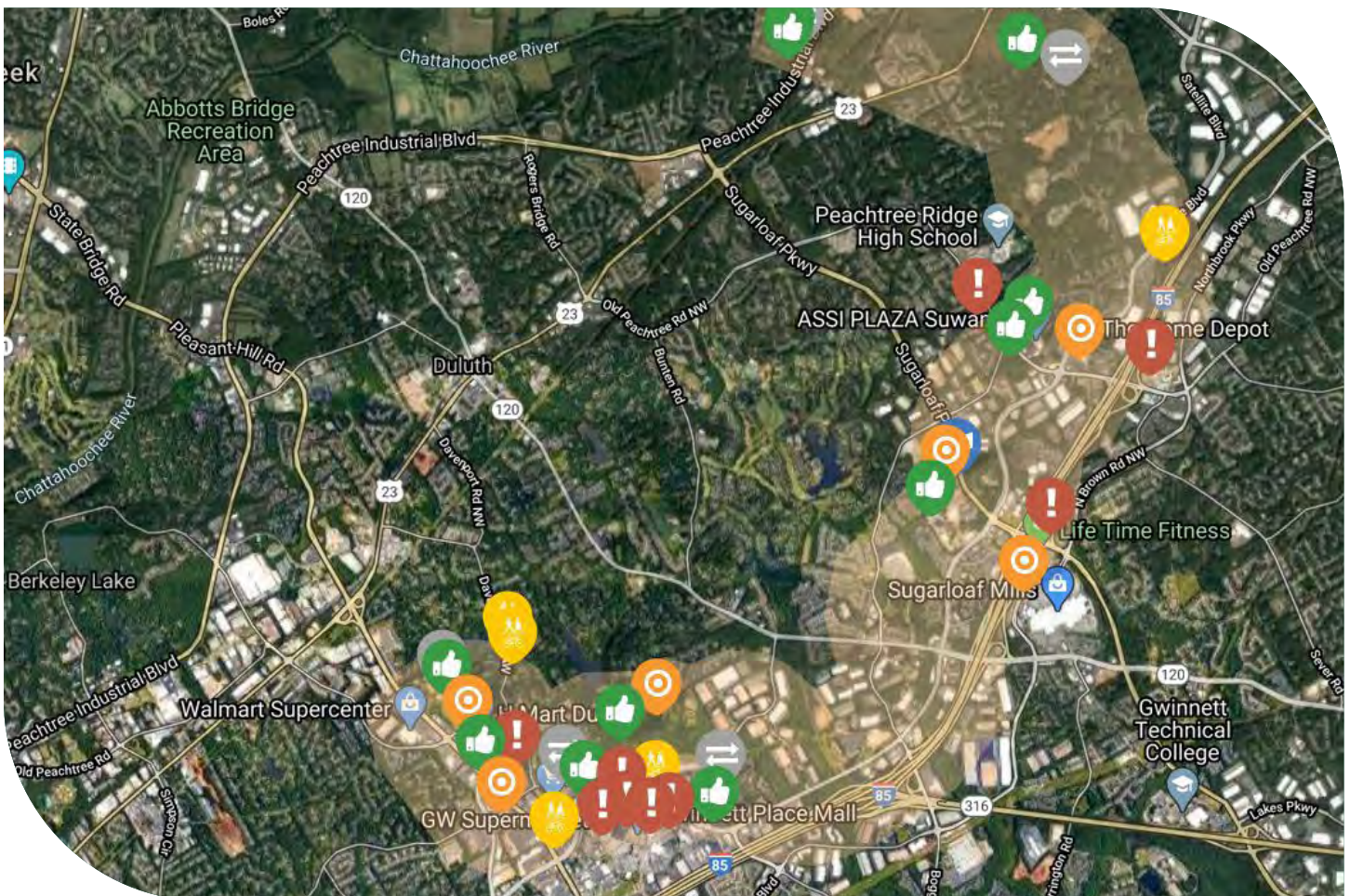


Figure 45. Social Pinpoint Interactive Map

MEETINGS

Core Team Meetings

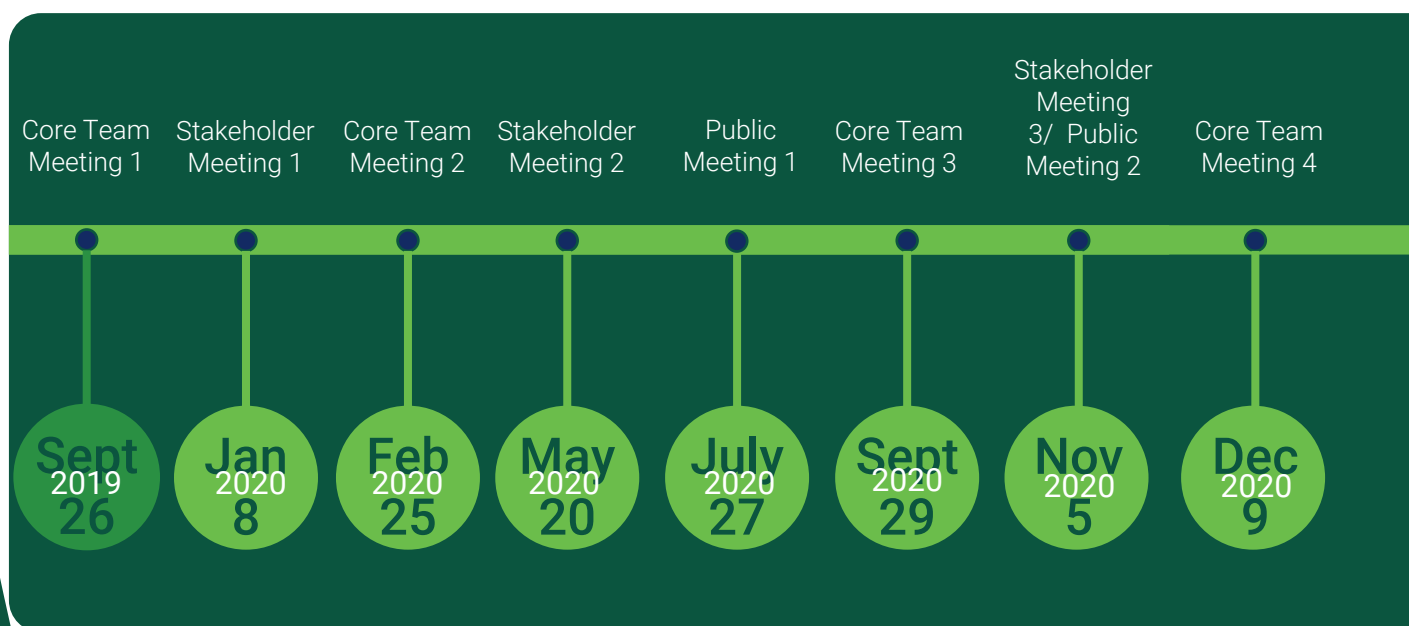
Gwinnett County, Sugarloaf CID, and Gwinnett Place CID identified key community members to participate in Core Team meetings to help provide feedback on the study area and identify a preferred alignment. Members performed review and oversight responsibilities for the feasibility study and concept. Core Team members, through their feedback, expressed desires to connect the Loop Trail to Duluth, the Sugarloaf CID area, and the Gwinnett Place CID area and to increase

economic development potential, connect the community to the surrounding facilities and amenities for improved mobility.

“I think this trail should be combined with the BRT study for the route along Satellite Boulevard. Using a bike along the trail and then to hop on a bus for a longer ride would be a great combination of resources.”

“A link to the Infinite Energy Center would be highly visible and a great amenity that would serve the over one million visitors it gets a year.”

PUBLIC ENGAGEMENT TIMELINE



Stakeholder Meetings

In total, more than 70 stakeholders were invited to the virtual meetings, including agency and community representatives (neighborhoods and businesses). Three meetings with stakeholders were held providing opportunities for stakeholders to provide comment on the current preliminary alignment, alignment alternatives and potential connections, and draft concept and implementation recommendations.

Public Meetings

Virtual public meetings were held to review the alignment alternatives and potential connections, comments on the draft concept, and preferred alignment. A summary of the public meetings, question and answer summaries, and presentations are included in the appendix.

“More parks and greenspaces need to be integrated now before there are no more opportunities to do so.”

PUBLIC ENGAGEMENT RESULTS



A photograph of a white, single-story house with a wide porch. A large, mature tree with green and yellowing leaves stands in the foreground, partially obscuring the house. The house has a blue metal roof and a red brick chimney. The porch has white railings and columns. The ground is covered with fallen leaves, and a stone wall is visible in the lower foreground.

CONCEPT PLAN

This section compiles the information gathered from an on-site field verification followed by public involvement, stakeholder input, and additional area analysis to create a proposed alignment for the trail. The alignment is organized into five segments with the goal that funding and implementation may be phased between logical termini. Alternate segments one through seven were created as options for the trail to adjust if right-of-way or other constraints hinder the execution of the proposed alignment.



CONTEXT ZONES

The surrounding land uses through the project area vary from dense commercial zones to suburban residential areas with open space. The trail design must reflect the characteristics of the surrounding area for safety and design aesthetics. There are two basic trail design types identified in the Gwinnett Countywide Trails Master Plan- off-road trail and side path. Some design elements may be flexible and must take into consideration unique aspects of the corridor, such as topography, environmental and physical constraints, and available right-of-way. The map that follows illustrates where each of these context zones is recommended for the Loop Trail.

CONTEXT ZONE 1: OFF-ROAD TRAIL

Off-road trails are not located adjacent to a roadway. These trails are appropriate for parks, utility corridors, easements, or right-of-ways. Some design characteristics of off-road trails include:

- Concrete paving
- Minimal lighting
- Trailhead signage, wayfinding signage, and mile markers at regular intervals
- Restrooms and parking at key locations
- Signalized road crossings or grade separation where necessary
- Bridges or boardwalks where necessary
- Concrete wall with safety railing where necessary



Figure 46. Typical cross-section of an off-road trail, Gwinnett Countywide Trails Master Plan

CONTEXT ZONE 2: SIDE PATH

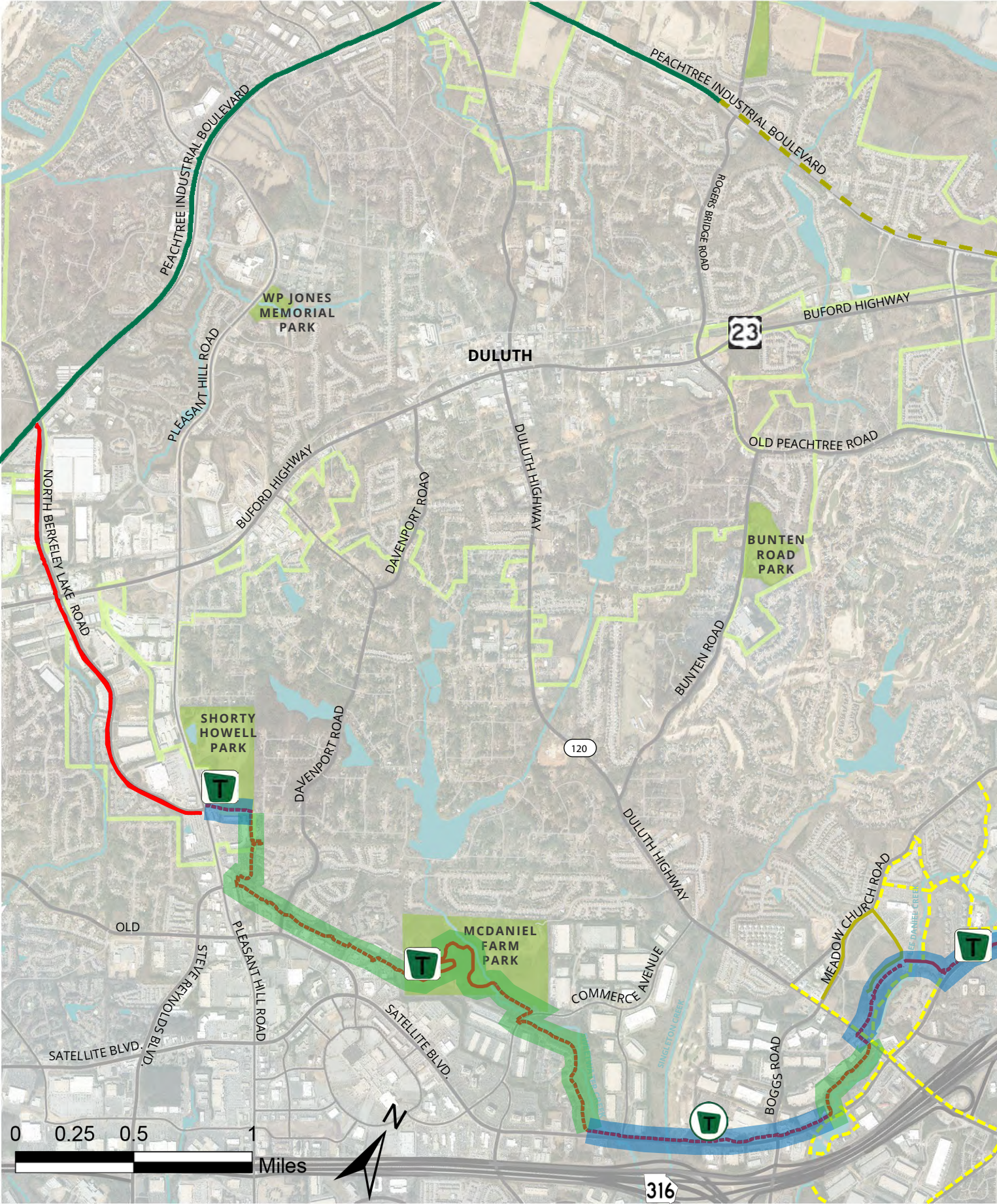
Side paths are multi-use trails that are adjacent to a roadway with a landscape buffer. Some design characteristics of side paths include:

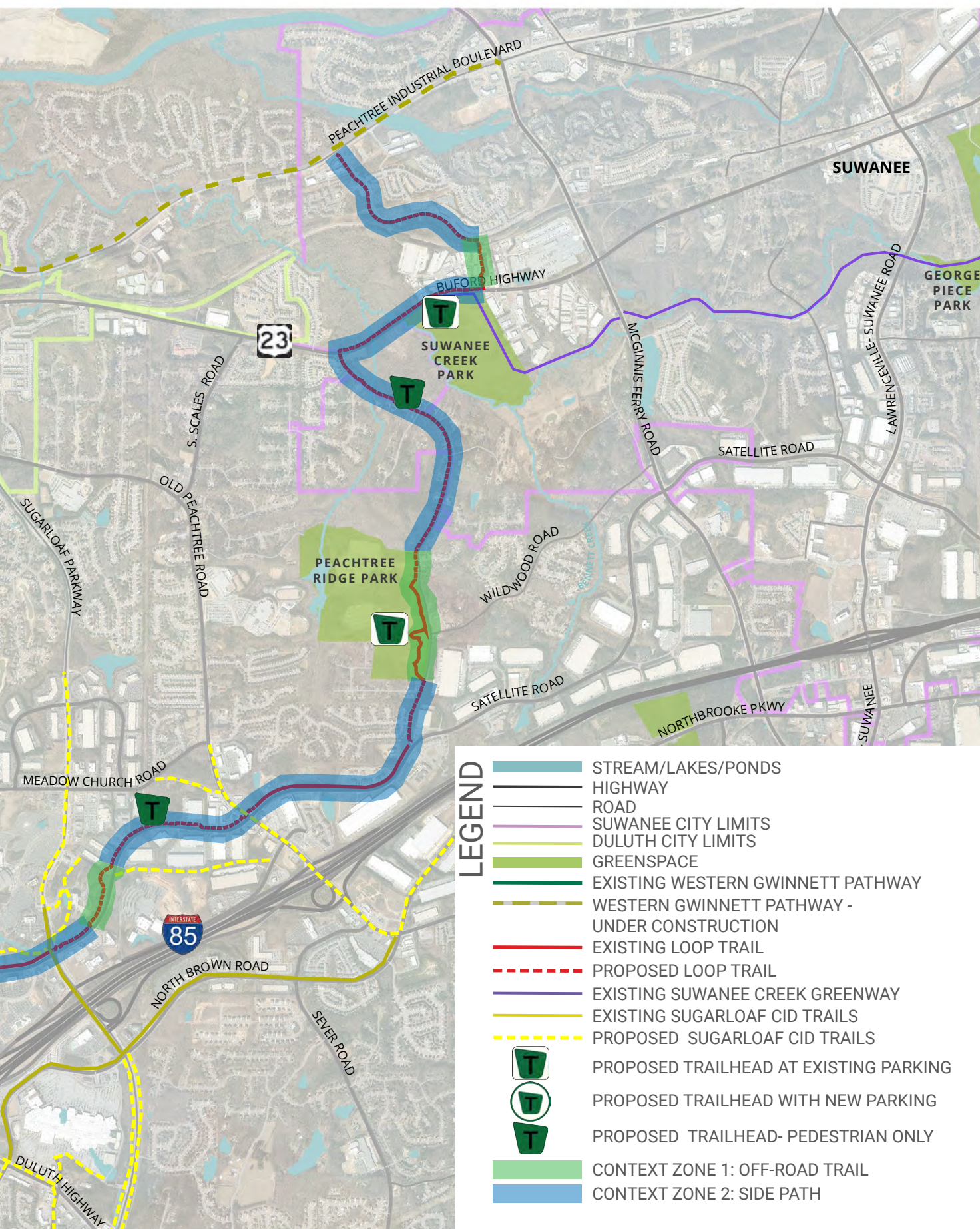
- Asphalt paving
- Concrete wall with safety railing where necessary
- Pedestrian lighting where necessary
- Trailhead signage, wayfinding signage, and mile markers at regular intervals
- Restrooms and parking in key locations
- Signalized road crossings or grade separation where necessary



Figure 47. Typical cross-section of a side path trail, Gwinnett Countywide Trails Master Plan

TRAIL CONTEXT ZONES







ALIGNMENT

The Loop Trail’s proposed alignment is the result of an iterative process engaging with stakeholders, community members, and Gwinnett County planning staff.

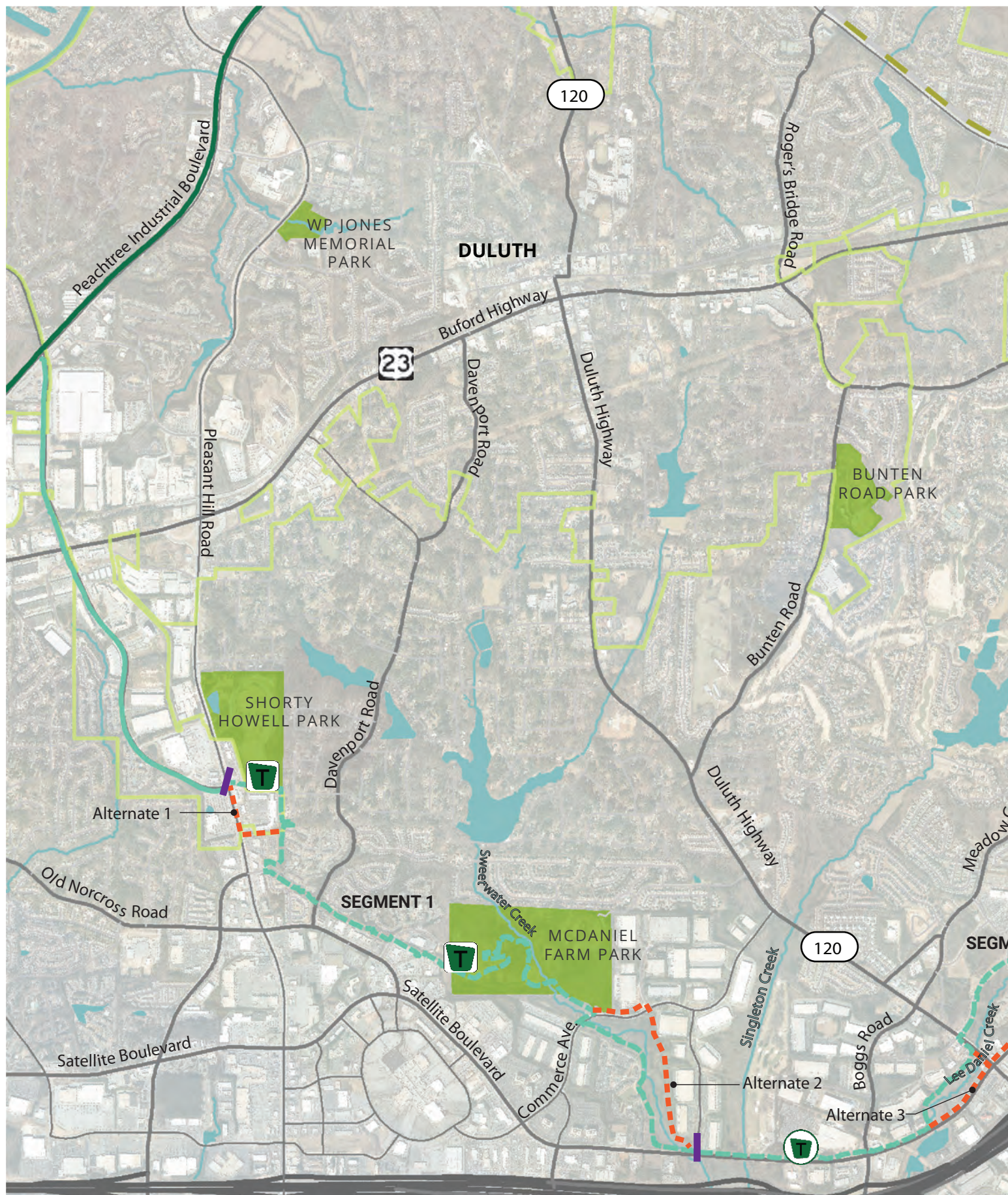
The refinement of the alignment started by conducting a field study of the preliminary alignment from the Gwinnett Countywide Trails Master Plan. The trail was then adjusted to account for desired project features, points of connection, and the exploration of all possible routes to determine an appropriate alignment. With the understanding that the trail may be phased for funding purposes, the alignment was divided into key segments that balance physical realities and cost.

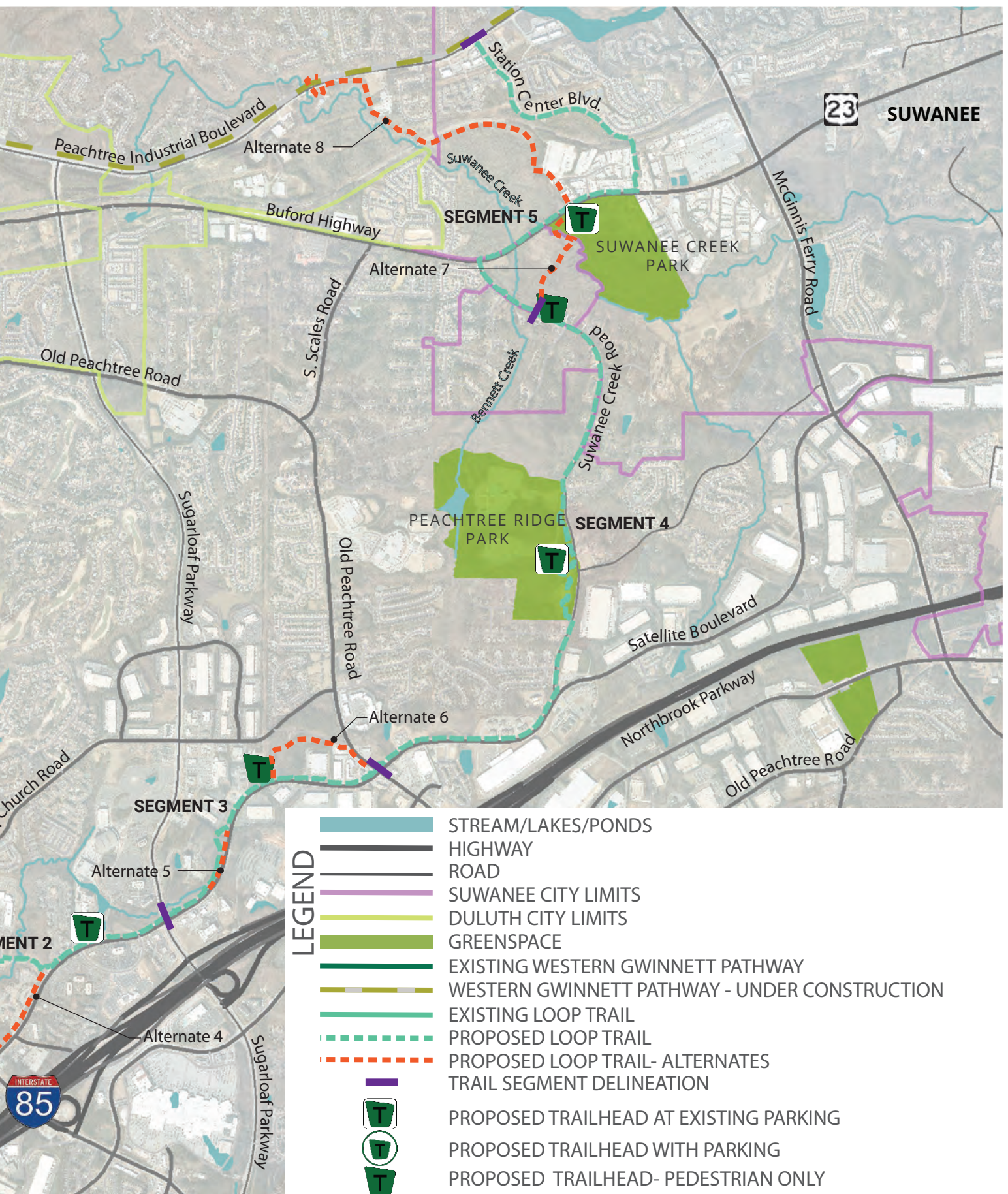
The following chapter is organized by trail segments one through five, which coincide with logical termini for phasing of the trail system. Each segment provides a description of the corridor with project features, impact analysis, and descriptions of possible alternates. Shown on individual sheets 1 through 19, the alignment is displayed as consecutive enlargements for a better understanding of the context area and trail alignment. Within the legend, a key map is provided to reference the enlargement’s location along the corridor.



(Image from Gwinnett Countywide Trails Master Plan)

FINAL ALIGNMENT WITH ALTERNATES









IMPACT ANALYSIS SUMMARY

Disturbance along the entire trail corridor, both on side paths and off-road trails, will inherently affect existing conditions. Segments were analyzed to anticipate impacts to the environment, utility infrastructure impacts, right-of-way impacts, and potential safety concerns that would need to be addressed.

Right-of-way impacts are expected in certain segments where the path follows natural corridors or easements and along narrow right-of-way where improvements are proposed. Certain safety concerns along the trail corridor regarding steep slopes, roadway crossings, or adjacency to high-volume roadways will be addressed with trail design features to provide a safe and pleasant experience. The environmental screening report in Appendix A lists potential impacts to environmentally sensitive areas. A desktop analysis of FEMA floodplains was used to inform the alignment of the trail. Most utilities found within the existing right-of-way were from the on-site investigation where above-grade infrastructure was taken into account.

SEGMENT 1 INCLUDING ALTERNATES 1 AND 2

Segment 1

Segment 1 begins at the Intersection of Pleasant Hill Road and Hill Drive near Shorty Howell Park. The trail would use the existing greenspace behind businesses and the Colonial Pipeline easement to reach McDaniel Farm Park. The trail would then follow the Sweetwater Creek corridor within the park and behind Merritt at Sugarloaf Apartments using sections of boardwalk to eventually end at the entrance of Evergreen Boulevard off Satellite Boulevard.

Alternate 1

If there are conflicts with right-of-way acquisition or grading challenges behind Park Village and Atlanta Luxury Motors, Alternate 1 provides a connection from the Colonial Pipeline easement at Colonial Grand at Pleasant Hill Apartments to Hill Drive. This would be an approximately 2,200 linear foot connection to meet the existing Loop Trail section off North Berkeley Lake Road.

Alternate 2

Crossing Commerce Avenue from McDaniel Farm Park would require a signalized crossing. Considering the roadway speed, horizontal curvature, and sight distance requirements at the roadway, a location that provides greater visibility is located further east on Commerce Avenue and north of Sweetwater Creek. The proposed alignment routes the trail within the Merritt at Sugarloaf Apartments property, but if the trail should stay outside of the parcel, a 4,400 linear foot trail (2,800 linear feet being boardwalk) must follow the northeast side of Sweetwater Creek.

Project Features and Trail Elements

The proposed trail consists of approximately 12,000 linear feet of asphalt or concrete trail with a 12-14 foot width. Approximately 3,700 linear feet of concrete boardwalk measuring 12-foot-wide is required in challenging areas where grading is not feasible. There are five signalized crossings needed to implement pedestrian safety measures such as a rectangular rapid flashing beacon (RRFB). These crossings will require traffic studies that account for sight distance, roadway speed, and traffic volumes. A trailhead is proposed at Shorty Howell Park that would utilize the existing available parking and connect to the existing Gwinnett Parks system.

Easements and Right-of-Way Impacts

Temporary easements of various widths will be required for construction access and grading for the trail corridor. A minimum 20-foot-wide right-of-way along 13,300 linear feet for the proposed trail should be acquired. 14 parcels are impacted along the proposed route. Nine parcels are impacted on Alternate 1 and seven on Alternate 2. The remaining trail is situated within existing County-owned or GDOT right-of-way.

Segment Impact Analysis Summary

The proposed alignment utilizes existing buffers and open space areas such as utility easements. Grading within the easement should be minimal due to Colonial Pipeline restrictions and further refinement will be necessary to provide adequate running slope for trail users. Trail near the floodplain and steep terrain will require flood studies and sections of boardwalk. Steep grades that border the trail will also require a safety railing. Some challenges are encountered with above-grade utilities and narrow right-of-way along the alternate sections.

SHEET 1



Legend

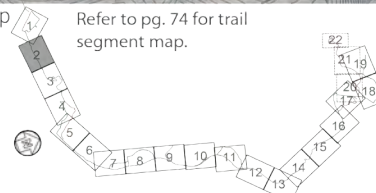
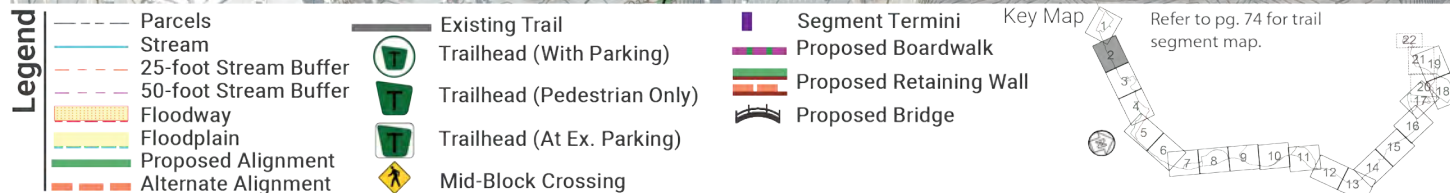
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- Stream
- 25-foot Stream Buffer
- 50-foot Stream Buffer
- Floodway
- Floodplain
- Proposed Alignment
- Alternate Alignment

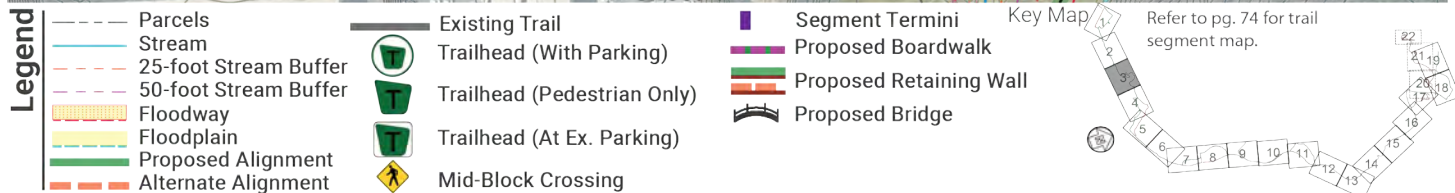
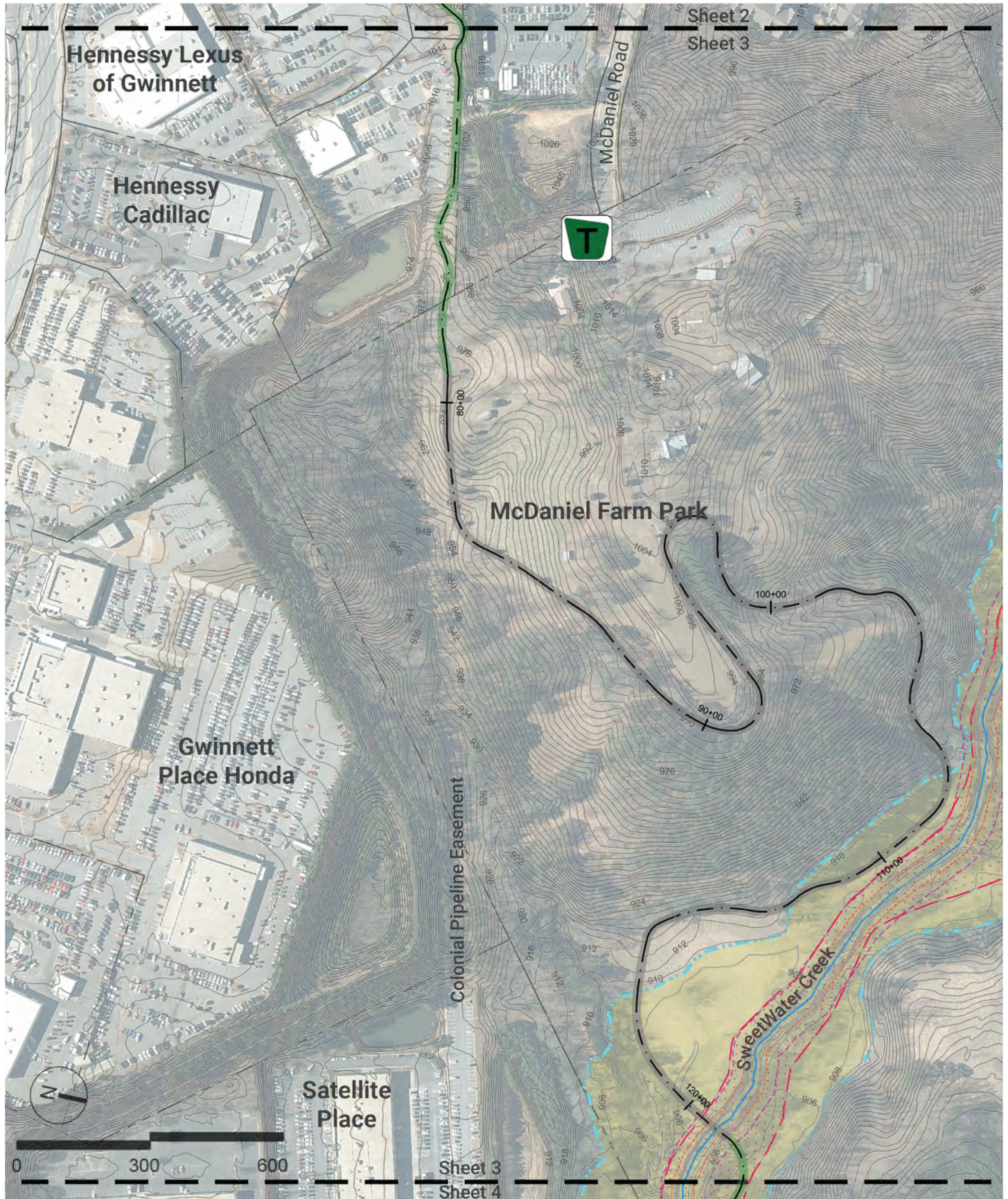
- Existing Trail
- Trailhead (With Parking)
- Trailhead (Pedestrian Only)
- Trailhead (At Ex. Parking)
- ▲ Mid-Block Crossing

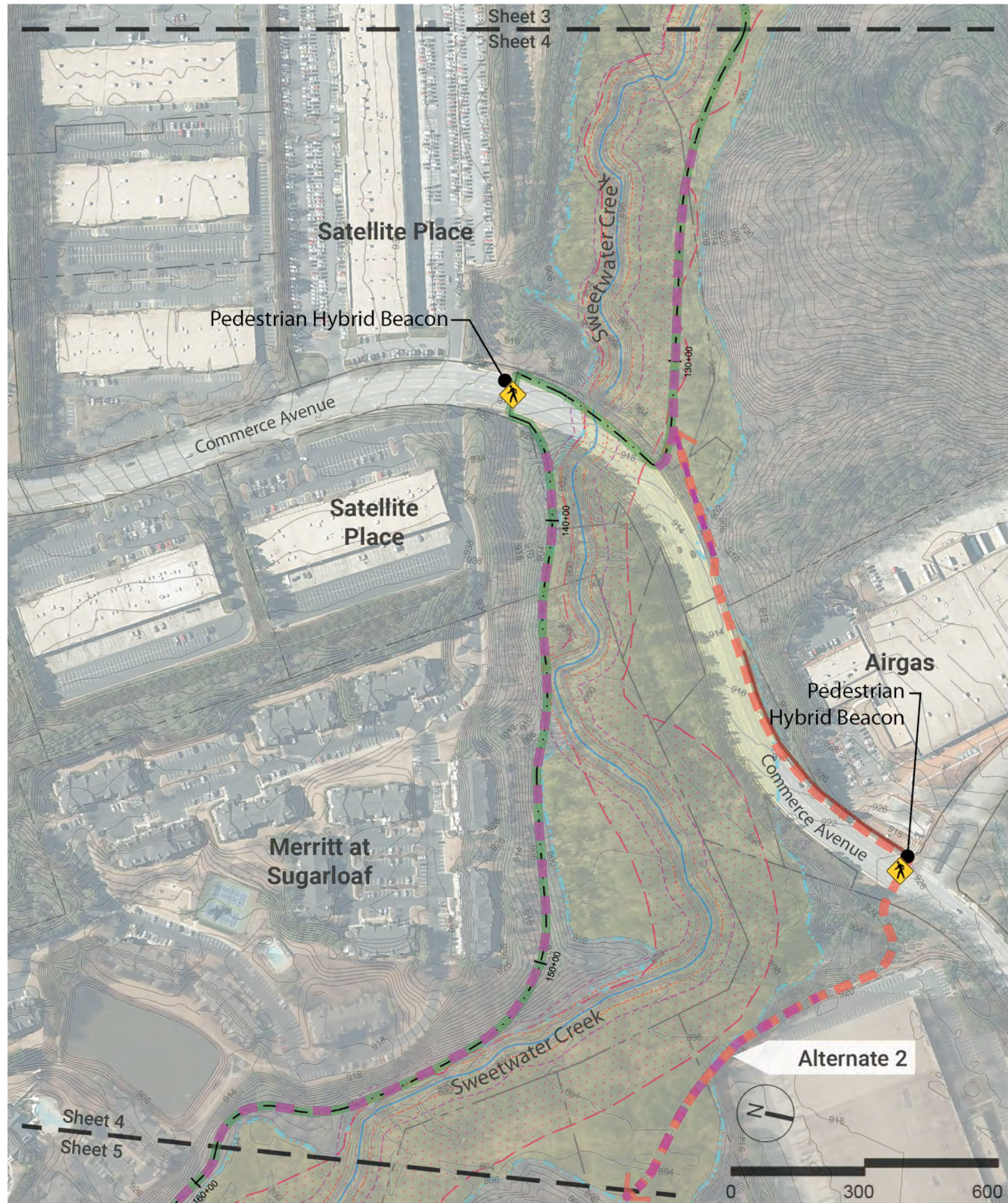
- Segment Termini
- Proposed Boardwalk
- Proposed Retaining Wall
- Proposed Bridge

Key Map

Refer to pg. 74 for trail segment map.







Legend

- Parcels
- Stream
- 25-foot Stream Buffer
- 50-foot Stream Buffer
- Floodway
- Floodplain
- Proposed Alignment
- Alternate Alignment
- Existing Trail
- Trailhead (With Parking)
- Trailhead (Pedestrian Only)
- Trailhead (At Ex. Parking)
- ▲ Mid-Block Crossing
- Segment Termini
- Proposed Boardwalk
- Proposed Retaining Wall
- Proposed Bridge

Key Map

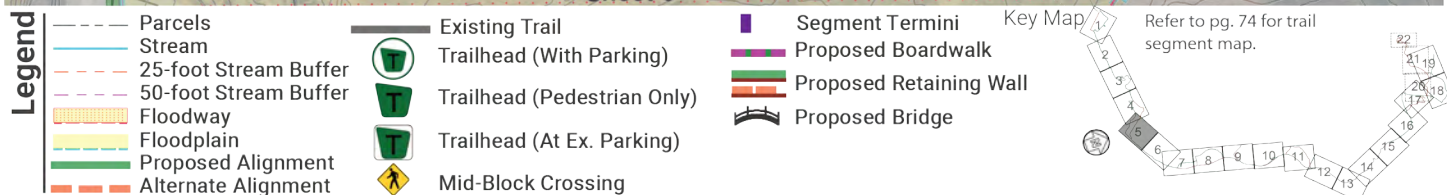
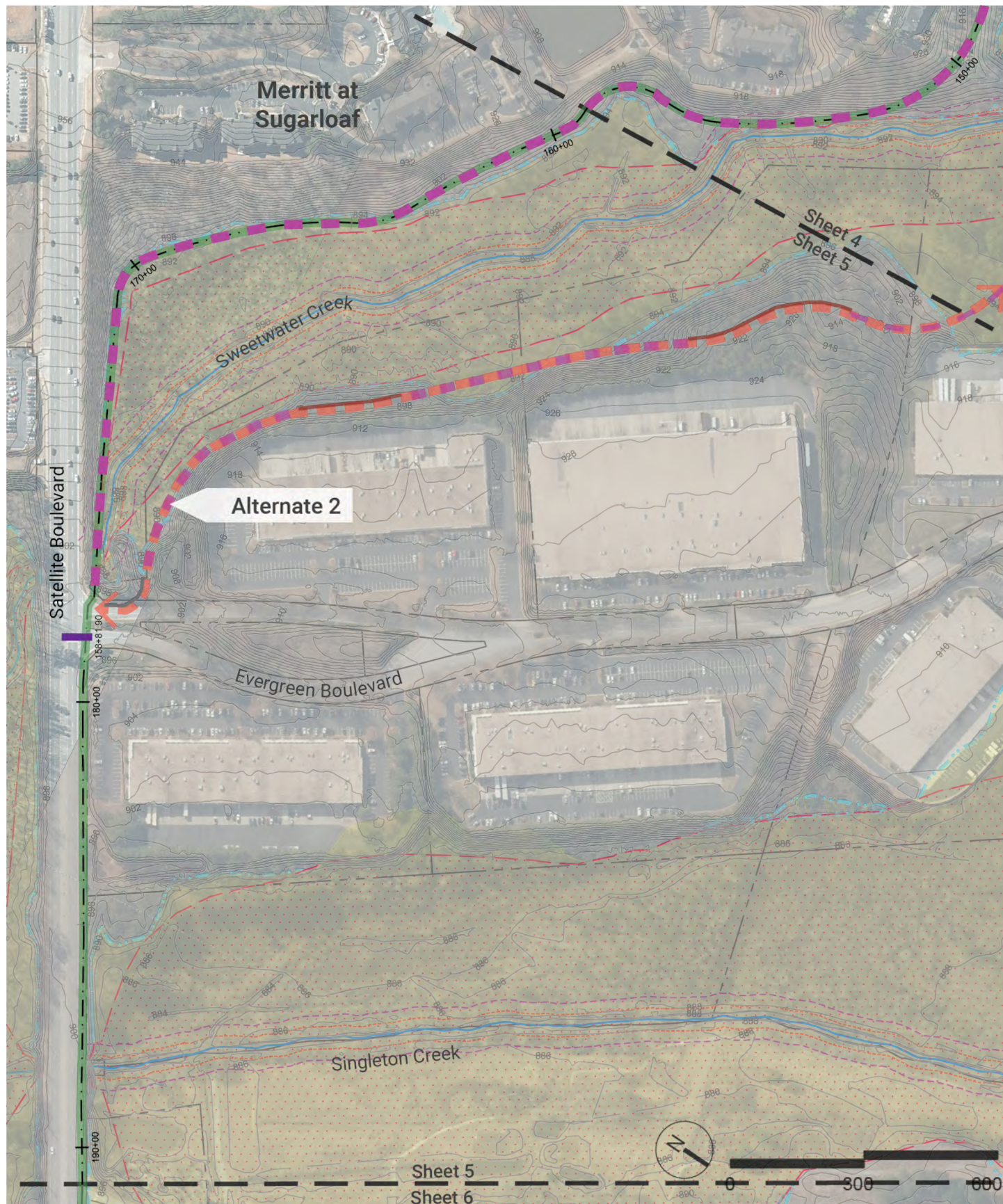
Refer to pg. 74 for trail segment map.

Scale

0 300 600

North Arrow

N



SEGMENT 2 INCLUDING ALTERNATES 3 AND 4

Segment 2

This segment starts at the entrance of Evergreen Boulevard at Satellite Boulevard. (Refer to Sheet 5 on the previous page). The side path stays within the right-of-way and deviates at the former National Cash Register (NCR) property to take advantage of the open space and a possible trailhead location. The trail turns north and away from Satellite Boulevard after CentiMark to transition to boardwalk along the floodplain of Lee Daniel Creek. The boardwalk ends south of Duluth Highway and the trail transitions back to asphalt side path. There is potential to connect to Sugarloaf Walk (a mixed-use development) and nearby Sugarloaf CID trails by following along Primerica Parkway and Freedom Way Avenue. The last portion of trail remains as side path along Satellite Boulevard to end at Sugarloaf Parkway.

Alternate 3

As an alternate to connecting to Sugarloaf Walk along the floodplain, the trail can continue as an approximately 2,450-linear-foot side path along Satellite Boulevard to Duluth Highway. The right-of-way is narrow through this section of trail so the trail must be limited to 8-10 feet wide. This alternate does however provide the most direct course to continue toward Sugarloaf Parkway.

Alternate 4

This alternate is logical if combined with Alternate 3. It continues the side path along Satellite Boulevard in front of commercial and apartment complexes up to Freedom Way Avenue. This 2,400-linear-foot section would serve as an 8-10 foot asphalt side path with a landscape buffer. The most challenging location for implementation is near the Shell gas station at the onset of the alternate path where utilities, parking, and narrow right-of-way are the main obstacles.

Project Features and Trail Elements

The proposed trail consists of approximately 8,500 linear feet of asphalt side path. Approximately 1,900 linear feet of 12-foot-wide concrete boardwalk would be used at the floodplain of Lee Daniel Creek. All roadway crossings have designated crosswalks and most are at signalized intersections. Two trailheads are proposed; one at the former NCR building and another near the Jacqueline Casey Hudgens Center for Art and Learning parking lot.

Easements and Right-of-Way Impacts

Temporary easements of various widths will be required for construction access and grading for the trail corridor. A minimum 20-foot-wide right-of-way along 2,540 linear feet for the proposed trail should be acquired. This will impact 11 properties. Alternate 3 impacts six parcels and Alternate 4 impacts four parcels. The remaining trail is situated within existing right-of-way.

Segment Impact Analysis Summary

A section of boardwalk along the floodplain of Lee Daniel Creek will require a flood study. There are minor utility relocations and adjustments along the route. Steep grades will require retaining walls with safety railing. Narrow right-of-way and existing parking along commercial frontages also pose a challenge to provide a safe and pleasant experience along a high-volume roadway.

SHEET 6



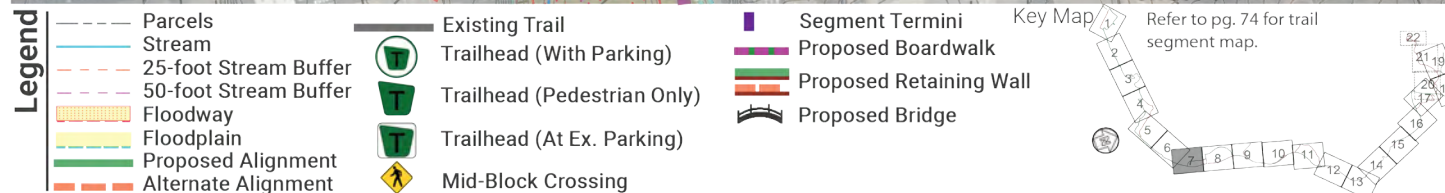
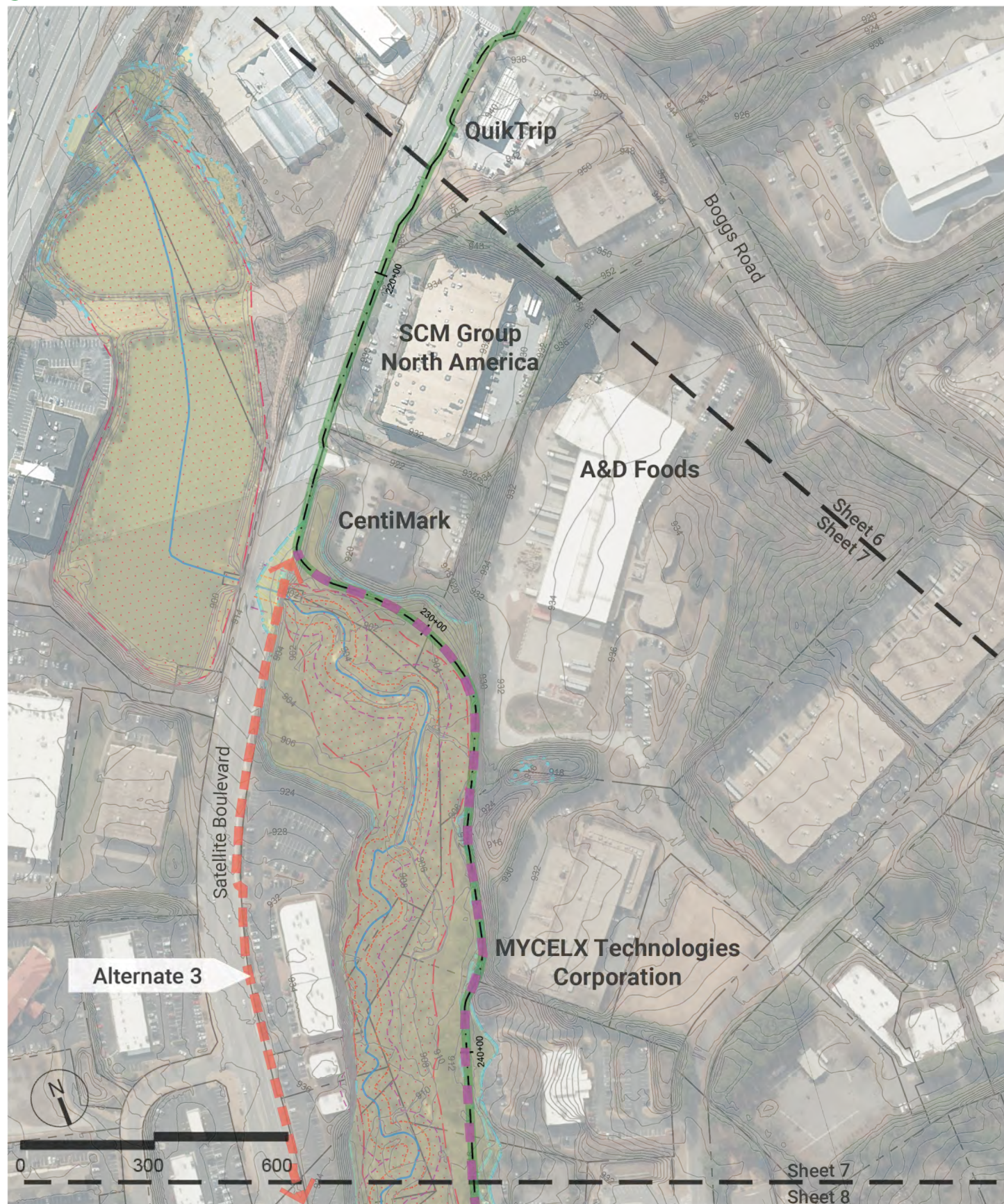
Legend

- Parcels
- Stream
- 25-foot Stream Buffer
- 50-foot Stream Buffer
- Floodway
- Floodplain
- Proposed Alignment
- Alternate Alignment
- T Existing Trail
- T Trailhead (With Parking)
- T Trailhead (Pedestrian Only)
- T Trailhead (At Ex. Parking)
- X Mid-Block Crossing

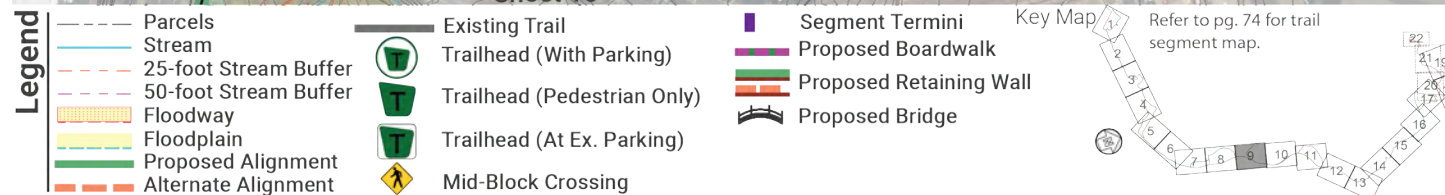
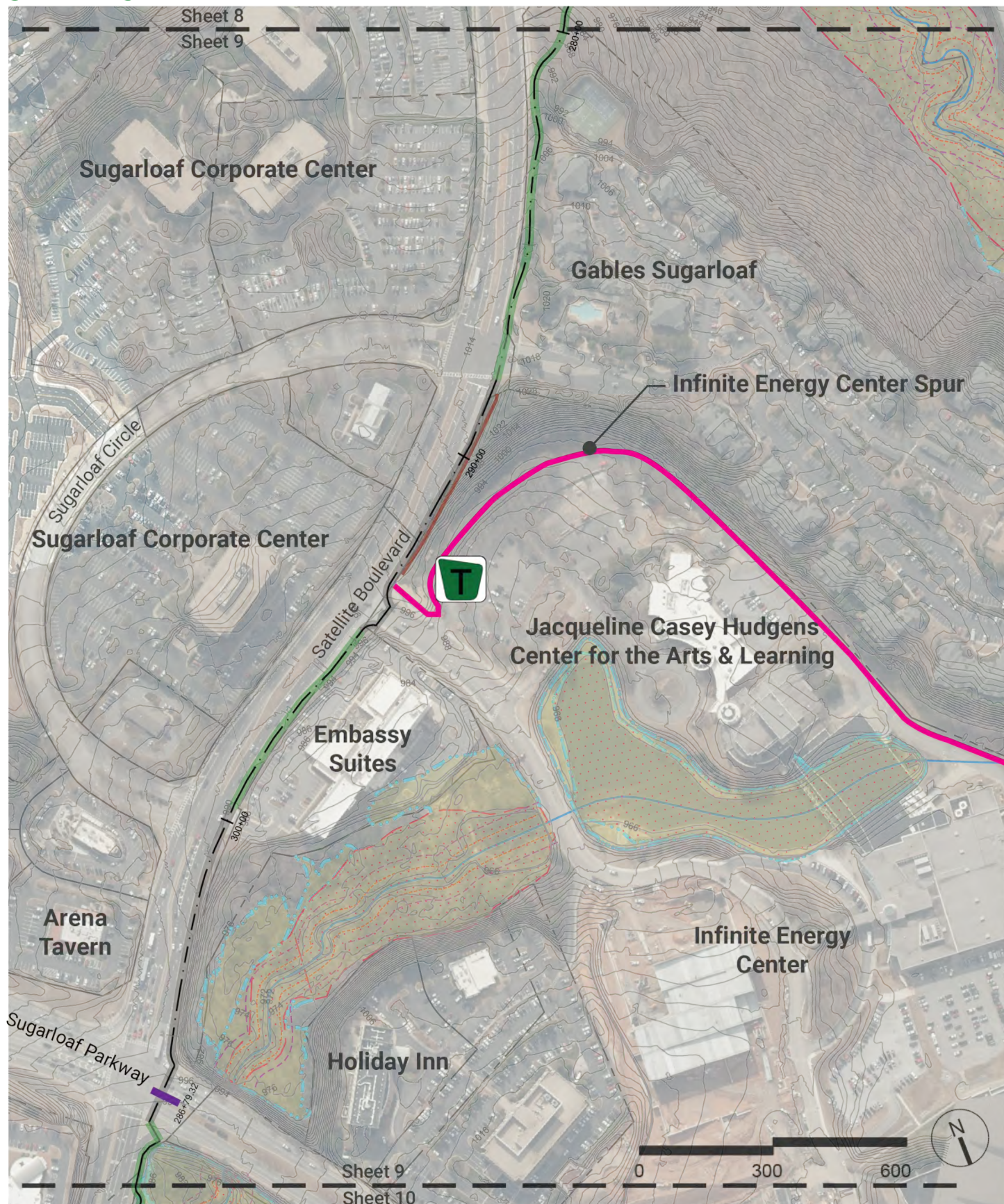
- Segment Termini
- Proposed Boardwalk
- Proposed Retaining Wall
- Proposed Bridge

Key Map

Refer to pg. 74 for trail segment map.







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SEGMENT 3 INCLUDING ALTERNATES 5 AND 6

Segment 3

This segment begins at the intersection of Sugarloaf Parkway and Satellite Boulevard. A side path would continue north up to the signalized intersection that is the entrance to Sugarloaf Center. To avoid guardrail and grading or retaining walls, a boardwalk is proposed to go through a portion of the Georgia Baptist Mission Board property. The trail once again transitions to side path due north to the intersection of Old Peachtree Road and Satellite Boulevard.

Alternate 5

If right-of-way is not obtainable for the preferred segment, this alternate would serve as a continuation of the proposed alignment. The existing sidewalk along Satellite Boulevard will need to be replaced with a side path measuring 10-12 feet wide with a landscape buffer for a distance of 1,530 feet.

Alternate 6

Retaining walls, above-ground utilities, and a narrow corridor at the Old Peachtree Commons shopping center pose a challenge to implement a side path. An alternate would be to turn north near the electrical substation owned by Georgia Transmission Company toward Meadow Church Road and use the power easement north of Brookside Glen to come out to Old Peachtree Road. This section is approximately 3,200 linear feet of trail. The path would vary between off-road trail and side path.

Project Features and Trail Elements

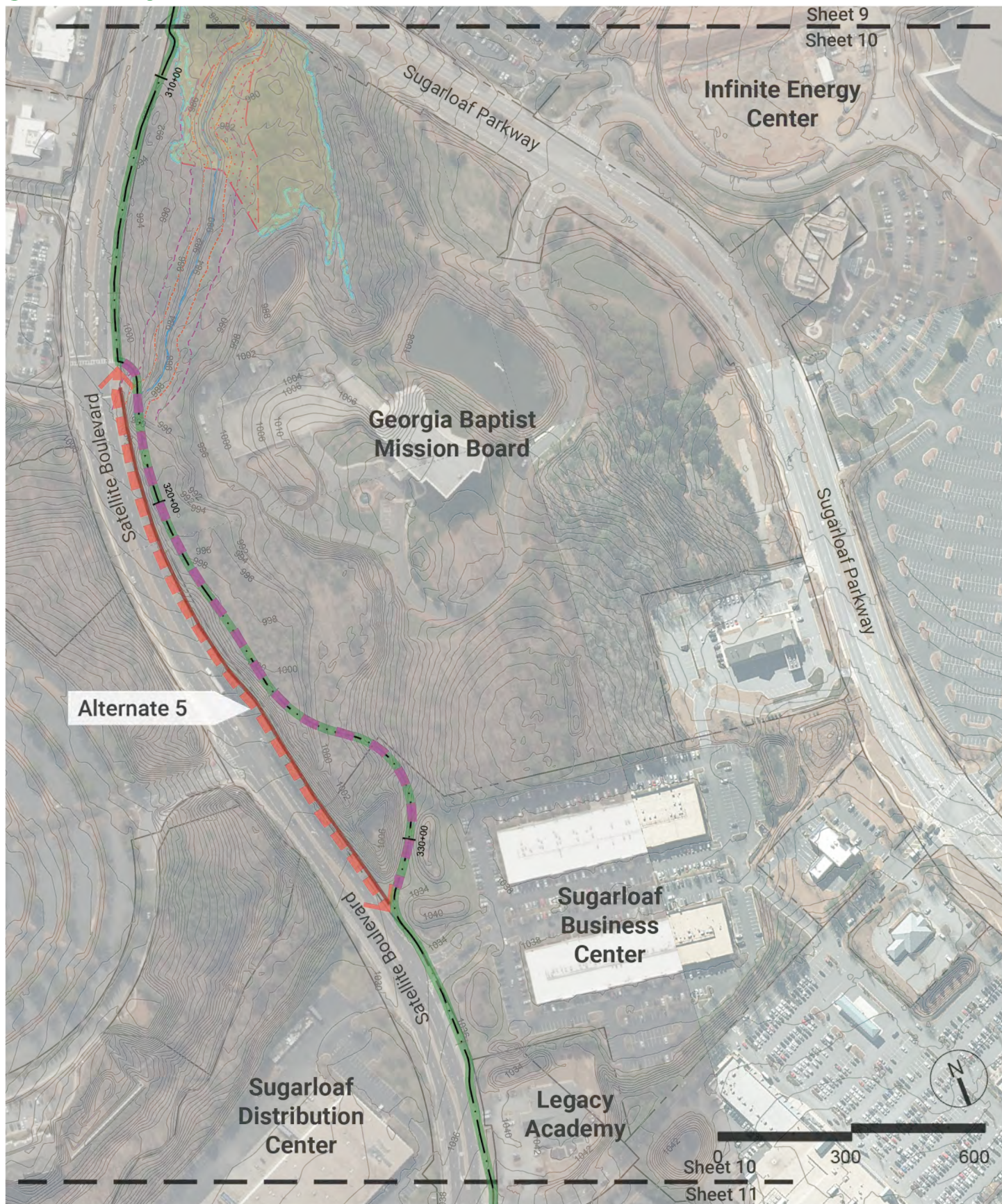
The proposed trail consists of 4,200 linear feet of trail. There is one section of concrete boardwalk that is 12-foot wide and 1,300 linear feet in length. There are no existing crosswalk markings at existing drives, therefore new high-visibility crosswalks are needed at driveway aprons. A trailhead with no parking is proposed at the southern most corner of the Georgia Transmission property.

Easements and Right-of-Way Impacts

Temporary easements of various widths will be required for construction access and grading for the trail corridor. A minimum 20-foot-wide right-of-way along 1,540 linear feet should be acquired for the proposed trail, 300 linear feet for Alternate 5, and 2,500 linear feet for Alternate 6. Six properties are impacted for right-of-way acquisition on the proposed route. Alternate 5 will impact one parcel and Alternate 6 will impact six parcels. The remaining trail is situated within existing County-owned or GDOT right-of-way.

Segment Impact Analysis Summary

There is existing guardrail along many portions of Satellite Boulevard. Where the trail will continue as a side path, the guardrail will need to be set back to allow for proper trail width and landscape buffer. Retaining walls will be required in areas to avoid steep slopes and some above ground utilities will need to be adjusted to grade to provide better horizontal clearance. Only one area of trail is near an environmentally sensitive area. This portion is located at the intersection of Satellite Boulevard and Sugarloaf Parkway. Widening of the trail where a slope is filled should be minimized near the floodplain to avoid permitting and additional floodplain studies and mitigation requirements.



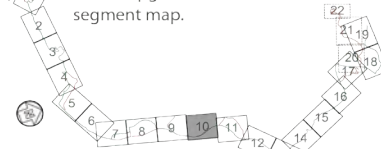
- Legend**
- Parcels
 - Stream
 - - - 25-foot Stream Buffer
 - - - 50-foot Stream Buffer
 - ▨ Floodway
 - ▨ Floodplain
 - Proposed Alignment
 - - - Alternate Alignment

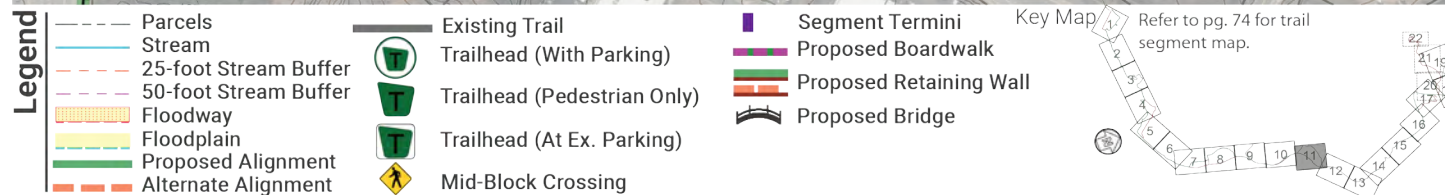
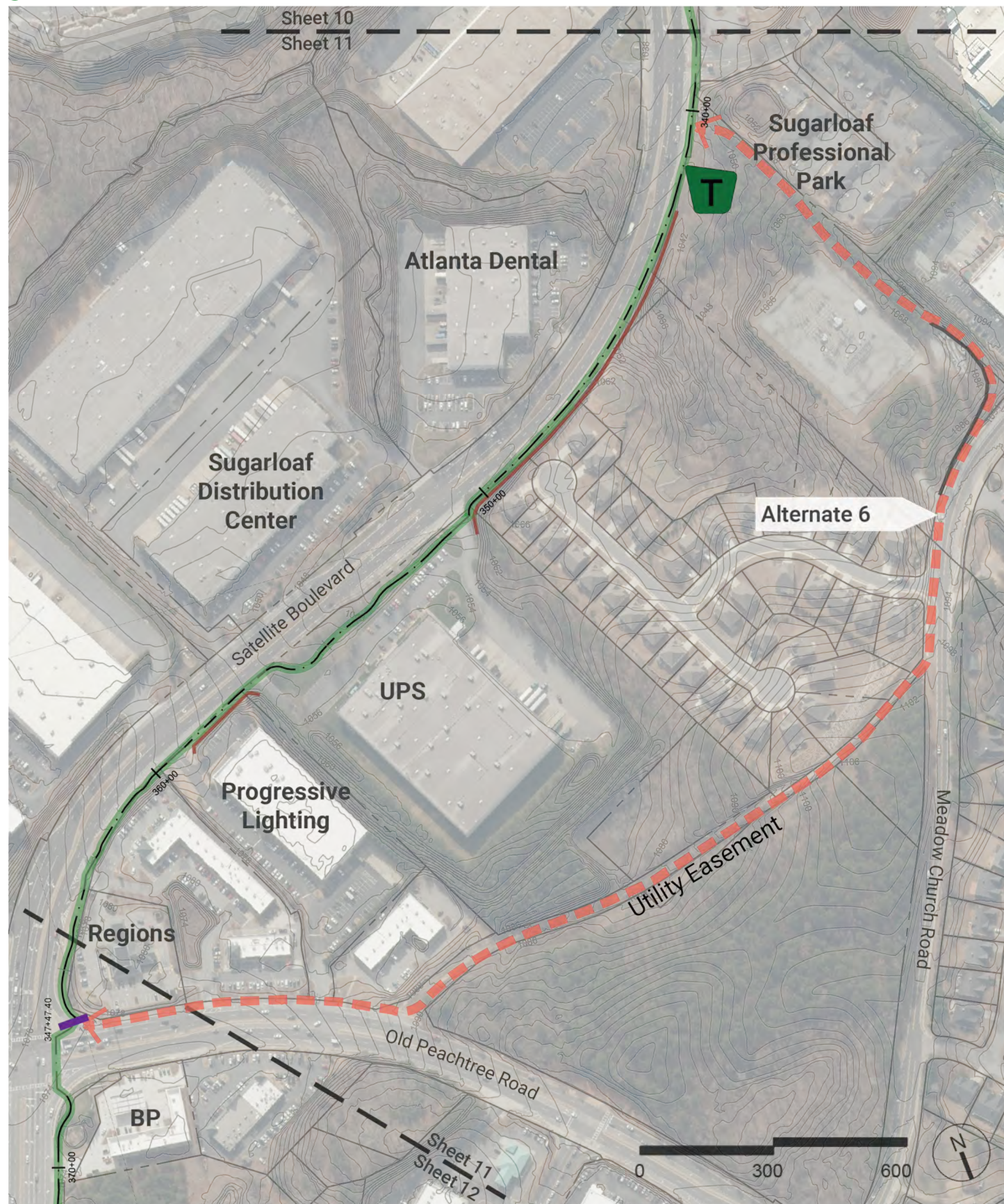
- Existing Trail
- Trailhead (With Parking)
- Trailhead (Pedestrian Only)
- Trailhead (At Ex. Parking)
- Mid-Block Crossing

- Segment Termini
- Proposed Boardwalk
- Proposed Retaining Wall
- Proposed Bridge

Key Map

Refer to pg. 74 for trail segment map.





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SEGMENT 4

Approximately 6,370 linear feet of side path along Satellite Boulevard is existing. The trail pavement varies between asphalt and concrete with an average width of 12 feet. The existing trail ends at Wildwood Road and Satellite Boulevard. The proposed trail would continue up Wildwood Road to a RRFB with signage and marking to enter into Peachtree Ridge Park. There is an opportunity for a trailhead utilizing existing parking within the park near the pavilion and playground. The trail would use the park's existing trail network to continue north and a side path would run alongside Suwanee Creek Road on the approach to Bennett Creek. Approximately 560 feet west of Rising Fawn Trail, another RRFB with signage and marking may be required to cross into a proposed trailhead that serves as a rest area for pedestrians.

Project Features and Trail Elements

The proposed trail consists of approx. 6,700 linear feet of new trail within right-of-way. A trailhead with existing parking is proposed at Peachtree Ridge Park near the playgrounds. This trailhead may have restrooms and a rest area incorporated next to the park pavilions. A second pedestrian trailhead without parking is off Suwanee Creek Road. This trailhead would serve as a rest area with vegetation cleared to be highly visible from the road.

Easements and Right-of-Way Impacts

Temporary easements of various widths will be required for construction access and grading for the trail corridor. A minimum of 20 foot-wide right-of-way along 120 linear feet should be acquired for the proposed trail and a portion of one parcel measuring 50 feet by 50 feet at Suwanee Creek Road for a proposed trailhead. Two parcels are impacted within this segment, not including County property. The remaining trail is situated within existing County-owned or GDOT right-of way.

Segment Impact Analysis Summary

There are two locations along this alignment where RRFBs are needed; one is at Wildwood Road to connect into the park and another at Suwanee Creek Road near Bennett Creek and the proposed trailhead. A traffic study will be required to consider the best location and proper implementation of safe crossings. The proposed trailhead near the Suwanee Creek floodplain is the only environmentally sensitive area along the segment. This area will require grading, which should be limited outside of the floodplain.



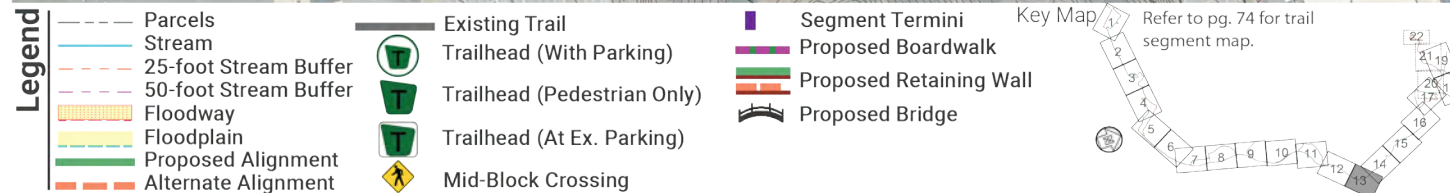
Legend

- Parcels
- Stream
- 25-foot Stream Buffer
- 50-foot Stream Buffer
- Floodway
- Floodplain
- Proposed Alignment
- Alternate Alignment
- Existing Trail
- Trailhead (With Parking)
- Trailhead (Pedestrian Only)
- Trailhead (At Ex. Parking)
- Mid-Block Crossing
- Segment Termini
- Proposed Boardwalk
- Proposed Retaining Wall
- Proposed Bridge

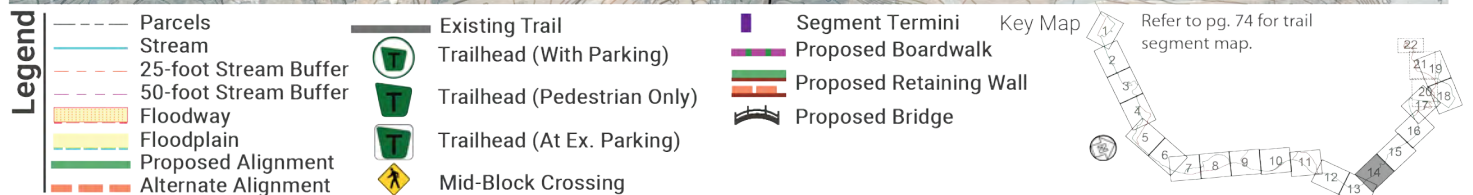
Key Map

Refer to pg. 74 for trail segment map.

SHEET 13



SHEET 14



SHEET 15



Legend

- Parcels
- Stream
- 25-foot Stream Buffer
- 50-foot Stream Buffer
- Floodway
- Floodplain
- Proposed Alignment
- Alternate Alignment
- Existing Trail
- T Trailhead (With Parking)
- T Trailhead (Pedestrian Only)
- T Trailhead (At Ex. Parking)
- ▲ Mid-Block Crossing

- Segment Termini
- Proposed Boardwalk
- Proposed Retaining Wall
- Proposed Bridge

Key Map

Refer to pg. 74 for trail segment map.

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SEGMENT 5 INCLUDING ALTERNATE 7 & 8

Segment 5

This segment begins at the trailhead location described in Segment 4. A proposed 75-foot pedestrian bridge with a width of 12 feet is recommended for installation parallel to the existing vehicular bridge over Bennett Creek. The trail would continue west to Buford Highway, a state route, where a crossing would require implementation of a signalized intersection at Suwanee Creek Road, with pedestrian accommodations for added safety. The route follows northward parallel along the west side of Buford Highway, with this side placement chosen to avoid overhead power lines. Sections of elevated concrete boardwalk and bridges to span Bennett Creek (75 feet and 130 feet) and Suwanee Creek (150 feet) and their related floodplains will be required.

There is a critical additional recommendation to connect to Suwanee Creek Park via a 160-foot pedestrian bridge spanning over Buford Highway. The bridge may serve as a placemaking element for the Suwanee downtown while also providing a safe, separated crossing into the park. This trail bridge will provide a critical link to the Suwanee Creek Trail, and on to the Ivy Creek Greenway, which is expected to reach the northern regions of Gwinnett County.

Continuing north past the bridge connection over Buford Highway, the trail alignment follows adjacent to Suwanee Creek Industrial Park. The trail turns northwest at the northern boundary of the industrial park. The trail will need to transition from an on-grade trail to an elevated trail for approximately 150 linear feet to achieve sufficient clearance (minimum anticipated 24') to cross the Norfolk Southern Railroad via a 125-foot pedestrian bridge.

On the western side of the bridge, the trail will route along the right-of-way of Station Center Boulevard. This connection to Suwanee Station is a desirable access point due to the density of the residential and commercial elements of the community. The trail would follow Station Center Boulevard to an existing signalized intersection at Peachtree Industrial Boulevard. On the west side of Peachtree Industrial, the trail makes the critical connection to the Western Gwinnett Pathway.

Alternate 7

Starting at a trailhead in Suwanee Creek Park, an alternate connection through the wetlands of Suwanee Creek may be an option to avoid crossing Buford Highway. This alternate provides a more pleasant connection to the park although steep slopes on the southwest portion of the park will be a challenge. Additional challenges include an expansive floodplain, floodway, and wetlands that will require hydrological studies, wetland mitigation, and additional permitting. The alternate would consist of a 12-foot-wide concrete boardwalk measuring 1,700 linear feet, a 115-foot pedestrian bridge over Suwanee Creek, and 900 linear feet of a 12-foot-wide off-road trail into the park. Retaining walls and safety railing will be required at the connection into the park.

Alternate 8

Alternate 8 veers west from Buford Hwy at the northern edge of the floodplain of Suwanee Creek at a boundary zone of an industrial park. This trail would follow upslope from the floodplain along the Industrial Park, and then head southwest along the Norfolk Southern right-of-way boundary. The trail would then cross under the large railroad bridge adjacent to Suwanee Creek, continuing due west within the floodplain of Suwanee Creek using

a combination of off-road trails and concrete boardwalk. The trail terminates after passing underneath Peachtree Industrial Boulevard near the Gwinnett County Water Resources station and would connect with a switchback spur to the Western Gwinnett Pathway. A total of 6,000 linear feet of trail and 2,400 linear feet of boardwalk are required to feasibly traverse this area.

Project Features and Trail Elements

A continuation of the trail due west toward Peachtree Industrial Boulevard will require a raised, concrete style boardwalk that parallels Buford Highway to cross the floodplain. This crossing will necessitate bridge abutments within the floodplain and floodway, and areas of raised trail/boardwalk. Multiple bridge crossings of varying lengths are needed to cross Bennett Creek and Suwanee Creek. Crossing Buford Highway is critical to the continuation of the trail. A crossing at the intersection of Buford Highway and Suwanee Creek Road can be addressed with a signalized intersection featuring pedestrian crossing accommodations. Further coordination and approval through the GDOT District 1 office and a traffic study will be required to implement this crossing. There is also an opportunity for the City of Suwanee to develop a grade-separated pedestrian bridge crossing from Segment 5 into Suwanee Creek Park to connect the Loop Trail with Suwanee Creek Greenway. The bridge may serve as a signature city placemaking feature, similar to what the City of Peachtree Corners has recently constructed near their Town Center/ Forum area on Peachtree Parkway. The grades, sight distance requirements, and traffic volume at Buford Highway create a difficult crossing situation if approached as an at-grade crossing.

Easements and Right-of-Way Impacts

Temporary easements of various widths will be required for construction access and grading for the trail corridor. A minimum of 20-foot-wide right-of-way along 1,500 linear feet should be acquired for the proposed trail within this segment. Alternate 7 will require a minimum of 20-foot-wide right-of-way for 1,700 linear feet and Alternate 8 will require right-of-way of equal width for 8,360 linear feet. The proposed alignment impacts two properties. Alternate 8 impacts 10 properties and Alternate 7 impacts one property. The remaining trail is situated within existing County-owned, City of Suwanee-owned, or GDOT right-of way.

Segment Impact Analysis Summary


The off-road trails will traverse within or near the FEMA regulated floodplain. Floodplain studies and coordination with the local floodplain manager will be necessary to determine the potential impact of trail structures such as piers and abutments for bridges within this dynamic natural system. The City of Suwanee will also need to be consulted and coordinated with for potential trail connections to Suwanee Creek Park and adjacent neighborhoods. There will be significant grade differences from the trail to surrounding areas with the design of both preferred and alternate trail alignments, so the design should incorporate thoughtful and compliant safety measures, including signage, proper pedestrian safety railings, and vehicular signage and guardrails where appropriate. The crossing at the Norfolk Southern railroad line will necessitate early and detailed coordination with their property division. GDOT will need to have significant involvement in the design and approval of a crossing over Buford Highway. The County will need to carefully consider safety features such as signage and fences to reduce potential for conflicts with the trail corridor.

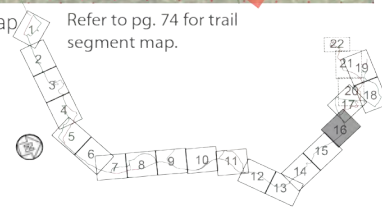
SHEET 16



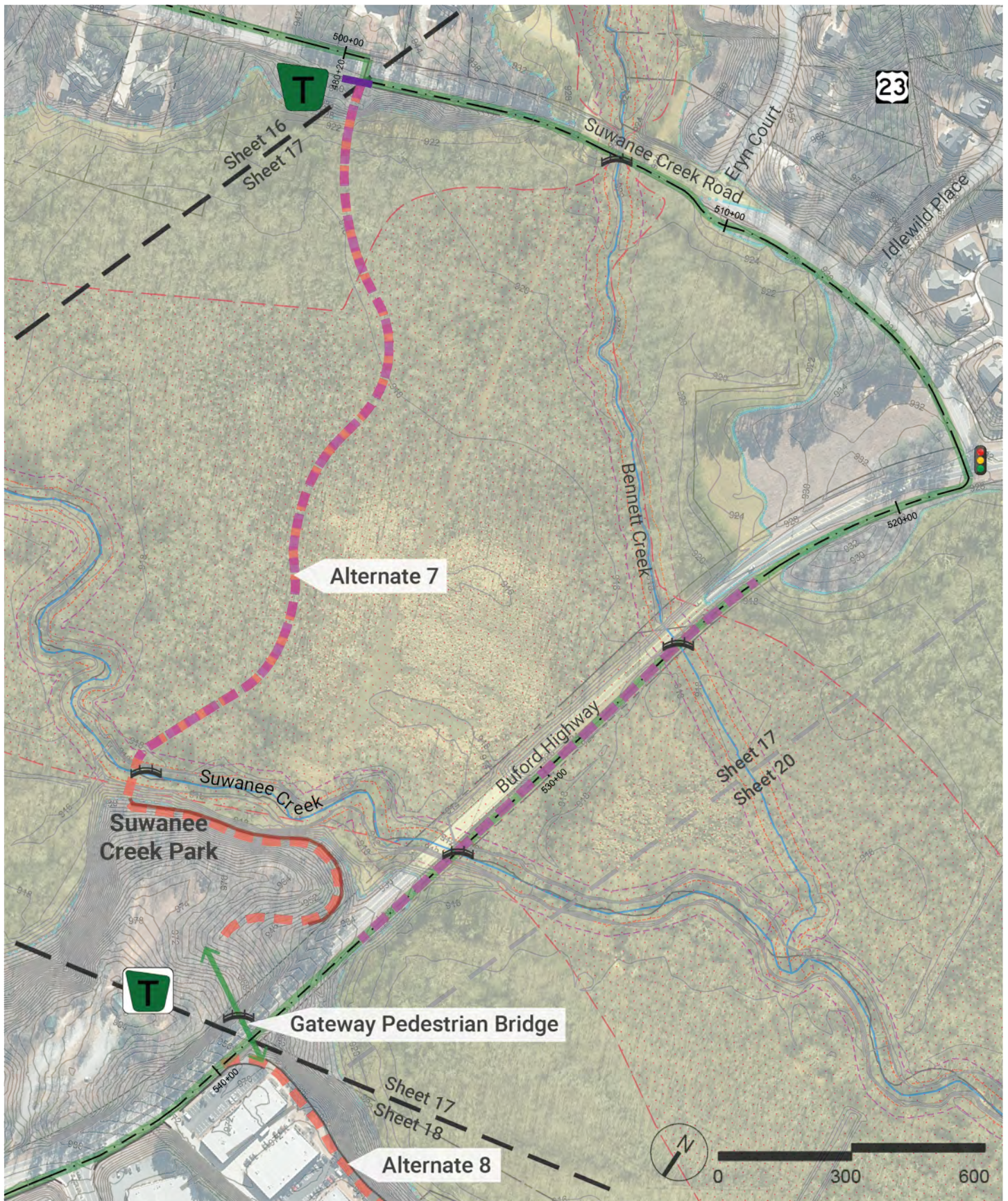
- Legend**

 - Parcels
 - Stream
 - - - 25-foot Stream Buffer
 - - - 50-foot Stream Buffer
 - Floodway
 - Floodplain
 - Proposed Alignment
 - Alternate Alignment
 - Existing Trail
 - Trailhead (With Parking)
 - Trailhead (Pedestrian Only)
 - Trailhead (At Ex. Parking)
 - Mid-Block Crossing
 - Segment Termini
 - Proposed Boardwalk
 - Proposed Retaining Wall
 - Proposed Bridge

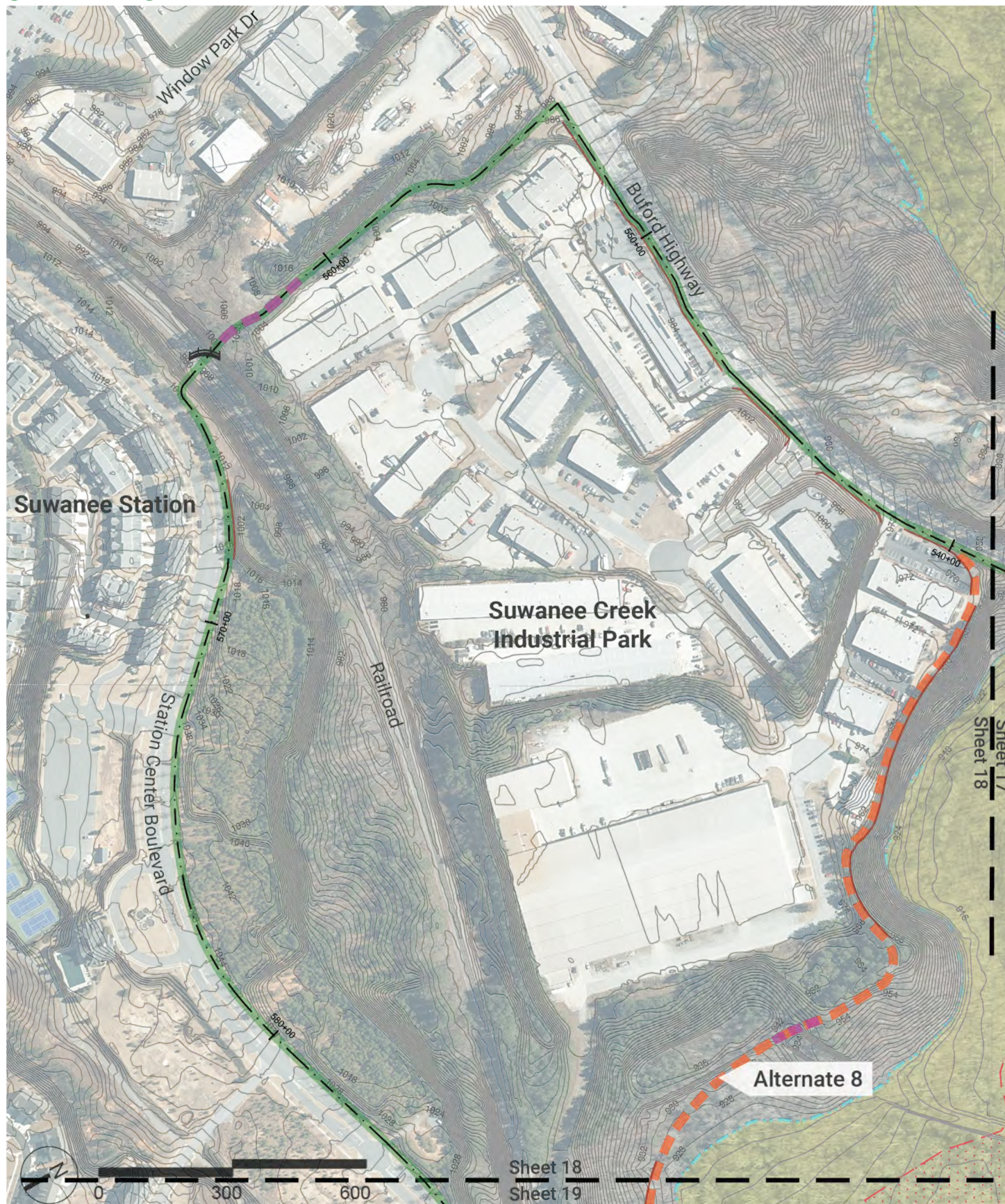
Key Map  Refer to pg. 74 for trail segment map.



SHEET 17



Legend	Parcels	Existing Trail	Segment Termini	Key Map Refer to pg. 74 for trail segment map.
	Stream	Trailhead (With Parking)	Proposed Boardwalk	
	25-foot Stream Buffer	Trailhead (Pedestrian Only)	Proposed Retaining Wall	
	50-foot Stream Buffer	Trailhead (At Ex. Parking)	Proposed Bridge	
	Floodway	Mid-Block Crossing	Signalized Intersection	
Floodplain				
Proposed Alignment				
Alternate Alignment				

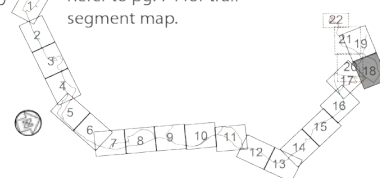


- Legend**
- Parcels
 - Stream
 - - - 25-foot Stream Buffer
 - - - 50-foot Stream Buffer
 - ▨ Floodway
 - ▨ Floodplain
 - Proposed Alignment
 - - - Alternate Alignment
 - Existing Trail
 - Trailhead (With Parking)
 - Trailhead (Pedestrian Only)
 - Trailhead (At Ex. Parking)
 - Mid-Block Crossing

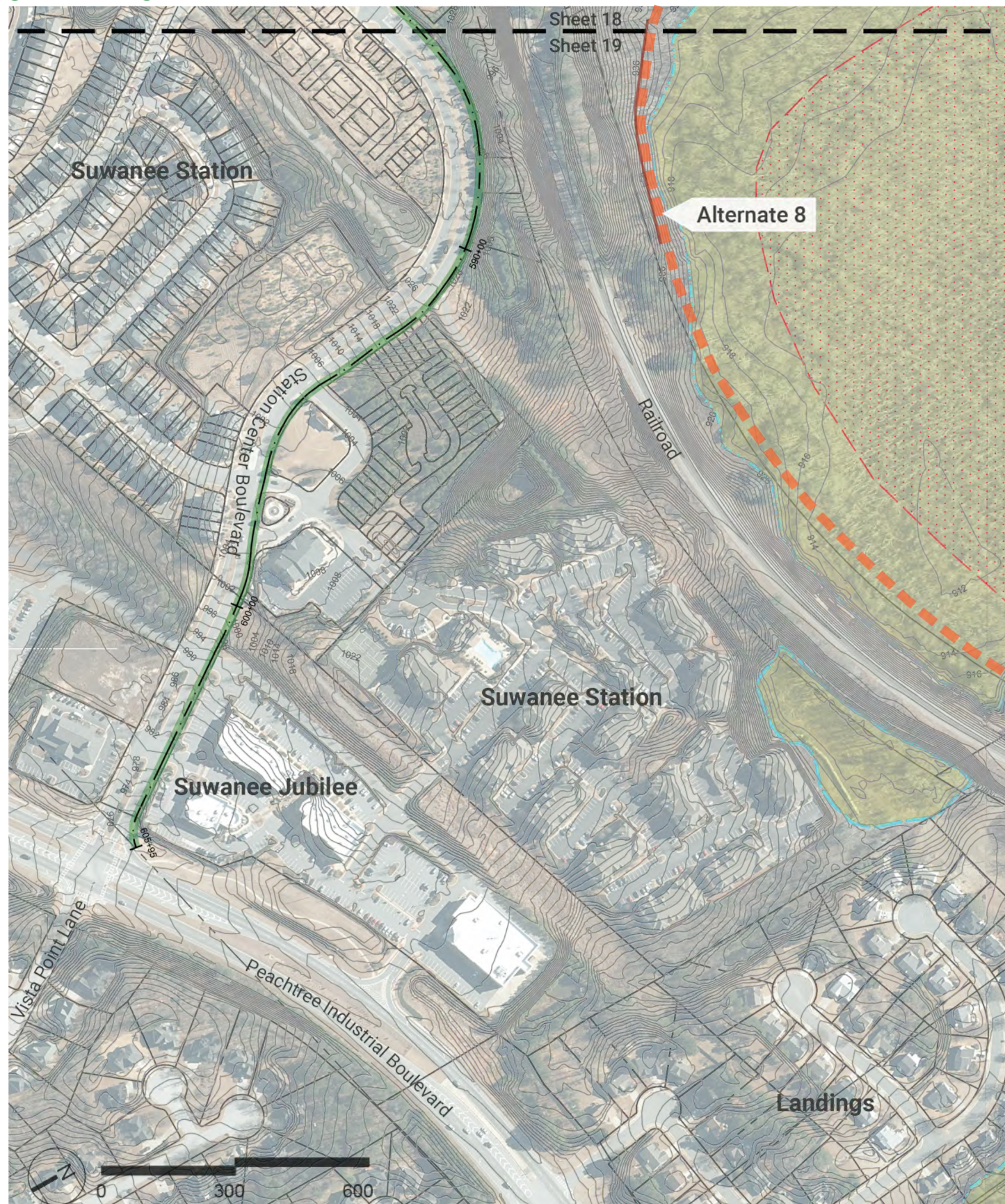
- Segment Termini
- Proposed Boardwalk
- Proposed Retaining Wall
- Proposed Bridge

Key Map

Refer to pg. 74 for trail segment map.



SHEET 19



Legend

- Parcels
- Stream
- 25-foot Stream Buffer
- 50-foot Stream Buffer
- Floodway
- Floodplain
- Proposed Alignment
- Alternate Alignment
- Existing Trail
- T Trailhead (With Parking)
- T Trailhead (Pedestrian Only)
- T Trailhead (At Ex. Parking)
- X Mid-Block Crossing

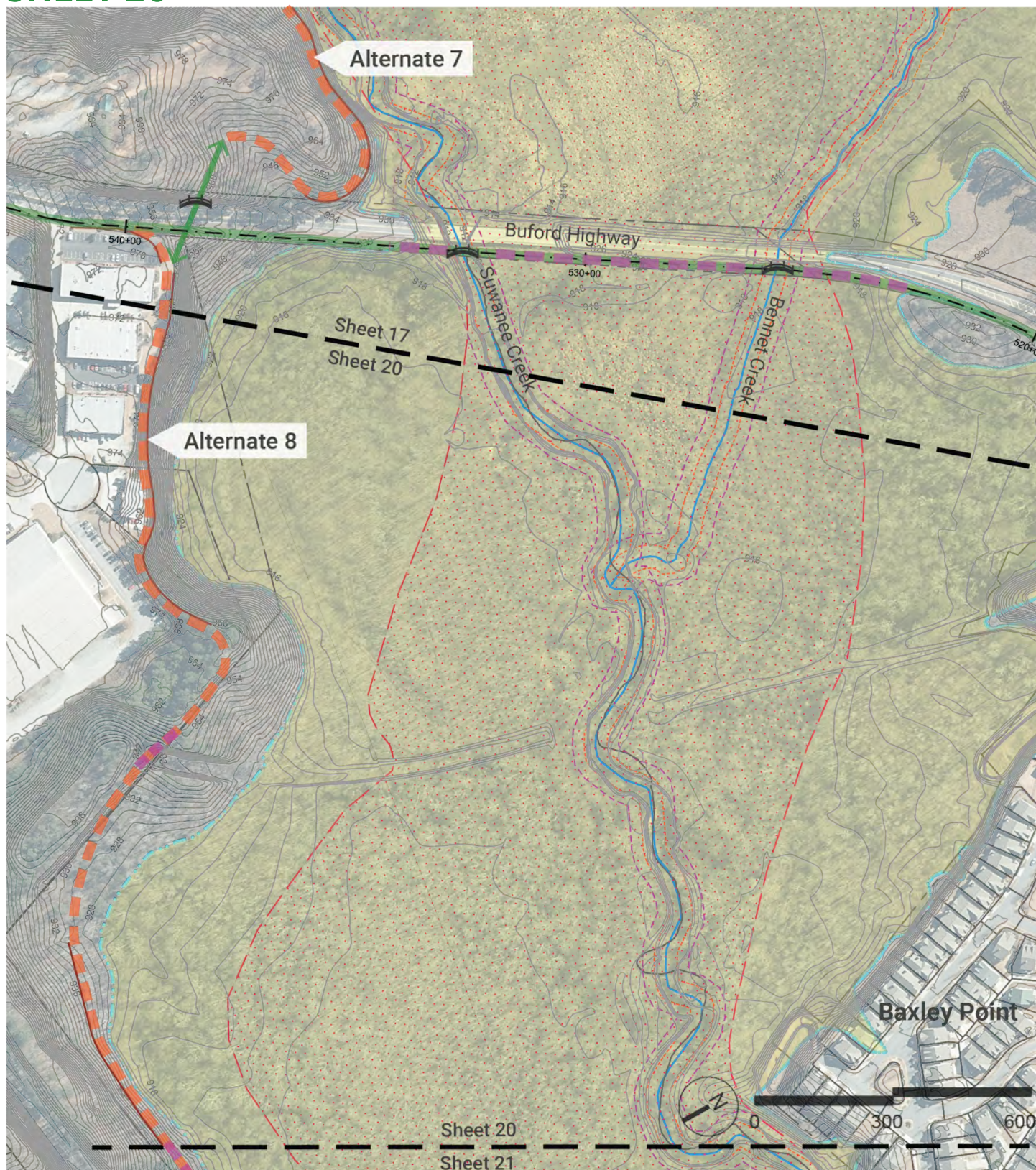
- Segment Termini
- Proposed Boardwalk
- Proposed Retaining Wall
- Proposed Bridge

Key Map

Refer to pg. 74 for trail segment map.

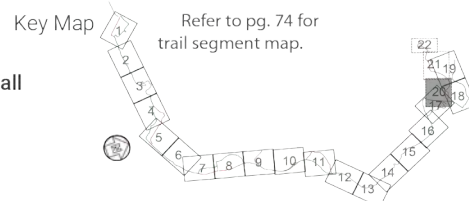
Sheet 18

Sheet 19



The following sheets (20,21, and 22 are enlargements for an alternate path to follow the Suwanee Creek floodplain to the Western Gwinnett Pathway if a connection through Suwanee Station is not feasible.

- | | | | |
|---------------|-----------------------|-----------------------------|-------------------------|
| Legend | Parcels | Existing Trail | Segment Termini |
| | Stream | Trailhead (With Parking) | Proposed Boardwalk |
| | 25-foot Stream Buffer | Trailhead (Pedestrian Only) | Proposed Retaining Wall |
| | 50-foot Stream Buffer | Trailhead (At Ex. Parking) | Proposed Bridge |
| | Floodway | Mid-Block Crossing | |
| | Floodplain | | |
| | Proposed Alignment | | |
| | Alternate Alignment | | |

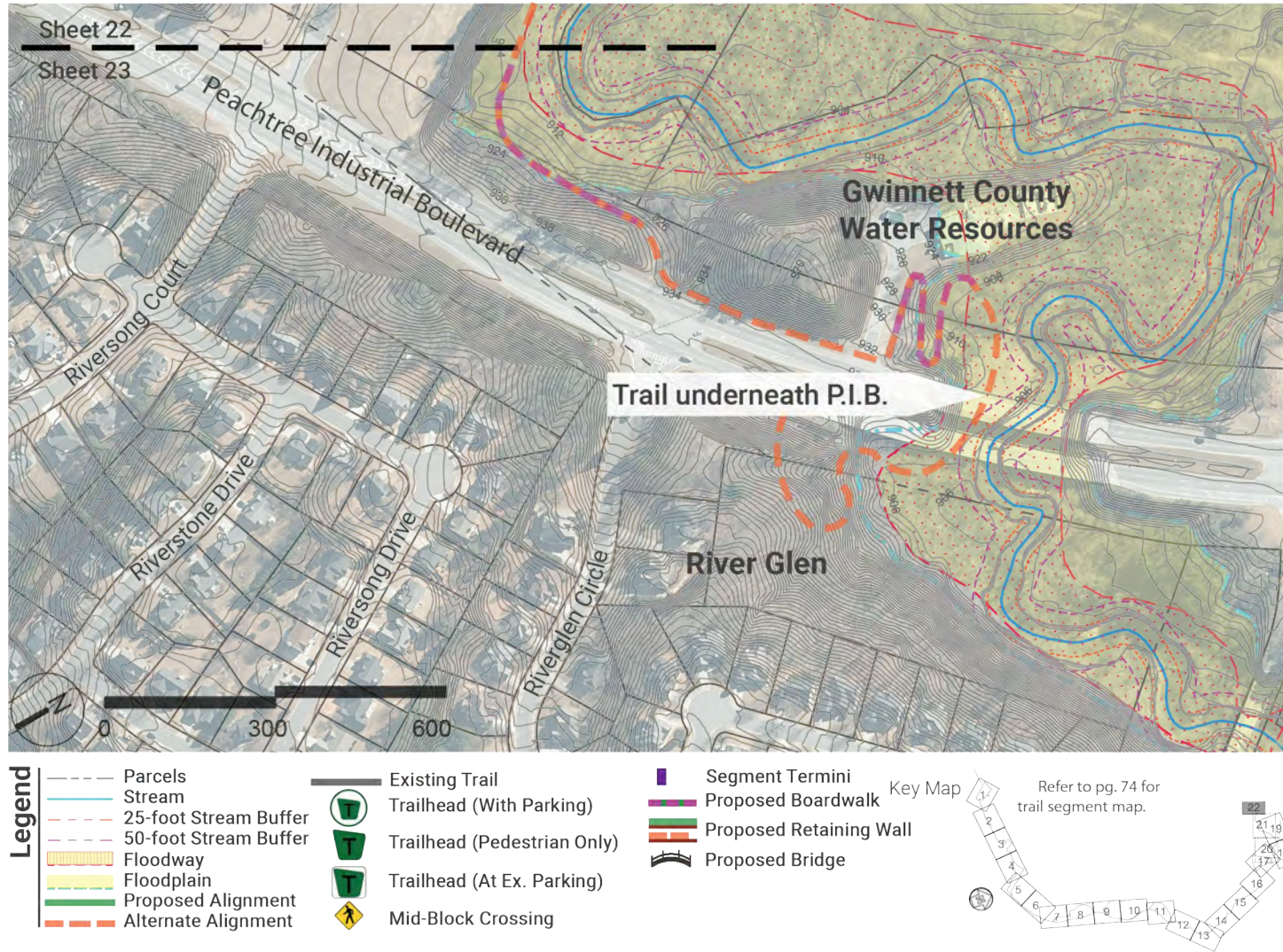


This topographic map depicts the Suwanee Creek area in Georgia. Key features include:

- Water Features:** Suwanee Creek flows through the center-right of the map. A railroad runs parallel to the creek in the upper-middle section.
- Landmarks:** Suwanee Station is located on the left side. Landings are marked along the creek. Symphony at Suwanee Creek is a residential development at the bottom right.
- Infrastructure:** Peachtree Industrial Boulevard runs horizontally across the lower-left. Oak Park Drive is a curved road in the center. Baxley Pine Trace is visible in the upper-right.
- Topography:** Contour lines indicate elevation, with labels such as 912, 914, 916, 918, 920, and 922.
- Map Elements:** A north arrow and a scale bar (0 to 600 feet) are in the bottom-left corner. Sheet numbers 20, 21, and 22 are indicated at the top and bottom edges.

- Legend**

	Parcels		Existing Trail		Segment Termini	Key Map	 Refer to pg. 74 for trail segment map.
	Stream		Trailhead (With Parking)		Proposed Boardwalk		
	25-foot Stream Buffer		Trailhead (Pedestrian Only)		Proposed Retaining Wall		
	50-foot Stream Buffer		Trailhead (At Ex. Parking)		Proposed Bridge		
	Floodway		Mid-Block Crossing		Proposed RR Crossing Underneath		
	Floodplain						
	Proposed Alignment						
	Alternate Alignment						



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TRAIL EXPERIENCES AND FEATURES

Potential trail features showcased in the Gwinnett Countywide Trails Master Plan include visualizations of signalized roadway crossings or grade separated crossings, potential wayfinding signage, and typical attributes for side paths and off-road trails. The trail typologies dictate the use of certain design elements, such as lighting or boardwalks. The visualizations within the Countywide Trails Master Plan provide examples of how future trails should be designed. Segments of the Loop Trail should coordinate with other Signature Trail projects to provide a cohesive appearance.



Figure 48. Rendering of off-road trail from the Gwinnett Countywide Trails Master Plan; image by Kimley-Horn.

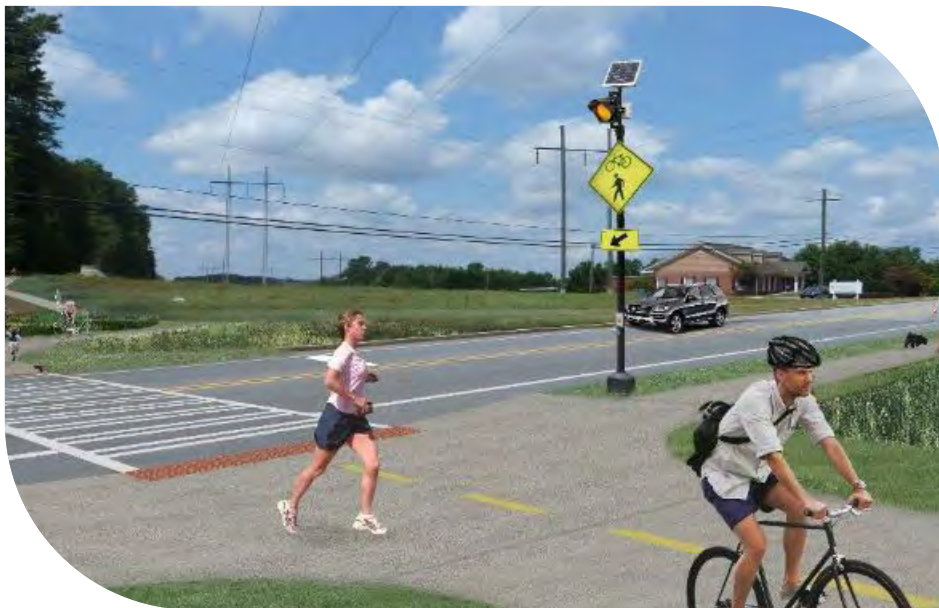


Figure 49. Rendering of trail road crossing from the Gwinnett Countywide Trails Master Plan; image by Kimley-Horn.

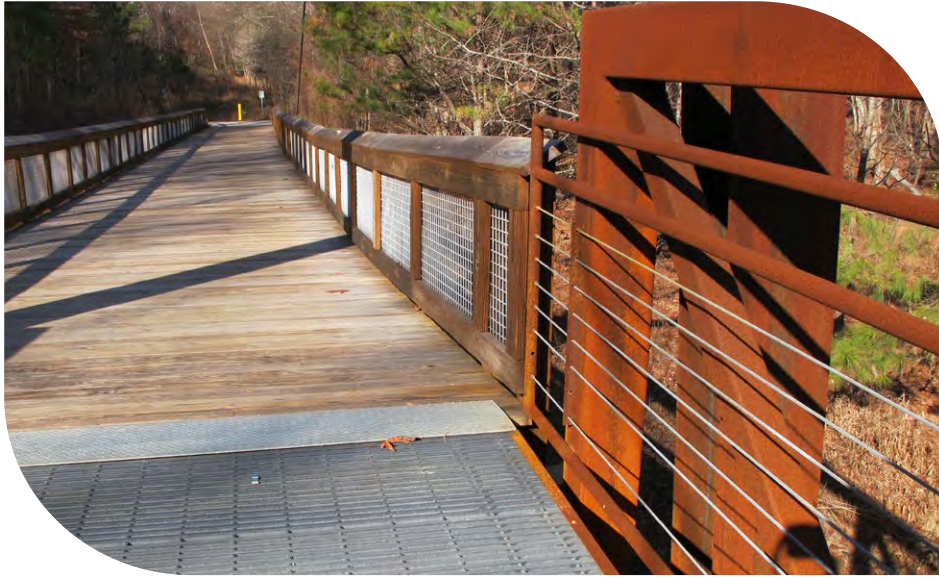


Figure 50. Boardwalk and steel bridge along trail. Ivy Creek Greenway, Gwinnett County, GA.



Figure 51. Pedestrian Hybrid Beacon in Alpharetta, GA.



Figure 52. Elevated concrete boardwalk with pedestrian bridge for grade-separated crossings- North Oconee River Greenway-Athens, GA.

TRAIL EXPERIENCES AND FEATURES

Trailheads may vary to incorporate existing parking or provide new parking areas where possible. Restrooms may be provided at key locations. Some trailheads may serve as rest areas along the path with wayfinding signage and site furniture. Elevated concrete boardwalk and metal bridges are recommended for a longer life span and lower long-term maintenance in places along the trail where the presence of environmentally sensitive areas, floodplain, and floodway dictate a light footprint. Signalized crossings at locations where the trail intersects roadways will typically require pedestrian hybrid beacons in areas of high vehicular and pedestrian traffic. In selected locations with low traffic volumes and speeds, rectangular-rapid flash beacons may be applicable. It is advised that each area of proposed controlled access follows a traffic study process to determine vehicular counts, speeds, and site distances to finalize the most appropriate solution.

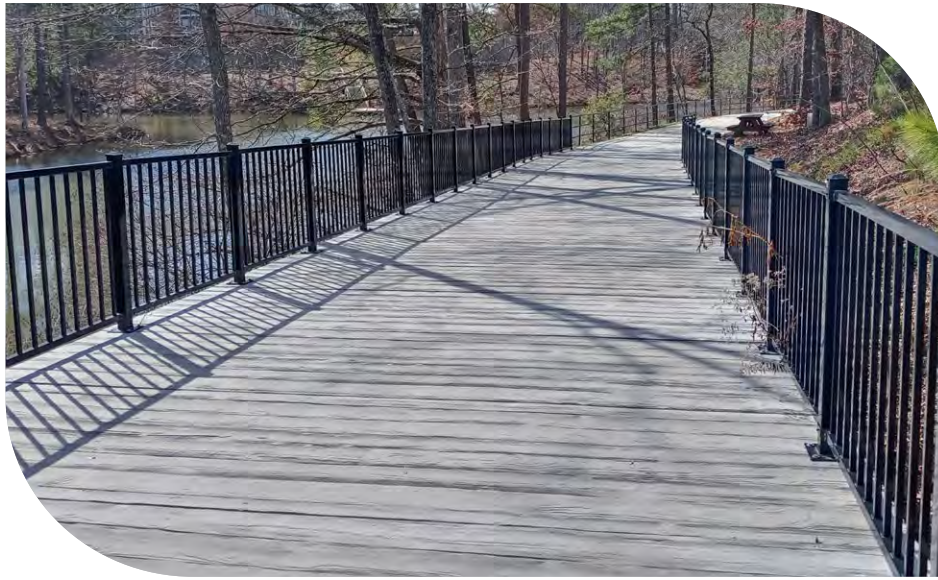


Figure 53. Concrete boardwalk, Peachtree Corners, GA.



Figure 54. Trail rest area. Tanyard Creek Trail, Atlanta, GA.



Figure 55. Rendering of the Loop Trail from the Gwinnett Countywide Trails Master Plan; image by Kimley-Horn.



Figure 56. Rendering of the Upper Suwanee Greenway from the Gwinnett Countywide Trails Master Plan; image by Kimley-Horn.

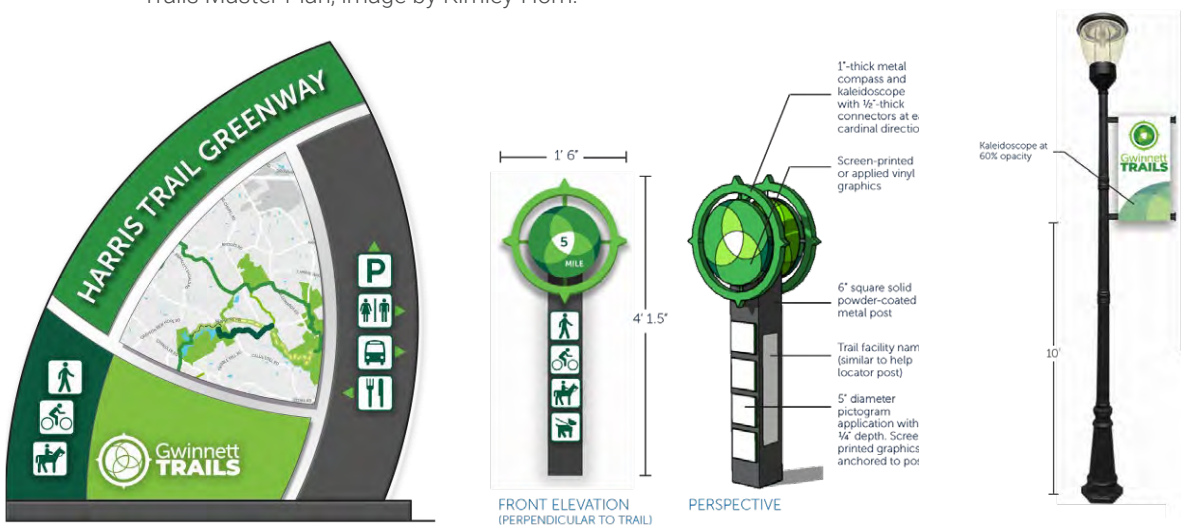


Figure 57. Rendering of Gwinnett Trails wayfinding signage; image by Kimley-Horn.



IMPLEMENTATION PLAN

The Loop Trail is identified as a Signature Trail in the Gwinnett Countywide Trails Master Plan to connect the Western Gwinnett Pathway and Suwanee Creek Greenway. The project can serve as a catalyst for improving bike and pedestrian connectivity between destination points, parks, and events. The trail corridor will improve mobility throughout the project area to parks, jobs, neighborhoods, and activity centers while providing opportunities for a healthier lifestyle.

The 14-mile portion of proposed trail phased implementation with logical termini for each segment. These segments do not need to be built in sequential order, but they should follow an evaluation process that would create the most value for trail users and expand on connections to destinations for a more livable community. Gwinnett County should coordinate efforts to reduce conflicts and ensure the feasibility of the proposed alignment. Funding for segments may also be shared between jurisdictions to expedite the completion of the trail. The timeline for implementing the Loop Trail is contingent on funding sources for final design, permitting, and construction.



PROJECT COORDINATION

The construction of the Loop Trail should be coordinated, at a minimum, between Gwinnett County's Departments of Transportation, Community Services, Water Resources; and municipal governments. These entities should also coordinate to minimize duplicate efforts and remain transparent on development goals in and around the trail alignment. Communicate, build relationships, and work with private property stakeholders and developers to incorporate the trail into existing and new developments.

Numerous sections will require additional right-of-way acquisition or temporary easements for the development of the trail. The department's on call appraisal and acquisition consultant should appraise property values in order to allocate funds for acquisition. Gwinnett County and GDOT standard procedures for speaking with property owners should be followed. Accounting for the timing of communications, preparation of plats, and acquisition should be taken into consideration. Property acquisition will be critical to the success of this linear trail system.

Prior to any trail construction, coordinate plans with government agencies to ensure compliance. There are sections of trail placed near floodplains, floodways, wetlands, and streams. Encroachment and subsequent mitigation for creek crossings and disturbance in environmentally sensitive areas will require additional studies and permitting.

Key agencies for coordination are listed below, but it is not an exhaustive list.

1. United States Army Corps of Engineers
2. Federal Emergency Management Agency
3. Georgia Department of Transportation
4. Georgia Environmental Protection Agency
5. Atlanta Regional Commission
6. Gwinnett County Department of Transportation
7. Gwinnett County Department of Planning and Development
8. Gwinnett County Department of Community Services
9. City Parks and Recreation Department
10. City Community Development Departments
11. Sugarloaf Community Improvement District
12. Gwinnett Place Community Improvement District

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COST ESTIMATE

A high-level programming estimate was developed for the proposed concept for the Loop Trail detailed in this report. The following costs are line items for key sections of the project which include right-of-way costs, utility relocation, and construction costs. The costs represent 2021 numbers calculated using GDOT's standard templates. Actual costs may vary based on a number of factors, including final design, site conditions, easements, and construction

PROJECT COST

PROPOSED ALIGNMENT- SEGMENTS 1-5

CONSTRUCTION SUBTOTAL	\$24,398,619
ROW ACQUISITION	\$3,321,000
UTILITIES	\$2,254,200
PROJECT TOTALS:	\$29,973,819

Average cost per mile= \$3,440,000

PROJECT COST

ALTERNATE SEGMENTS 1-7

CONSTRUCTION SUBTOTAL	\$17,264,621
ROW ACQUISITION	\$2,883,000
UTILITIES	\$916,502
PROJECT TOTALS:	\$21,064,123

Average cost per mile= \$4,036,000

Note:

1. See Appendix B for more detailed information per segment and cost estimate notes.
2. The selection of alternate routes may affect the overall project total.

INFLATION COSTS FOR PROPOSED ALIGNMENT 3.5% INCREASE PER YEAR

2022.....	\$31,022,903
2023.....	\$32,108,705
2024.....	\$33,232,509
2025.....	\$34,395,646
2026.....	\$35,599,495

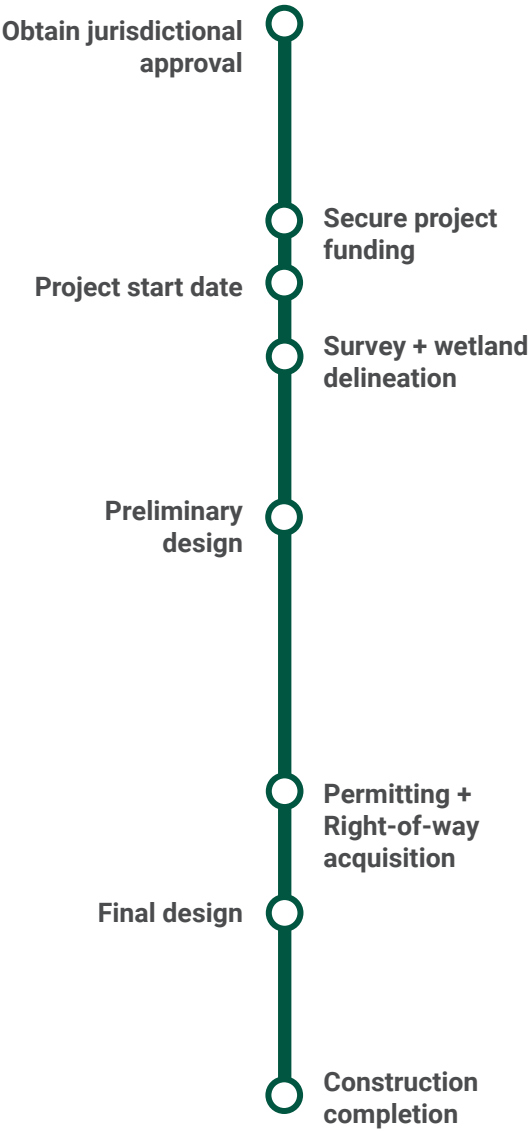
FUNDING

Trail network implementation from land acquisition through design and construction will require many funding sources. Special Purpose Local Option Sales Tax (SPLOST) is often used to fund future trails, but additional sources through federal funding, such as the Surface Transportation Block Grant Program (STBGP) and ARC’s LCI grant program allow funding through partnerships with cities and CIDs. Beyond municipal funds and CID funds, developers, non-profits, and other community partnerships may be able to sponsor certain portions of the Loop Trail to foster connectivity and vibrancy. County funding will largely depend on future SPLOST approval. There is also the potential for additional federal funding programs due to the new administration as well as other initiatives that may be launched in 2021.

NEXT STEPS

This next steps show the general process for implementing the Loop Trail. Before a project start date can be determined, project funding will need to be secured. Project completion will largely depend on phasing of the project and final design of the trail.

SEQUENCE OF NEXT STEPS





APPENDICES

- **APPENDIX A: Environmental Report**
- **APPENDIX B: Cost Estimate Summary**
- **APPENDIX C: List of Utilities**
- **APPENDIX D: List of Figures**
- **APPENDIX E: Public Meeting Minutes**



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Appendix A: Environmental Report

Note: Modifications to the proposed trail route within Segment 5 and an additional potential trail route Alternate 8 were done after the completion of the Environmental Screening Report from December 11, 2020. The Loop Trail was modified after the final Core Team meeting. Gwinnett County representatives suggested terminating the trail at the intersection of Peachtree Industrial Boulevard and Station Center Boulevard. The approximate one mile corridor that deviates from the original screening report should be investigated during preliminary design phase to screen for potential environmental resources and constraints.

December 11, 2020

Andrea Greco
Senior Project Manager
Community Development – Landscape Architecture
Pond and Company

**Subject: Environmental Screening Report [Revised]
The Loop Trail
Gwinnett County, Georgia**

This preliminary environmental screening report was completed to identify potential environmental design constraints along the approximately 10-mile proposed expansion to the Loop Trail located in Gwinnett County, Duluth, Georgia (**Figure 1**). A review of pertinent geographic information system (GIS) data was completed to identify potential aquatic resources and protected species habitat that may be present within the immediate area of the proposed project route.

A 200-foot screening corridor was established around the proposed route and potential route alternatives dated December 7, 2020 to evaluate environmental resources. This 200-foot screening corridor was then analyzed for the potential presence of Waters of the U.S. (WOTUS), protected species habitat, cultural resources, and environmentally sensitive areas. Sources of these data included but were not limited to the:

- United State Geological Survey (USGS) National Hydrography Dataset (NHD)
- USGS Topographic Quadrangles
- United States Fish and Wildlife Service (USFWS) National Wetland Inventory (NWI)
- USFWS Information for Planning and Consultation (IPaC)
- Georgia's Natural, Archeological, and Historical Resources GIS (GNAHRGIS)
- National Register of Historic Places (NRHP)
- United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Soil Survey
- Federal Emergency Management Agency (FEMA) National Flood Hazard Layer (NFHL)

Land Use and Land Cover

The proposed Loop Trail corridor begins south of Shorty Howell Park along Hill Drive Northwest and then travels northeast towards the termination of its route adjacent to Peachtree Industrial Boulevard near Riverglen Circle Northwest. The proposed trail route, and surrounding area, consists of heavily developed residential, commercial, and industrial land use, most of which is along existing roadside right-of-way (ROW). Portions of the proposed route deviate from the roadside ROW through undeveloped, forested parcels adjacent to park property, water resources, and to connect between adjacent roadways. This

portion of the proposed Loop Trail will connect Shorty Howell Park, McDaniel Farm Park, the Georgia Trail at Sugarloaf, Peachtree Ridge Park, and Suwanee Creek Park (**Figure 2-5**).

Environmental Liabilities

A review of potential environmentally sensitive areas identified five (5) gasoline filling stations within the 200-foot screening corridor. Two (2) of these filling stations are located at the southern extent of the proposed project screening corridor at the intersection of Hill Drive Northwest and Pleasant Hill Road and at the intersection of Old Norcross Road and Davenport Road Northwest. The remaining three (3) filling stations are located at the intersections of Davenport Road Northwest and Old Norcross Road, Boggs Road Northwest and Satellite Boulevard, and Old Peachtree Road Northwest and Satellite Boulevard.

A review of the US Environmental Protection Agency (EPA) NEPAAssist portal identified one hundred and seven (107) EPA facilities within 0.25 miles of the 200-foot screening corridor. EPA facilities include Resource Conservation and Recovery Act (RCRA) hazardous waste, Integrated Compliance Information System (ICIS) air pollution, National Pollutant Discharge Elimination System (NPDES), Toxic Release Inventory (TRI), and Toxic Substances Control Act (TSCA) sites. This review also revealed a lack of brownfield and/or superfund sites within 0.25 miles of the 200-foot screening corridor. EPA facilities within the 200-foot screening corridor are provided in **Table 1** below.

Table 1. Environmental Liabilities Summary

EPA Facility Type	EPA Facility Name	Address
Hazardous Waste (RCRA)	Klockner Namasco Corp.	3775 Industrial Court, Suwanee, GA
Air Pollution (ICIS)	Klockner Namasco Corp.	3775 Industrial Court, Suwanee, GA
Water Discharge (NPDES)	Suwanee Creek Road Tract	Suwanee Creek Road, GA
Water Discharge (NPDES)	Peachtree Ridge Park – Football Field Conversion	3170 Suwanee Creek Road Northwest, Suwanee, GA
Hazardous Waste (RCRA)	Home Depot #1754	1480 Satellite Boulevard, Suwanee, GA
Water Discharge (NPDES)	Home Depot #1754	1480 Satellite Boulevard, Suwanee, GA
Water Discharge (NPDES)	UPS Supply Chain Solutions – Gadth	1645 Satellite Boulevard, Duluth, GA
Hazardous Waste (RCRA)	Svedala	1610 Satellite Boulevard Suite D, Duluth, GA
Hazardous Waste (RCRA)	Bionew USA Corp.	1630 Satellite Boulevard Suite 560, Duluth, GA
Water Discharge (NPDES)	The Highlands at Sugarloaf	1796 Satellite Boulevard, Duluth, GA
Hazardous Waste (RCRA)	Boeing North America	1800 Satellite Boulevard, Duluth, GA
Toxic Releases (TRI)	Boeing North America	1800 Satellite Boulevard, Duluth, GA
Air Pollution (ICIS)	Boeing North America	1800 Satellite Boulevard, Duluth, GA
Water Discharge (NPDES)	Courtyard by Marriott at Sugarloaf Centre	1948 Satellite Boulevard, Duluth, GA
Water Discharge (NPDES)	M-1051-01 Sugarloaf Parkway	Infinite Center Drive to Interstate 85. Sugarloaf Parkway / Satellite Boulevard, Duluth, GA
Water Discharge (NPDES)	Embassy Suites Sugarloaf	2029 Satellite Boulevard, Duluth, GA
Water Discharge (NPDES)	Barnes MHP	2180 Satellite Boulevard Suite 400, Duluth, GA
Hazardous Waste (RCRA)	Chevron Station #200211	2120 Highway 120, Duluth, GA

EPA Facility Type	EPA Facility Name	Address
Hazardous Waste (RCRA)	BP Facility #70495	2110 Duluth Highway, Duluth, GA
Hazardous Waste (RCRA)	BP Oil Co.	2080 Duluth Highway, Duluth, GA
Air Pollution	-	2397 Satellite Boulevard, Duluth, GA
Air Pollution (ICIS)	Rockwell Collins SCS	2450 Satellite Boulevard, Duluth, GA
Toxic Substances (TSCA)	Fuji Photo Film USA Inc.	2540 Satellite Boulevard, Duluth, GA
Hazardous Waste (RCRA)	Centimark	2471 Satellite Boulevard, Duluth, GA
Hazardous Waste (RCRA)	Fuji Photo Film USA Inc.	2450 Satellite Boulevard, Duluth, GA
Hazardous Waste (RCRA)	Home Depot #HD1760	2560 Satellite Boulevard, Duluth, GA
Water Discharge (NPDES)	QuickTrip #706	2571 Satellite Boulevard, Duluth, GA
Air Pollution (ICIS)	AT&T Global Information	2651 Satellite Boulevard, Duluth, GA
Air Pollution (ICIS)	NCR Retail Products	2651 Satellite Boulevard, Duluth, GA
Hazardous Waste (RCRA)	Solelectron	2651 Satellite Boulevard, Duluth, GA
Water Discharge (NPDES)	Sweetwater Creek	2789 Satellite Boulevard, Duluth, GA
Water Discharge (NPDES)	TBA Auto Sales	2920 Satellite Boulevard, Duluth, GA
Air Pollution (ICIS)	Expancel Inc.	2150-H Northmont Parkway, Duluth, GA
Air Pollution (ICIS)	Sports & Imports Collision	3400 McDaniel Road, Duluth, GA
Hazardous Waste (RCRA)	Sports & Imports Collision	3400 McDaniel Road, Duluth, GA
Water Discharge (NPDES)	Hennessy Lexus Parking Expansion	3390 McDaniel Road, Duluth, GA

Water Resources

A preliminary review of USGS and USFWS data resulted in the identification of twenty-two (22) NHD stream crossings and twenty-six (26) NWI resource crossings. The total length of NHD streams within the 200-foot screening corridor is approximately 17,600 linear feet (LF) and the total area of NWI resources is approximately 42 acres. Please refer to **Figures 3-4** for maps displaying these features. A full stream and wetland delineation along the length of the final project corridor would be necessary to identify all WOTUS prior to submitting permitting applications to local, state, and federal agencies.

Historic Resources

A desktop screening was conducted to evaluate the presence of NRHP eligible historic sites within the 200-foot screening corridor. A review of the GNAHRGIS and NRHP website indicated no presence of NRHP eligible historic sites within 0.5 miles of the proposed project route.

Threatened and Endangered Species

A review of the USFWS IPaC resulted in the identification of two (2) federally protected species known to occur in Gwinnett County, Georgia. The species are described in **Table 2** below. A habitat survey along the length of the final project corridor would be necessary to confirm absence of suitable habitat or threatened and endangered species, during the appropriate survey season.

Table 2. Federal Threatened and Endangered Species Summary

Common Name	Scientific Name	Federal Status	Habitat Requirements	Potential Presence within Project Area
Flora				
little amphianthus	<i>Amphianthus pusillus</i>	T	Shallow, flat-bottomed, vernal pools that form in depressions on granite outcrops in the southeastern Piedmont	Suitable habitat is not anticipated within the screening corridor.
black spored quillwort	<i>Isoetes melanospora</i>	E	Shallow, flat-bottomed, vernal pools that form in depressions on granite outcrops in the southeastern Piedmont	Suitable habitat is not anticipated within the screening corridor.

E – Endangered, T – Threatened

Permit Considerations

- **National Environmental Policy Act (NEPA):** Projects are required to comply with NEPA when federal funds are utilized for any portion of a project (planning, design, construction, etc.). If Gwinnett County plans to obtain Georgia Department of Transportation (GDOT) funding, it should be assumed that NEPA compliance will be required and the plan development process (PDP) will be necessary. The applicability of NEPA for the proposed project would be determined based on full project implementation funding.
- **Georgia Environmental Policy Act (GEPA):** In accordance with the Official Code of Georgia (OCGA) Article I, Chapter 16, Title 12, projects undertaken by a department, municipality, county, or authority to construct or improve a public road and having a cost that does not exceed \$100-million-dollars shall not trigger GEPA requirements. Such projects shall still include typical evaluations of environmental impact. The applicability of GEPA for the proposed project would be determined based on full project implementation funding.
- **Section 404 of the Clean Water Act (CWA):** Due to the presence of jurisdictional waters on site, a 404 CWA permit may be required if land disturbing activity results in impacts to WOTUS. The need for permit coverage would be determined based on the field delineation and final project design.
- **National Pollutant Discharge Elimination System (NPDES):** If the proposed construction activities result in over one (1) acre of land disturbance, a Notice of Intent (NOI) for coverage under the appropriate Georgia NPDES Construction Stormwater General Permit would be required. The need for permit coverage would be determined based on final project design.
- **FEMA Floodplain Requirements:** Per the FEMA NFHL, the screening corridor does contain FEMA Special Flood Hazard Areas (SFHA, **Figure 6**). The need for permit coverage would be determined based on final project design.
- **State Buffer Variance Requirements:** State buffers are located within the project area. A buffer variance with the Georgia Environmental Protection Division (GA EPD) may be required for disturbance inside the 25-foot State Buffer. The need for permit coverage would be determined based on the field delineation and final project design.
- **County Buffer Variance Requirements:** Gwinnett County regulates stream buffers and impervious setbacks for stream resources within their jurisdiction. All land development activity must maintain a 50-foot undisturbed buffer measured from the top of the stream bank (in addition to the land forming the stream bank). An additional 25-foot impervious setback must be

maintained past the 50-foot undisturbed buffer (County Code 500-10.4). Depending upon final project design and the field delineation, development within County regulated buffers may require a buffer variance application and approval.

Conclusions

This report should be utilized to assist with evaluating environmental permitting constraints for the proposed project and to assist with avoidance and minimization of impacts to environmental resources. If you have any questions or require additional information, please contact me at 470.678.8899 or Darra@Pondco.com.

Sincerely,



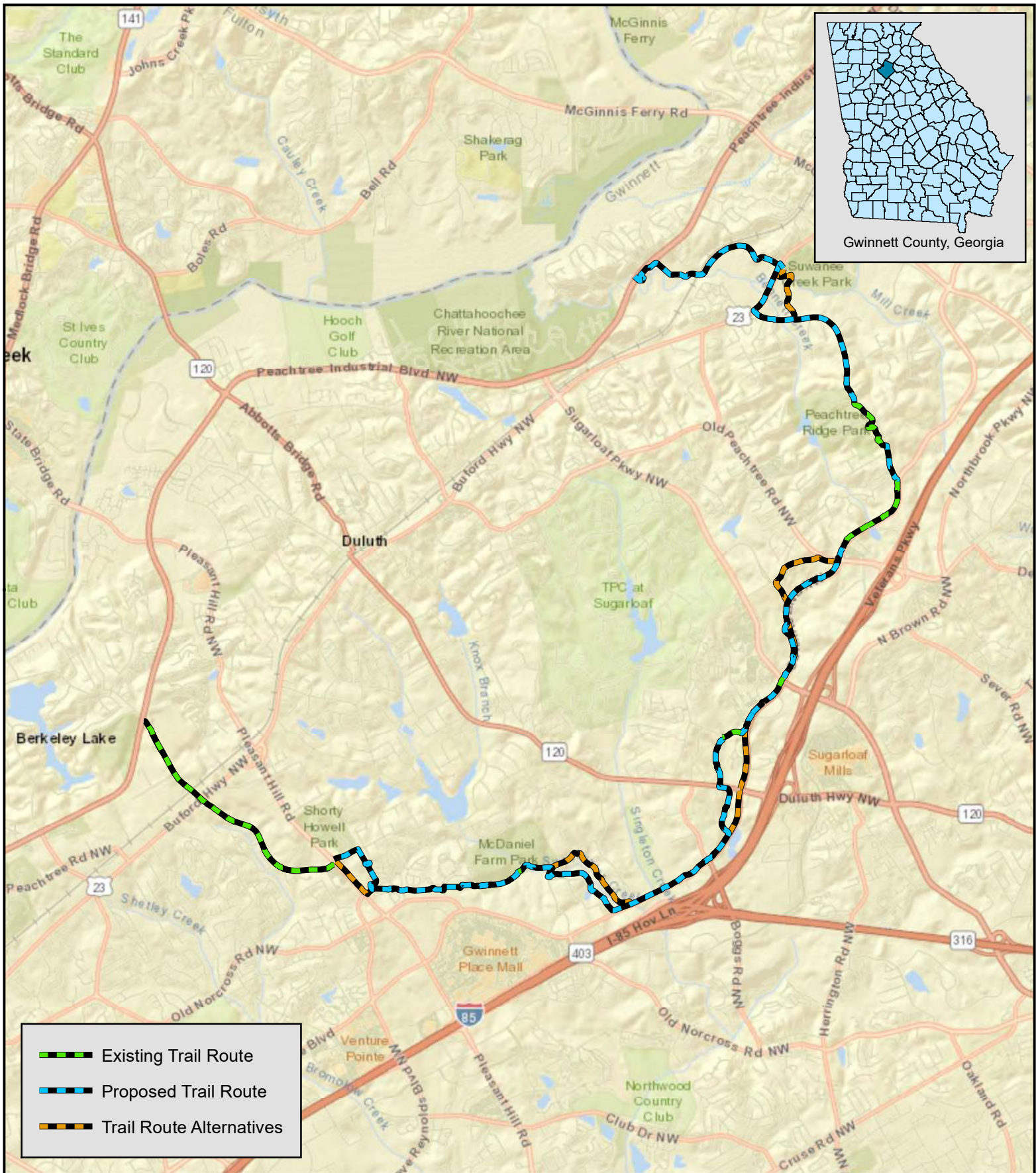
Alex Darr
Environmental Scientist



Flynt Barksdale, PWS
Project Manager

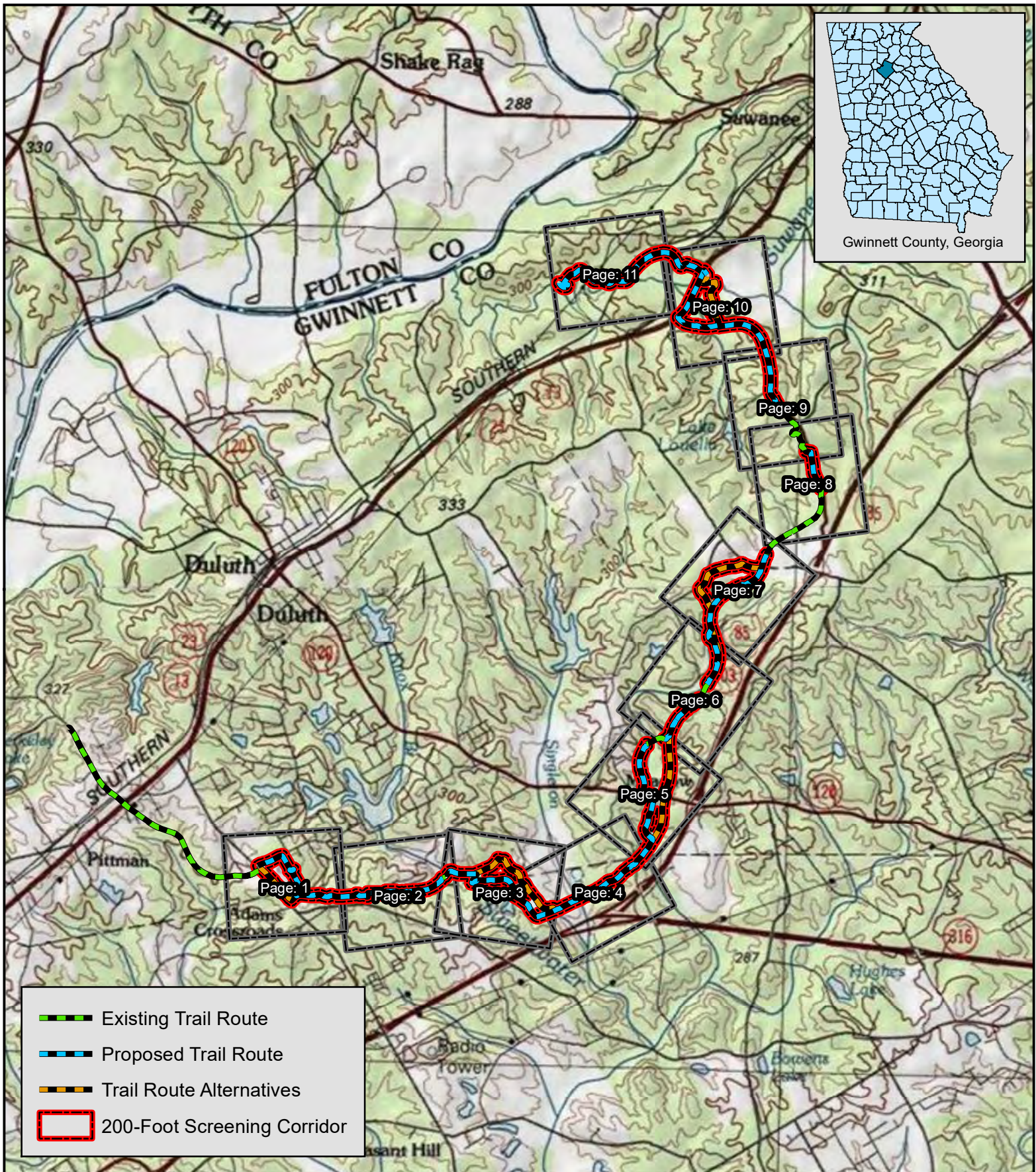
Attachments: Attachment A – Figures
Attachment B – Photographic Log
Attachment C – USFWS IPaC Report

Attachment A – Figures



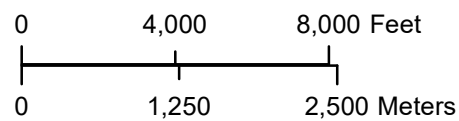
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Figure 1
Project Location Map

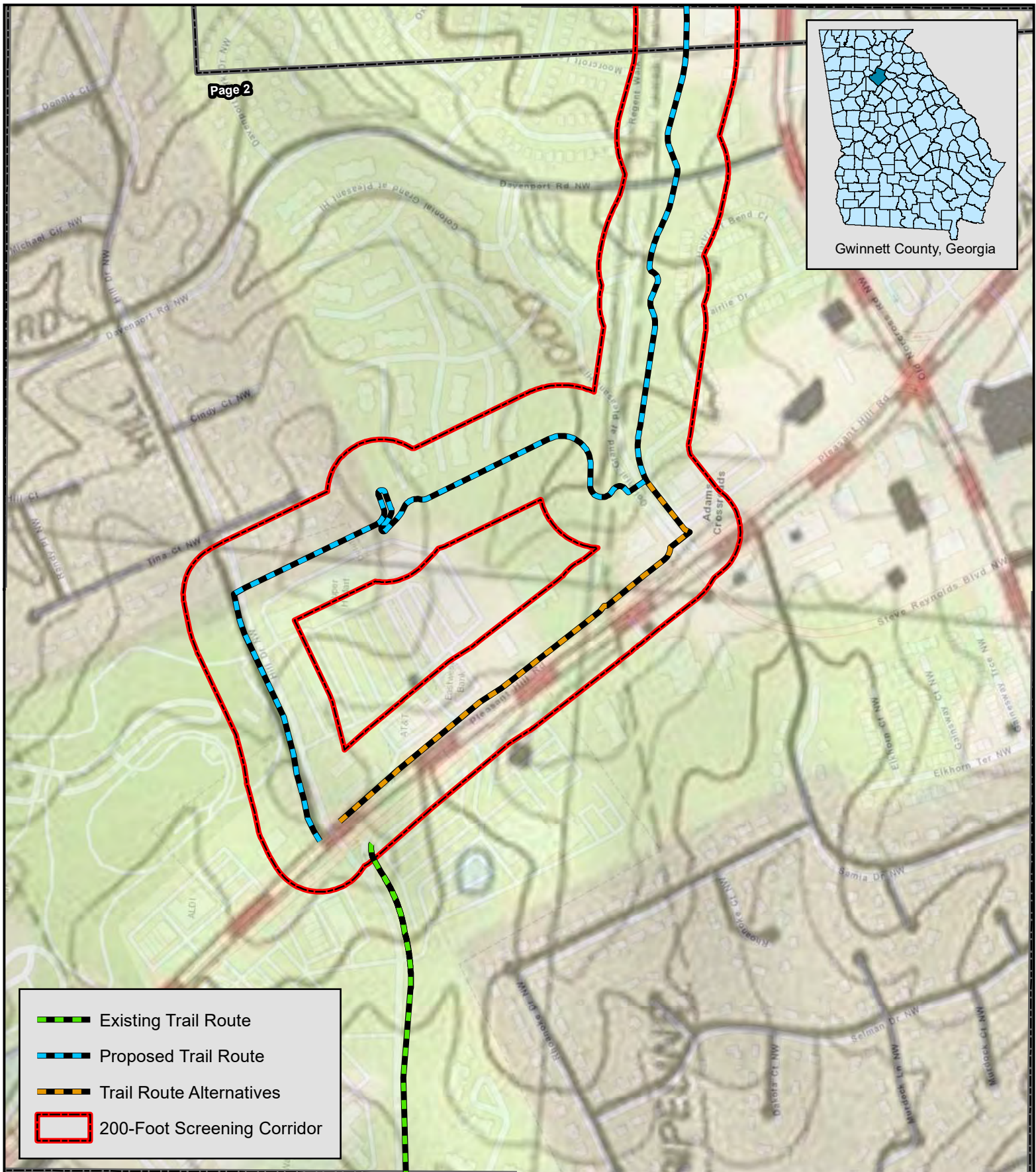


Service Layer Credits: Copyright:© 2013 National Geographic Society, i-cubed

**Figure 2 - Index
USGS Topographic Map**



Gwinnett Loop Trail
Gwinnett County, Georgia
December, 2020



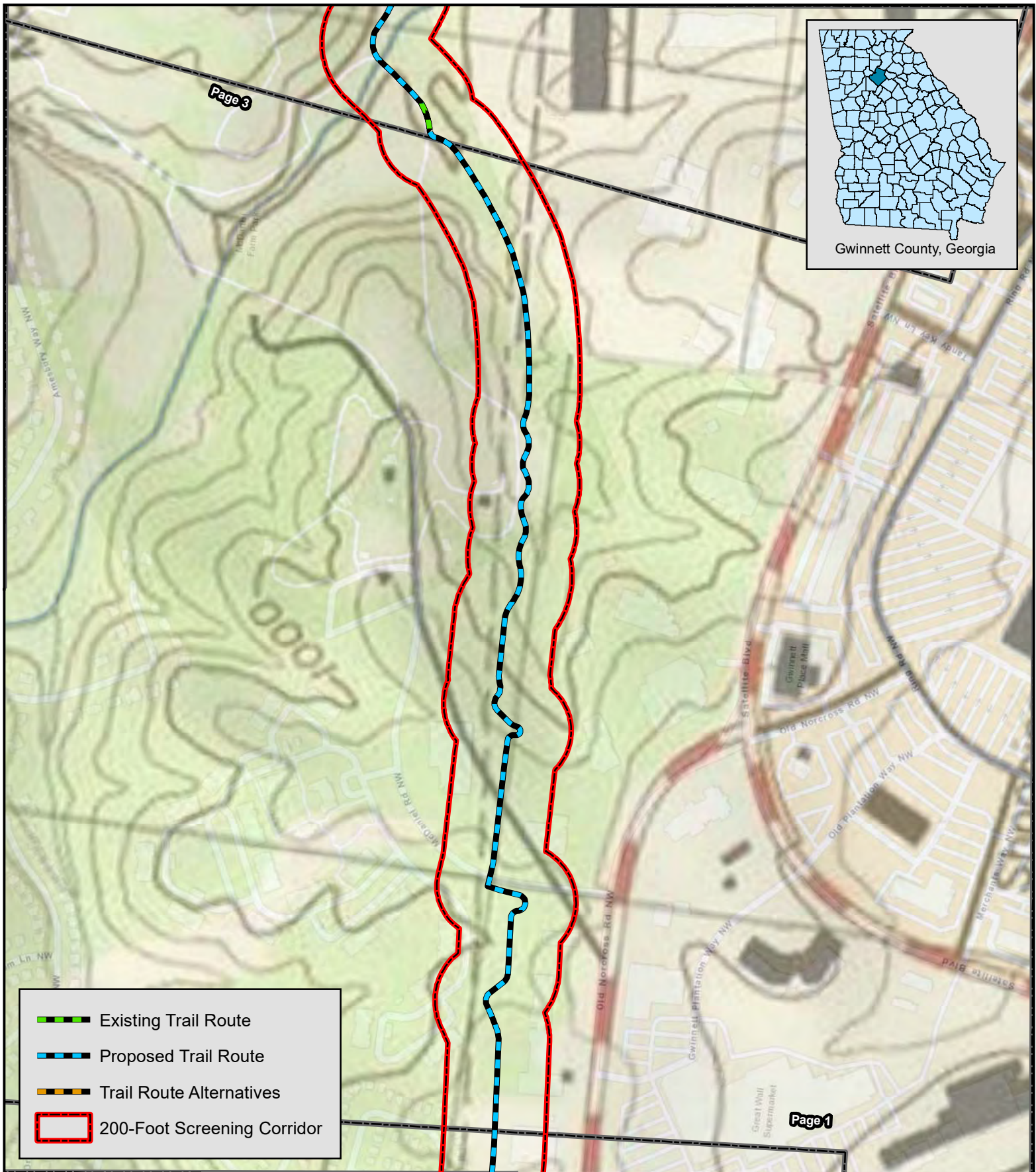
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Figure 2 - 1
USGS Topographic Map



0 300 600 Feet
0 90 180 Meters

Gwinnett Loop Trail
Gwinnett County, Georgia
December, 2020



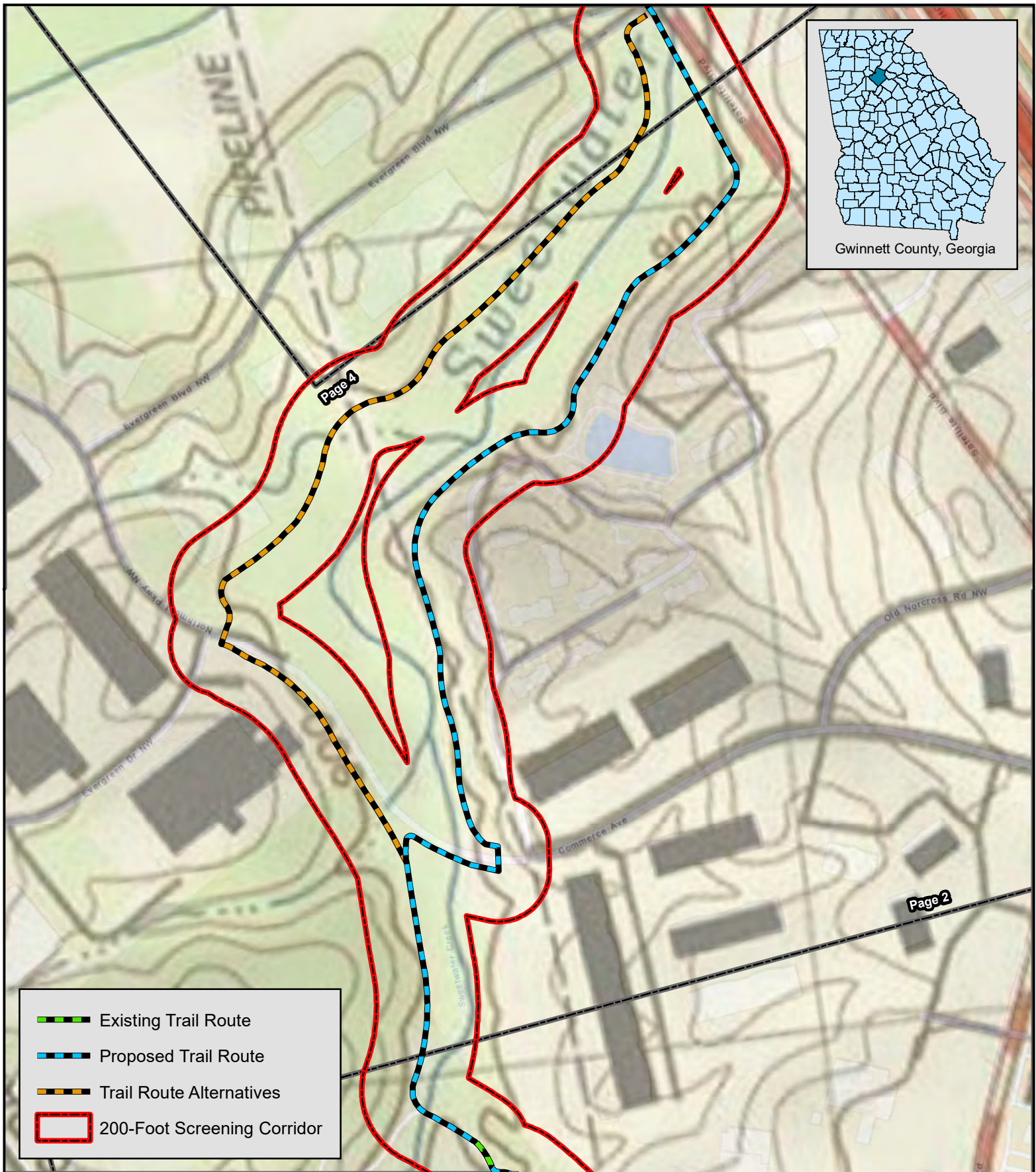
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Figure 2 - 2
USGS Topographic Map



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0 90 180 Meters

Gwinnett Loop Trail
Gwinnett County, Georgia
December, 2020



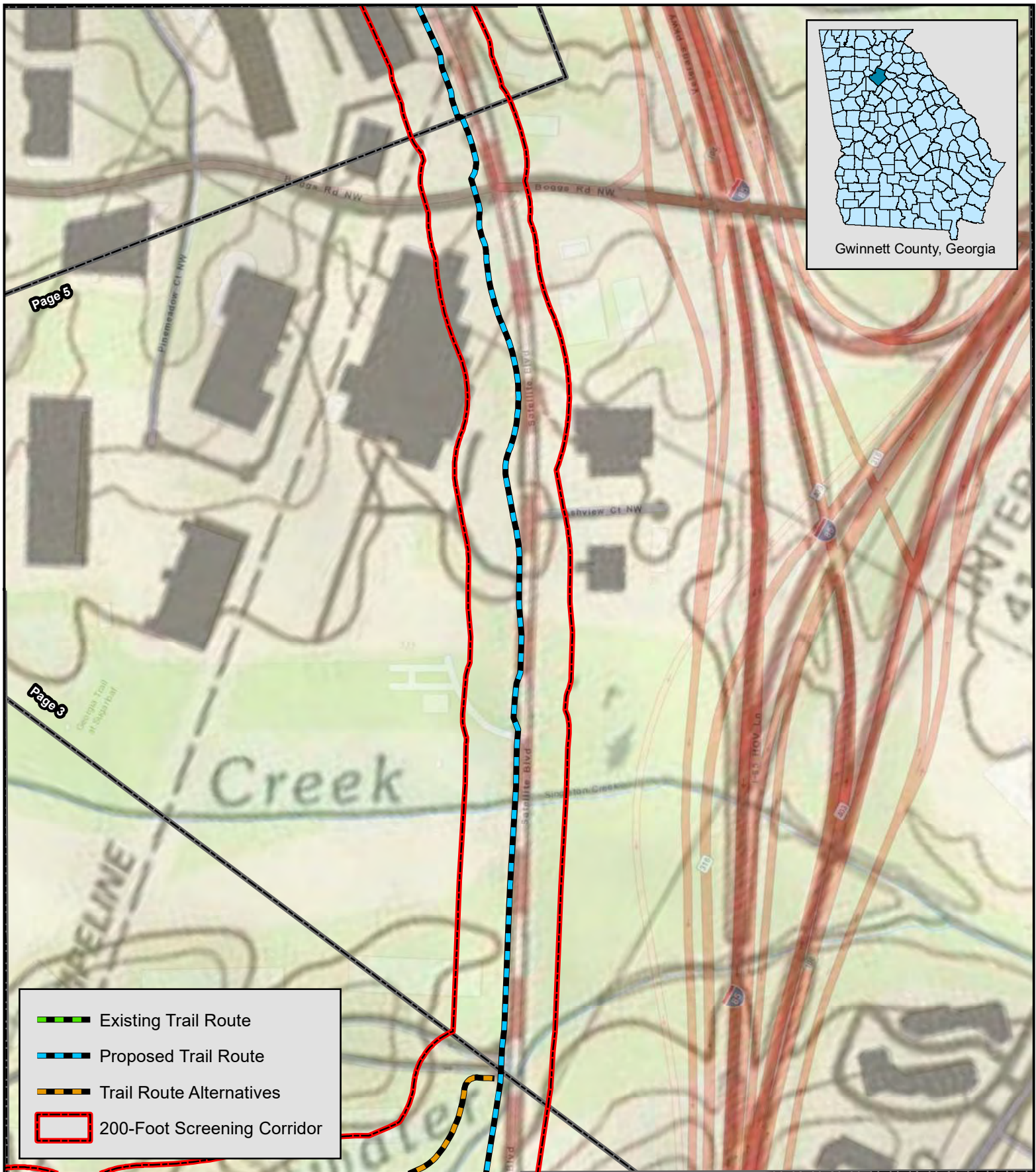
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Figure 2 - 3
USGS Topographic Map



0 300 600 Feet
0 90 180 Meters

Gwinnett Loop Trail
Gwinnett County, Georgia
December, 2020



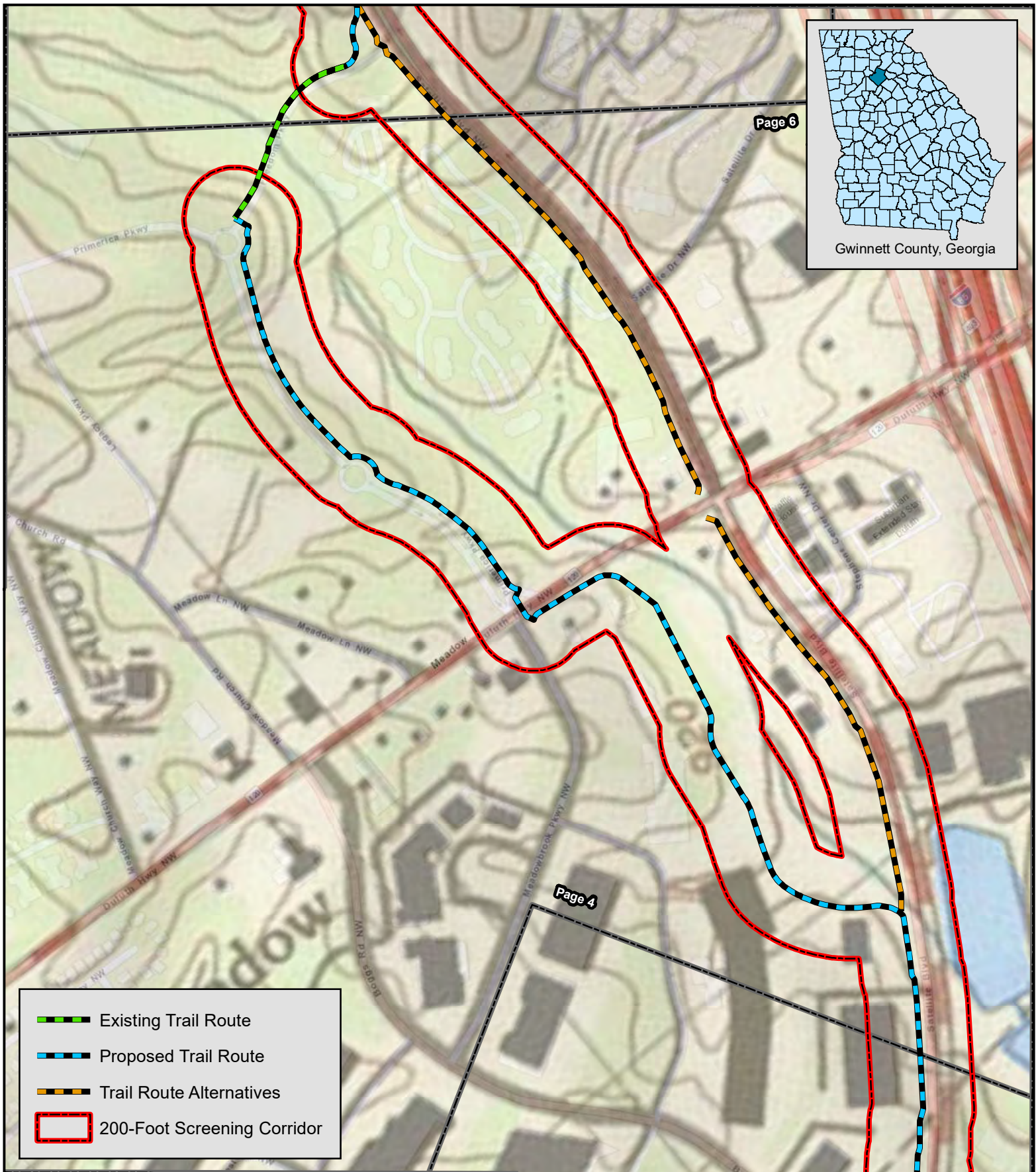
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Figure 2 - 4
USGS Topographic Map



0 300 600 Feet
0 90 180 Meters

Gwinnett Loop Trail
Gwinnett County, Georgia
December, 2020



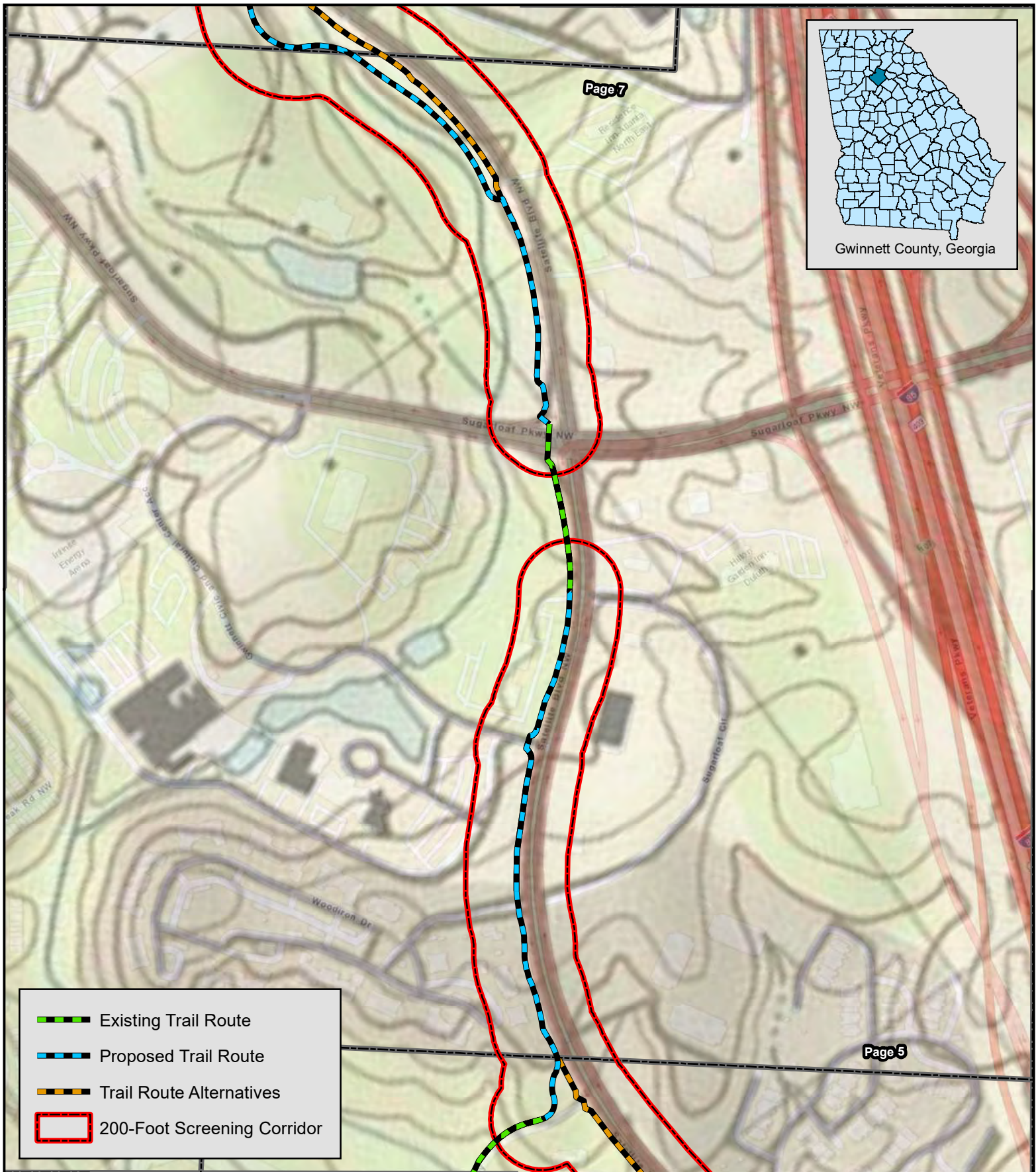
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Figure 2 - 5
USGS Topographic Map



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0 90 180 Meters

Gwinnett Loop Trail
Gwinnett County, Georgia
December, 2020



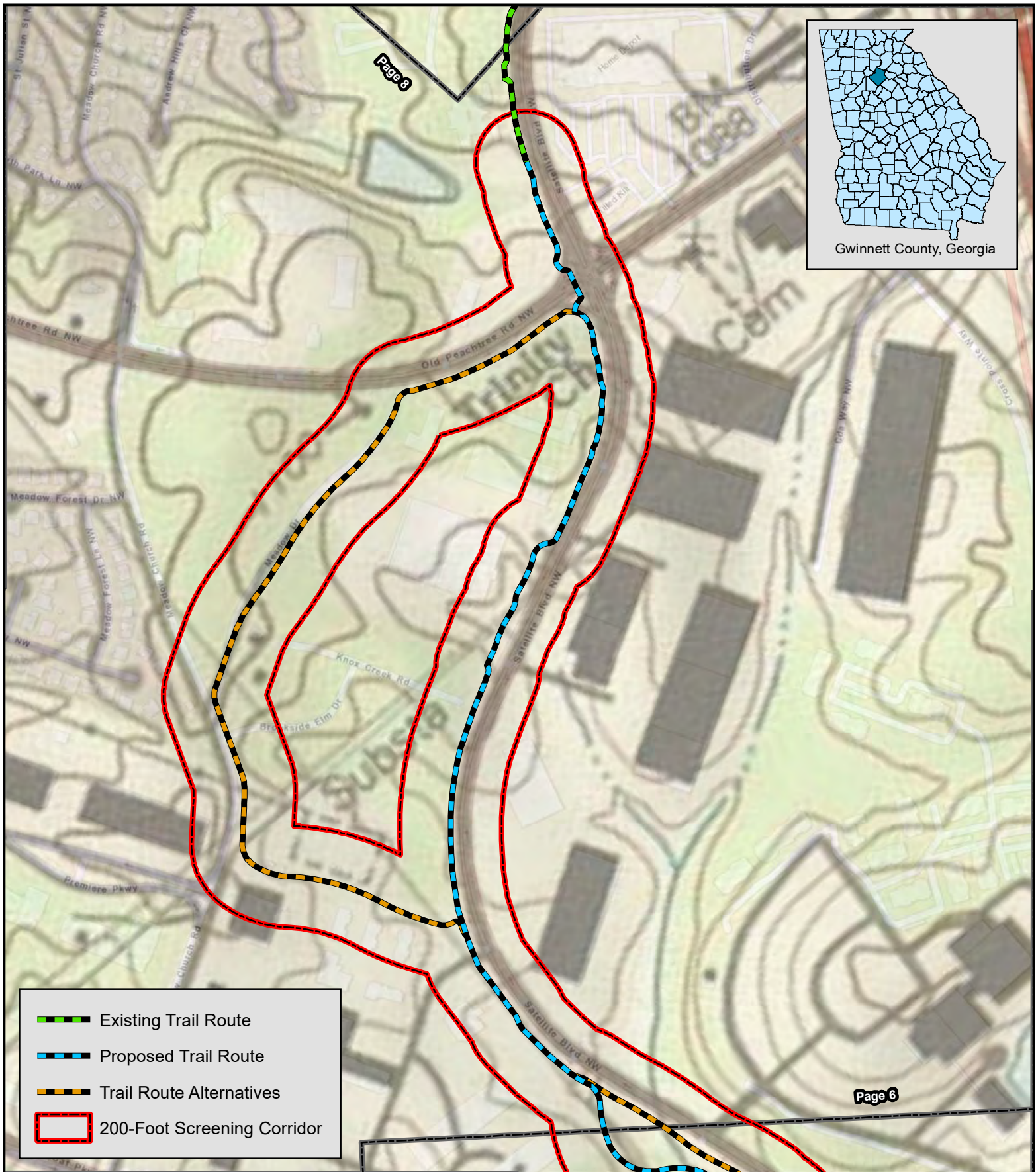
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Figure 2 - 6
USGS Topographic Map



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0 90 180 Meters

Gwinnett Loop Trail
Gwinnett County, Georgia
December, 2020



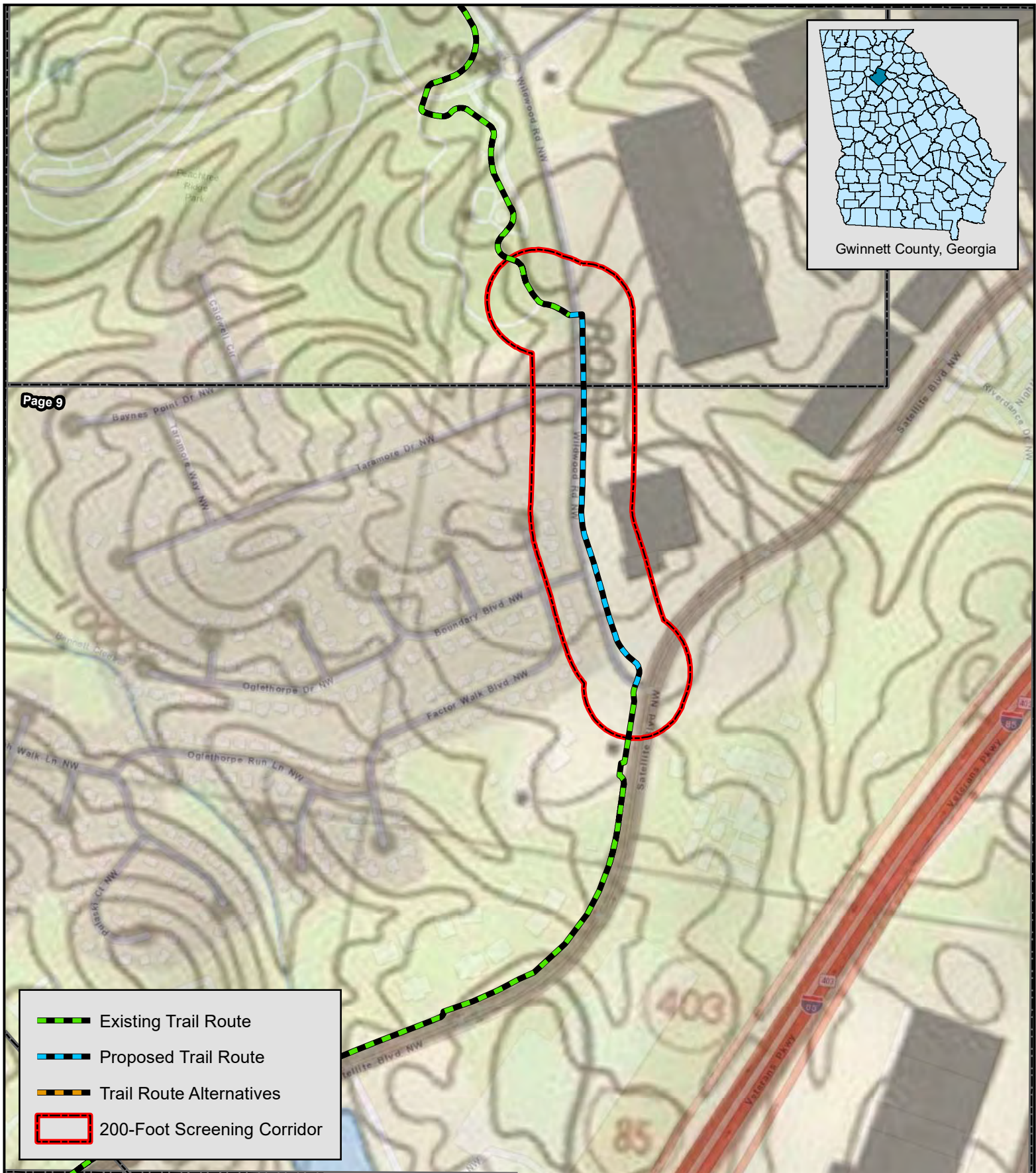
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Figure 2 - 7
USGS Topographic Map



0 300 600 Feet
0 90 180 Meters

Gwinnett Loop Trail
Gwinnett County, Georgia
December, 2020



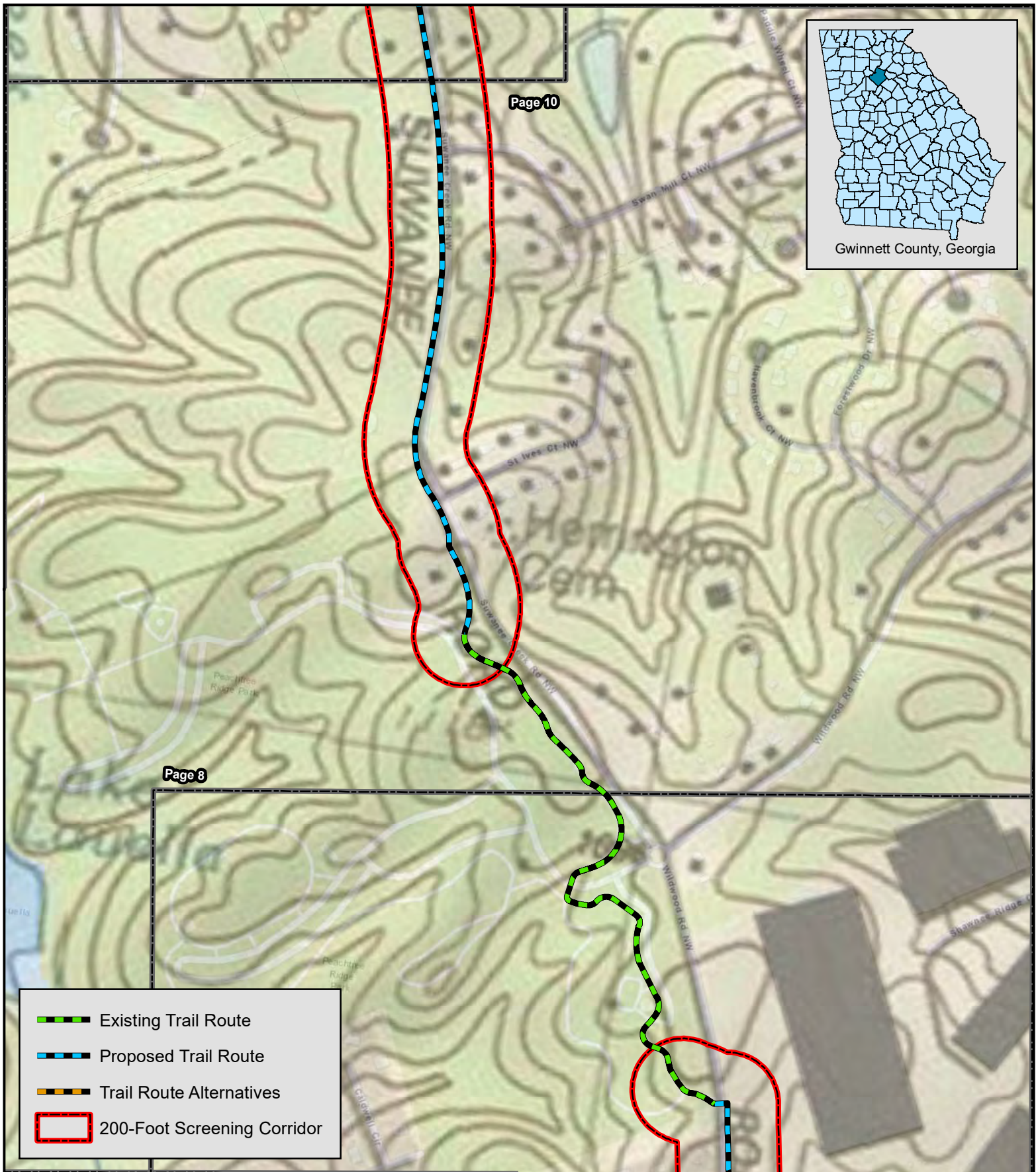
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Figure 2 - 8
USGS Topographic Map



0 300 600 Feet
0 90 180 Meters

Gwinnett Loop Trail
Gwinnett County, Georgia
December, 2020



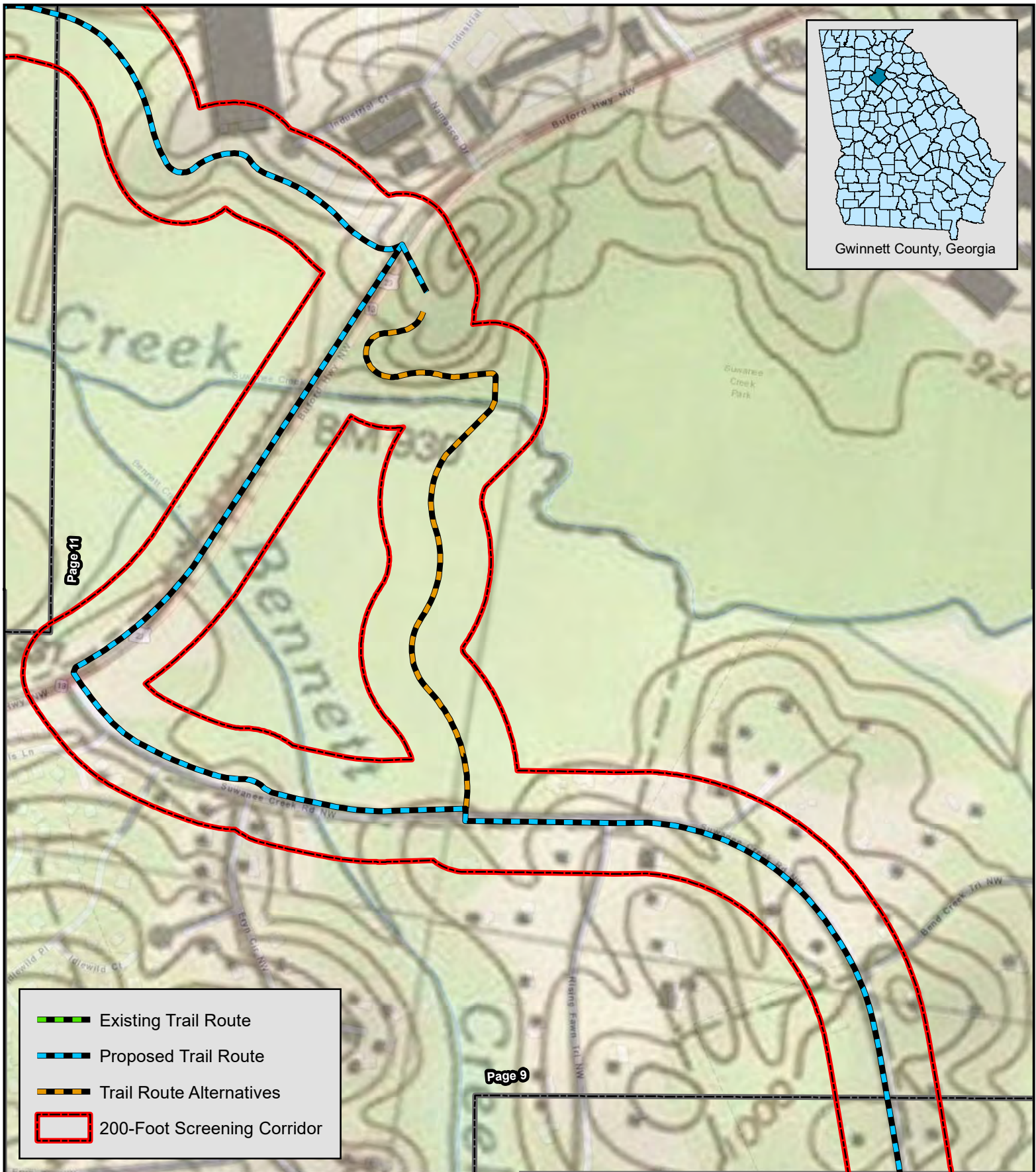
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Figure 2 - 9
USGS Topographic Map



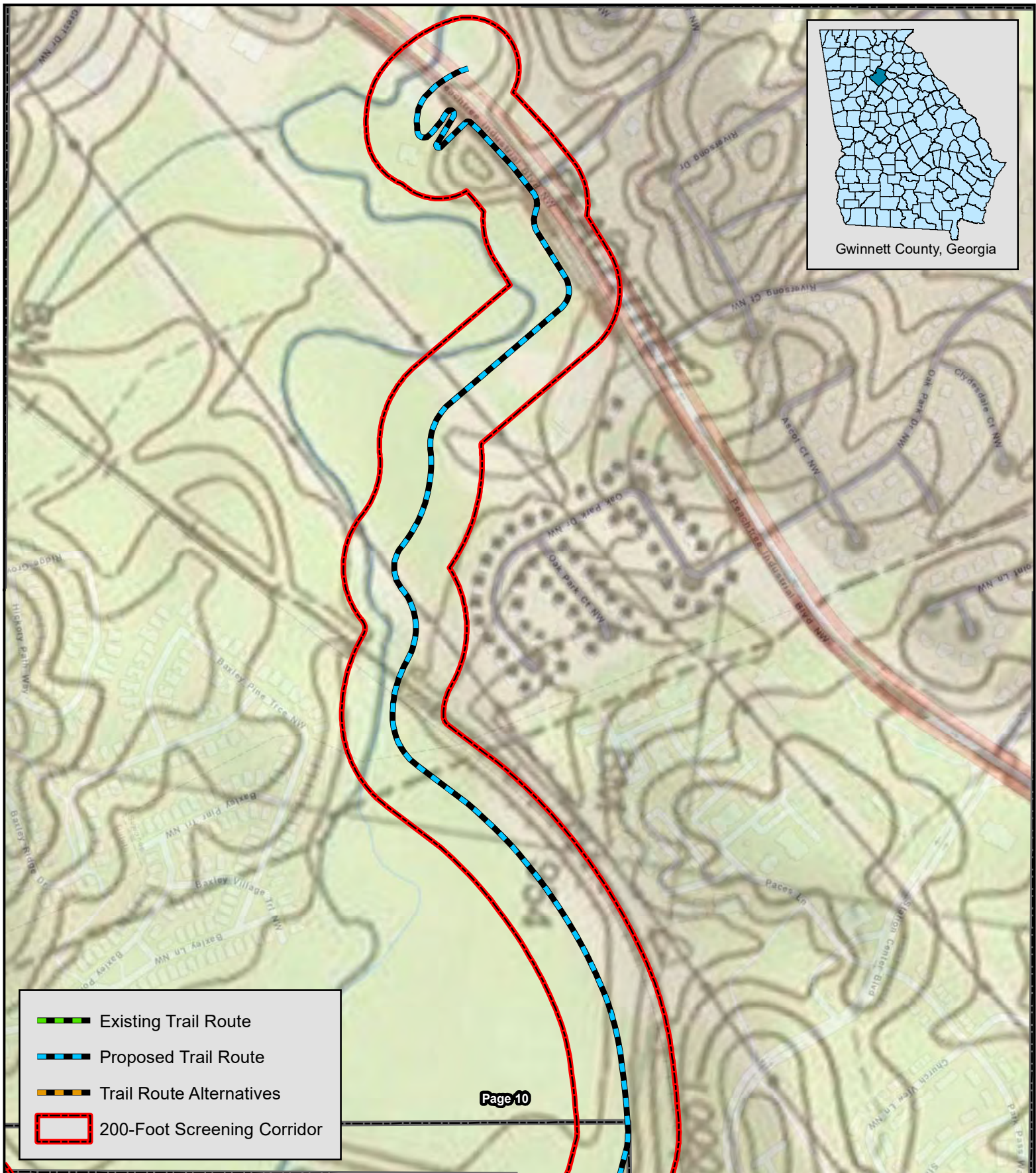
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Gwinnett Loop Trail
Gwinnett County, Georgia
December, 2020



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Figure 2 - 10
USGS Topographic Map



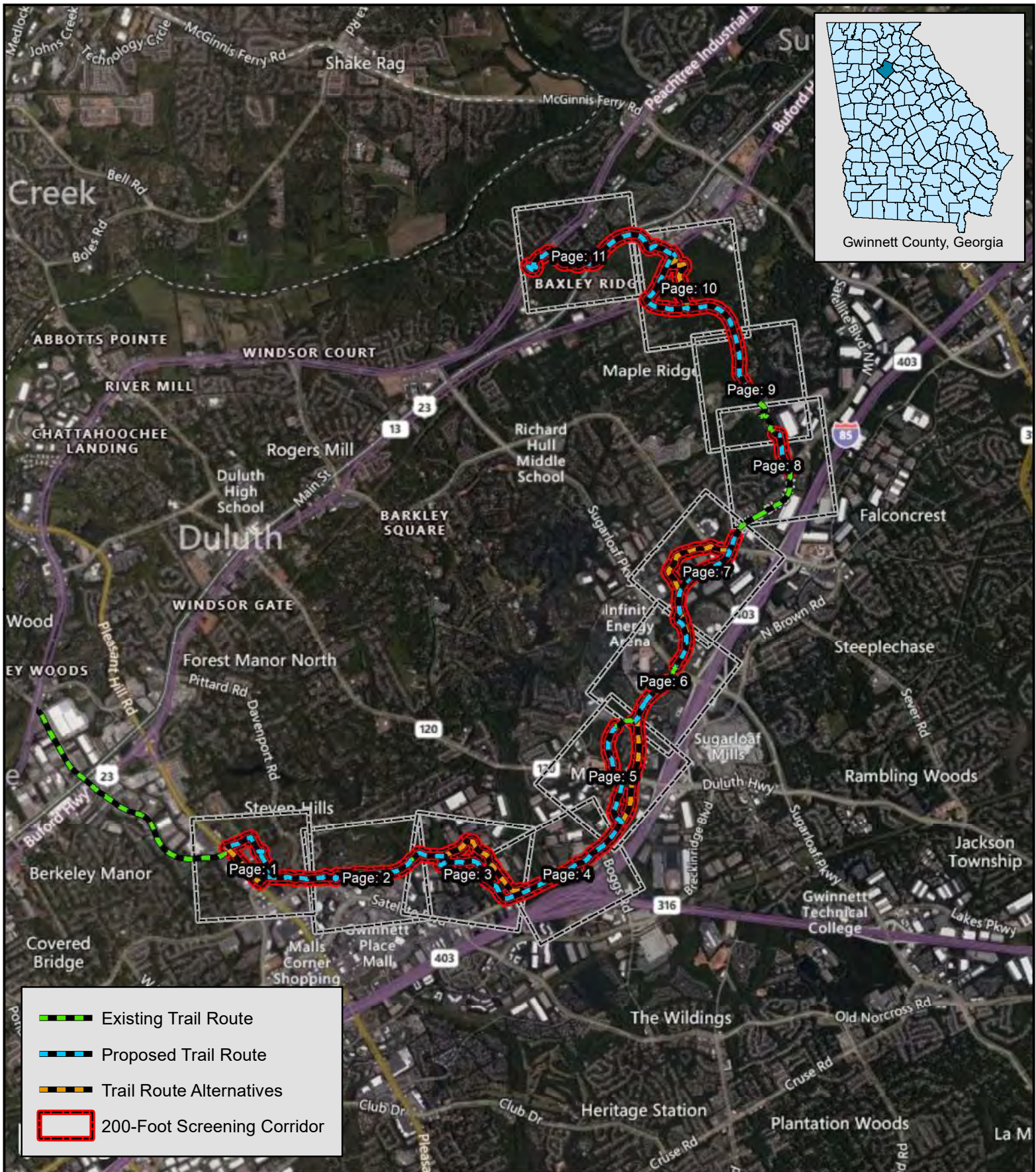
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Figure 2 - 11
USGS Topographic Map



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0 90 180 Meters

Gwinnett Loop Trail
Gwinnett County, Georgia
December, 2020



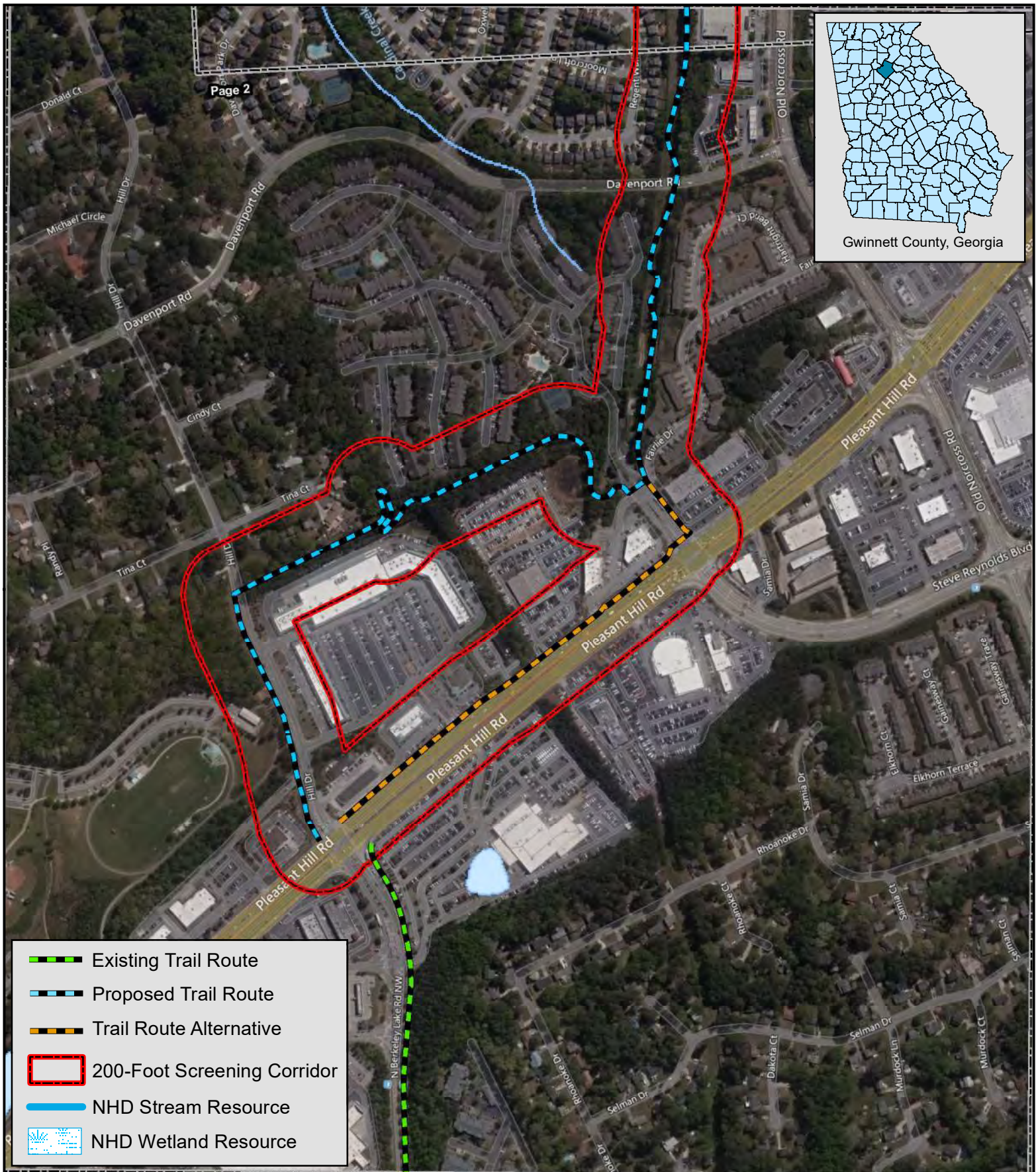
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**Figure 3 - Index
NHD Map**



0 4,000 8,000 Feet
0 1,250 2,500 Meters

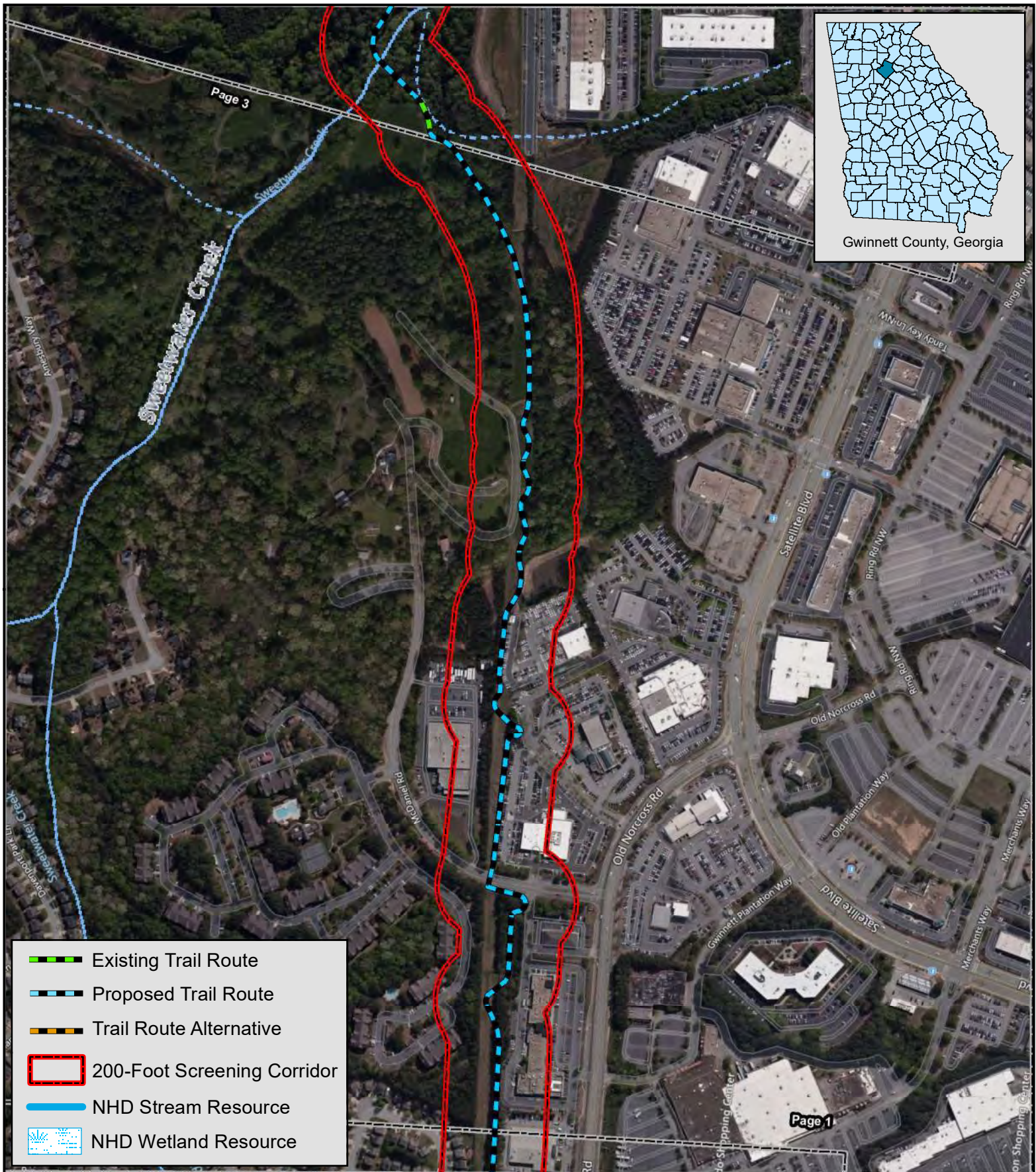
Gwinnett Loop Trail
Gwinnett County, Georgia
December, 2020



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Figure 3 - 1
NHD Map





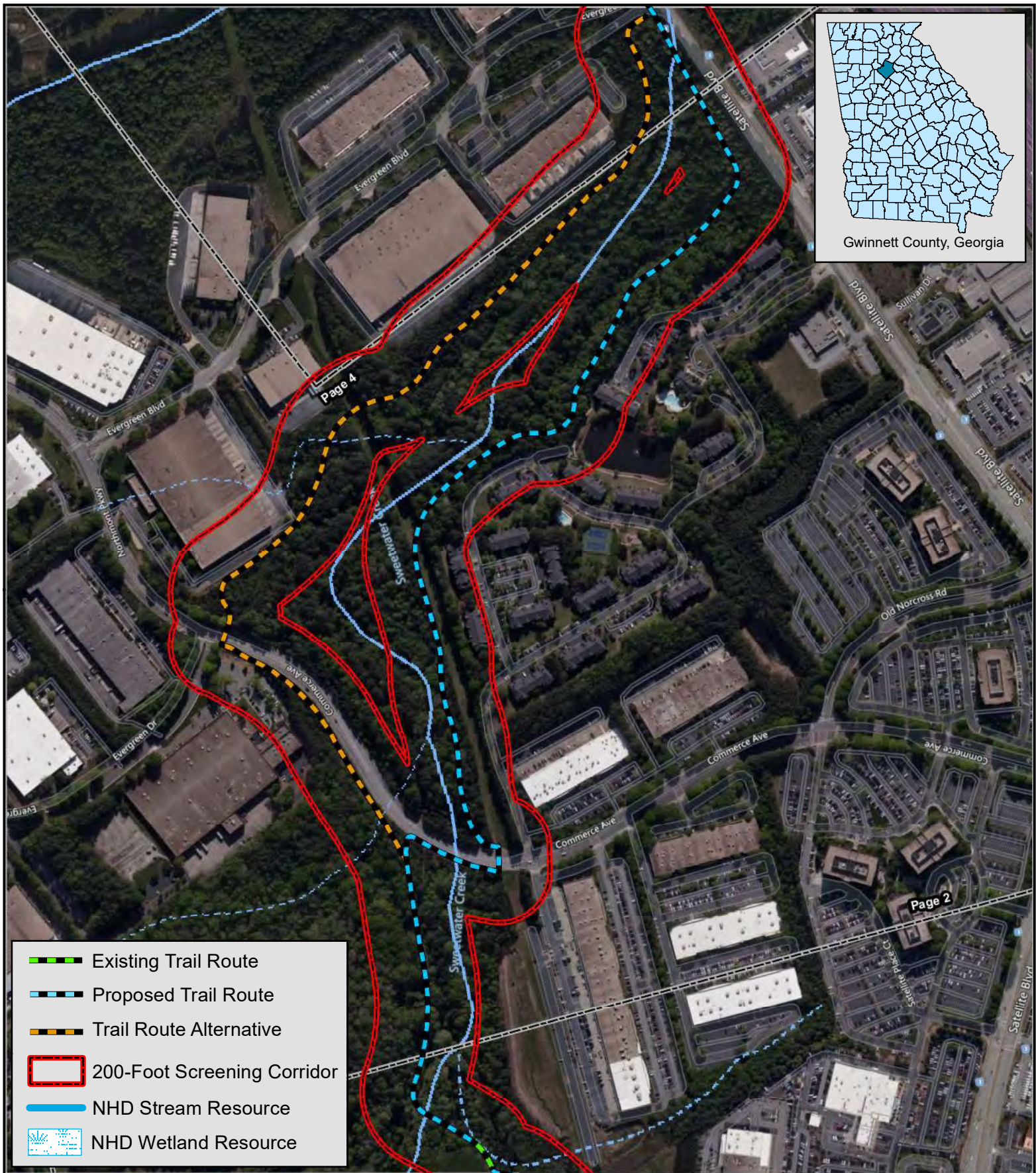
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Figure 3 - 2
NHD Map

Gwinnett Loop Trail
 Gwinnett County, Georgia
 December, 2020



0 300 600 Feet
 0 90 180 Meters



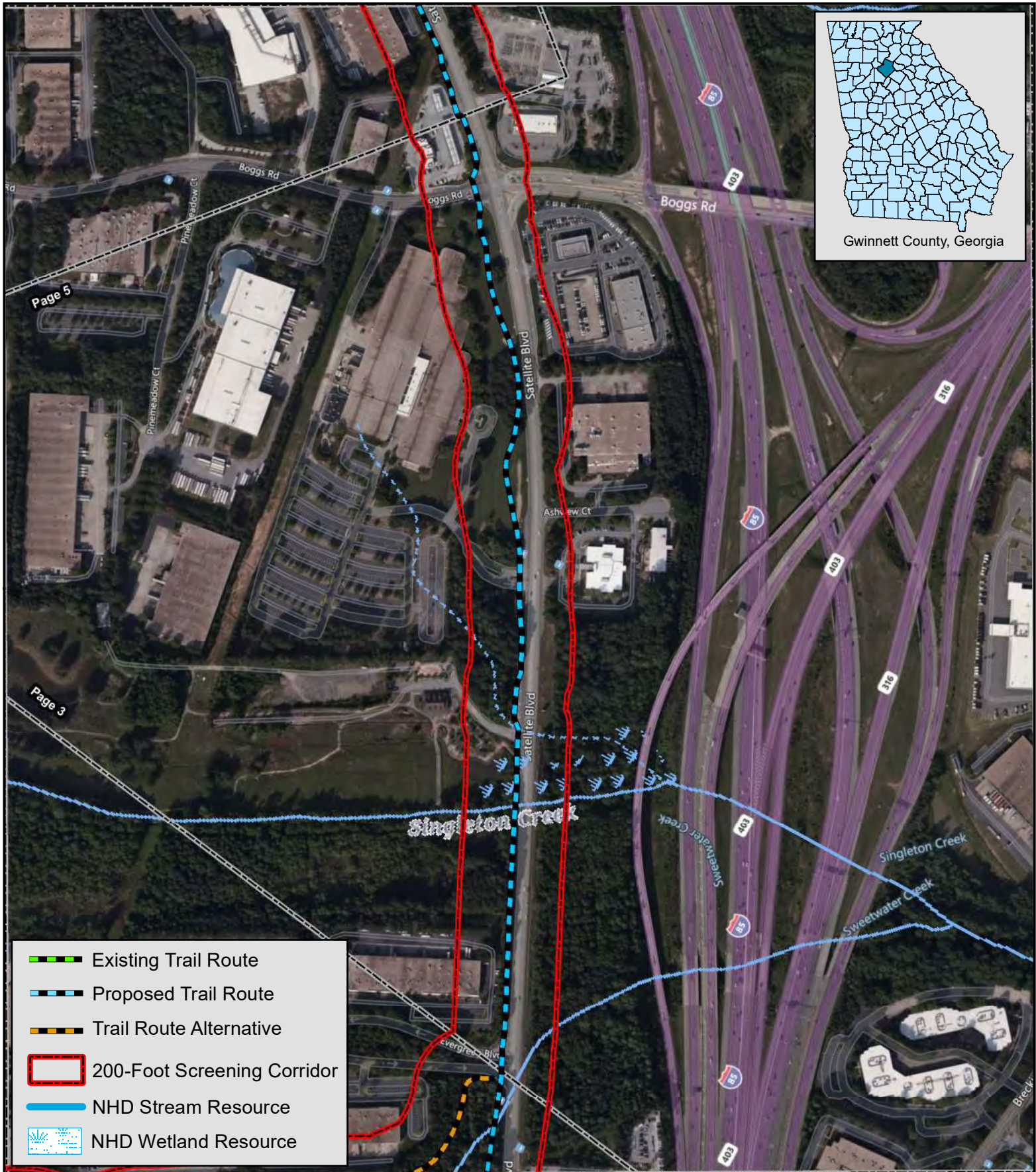
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Figure 3 - 3
NHD Map



0 300 600 Feet
 0 90 180 Meters

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 Gwinnett County, Georgia
 December, 2020



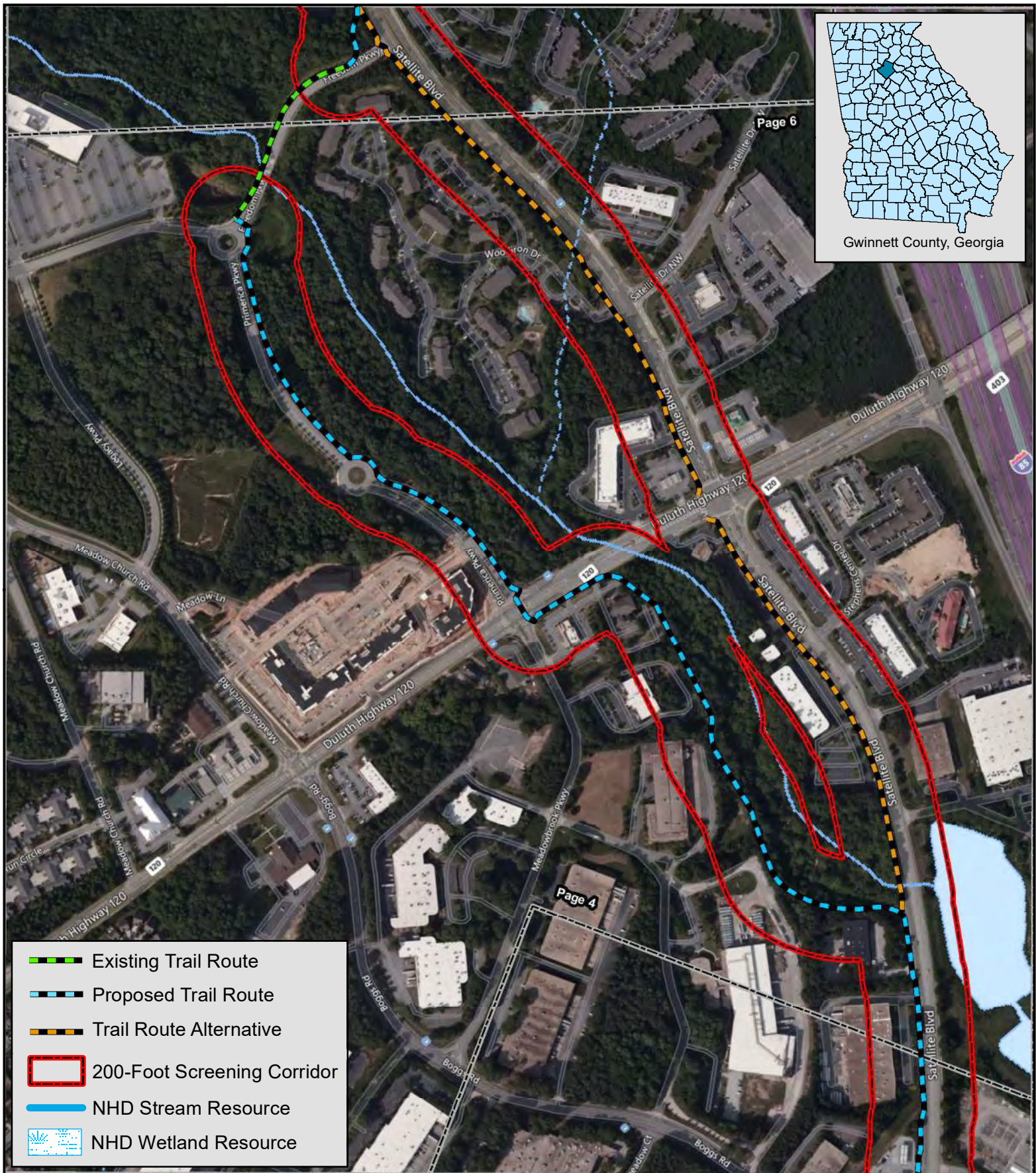
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Figure 3 - 4
NHD Map



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 Gwinnett County, Georgia
 December, 2020



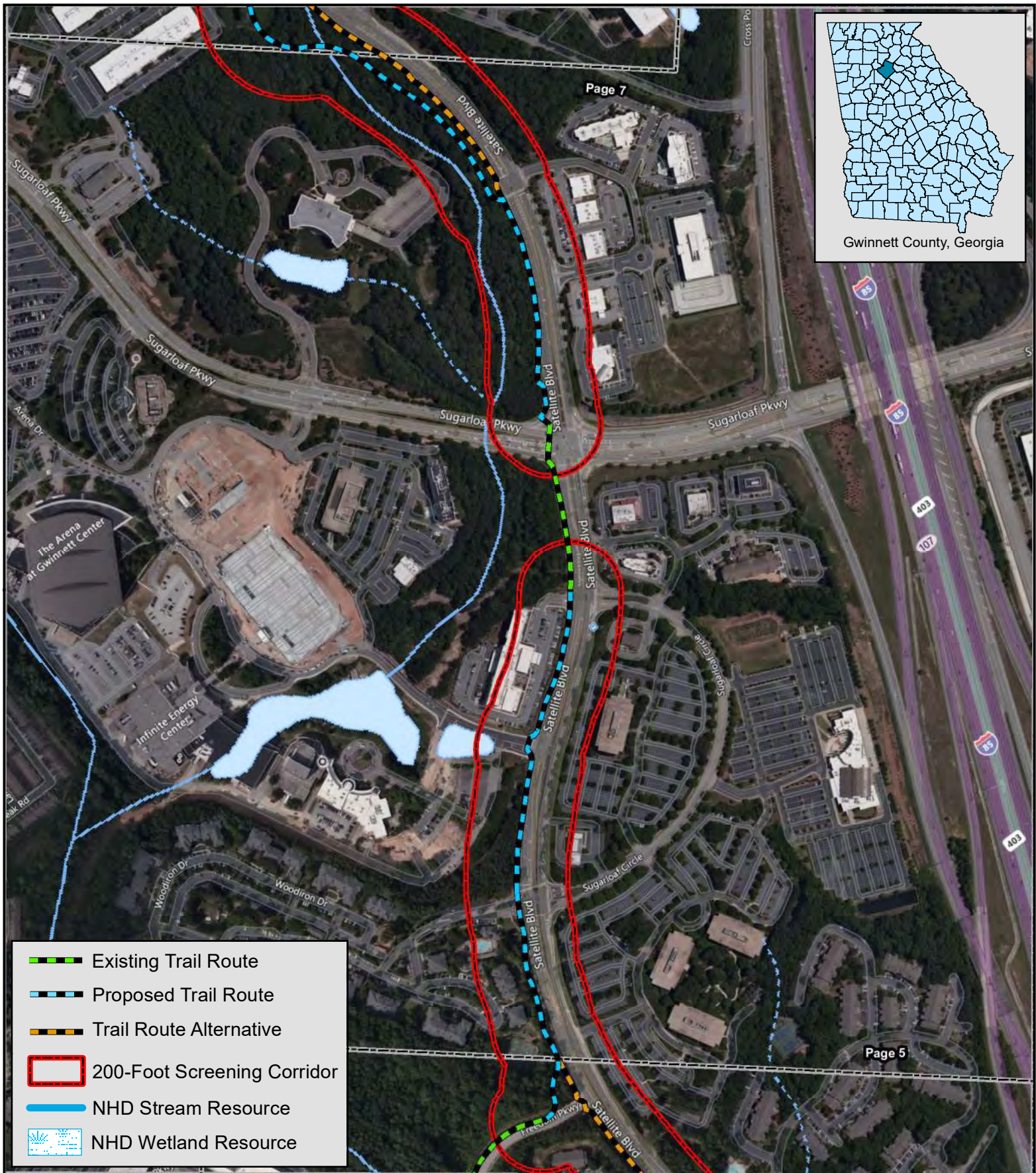
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Figure 3 - 5
NHD Map



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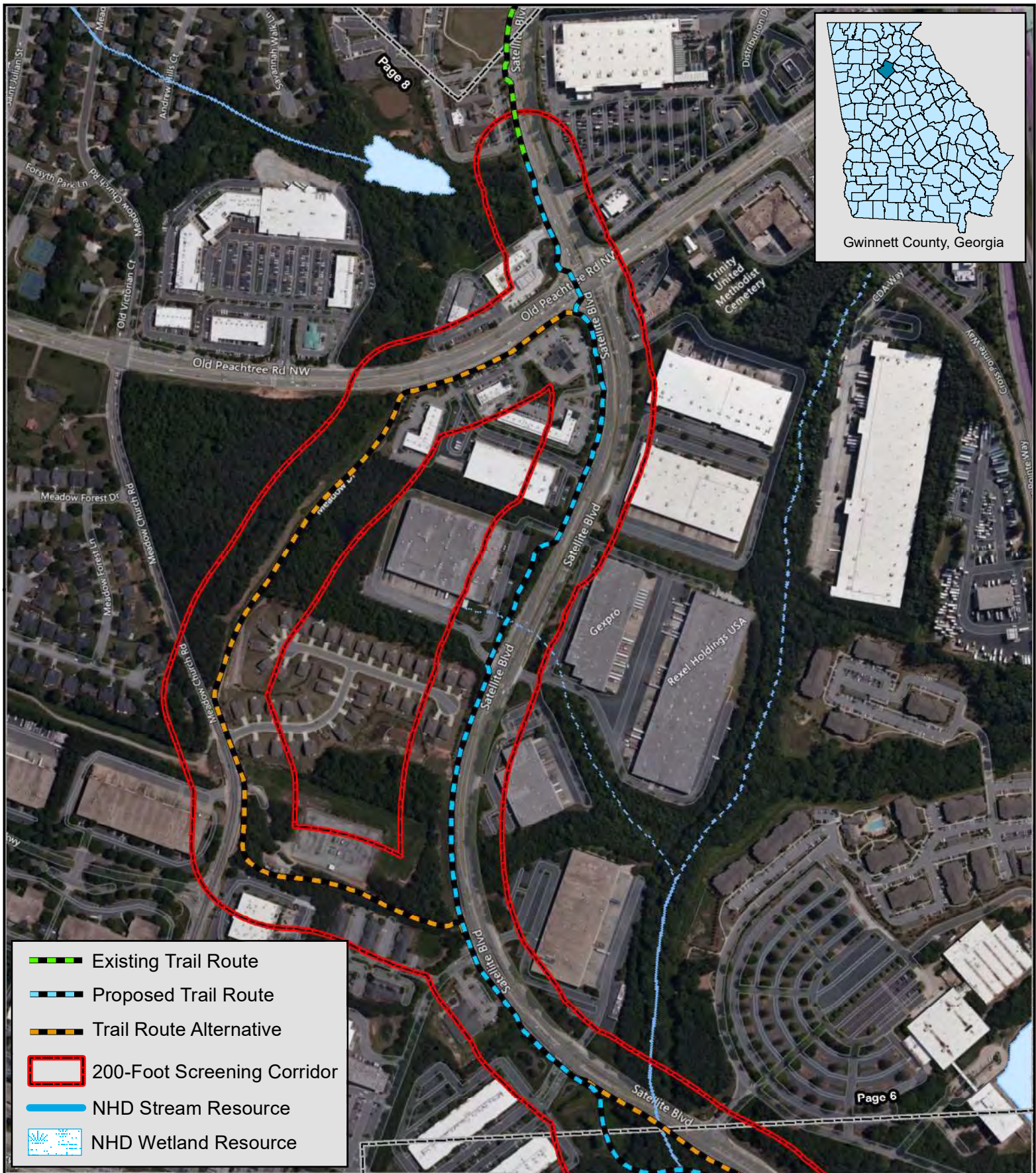
Gwinnett Loop Trail
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Figure 3 - 6
NHD Map





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Figure 3 - 7
NHD Map





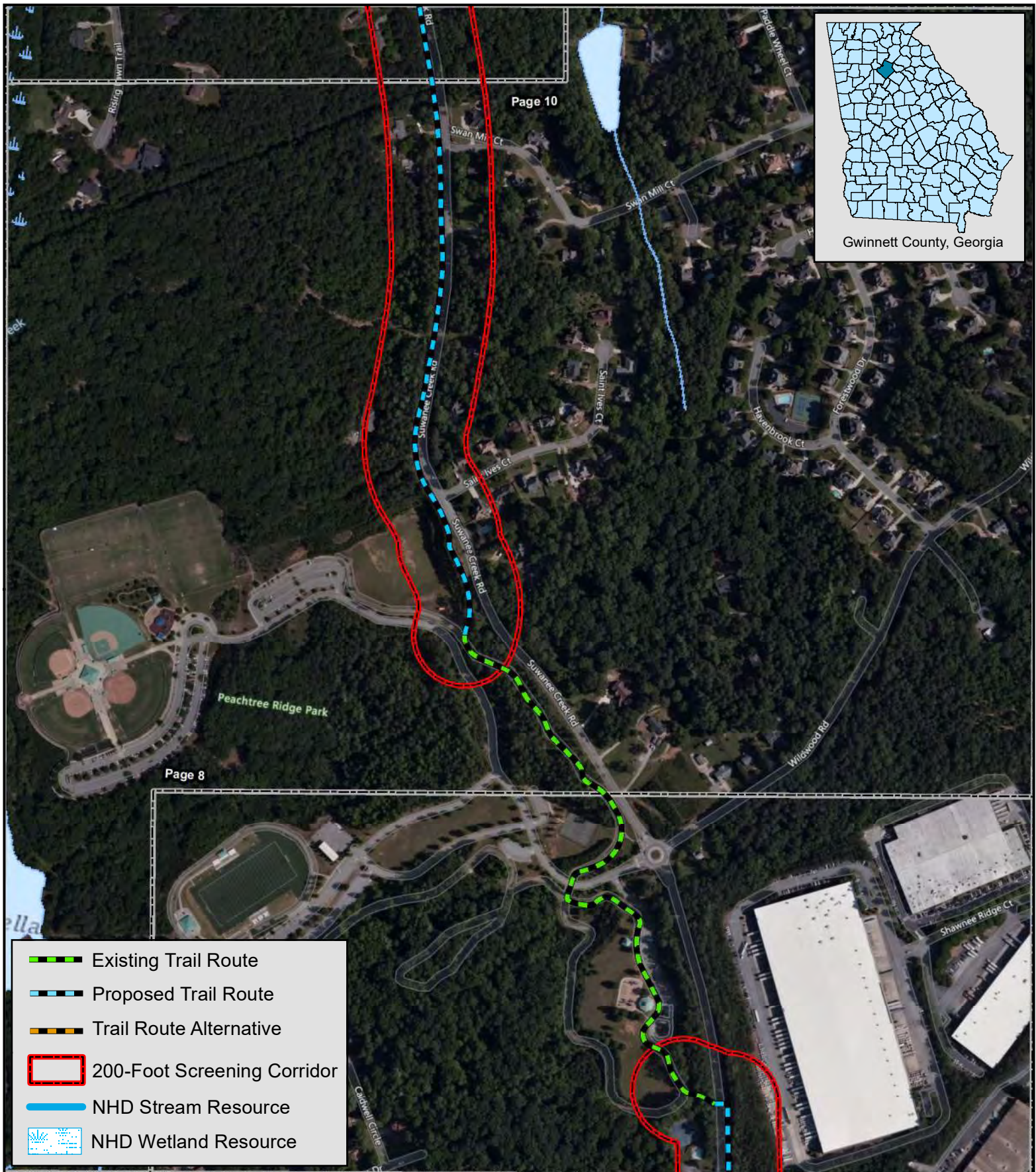
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Figure 3 - 8
NHD Map



0 300 600 Feet
 0 90 180 Meters

Gwinnett Loop Trail
 Gwinnett County, Georgia
 December, 2020



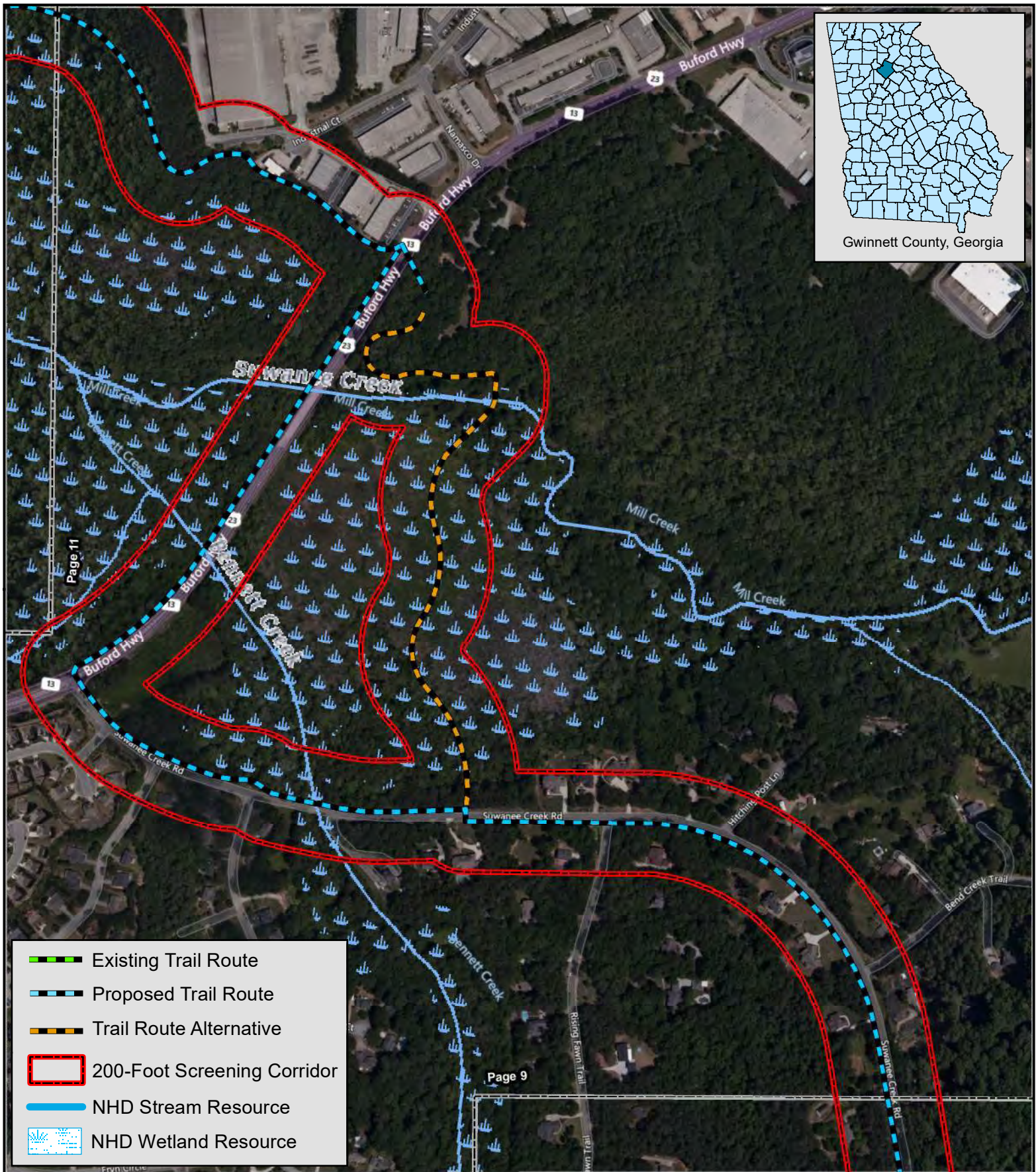
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Figure 3 - 9
NHD Map



0 300 600 Feet
 0 90 180 Meters

Gwinnett Loop Trail
 Gwinnett County, Georgia
 December, 2020



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Figure 3 - 10
NHD Map





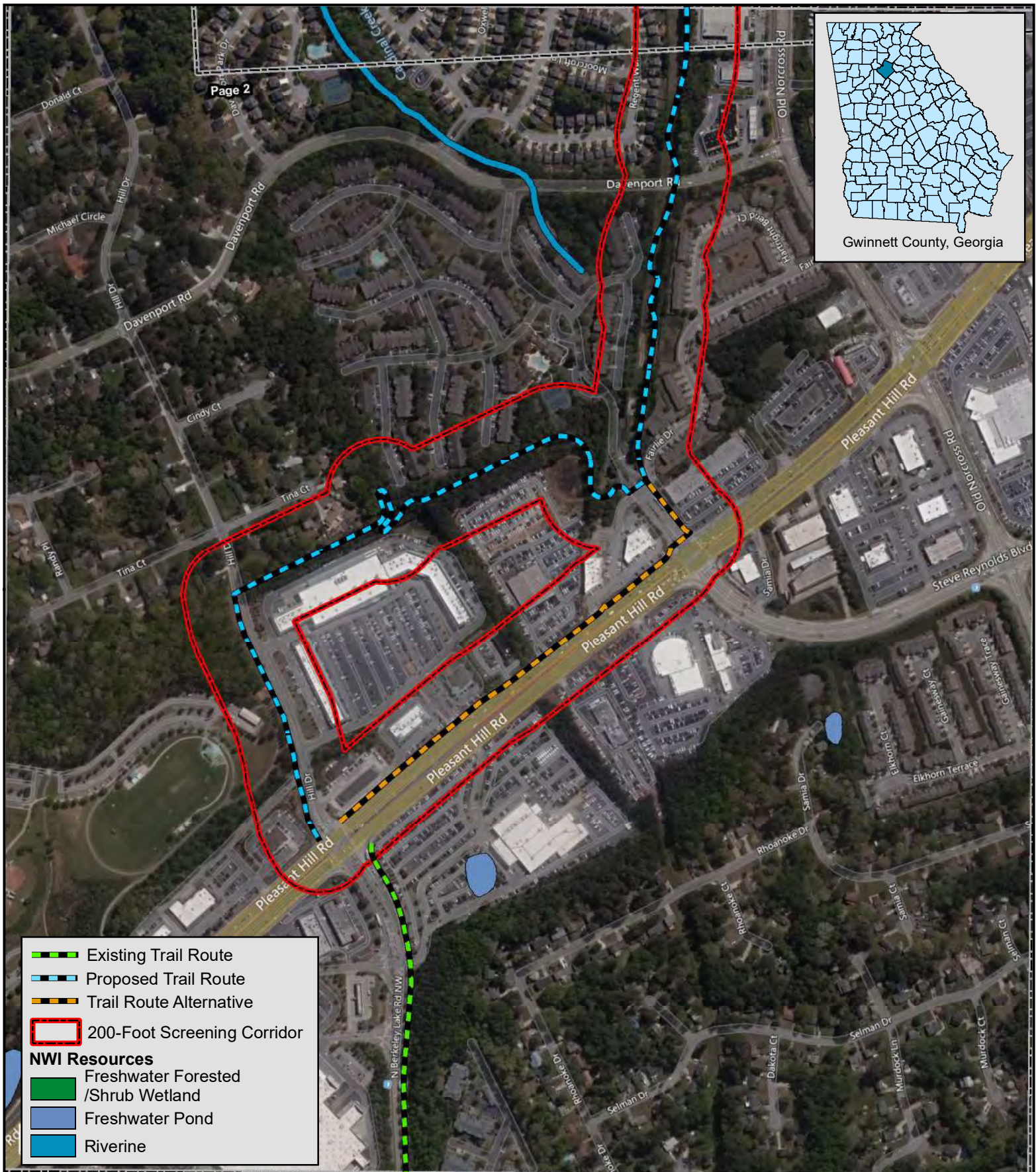
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Figure 3 - 11
NHD Map



0 300 600 Feet
 0 90 180 Meters

Gwinnett Loop Trail
 Gwinnett County, Georgia
 December, 2020



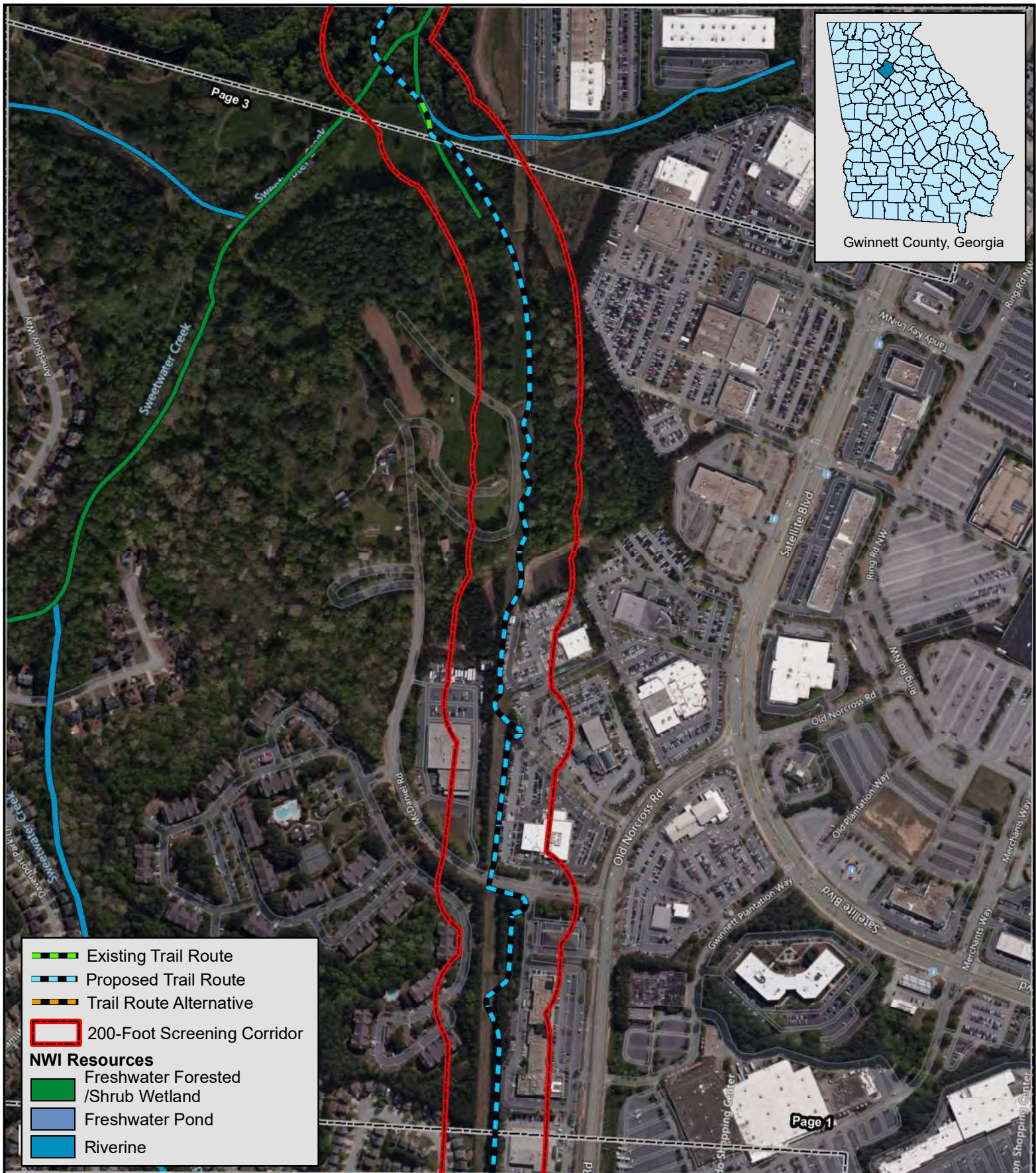
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Figure 4 - 1
USFWS NWI Map

Gwinnett Loop Trail
 Gwinnett County, Georgia
 December, 2020



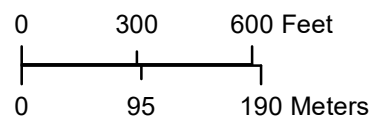
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 0 95 190 Meters

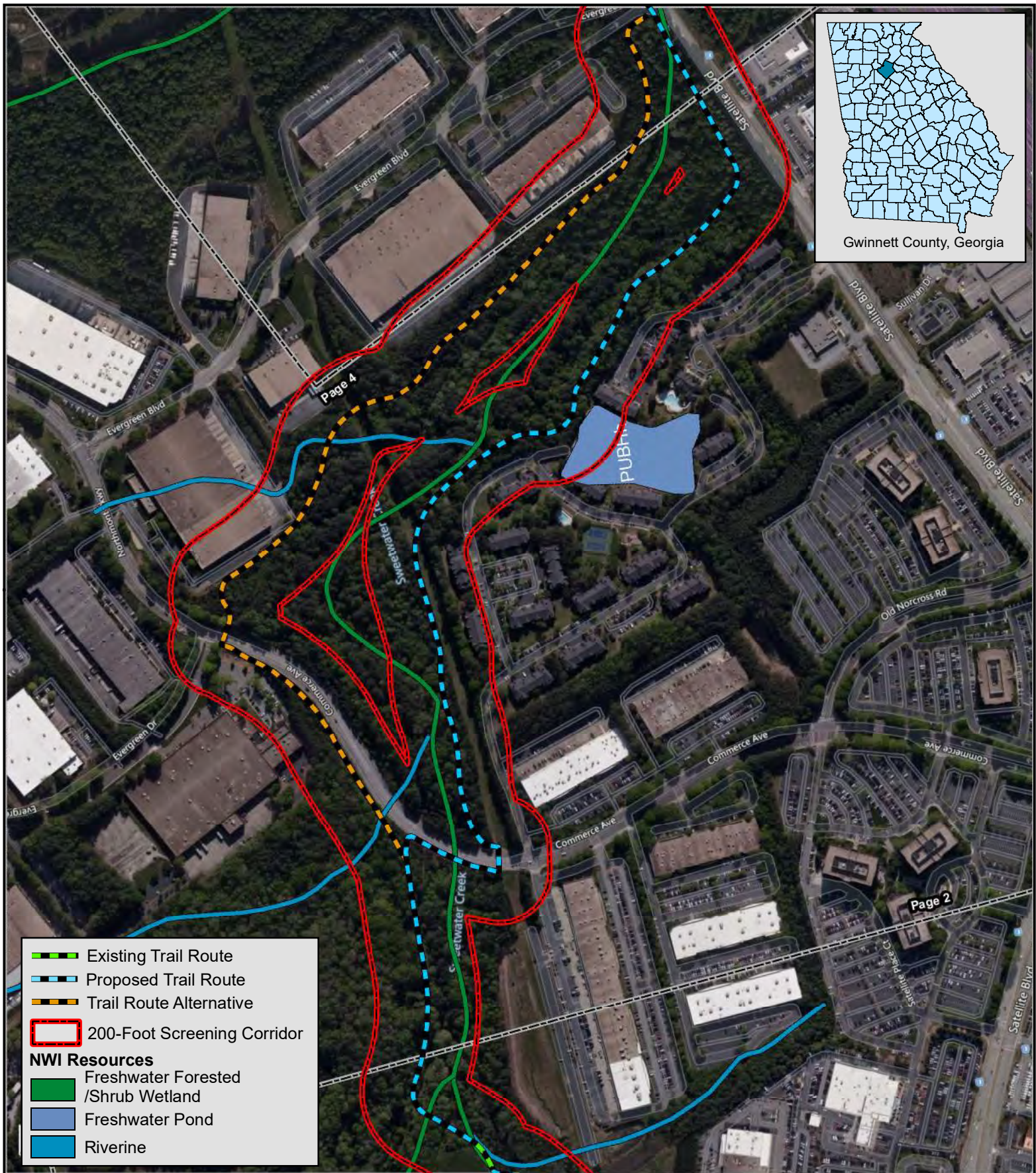


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Figure 4 - 2
USFWS NWI Map

Gwinnett Loop Trail
 Gwinnett County, Georgia
 December, 2020





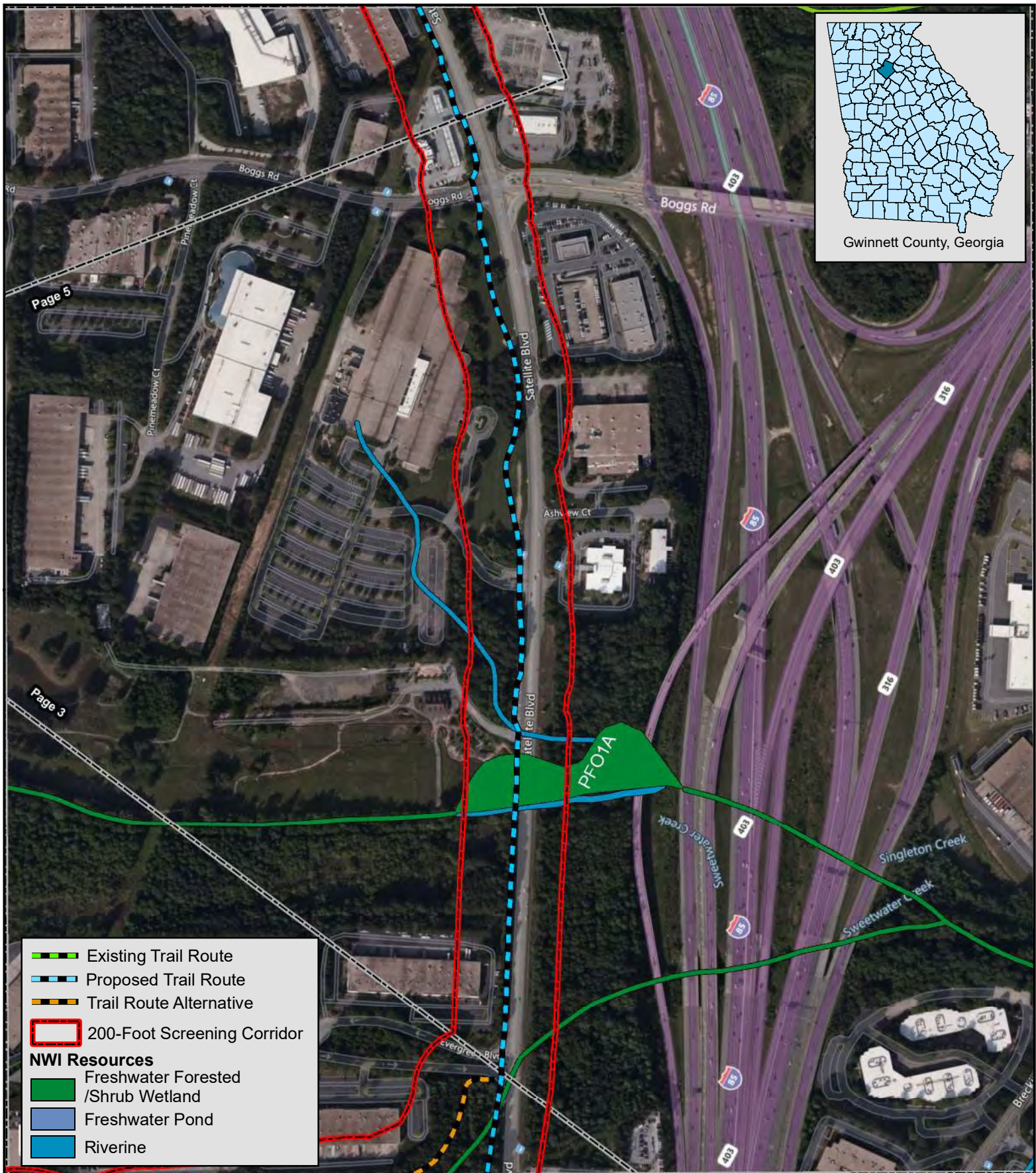
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Figure 4 - 3
USFWS NWI Map



0 300 600 Feet
 0 95 190 Meters

Gwinnett Loop Trail
 Gwinnett County, Georgia
 December, 2020



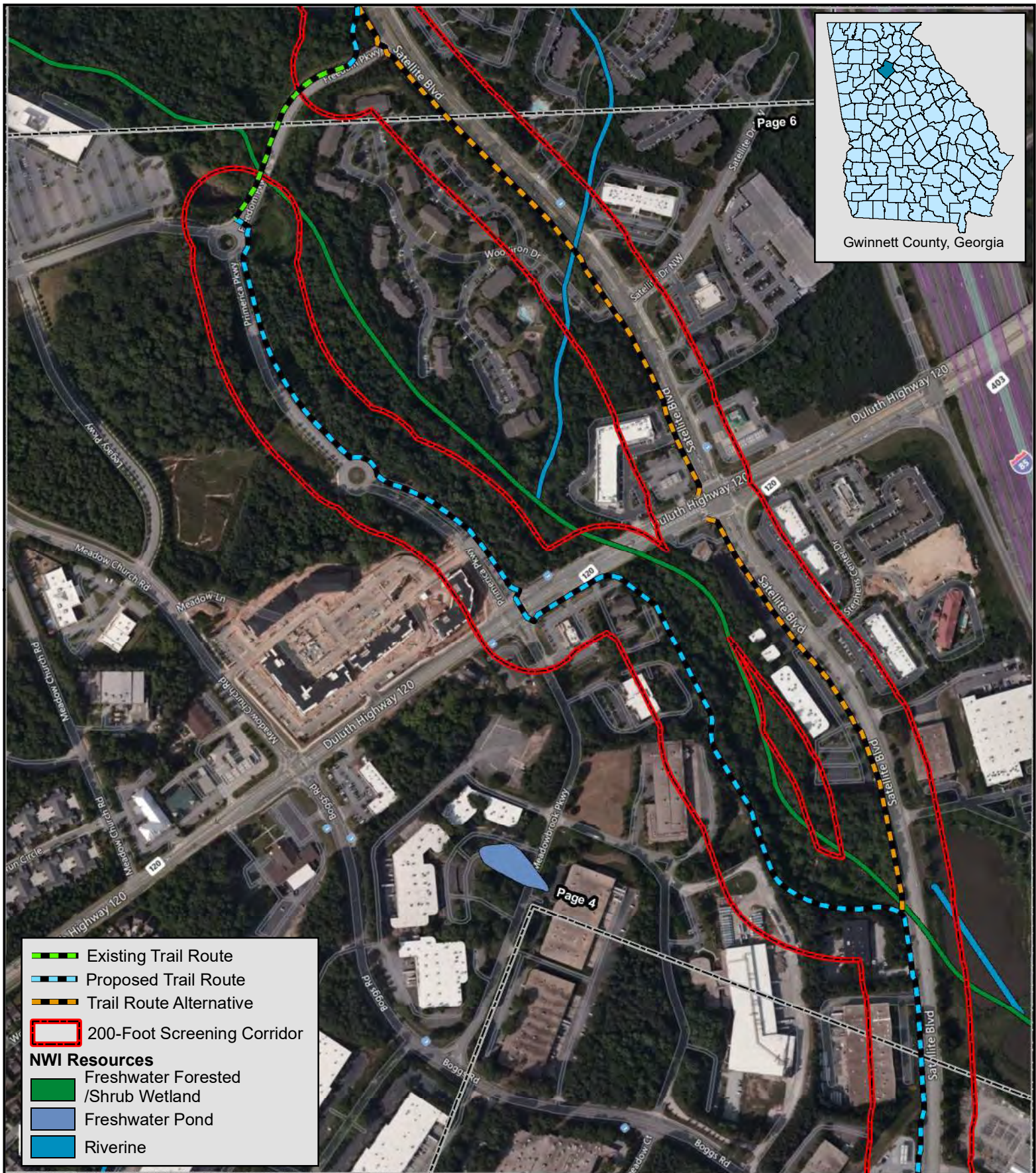
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Figure 4 - 4
USFWS NWI Map

Gwinnett Loop Trail
 Gwinnett County, Georgia
 December, 2020



0 300 600 Feet
 0 95 190 Meters



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Figure 4 - 5
USFWS NWI Map

Gwinnett Loop Trail
 Gwinnett County, Georgia
 December, 2020



0 300 600 Feet
 0 95 190 Meters



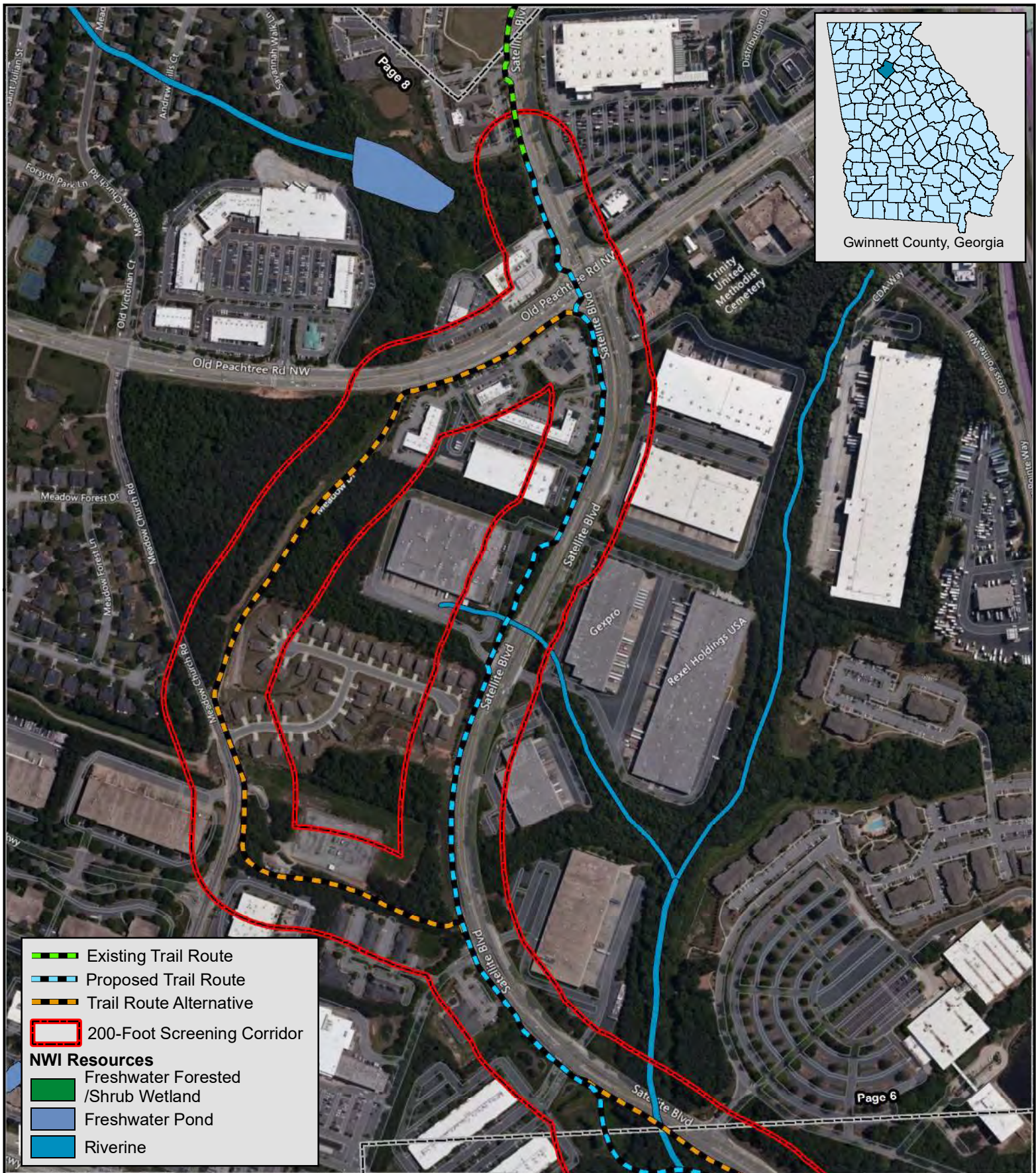
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Figure 4 - 6
USFWS NWI Map



0 300 600 Feet
 0 95 190 Meters

Gwinnett Loop Trail
 Gwinnett County, Georgia
 December, 2020



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Figure 4 - 7
USFWS NWI Map



0 300 600 Feet
 0 95 190 Meters

Gwinnett Loop Trail
 Gwinnett County, Georgia
 December, 2020



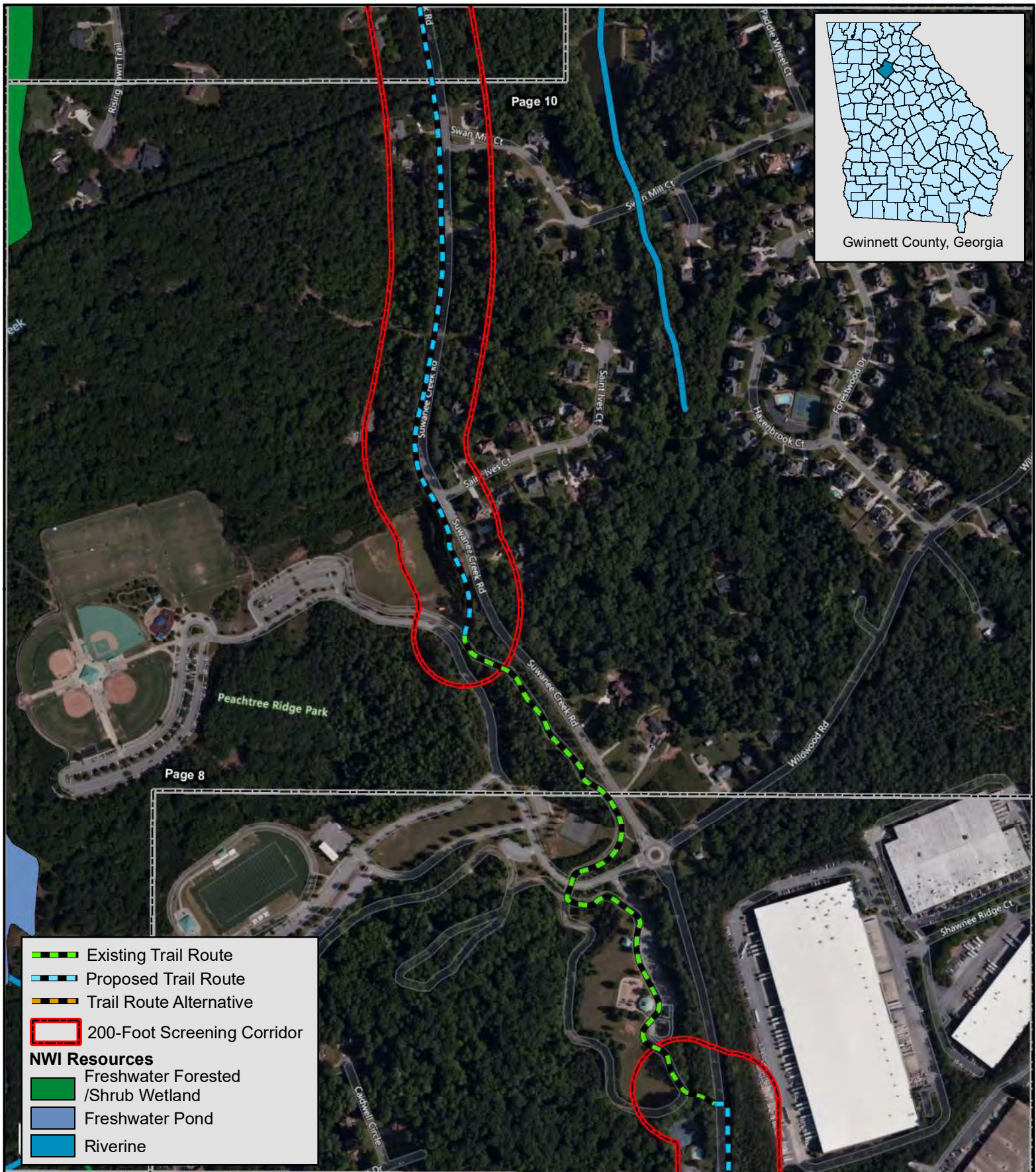
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Figure 4 - 8
USFWS NWI Map



0 300 600 Feet
 0 95 190 Meters

Gwinnett Loop Trail
 Gwinnett County, Georgia
 December, 2020



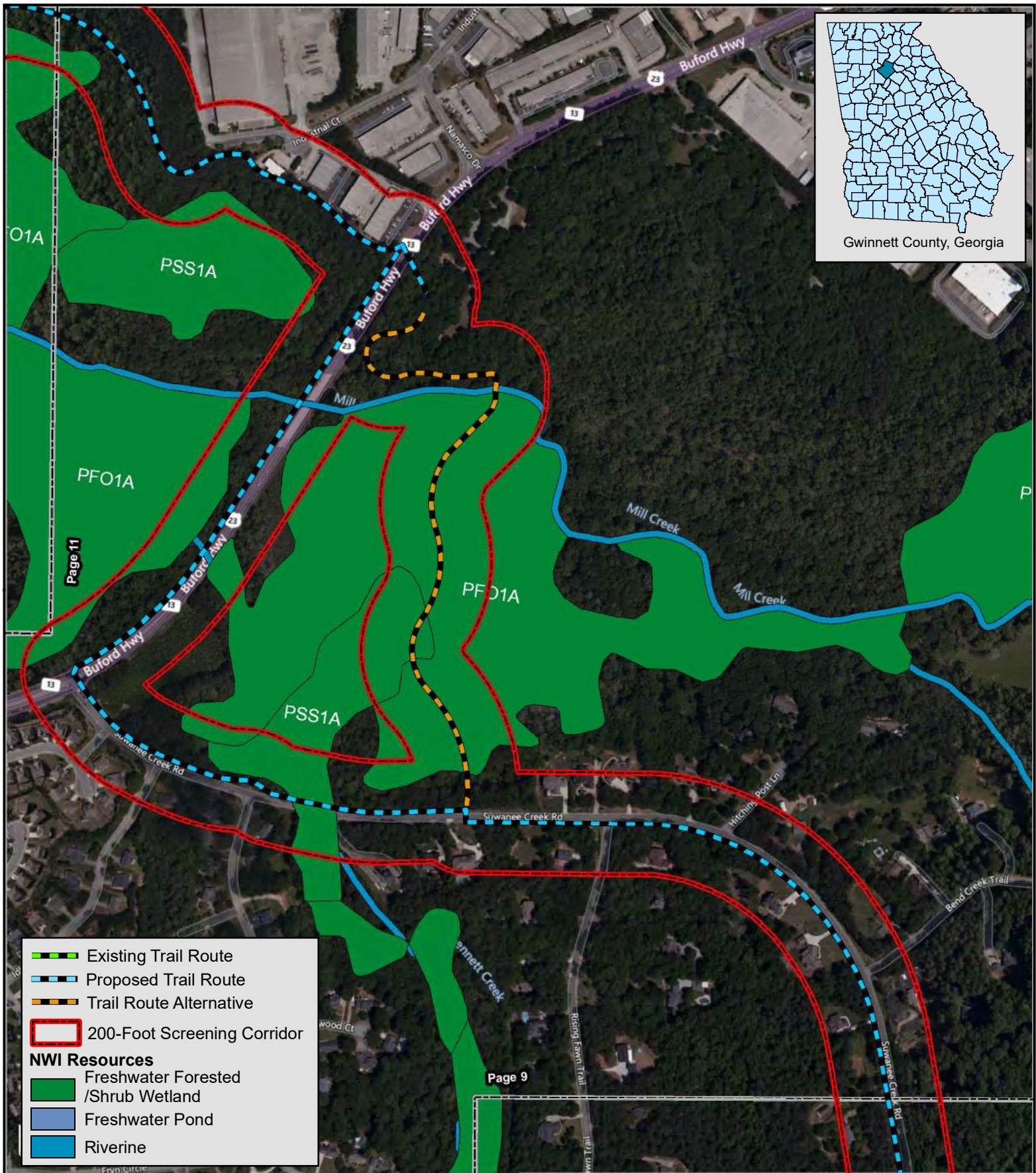
Service Layer Credits: U.S. Fish and Wildlife Service, National Standards and Support Team, wetlands_team@fws.gov
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Figure 4 - 9
USFWS NWI Map

Gwinnett Loop Trail
 Gwinnett County, Georgia
 December, 2020



0 300 600 Feet
 0 95 190 Meters



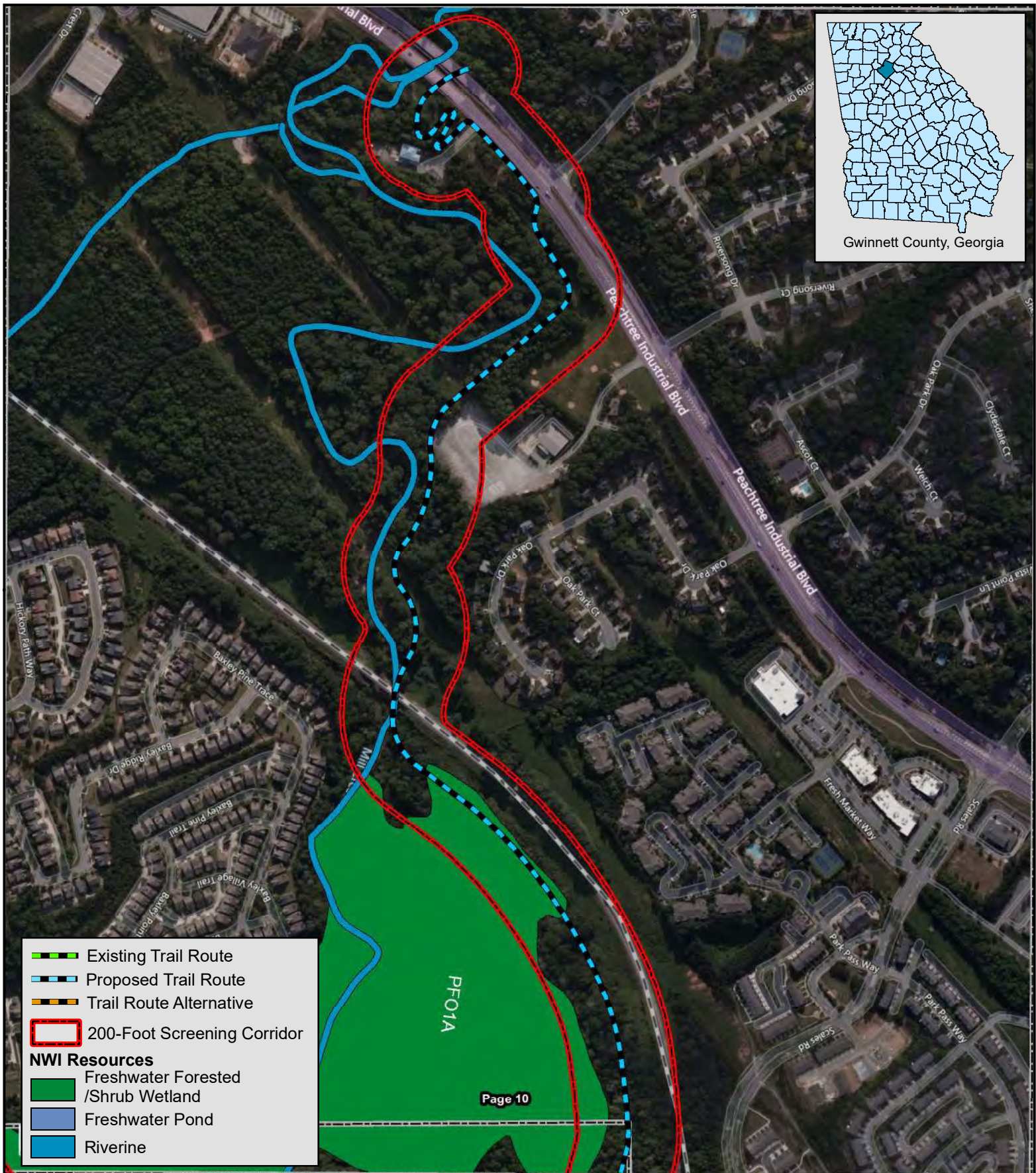
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Figure 4 - 10
USFWS NWI Map

Gwinnett Loop Trail
 Gwinnett County, Georgia
 December, 2020



0 300 600 Feet
 0 95 190 Meters



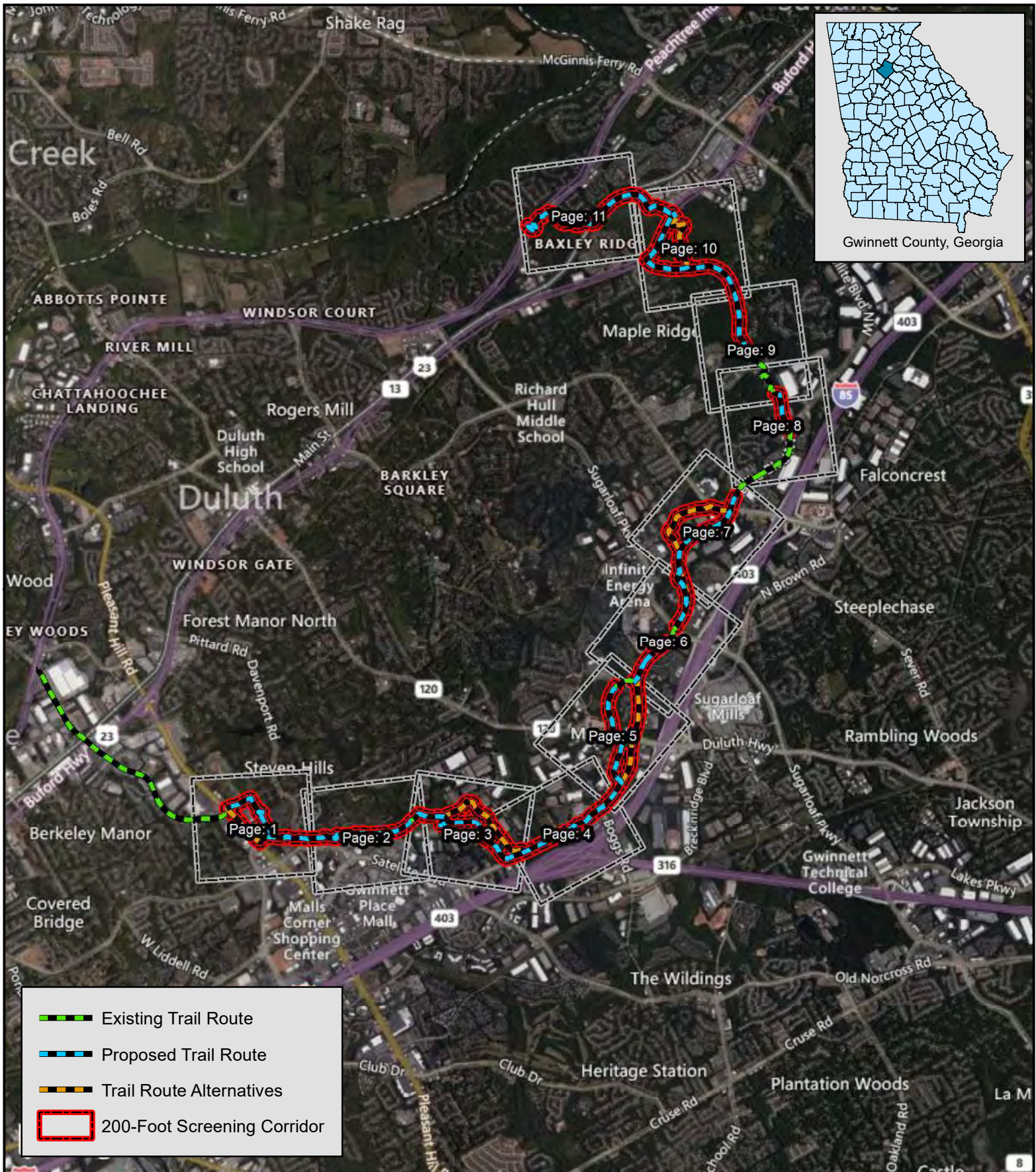
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Figure 4 - 11
USFWS NWI Map



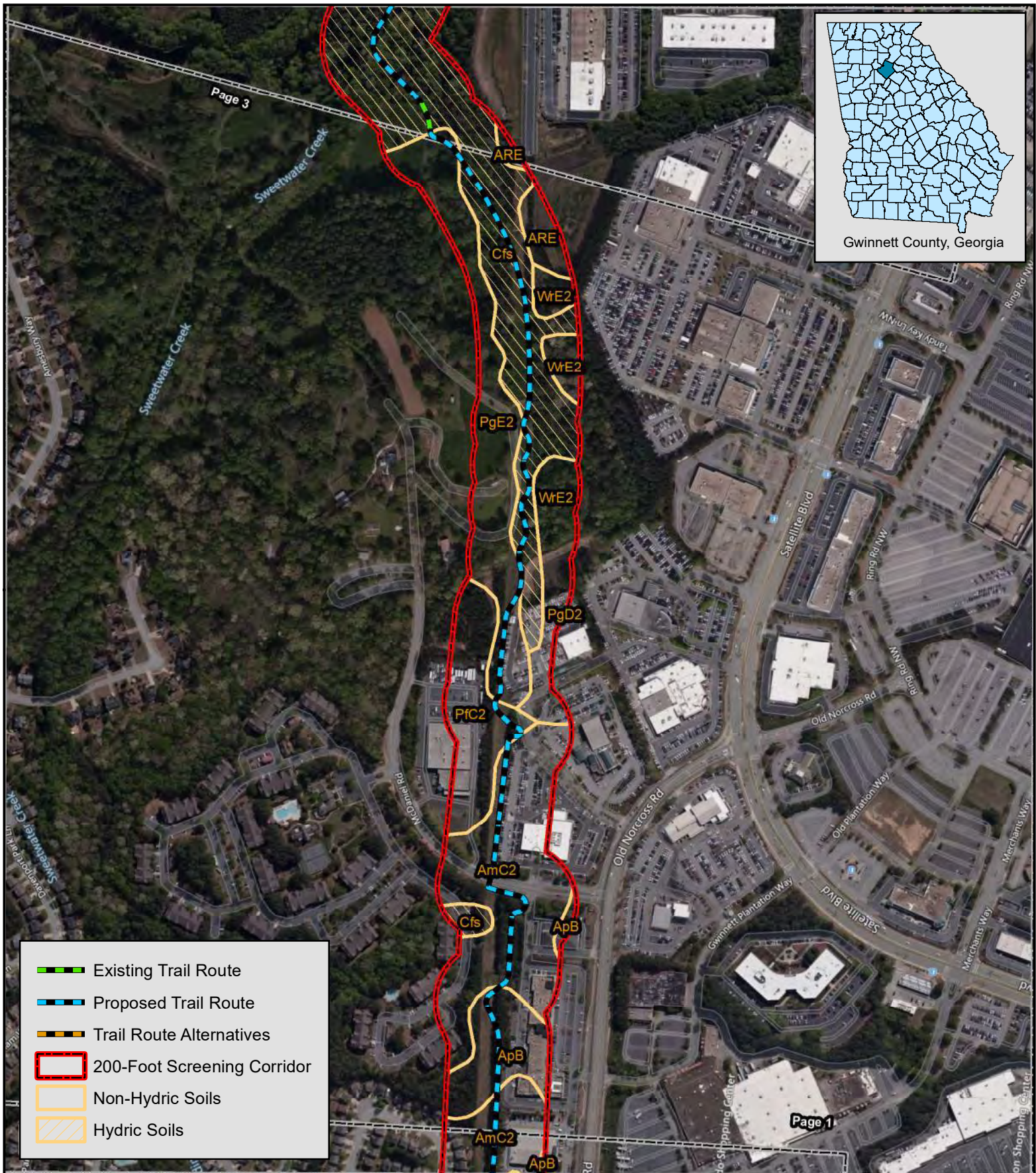
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Gwinnett Loop Trail
 Gwinnett County, Georgia
 December, 2020



**Figure 5 - Index
NRCS Soils Map**

Gwinnett Loop Trail
Gwinnett County, Georgia
December, 2020



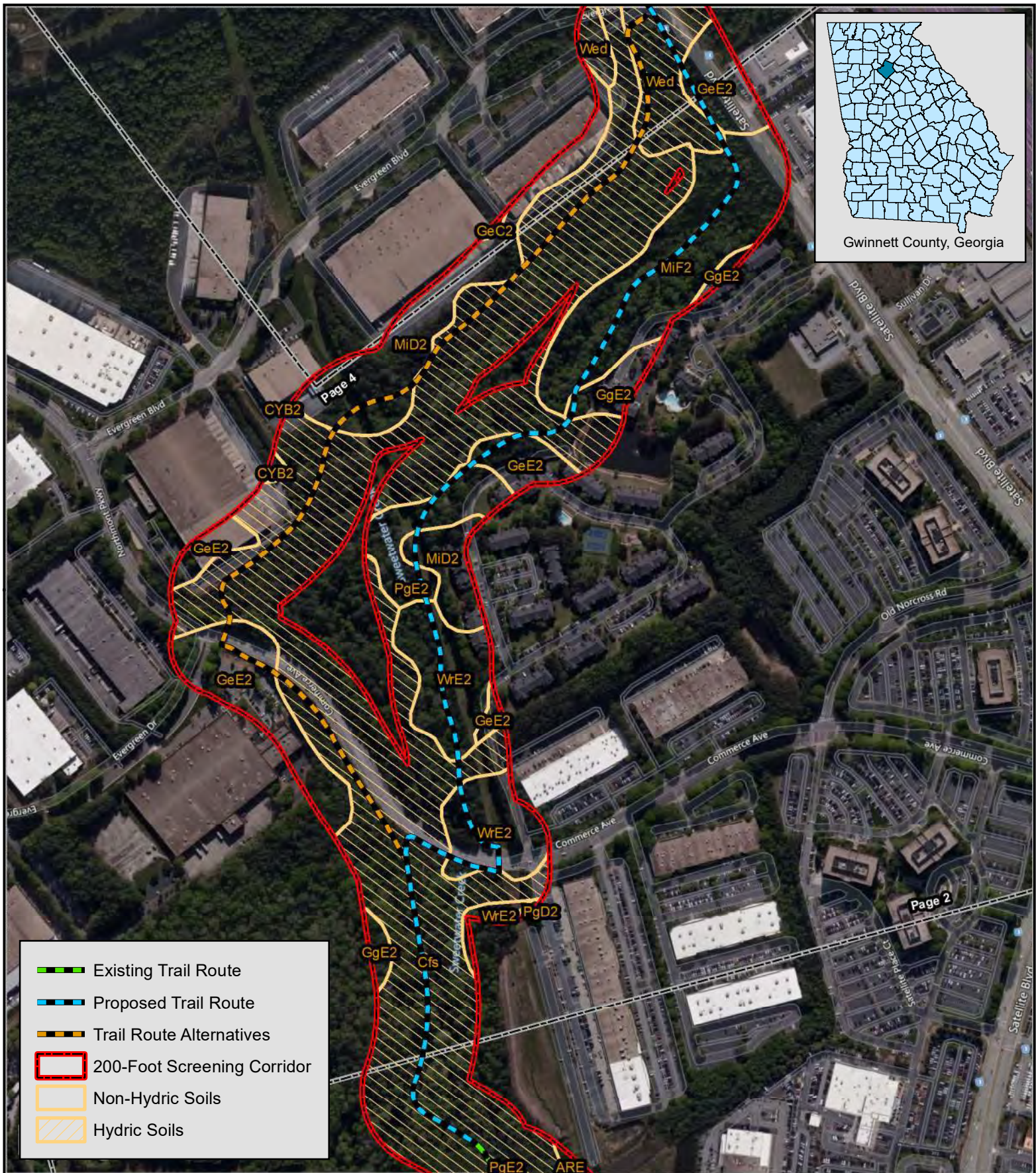
Service Layer Credits: © 2020 Microsoft Corporation © 2020 Maxar ©CNES (2020) Distribution Airbus DS © 2020 HERE

Figure 5 - 2
NRCS Soils Map

Gwinnett Loop Trail
Gwinnett County, Georgia
December, 2020



0 300 600 Feet
0 90 180 Meters



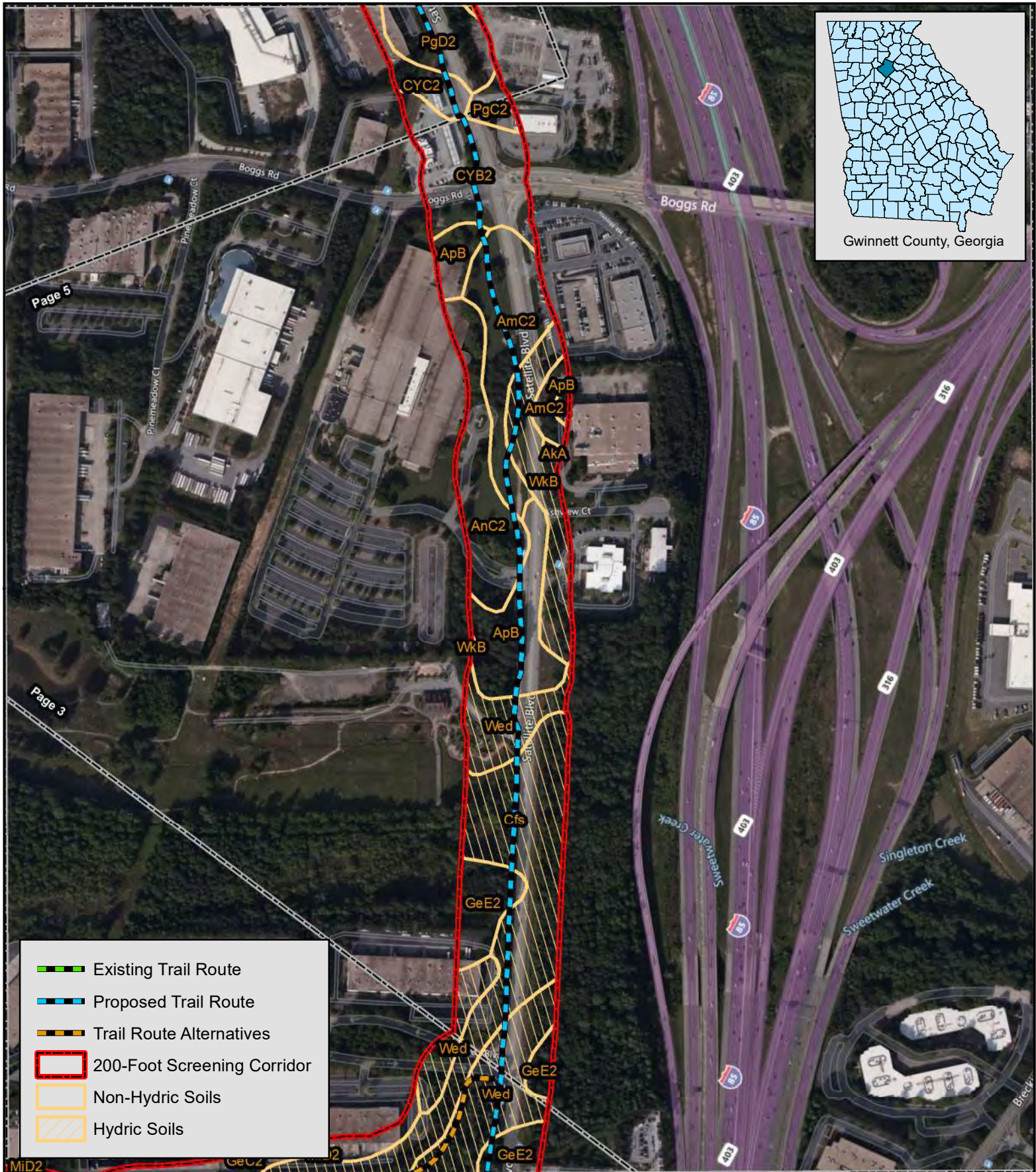
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Figure 5 - 3
NRCS Soils Map

Gwinnett Loop Trail
Gwinnett County, Georgia
December, 2020



0 300 600 Feet
0 90 180 Meters



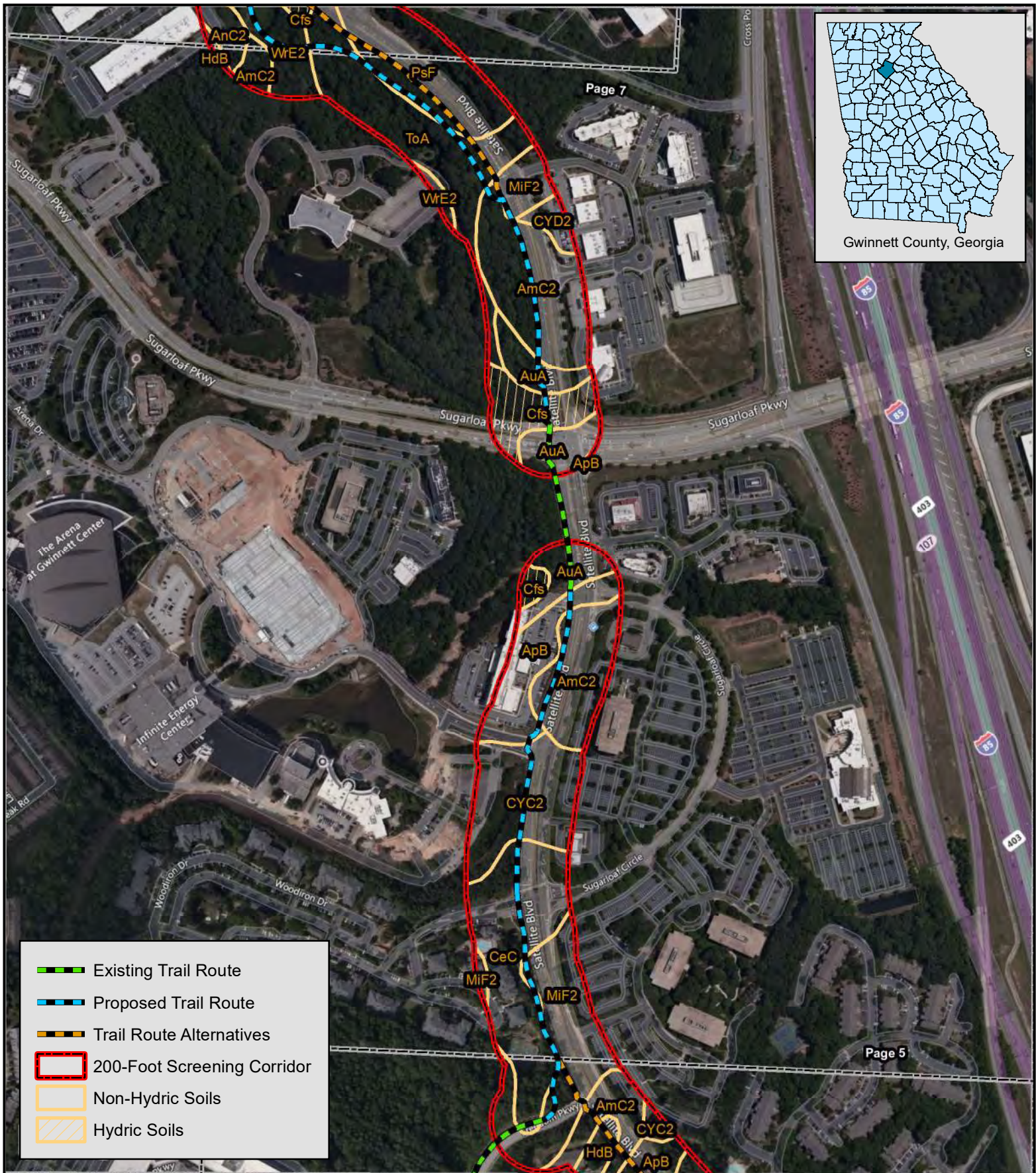
Service Layer Credits: © 2020 Microsoft Corporation © 2020 Maxar ©CNES (2020) Distribution Airbus DS © 2020 HERE

Figure 5 - 4
NRCS Soils Map

Gwinnett Loop Trail
Gwinnett County, Georgia
December, 2020



0 300 600 Feet
0 90 180 Meters



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Figure 5 - 6
NRCS Soils Map

Gwinnett Loop Trail
Gwinnett County, Georgia
December, 2020



0 300 600 Feet
0 90 180 Meters



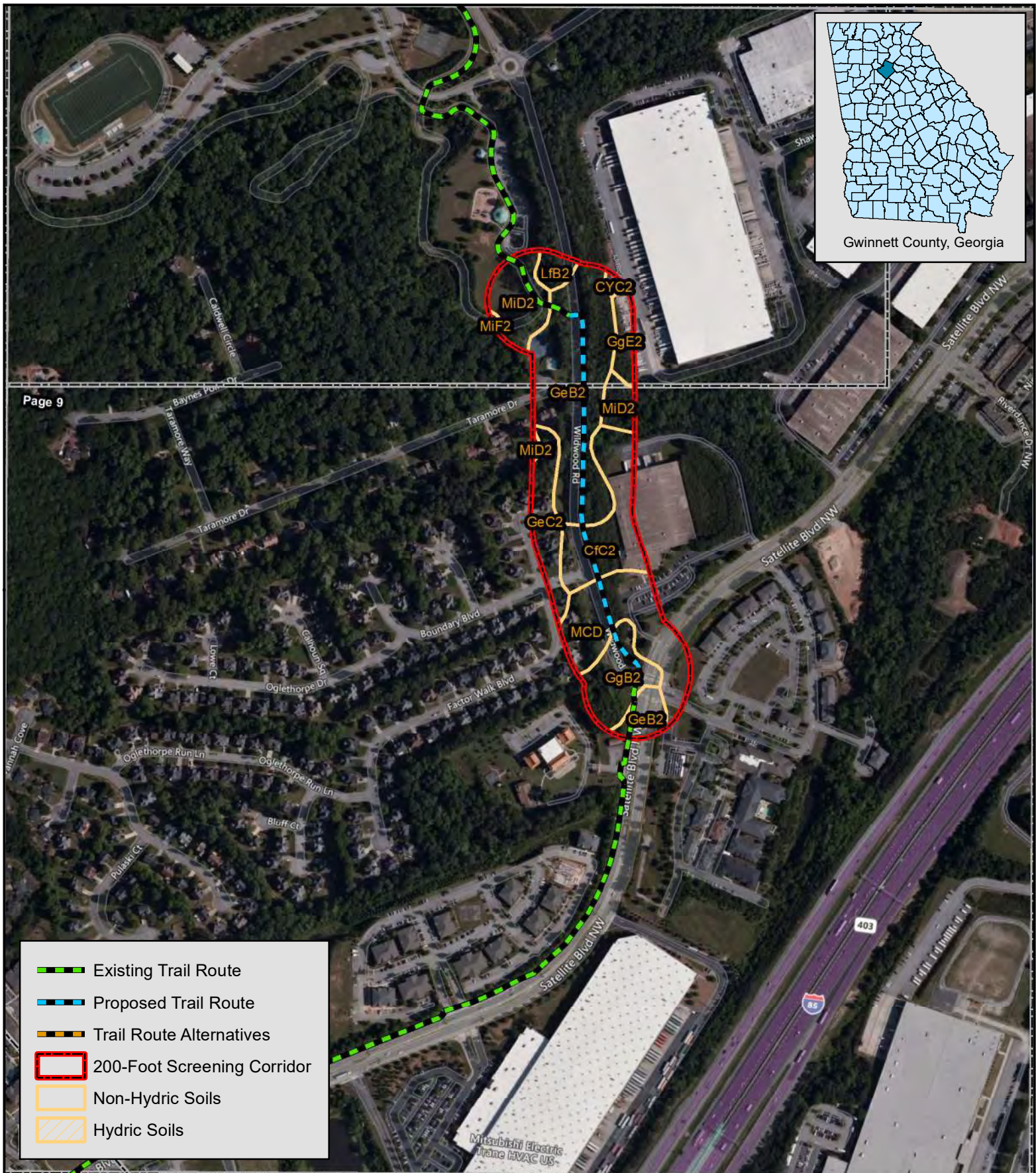
Service Layer Credits: © 2020 Microsoft Corporation © 2020 Maxar ©CNES (2020) Distribution Airbus DS © 2020 HERE

Figure 5 - 7
NRCS Soils Map

Gwinnett Loop Trail
Gwinnett County, Georgia
December, 2020



0 300 600 Feet
0 90 180 Meters



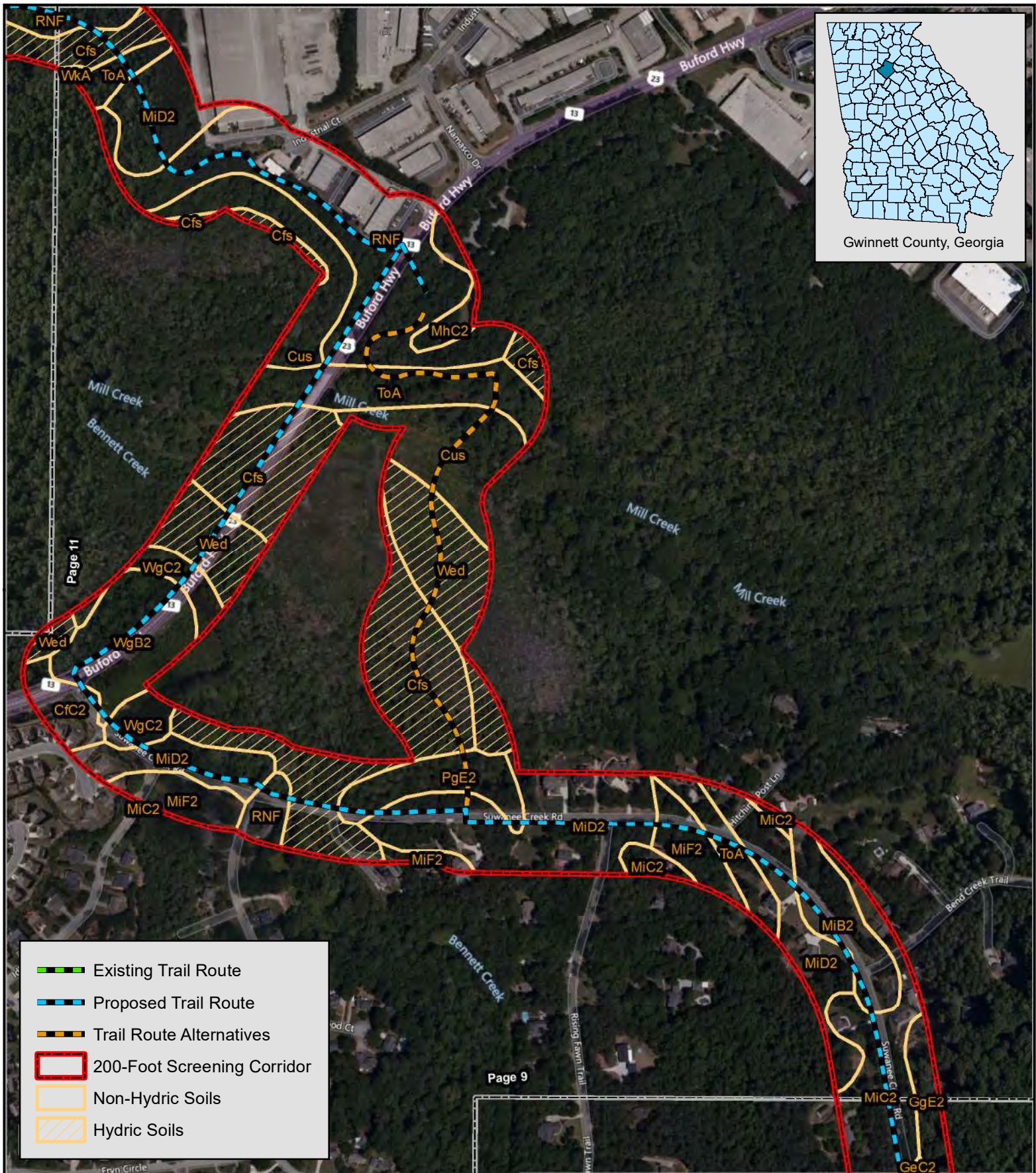
Service Layer Credits: © 2020 Microsoft Corporation © 2020 Maxar ©CNES (2020) Distribution Airbus DS © 2020 HERE

Figure 5 - 8
NRCS Soils Map

Gwinnett Loop Trail
Gwinnett County, Georgia
December, 2020



0 300 600 Feet
0 90 180 Meters



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Figure 5 - 10
NRCS Soils Map

Gwinnett Loop Trail
Gwinnett County, Georgia
December, 2020



0 300 600 Feet
0 90 180 Meters



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Figure 5 - 11
NRCS Soils Map

Gwinnett Loop Trail
Gwinnett County, Georgia
December, 2020



0 300 600 Feet
0 90 180 Meters



PANEL
13135C0069F
eff. 9/29/2006

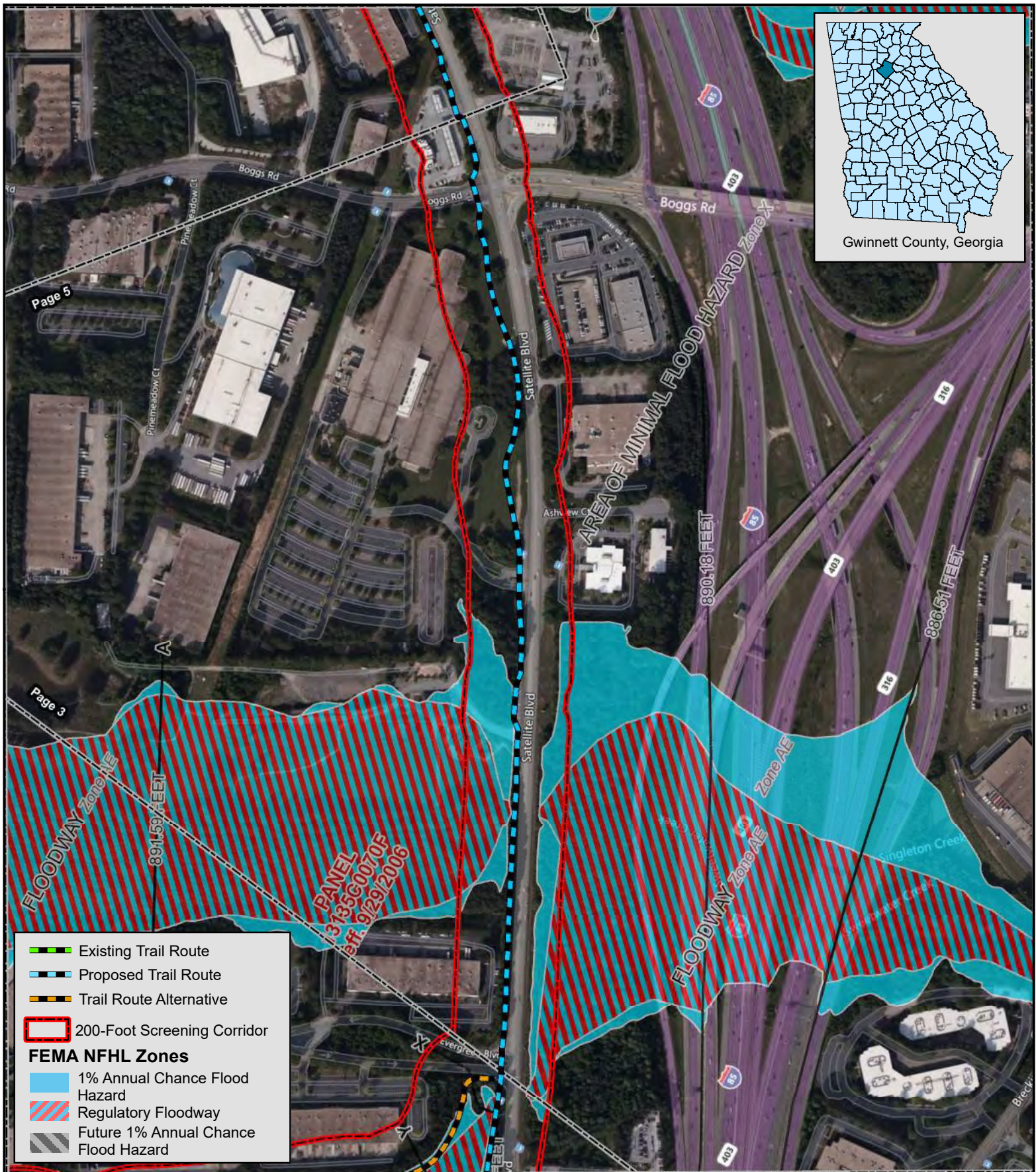
**Figure 6 - 1
FEMA NFHL Map**

Gwinnett Loop Trail
Gwinnett County, Georgia
December, 2020



0 300 600 Feet

0 90 180 Meters



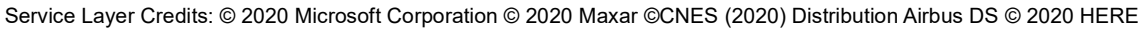
Service Layer Credits: © 2020 Microsoft Corporation © 2020 Maxar ©CNES (2020) Distribution Airbus DS © 2020 HERE

Figure 6 - 4
FEMA NFHL Map



0 300 600 Feet
0 90 180 Meters

Gwinnett Loop Trail
Gwinnett County, Georgia
December, 2020



Gwinnett Loop Trail
Gwinnett County, Georgia
December, 2020



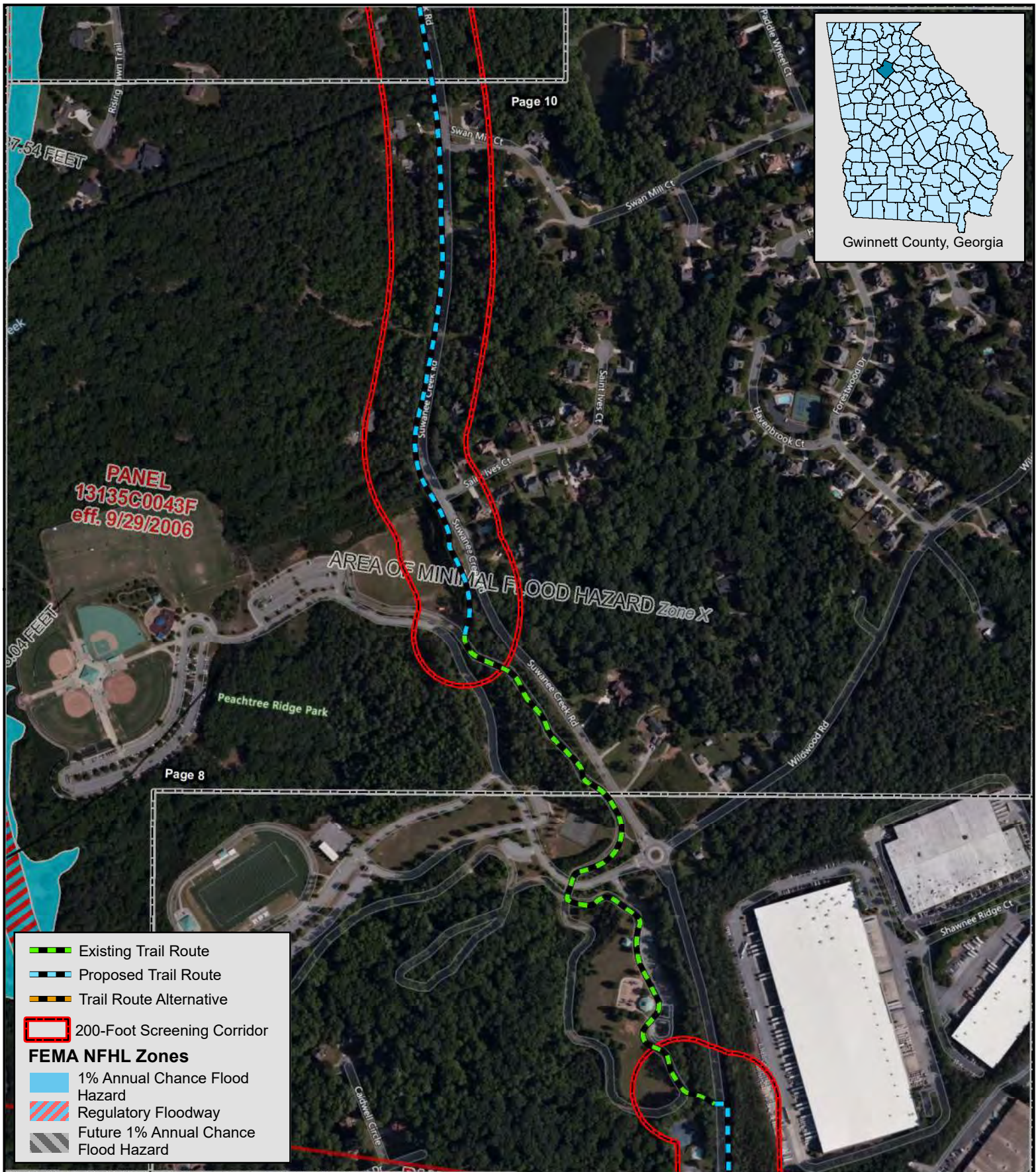
Service Layer Credits: © 2020 Microsoft Corporation © 2020 Maxar ©CNES (2020) Distribution Airbus DS © 2020 HERE

Figure 6 - 8
FEMA NFHL Map



0 300 600 Feet
0 90 180 Meters

Gwinnett Loop Trail
Gwinnett County, Georgia
December, 2020



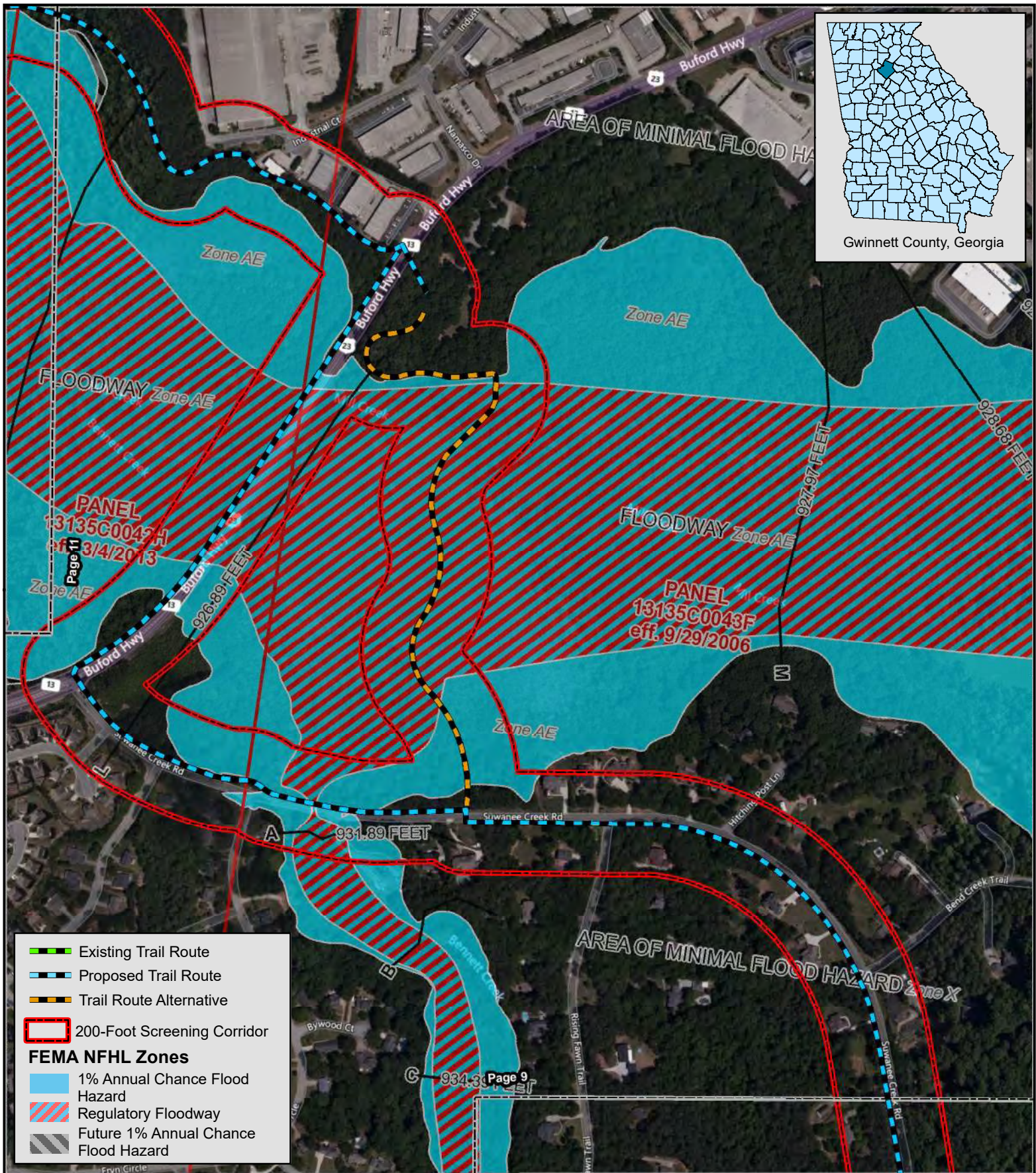
Service Layer Credits: © 2020 Microsoft Corporation © 2020 Maxar ©CNES (2020) Distribution Airbus DS © 2020 HERE

Figure 6 - 9
FEMA NFHL Map

Gwinnett Loop Trail
Gwinnett County, Georgia
December, 2020



0 300 600 Feet
0 90 180 Meters



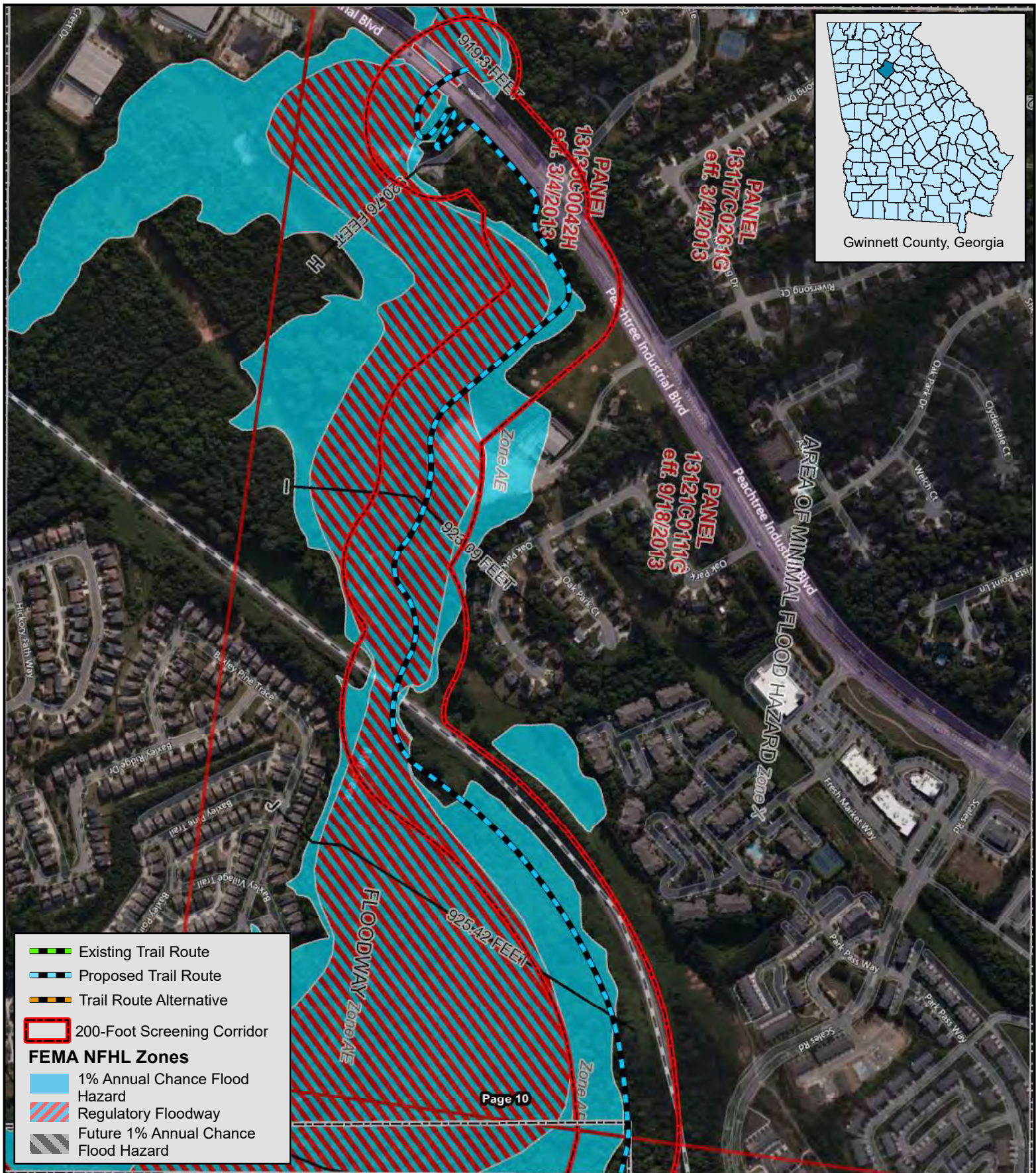
Service Layer Credits: © 2020 Microsoft Corporation © 2020 Maxar ©CNES (2020) Distribution Airbus DS © 2020 HERE

**Figure 6 - 10
FEMA NFHL Map**



0 300 600 Feet
0 90 180 Meters

Gwinnett Loop Trail
Gwinnett County, Georgia
December, 2020



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**Figure 6 - 11
FEMA NFHL Map**

Gwinnett Loop Trail
Gwinnett County, Georgia
December, 2020



0 300 600 Feet
0 90 180 Meters

Attachment B – Photographic Log



Photograph 1: Entrance to Suwanee Creek Park adjacent to northern extent of proposed project.



Photograph 2: Suwanee Creek Road within screening corridor.



Photograph 3: Existing portion of Loop Trail within Peachtree Ridge Park.



Photograph 4: Satellite Boulevard and Old Peachtree Road NW adjacent to BP station.



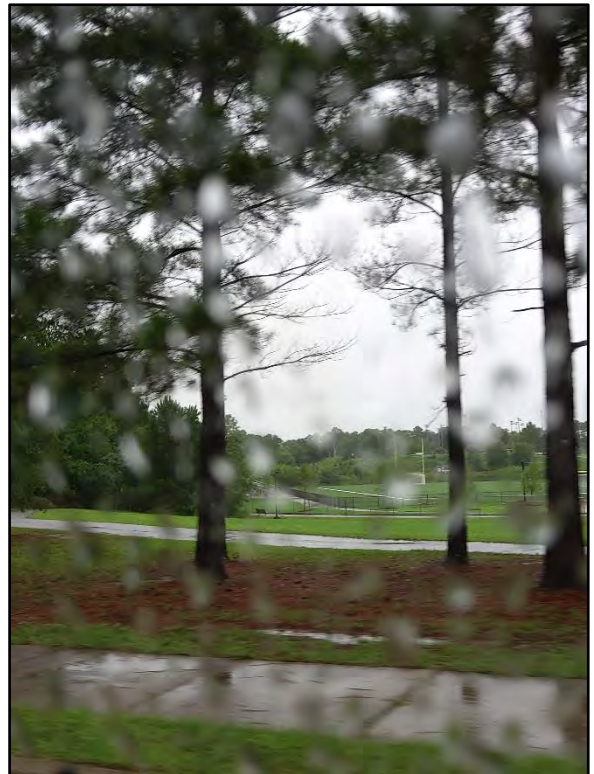
Photograph 5: Satellite Boulevard near Sugarloaf Parkway within screening corridor.



Photograph 6: Freedom Way Avenue along existing portion of the Loop Trail.



Photograph 7: Satellite Boulevard near Boggs Road NW within screening corridor.



Photograph 8: Southern extent of the proposed project adjacent to Hill Drive NW.

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Attachment C – USFWS IPaC Report



United States Department of the Interior

FISH AND WILDLIFE SERVICE
Georgia Ecological Services Field Office
355 East Hancock Avenue
Room 320
Athens, GA 30601
Phone: (706) 613-9493 Fax: (706) 613-6059



In Reply Refer To:
Consultation Code: 04EG1000-2020-SLI-3347
Event Code: 04EG1000-2020-E-06165
Project Name: Gwinnett Loop Trail

August 24, 2020

Subject: List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

Thank you for your recent request for information on federally listed species and important wildlife habitats that may occur in your project area. The U.S. Fish and Wildlife Service (Service) has responsibility for certain species of wildlife under the Endangered Species Act (ESA) of 1973 as amended (16 USC 1531 et seq.), the Migratory Bird Treaty Act (MBTA) as amended (16 USC 701-715), and the Bald and Golden Eagle Protection Act (BGEPA) as amended (16 USC 668-668c). We are providing the following guidance to assist you in determining which federally imperiled species may or may not occur within your project area and to recommend some conservation measures that can be included in your project design if you determine those species or designated critical habitat may be affected by your proposed project.

FEDERALLY-LISTED SPECIES AND DESIGNATED CRITICAL HABITAT

Attached is a list of endangered, threatened, and proposed species that may occur in your project area. Your project area may not necessarily include all or any of these species. Under the ESA, it is the responsibility of the Federal action agency or its designated representative to determine if a proposed action "may affect" endangered, threatened, or proposed species, or designated critical habitat, and if so, to consult with the Service further. Similarly, it is the responsibility of the Federal action agency or project proponent, not the Service, to make "no effect" determinations. If you determine that your proposed action will have "no effect" on threatened or endangered species or their respective critical habitat, you do not need to seek concurrence with the Service. Nevertheless, it is a violation of Federal law to harm or harass any federally-listed threatened or endangered fish or wildlife species without the appropriate permit.

If you determine that your proposed action may affect federally listed species, please consult with the Service. Through the consultation process, we will analyze information contained in a biological assessment or equivalent document that you provide. If your proposed action is associated with Federal funding or permitting, consultation will occur with the Federal agency under section 7(a)(2) of the ESA. Otherwise, an incidental take permit pursuant to section 10(a)(1)(B) of the ESA (also known as a Habitat Conservation Plan) may be necessary to exempt harm or harass federally listed threatened or endangered fish or wildlife species. For more information regarding formal consultation and HCPs, please see the Service's Consultation Handbook and Habitat Conservation Plans at www.fws.gov/endangered/esa-library/index.html#consultations.

Action Area. The scope of federally listed species compliance not only includes direct effects, but also any indirect effects of project activities (e.g., equipment staging areas, offsite borrow material areas, or utility relocations). The action area is the spatial extent of an action's direct and indirect modifications to the land, water, or air (50 CFR 402.02). Large projects may have effects to land, water, or air outside the immediate footprint of the project, and these areas should be included as part of the action area. Effects to land, water, or air outside of a project footprint could include things like lighting, dust, smoke, and noise. To obtain a complete list of species, the action area should be uploaded or drawn in IPaC rather than just the project footprint.

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

If you determine that your action may affect any federally listed species and would like technical assistance from our office please provide the following information (reference to these items can be found in 50 CFR 402.13 and 402.14):

A description of the proposed action, including any measures intended to avoid, minimize, or offset effects of the action. Consistent with the nature and scope of the proposed action, the description shall provide sufficient detail to assess the effects of the action on listed species and critical habitat, including:

1. The purpose of the action;
 2. The duration and timing of the action;
 3. The location of the action;
-

4. The specific components of the action and how they will be carried out;
5. Description of areas to be affected directly or indirectly by the action;
6. Information on the presence of listed species in the action area;
7. Description of effects of the action on species in the action area;
8. Maps, drawings, blueprints, or similar schematics of the action; and
9. Any other available information related to the nature and scope of the proposed action relevant to its effects on listed species or designated critical habitat (examples include: stormwater plans, management plans, erosion and sediment plans).

Please submit all consultation documents via email to gaes_assistance@fws.gov or by using IPaC, uploaded documents, and sharing the project with a specific Georgia Ecological Services staff member. If the project is on-going, documents can also be sent to the Georgia ES staff member currently working with you on your project. For Georgia Department of Transportation-related projects, please work with the Office of Environmental Services ecologist to determine the appropriate USFWS transportation liaison.

WETLANDS AND FLOODPLAINS

Under Executive Orders 11988 and 11990, Federal agencies are required to minimize the destruction, loss, or degradation of wetlands and floodplains, and preserve and enhance their natural and beneficial values. These habitats should be conserved through avoidance, or mitigated to ensure that there would be no net loss of wetlands function and value.

We encourage you to use the National Wetland Inventory (NWI) maps in conjunction with ground-truthing to identify wetlands occurring in your project area. The Service's NWI program website, www.fws.gov/wetlands/Data/Mapper.html integrates digital map data with other resource information. We also recommend you contact the U.S. Army Corps of Engineers for permitting requirements under section 404 of the Clean Water Act if your proposed action could impact floodplains or wetlands.

MIGRATORY BIRDS

The MBTA prohibits the taking of migratory birds, nests, and eggs, except as permitted by the Service's Migratory Bird Office. To minimize the likelihood of adverse impacts to migratory birds, we recommend construction activities occur outside the general bird nesting season from March through August, or that areas proposed for construction during the nesting season be surveyed, and when occupied, avoided until the young have fledged.

We recommend review of Birds of Conservation Concern at website www.fws.gov/migratorybirds/CurrentBirdIssues/Management/BCC.html to fully evaluate the effects to the birds at your site. This list identifies birds that are potentially threatened by disturbance and construction.

Information related to wind energy development and migratory birds can be found at this location: <https://www.fws.gov/birds/management/project-assessment-tools-and-guidance/guidance-documents/wind-energy.php>.

BALD AND GOLDEN EAGLES

The bald eagle (*Haliaeetus leucocephalus*) was delisted under the ESA on August 9, 2007. Both the bald eagle and golden eagle (*Aquila chrysaetos*) are still protected under the MBTA and BGEPA. The BGEPA affords both eagles protection in addition to that provided by the MBTA, in particular, by making it unlawful to “disturb” eagles. Under the BGEPA, the Service may issue limited permits to incidentally “take” eagles (e.g., injury, interfering with normal breeding, feeding, or sheltering behavior nest abandonment). For information on bald and golden eagle management guidelines, we recommend you review information provided at <https://www.fws.gov/birds/management/managed-species/bald-and-golden-eagle-information.php> and <https://www.fws.gov/birds/management/managed-species/eagle-management.php>. Additionally the following site will help you determine if your activity is likely to take or disturb bald eagles in the southeast (<https://www.fws.gov/southeast/our-services/eagle-technical-assistance>).

NATIVE BAT COMMENTS

If your species list includes Indiana bat or northern long-eared bat and the project is expected to impact forested habitat that is appropriate for maternity colonies of these species, forest clearing during the winter. Federally listed bats could be actively present in forested landscapes from April 1 to October 15 of any year and have non-volant pups from May 15 to July 31 in any year. Non-volant pups are incapable of flight and are vulnerable to disturbance during that time. Additional information on bat avoidance and minimization can be found at the following link: https://www.fws.gov/athens/transportation/pdfs/Bat_AMMs.pdf.

Additional information that addresses at-risk or high priority natural resources can be found in the State Wildlife Action Plan (<https://georgiawildlife.com/WildlifeActionPlan>), at Georgia Department of Natural Resources, Wildlife Resources Division Rare Species and Natural Community Portal (<https://georgiawildlife.com/conservation/species-of-concern>), Georgia's Natural, Archaeological, and Historic Resources GIS portal (<https://www.gnahrgis.org/gnahrgis/index.do>), and Georgia Ecological Services Watershed Guidance portal (<https://www.fws.gov/athens/transportation/coordination.html>).

Thank you for your concern for endangered and threatened species. We appreciate your efforts to identify and avoid impacts to listed and sensitive species in your project area. For further

consultation on your proposed activity, please email gaes_assistance@fws.gov and reference your Service Consultation Tracking Number (Consultation Code).

This letter constitutes Georgia Ecological Services' general comments under the authority of the Endangered Species Act.

Attachment(s):

- Official Species List
- Migratory Birds

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Georgia Ecological Services Field Office

355 East Hancock Avenue

Room 320

Athens, GA 30601

(706) 613-9493

Project Summary

Consultation Code: 04EG1000-2020-SLI-3347

Event Code: 04EG1000-2020-E-06165

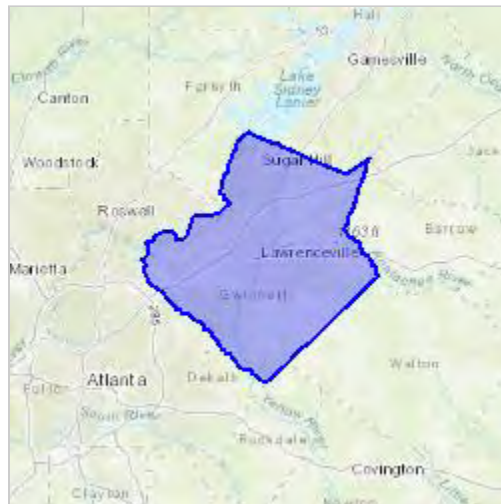
Project Name: Gwinnett Loop Trail

Project Type: RECREATION CONSTRUCTION / MAINTENANCE

Project Description: Greenway and trail project.

Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/place/33.96030731775332N84.04489093517742W>



Counties: Gwinnett, GA

Endangered Species Act Species

There is a total of 2 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

-
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Flowering Plants

NAME	STATUS
Little Amphianthus <i>Amphianthus pusillus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/6445	Threatened

Ferns and Allies

NAME	STATUS
Black Spored Quillwort <i>Isoetes melanospora</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/6315	Endangered

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

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Appendix B: Cost Estimate Summary

SUMMARY OF COSTS	
MAIN ALIGNMENT	
Construction	
Segments	Cost
1	\$6,648,381.00
2	\$5,362,616.00
3	\$3,357,268.00
4	\$1,704,179.00
5	\$7,326,175.00
Subtotal	\$24,398,619.00
Right-Of-Way	
Segments	Cost
1	\$967,820.13
2	\$719,687.28
3	\$397,129.17
4	\$509,240.90
5	\$727,122.52
Subtotal	\$3,321,000.00
Utilities	
Segments	Cost
1	\$1,329,676.20
2	\$429,009.28
3	\$134,290.72
4	\$68,167.16
5	\$293,047.00
Subtotal	\$2,254,200.00
Project Totals: (Construction+ROW+Utility)	
	\$29,973,819.00

ALTERNATE ROUTES	
Construction	
Alternate Routes	Cost
Segment 1 Alternate 1	\$258,332.00
Segment 1 Alternate 2	\$4,614,606.00
Segment 2 Alternate 3	\$344,792.00
Segment 2 Alternate 4	\$484,307.00
Segment 3 Alternate 5	\$583,867.00
Segment 3 Alternate 6	\$755,346.00
Segment 5 Alternate 7	\$4,273,482.00
Segment 5 Alternate 8	\$5,949,889.00
Subtotal	\$17,264,621.00

Right-Of-Way	
Alternate Routes	Cost
Segment 1 Alternate 1	\$471,000.00
Segment 1 Alternate 2	\$649,000.00
Segment 2 Alternate 3	\$307,000.00
Segment 2 Alternate 4	\$223,000.00
Segment 3 Alternate 5	\$153,000.00
Segment 3 Alternate 6	\$218,000.00
Segment 5 Alternate 7	\$83,000.00
Segment 5 Alternate 8	\$779,000.00
Subtotal	\$2,883,000.00
Utilities:	
Alternate Routes	Cost
Segment 1 Alternate 1	\$51,666.40
Segment 1 Alternate 2	\$369,168.48
Segment 2 Alternate 3	\$13,791.68
Segment 2 Alternate 4	\$19,372.28
Segment 3 Alternate 5	\$23,354.68
Segment 3 Alternate 6	\$30,213.84
Segment 5 Alternate 7	\$170,939.28
Segment 5 Alternate 8	\$237,995.56
Subtotal	\$916,502.20
Alternate Totals: (Construction+ROW+Utility)	\$21,064,124.00

Notes:

- Construction costs do not include costs incurred for phased project development.
- The Engineering and Inspection construction contingency is included as a budget percentage that should be carried through the construction on the project. The contingency allows for change orders and unforeseen conditions and/or costs that may be encountered during the construction phase.
- Design fees, survey, and studies are included as a percentage of construction cost.
- Contingency percentages are included in the opinion of cost. The concept level 20% design contingency accounts for the details and associated costs that are yet unknown.
- Real estate acquisition service fees are not included.
- Investigations for ecology, geotechnical, and local, state and federal studies are not included.
- Any estimates as to costs are based on industry experience and the CONSULTANT is not responsible for changes in market conditions that affect construction, material or maintenance costs. Any changes to the project or additional expenses associated with same will not be the responsibility of the CONSULTANT.
- For each additional year of project not moving to construction, 3.5% of total cost will be accrued to account for economic inflation.
- Items such as benches, signs may be proprietary to County/Open Space Greenway standards.
- If lighting is desired along lengths of side paths, calculate pedestrian lighting standards one every 40' on center at \$5,000 each.
- Within the cost for Grading Complete, items such as soils/fill remediation or debris removal and revegetation of areas with appropriate ornamental and/or habitat plantings are included.
- Concrete boardwalk and steel pedestrian bridge selection may change based on actual site conditions and refinement of design during the preliminary design phase. There is a cost savings for using timber boardwalk and concrete or timber bridges compared to what is used in the following estimates.

Loop Trail Magnitude of Cost					
Segment 1					
Erosion Control & Tree Protection					
ITEM		QTY	UNIT	UNIT PRICE	COST
163-XXXX	Erosion Control and Tree Protection	6.0	AC	\$30,000.00	\$180,000.00
Subtotal					\$180,000.00
Earthwork & Drainage					
ITEM		QTY	UNIT	UNIT PRICE	COST
210-1500	Grading Complete	1	LS	\$756,000.00	\$756,000.00
Subtotal					\$756,000.00
Hardscape, Walls, and Fences					
ITEM		QTY	UNIT	UNIT PRICE	COST
310-5040	4" Gr Aggr Base Crs, Incl Matl	10517	SY	\$11.00	\$115,687.00
310-5080	8" Gr Aggr Base Crs, Incl Matl	1100	SY	\$19.00	\$20,900.00
402-XXXX	Asphalt Trail Paving, 4 IN, with 4 IN GAB	1100	SY	\$37.00	\$40,700.00
441-XXXX	Concrete Trail Paving, STN FIN, 6 IN	10517	SY	\$45.00	\$473,265.00
500-3201	Class B Concrete, retaining wall	130	CY	\$500.00	\$65,000.00
643-XXXX	6' Chain Link Fence	4100	LF	\$30.00	\$123,000.00
652-5801	Solid Traffic Stripe, 8 IN, White	1260	LF	\$2.00	\$2,520.00
652-6502	Skip Traffic Stripe, 5 IN Yellow	8200	GLF	\$0.52	\$4,264.00
653-1704	Thermoplastic Solid Traf Stripe, 24 IN, White	170	LF	\$7.00	\$1,190.00
999-9600	Trailhead- signage, concrete spur connection (shared parking)	2	EA	\$30,000.00	\$60,000.00
Subtotal					\$906,526.00
Landscape (Side Path only)					
ITEM		QTY	UNIT	UNIT PRICE	COST
702-XXXX	5' Landscape buffer: including trees, shrubs, grasses, and 3 inches of mulch. Trees every 40' within buffer.	1266	LF	\$30.00	\$37,980.00
Subtotal					\$37,980.00
Structures					
ITEM		QTY	UNIT	UNIT PRICE	COST
999-0151	Concrete Boardwalk	28500	SF	\$95.00	\$2,707,500.00
999-38XX	Pedestrian Hybrid Beacon Installation	1	EA	\$150,000.00	\$150,000.00
641-1200	Guardrail, TP W	225	LF	\$24.00	\$5,400.00
641-50XX	Guardrail anchorage, TP 1 and 12	2	EA	\$3,000.00	\$6,000.00
Subtotal					\$2,868,900.00
Site Furnishings					
ITEM		QTY	UNIT	UNIT PRICE	COST
515-2020	Galv Steel Pipe Handrail, 2 IN, Round	560	LF	\$36.00	\$20,160.00
515-2052	Safety Rail	1364	LF	\$100.00	\$136,400.00
636-XXXX	Trail Mile Marker Signage	12	EA	\$250.00	\$3,000.00
636-XXXX	Wayfinding Signage-Trailhead	2	LS	\$16,000.00	\$32,000.00
636-XXXX	Wayfinding Signage- Intersections-Crossings	20	EA	\$500.00	\$10,000.00
754-5000	Bench	3	EA	\$1,300.00	\$3,900.00
754-6000	Bike Rack	5	EA	\$600.00	\$3,000.00
754-4000	Waste Receptacle	12	EA	\$1,100.00	\$13,200.00
900-0527	Removable Bollard	36	EA	\$1,000.00	\$36,000.00
999-38XX	Rectangular Rapid Flashing Beacon Installation	4	EA	\$17,000.00	\$68,000.00
Subtotal					\$325,660.00
Rounded Subtotal					\$5,075,100.00
3% Engineering + Inspection					\$152,253.00
8% Design Fees, Survey + Studies					\$406,008.00
20% Contingency					\$1,015,020.00
Total Construction Cost					\$6,648,381.00

Non-reimbursable Utilities	\$1,329,676.20
Subtotal Utilities:	\$1,329,676.20
Right-of-Way (temporary and permanent easement)	\$967,820.13
Subtotal Right-of-Way:	\$967,820.13
Segment Total (Construction+Utilities+ROW):	\$8,945,880.00

Inflation: 3.5% per year

2022	\$9,258,985.80
2023	\$9,583,050.30
2024	\$9,918,457.06

Loop Trail Magnitude of Cost					
Segment 1 - Alt 1					
Erosion Control, & Tree Protection					
ITEM		QTY	UNIT	UNIT PRICE	COST
163-XXXX	Erosion Control and Tree Protection	0.5	AC	\$30,000.00	\$15,000.00
				Subtotal	\$15,000.00
Earthwork & Drainage					
ITEM		QTY	UNIT	UNIT PRICE	COST
210-1500	Grading Complete	1	LS	\$26,000.00	\$26,000.00
				Subtotal	\$26,000.00
Hardscape & Walls					
ITEM		QTY	UNIT	UNIT PRICE	COST
310-5080	8" Gr Aggr Base Crs, Incl Matl	1453	SY	\$19.00	\$27,607.00
402-XXXX	Asphalt Trail Paving, 4 IN, with 4 IN GAB	1453	SY	\$37.00	\$53,761.00
441-00XX	Driveway Reconstruction, 8 IN TK	400	SY	\$55.00	\$22,000.00
500-3201	Class B Concrete, retaining wall	40	CY	\$500.00	\$20,000.00
652-5801	Solid Traffic Stripe, 8 IN, White	1500	LF	\$2.00	\$3,000.00
652-6502	Skip Traffic Stripe, 5 IN Yellow	1667	GLF	\$0.52	\$866.84
653-1704	Thermoplastic Solid Traf Stripe, 24 IN, White	65	LF	\$7.00	\$455.00
				Subtotal	\$127,689.84
Site Furnishings					
ITEM		QTY	UNIT	UNIT PRICE	COST
515-2020	Galv Steel Pipe Handrail, 2 IN, Round	600	LF	\$36.00	\$21,600.00
636-XXXX	Wayfinding Signage- Intersections-Crossings	8	EA	\$500.00	\$4,000.00
636-XXXX	Trail Mile Marker Signage	1	EA	\$250.00	\$250.00
754-5000	Bench	2	EA	\$1,300.00	\$2,600.00
				Subtotal	\$28,450.00
				Rounded Subtotal	\$197,200.00
				3% Engineering + Inspection	\$5,916.00
				8% Design Fees, Survey + Studies	\$15,776.00
				20% Contingency	\$39,440.00
				Total Construction Cost	\$258,332.00
				Non-reimbursable Utilities	\$51,666.40
				Subtotal Utilities:	\$51,666.40
				Right-of-Way (temporary and permanent easement)	\$471,000.00
				Subtotal Right-of-Way:	\$471,000.00
				Segment Alternate Total (Construction+Utilities+ROW):	\$781,000.00

Inflation: 3.5% per year

2022	\$808,335.00
2023	\$836,626.73
2024	\$865,908.66

Loop Trail Magnitude of Cost					
Segment 1- Alternate 2					
Erosion Control & Tree Protection					
ITEM		QTY	UNIT	UNIT PRICE	COST
163-XXXX	Erosion Control and Tree Protection	2.0	AC	\$30,000.00	\$60,000.00
Subtotal					\$60,000.00
Earthwork					
ITEM		QTY	UNIT	UNIT PRICE	COST
210-1500	Grading Complete	1	LS	\$570,000.00	\$570,000.00
Subtotal					\$570,000.00
Hardscape					
ITEM		QTY	UNIT	UNIT PRICE	COST
310-5040	4" Gr Aggr Base Crs, Incl Matl	2800	SY	\$11.00	\$30,800.00
441-9500	Concrete Trail Paving, STN FIN, 6 IN	2800	SY	\$45.00	\$126,000.00
652-5801	Solid Traffic Stripe, 8 IN, White	400	LF	\$2.00	\$800.00
653-1704	Thermoplastic Solid Traf Stripe, 24 IN, White	48	LF	\$7.00	\$336.00
Subtotal					\$157,936.00
Structures					
ITEM		QTY	UNIT	UNIT PRICE	COST
999-0151	Concrete Boardwalk	28320	SF	\$95.00	\$2,690,400.00
Subtotal					\$2,690,400.00
Site Furnishings					
ITEM		QTY	UNIT	UNIT PRICE	COST
636-XXXX	Trail Mile Marker Signage	4	EA	\$250.00	\$1,000.00
636-XXXX	Wayfinding Signage- Intersections-Crossings	8	EA	\$500.00	\$4,000.00
754-5000	Bench	2	EA	\$1,300.00	\$2,600.00
754-6000	Bike Rack	8	EA	\$600.00	\$4,800.00
754-4000	Waste Receptacle	8	EA	\$1,100.00	\$8,800.00
900-0527	Removable Bollard	6	EA	\$1,000.00	\$6,000.00
999-38XX	Rectangular Rapid Flashing Beacon Installation	1	EA	\$17,000.00	\$17,000.00
Subtotal					\$44,200.00
Rounded Subtotal					\$3,522,600.00
3% Engineering + Inspection					\$105,678.00
8% Design Fees, Survey + Studies					\$281,808.00
20% Contingency					\$704,520.00
Total Construction Cost					\$4,614,606.00
Non-reimbursable Utilities					\$369,168.48
Subtotal Utilities:					\$369,168.48
Right-of-Way (temporary and permanent easement)					\$649,000.00
Subtotal Right-of-Way:					\$649,000.00
Segment Alternate Total (Construction+Utilities+ROW):					\$5,632,780.00

Inflation: 3.5% per year

2022	\$5,829,927.30
2023	\$6,033,974.76
2024	\$6,245,163.87

Loop Trail Magnitude of Cost					
Segment 2					
Traffic Control, Erosion Control, & Tree Protection					
ITEM		QTY	UNIT	UNIT PRICE	COST
150-1000	Traffic Control	1	LS	\$290,000.00	\$290,000.00
163-XXXX	Erosion Control and Tree Protection	2.0	AC	\$15,000.00	\$30,000.00
Subtotal					\$320,000.00
Earthwork & Drainage					
ITEM		QTY	UNIT	UNIT PRICE	COST
210-1500	Grading Complete	1	LS	\$574,000.00	\$574,000.00
550-1120	Storm Drain Pipe, 12 IN, H 1-10	1175	LF	\$45.00	\$52,875.00
668-21XX	Storm Drain, Catch Basin	5	EA	\$3,000.00	\$15,000.00
Subtotal					\$641,875.00
Hardscape					
ITEM		QTY	UNIT	UNIT PRICE	COST
310-5040	4" Gr Aggr Base Crs, Incl Matl	286	SY	\$11.00	\$3,146.00
310-5080	8" Gr Aggr Base Crs, Incl Matl	9910	SY	\$19.00	\$188,290.00
402-XXXX	Asphalt Trail Paving, 4 IN, with 4 IN GAB	9910	SY	\$37.00	\$366,670.00
441-00XX	Driveway Reconstruction, 8 IN TK	630	SY	\$55.00	\$34,650.00
441-6222	Conc Curb & Gutter, 8 IN x 30 IN, TP 2	1175	LF	\$18.00	\$21,150.00
441-9500	Concrete Trail Paving, STN FIN, 6 IN	286	SY	\$45.00	\$12,870.00
652-5801	Solid Traffic Stripe, 8 IN, White	4300	LF	\$2.00	\$8,600.00
652-6502	Skip Traffic Stripe, 5 IN Yellow	9700	GLF	\$0.52	\$5,044.00
653-1704	Thermoplastic Solid Traf Stripe, 24 IN, White	500	LF	\$7.00	\$3,500.00
999-9600	Trailhead- Signage, concrete spur connection (shared parking)	2	EA	\$30,000.00	\$60,000.00
Subtotal					\$703,920.00
Landscape (Side Path only)					
ITEM		QTY	UNIT	UNIT PRICE	COST
702-XXXX	5' Landscape buffer: including trees, shrubs, grasses, and 3 inches of mulch. Trees every 40' within buffer.	5000	LF	\$30.00	\$150,000.00
Subtotal					\$150,000.00
Structures					
ITEM		QTY	UNIT	UNIT PRICE	COST
999-XXXX	Concrete Boardwalk	22800	SF	\$95.00	\$2,166,000.00
Subtotal					\$2,166,000.00
Site Furnishings					
ITEM		QTY	UNIT	UNIT PRICE	COST
515-2052	Safety Rail	500	LF	\$100.00	\$50,000.00
636-XXXX	Wayfinding Signage-Trailhead	2	LS	\$16,000.00	\$32,000.00
636-XXXX	Wayfinding Signage- Intersections-Crossings	16	EA	\$500.00	\$8,000.00
636-XXXX	Trail Mile Marker Signage	8	EA	\$250.00	\$2,000.00
754-5000	Bench	2	EA	\$1,300.00	\$2,600.00
754-6000	Bike Rack	4	EA	\$600.00	\$2,400.00
754-4000	Waste Receptacle	8	EA	\$1,100.00	\$8,800.00
900-0527	Removable Bollard	6	EA	\$1,000.00	\$6,000.00
Subtotal					\$111,800.00
Rounded Subtotal					\$4,093,600.00
3% Engineering + Inspection					\$122,808.00
8% Design Fees, Survey + Studies					\$327,488.00
20% Contingency					\$818,720.00
Total Construction Cost					\$5,362,616.00
Non-reimbursable Utilities					\$429,009.28
Subtotal Utilities:					\$429,009.28
Right-of-Way (temporary and permanent easement)					\$719,687.28
Subtotal Right-of-Way:					\$719,687.28
Segment Alternate Total (Construction+Utilities+ROW):					\$6,511,320.00

Inflation: 3.5% per year

2022	\$6,739,216.20
2023	\$6,975,088.77
2024	\$7,219,216.87

Loop Trail Magnitude of Cost					
Segment 2- Alternate 3					
Demolition					
ITEM		QTY	UNIT	UNIT PRICE	COST
610-1055	Rem Guardrail	480	LF	\$15.00	\$7,200.00
Subtotal					\$7,200.00
Traffic Control, Erosion Control, & Tree Protection					
ITEM		QTY	UNIT	UNIT PRICE	COST
150-1000	Traffic Control	1	LS	\$17,000.00	\$17,000.00
163-XXXX	Erosion Control and Tree Protection	0.5	AC	\$15,000.00	\$7,500.00
Subtotal					\$24,500.00
Earthwork					
ITEM		QTY	UNIT	UNIT PRICE	COST
210-1500	Grading Complete	1	LS	\$34,000.00	\$34,000.00
Subtotal					\$34,000.00
Hardscape					
ITEM		QTY	UNIT	UNIT PRICE	COST
310-5080	8" Gr Aggr Base Crs, Incl Matl	2352	SY	\$19.00	\$44,688.00
402-XXXX	Asphalt Trail Paving, 4 IN, with 4 IN GAB	2352	SY	\$37.00	\$87,024.00
441-00XX	Driveway Reconstruction, 8 IN TK	240	SY	\$55.00	\$13,200.00
641-1200	Guardrail, TP W	480	LF	\$20.00	\$9,600.00
641-50XX	Guardrail anchorage, TP 1 and 12	2	EA	\$3,000.00	\$6,000.00
652-5801	Solid Traffic Stripe, 8 IN, White	3000	LF	\$2.00	\$6,000.00
652-6502	Skip Traffic Stripe, 5 IN Yellow	2120	GLF	\$0.52	\$1,102.40
Subtotal					\$167,614.40
Landscape (Side Path only)					
ITEM		QTY	UNIT	UNIT PRICE	COST
702-XXXX	5' Landscape buffer- Sod strip	2850	SF	\$1.50	\$4,275.00
Subtotal					\$4,275.00
Site Furnishings					
ITEM		QTY	UNIT	UNIT PRICE	COST
515-2052	Safety Rail	200	LF	\$100.00	\$20,000.00
636-XXXX	Wayfinding Signage- Intersections-Crossings	4	EA	\$500.00	\$2,000.00
636-XXXX	Trail Mile Marker Signage	1	EA	\$250.00	\$250.00
754-5000	Bench	1	EA	\$1,300.00	\$1,300.00
754-6000	Bike Rack	1	EA	\$600.00	\$600.00
754-4000	Waste Receptacle	1	EA	\$1,375.00	\$1,375.00
Subtotal					\$25,525.00
Rounded Subtotal					\$263,200.00
3% Engineering + Inspection					\$7,896.00
8% Design Fees, Survey + Studies					\$21,056.00
20% Contingency					\$52,640.00
Total Construction Cost					\$344,792.00
Non-reimbursable Utilities					\$13,791.68
Subtotal Utilities:					\$13,791.68
Right-of-Way (temporary and permanent easement)					\$307,000.00
Subtotal Right-of-Way:					\$307,000.00
Segment Alternate Total (Construction+Utilities+ROW):					\$665,590.00

Inflation: 3.5% per year

2022	\$688,885.65
2023	\$712,996.65
2024	\$737,951.53

Loop Trail Magnitude of Cost					
Segment 2- Alternate 4					
Demolition					
ITEM		QTY	UNIT	UNIT PRICE	COST
610-1055	Rem Guardrail	565	LF	\$15.00	\$8,475.00
Subtotal					\$8,475.00
Traffic Control, Erosion Control, & Tree Protection					
ITEM		QTY	UNIT	UNIT PRICE	COST
150-1000	Traffic Control	1	LS	\$23,000.00	\$23,000.00
163-XXXX	Erosion Control and Tree Protection	0.8	AC	\$15,000.00	\$11,250.00
Subtotal					\$34,250.00
Earthwork					
ITEM		QTY	UNIT	UNIT PRICE	COST
210-1500	Grading Complete	1	LS	\$45,000.00	\$45,000.00
Subtotal					\$45,000.00
Hardscape					
ITEM		QTY	UNIT	UNIT PRICE	COST
310-5080	8" Gr Aggr Base Crs, Incl Matl	3160	SY	\$19.00	\$60,040.00
402-XXXX	Asphalt Trail Paving, 4 IN, with 4 IN GAB	3160	SY	\$37.00	\$116,920.00
441-00XX	Driveway Reconstruction, 8 IN TK	270	SY	\$55.00	\$14,850.00
653-1704	Thermoplastic Solid Traf Stripe, 24 IN, White	810	LF	\$7.00	\$5,670.00
641-1200	Guardrail, TP W	565	LF	\$20.00	\$11,300.00
641-50XX	Guardrail anchorage, TP 1 and 12	2	EA	\$3,000.00	\$6,000.00
652-5801	Solid Traffic Stripe, 8 IN, White	3350	LF	\$2.00	\$6,700.00
652-6502	Skip Traffic Stripe, 5 IN Yellow	2300	GLF	\$0.52	\$1,196.00
Subtotal					\$222,676.00
Landscape (Side Path only)					
ITEM		QTY	UNIT	UNIT PRICE	COST
702-XXXX	5' Landscape buffer: including trees, shrubs, grasses, and 3 inches of mulch. Trees every 40' within buffer.	1800	LF	\$30.00	\$54,000.00
Subtotal					\$54,000.00
Site Furnishings					
ITEM		QTY	UNIT	UNIT PRICE	COST
636-XXXX	Trail Mile Marker Signage	1	EA	\$250.00	\$250.00
636-XXXX	Wayfinding Signage- Intersections-Crossings	4	EA	\$500.00	\$2,000.00
754-5000	Bench	1	EA	\$1,300.00	\$1,300.00
754-6000	Bike Rack	1	EA	\$600.00	\$600.00
754-4000	Waste Receptacle	1	EA	\$1,100.00	\$1,100.00
Subtotal					\$5,250.00
Rounded Subtotal					\$369,700.00
3% Engineering + Inspection					\$11,091.00
8% Design Fees, Survey + Studies					\$29,576.00
20% Contingency					\$73,940.00
Total Construction Cost					\$484,307.00
Non-reimbursable Utilities					\$19,372.28
Subtotal Utilities:					\$19,372.28
Right-of-Way (temporary and permanent easement)					\$223,000.00
Subtotal Right-of-Way:					\$223,000.00
Segment Alternate Total (Construction+Utilities+ROW):					\$726,680.00

Inflation: 3.5% per year

2022	\$752,113.80
2023	\$778,437.78
2024	\$805,683.11

Loop Trail Magnitude of Cost					
Segment 3					
Traffic Control, Erosion Control, & Tree Protection					
ITEM		QTY	UNIT	UNIT PRICE	COST
150-1000	Traffic Control	1	LS	\$98,000.00	\$98,000.00
163-XXXX	Erosion Control and Tree Protection	2.5	AC	\$20,000.00	\$50,000.00
610-1055	Rem Guardrail	200	LF	\$15.00	\$3,000.00
Subtotal					\$151,000.00
Earthwork					
ITEM		QTY	UNIT	UNIT PRICE	COST
210-1500	Grading Complete	1	LS	\$381,000.00	\$381,000.00
Subtotal					\$381,000.00
Hardscape & Walls					
ITEM		QTY	UNIT	UNIT PRICE	COST
310-5080	8" Gr Aggr Base Crs, Incl Matl	3795	SY	\$19.00	\$72,105.00
402-XXXX	Asphalt Trail Paving, 4 IN, with 4 IN GAB	3795	SY	\$37.00	\$140,415.00
441-00XX	Driveway Reconstruction, 8 IN TK	694	SY	\$55.00	\$38,170.00
500-3201	Class B Concrete, retaining wall	240	CY	\$500.00	\$120,000.00
641-1200	Guardrail, TP W	200	LF	\$20.00	\$4,000.00
641-50XX	Guardrail anchorage, TP 1 and 12	2	EA	\$3,000.00	\$6,000.00
652-5801	Solid Traffic Stripe, 8 IN, White	2400	LF	\$2.00	\$4,800.00
652-6502	Skip Traffic Stripe, 5 IN Yellow	3860	GLF	\$0.52	\$2,007.20
653-1704	Thermoplastic Solid Traf Stripe, 24 IN, White	150	LF	\$7.00	\$1,050.00
999-9600	Trailhead- Signage, concrete spur connection (no parking)	1	EA	\$10,000.00	\$10,000.00
Subtotal					\$398,547.20
Landscape (Side Path only)					
ITEM		QTY	UNIT	UNIT PRICE	COST
702-XXXX	5' Landscape buffer: including trees, shrubs, grasses, and 3 inches of mulch. Trees every 40' within buffer.	2500	LF	\$30.00	\$75,000.00
Subtotal					\$75,000.00
Structures					
ITEM		QTY	UNIT	UNIT PRICE	COST
999-XXXX	Concrete Boardwalk	15600	SF	\$95.00	\$1,482,000.00
641-1200	Guardrail, TP W	890	LF	\$20.00	\$17,800.00
641-50XX	Guardrail anchorage, TP 1 and 12	2	EA	\$3,000.00	\$6,000.00
Subtotal					\$1,505,800.00
Site Furnishings					
ITEM		QTY	UNIT	UNIT PRICE	COST
515-2052	Safety Rail	175	LF	\$100.00	\$17,500.00
636-XXXX	Wayfinding Signage-Trailhead	1	LS	\$16,000.00	\$16,000.00
636-XXXX	Wayfinding Signage- Intersections-Crossings	8	EA	\$500.00	\$4,000.00
636-XXXX	Trail Mile Marker Signage	4	EA	\$250.00	\$1,000.00
754-5000	Bench	1	EA	\$1,300.00	\$1,300.00
754-6000	Bike Rack	2	EA	\$600.00	\$1,200.00
754-4000	Waste Receptacle	4	EA	\$1,100.00	\$4,400.00
900-0527	Removable Bollard	6	EA	\$1,000.00	\$6,000.00
Subtotal					\$51,400.00
Rounded Subtotal					\$2,562,800.00
3% Engineering + Inspection					\$76,884.00
8% Design Fees, Survey + Studies					\$205,024.00
20% Contingency					\$512,560.00
Total Construction Cost					\$3,357,268.00

Non-reimbursable Utilities	\$134,290.72
Subtotal Utilities:	\$134,290.72
Right-of-Way (temporary and permanent easement)	\$397,129.17
Subtotal Right-of-Way:	\$397,129.17
Segment Alternate Total (Construction+Utilities+ROW):	\$3,888,690.00

Inflation: 3.5% per year

2022	\$4,024,794.15
2023	\$4,165,661.95
2024	\$4,311,460.11

Loop Trail Magnitude of Cost					
Segment 3- Alternate 5					
Demolition					
ITEM		QTY	UNIT	UNIT PRICE	COST
610-1055	Rem Guardrail	1380	LF	\$15.00	\$20,700.00
Subtotal					\$20,700.00
Traffic Control, Erosion Control, & Tree Protection					
ITEM		QTY	UNIT	UNIT PRICE	COST
150-1000	Traffic Control	1	LS	\$34,000.00	\$34,000.00
163-XXXX	Erosion Control and Tree Protection	0.5	AC	\$30,000.00	\$15,000.00
Subtotal					\$49,000.00
Earthwork					
ITEM		QTY	UNIT	UNIT PRICE	COST
210-1500	Grading Complete	1	LS	\$53,000.00	\$53,000.00
Subtotal					\$53,000.00
Hardscape & Walls					
ITEM		QTY	UNIT	UNIT PRICE	COST
310-5080	8" Gr Aggr Base Crs, Incl Matl	1758	SY	\$19.00	\$33,402.00
402-XXXX	Asphalt Trail Paving, 4 IN, with 4 IN GAB	1758	SY	\$37.00	\$65,046.00
500-3201	Class B Concrete, retaining wall	260	CY	\$500.00	\$130,000.00
641-1200	Guardrail, TP W	1380	LF	\$20.00	\$27,600.00
641-50XX	Guardrail anchorage, TP 1 and 12	2	EA	\$3,000.00	\$6,000.00
652-6502	Skip Traffic Stripe, 5 IN Yellow	1525	GLF	\$0.52	\$793.00
Subtotal					\$262,841.00
Landscape (Side Path only)					
ITEM		QTY	UNIT	UNIT PRICE	COST
702-XXXX	5' Landscape buffer: including trees, shrubs, grasses, and 3 inches of mulch. Trees every 40' within buffer.	1520	LF	\$30.00	\$45,600.00
Subtotal					\$45,600.00
Site Furnishings					
ITEM		QTY	UNIT	UNIT PRICE	COST
515-2052	Safety Rail	50	LF	\$100.00	\$5,000.00
636-XXXX	Wayfinding Signage- Intersections-Crossings	4	EA	\$500.00	\$2,000.00
636-XXXX	Trail Mile Marker Signage	1	EA	\$250.00	\$250.00
754-5000	Bench	1	EA	\$1,300.00	\$1,300.00
900-0527	Removable Bollard	6	EA	\$1,000.00	\$6,000.00
Subtotal					\$14,550.00
Rounded Subtotal					\$445,700.00
3% Engineering + Inspection					\$13,371.00
8% Design Fees, Survey + Studies					\$35,656.00
20% Contingency					\$89,140.00
Total Construction Cost					\$583,867.00
Non-reimbursable Utilities					\$23,354.68
Subtotal Utilities:					\$23,354.68
Right-of-Way (temporary and permanent easement)					\$153,000.00
Subtotal Right-of-Way:					\$153,000.00
Segment Alternate Total (Construction+Utilities+ROW):					\$760,230.00

Inflation: 3.5% per year

2022	\$786,838.05
2023	\$814,377.38
2024	\$842,880.59

Loop Trail Magnitude of Cost					
Segment 3- Alternate 6					
Traffic Control, Erosion Control, & Tree Protection					
ITEM		QTY	UNIT	UNIT PRICE	COST
150-1000	Traffic Control	1	LS	\$18,000.00	\$18,000.00
163-XXXX	Erosion Control and Tree Protection	1.5	AC	\$30,000.00	\$45,000.00
Subtotal					\$63,000.00
Earthwork					
ITEM		QTY	UNIT	UNIT PRICE	COST
210-1500	Grading Complete	1	LS	\$67,000.00	\$67,000.00
Subtotal					\$67,000.00
Hardscape					
ITEM		QTY	UNIT	UNIT PRICE	COST
310-5040	4" Gr Aggr Base Crs, Incl Matl	1264	SY	\$11.00	\$13,904.00
310-5080	8" Gr Aggr Base Crs, Incl Matl	4060	SY	\$19.00	\$77,140.00
402-XXXX	Asphalt Trail Paving, 4 IN, with 4 IN GAB	1264	SY	\$37.00	\$46,768.00
441-9500	Concrete Trail Paving, STN FIN,6 IN	4060	SY	\$45.00	\$182,700.00
441-00XX	Driveway Reconstruction, 8 IN TK	175	SY	\$55.00	\$9,625.00
652-5801	Solid Traffic Stripe, 8 IN, White	450	LF	\$2.00	\$900.00
652-6502	Skip Traffic Stripe, 5 IN Yellow	3682	GLF	\$0.52	\$1,914.64
653-1704	Thermoplastic Solid Traf Stripe, 24 IN, White	24	LF	\$7.00	\$168.00
Subtotal					\$333,119.64
Landscape (Side Path only)					
ITEM		QTY	UNIT	UNIT PRICE	COST
702-XXXX	5' Landscape buffer: including trees, shrubs, grasses, and 3 inches of mulch. Trees every 40' within buffer.	1885	LF	\$30.00	\$56,550.00
Subtotal					\$56,550.00
Site Furnishings					
ITEM		QTY	UNIT	UNIT PRICE	COST
515-2052	Safety Rail	500	LF	\$100.00	\$50,000.00
636-XXXX	Wayfinding Signage- Intersections-Crossings	4	EA	\$500.00	\$2,000.00
636-XXXX	Trail Mile Marker Signage	3	EA	\$250.00	\$750.00
754-5000	Bench	1	EA	\$1,300.00	\$1,300.00
754-6000	Bike Rack	1	EA	\$600.00	\$600.00
754-4000	Waste Receptacle	2	EA	\$1,100.00	\$2,200.00
Subtotal					\$56,850.00
Rounded Subtotal					\$576,600.00
3% Engineering + Inspection					\$17,298.00
8% Design Fees, Survey + Studies					\$46,128.00
20% Contingency					\$115,320.00
Total Construction Cost					\$755,346.00
Non-reimbursable Utilities					\$19,372.28
Subtotal Utilities:					\$19,372.28
Right-of-Way (temporary and permanent easement)					\$223,000.00
Subtotal Right-of-Way:					\$223,000.00
Segment Alternate Total (Construction+Utilities+ROW):					\$997,720.00

Inflation: 3.5% per year

2022	\$1,032,640.20
2023	\$1,068,782.61
2024	\$1,106,190.00

Loop Trail Magnitude of Cost					
Segment 4					
Traffic Control, Erosion Control, & Tree Protection					
ITEM		QTY	UNIT	UNIT PRICE	COST
150-1000	Traffic Control	1	LS	\$49,000.00	\$49,000.00
163-XXXX	Erosion Control and Tree Protection	1.0	AC	\$20,000.00	\$20,000.00
Subtotal					\$69,000.00
Earthwork & Drainage					
ITEM		QTY	UNIT	UNIT PRICE	COST
210-1500	Grading Complete	1	LS	\$127,000.00	\$127,000.00
550-1120	Storm Drain Pipe, 12 IN, H 1-10	5715	LF	\$45.00	\$257,175.00
668-21XX	Storm Drain, Catch Basin	22	EA	\$3,000.00	\$66,000.00
Subtotal					\$450,175.00
Hardscape					
ITEM		QTY	UNIT	UNIT PRICE	COST
310-5080	8" Gr Aggr Base Crs, Incl Matl	8010	SY	\$19.00	\$152,190.00
402-XXXX	Asphalt Trail Paving, 4 IN, with 4 IN GAB	8010	SY	\$37.00	\$296,370.00
441-00XX	Driveway Reconstruction, 8 IN TK	900	SY	\$55.00	\$49,500.00
441-6222	Conc Curb & Gutter, 8 IN x 30 IN, TP 2	5715	LF	\$18.00	\$102,870.00
652-5801	Solid Traffic Stripe, 8 IN, White	2400	LF	\$2.00	\$4,800.00
652-6502	Skip Traffic Stripe, 5 IN Yellow	6700	GLF	\$0.52	\$3,484.00
653-1704	Thermoplastic Solid Traf Stripe, 24 IN, White	150	LF	\$7.00	\$1,050.00
999-9600	Trailhead- Signage, concrete spur connection (no parking)	2	EA	\$10,000.00	\$20,000.00
Subtotal					\$630,264.00
Landscape (Side Path only)					
ITEM		QTY	UNIT	UNIT PRICE	COST
702-XXXX	5' Landscape buffer- Sod strip	31500	SF	\$1.50	\$47,250.00
Subtotal					\$47,250.00
Site Furnishings					
ITEM		QTY	UNIT	UNIT PRICE	COST
515-2052	Safety Rail	50	LF	\$100.00	\$5,000.00
636-XXXX	Wayfinding Signage-Trailhead	2	LS	\$16,000.00	\$32,000.00
636-XXXX	Wayfinding Signage- Intersections-Crossings	12	EA	\$500.00	\$6,000.00
636-XXXX	Trail Mile Marker Signage	5	EA	\$250.00	\$1,250.00
754-5000	Bench	3	EA	\$1,300.00	\$3,900.00
754-6000	Bike Rack	2	EA	\$600.00	\$1,200.00
754-4000	Waste Receptacle	8	EA	\$1,100.00	\$8,800.00
900-0527	Removable Bollard	12	EA	\$1,000.00	\$12,000.00
999-38XX	Rectangular Rapid Flashing Beacon Installation	2	EA	\$17,000.00	\$34,000.00
Subtotal					\$104,150.00
Rounded Subtotal					\$1,300,900.00
3% Engineering + Inspection					\$39,027.00
8% Design Fees, Survey + Studies					\$104,072.00
20% Contingency					\$260,180.00
Total Construction Cost					\$1,704,179.00
Non-reimbursable Utilities					\$68,167.16
Subtotal Utilities:					\$68,167.16
Right-of-Way (temporary and permanent easement)					\$509,240.90
Subtotal Right-of-Way:					\$509,240.90
Segment Alternate Total (Construction+Utilities+ROW):					\$2,281,590.00

Inflation: 3.5% per year

2022	\$2,361,445.65
2023	\$2,444,096.25
2024	\$2,529,639.62

Loop Trail Magnitude of Cost					
Segment 5					
Traffic Control, Erosion Control, & Tree Protection					
ITEM		QTY	UNIT	UNIT PRICE	COST
150-1000	Traffic Control	1	LS	\$375,000.00	\$375,000.00
163-XXXX	Erosion Control and Tree Protection	4.0	AC	\$30,000.00	\$120,000.00
Subtotal					\$495,000.00
Earthwork & Drainage					
ITEM		QTY	UNIT	UNIT PRICE	COST
210-1500	Grading Complete	1	LS	\$725,000.00	\$725,000.00
550-1120	Storm Drain Pipe, 12 IN, H 1-10	1300	LF	\$45.00	\$58,500.00
668-21XX	Storm Drain, Catch Basin	5	EA	\$3,000.00	\$15,000.00
Subtotal					\$798,500.00
Hardscape, Walls, and Fences					
ITEM		QTY	UNIT	UNIT PRICE	COST
310-5040	4" Gr Aggr Base Crs, Incl Matl	1080	SY	\$11.00	\$11,880.00
310-5080	8" Gr Aggr Base Crs, Incl Matl	10413	SY	\$19.00	\$197,847.00
402-XXXX	Asphalt Trail Paving, 4 IN, with 4 IN GAB	10413	SY	\$37.00	\$385,281.00
441-00XX	Driveway Reconstruction, 8 IN TK	520	SY	\$55.00	\$28,600.00
441-6222	Conc Curb & Gutter, 8 IN x 30 IN, TP 2	1300	LF	\$18.00	\$23,400.00
441-9500	Concrete Trail Paving, STN FIN, 6 IN	1080	SY	\$45.00	\$48,600.00
643-XXXX	6' Chain Link Fence	2000	LF	\$30.00	\$60,000.00
652-5801	Solid Traffic Stripe, 8 IN, White	3600	LF	\$2.00	\$7,200.00
652-6502	Skip Traffic Stripe, 5 IN Yellow	8890	GLF	\$0.52	\$4,622.80
653-1704	Thermoplastic Solid Traf Stripe, 24 IN, White	150	LF	\$7.00	\$1,050.00
500-3201	Class B Concrete, retaining wall	680	CY	\$500.00	\$340,000.00
Subtotal					\$1,108,480.80
Structures					
ITEM		QTY	UNIT	UNIT PRICE	COST
211-0300	Bridge Excavation, Stream Crossing	350	CY	\$53.00	\$18,550.00
534-XXXX	Pedestrian Bridge, 75' Length, 12' wide, W/ abutments	1	LS	\$165,000.00	\$165,000.00
534-XXXX	Pedestrian Bridge, 130' Length, 12' wide, W/ abutments	1	LS	\$285,000.00	\$285,000.00
534-XXXX	Pedestrian Bridge, 150' Length, 12' wide, W/ abutments	1	LS	\$330,000.00	\$330,000.00
534-XXXX	Pedestrian Bridge, 160' Length, 12' wide, W/ abutments	1	LS	\$375,000.00	\$375,000.00
534-XXXX	Pedestrian Bridge, 125' Length, 12' wide, W/ abutments	1	LS	\$275,000.00	\$275,000.00
603-2012	STN Dumped Rip Rap, TP1, 12 IN	400	SY	\$49.00	\$19,600.00
999-XXXX	Concrete Boardwalk with Railing	11000	SF	\$95.00	\$1,045,000.00
Subtotal					\$2,513,150.00
Landscape (Side Path only)					
ITEM		QTY	UNIT	UNIT PRICE	COST
702-XXXX	5' Landscape buffer: including trees, shrubs, grasses, and 3 inches of mulch. Trees every 40' within buffer.	3000	LF	\$30.00	\$90,000.00
Subtotal					\$90,000.00
Traffic Signal					
ITEM		QTY	UNIT	UNIT PRICE	COST
647-XXXX	New Signalized Intersection With Mast Arms	1	LS	\$225,000.00	\$225,000.00
Subtotal					\$225,000.00
Site Furnishings					
ITEM		QTY	UNIT	UNIT PRICE	COST
515-2020	Galv Steel Pipe Handrail, 2 IN, Round	210	LF	\$36.00	\$7,560.00
515-2052	Safety Rail	2740	LF	\$100.00	\$274,000.00
636-XXXX	Wayfinding Signage-Trailhead	1	LS	\$16,000.00	\$16,000.00
636-XXXX	Wayfinding Signage- Intersections-Crossings	20	EA	\$500.00	\$10,000.00
636-XXXX	Trail Mile Marker Signage	8	EA	\$250.00	\$2,000.00
754-5000	Bench	2	EA	\$1,300.00	\$2,600.00
754-6000	Bike Rack	4	EA	\$600.00	\$2,400.00
754-4000	Waste Receptacle	8	EA	\$1,100.00	\$8,800.00
900-0527	Removable Bollard	12	EA	\$1,000.00	\$12,000.00
999-38XX	Rectangular Rapid Flashing Beacon Installation	1	EA	\$17,000.00	\$17,000.00
999-9600	Trailhead- Signage, concrete spur connection (no parking)	1	EA	\$10,000.00	\$10,000.00
Subtotal					\$362,360.00

ITEM	QTY	UNIT	UNIT PRICE	COST
			Rounded Subtotal	\$5,592,500.00
			3% Engineering + Inspection	\$167,775.00
			8% Design Fees, Survey + Studies	\$447,400.00
			20% Contingency	\$1,118,500.00
			Total Construction Cost	\$7,326,175.00
			Non-reimbursable Utilities	\$293,047.00
			Subtotal Utilities:	\$293,047.00
			Right-of-Way (temporary and permanent easement)	\$727,122.52
			Subtotal Right-of-Way:	\$727,122.52
			Segment Alternate Total (Construction+Utilities+ROW):	\$8,346,350.00

Inflation: 3.5% per year

2022	\$8,638,472.25
2023	\$8,940,818.78
2024	\$9,253,747.44

Loop Trail Magnitude of Cost					
Segment 5 - Alternate 7					
Traffic Control, Erosion Control, & Tree Protection					
ITEM		QTY	UNIT	UNIT PRICE	COST
150-1000	Traffic Control	1	LS	\$250,000.00	\$250,000.00
163-XXXX	Erosion Control and Tree Protection	1.0	AC	\$40,000.00	\$40,000.00
Subtotal					\$290,000.00
Earthwork & Drainage					
ITEM		QTY	UNIT	UNIT PRICE	COST
210-1500	Grading Complete	1	LS	\$481,000.00	\$481,000.00
Subtotal					\$481,000.00
Hardscape & Walls					
ITEM		QTY	UNIT	UNIT PRICE	COST
310-5040	4" Gr Aggr Base Crs, Incl Matl	1200	SY	\$11.00	\$13,200.00
310-5080	8" Gr Aggr Base Crs, Incl Matl	1200	SY	\$19.00	\$22,800.00
402-XXXX	Asphalt Trail Paving, 4 IN, with 4 IN GAB	1200	SY	\$37.00	\$44,400.00
500-3201	Class B Concrete, retaining wall	125	CY	\$500.00	\$62,500.00
Subtotal					\$142,900.00
Structures					
ITEM		QTY	UNIT	UNIT PRICE	COST
211-0300	Bridge Excavation, Stream Crossing	50	CY	\$53.00	\$2,650.00
534-XXXX	Pedestrian Bridge, 115' Length, 12' wide, W/ abutments	1	LS	\$330,000.00	\$330,000.00
603-2012	STN Dumped Rip Rap, TP1, 12 IN	100	SY	\$49.00	\$4,900.00
999-XXXX	Concrete Boardwalk with Railing	20220	SF	\$95.00	\$1,920,900.00
Subtotal					\$2,258,450.00
Site Furnishings					
ITEM		QTY	UNIT	UNIT PRICE	COST
515-2052	Safety Rail	730	LF	\$100.00	\$73,000.00
636-XXXX	Wayfinding Signage- Intersections-Crossings	8	EA	\$500.00	\$4,000.00
754-5000	Bench	4	EA	\$1,300.00	\$5,200.00
754-6000	Bike Rack	4	EA	\$600.00	\$2,400.00
754-4000	Waste Receptacle	2	EA	\$1,100.00	\$2,200.00
900-0527	Removable Bollard	3	EA	\$1,000.00	\$3,000.00
Subtotal					\$89,800.00
Rounded Subtotal					\$3,262,200.00
3% Engineering + Inspection					\$97,866.00
8% Design Fees, Survey + Studies					\$260,976.00
20% Contingency					\$652,440.00
Total Construction Cost					\$4,273,482.00
Non-reimbursable Utilities					\$170,939.28
Subtotal Utilities:					\$170,939.28
Right-of-Way (temporary and permanent easement)					\$83,000.00
Subtotal Right-of-Way:					\$83,000.00
Segment Alternate Total (Construction+Utilities+ROW):					\$4,527,430.00

Inflation: 3.5% per year

2022	\$4,685,890.05
2023	\$4,849,896.20
2024	\$5,019,642.57

Loop Trail Magnitude of Cost					
Segment 5 - Alternate 8					
Erosion Control, & Tree Protection					
ITEM		QTY	UNIT	UNIT PRICE	COST
163-XXXX	Erosion Control and Tree Protection	4.0	AC	\$40,000.00	\$160,000.00
Subtotal					\$160,000.00
Earthwork					
ITEM		QTY	UNIT	UNIT PRICE	COST
210-1500	Grading Complete	1	LS	\$684,000.00	\$684,000.00
Subtotal					\$684,000.00
Hardscape, Walls, and Fences					
ITEM		QTY	UNIT	UNIT PRICE	COST
310-5040	4" Gr Aggr Base Crs, Incl Matl	7450	SY	\$11.00	\$81,950.00
310-5080	8" Gr Aggr Base Crs, Incl Matl	45	SY	\$19.00	\$855.00
402-XXXX	Asphalt Trail Paving, 4 IN, with 4 IN GAB	45	SY	\$37.00	\$1,665.00
441-9500	Concrete Trail Paving, STN FIN, 6 IN	7450	SY	\$45.00	\$335,250.00
441-00XX	Driveway Reconstruction, 8 IN TK	140	SY	\$55.00	\$7,700.00
500-3201	Class B Concrete, retaining wall	322	CY	\$500.00	\$161,000.00
643-XXXX	6' Chain Link Fence	4000	LF	\$30.00	\$120,000.00
652-6502	Skip Traffic Stripe, 5 IN Yellow	6000	GLF	\$0.52	\$3,120.00
Subtotal					\$711,540.00
Structures					
ITEM		QTY	UNIT	UNIT PRICE	COST
999-XXXX	Concrete Boardwalk with Railing	28500	SF	\$95.00	\$2,707,500.00
Subtotal					\$2,707,500.00
Site Furnishings					
ITEM		QTY	UNIT	UNIT PRICE	COST
515-2020	Galv Steel Pipe Handrail, 2 IN, Round	1050	LF	\$36.00	\$37,800.00
515-2052	Safety Rail	2140	LF	\$100.00	\$214,000.00
636-XXXX	Wayfinding Signage- Intersections-Crossings	8	EA	\$500.00	\$4,000.00
754-5000	Bench	2	EA	\$1,300.00	\$2,600.00
754-6000	Bike Rack	3	EA	\$600.00	\$1,800.00
754-4000	Waste Receptacle	6	EA	\$1,100.00	\$6,600.00
900-0527	Removable Bollard	12	EA	\$1,000.00	\$12,000.00
Subtotal					\$278,800.00
Rounded Subtotal					\$4,541,900.00
3% Engineering + Inspection					\$136,257.00
8% Design Fees, Survey + Studies					\$363,352.00
20% Contingency					\$908,380.00
Total Construction Cost					\$5,949,889.00
Non-reimbursable Utilities					\$170,939.28
Subtotal Utilities:					\$170,939.28
Right-of-Way (temporary and permanent easement)					\$83,000.00
Subtotal Right-of-Way:					\$83,000.00
Segment Alternate Total (Construction+Utilities+ROW):					\$6,203,830.00

Inflation: 3.5% per year

2022	\$6,420,964.05
2023	\$6,645,697.79
2024	\$6,878,297.21

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Appendix C: List of Utilities

Appendix C- List of Utilities

Georgia 811 Ticket Number: 201201-004437

Code	Name	Facility Type	Phone
811TEST	811 TEST CODE - 811TEST	No Underground Facilities	(770) 623-5786 [Main]
AGL114	ATLANTA GAS LIGHT GWINNETT - AGL114	Gas	(470) 218-5996 [Main]
ATS	AMERICAN TRAFFIC SOLUTIONS ELECTRIC - ATS	Electric	(330) 696-7252 [Main]
ATT02	ATT / T TELECOM - ATT02	Telecommunication	(800) 241-3624 [Main]
BSCA	ATT / D TELECOM - BSCA	Telecommunication	(305) 409-1542 [Main]
CHTR01	CHARTER COMMUNICATIONS TELECOM - CHTR01	Telecommunication	(800) 778-9140 [Main]
CMAGWN	COMCAST TELECOM - CMAGWN	Telecommunication	(470) 787-4657 [Main]
CPL81	COLONIAL PIPELINE GAS - CPL81	Gas	(678) 762-2403 [Main]
FUL02	FULTON COUNTY SEWER - FUL02	Sewer	(404) 612-4248 [Main]
GATRA6	GA TRANSMISSION CORP TELECOM - GATRA6	Telecommunication	(770) 270-7966 [Main]
GP240	GEORGIA POWER - GP240	Electric	(404) 506-6539 [Main]



GP263	GEORGIA POWER - GP263	Electric	(404) 506-6539 [Main]
GPC41B	GEORGIA POWER - GPC41B	Electric	(404) 506-6539 [Main]
GW190	GWINNETT COUNTY PUBLIC UTILITIES Water WATER - GW190		(678) 325-9631 [Main]
GW191	GWINNETT COUNTY PUBLIC UTILITIES Sewer SEWER - GW191		(678) 325-9631 [Main]
GW192	GWINNETT COUNTY PUBLIC UTILITIES Telecommunication TELECOMMUNICATION - GW192		(678) 639-8839 [Main]
GW193	GWINNETT COUNTY PUBLIC UTILITIES Traffic TRAFFIC - GW193		(678) 639-8853 [Main]
IFN01	INTERSTATE FIBERNET (aka ITC DELTA COM) TELECOM - IFN01	Telecommunication	(800) 289-1901 [Main]
JCK70	JACKSON EMC - JCK70	Electric	(770) 822-3249 [Main]
LEV3	CENTURYLINK TELECOM - LEV3	Telecommunication	(877) 366-8344 Ext 3 [Main]
LMBRT	LAMBERTS CABLE SPLICING CO LLC TELECOM - LMBRT	Telecommunication	(252) 500-2106 [Main]
MCI02	VERIZON BUSINESS (MCI FACILITIES) TELECOM - MCI02	Telecommunication	(800) 624-9675 [Main]
PRI01	PRIMERICA LIFE INSURANCE CO. TELECOM - PRI01	Telecommunication	(678) 475-8961 [Main]



WINNETT COUNTY
WINNETT TRAILS PROGRAM

75 Langley Drive | Lawrenceville, GA 30046-6935
770.822.8840 | GwinnettTrails@GwinnettCounty.com
GwinnettTrails.com

QUNTA1	QUANTA TELECOMMUNICATION SERVICES LLC - QUNTA1	Telecommunication (770) 712-7831 [Main]
TCANE	UNITI FIBER LLC - TCANE	Telecommunication (877) 652-2321 [Main]
ZAYO	ZAYO FIBER SOLUTIONS TELECOM - ZAYO	Telecommunication (470) 249-5124 [Main]

Appendix D: List of Figures

List of Figures

Figure 1. Gwinnett Trails Master Plan.

Figure 2. A native beautyberry along the alignment.

Figure 3. Utility corridor in study area.

Figure 4. Boneset, a native species along the alignment.

Figure 5. Walkers in McDaniel Farm Park.

Figure 6. Signature Trails in the Gwinnett Countywide Trails Master Plan,

<https://www.gwinnettcountry.com/web/gwinnett/departments/communityservices/gwinnetttrailsmasterplan>.

Figure 7. Embassy Suites near the Infinite Energy Center.

Figure 8. Construction in August of 2019 at the Infinite Energy Center.

Figure 9. Population Density of The Loop Study area by Census Tract (2010, data from Social Explorer).

Figure 10. Age Range within The Loop Study area by Census Tract (2010, data from Social Explorer).

Figure 11. Racial composition within The Loop Study area by Census Tract (2010, data from Social Explorer).

Figure 12. Household types of The Loop Study area by Census Tract (2010, data from Social Explorer).

Figure 13. Income ranges for The Loops Study area by Census Tract (2010, data from Social Explorer).

Figure 14. Owner vs. renter occupied housing units for The Loop Study area by Census Tract (2010, data from Social Explorer).

Figure 15. The Chattahoochee RiverLands report cover, <https://chattahoocheeriverlands.com/>.

Figure 16. Transit Corridor Study Rendering. 2016 Gwinnett Way Transit Study.

Figure 17. The Gwinnett County Destinatin2040 Comprehensive Transportation Plan report cover.

Figure 18. The Sugarloaf LCI Trails Master Plan.

Figure 19. ACTivate Gwinnett Place Multi-Modal Green Corridor Master Plan.

Figure 20. Rendering, North American Properties.

Figure 21. Front entrance at Infinite Energy Center.

Figure 22. Duluth Town Green.

Figure 23. Gwinnett Place Drive/Mall Boulevard Complete Street.

Figure 24. Office/Professional land use in the study area.

Figure 25. Peachtree Ridge Park paved trail. A Gwinnett County park.

Figure 26. Bike rental and restroom. City of Suwannee.

Figure 27. Rogers Bridge Park, City of Duluth.

Figure 28. Abbots Bridge Recreation Area, NPS.

Figure 29. Buten Road Park, City of Duluth.

Figure 30. WP Jones Memorial Park, City of Duluth.

Figure 31. Shorty Howell Park, Gwinnett County.

Figure 32. McDaniel Farm Park, Gwinnett County.

Figure 33. Intersection of North Berkeley Lake Road NW with Buford Highway.

Figure 34. Edge of commercial area from Hill Drive.

Figure 35. Petroleum easement looking east at Commerce Ave. NW.

Figure 36. Merritt at Sugarloaf Apartment Homes on Satellite Blvd.

Figure 37. ROW along Duluth highway between SCM Group and Bojangles.

Figure 38. ROW south of the Sugarloaf Business Center illustrating steep drops from the roadside.

Figure 39. Steep side slope between Brookside Glen Homes and the UPS property wall improvement.

Figure 40. Area in front of the UPS property that could accommodate a trail separated from the road, to protect existing trees.

Figure 41. Wildwood Road, adjacent to Peachtree Ridge Park. A crossing is necessary in this location, to connect into the park.

Figure 42. Tangle of utilities and monitoring equipment on the east side of the vehicular bridge on Buford Highway, just south of Suwanee Creek Park.

Figure 43. A long crosswalk, without refuge, at Please Hill Road.

Figure 44. Crossing at Suwanee Creek.

Figure 45. Word cloud from the project website comments.

Figure 46. Social Pinpoint Interactive Map.

Figure 47. Figure 1 Typical cross-section of an off-road trail, Gwinnett Countywide Trails Master Plan.

Figure 48. Typical cross-section of a side path trail, Gwinnett Countywide Trails Master Plan.

Figure 49. Rendering of off-road trail from the Gwinnett Countywide Trails Master Plan; image by Kimley-Horn.

Figure 50. Rendering of trail road crossing from the Gwinnett Countywide Trails Master Plan; image by Kimley-Horn.

Figure 51. Boardwalk and steel bridge along trail. Ivy Creek Greenway, Gwinnett County, GA.

Figure 52. Pedestrian Hybrid Beacon in Alpharetta, GA.

Figure 53. Concrete boardwalk- Technology Parkway in Peachtree Corners, GA.

Figure 54. Stone Mountain PATH trail, Stone Mountain, GA.

Figure 55. Trail rest area. Tanyard Creel Trail, Atlanta, GA.

Figure 56. Rendering of the Loop Trail from the Gwinnett Countywide Trails Master Plan; image by Kimley-Horn.

Figure 57. Rendering of the Upper Suwanee Greenway from the Gwinnett Countywide Trails Master Plan; image by Kimley-Horn.

Figure 58. Rendering of Gwinnett Trails wayfinding signage; image by Kimley-Horn.

Appendix E: Public Meeting Minutes

LOOP TRAIL STUDY

7/27/2020 PUBLIC MEETING SUMMARY

This first public meeting was initially scheduled for an in-person meeting. Due to the COVID-19 pandemic, the meeting was moved to a virtual/dial-in format.

The meeting was facilitated by the consultant team (Pond & Company) project manager with the following agenda:

- Pigeonhole Live Introduction Poll
- Social Pinpoint Survey Results
- Need and Purpose Update and Review
- Overall Alignment/Trail Context Zone Types
- Enlargements of Trail/Alternate Alignments
- Trail Experience and Features
- Pigeonhole Live Q&A
- Stakeholder and Public Meeting Next Steps and Schedule

The meeting presentation and the recording of the Q+A session and can be found at GwinnettTrails.com. A summary of the interactive poll results and questions/answers recorded is included below.



PUBLIC MEETING 2 INTRODUCTION POLL

What is your current association with The Loop study area?

I live and/or own property in the area.

I work and/or own a business in the area.

I am a frequent visitor.

I am an elected official who represents the community.

I am an appointed official who represents the community.

I am interested in the trail study process.

QUESTION RESPONSES

Q1: Can I get the slides? Specifically, the map slides if the trails existing and new?

A1: Yes—the slides are available here: [www. Gwinnetttrails.com](http://www.Gwinnetttrails.com)

Q2: Will the presentation be available?

A2: See Q1

Q3: Will the trails be handicap accessible?

A3: It is a priority for Gwinnett County that our trails system is as inclusive and accessible as possible. Some trails that parallel roadways may be restricted to the existing slope along the roadway edge. When this occurs, the trail's design will comply with all AASHTO requirements.

Q4: What is the timeline for development?

A4: There is not yet a timeline for development of the Loop Trail. This study is a starting place to establish estimated project costs and to identify funding sources. Because segments of the trail already exist, there are portions of the trail that are likely to be implemented sooner than others. Implementation of the Loop Trail will depend on determined construction costs and available trail funding. Beyond this study, the Loop Trail will require final engineering design work as well as permitting.

Q5: Did you say when construction would start? Or expected to start?

A5: See Q4

Q6: Are there any provisions in place to add tunnels/bridges at the major interchanges where crosswalks are currently planned? This is assuming the trail system becomes very popular.

A6: There are trade-offs for implementing either a bridge or a tunnel, and often both options can be costly. In addition to costs, implementing bridges or tunnels is dependent on grades in the area as well as available property/easements.

At this point, other than where the Loop Trail runs needs to cross the creek, there are not any plans for bridges or tunnels. If alternate funding is available and enough demands exists, bridges and tunnels may become options.

In place of bridges or tunnels, Gwinnett will prioritize safe crossings at major intersections, which includes long-enough pedestrian cycles and other treatments to enhance the crosswalk.

Q7: Are we looking for easements or are we buying ROW?

A7: Successfully implementing the Loop Trail will require a combination of both easements and acquiring right-of-way.

Q8: Any plans to expand at some point more into North Gwinnett?

A8: The [Gwinnett Countywide Trails Master Plan](#) features multiple trail segments in northern Gwinnett.

The Loop Trail will provide connectivity to the Suwanee Creek Greenway, which connects to the Ivy Creek Greenway. The Ivy Creek Greenway will eventually connect to George Pierce Park as well as extend under the I-985/I-85 interchange.

Q9: I really love the presentation and the renderings. Thanks so much. It will make the parks accessible via walking or bicycle. It's always strange to drive to McDaniel Farm to go for a walk.

A9: We are glad you enjoyed the presentation and renderings. Thank you for attending!

A10: What's the proposed cost to tax payers?

A10: Currently, Gwinnett Trails are funded using SPLOST dollars as well as by leveraging state and federal funds and from grant sources. Gwinnett County is actively pursuing addition funding strategies to accelerate the implementation of the Countywide Trails Master Plan. A cost has not yet been determined for the Loop Trail, but the same funding strategies that are in place for the Gwinnett Trails system will be used for the Loop Trail.

A11: Will the apartments that have been approved affect the possibility of the alternate route in slide 9, utilizing the utility easement?

A11: This development will be taken into consideration for the design of the Loop Trail.

Q12: What is the schedule for construction?

A12: See Q4.

Q13: When will this be done?

A13: The Loop Trail Study is estimated to be completed by the end of 2020. There is not yet an implementation timeline for the Loop Trail.

Q14: This is great Gwinnett needs this especially with current circumstances.

A14: We appreciate your support of Gwinnett Trails!

Q15: What will be the construction emphasis? Will you look to link existing infrastructure first to make orphan trails more valuable and increase usage?

A15: Existing infrastructure and trail connectivity will be prioritized for implementation. Some of the more challenging areas will also be examined for implementation prioritization as these segments may take the longest to be implemented.

Q16: How is this project funded?

A16: The Loop Trail Study has been funded in partnership by Gwinnett County and the Sugarloaf CID, as well as through a grant from the Atlanta Regional Commission. There is not yet a funding source identified to implement the Loop Trail.

Q17: Can you elaborate on what other improvements will be involved in sections along roadway? Lighting, landscaping??

A17: The [Gwinnett Countywide Trails Master Plan](#) outlines standards for the two trail typologies (Off Road and Side Path), which include lighting and other amenities. In general, these standards will be applied to the various segments of the Loop Trail.

Q18: What is the current Gwinnett standard for trail emergency location posts? Some parks/trails are very good, some not so good. Especially interested in more undeveloped areas.

A18 Gwinnett County is actively deploying help locator placards throughout our trails system and, in general, the help locator placards will be placed every ¼ mile along a trail. While the County has been working on deployment for the last few years, we have more than 130 miles of trails currently in existence that need to be retrofitted with these signs, as well as new trails being constructed. Gwinnett has plans to make significant progress in installing these placards in 2020, but full

implementation across the system will take time. If there is a particular trail of interest, please let us know so we can consider it for future deployment plans.

Q19: Will the final trail surface include striping, STOP script, signs, etc.?

A19: The [Gwinnett Countywide Trails Master Plan](#) outlines standards for the two trail typologies (Off Road and Side Path), which include signage and markings. In general, these standards will be applied to the various segments of the Loop Trail.

Q20: Are you developing minimum standards for all phases of THE LOOP? Surface, signage, materials, dimensions etc.

A20: The [Gwinnett Countywide Trails Master Plan](#) outlines standards for the two trail typologies (Off Road and Side Path), which include surface materials, signage, trail widths, etc. In general, these standards will be applied to the various segments of the Loop Trail.

Q21: Does the County have usage expectations? Potential traffic impact upon parks and parking? Please compare to Big Creek Greenway.

A21: While we do not yet have usage estimates for the Loop Trail, the Loop Trail is one of nine Signature Trails in the [Gwinnett Countywide Trails Master Plan](#). Signature Trails will be the hallmarks of the Gwinnett Trails system. In addition to being a Signature Trail, the Loop Trail is considered to be our most activated trail system in Gwinnett, as demonstrated by the renderings in the Countywide Trails Master Plan.

Although it is difficult to estimate usage at this point in time, one of the objectives of the Loop Trail is to provide a transportation alternative in the area, which could potentially reduce parking demand as well as support traffic reduction.

For a comparison to the Big Creek Greenway (in North Fulton and Forsyth Counties), the Big Creek Greenway is a long section of trail that is completely off-road. It is more of a recreational pathway than what is envisioned for the Loop Trail. The Loop Trail will be more oriented to transportation usage, with the potential to provide critical first- and last-mile connectivity for transit service (both existing and potential).

Q22: The section along the floodzone you mentioned using boardwalk. May I suggest wood boardwalks and rain make it dangerous for bikers would prefer concrete or asphalt elevated.

A22: The County is exploring alternative materials for boardwalks for the Gwinnett Trails system, including PermaTrak (which was used by the City of Lilburn on the Camp Creek Greenway). Cost factors into material decision-making process, as well as other factors, including environmental impacts. In some cases, concrete or asphalt are not acceptable/allowable options due to environmental restrictions. Safety is a top priority for the County; however, most materials become slippery due to rain/saturated foliage, etc. Please use caution on trails after rain events.

Q23: What are the plans for connecting to other cities and counties? Specifically looking to be able to ride safely west of the Chattahoochee.

A23: Gwinnett County has been an active participant in the Chattahoochee RiverLands planning process, which concluded this April and recently released plan recommendations publicly at <https://chattahoocheeriverlands.com/>. The Gwinnett Countywide Trails Master Plan prioritized connectivity of the County's system with the 16 Cities and 6 CIDs, as well as with neighboring systems. In addition, Gwinnett was the first County in the region to incorporate the Chattahoochee RiverLands (formerly the Chattahoochee Trail Network/Greenway) into our trails vision, setting aside funding for implementation before the Chattahoochee RiverLands planning process even began.

The Chattahoochee RiverLands study proposes multiple connections to get users across the Chattahoochee River along Gwinnett's western boundary as well as features the Sugar Hill trailhead as one of the plan's catalytic sites. In addition to these planned crossing points, the County is currently partnering with the Cities of Duluth and Johns Creek as well as Fulton County to restore Rogers Bridge, which will provide connectivity across the Chattahoochee that can be accessed by Loop Trail users via the Western Gwinnett Pathway. Gwinnett also is partnering with the City of Sandy Springs to provide sidewalks and trail connectivity over the River along Spalding Drive.

Beyond the regionally significant Chattahoochee RiverLands study, the Atlanta Regional Commission (ARC) is currently updating their Regional Trails Vision, which includes Gwinnett's trails (and the Chattahoochee RiverLands). The County is collaborating with ARC and our regional partners to ensure our planned trails system provides connectivity to other major Metro Atlanta networks

Q24: Will this new trail have any direct connection to the Gwinnett Center, Arena, etc.?

A24: There are plans for spur trails to this from this trail system.

A24: The Loop Trail Study is examining the trail's alignment and connections, but connecting major destinations by serving as a transportation alternative is a priority for the Loop Trail.

Q25: Would the trail be broken up into smaller segments for construction, and potentially added to future SPLOST programs?

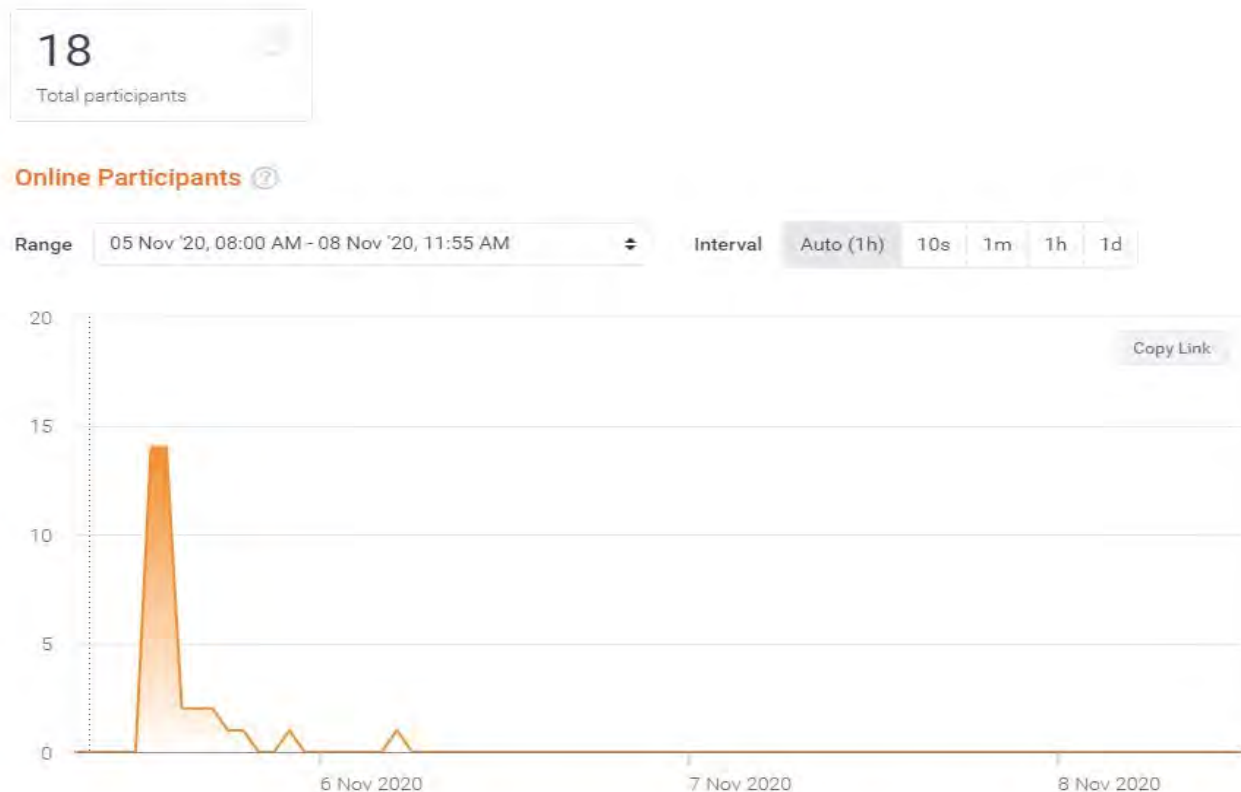
A25: The Loop Trail Study is examining 14 miles of the proposed 17-mile Loop Trail. Fourteen miles is an extensive trail alignment, which will require phasing the implementation of the Loop Trail.

LOOP TRAIL STUDY

11/05/2020 VIRTUAL PUBLIC MEETING 2 SUMMARY

Schedule & Attendance

The virtual public meeting summarizing the workshop efforts was held on November 5th, beginning at 1:00pm and ending just after 2pm. In total there were 18 attendees during the virtual presentation. The chart below shows attendee participation for the duration of the presentation. The online forum on Pigeonhole Live was left open for comment for 3 days and a total of 10 persons engaged with the sessions through November 8th.



Through November 8th

Public Meeting Summary

This second public meeting was initially scheduled in-person meeting. Due to the COVID-19 pandemic, the meeting was moved to a virtual/dial in format. The meeting was facilitated by the consultant team project manager and followed this agenda:

- Pigeonhole Live Introduction Poll
- Public meeting/ stakeholder involvement and results
- Overall Alignment/Trail Context Zone Types
- Enlargements of Trail/Alternate Alignments
- Trail Experience and Features
- Phasing Plan/General Quantities
- Pigeonhole Live Q&A
- Schedule: Next Steps

*During the presentation there were technical difficulties that required a pause half-way through.

Public Meeting 2 Introduction Poll

Question: What is your current association with The Loop study area?

Total votes (16)

No	Answer options	Votes	% of Total
1	I live and/or own property in the area.	3	21.4%
2	I work and/or own a business in the area.	5	35.8%
3	I am a frequent visitor.	1	7.1%
4	I am an elected official who represents the community.	0	0.0%
5	I am an appointed official who represents the community.	2	14.3%

6 I am interested in the trail study process.

3 21.4%

Question Responses

Q1: Can CIDs co-brand on Gwinnett County Signage.

A1: Yes, there will be opportunities for the local CIDs to have customizable input on signage within their jurisdictions.

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