



**Gwinnett
TRAILS**

**COUNTYWIDE TRAILS
MASTER PLAN**

Technical Report

September 2018

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CHAPTER 1 INTRODUCTION

In 2016, Gwinnett County and its partners sought to develop an updated Comprehensive Transportation Plan (CTP) to guide how to invest in transportation in the future. During the CTP planning effort, the County and the planning team identified a need to further study the development of a high-quality network of trails to give the community an innovative way to travel across the County and a place to exercise and socialize with family, friends, and neighbors. To respond to this need, the Gwinnett County Board of Commissioners initiated the Countywide Trails Master Plan.

The Countywide Trails Master Plan was developed in conjunction with the Gwinnett County Department of Transportation (DOT) and the Gwinnett County Department of Community Services as well as the Cities and Community Improvement Districts (CIDs) across the County. The following document presents how the planning team—consisting of Gwinnett DOT, Gwinnett Department of Community Services, and consultants—worked to develop the Countywide Trails Master Plan. The document lays out the process for cataloging possible trails projects, evaluating and selecting projects, estimating the cost of selected projects, determining funding options for selected projects, and developing a prioritized implementation plan. The document also provides guidance on trail type and corresponding design, identifies subnetworks within the system, and includes conceptual examples of wayfinding and branding to create a brand for the system as well as details the next steps for the County to begin implementation.

CHAPTER 2 PROJECT DEVELOPMENT

The Gwinnett Countywide Trails Master Plan team undertook a multi-step process designed to identify priorities and create a plan that presents a trails network that the community vision reflects. The planning team examined previous planning efforts – including the 2014 Open Space and Greenway Master Plan Update, the 2017 Comprehensive Transportation Plan (CTP), and other trails plans – as well input from the Project Team to identify an initial catalog of possible trail projects. The Project Team included representation from various Gwinnett County departments, Gwinnett County Cities, and Community Improvement Districts (CIDs) within the County.

The catalog of projects were classified into three typologies – transportation, recreation, or hybrid – based on function, which were then evaluated on 16 criteria to produce a shortlist of trails. The shortlist was then presented to the public for comment during the public outreach efforts associated with the CTP which was being completed during the initial phases of the Trails Master Plan. Based on the community input the Project Team received, the shortlist was further revised to reflect the public feedback. Another impact the community input had was the movement from the original three typologies that focused on who would be using the trail to two new typologies – off-road and side path – that are centered on where the trails are located.

Once the Team had the revised shortlist of projects, they conducted detailed costing for a subset of trail segments and developed high-level planning costs for all the segments within the list. The completed costing then enabled the planning team to determine the financial feasibility of the proposed trails. Using information from the funding analysis and input from Project Team, the planning team organized the proposed trails into four networks based on implementation priority. The four networks that are:

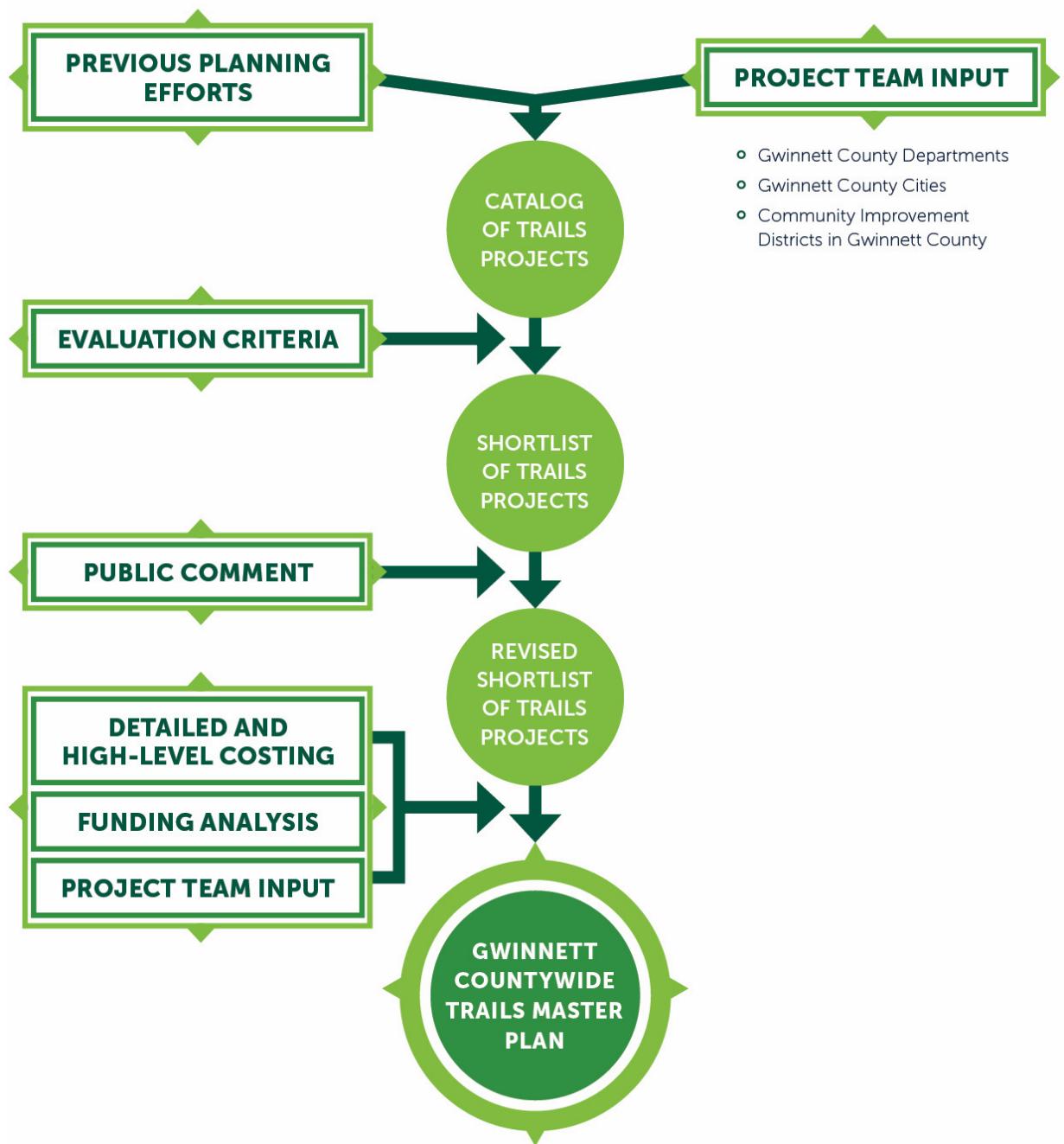
- Core Network: 115 miles of trail identified for initial implementation.
- Priority Trails: 85 miles of trail identified for implementation upon completion of the core network or the introduction of new funding sources.
- Trails with Partners: 125 miles of trails that have been identified that can be constructed through the County's development/redevelopment requirements or with other partnerships.
- Chattahoochee Trail Network: 25 miles of trail within the County that is part of the larger Chattahoochee Trail Network that is being coordinated regionally.

Within these networks, the planning team performed a more detailed analysis of select projects to designate certain segments as Signature Trails, projects that are meant to help create an identity for the system and be an example for future projects, or Spotlight Projects, projects that have been identified as significant quick-wins.

The trail system and its four networks is the central focus of the Countywide Trails Master Plan; however, the planning team completed additional analysis and design to support this framework. These supportive components include typical trail cross-sections, trail standards, visualizations, and wayfinding and branding concepts.

Figure 2.1 illustrates the project development process that the planning team used to create the Countywide Trails Master Plan.

Figure 2.1: Project Development Process



CHAPTER 3 PREVIOUS PLANNING EFFORTS

To develop the Countywide Trails Master Plan, the planning team reviewed previous planning efforts to create a catalog of trails projects that had previously been identified within Gwinnett County. In general, previous efforts can be divided into three categories: efforts completed by the County, efforts completed by specific Cities, and efforts completed by CIDs. Table 3.1 details the previous efforts that were examined as part of the Countywide Trails planning process beginning with the most recent effort.

Table 3.1: Previous Planning Efforts

| Plan/Study | Year Completed | Sponsor |
|---|----------------|--------------------------------------|
| Comprehensive Transportation Plan (CTP) | 2017 | Gwinnett County DOT |
| Gwinnett Place Connected Study | 2016 | Gwinnett Place CID |
| Gwinnett Place Traffic Study Update | 2016 | Gwinnett Place CID |
| Sugar Loop Greenway Master Plan | 2016 | City of Sugar Hill |
| ACTivate Gwinnett Place Multi-Modal Green Corridor Master Plan | 2015 | Gwinnett Place CID |
| Holcomb Bridge Corridor Study | 2015 | City of Peachtree Corners |
| Open Space and Greenway Master Plan Update | 2014 | Gwinnett County Parks and Recreation |
| Yellow River Greenway - Vecoma Trail Master Plan | 2013 | Gwinnett County Parks and Recreation |
| Gwinnett County Parks and Recreation Capital Improvements Plan Update | 2013 | Gwinnett County Parks and Recreation |
| Gwinnett County Parks and Recreation Survey | 2012 | Gwinnett County Parks and Recreation |
| Yellow River Park Trail System Assessment and Redevelopment Plan | 2012 | Gwinnett County Parks and Recreation |
| Highway 29 Boulevard of Opportunity Corridor Study | 2011 | Lilburn CID |
| Downtown Master Plan 5-Year Update | 2011 | City of Lawrenceville |
| Pedestrian and Bicycle Plan Update | 2011 | City of Suwanee |
| Auburn Strategic Implementation Plan | 2010 | City of Auburn |
| Downtown Suwanee Master Plan | 2009 | City of Suwanee |
| City of Dacula 2030 Comprehensive Plan | 2008 | City of Dacula |

3.1 County Efforts

County efforts are planning documents and studies that have been produced by various County departments. The two major plans that were reviewed as part of the process to develop the Trails Master Plan were the Destination2040 CTP, completed in 2017, and the Open Space and Greenway Master Plan Update, completed in 2014. In addition to these two major plans, four plans sponsored by the Gwinnett County Department of Community Services (Parks and Recreation) supported the development the Countywide Trails Master Plan.

3.1.1 Open Space and Greenway Master Plan Update

Released in 2014, the Open Space and Greenway Master Plan Update renews the proposed greenway network from the initial Open Space and Green Master Plan, which was completed in 2002. The updated master plan updates the original greenway network by constraining the original 1900 miles of on- and off-road trails to a 331-mile network through a feasibility analysis. While the original network contained many on- and off-road trails, the updated network focused primarily on off-road greenways and only included on-road trails that are necessary connections between the greenways. In addition to constraining the original network, the feasibility analysis was also used to classify of the greenway projects into three groups: Tier I, Tier II, and Priority. Tier I greenways are defined as greenways that fall where developers are required to construct or assign easements to construct the greenways in compliance with the Unified Development Ordinance (UDO). Tier II greenways are defined as greenways that are desired but are not in areas where developers are required to construct or assign easements to construct per the UDO. Priority greenways are defined as greenways that have been identified for prioritization for construction because they have already been funded or were identified in the 2013 Gwinnett County Parks and Recreation Capital Improvements Plan Update as recommended projects.

The greenway network outlined in the Open Space and Greenway Master Plan Update was the starting point for the network that is the result of the Countywide Trails Master Plan. The planning team used the network laid out in the update as the base network and built upon that network by examining other proposed trails that were either not included in the update because they had not been proposed at the time of the update or they are not off-road greenways.

3.1.2 Comprehensive Transportation Plan

Sponsored by the Gwinnett County DOT and the Board of Commissioners, Gwinnett's CTP, Destination2040, outlines transportation projects and funding over short-, medium-, and long-range timeframes for the County. Some of the projects evaluated and ultimately included in the CTP were trails projects that provided part of the preliminary list of trails projects for the Countywide Trails Master Plan. Where the Open Space and Greenway Master Plan Update focused on off-road greenway trails, the CTP brought projects directly adjacent to roadways or within roadway right of way.

Beyond providing a preliminary list of trails projects and playing a role in initiating the Countywide Trails Master Plan, the CTP also identified a bike priority network as well as the major roadway projects the County plans to undertake over the next 20+ years. The bike priority network was used to help identify corridors and important origin-destination pairs for developing transportation focused trails. The planning team used the major roadway projects to identify where trail projects could be planned in conjunction with and as a part of roadway projects. Coupling trails projects with major roadway projects has the result in cost savings and construction efficiencies by completing multiple projects within single project.

3.1.3 Other Plans

In addition to the CTP and the Greenway Master Plan Update, four other County-sponsored documents were examined: The Yellow River Greenway – Vecoma Trail Master Plan, the Yellow River Park Trail System Assessment Plan, the Capital Improvements Plan Update, and the 2012 Parks and Recreation Survey. The two Yellow River plans provided details on a specific project area while the Capital Improvement Plan update gave the planning team an understanding of Parks and Recreation's priorities prior to the Countywide Trails Master Plan effort. The survey provided insight into the public opinion of the existing trails system.

3.2 City Efforts

A number of studies and plans developed by Gwinnett Cities were examined to identify local projects that could potentially be included in the Countywide Trails Master Plan. Some of the plans were project-specific and corridor-focused projects, such as Sugar Hill's Sugar Loop Study or the Holcomb Bridge Corridor Study in Peachtree Corners. In addition, Cities comprehensive plans were reviewed for relevant trails plans, including Lawrenceville's Downtown Master Plan and Dacula's 2030 Plan. These plans provided projects and potential trail locations that were evaluated for inclusion in the Countywide Trails Master Plan.

3.3 CID Efforts

Much like City-sponsored plans, plans from Gwinnett County's CIDs were leveraged by the planning team to identify potential projects and alignments. The Gwinnett Place CID's master plan – ACTivate Plan – as well as the Gwinnett Place Connected Plan and Traffic Study update outline a vision for the Gwinnett Place area. The Lilburn CID's Highway 29 corridor study also identifies trail opportunities for its study area.

The projects identified in previous planning efforts and by the Project Team were brought together to create a catalog of projects for evaluation. The catalog includes approximately 850 miles of possible trails. Figure 3.1 following provides the map of the projects included in the catalog of projects.

Figure 3.1 Map of Catalog of Projects



CHAPTER 4 TRAIL EVALUATION AND TYPOLOGIES

While having a network of 850 miles of trails would be fantastic, it is not realistic within foreseeable time frame. To help constrain the catalog of identified trails and determine a realistic, implementable network the trails were put through an evaluation process. The process included dividing the trails among three different usage types, applying criteria weighted based on the usage types, and finally vetting by the Project Team.

4.1 Trail Usage Types

Trails included in the catalog of projects were evaluated to prioritize and narrow the project list. To properly evaluate the projects, the catalog was broken out into three usage types: Transportation, Recreational, and Hybrid. The purpose of usage types was to ensure that projects were evaluated correctly based on the type of trail the projects are. Different trail types serve different purposes and therefore require an evaluation process that reflects those purposes more accurately. For example, a criterion for population may be relevant for a transportation trail between a major job center and a residential area, but that same population criterion is less relevant for a recreation trail running through a park or nature area.

Trails within the transportation type are trails that are primarily used to travel between major origins and destinations. This trail type is for trails that are more focused on utility of reaching destinations over the characteristics of a more recreational trail, such as avoiding major roadways and staying within parks and forested areas. The primary users for this trail type are commuters, people running errands, and people trying to reach major activity centers. Trails of the transportation type seek to be as flat and straight as possible to allow for quick movement.

Recreational trails are on the opposite end of the spectrum from transportation trails and are primarily used for exercise and leisurely travel. This type of trail can be more winding and meandering than trails designated for transportation and travels through parks and other greenspaces whenever possible.

The hybrid trail type captures trails that cannot be singularly classified as transportation trails or recreation trails, but have elements of both. These trails are identified as most likely having a mixed user group with some using the trails for transportation and some using the trails for exercise and leisurely travel.

4.2 Trail Evaluation

Once the projects had been identified by user typology, 16 evaluation criteria were applied to score the projects. The 16 criteria were weighted by the usage types explained in the previous section. Table 4.1 outlines the criteria and the different weightings.

Table 4.1 Evaluation Criteria and Weights

| | Transportation | Hybrid | Recreational |
|---|----------------|--------|--------------|
| Level 1 Evaluation Criteria | 125 | 125 | 95 |
| Linear alignment, Roadway ROW | 10 | 5 | -- |
| Connectivity to activity centers | 10 | 5 | -- |
| Population within a half mile | 10 | 10 | -- |
| Proximity to Transit | 10 | 5 | -- |
| Regional connectivity | 10 | 10 | 10 |
| Economic Development opportunity | 10 | 10 | 10 |
| Targeted or disadvantaged populations within a half mile | 10 | 10 | 10 |
| Proximity to community resources (schools, libraries, community centers, hospitals, senior centers, historic sites) | 10 | 10 | 10 |
| MetroQuest public input | 5 | 5 | 5 |
| Feasibility/constructability - Level 1 (topo) | 10 | 10 | 10 |
| Proximity to Existing or Funded Project | 10 | 10 | 10 |
| Connectivity to adjacent city or CID | 10 | 10 | -- |
| Proximity to parks and open green spaces | -- | 10 | 10 |
| Use of stream buffers, wetlands, floodplains | -- | 5 | 10 |
| Projects with County Momentum | 10 | 10 | 10 |

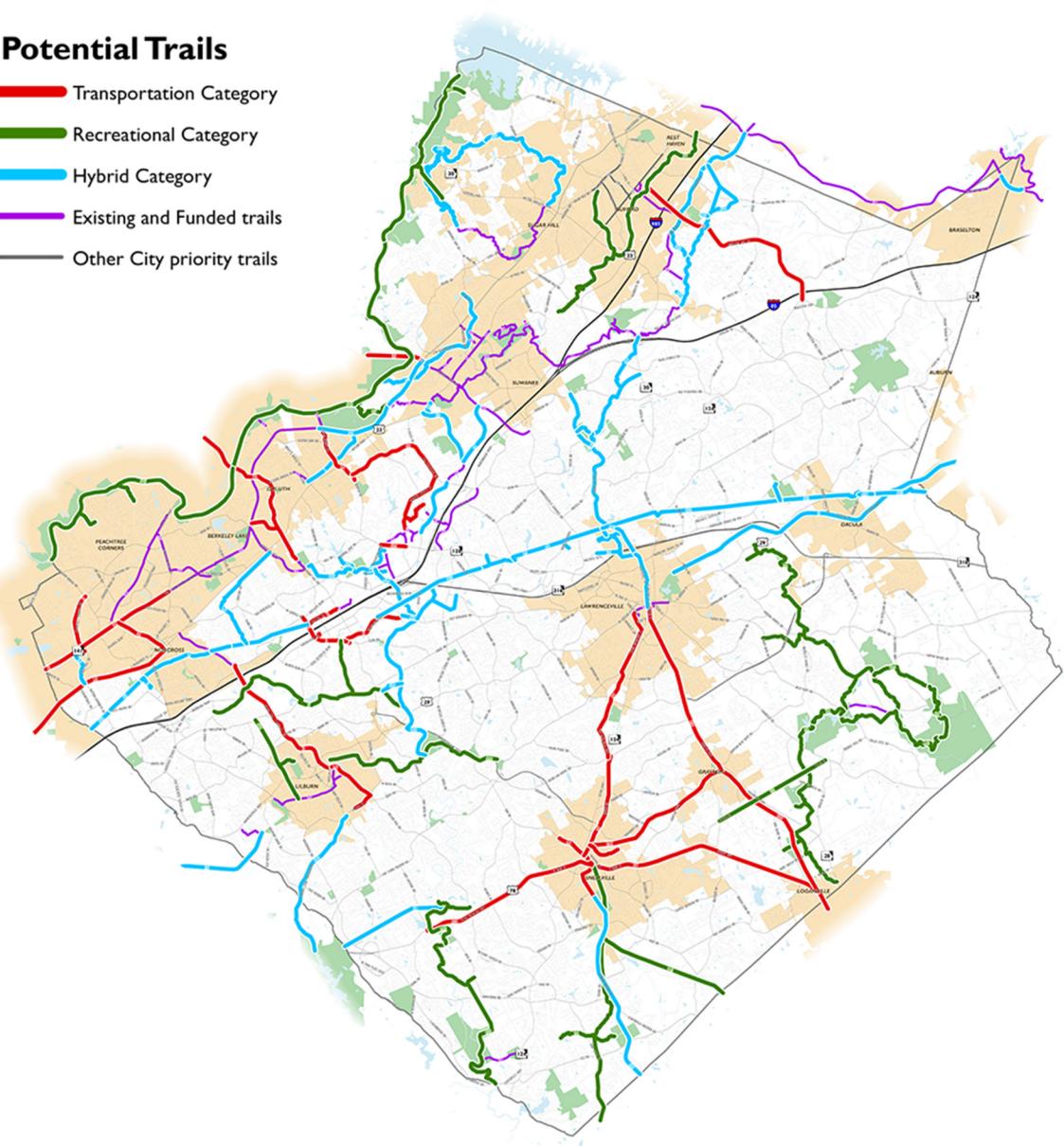
The evaluation criteria and weighting methodology were developed with coordination of the Project Team to ensure that the evaluation met the needs and goals of the project. Once the methodology was set, the planning team utilized ArcGIS software to score each of the projects.

Based on the first round of evaluation, 15 projects were chosen to be a part of a shortlist of trails to be brought forward to the public for feedback. These 15 shortlisted projects, as well as another 320 miles of projects that had scored highly during the first round of evaluation or had been identified by the Project Team as being high priority, were selected to go through costing and prioritization based on anticipated funding. Chapter 10 of this report focuses on the funding aspect of the plan. Figure 4.1 following provides a map of the 15 shortlisted.

Figure 4.1 Shortlisted Projects

Potential Trails

- Transportation Category
- Recreational Category
- Hybrid Category
- Existing and Funded trails
- Other City priority trails



4.3 Public Input

Two types of public input were used to further evaluate projects that scored highly in the first round of evaluation. The first was open feedback in the CTP's online survey on the full network of possible trails. Participants were able to provide comments about the full network through writing notes and providing locations on a map where they would like additional bicycle and pedestrian infrastructure. The second form of public input used the 15 short listed projects, designated into their respective trail usage types, and asked participants to rank the projects within each type. The public outreach efforts leveraged the ongoing CTP process to conduct these activities.

The results of the outreach helped determine the priority of projects but also showed that the public was less concerned with defining the projects by their usage and was more concerned with where trails could be constructed. As a result, after conducting the initial evaluation and public outreach, the planning team moved away from using the usage types in organizing the projects.

4.4 Trail Design

Based on public input, the planning team revised its trail typology approach to focus on trail location instead of user type. In general, the public was more focused on where a trail would be than what its purpose was. The change in focus of typology resulted in a creation of two basic trail design types to be applied to the network – off-road trails and side paths. While specific characteristics have been identified for these two typologies, each corridor will be designed by considering its unique topography, right-of-way, and context. In addition, some of the typology characteristics are flexible. For example, the ideal width for standard use trails is 12 feet, but along sections that are designated high use, trails may be designed to be 14 feet wide and, in remote areas or locations of constrained right-of-way, narrower trail segments may be constructed 8 feet in width.

4.4.1 Off-Road

Off-road trails are greenways and pathways that are not located along a roadway and instead follow their own alignment, possibly along a stream or utility easement. The trails are ideally 12 to 14 feet in width and typically will be constructed as concrete facilities as well as timber bridges and boardwalks around wetlands and other environmentally sensitive areas. When signalized crossings of roadways are not preferred or possible, elevated or tunneled trail crossings may be considered. Restrooms and parking locations may be located at trailheads and other key points along the path.

Some of the typical design aspects of the off-road trail design type are:

- Concrete paving
- Timber bridge and boardwalks
- Concrete wall with handrails where needed
- Signalized roadway crossings or grade separation where needed
- Minimal locations with lighting
- Trailhead signage, wayfinding signage, mile markers
- Restrooms and/or parking in key locations

Figure 4.2 following shows a typical cross-section of an off-road trail.

Figure 4.2 Typical off-road trail cross-section

4.4.2 Side Path

Side paths are multiuse trails that run adjacent to the roadway with a buffer separating the trail from the roadway. The trails are ideally 12 to 14 feet in width and typically will be constructed with asphalt. When signalized crossings of roadways are not preferred or possible, elevated or tunneled trail crossings may be considered.

Some of the typical design aspects of the side path trail design type are:

- Asphalt paving
- Concrete wall with handrails where needed
- Signalized roadway crossings or grade separation where needed
- Lighting with luminaires
- Trailhead signage, wayfinding signage, and mile markers
- Restrooms and/or parking possible in key locations

Figures 4.3 and 4.4 show the typical cross-sections of side paths with both an adjacent gradual slope and an adjacent concrete wall and handrail.

Figure 4.3 Typical cross section of side path with gradual slope

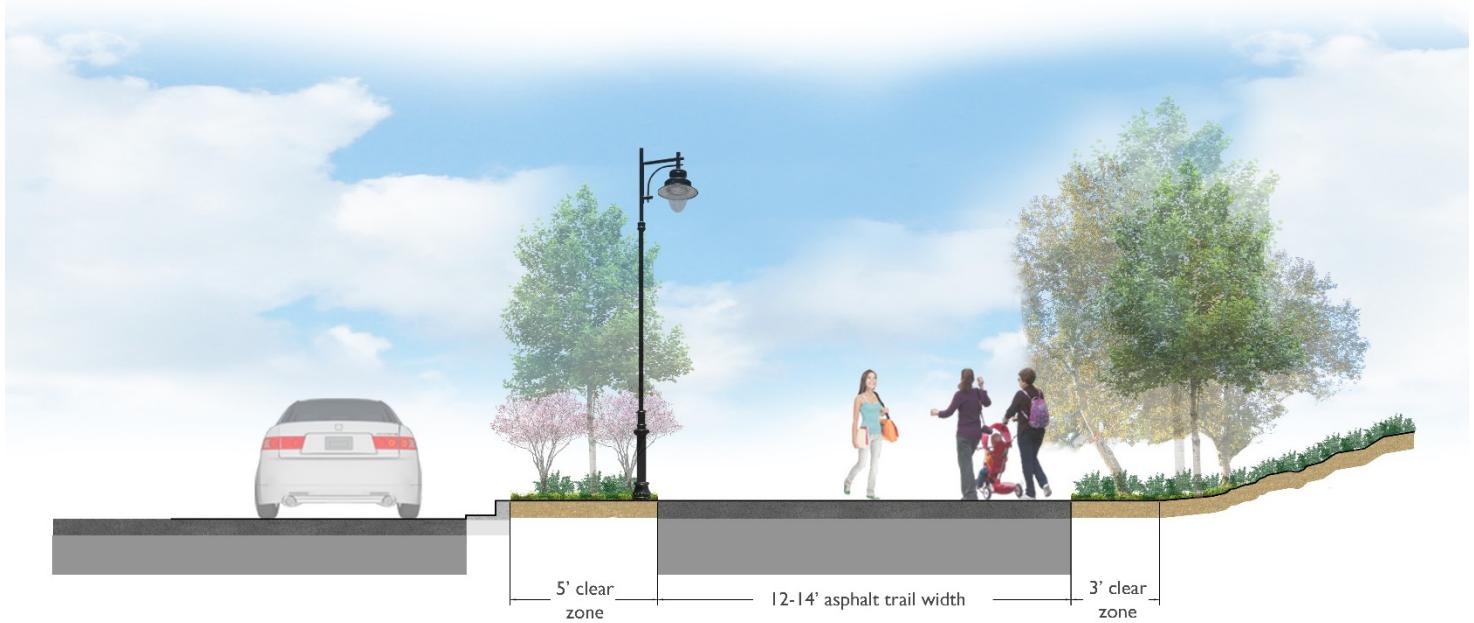
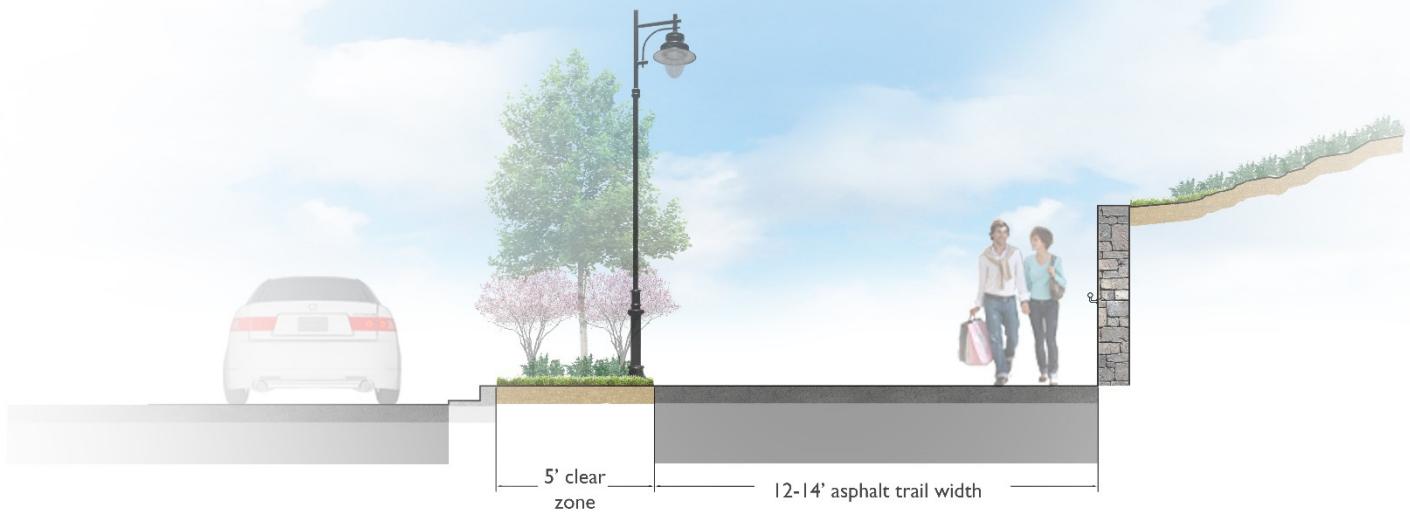


Figure 4.4 Typical cross section of side path with concrete wall and handrail



4.4.3 Trail Usage Levels

Despite the move from defining the trails based on user type, the anticipated users still play a role in the design of trails. The expected level of usage plays a critical role in the design of trails. There are two user levels that have been identified the plan, standard use and high use. Trails that are identified as standard use trails are relatively calm and uncongested, making standard design widths and practices appropriate. Much of the network outlined in this plan falls within the category of standard use trails. High use trails are trails that are identified as having the potential to have much higher usage than other segments in the network. These high use trails should be designed to accommodate greater volumes of users with greater widths, greater consideration given to roadway crossings, and more provisions for the specific user types. Design exceptions should be minimized on high use trails to accommodate the amount of anticipated usage.

CHAPTER 5 TRAIL SYSTEM

The map on the next page illustrates the full trail system of the Gwinnett Countywide Trails Master Plan. The development of this system was an iterative process that included cataloging and reviewing previous trail planning efforts, meetings and workshops with key stakeholders, performing a detailed evaluation process, and gathering public input, as detailed in the previous chapters.

The full Countywide Trails System is classified into four networks:

- Core Trail
- Priority Trails
- Trails with Partners
- Chattahoochee Trail

The following pages go into greater detail on how each of these trail networks is defined and quantified as well as the trail segments included in each network.

5.1 Overall Trail System Map

Figure 5.1 following is of the full trail system map that shows each of the four identified networks as well as existing and funded bicycle and pedestrian facilities.

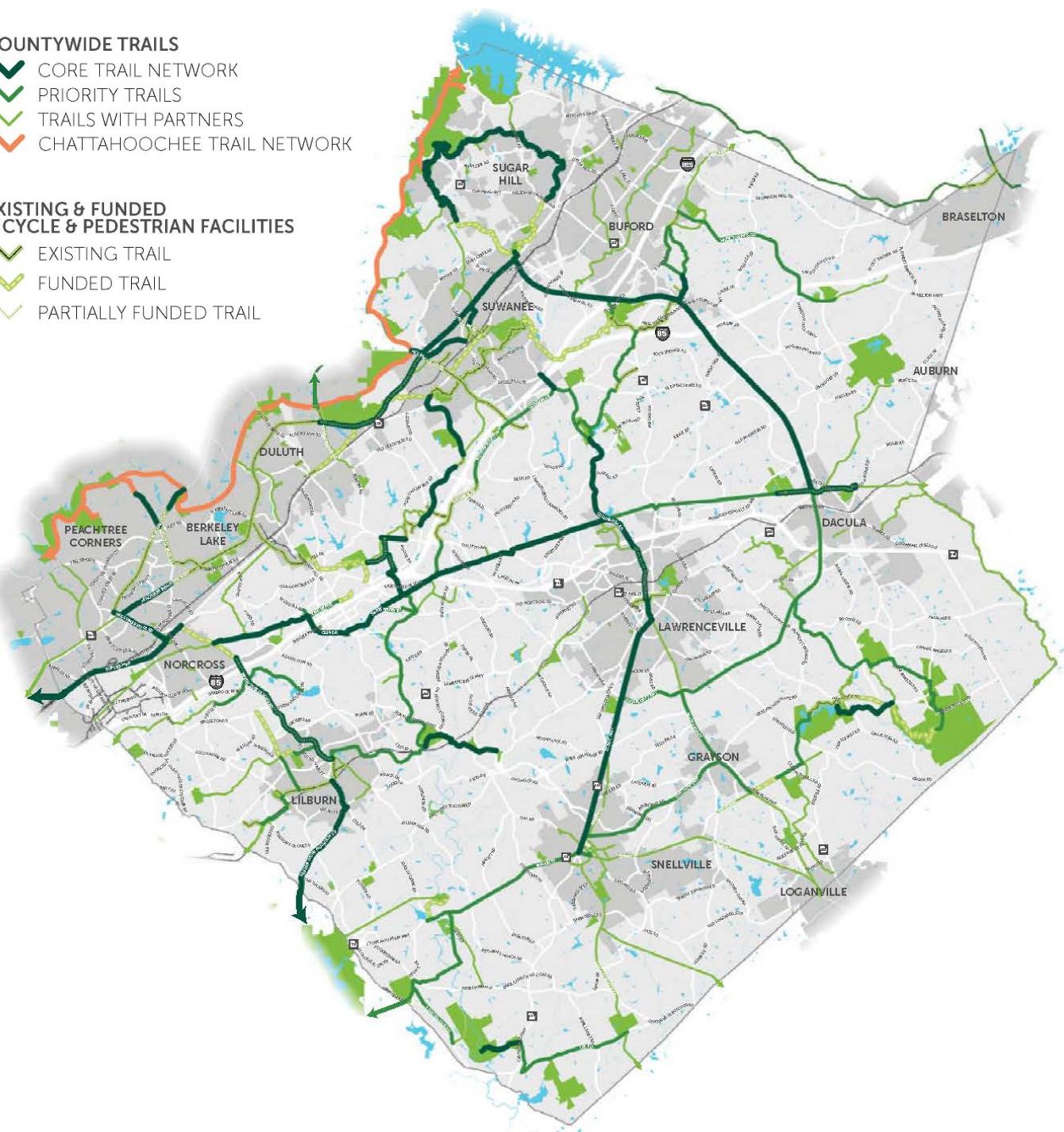
Figure 5.1 Overall Trail System Map

COUNTYWIDE TRAILS

- CORE TRAIL NETWORK
- PRIORITY TRAILS
- TRAILS WITH PARTNERS
- CHATTAHOOCHEE TRAIL NETWORK

**EXISTING & FUNDED
BICYCLE & PEDESTRIAN FACILITIES**

- EXISTING TRAIL
- FUNDED TRAIL
- PARTIALLY FUNDED TRAIL



5.2 Implementation

5.2.1 Core Trail Network

The Core Trail Network is symbolized with dark-hued green lines on the overall trail system map in Figure 5.1. The Core Trail Network composed of trail segments that have been identified as the major backbone of the County's future trail system. Although full implementation of the Core Trail Network may take many decades if considering current and likely funding sources, additional financial support may mean earlier implementation.

The Core Trail Network includes approximately 115 miles of trails. Trails included in the Core Trail Network are:

- Bethesda Greenway (East Segment)
- Brushy Creek Greenway (Central Segments)
- Centerville Greenway
- Doraville Trail Connection
- Harbins Greenway (Central Segment)
- Ivy Creek to Snellville Trail (South Segment)
- Ivy Creek Greenway (South Segment)
- Jones Bridge Road Connector
- Lilburn Camp Creek Road Trail Connection
- Lilburn to Stone Mountain Park Connection
- McGinnis Ferry Road Multi-Use Path Connection
- Norcross to Lilburn Trail (Central Segment)
- Peachtree Industrial Boulevard Trail Connections
- Peachtree Parkway Connection
- Piedmont Pathway (Multiple Segments)
- Singleton Creek Greenway (South Segment)
- Smithtown Road Trail Extension
- Sugar Hill Greenway (East and West Segments)
- Sugarloaf Commuter Trail Extensions (North Segments)
- Suwanee Creek Greenway (Southern Segment)
- Sweetwater Creek Greenway (North)
- The Loop Trail (East Segments)
- Western Gwinnett Bikeway - Peachtree Industrial Boulevard Trail (Multiple Segments)

5.2.2 Priority Trails

The Priority Trails are symbolized with medium-hued green lines on the overall trail system map in Figure 5.1.

Priority Trails are anticipated to be implemented after the Core Trail Network is realized. The Priority Trails constitute approximately 85 miles of trail. Trails included in the Priority Trail Network are:

- Alcovy River Greenway (North Segment)
- Anderson-Livsey Multiuse Path
- Beaver Ruin Creek Greenway
- Bethesda Greenway (West Segment)
- Braselton Highway Trail (West Segment)
- Breckinridge Boulevard Trail

- Camp Creek Greenway Extension
- Collins Hill Road to Smithtown Road Connector Trail
- Collins Hill Road Trail (North Segment)
- Grayson to Ozora Connection
- Grayson-Lawrenceville Connector (South Segment)
- Gwinnett Cultural and Heritage Center to Sugarloaf Commuter Trail
- Gwinnett Place Area Trail
- Hamilton Mill to Buford Trail
- Harbins Greenway (East and West Segments)
- Ivy Creek Greenway (North Segment)
- Ivy Creek Greenway North Trail
- Ivy Creek to Snellville Trail (North Segments)
- Jackson Creek Greenway (East Segment)
- Lee Road Multiuse Path
- Northbrook Parkway Trail
- Old Peachtree/Horizon Drive Trail
- Ozora Road Multiuse Path (Central Segment)
- Piedmont Pathway (Segment)
- Rockbridge Road Trail
- Rogers Bridge Connection
- Ross Road Powerline Easement to Deshong Park and Stone Mountain Park
- Singleton Greenway (South Segment)
- Snellville Evermore CID Trail
- Snellville to Grayson Connection
- Sugarloaf Extension Commuter Trail (South Segment)
- Sweetwater Creek Greenway (South and Central Segments)
- Woodington Circle Multiuse Path

5.2.3 Trails with Partners

Trails with Partners are symbolized with light-hued green lines on the overall trail system map in Figure 5.1. Trails with Partners may be built through County development/redevelopment requirements or by the County identifying additional partnerships for implementation.

Trails with Partners constitute approximately 125 miles of trail. Trails included in the Trails with Partners Network are:

- Alcovy River Greenway (South Segment)
- Alcovy River Greenway North Spur
- Appalachee River Greenway
- Braselton Highway Trail (East Segment)
- Briscoe to Towne Center (East Segment)
- Bromolow Creek Greenway (North Segment)
- Brushy Creek Greenway (South and North Segments)
- Center Parkway Trail
- Connection to Johns Creek Greenway

- Crooked Creek Greenway
- Dacula to Auburn Connection
- Evermore CID Trail (Snellville Segment)
- GGC Multi-Use Trail
- GGC to Sugarloaf Mills Connection Spur
- Grayson to Loganville Connection
- Grayson-Lawrenceville Connector (Central Segment)
- Harbins Greenway (South Segments)
- Infinite Energy Center to Duluth Connection
- Ivy Creek Greenway (North Segment)
- Ivy Creek Greenway North Spur
- Ivy Creek Greenway South Spur
- Ivy Creek to Snellville (South Segments)
- Jackson Creek Greenway (West Segment)
- Lower Suwanee Greenway
- Norcross to Lilburn Trail (South Segment)
- Ozora Road Multiuse Path (East and West Segments)
- Peachtree Corners Area Trail
- Peachtree Creek Greenway Extension
- Piedmont Pathway (Segments)
- PTC Holcomb Bridge Trail
- Redland Creek Greenway
- Riverbend Park Connection to Stone Mountain Park
- Ross Road Side Path
- Satellite Boulevard Multiuse Path
- Singleton Creek Greenway (Central Segment)
- Snellville to Lawrenceville Connection
- Snellville to Loganville Connection
- Snellville to Rockdale County Trail
- Snellville to Walton Connection
- State Bridge Road Johns Creek Connection
- Sugar Hill Greenway (North Segment)
- Suwanee Dam Road Trail Extension
- Sweetwater Creek Greenway (South Spur)
- Sweetwater Creek Greenway (South Segment)
- The Loop Trail (Duluth Connection)
- Town Center Avenue to George Pierce Park Greenway Trail
- Towne Center Spine
- Towne Center Spine Extension
- Towne Center Connector
- Trail Connection to Settles Bridge
- Tucker-Lilburn-Lawrenceville Trail
- Upper Suwanee Greenway (North, West, and South Segments)
- Wolf Creek Greenway Spur
- Western Gwinnett Bikeway

5.2.4 Chattahoochee Trail Network

The Chattahoochee Trail Network is symbolized with orange lines on the overall trail system map in Figure 5.1. The Chattahoochee Trail Network is a regionally significant trail network, with plans to eventually stretch from Columbus to Helen, GA. This network is expected to be implemented through partnerships among multiple agencies.

The Chattahoochee Trail Network measures 25 miles in length in Gwinnett County. The Chattahoochee Trail Network in Gwinnett County is composed of four segments:

- Chattahoochee River Greenway (South Segment)
- Chattahoochee River Greenway (Middle Segment)
- Chattahoochee River Greenway (Central Segment)
- Chattahoochee River Greenway (North Segment)
- Chattahoochee River Greenway (Berkley Lake Segment)

CHAPTER 6 SIGNATURE TRAILS

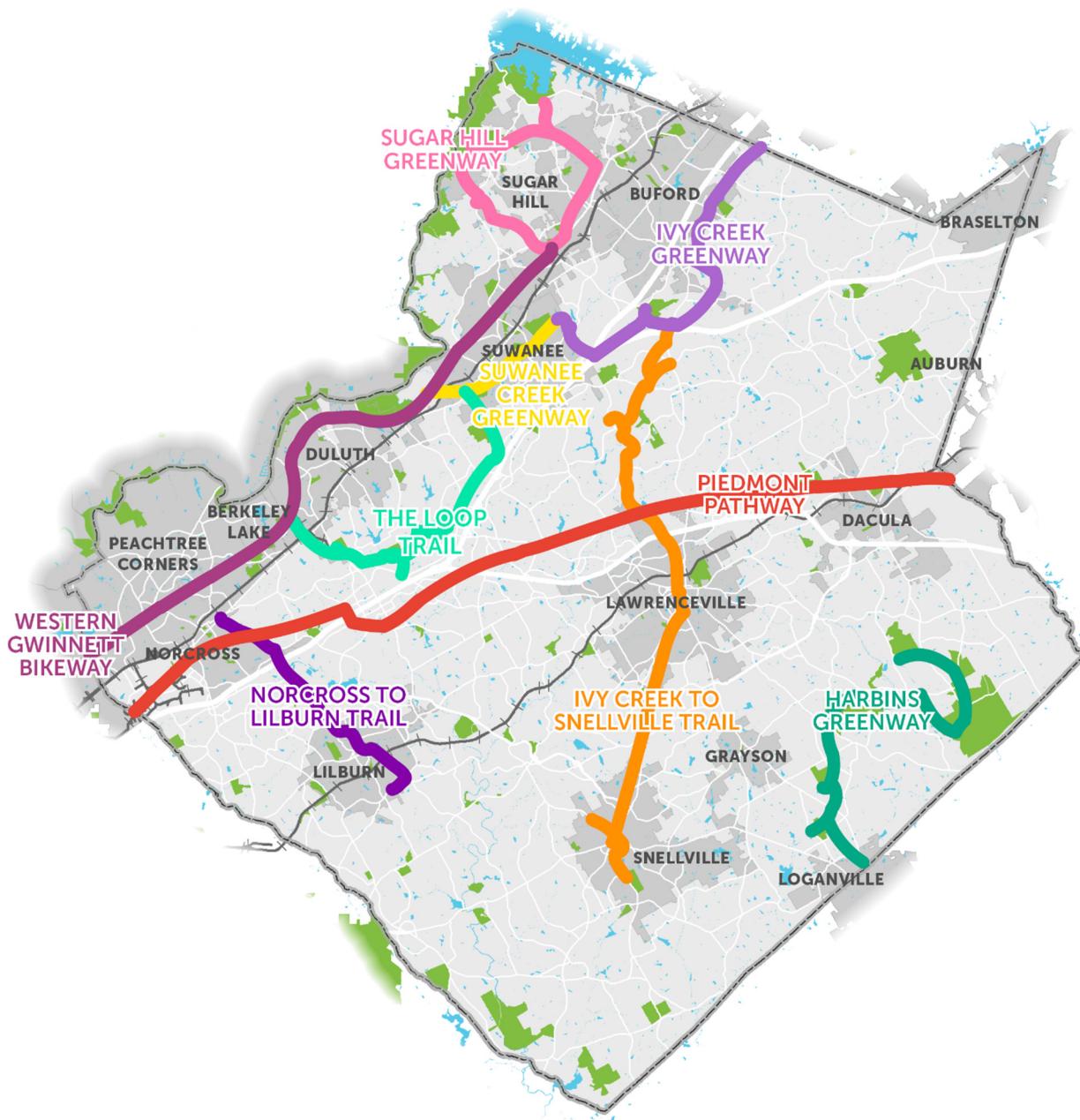
While the Countywide Trails Master Plan generally aims to expand the County's trails system, a handful of signature trails will help to create an identity for the trails system, serving as examples of how to design and build bicycle and pedestrian facilities in Gwinnett. These Signature Trails, termed such to signify that these facilities will be the hallmarks of the network, were identified because of the importance that they have in the overall system, regarding scale of facility, amenities, connectivity, location, and other defining features. Some Gwinnett Cities are leading the implementation of signature trails in their communities. For example Sugar Hill Greenway and Suwanee Creek Greenway are both city-led trails project with County-level support.

Gwinnett County's Signature Trails are:

- Harbins Greenway (also a Spotlight Project)
- Ivy Creek Greenway
- Ivy Creek to Snellville Trail
- The Loop Trail
- Norcross to Lilburn Trail
- Piedmont Pathway
- Sugar Hill Greenway
- Suwanee Creek Greenway
- Western Gwinnett Bikeway (also a Spotlight Project)

Figure 6.1 is a map of the signature trails with each of the trails highlighted with a different color.

Figure 6.1 Signature Trails Map



CHAPTER 7 VISUALIZATIONS

As part of the development of the Countywide Trails Master Plan, the planning team envisioned what the actual implementation of the plan will look like to define how the future trails should be designed. The renderings on the following pages provide illustrative examples of how some of the Signature Trails may be designed to coordinate with the overall system.

Four trail locations were included in this effort:

- Harbins Greenway
- Piedmont Pathway
- Upper Suwanee Greenway
- The Loop Trail

Elements considered to be essential in making these trails truly functional are incorporated into these visualizations, including both asphalt and concrete paving materials, painted centerlines and clearly defined trail lanes, and pedestrian rectangular rapid flashing beacons (RRFB) at crosswalks. Where steep grades exist, concrete walls with handrails or timber bridges will be utilized. In wetland areas, such as in the Upper Suwanee Greenway, elevated boardwalk paths may be necessary. For trails designated as side paths, luminaire lighting is included with wayfinding banners, similar to the Loop Trail visualization.

These illustrations play an important role in branding the Gwinnett County Trails Master Plan and giving the system a unique identity. They are intended for the general public and can be a useful tool to help imagine the future of Gwinnett County's trail system.

The map in Figure 7.1 highlights the locations of the illustrations.

Figure 7.1 Visualization Locations



7.1 Harbins Greenway

Harbins Greenway identified in this Plan as a Spotlight Project, meaning among all the other possible trails in the overall network, it has been identified as a quick-win project that both serves a significant portion of the County and is closer to implementation than most of the other trails. Specifically, the segment pictured is on the western edge of Harbins Park. The segment is just east of Palm Creek, the Alcovy River, and Tribble Mill Park.

Harbins Greenway is designated as a standard use off-road trail. In keeping with the specific attributes of this trail type, the trail will include 12 feet of concrete paving with bridge, boardwalk, and handrail wherever necessary. A painted centerline will serve users by providing clear lanes to separate traffic flow on the trail. Trailhead signage, wayfinding signage, and mile markers will all punctuate the trail and improve usability, while signalized road crossings will ensure users experience ease in crossing any road conflicts.

As an off-road trail, the alignment will be constructed within the existing landscape and feature natural vegetation on both sides. Restrooms and parking may be provided at key locations. In an effort to maintain the natural environment surrounding this trail, lighting will be minimally included as a part of this project.



Visualization of Harbins Greenway

7.2 Piedmont Pathway

The Piedmont Pathway alignment is proposed to be approximately 25 miles in length and is composed of both dedicated Piedmont Pathway segments and alignments of other trails. The trail stretches across the entire County from the City of Dacula to the City of Norcross connecting the eastern and western parts of the County. This visualization specifically depicts a potential road crossing at Dacula Road that is close in proximity to residential subdivisions and commercial neighborhood amenities. The road-crossing will include signage, flashing signals or lights, crosswalks, and sidewalk ramps to ensure that pedestrians and cyclists are able to easily and safely cross the roadway intersecting the trail. This type of crossing is typical of what might be considered for trails crossing roadways with mid-level volumes.

As with the Harbins Greenway, the Piedmont Pathway is typified as a standard use off-road trail meaning the standard design will follow the specific attributes outlined in the Trail Design section.



Visualization of Piedmont Pathway crossing Dacula Road

7.3 The Loop Trail

The Loop Trail is planned to be 11.4 miles in length with portions stretching across the Cities of Suwanee and Duluth, as well as the Sugarloaf CID. Specifically, the concept shown below is a visualization of the McDaniel Farm off-road trail.

For planning and analysis purposes, The Loop Trail is segmented into four trail sections, including McDaniel Farm, Satellite Boulevard, Suwanee Creek Road, and the Infinite Energy Center (Duluth Connection). Of these segments, McDaniel Farm is designated as a standard use off-road trail, while all other segments are designated as side paths.

Given these trail typologies, The Loop Trail will be asphalt paving on all segments with the exception of McDaniel Farm, which will be concrete paving. Trails widths will range between 12 feet to 14 feet depending on typology and planned capacity.

As with other the other trails outlined in this section, The Loop Trail will include elements like a painted centerline, signage, and other amenities.

Below, a meadow and mature trees border one side of the alignment while future development is shown on the other side, planned in such a way that it engages the trail and spurs activity. Sculptural benches and art installations are shown in the meadow space. Restrooms and parking may be provided at key locations. Lighting with luminaires and wayfinding banners will be included on this segment of the trail.



Visualization of the Loop Trail along the McDaniel Farm segment

7.4 Upper Suwanee Greenway

The Upper Suwanee Greenway is planned to be 9.5 miles in length with portions stretching across the City of Buford. The visualization of this trail pictured below shows a design that might be considered when trails cross roadways with either geometric or traffic volume constraints. Specifically, the concept shown below illustrates a boardwalk running along Suwanee Creek beneath Woodward Mill Road and eliminating the at-grade crossing.

Similar to the Harbins Greenway and Pidemont Path, the Upper Suwanee Greenway is designated as a standard use off-road trail and follows the specific attributes of this trail typology.



Visualization of Upper Suwanee Greenway below Woodward Mill Road

CHAPTER 8 SPOTLIGHT PROJECTS

The Countywide Trails Master Plan is an overall vision for trail facilities in Gwinnett that may take many decades to fully implement, based on current funding levels. The success of the plan will be realized incrementally, facility-by-facility, but a few significant quick-win projects will be critical for the plan to gain momentum and to perhaps accelerate the community's desire and commitment to advance trail facilities in the County.

These Spotlight Projects are Signature Trails that illustrate the County's ability to catalyze trail "wins" for the community and were identified based on the planning team's analysis of facilities that found these trails will serve a significant portion of the County while being closer to implementation than other trails.

8.1 Western Gwinnett Bikeway

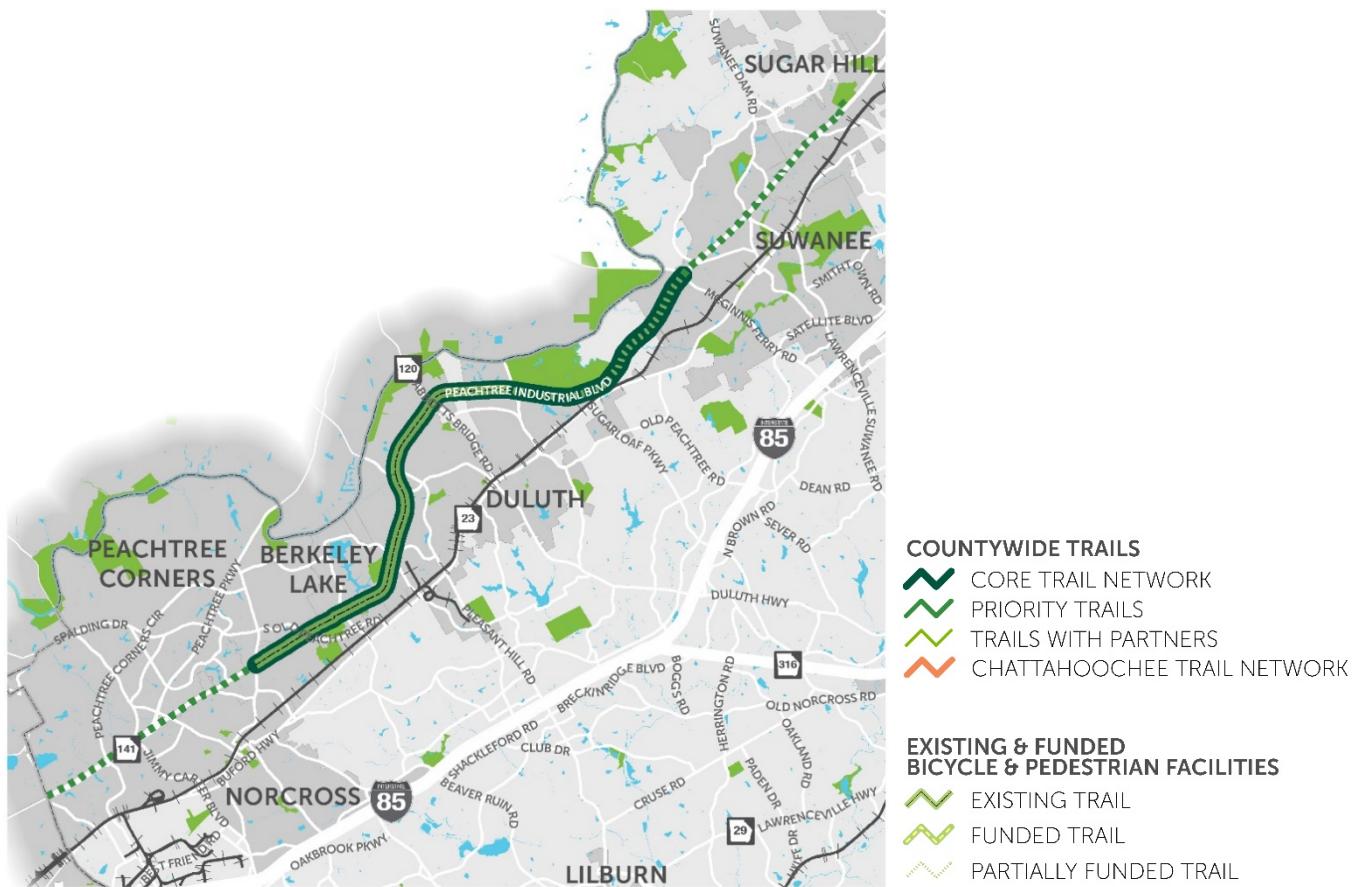
This spotlight project is located in Western Gwinnett County, including the Cities of Berkley Lake, Duluth, Norcross, Peachtree Corners, and Suwanee.

Elements of the project include:

- Trail Length: Spotlight – 10.5 miles (Total – 18.1 miles)
- Population within $\frac{1}{2}$ mile: 34,400 people
- Park Connections: Berkley Lake Nature Preserve, Chattahoochee River National Recreation Area, Duluth Greenspace, E. E. Robinson, Rogers Bridge, West Gwinnett, George Pierce Park, Suwanee Town Center, and Suwanee Creek Oark

Figure 8.1 is a map of the Western Gwinnett Bikeway.

Figure 8.1 Western Gwinnett Bikeway Map



8.2 Harbins Greenway

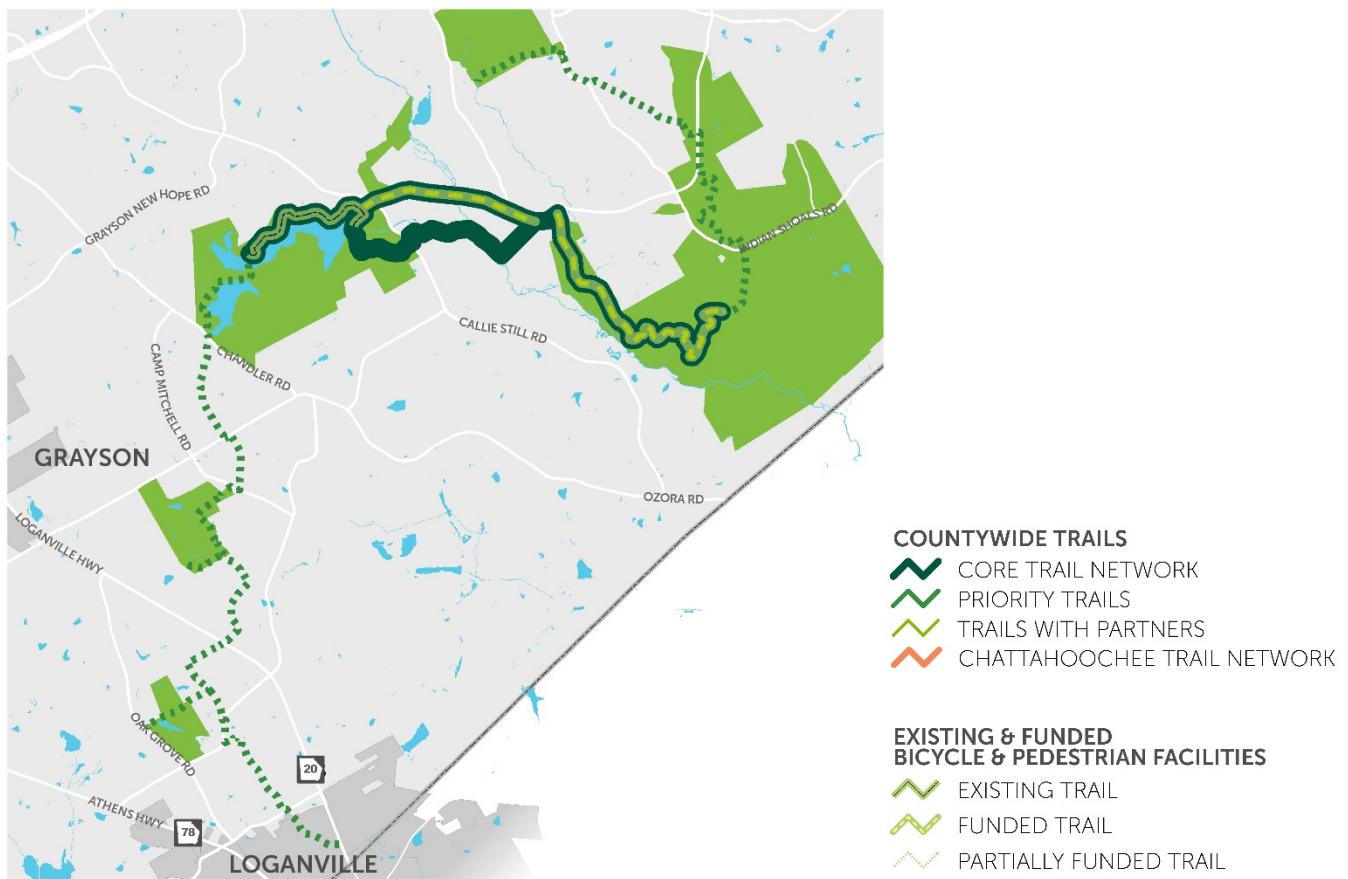
This spotlight project is located in Eastern Gwinnett County, including the City of Loganville.

Elements of the project include:

- Trail Length: Spotlight – 6.9 miles (Total – 17.4 miles)
- Population within ½ mile: 11,850 people
- Park Connections: Bay Creek, Harbins Community, Harbins Conservation, Palm Creek, Tribble Mill, and Vines

Figure 8.2 is a map of the Harbins Greenway.

Figure 8.2 Harbins Greenway Map



CHAPTER 9 CHATTAHOOCHEE TRAIL NETWORK

The National Park Service (NPS) is in the process of developing a plan aimed at updating their existing GIS inventory of trail segments, identifying new alignments, and enhancing existing connections where possible, for the purpose of taking existing trails that may be disparate or in need of maintenance and linking them with new connecting trails to create the Chattahoochee Trail Network and the Chattahoochee Greenway. The Chattahoochee Greenway will be unique from other projects in the Gwinnett Countywide Trails Master Plan in that it has regional dollars allocated to help support the regional study of the trail and because it is a key part of the larger Chattahoochee Trail Network. The Atlanta Regional Commission has funded a study to create a plan for the Chattahoochee Greenway, which will span Cobb, Fulton, and Gwinnett Counties collectively for almost 100 miles. The portion of the Chattahoochee Trail Network within Gwinnett County measures approximately 25 miles in length and is segmented into the following alignments:

- Chattahoochee River Greenway (South Segment)
- Chattahoochee River Greenway (Middle Segment)
- Chattahoochee River Greenway (Central Segment)
- Chattahoochee River Greenway (North Segment)
- Chattahoochee River Greenway (Berkley Lake Segment)

The nature of planning a trail network alongside a river introduces several special considerations that will need to be navigated successfully to ensure the planned trail network is realistically implementable. These considerations include Metropolitan River Protection Act (MRPA) corridor restrictions, flood plain buffers, and additional zoning regulations.

Figure 9.1 is a map of the Chattahoochee Trail Network within Gwinnett County.

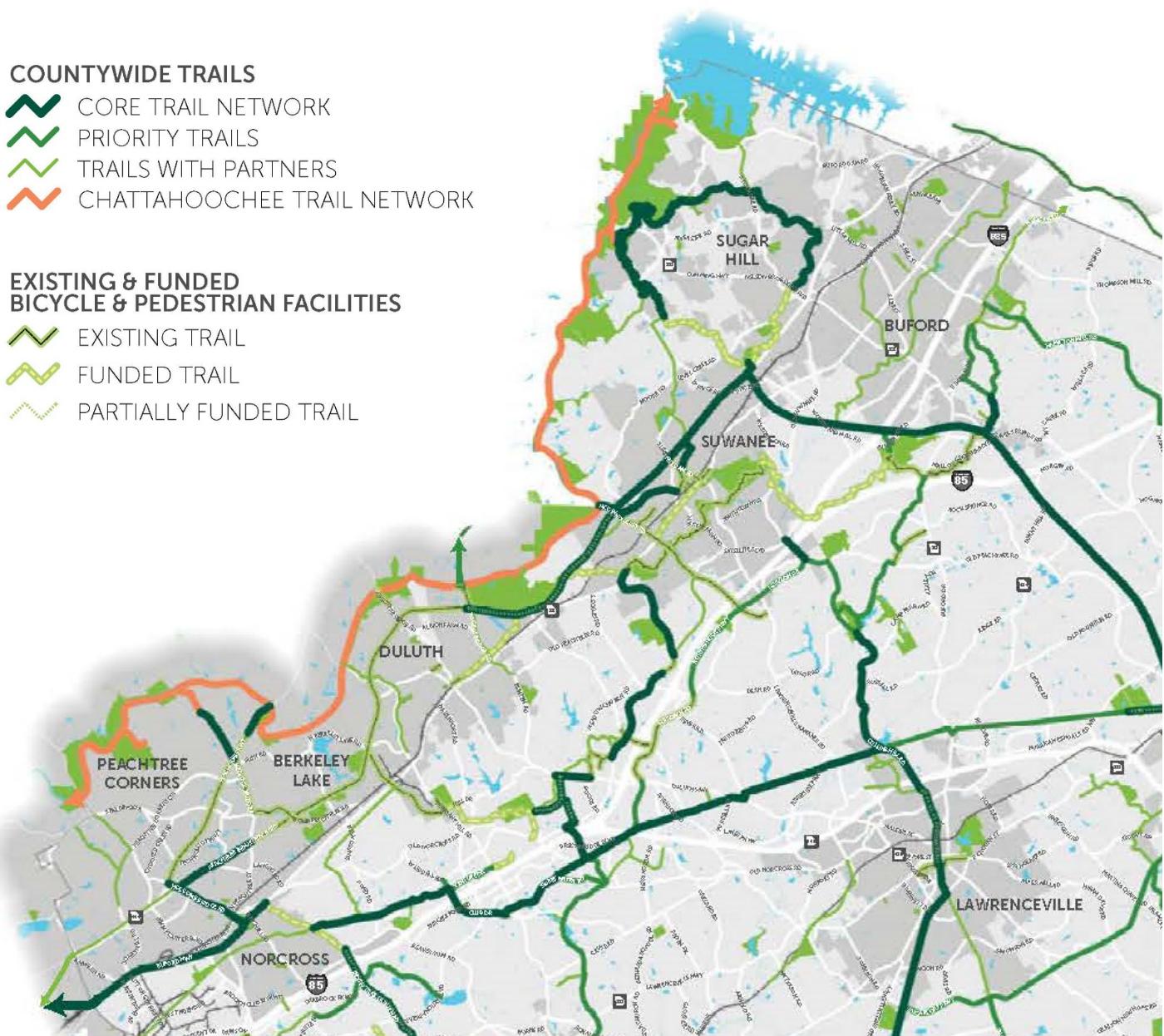
Figure 9.1 Chattahoochee Trail Network Map

COUNTYWIDE TRAILS

- ~~~~~ CORE TRAIL NETWORK
- ~~~~~ PRIORITY TRAILS
- ~~~~~ TRAILS WITH PARTNERS
- ~~~~~ CHATTAHOOCHEE TRAIL NETWORK

**EXISTING & FUNDED
BICYCLE & PEDESTRIAN FACILITIES**

- ~~~~~ EXISTING TRAIL
- ~~~~~ FUNDED TRAIL
- ~~~~~ PARTIALLY FUNDED TRAIL



CHAPTER 10 FUNDING

With a list of approximately 320 miles worth of trails projects, determining funding options and matching that funding to the prioritization of projects was critical in completing the development of the Plan. Matching potential funding sources with individual trail projects was a process that occurred concurrently with the creation of the four trail networks: Core, Priority Trails, Trails with Partners, and the Chattahoochee Trail Network. The networks are related to how the planning team determined how funds should be allocated to meet the goals of the Plan. The Implementation Section of this report goes into more detail regarding the networks, whereas this section will discuss the networks in terms of funding. In addition to discussing the trail networks, this section will primarily examine the funding sources and assumptions related to those sources.

10.1 Trail Networks

The four trail networks are very closely related to the funding presented in this plan. The main network, referred to as the Core Network, is set to receive priority funding. The County should be seeking to complete this Core Network where possible before moving to fund Priority Trails or the Trails with Partners networks. While the County should be focusing on the Core Network, if opportunities are presented to the County through outside funding that will allow for the construction of trails from the Priority Trails or Trails with Partners networks, the County should consider taking advantage of those opportunities.

The fourth trail network, the Chattahoochee Trail Network, is different from the other networks. The primary difference is the fact the Chattahoochee Trail Network is very regional in nature and requires collaboration between multiple regional players and the National Park Service. Because of the unique regional nature of the network, the funding needs for the project are not fully defined. This Plan recommends the commitment of \$5 million from dedicated funding sources to ensure that the County can continue to help with the development of the network. The County is committed to the development of the Chattahoochee Trail Network and may need to allocate more funding toward it, but at the time of this planning process it is not possible or responsible to predict what the County will ultimately need to commit to see complete implementation.

10.2 SPLOST Funding

The primary source of funding that the Plan is based around and constrained by is Special-purpose Local-option Sales Tax (SPLOST) funding allocated from both the Gwinnett County Department of Transportation (DOT) and the Gwinnett County Department of Community Services (Parks and Recreation). From the 2017 SPLOST program, DOT has allocated \$6 million and Parks and Rec \$10 million toward trails projects. Looking forward, the planning team made the assumption that the SPLOST would be continued, at a minimum, at the same level as the current program.

10.3 Operating Budgets

In addition to contributing funds from SPLOST programs, the trail system outlined in this Plan assumes that the two departments currently involved in trails, DOT and Parks and Recreation, will allocate portions of their operating budgets toward maintenance of the trails system. Construction the trail system is an important priority, but maintaining the system after it is constructed is of equal or greater importance; therefore, the departments will need to coordinate and allocate funds to make sure the network stays in good repair.

10.4 Additional Sources

While the SPLOST program can provide considerable funding for some of the future trails considered in this plan, a trails vision as robust and grand as the one conceived for Gwinnett County will require additional funding sources. To support accelerated implementation, the planning team examined alternative funding sources, including federal funding. For regionally important segments, there are currently federal grants, such as the Surface Transportation Block Grant Program (STBGP), that may be utilized to assist with trail construction.

In addition to federal funding, the Countywide Trails Master Plan also considered funding the trails system via partnerships with the Cities and CIDs in the County. Funding through cross-jurisdictional partnerships will be critical to the success of the Countywide Trails Master Plan as many of the trails, and especially trails prioritized in the Core Network, exist largely within City limits or within CID boundaries.

Beyond governmental or quasi-governmental funding sources, the Countywide Trails Master Plan also proposes that the County seek out non-traditional funding partners in the private sector. These organizations or institutions may include local colleges or hospitals, non-profits, and private businesses or developers who can partner with the County to sponsor specific trail segments or programs.

10.5 Project Coordination

In addition to seeking alternative funding sources, the County also has the opportunity to utilize planned roadway projects to concurrently construct portions of the network. By working with the DOT to bring trails projects into major roadway projects, the County can maximize taxpayer dollars set aside specifically for trails projects. The County also should examine possibilities of utilizing water or power easements as a way of realizing some project cost savings.

CHAPTER 11 POLICY

In addition to funding, the success of the Countywide Trails Master Plan will rely on the implementation and enforcement of trails-supportive policies in Gwinnett County. The County is currently updating its Unified Plan through 2040, the same horizon year as the Countywide Trails Master Plan. It's important that the Countywide Trails Master Plan is incorporated into the 2040 Unified Plan and that trails-supportive land use decisions are made in the County after the Unified Plan is adopted.

As the regulatory complement to the Unified Plan, the County's Unified Development Ordinance (UDO) also will need to be updated to include the Countywide Trails Master Plan. Currently within the UDO, developers are required to provide "access, dedication of easement and/or construction of greenway trails" that exist within the trail network laid out in the *Gwinnett County Open Space and Greenway Master Plan*. As part of the UDO update, the County should seek to expand this requirement to include the trails networks defined in the Countywide Trails Master Plan. By expanding this requirement, the County can better leverage public dollars and work toward faster implementation of the plan.

Beyond the policy objectives within the Unified Plan and UDO, Gwinnett County should prioritize bike and pedestrian connections to the trails network as it funds complementary infrastructure projects. Bike and pedestrian access is critical for the network to be fully utilized, so ensuring that these connections are made as other investments and projects are implemented can further support the Countywide Trails Master Plan. In addition to bike and pedestrian connections made through infrastructure investments, the County should also work toward upgrading the existing trails facilities in the County to the standards defined in the Countywide Trails Master Plan. Much like the bike and pedestrian connections, having a congruent and seamless network will be important to the network reaching its highest potential and being fully utilized.

And most importantly, the County must ensure proper maintenance and upkeep is conducted on the trails system, for both existing and future trails. Coordination between Gwinnett County's DOT and Parks and Recreation departments is essential to this maintenance as the system includes facilities under the purview of each of these organizations. It is important to note that the funding assumptions made in the Countywide Trails Master Plan are focused on the capital costs required to complete the initial construction and therefore do not cover anticipated maintenance costs. Therefore, the County must develop congruent maintenance plans and policies that are financially feasible to support proper upkeep of these facilities.

CHAPTER 12 WAYFINDING AND BRANDING

A robust and engaging branding and wayfinding effort is critical to the success of the Countywide Trails Master Plan. This effort will create an identity for the system while also helping to promote usage as well as continued and enhanced investment in the system. In addition to naming corridors, which helps to brand specific trail segments, trail signage that leverages the newly branded system logo will further establish the system's identity. Although a larger and more in-depth wayfinding plan is needed for full implementation, a sample of some of the possible wayfinding and branding elements are discussed below. The logos and branding discussed below and used throughout this plan effort took many cues from the County's own rebranding effort that has been ongoing in 2018.

12.1 Signage

Roadside signage, directional signage, and mileage markers will be used throughout the trail network to help orient users to their current location and nearby destinations.

Directional signage will be used along trails to help guide the user to points of interest, amenities, nearby cross-streets, and other destinations. Mileage markers will be installed along the trails to help users determine the distance they have traversed on the facility. Roadside signage will be placed along roadways that run parallel to trails, typically where the trail system is visible from the roadway. These signs will help call attention to the trail facility, particularly for vehicular traffic.

Figure 12.1 following provides images of these three types of signage, displayed true to size, relative to each other.

Figure 12.1 Potential trail signage



12.2 Branding

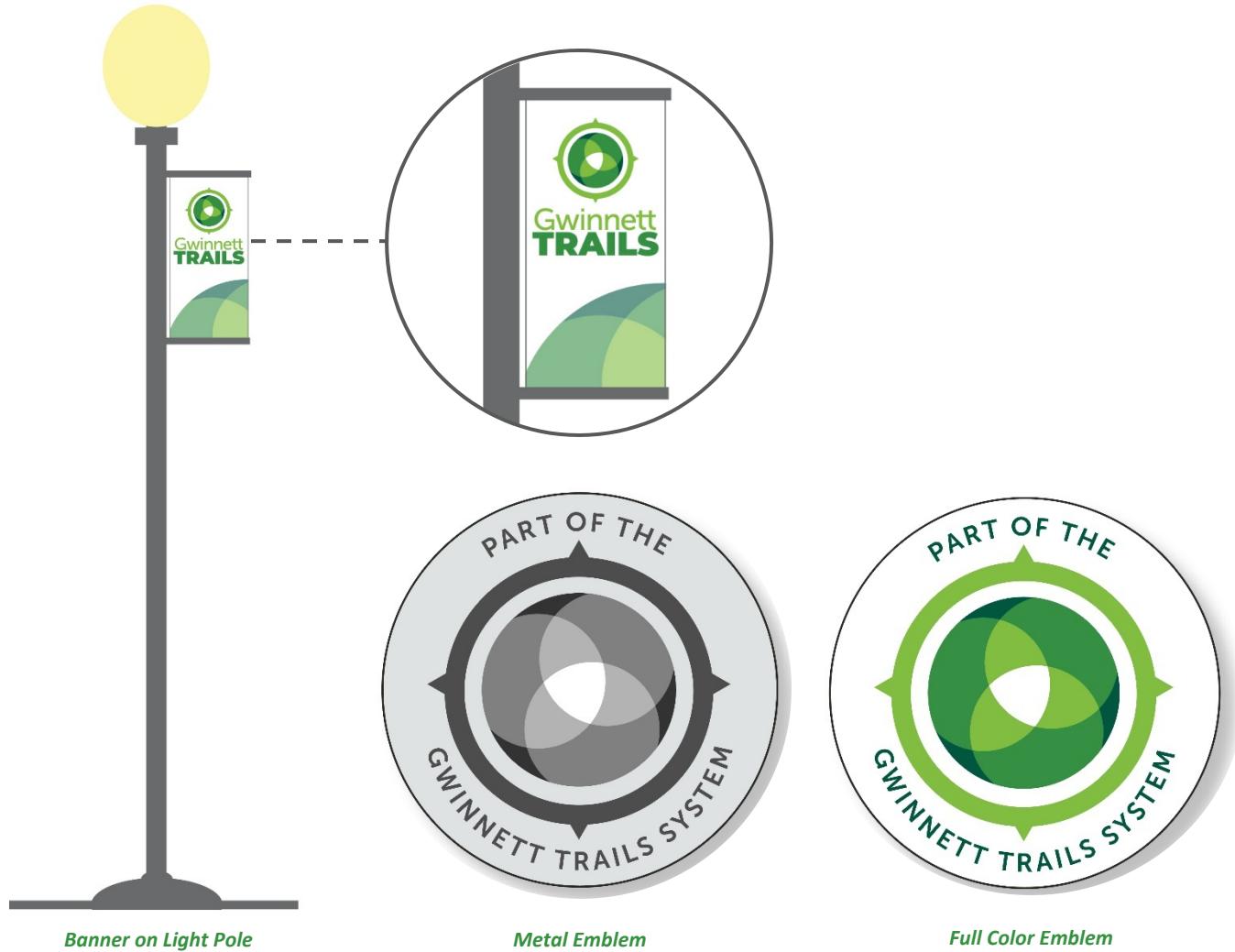
In addition to the three types of signage discussed previously, coordinating banners and emblems have been developed to further brand the trail system. These will only serve to further distinguish the Gwinnett Countywide system from other trails and build awareness of the trail system by repeating the Gwinnett Trails logo in several different contexts.

Banners can be hung from light posts or other tall structures to help build system identity. These are pictured in The Loop Trail visualization as an example of how these might function in final form.

Emblems are intended to be incorporated into wayfinding amenities of partner organizations to designate the segment as part of the County's system. This will be particularly useful for trails that fall under the category "Trails with Partners" in the Trail System Section of this report. Depending on the partner's design, the emblem may be metal to coordinate with their choice of signage or full-color to match the rest of the Gwinnett Trails wayfinding suite.

Figure 12.2 following provides images of these two types of branding products.

Figure 12.2 Potential branding products



12.3 Technology

The development of an app compatible with mobile technology operating systems and specifically created for the Trails Plan would help reinforce the goals of wayfinding mentioned above and provide a way to increase public awareness of the network. Possible features could include GPS tracking and trail maps, a step counter, and a list of trails segments by type, implementation stage, and proximity to the user. Another useful feature would be a way for users to upload photos of scenic places, obstacles, or post about their specific experience on the trail. Finally, points of interest along trails including schools, libraries, restaurants, retail shops, and places of work would only further reinforce the trail system as a viable multimodal alternative to vehicular travel.

The ability of the platform to integrate with other popular fitness tracker technologies and platforms would be an added benefit, including Fitbit, Strava, Nike Plus, Garmin, and Apple Watch.

12.4 Community Involvement and Programming

Because this Plan has been developed by and alongside multiple stakeholders including County departments, Cities, Community Improvement Districts, and other key organizations, the process of raising awareness among these groups has already very much begun and will only continue as the Plan takes its next steps forward. However, crucial to the Plan's success is the consideration of ways to reach actual future users in the community. Signage, branding, and technology are useful strategies discussed so far but could greatly be enhanced by outreach efforts such as:

- Intentional presence and promotion at key community events (farmer's markets, food trucks, local libraries and schools)
- Hosting a 5K run/walk event on trail segments that have been completed
- Backpack stuffers distributed at local schools
- Organized cycle rides or hikes

In addition to advertising the Plan to the public as a whole system, a specific focus should be placed on segments individually as they move through the planning process, whether the next step for that particular segment is additional study, fundraising, or implementation. By approaching the community in this way, users will know they are being kept apprised of the most recent trails available in a systematic and predictable way, which will also help the Plan will gain momentum from its start.

CHAPTER 13 NEXT STEPS

To support the implementation of the Countywide Trails Master Plan, the County must undertake the following tasks:

- Foster a dialogue with local partners—Cities, CIDs, and the private sector—to construct portions of the system and seek out other funding opportunities
- Define further trail design standards and recommendations to support consistent implementation, including trail width, materials, striping, intersection designs, access points, and trail slope
- Develop a financially feasible maintenance plan for the system
- Refine and expand the wayfinding and branding strategy—Including design specifications and a placement/location plan—and upgrade existing trails with this new identity
- Create policies specific to trails amenities—Including restrooms, water fountains, and parking lots—and upgrade existing trails with this new identity
- Establish a timeline and phasing strategy for the plans, particularly those in the Core Network, beyond the current SPLOST funding

The Countywide Trails Master Plan represents an overall vision for bicycle and pedestrian facilities in Gwinnett that may take many decades to fully implement. The success of the plan will be realized incrementally, but a few significant quick-win projects will be critical for the plan to gain momentum and to perhaps accelerate the community's desire and commitment to advance bicycle and pedestrian facilities in the County. In addition to the programmatic next steps above, the County should advance the implementation of the spotlight projects identified in Chapter 8, *Spotlight Projects*, to generate excitement and community buy-in for the plan.