



A SUPPLEMENT TO *WALK.BIKE.THRIVE!*

ENVISIONING A REGIONAL TRAIL NETWORK

A feasibility report for an interconnected
trail network in metro Atlanta

A group of people are walking along a paved path that runs diagonally across the frame. In the foreground, a young child wearing a pink helmet and a colorful patterned dress is riding a pink bicycle. A woman in a bright green jacket and blue jeans is walking behind the child, holding their hand. To the left, a woman in a white long-sleeved shirt and blue jeans is walking a small white dog. Further back, several other people are walking, including a man in a red and black striped shirt, a woman in a grey long-sleeved shirt and blue shorts, and a man in a red t-shirt. The path is bordered by dry grass and a steep hillside. In the background, there are multi-story residential buildings with balconies. The scene is captured in bright sunlight, casting long shadows on the path.

TABLE of CONTENTS



04

INTRODUCTION

20

BENEFIT ANALYSIS

36

COST ESTIMATES

46

IMPLEMENTATION SCENARIOS ANALYSIS

56

IMPLEMENTING THE REGIONAL TRAIL SYSTEM



We've long been a region
of trees. Soon we'll also be
known as a region of trails.

A photograph of a paved trail in a park. A person is jogging away from the camera on the right side of the path. The path is lined with trees on the left and a grassy field on the right. The image has a green tint.

INTRODUCTION

Trails provide opportunities for people of all ages and abilities to walk and bike in a comfortable off-street environment. In addition to expanding active transportation options and recreational opportunities, trails can generate economic benefits, enhance sense of place, and help connect people to nature.



THE REGION'S EXISTING TRAIL MILEAGE

	Miles	% of Total Trails
Local Trails*	245	61%
Trails of Regional Significance	153	39%
Total	397	100%

* Note: Includes 94 miles of multi-use paths shared with golf carts in Peachtree City
Source: Atlanta Regional Commission

INTRODUCTION

The Atlanta region is an ideal setting for a connected system of trails to serve both citizens and visitors for transportation and recreation. Over the past 20 years local governments and private organizations have constructed trails that attract thousands of visitors and millions of trips per year. However the disconnected nature of the region's trails limit their ability to serve as daily transportation and do not provide access for much of the region.

In 2016, the Atlanta Regional Commission adopted a comprehensive regional vision for improving walking and bicycling titled *Walk. Bike. Thrive!* The plan estimated that only 70 miles of trails were necessary to build a connected regional trail network but did not quantify the benefits of the network or potential costs. This regional trail report serves as a supplement to *Walk. Bike. Thrive!* and is intended to provide a framework for filling regional trail network gaps and expanding the system into every county in metro Atlanta.

Walk. Bike. Thrive! defines a trail as a paved path that is physically separated from high-speed motor vehicle traffic by open space or a landscaped buffer. This includes paths parallel to roadways (sometimes called "sidepaths") and paths within an independent right-of-way (sometimes called "greenways"). Trails can accommodate a range of users in addition to people walking and bicycling, including runners, skaters, equestrians, and even low-speed electric vehicles.

The Atlanta Regional Commission, along with many cities and counties in the region, have made significant investments in trails over the past two decades. The PATH Foundation, an Atlanta-based non-profit organization, has also collaborated with multiple jurisdictions to steadily increase trail mileage in the region and is working to connect many of the trails they have helped fund, including the Silver Comet Trail, the Stone Mountain Trail, and Arabia Mountain Trail, among others. The Georgia Department of

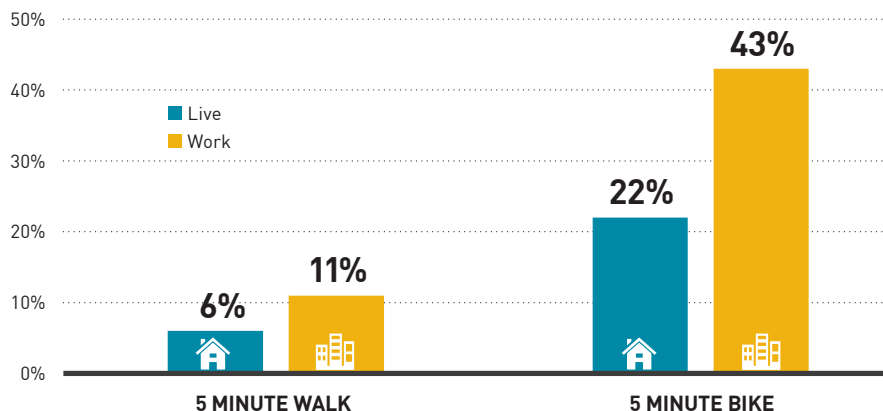
Transportation (GDOT) has also been an active partner in regional trail development, most recently with the Path400 project.

The sections that follow describe the current network of trails in the region, identify areas of need, assess the costs and benefits of trail network expansion and gap closure, and describe potential implementation strategies for realizing the region's vision of a connected regional trail system.

LOCAL TRAILS VS. TRAILS OF REGIONAL SIGNIFICANCE

Trails in the Atlanta region can be classified either as local trails or trails of regional significance. Local trails facilitate short recreational or utilitarian trips within and between neighborhoods, and are primarily used by people that live or work within a few miles. Peachtree City's shared use path system is an example of a

PERCENTAGE OF PEOPLE IN THE REGION WHO LIVE OR WORK WITHIN A 5 MINUTE WALK OR BIKE RIDE OF A TRAIL



Source: Atlanta Regional Commission

mature trail network that effectively serves local destinations.

Trails of regional significance, by contrast:

- Have the potential to be a key link connecting the regional trail network
- May cross jurisdictional boundaries to connect cities, regional activity centers, parks, and other trails
- Can be a destination in their own right such as the scenic Arabia Mountain Trail or a heavily-traveled commuter corridor like the Atlanta Beltline

Currently, there are almost 400 miles of trails in the region. Local trails account for about 60% of the existing trails in the region. Conversely, trails of regional significance account for about 40% of the existing trails in the region.

WHERE ARE TRAILS IN THE REGION?

Trails can be found in all four quadrants of the region, but the number of trails and their location are not evenly distributed. With the exception of Peachtree City's extensive local shared use path network and the Arabia Mountain/Rockdale River Trail, existing trails are disproportionately concentrated in the central and northern parts of the region. Additionally, Fulton, Dekalb, Cobb, Gwinnett, and Paulding Counties together contain nearly all of the region's trails of regional significance.

Proximity to Trails in the Region

For many in the region, access to a trail requires a drive or longer-distance travel by walking, biking, or transit. Enhancing access to trails with walkways and bikeways can increase the likelihood someone can walk or bike to a trail for recreation or

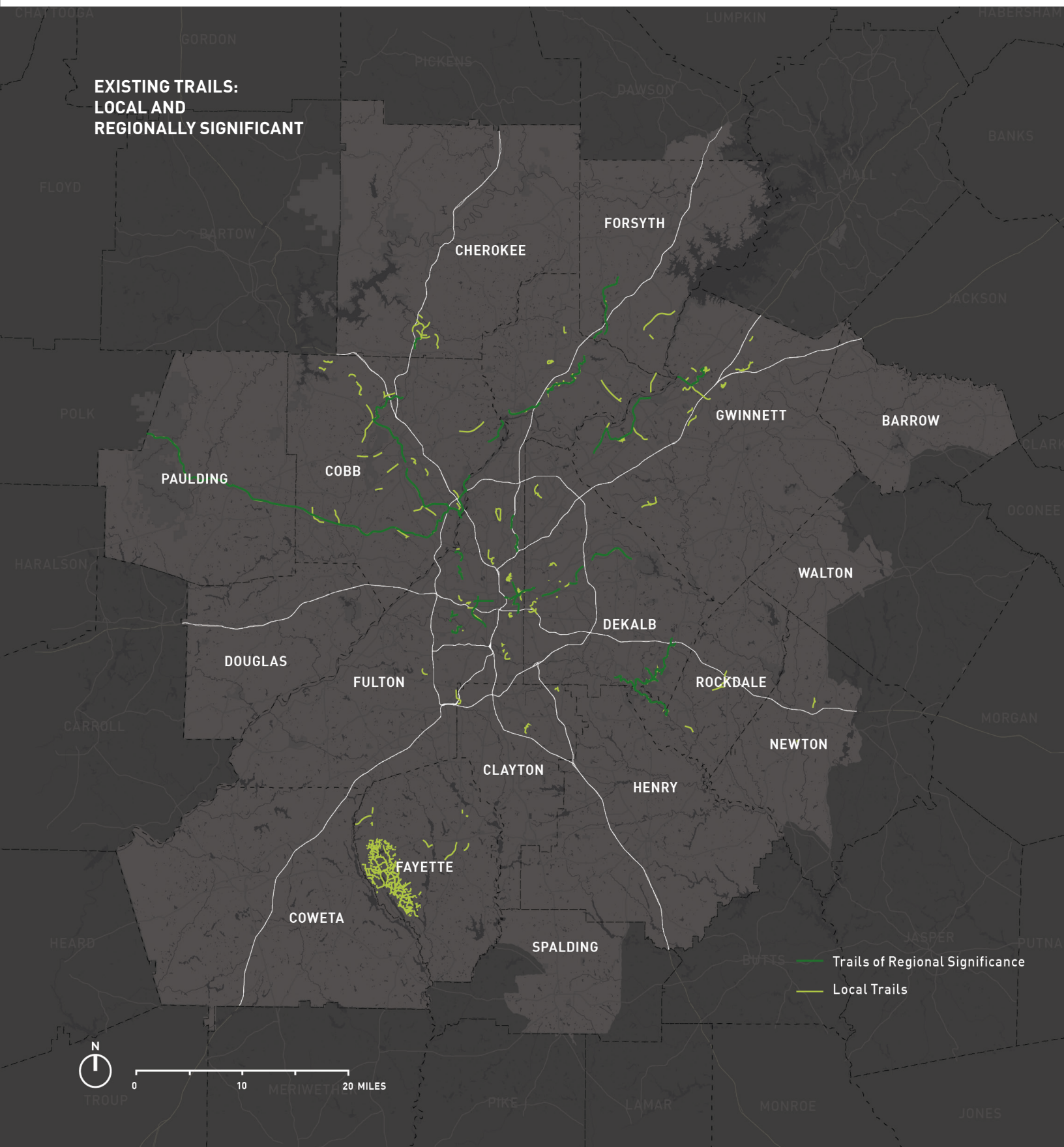
transportation. Additionally, expanding the trail network in the region will also increase opportunities to be physically active, socialize, and connect with nature or to daily destinations.

Currently, **just 6% of the region's population lives within a five-minute walk of a trail**. A five-minute bike ride nearly doubles the number of people that live close to a trail.

The difference is more dramatic relative to where people work. Currently, just over 1 in 10 workers in the region live within a five-minute walk of a trail in the region. A five-minute bike ride increases the number four-fold to just over 4 in 10 workers.

Expanding local trail networks can improve access to trails for many residents and workers. They can also help connect where people live to jobs and activity centers, increasing opportunities to commute by walking, biking, or other active travel modes.

**EXISTING TRAILS:
LOCAL AND
REGIONALLY SIGNIFICANT**





The Stone Mountain Trail has long been a trail of regional significance, extending from Downtown Atlanta to Stone Mountain Park and connecting neighborhoods, natural areas, and several cities along the way.

BUILDING 70 MILES OF TRAILS

TO CLOSE KEY GAPS IN THE
NETWORK OF REGIONALLY
SIGNIFICANT TRAILS

WILL CREATE AN APPROXIMATELY 225 MILE CONNECTED REGIONAL TRAIL NETWORK

GAPS IN THE REGIONAL TRAIL NETWORK

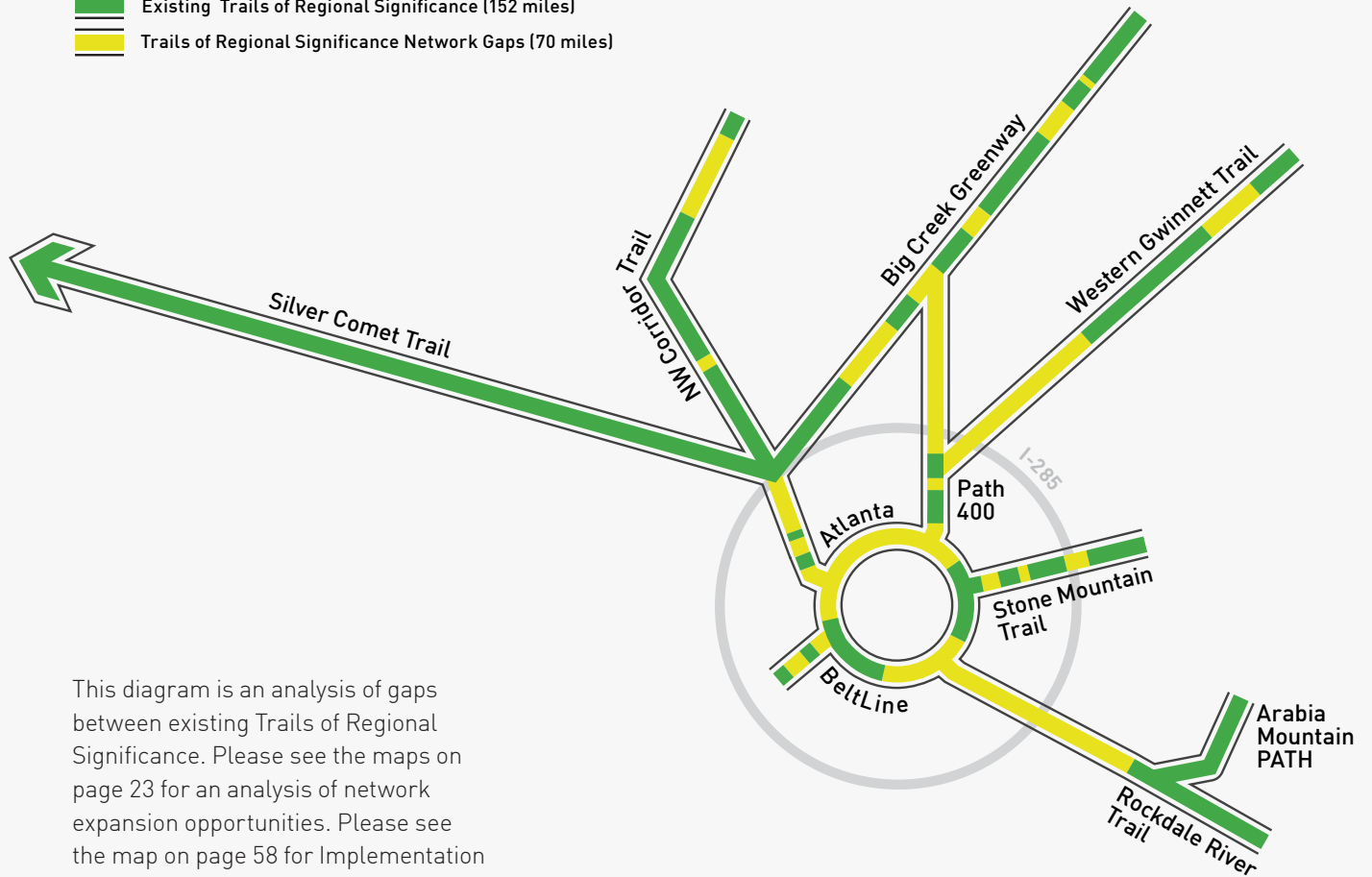
Despite considerable investment in selected parts of the region, existing trails do not yet form a complete and connected regional network.

An analysis of the gaps in the trails of regional significance network determined that filling about 70 miles of key gaps would create an approximately 225 mile connected regional trail network. Additionally, closing these key gaps would represent a 46% increase in the mileage for the network.

Many of these trails gaps are in various stages of planning, with the PATH Foundation leading and supporting many of the efforts to build and close these key regional gaps. Continued investment and coordination from public and private partners will help the region work towards closing these gaps and having a truly regional trail network.

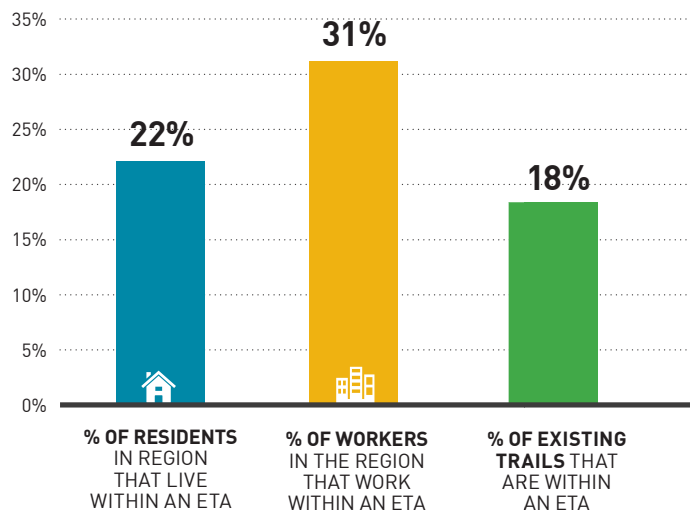
REGIONAL TRAIL GAPS

- Existing Trails of Regional Significance (152 miles)
- Trails of Regional Significance Network Gaps (70 miles)



This diagram is an analysis of gaps between existing Trails of Regional Significance. Please see the maps on page 23 for an analysis of network expansion opportunities. Please see the map on page 58 for Implementation Plan priorities.

PERCENTAGE OF RESIDENTS THAT LIVE AND WORK WITHIN EQUITABLE TARGET AREAS RELATIVE TO THE PERCENTAGE OF EXISTING TRAILS THAT ARE WITHIN AN EQUITABLE TARGET AREA



Source: Atlanta Regional Commission

TRAIL ACCESS AND EQUITY

Trails are not distributed evenly in the region, particularly for those that have a greater need for active transportation and recreation opportunities. The ARC uses Equitable Target Areas (ETAs) to identify areas in the region with greater social needs. ETAs are a geographic index based on race and household income used to identify areas of concern.

Currently, 22% of residents and 31% of workers in the region are within an ETA, yet 18% of existing trails are within an ETA. People living and working in ETAs have slightly lower access to trails relative to other areas of the region.

The ETAs and Existing Trail Map highlights the geographic distribution of trails relative to ETAs in the region. Notable clusters of ETAs whose residents lack convenient access to trails include:

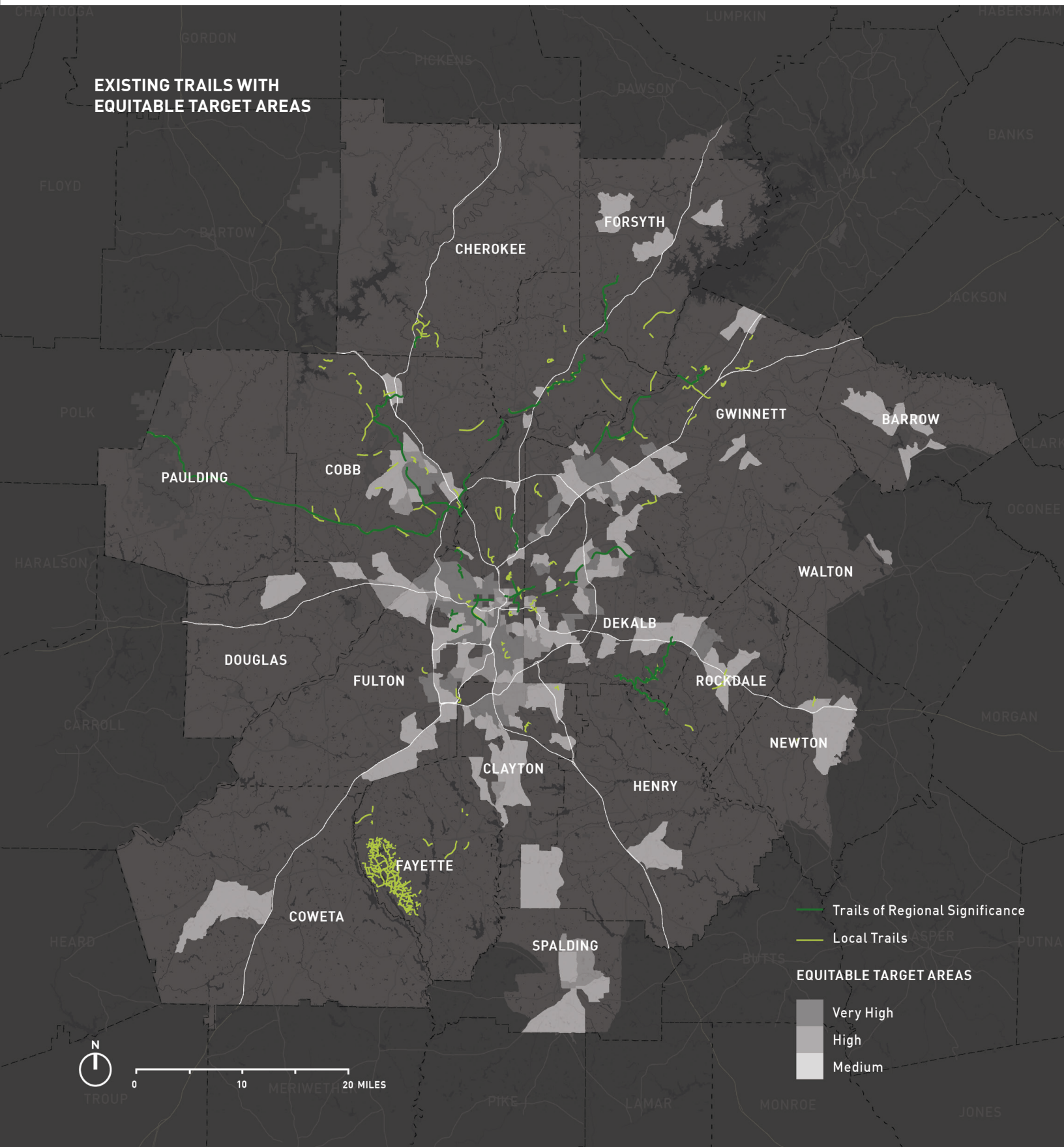
- West and southeastern sections of the City of Atlanta
- Central and northern Clayton County
- Buford Highway corridor from Brookhaven to Norcross, including Chamblee, Doraville, and parts of unincorporated Dekalb and Gwinnett County
- Central and southern Spalding County

Expanding trail networks in ETAs can create more equitable opportunities to walk, bike, and be active for recreation and transportation in the region.

EXPANDING TRAIL NETWORKS
IN ETAs CAN CREATE

**MORE EQUITABLE
OPPORTUNITIES
to WALK, BIKE,
AND BE ACTIVE**

FOR RECREATION AND
TRANSPORTATION





Trails provide an opportunity for all ages to exercise, connect with nature, and socialize.

DEMAND FOR TRAILS

During the development of *Walk. Bike. Thrive!*, the project team estimated propensity for walking and biking using on a destination-based composite model. The methodology used to assess propensity for walking and biking is described in more detail on page 25 of Part 2 of the plan, “Assessment of Regional Travel Patterns and Existing Conditions.” This analysis resulted in a regional “heat map” that displays relative demand and propensity for walking and biking. When existing trails are overlaid with this demand layer, three key observations stand out.

1) Many Existing Trails Are in High Demand Areas

Many of the existing trails in the region, particularly those north of Interstate 20, are located in areas that have the highest levels of demand for walking and biking infrastructure. This is a good thing, because it means these trails are more likely to be used for transportation as well as recreation.

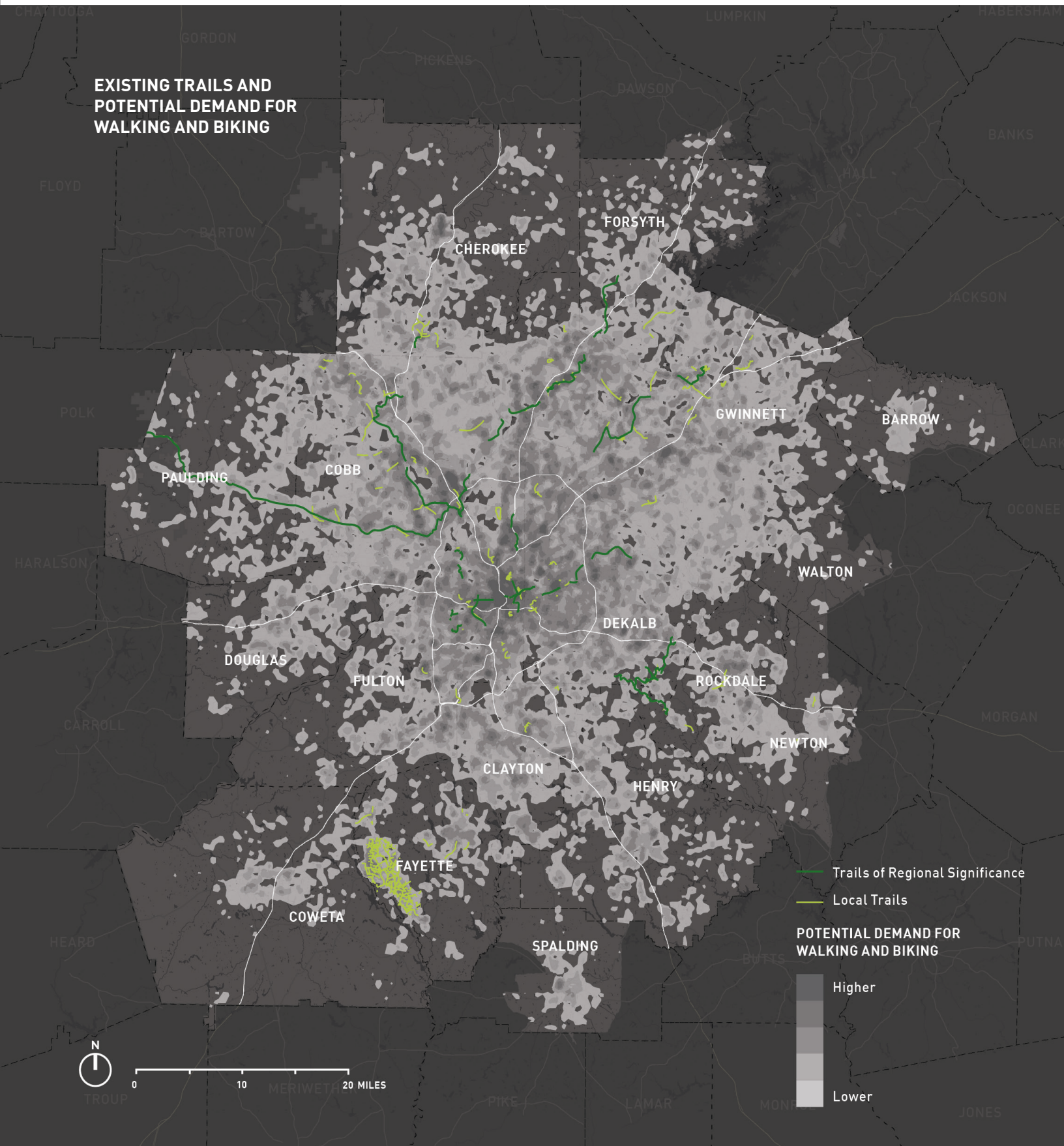
2) Not All Areas Are Well-Served by the Existing Trail System

There are many areas with moderate to high demand for walking and bicycling that are not currently well-served by trails. Large swaths of DeKalb County stand out most clearly, along with portions of Clayton, Douglas, and Gwinnett Counties.

3) Scenic Trails Can Be Regional Draws and Destinations in their Own Right

Two of the region’s most remarkable and well-used trails – the Silver Comet and Arabia Mountain Trials – are not located in areas where overall demand for walking and bicycling is particularly high. This highlights the fact that scenic trails can be regional draws and destinations in their own right. They also highlight the value people place on being able to connect with nature and rural areas.

EXISTING TRAILS AND POTENTIAL DEMAND FOR WALKING AND BIKING



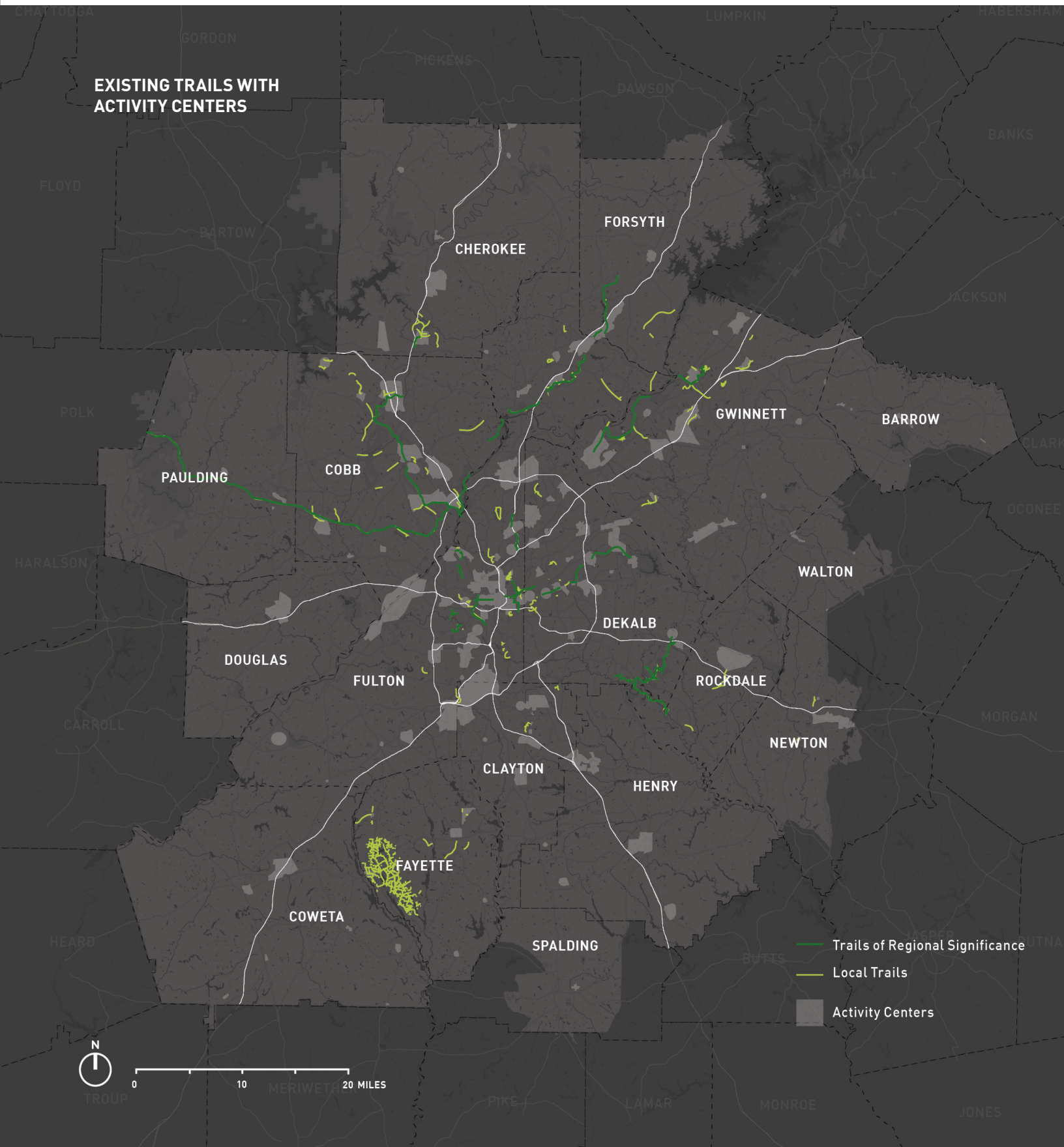
TRAILS AND ACTIVITY CENTERS

There are many benefits of trails connecting to or within activity centers. Trails that connect to activity centers from surrounding neighborhoods provide an opportunity to access jobs and other daily destinations by walking or biking. Within activity centers, trails provide workers, visitors, and residents a place to visit, socialize, travel, and be active.

The existing trails and activity center map highlights some of the current connections and opportunities with trails. Some of the region's activity centers have trails within their boundaries, but many do not. In terms of connection to activity centers, many of the trails in the region connect to at least one, and sometimes more than one, activity center. As an example, the Stone Mountain Trail connects to several of the activity centers in DeKalb County. Expanding trails to and within activity centers in the region can increase the opportunity to walk and bike as part of daily life.



Trails can and do connect people to jobs and other destinations, such as along the Atlanta BeltLine Eastside Trail.



REGIONAL TRAIL NETWORK OBJECTIVES

ARC's regional trail network strategy is focused on two primary objectives:

- 1. Closing identified network gaps in the trails of regional significance system, and**
- 2. Expanding the network of regionally significant trails**

Trails of Regional Significance form a regional hub-and-spoke system that, along with key cross-spoke connections, will connect across the region and form a "walking and biking highway system" for active transportation.

Filling about 70 miles of key gaps would create an approximately 225 mile connected regional trail network. Additionally, closing these key gaps would represent a 46% increase in the mileage for the network of regionally significant trails. Many of these trail gaps are in various stages of planning, with the PATH Foundation leading and supporting many of the efforts to build and close these key regional gaps. Continued investment and coordination from public and private partners will help the region work towards closing these gaps and having a truly regional trail network.

Secondly, ARC will be opportunistic and strategic with respect to expanding the existing system beyond gap closure. ARC is uniquely positioned to facilitate inter-jurisdictional trail planning and implementation through convening stakeholders and technical assistance. If the opportunity to

develop additional regionally significant trails arises along a particular corridor or in a specific part of the region, ARC will work to support implementation of the proposed trail. This is particularly true if the proposed trail connects to or within an Activity Center, connects to another regionally significant trail, or if the project serves one or more Equitable Target Areas.

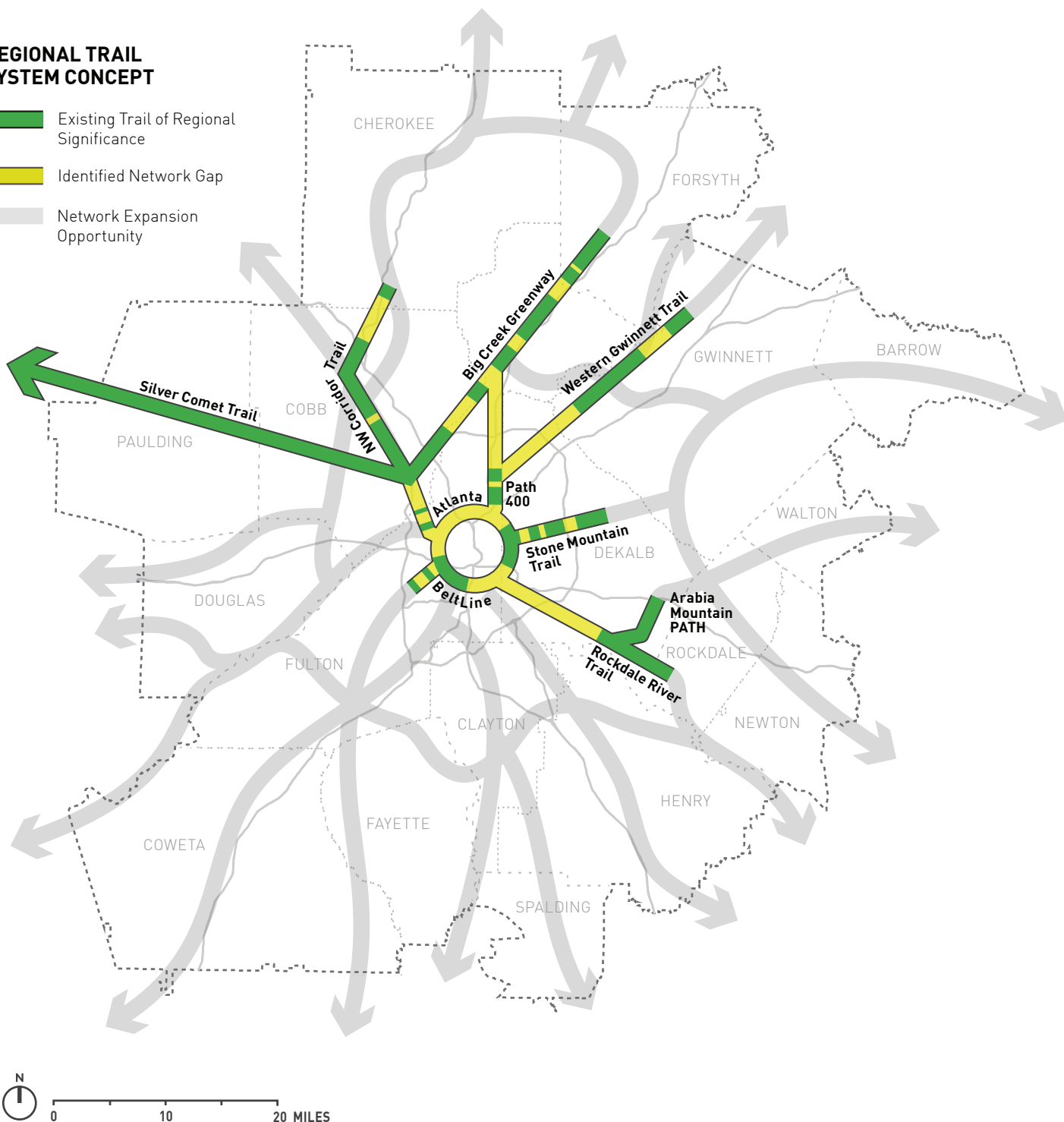
To support regionally significant trail development, ARC will:

- Work with local partners to maintain a map to track existing, planned, programmed, and envisioned regionally significant trail corridors
- Develop a regionally significant trail corridor scoping program to evaluate and assist with trail corridor visioning and regional coordination

The diagram to the right illustrates existing trails of regional significance, identified network gaps, and network expansion opportunities.

REGIONAL TRAIL SYSTEM CONCEPT

- Existing Trail of Regional Significance
- Identified Network Gap
- Network Expansion Opportunity



An analysis of the health,
environmental, and
transportation benefits
of building out Atlanta's
Regional Trail System.



BENEFIT ANALYSIS

The fully implemented regional trail system will provide a range of health, environmental, and transportation benefits to the Atlanta region. Metro Atlanta residents will enjoy new low-stress transportation options, improved access to jobs, lower healthcare costs, and cleaner air. The regional trail system will also attract new residents, visitors, and businesses that generate economic activity.

Assigning real dollar amounts in the form of healthcare savings, vehicle emissions reductions, and lower transportation costs provides residents and community leaders a better understanding of how investing in a regional trail network will benefit the region.

It is worth noting that the methodology used to estimate benefits for this report does not include all potentially quantifiable benefits. Estimates are based on the assumption that building the regional trail network will result in more walking and bicycling for transportation and recreation, and less automobile use. Real estate development spurred in part by new trails, for example, is not captured in this analysis conducted for this report.

When the Atlanta Regional Trail Network is complete ...

Atlanta's regional trail system will create an interconnected network of trails that serve all 20 counties of the region. The network will create a regional "highway system" for active transportation and recreation, connecting activity centers throughout the metropolitan region. Every link and crossing in the system will be built to a high standard of design that welcomes people of all ages and abilities.

By filling trail gaps and expanding the trail network, the Atlanta Region will gain up to:

26,261,000

MORE WALK AND BIKE TRIPS
PER YEAR

\$1,440,000

IN HEALTHCARE COST SAVINGS
PER YEAR

\$616,000

IN REDUCED VEHICLE EMISSION
COSTS PER YEAR

\$2,209,000

IN REDUCED TRAFFIC
CONGESTION COSTS PER YEAR

\$4,050,000

IN REDUCED VEHICLE CRASH
COSTS PER YEAR

\$2,761,000

IN REDUCED ROAD MAINTENANCE
COSTS PER YEAR

\$10,493,000

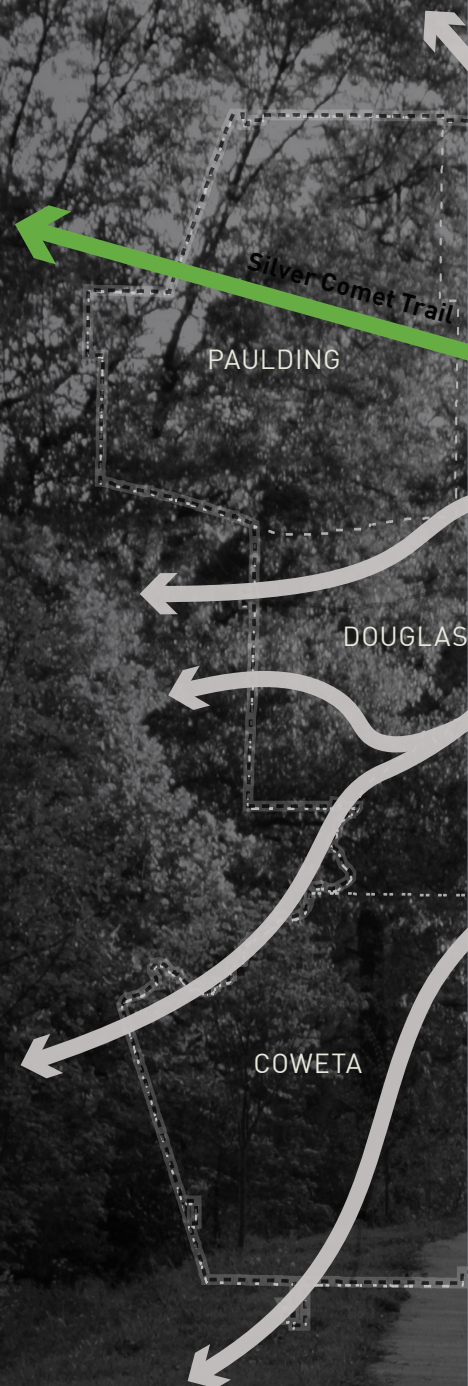
IN TOTAL HOUSEHOLD VEHICLE
OPERATION SAVINGS PER YEAR

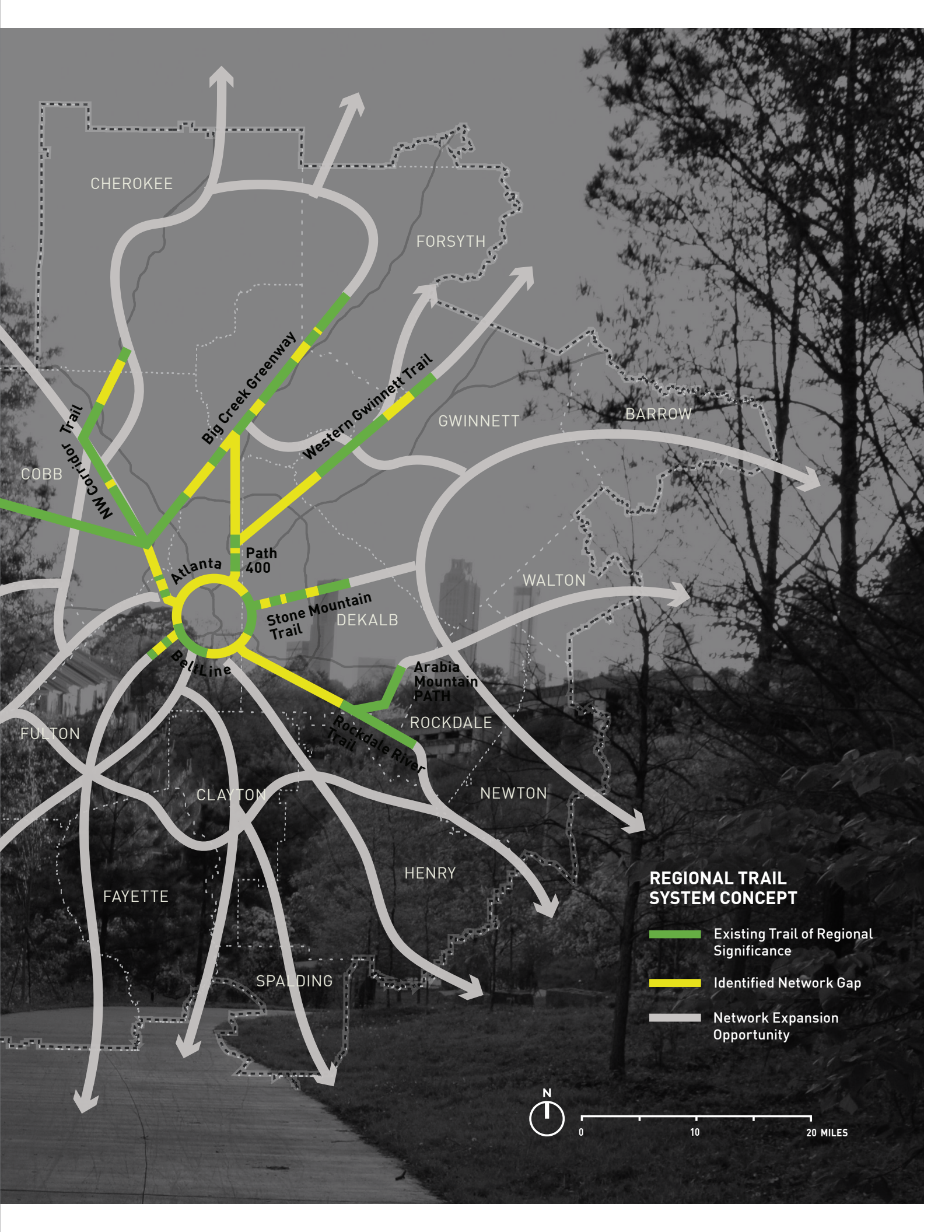
for a total up to

\$21 MILLION

IN TOTAL BENEFITS TO THE
ATLANTA REGION PER YEAR

And these quantitative benefits do not capture many intangible benefits such as: less stressful commutes, social benefits of increased access to public space, increased pride in people-friendly places, and the ability to connect to nature.





CHEROKEE

FORSYTH

Big Creek Greenway

Western Gwinnett Trail

WINNETT

BARROW

COBB

NW Corridor Trail

Atlanta

Path 400

Stone Mountain Trail

DEKALB

WALTON

Arabia Mountain Path

ROCKDALE

Rockdale River Trail

FULTON

CLAYTON




NEWTON

FAYETTE

HENRY

SPALDING

REGIONAL TRAIL SYSTEM CONCEPT

-  Existing Trail of Regional Significance
-  Identified Network Gap
-  Network Expansion Opportunity



0 10 20 MILES





METHODS

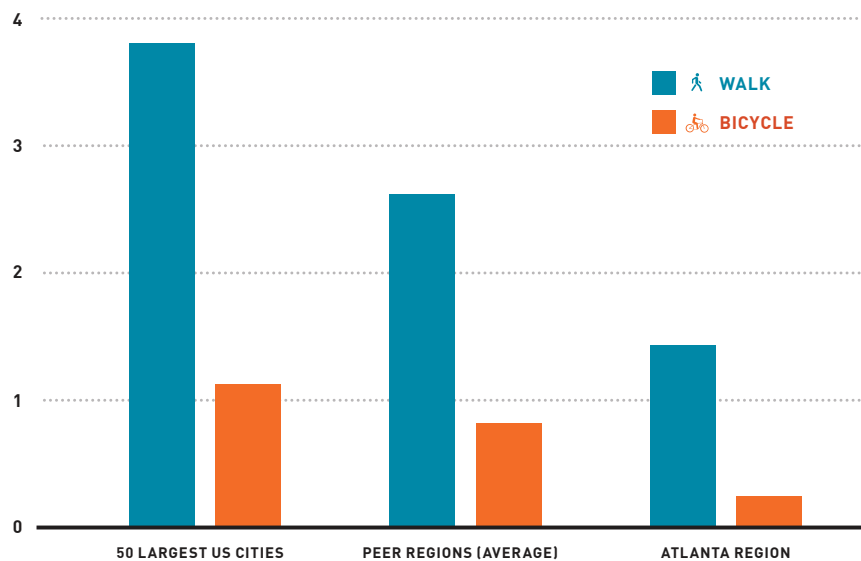
The trail benefits calculated for health, environment, and transportation are based on recent five-year estimates from the American Community Survey (ACS), and by using baseline commute mode shares and comparisons to peer cities. This information is calculated with national studies of monetary value of trails to determine the total benefits of walking and biking trips.

Currently, less than 1 percent of Atlanta residents bike to work and

less than 2 percent walk to work. Better access to trails that connect destinations will increase the number of people walking and bicycling and will help Atlanta rise to the level of competitive peer cities throughout the U.S.

The benefits described here include the total benefits for 1) Filling the gaps in the existing trail network, and 2) Expanding the trail network to all 20 counties in the region.

WALK AND BICYCLE COMMUTE MODE SHARE



If the Atlanta region increased the number of people biking to work to match the average peer city, it would see a

300% INCREASE

in the number of bicycle commuters.

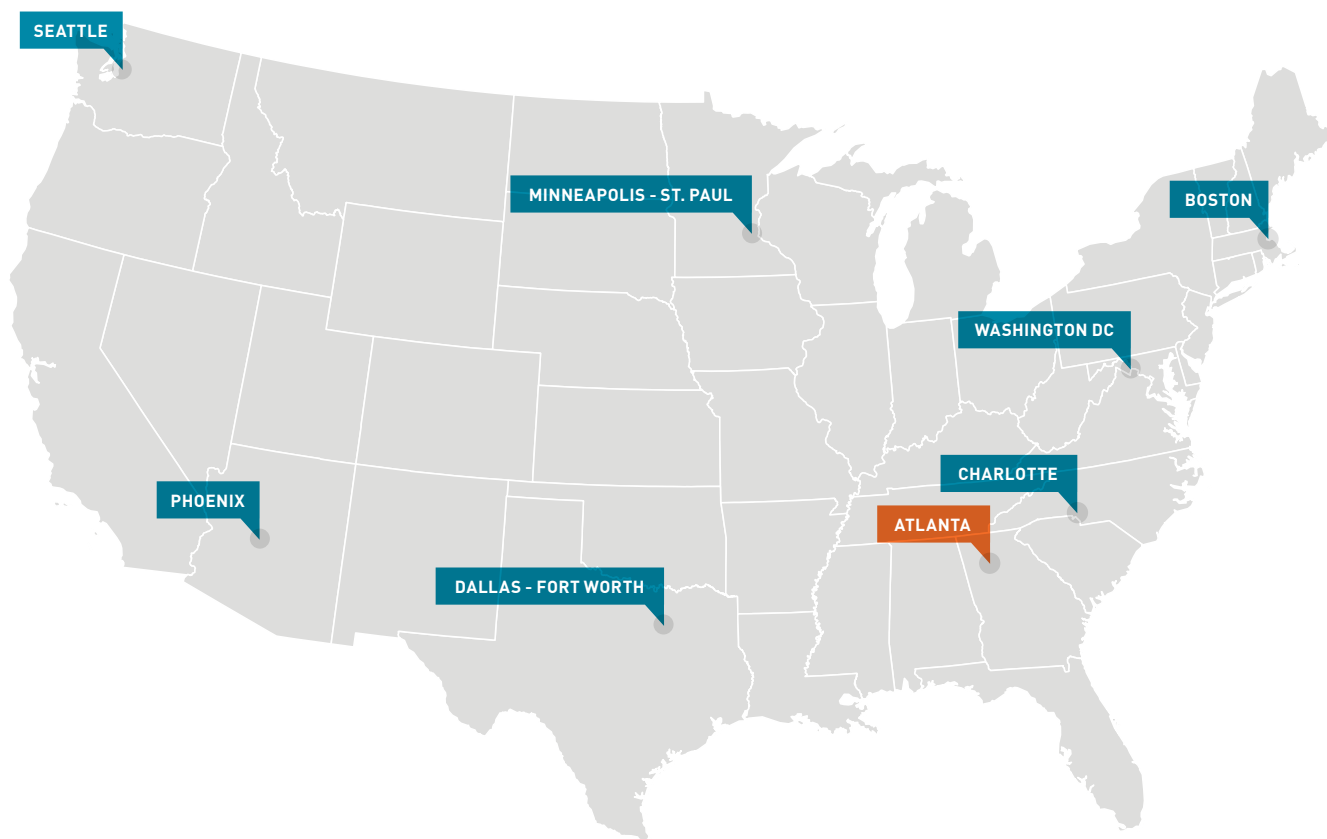


HOW ATLANTA COMPARES

How will a fully-realized regional trail network impact the way that Atlanta residents travel? To understand the shift, we compared travel behavior in 7 peer regions that have pedestrian and bicycle infrastructure similar to that proposed in *Walk.Bike.Thrive!* The Boston (MA) metro area, Charlotte (NC) metro area, Dallas (TX) metro area, Minneapolis (MN) metro area, Phoenix (AZ) metro area, Washington (DC) metro area, and Seattle (WA) metro area were chosen as peer regions based on similarities in the

design of their roadway networks, regional prominence, population size and demographics, and existing walking and bicycle infrastructure.

After the identification of peer regions, the walking and bicycle commute data was assessed. Compared to the selected peer regions, the Atlanta region was tied with the Charlotte metro area for the lowest bicycle commute mode share (0.2 percent). The Atlanta region was also tied with the Charlotte metro area for the second-lowest walk commute mode share (1.4 percent).



HOW THE BENEFITS ARE CALCULATED

Over 50 factors from various studies and peer-reviewed journal articles were used to convert the predicted number of new walking and biking trips that will result from filling the trail gaps and expanding the trail network.

LIMITATIONS

The purpose of the benefits analysis is to present the full picture of how a regional trails will improve the quality of life for all residents of the Atlanta region, and how best to invest in a regional trail network. Even with extensive research incorporated into the impact analysis, it is impossible to predict the exact impact of the trail network. All values are rounded and should be considered estimates rather than exact amounts.

If the Atlanta region increased the number of people walking to work to match the average peer city, it would see a

186% INCREASE

in the number of walking commuters.



HEALTH BENEFITS

The regional trail network will provide increased opportunities for physical activity that is likely to improve health outcomes throughout the region.

As of 2013, Georgia has the 18th highest obesity rate in the country overall and the 17th highest obesity rate in the country for children between the ages of 10-17 years of age according to *The State of Obesity: Better Policies for a Healthier America*, a report published annually by the Robert Wood Johnson Foundation and the Trust for America's Health.

These trends have significant impacts on personal health, economic development, and quality of life. Obesity increases healthcare costs and negatively impacts daily life. Conversely, well-designed trails provide opportunities to integrate physical activity into daily life and can help reverse these trends.

When the Regional Trail Network is complete, the Atlanta Region will gain up to:



25,026,000

MORE MILES WALKED AND
BIKED PER YEAR

*That's equivalent to 3.9 million
laps around I-285*



23,000

MORE PEOPLE MEETING THE
RECOMMENDED AMOUNT OF
PHYSICAL ACTIVITY PER YEAR

*That's equivalent to all the
undergrads at Georgia Tech and
Emory University*



\$1,440,000

IN ANNUAL HEALTHCARE
COST SAVINGS

*That's equivalent to over
1,000 ambulance rides to Atlanta
hospitals*

ENVIRONMENTAL BENEFITS

The development of a regional trail network will help to reduce air pollution in the Atlanta region and alleviate the effects of vehicle emissions on our changing climate. Greenhouse gas emissions resulting from single-occupant motor vehicle trips also contribute to hotter and more frequent heat waves, exacerbating the heat island effect in Atlanta.¹ Additionally, air pollution can intensify chronic health conditions and can contribute to poor health in pregnant women and children.²

Currently, the Atlanta region does not meet federal standards for ozone – a pollutant regulated under the Clean Air Act and identified as a primary factor that contributes to asthma.³

When the regional trail network is complete, many motor vehicle trips will be replaced by active transportation trips. This will result in up to 48 million fewer pounds of CO₂ emissions per year across the region, improving environmental health and personal health for millions of residents.

1. E. Olivares. "Taking the Temperature: Transportation Impacts on Greenhouse Gas Emissions in the Atlanta Region." 2010. Atlanta Regional Commission.

2. Poursafa, P. and Dr. R. Kelishadi. "What health professionals should know about the health effects of air pollution and climate change on children and pregnant mothers." 2011. Iran J Nurs Midwifery Res. 16(3): 257-264.

3. Environmental Triggers of Asthma. 2014. Agency for Toxic Substances and Disease Registry, Centers for Disease Control and Prevention. <<http://www.atsdr.cdc.gov/csem/csem.asp?csem=32&po=6>>

When the Regional Trail Network is complete, the Atlanta Region will benefit from:



47,538,000

POUNDS OF CO2 EMISSIONS
REDUCED PER YEAR

*That's equivalent to planting
about 52,000 trees*



598,000

POUNDS OF OTHER VEHICLE
EMISSIONS REDUCED PER YEAR

*That's equivalent to about 4,000
fewer trips to the gas station*

which will save the
Atlanta Region up to:

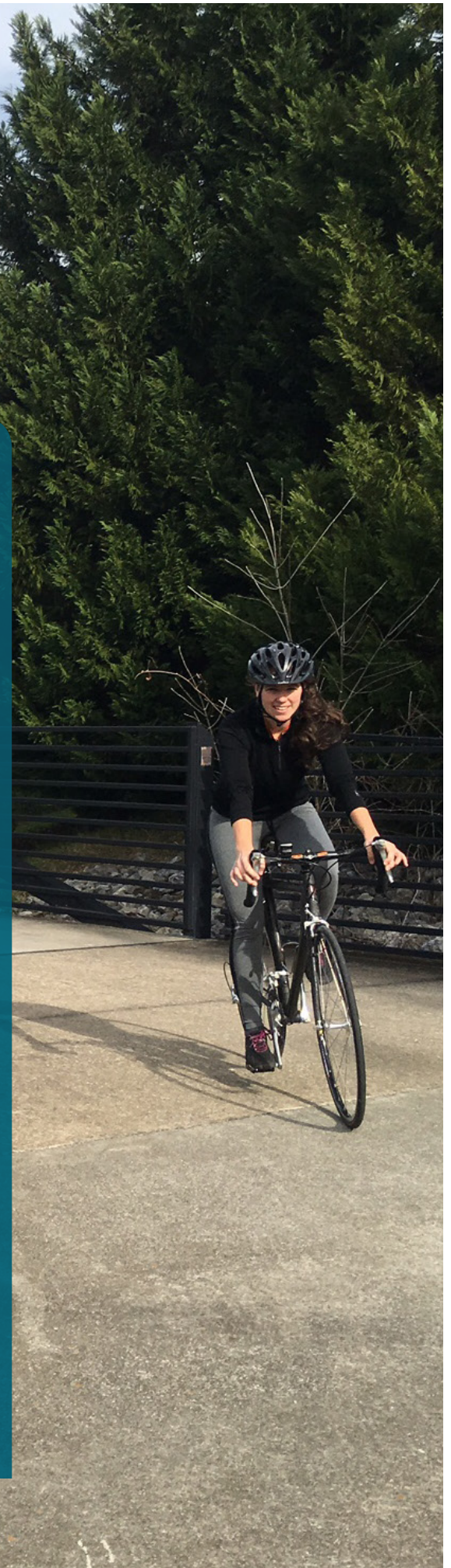
\$616,000

IN TOTAL VEHICLE EMISSIONS
COSTS PER YEAR

TRANSPORTATION BENEFITS

Developing a regional trail network will provide enjoyable access by foot or bike to retail, jobs, schools, and other destinations. Expanding the network, particularly in southern parts of the region, will improve equity by increasing access to key amenities for underserved populations. Only 18% of existing trails are located within an Equitable Target Area (ETA) – portions of the region where there is a greater need for transportation and recreation opportunities. In some ETAs, the percentage of residents without access to a personal vehicle exceeds 40%. Expanding trail networks in these areas will create more equitable opportunities to access recreation and jobs without use of a personal vehicle.

The regional network will not only improve access and equity, the trails will also provide substantial savings on transportation costs. These savings can be estimated from the reduced costs associated with congestion, road maintenance, collisions, and gas. Closing the trail gaps and expanding the network will save households up to \$10 million in vehicle operation costs and save the region up to \$20 million in total transportation benefits.



When the Regional Trail Network is complete, the Atlanta Region will benefit from:



\$2,209,000

IN REDUCED TRAFFIC
CONGESTION COSTS PER YEAR

*That's equivalent to over 44,000
annual passes to the Georgia
State Parks*



\$2,761,000

IN REDUCED ROAD MAINTENANCE
COSTS PER YEAR

*That's equivalent to the cost of
filling in around 50,000 potholes*



\$10,493,000

IN HOUSEHOLD VEHICLE
SAVINGS PER YEAR

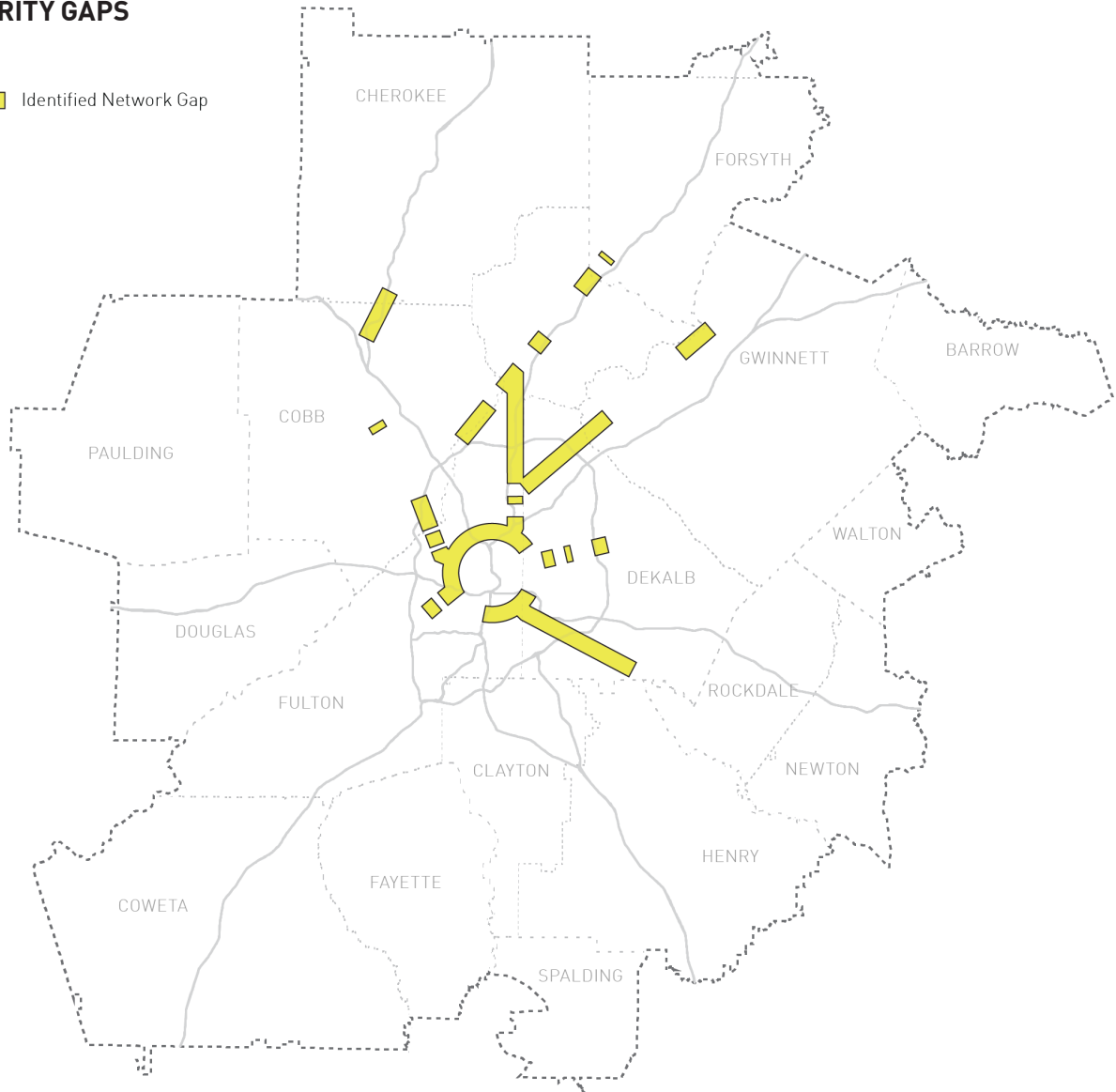
*That's equivalent to about 84,000
tickets to Music Midtown*

which will save the Atlanta Region up to:

\$19,513,000 IN TOTAL TRANSPORTATION
BENEFITS PER YEAR

PRIORITY GAPS

 Identified Network Gap



When the gaps are filled in the existing trail network, each year the Atlanta Region will gain up to:

153,000 walk and bike trips per mile, for a total of **10,951,000 walk and bike trips**

1,274,000 hours of physical activity

22,072,000 lbs of CO2 emissions reduced

\$1,682,000 in reduced vehicle crash costs

\$8,105,000 in total transportation benefits

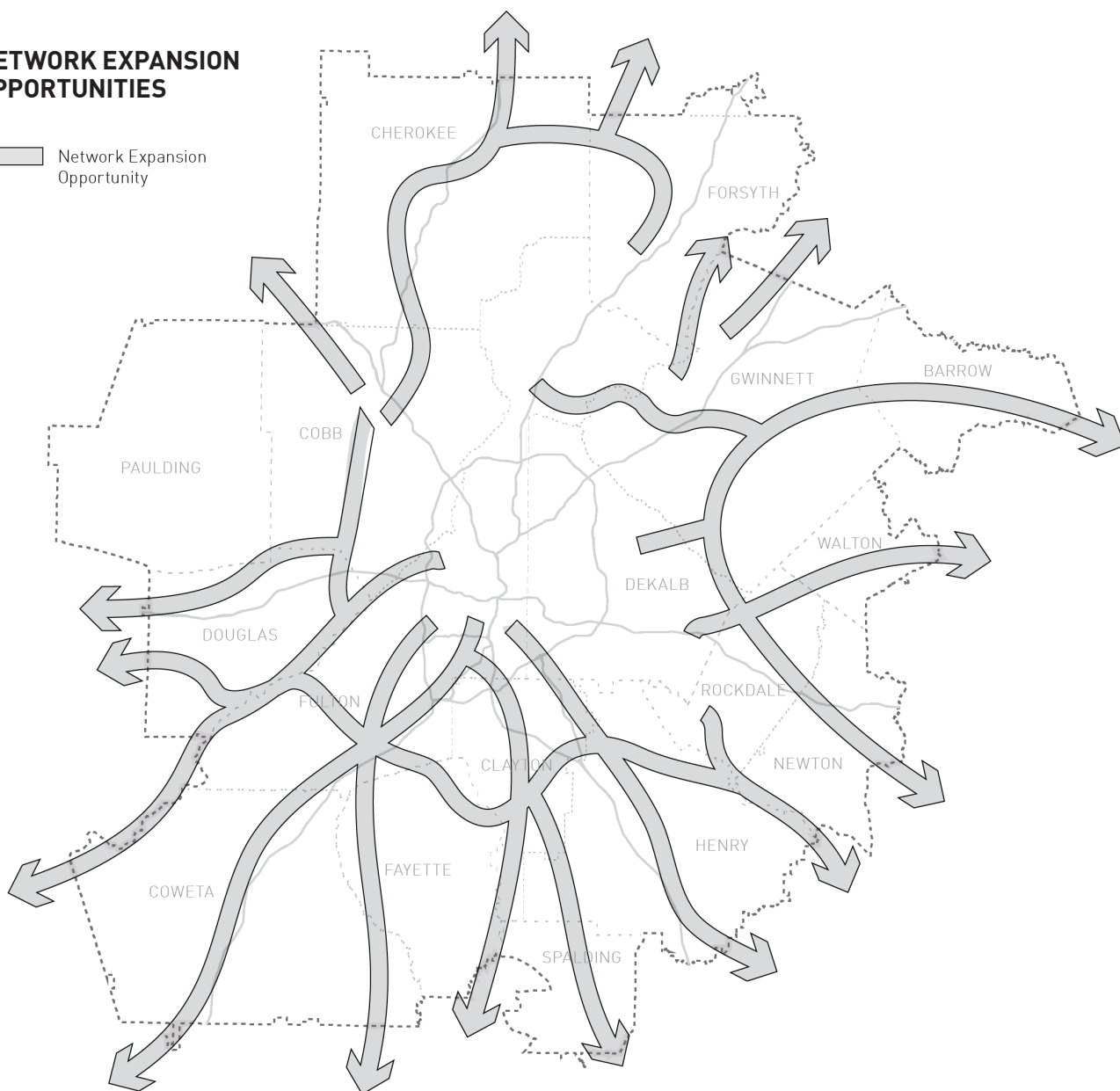
Resulting in up to:

\$8,969,000

in HEALTH, ENVIRONMENTAL, AND TRANSPORTATION-RELATED BENEFITS PER YEAR

NETWORK EXPANSION OPPORTUNITIES

 Network Expansion Opportunity



When the network expansion is implemented, each year the Atlanta Region will gain up to:

35,000 walk and bike trips per mile, for a total of **18,204,000 walk and bike trips**

2,127,000 hours of physical activity

34,072,000 lbs of CO2 emissions reduced

\$3,087,000 in reduced vehicle crash costs

\$14,873,000 in total transportation benefits

Resulting in up to:

\$10,302,000

in ADDITIONAL HEALTH, ENVIRONMENTAL, AND TRANSPORTATION-RELATED BENEFITS PER YEAR

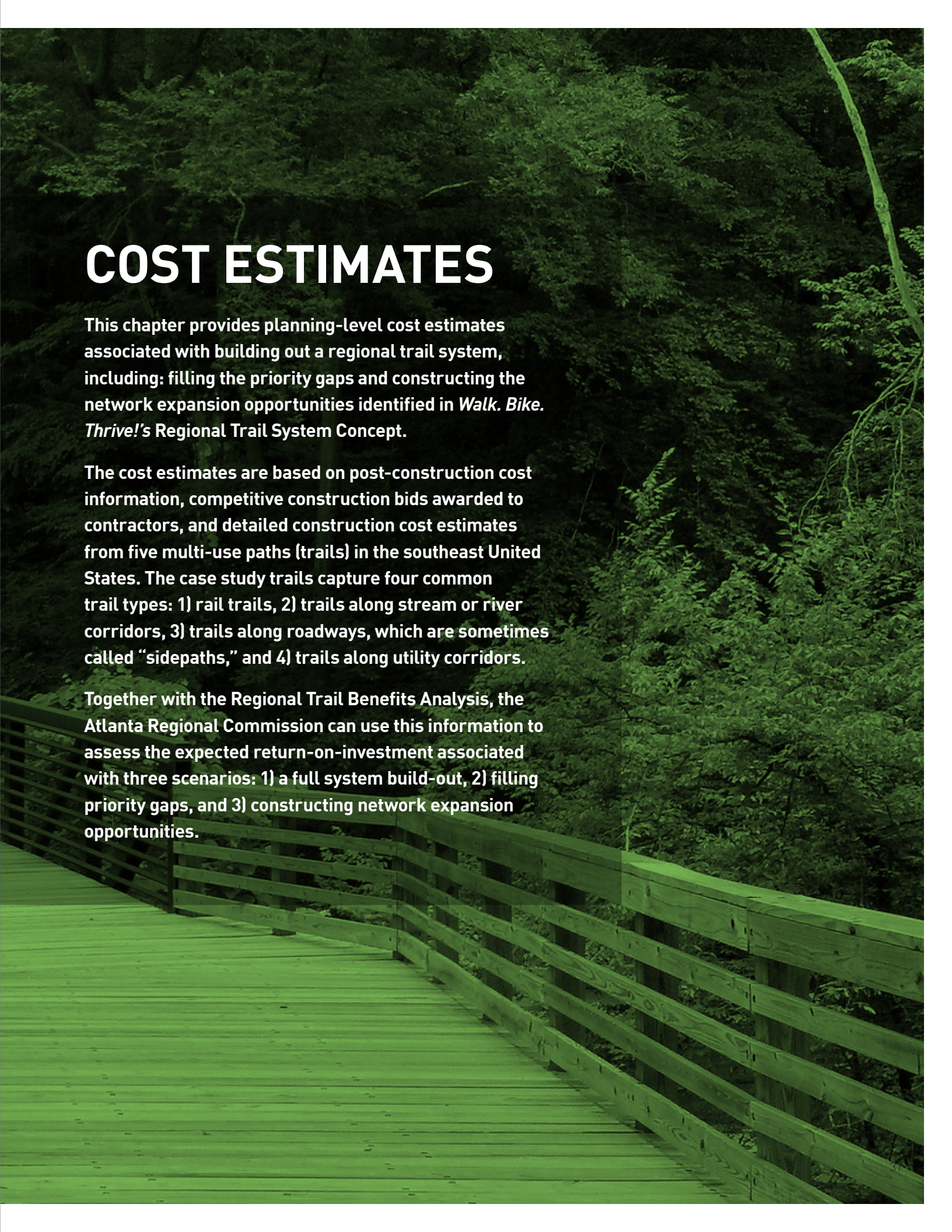
Just as the BeltLine is uniting neighborhoods in the city, **an extensive trail network will unite cities in the region.**

COST ESTIMATES

This chapter provides planning-level cost estimates associated with building out a regional trail system, including: filling the priority gaps and constructing the network expansion opportunities identified in *Walk. Bike. Thrive!*'s Regional Trail System Concept.

The cost estimates are based on post-construction cost information, competitive construction bids awarded to contractors, and detailed construction cost estimates from five multi-use paths (trails) in the southeast United States. The case study trails capture four common trail types: 1) rail trails, 2) trails along stream or river corridors, 3) trails along roadways, which are sometimes called "sidepaths," and 4) trails along utility corridors.

Together with the Regional Trail Benefits Analysis, the Atlanta Regional Commission can use this information to assess the expected return-on-investment associated with three scenarios: 1) a full system build-out, 2) filling priority gaps, and 3) constructing network expansion opportunities.





METHODOLOGY

The methodology used to develop cost estimates relies on a case-study approach. Post-construction costs, competitive construction bids, and detailed construction cost estimates were reviewed for a diverse group of trails in the southeast US from 2015-2016. Five case study trails were selected based on the extent to which they represented a “typical” example of major trail types that are likely to make up majority of Atlanta’s regional trail system: 1) rail trails, 2) trails along stream or river corridors, 3) trails along roadways, which are sometimes called “sidepaths”, and 4) trails along utility corridors.

The Atlanta Regional Commission conducted targeted outreach to Atlanta-area agencies that had recently constructed trails. Through this process, the project team discovered that post-construction cost information for local trails is not

well documented or widely available. However, construction costs in neighboring southeastern states are regionally comparable to costs in Georgia. The five trails selected were the Doodle Rail Trail between Easley and Pickens, SC; the Wolf River Greenway in Memphis and Shelby County, TN; the Research Triangle Park Sidepath located near Durham, NC; the Euche Creek Greenway in Columbia County, GA; and the planned Peachtree Corners “Segment A” Trail in Peachtree Corners, GA.

After selecting case study trails, Alta Planning + Design calculated a per-mile cost for each of the case study trails based on the length of the project and total cost. In one case, the Peachtree Corners “Segment A” trail, total cost information is based on a detailed construction cost estimate, not post-construction cost information or the selected construction bid.

Next, an average per-mile cost was calculated based on the per-mile costs of the five case study trails. Based on the five case studies, the per-mile cost for construction was \$1,007,000. This average per-mile cost was then applied to the priority trail gaps and network expansion opportunity segment lengths, providing order of magnitude construction costs for the proposed system. The intent of this methodology is to capture the range of variability associated with trail construction projects, and also to provide a number that can help ARC assess the cost-benefit ratio of the regional trail system.

Finally, cost estimates for three scenarios—a full system build-out, filling priority gaps, and constructing network expansion opportunities – were developed by applying the average per-mile trail construction costs to the total proposed trail mileage for

COST ESTIMATES BY SCENARIO

Filling Priority Gaps

Total miles:

72

Estimated cost:

\$72,504,000**Constructing Network
Expansion Opportunities:**

Total miles: 515

Estimated cost: \$518,605,000

Full System Build Out

Total miles: 586

Estimated cost: \$590,102,000

each scenario. It should be stressed that given the amount of uncertainty regarding potential alignments and trail facility type, these are not typical planning-level cost estimates. Instead, they are order of magnitude estimates designed to provide a general sense of cost.

Actual corridor conditions have not been validated as part of this study. Each capital project will require more detailed feasibility study prior to engineering to determine property limitations, surface conditions, utility and permitting constraints, and public interest considerations.

When reviewing construction costs, the following should be taken into consideration:

- These are order of magnitude, planning-level cost estimates. Actual costs will vary based on right-of-way requirements, environmental factors, and many other variables (some of these items are listed in case study examples on the following pages).
- Costs will change as more information becomes available in the feasibility study and design phases for all regional trails.
- Costs are listed in the base year of 2016, and should be escalated at an inflation rate of 2-5% each year thereafter.

- Soft costs are not included in the below projects, such as design and engineering, construction, engineering, and inspection (CEI), surveying, and land acquisition. Therefore, contingencies should be built into any trail planning estimate to capture soft costs.

The following case study descriptions are intended to convey the characteristics of each trail and provide a sense about the specific elements and construction processes required to construct each case study trail.



PEACHTREE CORNERS “SEGMENT A” TRAIL

PEACHTREE CORNERS, GA

The “Segment A” Trail is the first phase of a planned network of trails that will connect area neighborhoods, commercial centers, and business parks in the City of Peachtree Corners, Georgia. Segment A stretches a little over a mile between two arterial roads in Peachtree Corners – Peachtree Parkway and Medlock Bridge Road. The 12’ wide concrete multi-use trail will follow a utility corridor right-of-way for approximately three-quarters of the trail distance, and also will parallel ponds and cut through residential and commercial complexes. The steep terrain along selected segments will require numerous switchbacks, and stairs will be included for direct pedestrian access on hills. Bridges, tunnels, and at-grade protected crosswalks will provide easy and comfortable access across natural barriers and major roads providing drainage facilities. The total distance of the project is 1.2 miles.

Development cost items included:

- 12’ wide concrete trail
- Utility conduit
- Steps at switchbacks
- Handrails
- Granite walls
- Bridge
- Boardwalk
- 2 pedestrian refuge islands with crosswalk and Rectangular Rapid Flash Beacons
- 2 landscaped trailheads with benches

Trail type:

Utility Corridor Trail

Trail context:

Suburban

Total cost for project in 2016:

\$1,829,365

(includes contingency at 15%)

Estimated cost per mile:

\$1,590,752



EUCHEE CREEK GREENWAY

COLUMBIA COUNTY, GA

The Euchee Creek Greenway provides safe and family friendly access between neighborhoods and community destinations for all ages and abilities. Columbia County is exploring the feasibility of extending the Euchee Creek Greenway from the Savannah River (North) to the City of Grovetown (South).

Phase One is a 10' concrete shared-use path approximately 0.65 miles in length, connecting Wrightsboro Road to Canterbury Farms and Indian Farms Subdivisions.

Development cost items included:

- Clearing and grubbing
- Site work including grading
- Subgrade preparation and undercut
- Base course installation
- Concrete surface installation
- Timber boardwalk bridge (3)
- Regulatory and wayfinding signage
- Traffic control and devices
- Sediment and erosion control
- Sanitary sewer pipe and manhole
- Construction services, mobilization, traffic control
- Intersection improvements
- Construction services, mobilization, traffic control

Trail type:

Riparian (river corridor) Trail

Trail context:

Suburban/Rural

Total cost for project in 2016:

\$568,633

Cost per mile:

\$800,555



RESEARCH TRIANGLE PARK SIDEPATH

RESEARCH TRIANGLE PARK, NC

Research Triangle Park is home to 200 companies, with over 55,000 employees across 7,000 acres. The park is one of the largest research parks in the world, located near Raleigh and Durham, NC. 18 miles of asphalt sidepaths are provided for park tenants and guests along existing DOT right-of-way. Phase 18b, which bid summer 2016, represents the most recent trail segment under construction. The project has numerous challenges, including extending the trail across an existing culvert, installing a bench modification beneath NC 540, and providing drainage facilities. The total distance of the project is 1.2 miles.

Development cost items included:

- Clearing and grubbing
- Site work including grading, curb and gutter
- Subgrade preparation and undercut
- Base course installation
- Concrete installation (decking on bridges, tread, sidewalk)
- Asphalt paving
- Signage
- Traffic control and devices
- Sediment and erosion control
- Intersection improvements
- Construction services, mobilization, traffic control

Trail type:

Sidepath

Trail context:

Suburban/Rural

Total cost for project in 2015:

\$960,667

Cost per mile:

\$800,555



WOLF RIVER GREENWAY

MEMPHIS AND SHELBY COUNTY, TN

The Wolf River Greenway is a 12-foot wide multi-use path that will eventually extend a total of 36 miles from downtown Memphis, through the neighborhoods of north central Memphis, to Shelby Farms, and to the cities of Germantown and Collierville, Tennessee. Meandering along the banks of the Wolf River, this scenic greenway will allow users to experience the natural beauty of hardwood forests and wetlands, and to visit local shops and cafes along the way via multiple access points. Section 9, totaling 4,697 linear feet, is under construction and was publicly bid in summer 2016. While total cost-per-mile for the entire Wolf River Greenway cannot be determined at this time, an estimate can be extracted for Section 9 based on 2016 costs.

Development cost items included:

- Bicycle and pedestrian bridges (2)
- Clearing and grubbing
- Site work including grading, curb and gutter
- Subgrade preparation and undercut
- Base course installation
- Asphalt paving
- Concrete installation (decking on bridges, tread, sidewalk)
- Signage, bollards, site furnishings, gate
- Landscaping
- Traffic control and devices
- Sediment and erosion control
- Utility coordination
- Intersection improvements
- Construction services, mobilization, traffic control

Trail type:

Riparian (river corridor) Trail

Trail context:

Urban/Suburban

Total cost for project in 2015:

\$1.3M

Cost per mile:

\$1,557,600



DOODLE RAIL TRAIL

EASLEY AND PICKENS, SC

The Pickens 'Doodle Line' Railway is a 7.5 mile shared-use asphalt rail trail that opened for public use in May 2015, and provides vital recreation and transportation alternatives for visitors and residents alike. The trail is 10-feet wide and connects the city of Easley, SC to the city of Pickens, SC. A trailhead provides formal access in both Downtown Commercial Districts.

Development cost items included:

- Improvements to an existing railroad bridge
- Clearing and grubbing
- Minor grading
- Subgrade preparation
- Base course installation
- Asphalt paving
- Traffic control and devices
- Sediment and erosion control
- Utility coordination
- Intersection improvements
- Construction services, mobilization,
- Fencing

Trail type: Rail with Trail

Trail context: Rural/Suburban

Note: The Doodle Rail Trail was a design-build project, which lead to significant cost savings.

Total cost for project in 2015:

\$2.1M

Cost per mile:

\$283,784



IMPLEMENTATION SCENARIOS ANALYSIS

The costs associated with implementing the regional trail network are not insignificant. An analysis of the costs relative to the benefits, however, reveals that **the regional trail network envisioned in *Walk.Bike.Thrive!* will provide a substantial return on investment.** This is especially true when the regional trail network is compared to conventional roadway projects that not only cost orders of magnitude more to construct and maintain, but also come with (unintended) negative impacts on human and environmental health.

It is worth noting that the methodology used to estimate benefits for this report does not include all potentially quantifiable benefits. Estimates are based on the assumption that building the regional trail network will result in more walking and bicycling for transportation and recreation, and less automobile use. Real estate development spurred in part by new trails, for example, is not captured in this analysis conducted for this report. Nor does the analysis include a myriad of intangible benefits such as reduced stress during daily commutes, the social benefits of increased access to public space, increased pride in people-friendly places, and the ability to connect to nature.



COSTS AND BENEFITS BY IMPLEMENTATION SCENARIO

	Total Length	Estimated Annual Benefits	Estimated Per Mile Benefits	Estimated Construction Cost	Years Required for Benefits to Exceed Costs
Fill Network Gaps	72 miles	Up to \$9 million	Up to \$125,000 annually	\$72.5 million	About 8
Network Expansion Opportunities	515 miles	Up to \$10.3 million	Up to \$20,000 annually	\$518.6 million	About 50
Full System Buildout	586 miles	Up to \$21.6 million	Up to \$37,000 annually	\$590.1 million	About 27

SCENARIOS

Walk.Bike.Thrive! outlines two primary objectives for the development of the regional Trail Network: 1) Closing identified network gaps in the trails of regional significance system, and 2) Expanding the network of regionally significant trails.

Closing identified network gaps was intentionally listed as the first objective for two reasons. First, **focusing on gaps is the fastest way to increase network connectivity by leveraging existing public investments.** Second, many of the identified gaps are already in some stage of planning. While these reasons make intuitive sense, a quantitative analysis of the differences in the costs and benefits can help ARC better understand the outcomes of making investments in gap-closure projects vs. network expansion projects.

This chapter summarizes the costs and benefits associated with three different implementation scenarios:

1. Filling Priority Gaps

2. Constructing Network Expansion Opportunities

3. Full System Build-Out

An analysis of the costs and benefits of the regional trail network by implementation scenario points to three clear findings:

1. Filling identified network gaps will maximize return on investment, confirming that a focus on increasing network connectivity between existing trails of regional significance should be the priority strategy for short-to-medium-term implementation of the regional trail system.

2. Network expansion opportunities will also generate significant benefits, but at a higher cost. Trail

projects that add to the regional network should be advanced strategically, where special needs and opportunities arise. Network expansion should be considered a long-term strategy.

3. Investing in a connected regional trail network that eventually reaches all 20 counties is worth doing for many reasons, some of which are difficult to quantify.

By prioritizing investments in the gaps between existing trails or regional significance and taking advantage of strategic opportunities to expand the network, the Atlanta region will reap the rewards of a cost-effective means to improve transportation and health for all residents. Finally, the faster the regional trail network is built, the sooner the region will realize these benefits.



Photo: Arabia Mountain Path, Mera Cardenas

SCENARIO 1 FILLING PRIORITY GAPS

The trail segments that collectively make up the priority gaps total approximately 72 miles in length, will cost about \$72.5 million to construct, and are expected to generate up to \$9 million in annual health, environmental, and transportation benefits.

Of the three scenarios, **filling priority gaps delivers the highest benefit-to-cost ratio, generating up to \$125,000 in benefits annually for every mile of trail constructed.** Within just eight years, the benefits associated with these trails will exceed construction costs. This is true because the health, environmental, and transportation benefits associated with trails rely on their utilization. The group of

potential trail projects that make up the identified priority gaps are located in areas with higher concentrations of potential users, and are therefore expected to generate more benefits than the network expansion opportunities, which are predominately located in areas with lower population density. Trail segments that fill gaps also improve accessibility to existing trails, boosting their expected usage and subsequently their benefits.

The fact that the filling priority gaps scenario generates the most benefits at the lowest cost confirms that a focus on connecting existing trails of regional significance is a sound policy strategy.

Filling Priority Gaps

LENGTH: 72 miles


COST: \$72.5 million

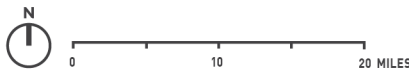
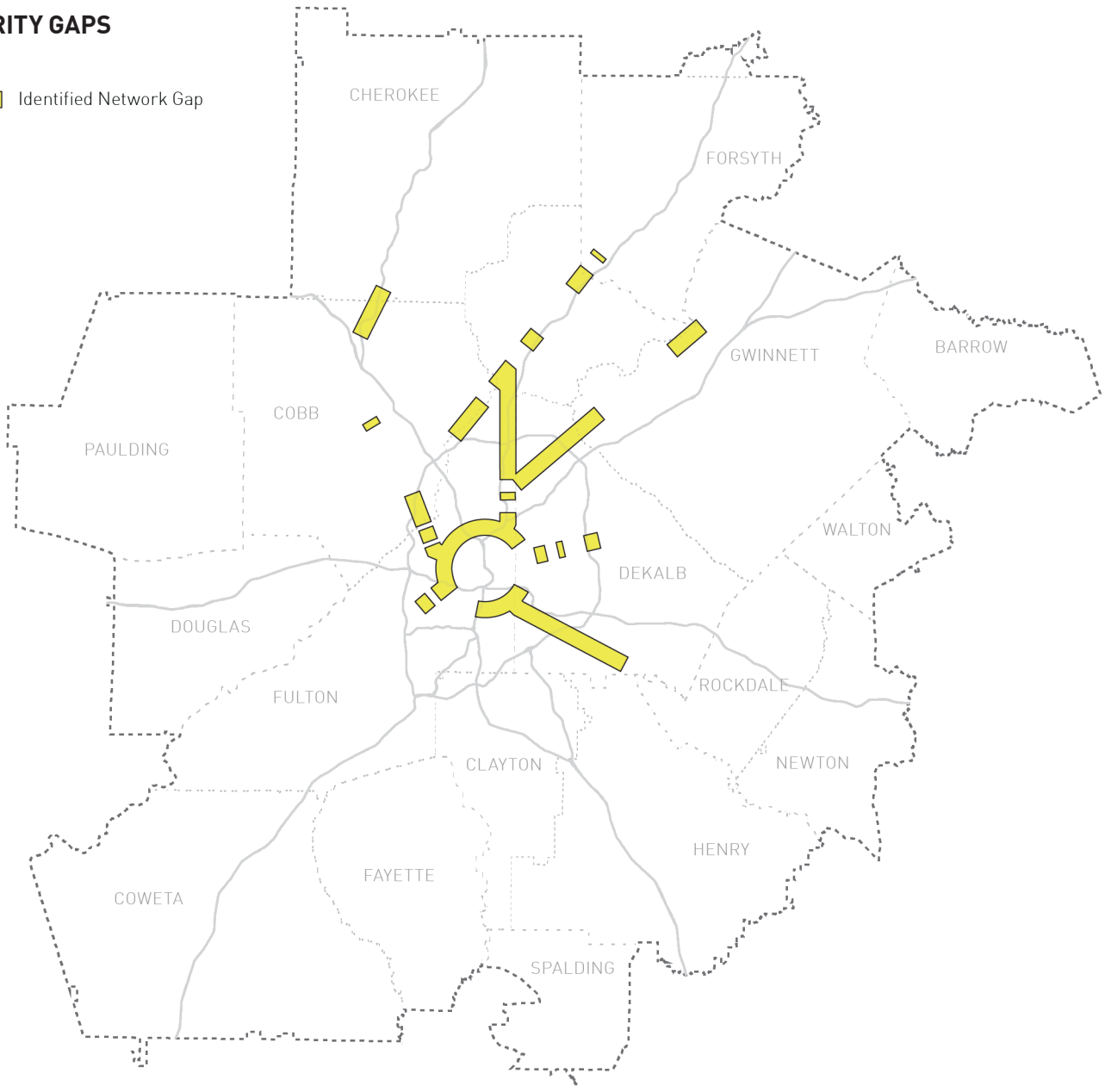
BENEFITS:
Up to \$9 million annually

ESTIMATED PER MILE BENEFITS: Up to \$125,000 annually

YEARS TO BREAK EVEN:
About 8

PRIORITY GAPS

 Identified Network Gap





SCENARIO 2

CONSTRUCTING NETWORK EXPANSION OPPORTUNITIES

The trail segments that collectively make up the network expansion opportunities total approximately 515 miles in length, will cost about \$518.6 million to construct, and are **expected to generate up to \$10.3 million in annual health, environmental, and transportation benefits.**

This scenario also generates substantial benefits, but at a much higher cost than filling identified gaps. Constructing network expansion opportunities will generate up to \$20,000 in annual benefits per mile - about one-sixth the per-mile annual benefits created by the filling identified gaps scenario. It will take approximately 50 years for the health, environmental, and transportation benefits to exceed the costs of building the Network Expansion Opportunities.

This is primarily due to the fact that fewer people and destinations are in close proximity to this group of trails relative to the priority gaps.

While the return on investment for the network expansion opportunities is not as high compared to filling priority gaps, valid reasons remain to plan for and build at least some of the trails in this group, including social, health, and geographic trail equity; to meet the critical need for active transportation and recreation in the region's outlying counties; and to connect the regional trail system to unique natural assets.

The region should view the network expansion opportunities as a long-term vision, and should be opportunistic about building trails that

will expand the network beyond the core hub-and-spoke system identified in the Regional Trail System Concept.

Constructing Network Expansion Opportunities

LENGTH: 515 miles

COST: \$518.6 million

BENEFITS:
Up to \$10.3 million annually

ESTIMATED PER MILE BENEFITS:
Up to \$20,000 annually

YEARS TO BREAK EVEN:
About 50

NETWORK EXPANSION OPPORTUNITIES

 Network Expansion Opportunity

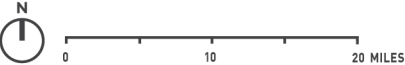
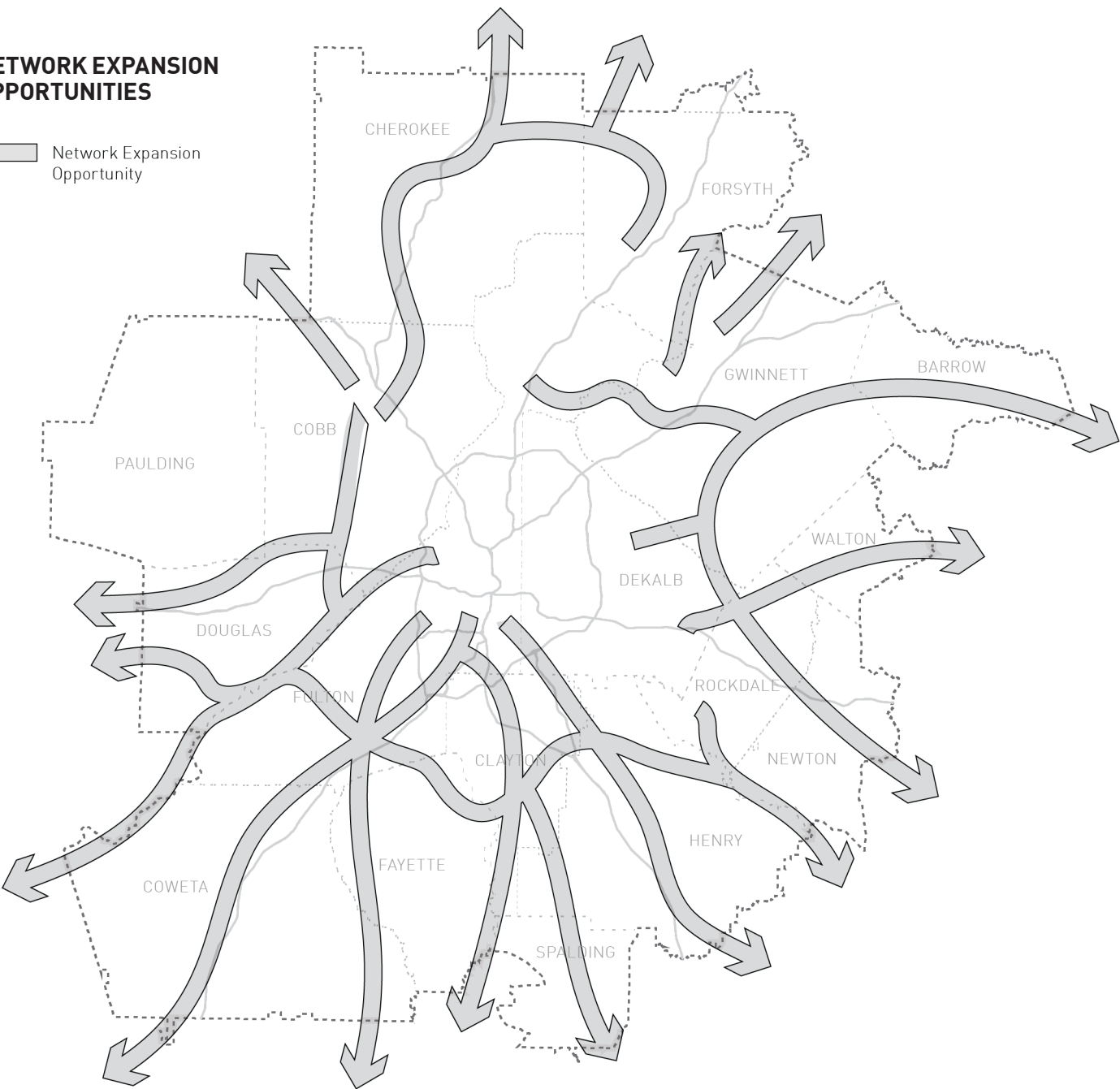




Photo: Carrollton Greenbelt, Tracie Sanchez

SCENARIO 3

FULL SYSTEM BUILD OUT

A full system build out totals 586 miles in length, will cost about \$590 million to construct, and is expected to generate up to \$21.6 million in annual health, environmental, and transportation benefits.

The cost-benefit ratio of this scenario falls between scenarios 1 and 2. A full system build out will generate up to \$37 million in benefits for every mile of trail constructed, and the health, environmental, and transportation benefits will start to exceed the costs in approximately 27 years.

\$590 million may sound like a lot of money, and it is. But it can be helpful to put this number in context. As a reference point for strategic regional investments, the ARC's Livable Centers Initiative program commits \$500 million to regional activity center transportation projects and the SR400/I-85 interchange project is expected to cost approximately \$800 million. The regional trail network investment is consistent with these and other regional transportation strategies.

Full System Build Out

LENGTH: 586 miles

COST: \$590.1 million

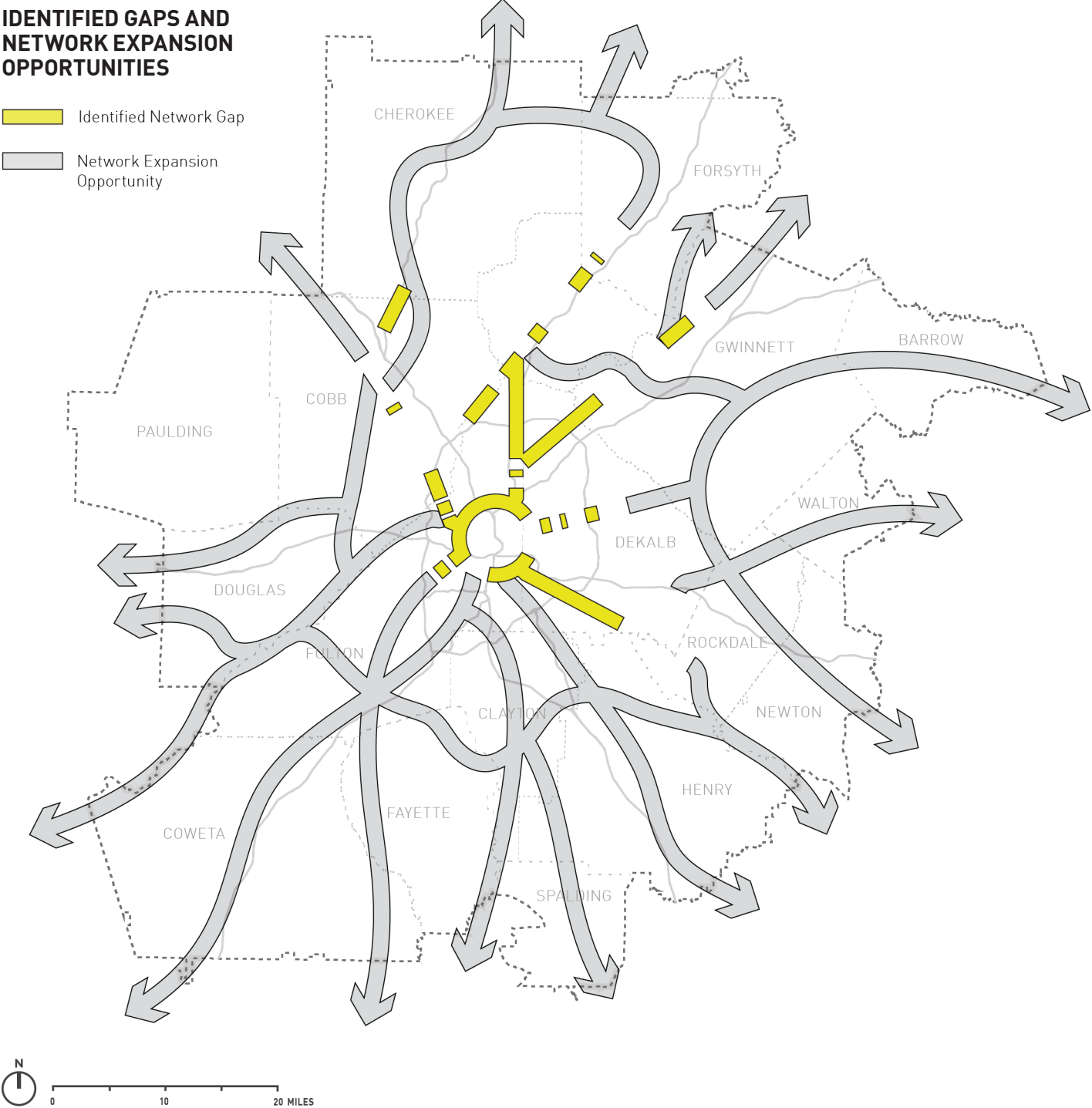
BENEFITS:
Up to \$21.6 million annually

ESTIMATED PER MILE BENEFITS:
Up to \$37,000 annually

YEARS TO BREAK EVEN:
About 27

IDENTIFIED GAPS AND NETWORK EXPANSION OPPORTUNITIES

- Identified Network Gap
- Network Expansion Opportunity



A teal-tinted photograph of a forest path. The path is a light-colored, paved or dirt trail that curves from the bottom right towards the center of the frame. It is bordered on the left by a dense forest of tall trees with thick canopies. The ground is covered in grass and fallen leaves. The overall atmosphere is serene and natural.

IMPLEMENTATION







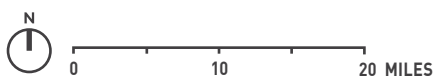
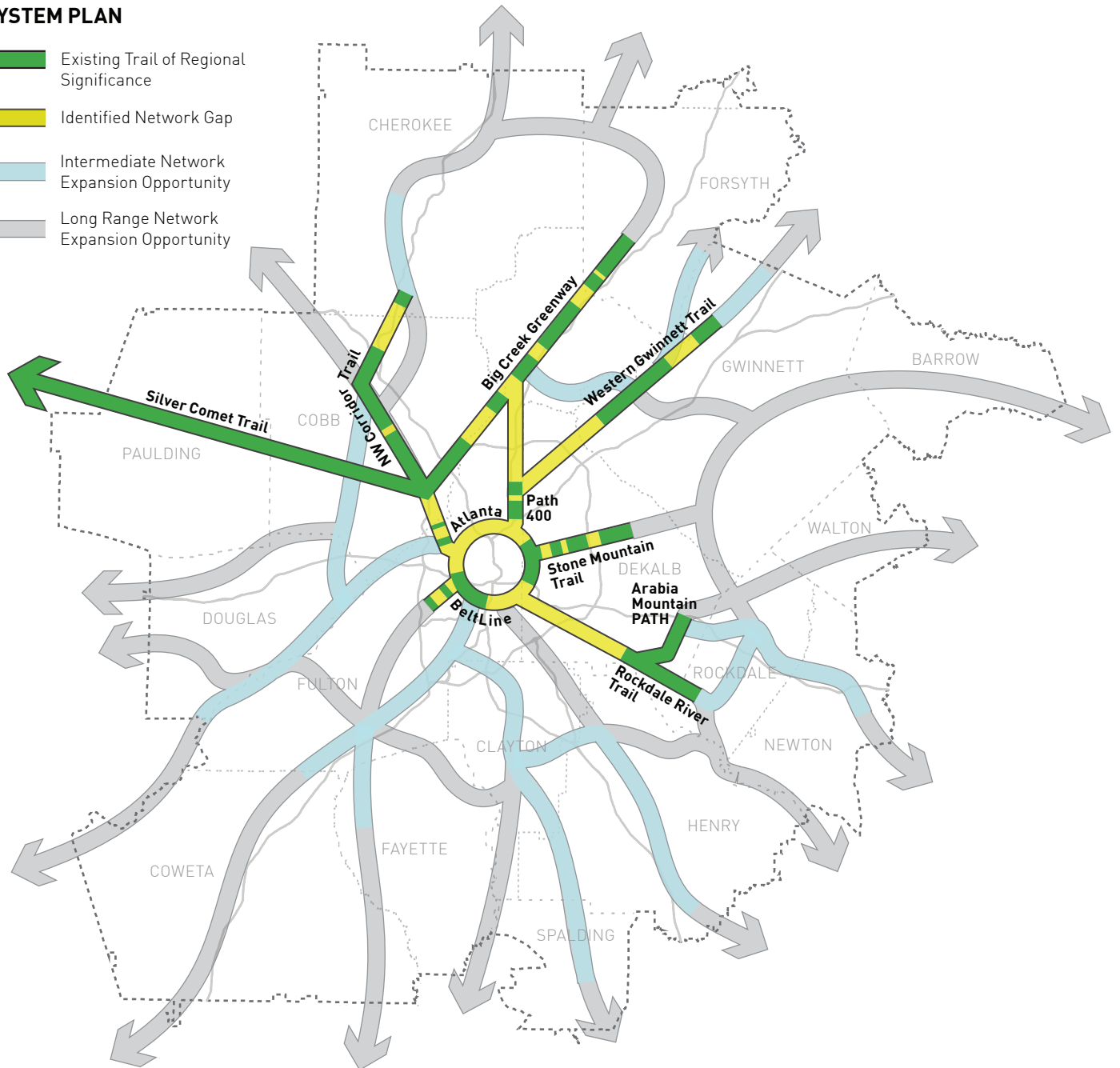
IMPLEMENTING THE REGIONAL TRAIL SYSTEM

How will the Atlanta Regional Commission advance the regional trail network?

- Regional Trail System Plan
- Funding
- Scoping Studies to Support Network Expansion
- Project Prioritization
- Design Standards
- Convening & Coordination
- Evaluation

REGIONAL TRAIL SYSTEM PLAN

-  Existing Trail of Regional Significance
-  Identified Network Gap
-  Intermediate Network Expansion Opportunity
-  Long Range Network Expansion Opportunity



REGIONAL FRAMEWORK FOR ADVANCING A REGIONAL TRAIL NETWORK

This report expands the vision for a regional trail network by establishing the regional benefits of connected trails, the potential costs of a regional network, and policy priorities for funding a network in a strategic and cost-effective manner.

To evolve the vision established in *Walk. Bike. Thrive!*, ARC worked with metro Atlanta jurisdictions to review current Comprehensive Transportation Plans (CTP), greenway trail and Livable Center Initiative (LCI) plans, and other adopted local plans to identify key corridors where Network Expansion Opportunities overlap with adopted local trail projects. Based on this scan the Network Expansion Opportunities established in *Walk. Bike. Thrive!* have been divided into intermediate and long-range opportunities.

The Regional Trail Implementation Plan map on page 58 establishes ARC's priorities for closing current gaps in the Regional Trail Network and strategically expanding the network along regionally-significant corridors in conjunction with local plans.

REGIONAL TRAIL SYSTEM PLAN

ARC's Regional Trail System Plan identifies existing trails, current network gaps, and key network expansion opportunities that will assist ARC's goal of building a comprehensive regional trail system.

- **Existing** – built and open to traffic; may require further evaluation through traffic, safety, or economic-impact studies to monitor ongoing progress or address future needs.
- **Identified Network Gaps** – current high-priority gaps in the regional trail network, connecting Trails of Regional Significance; can be open for travel or funded for scoping or construction within 5 years.
- **Intermediate Network Expansion Opportunities** – strategic locations or opportunities to expand the regional trail network but typically needing additional study or planning to determine feasibility, costs, and schedule; can be funded for planning, scoping, or construction or potentially open for travel within the next 10 years.
- **Long-Range Network Expansion Opportunities** – corridors that satisfy cursory scans for trail corridors and should be examined for long-range potential; need to be included in future transportation or greenway plans but not currently in development.

The Regional Trail Implementation Plan is maintained in conjunction with local partners. Changes or additions are accepted where corridors have a completed trail corridor or feasibility study demonstrating how the corridor meets ARC's project prioritization criteria (on page 64).



FUNDING

The Atlanta Regional Commission serves as the federally-designated Metropolitan Planning Organization (MPO) for the Atlanta region and makes important determinations about how flexible federal transportation funds are used across 20 counties. Considering the region's historic under-investment in walking and bicycling, ARC will work to maximize the use of flexible funds to bring the regional transportation system back into balance. In order to make the most of these funds, ARC will:

- Work to **increase the share of flexible federal transportation funds that flow to walking and bicycling** infrastructure, including a strong focus on completing the regional trail network
- **Develop a quantitative scoring criteria for submitted walking and bicycling projects**—including regional trails—based on the factors identified in *Walk. Bike. Thrive!*

ARC prioritizes and distributes federal transportation funding through the Regional Transportation Plan (RTP) and Transportation Improvement

Program (TIP). As part of updates to these documents, ARC leads project selection processes through which projects that meet regional goals and policy objectives become preferred candidates for limited regional funding. ARC also provides separate project funding and grant assistance for small-area planning through its LCI program.

Total revenue stream for building trails

For the Atlanta region, federal funding trends for walking, biking, and trails are mixed. Over the four Transportation Improvement

Programs (TIP) from 2004–2014, total federal funds for the TIP generally decreased, though the 2016 update to the TIP has seen more growth in available funds. Over that entire period the share of federal funds in each TIP for walking and biking projects have averaged around 4% per TIP.

The cost of a full system build-out of the regional trail network outlined in *Walk.Bike.Thrive!* is about \$600 million – roughly comparable to the amount of federal funds in one six-year TIP for the metro Atlanta region. Filling all priority gaps in the system would cost much less – about \$72 million.

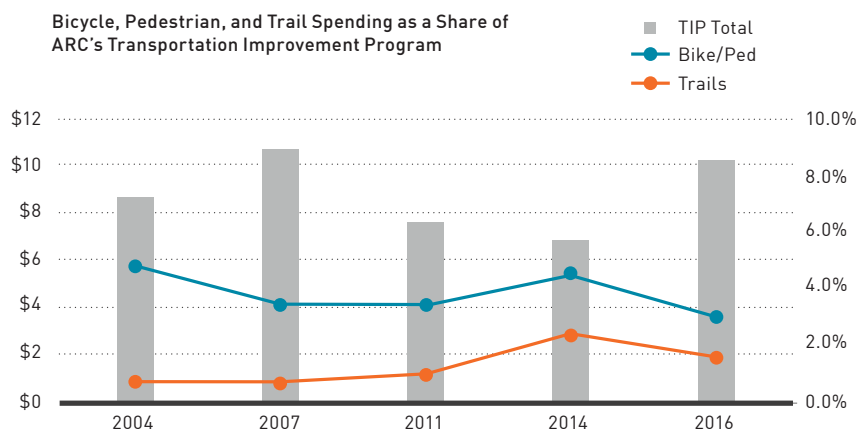




Photo: Arabia Mountain Path, Mera Cardenas

Federal, state, local, and private funding

The Atlanta Regional Commission distributes federal transportation funds from multiple funding programs under the FAST Act to transportation projects in metropolitan Atlanta. The Transportation Alternatives Program (TAP) has been the primary source for trail projects under recent federal funding cycles and is anticipated to continue at roughly \$7m per year through 2020.

Other federal transportation funds are flexible in regard to funding trails, with Surface Transportation Block Grant Program funds being the largest and most flexible. Congestion Mitigation & Air Quality funds are also available for trails, though federal law requires stricter demonstrations

of project impacts on mitigating congestion or reducing air pollution. ARC will continue to use federal funds as necessary to support eligible projects that advance the regional trail network.

Split between planning, scoping, and construction

Trail projects are often small in scope and budget, but complex in their right-of-way, environmental, and community coordination components. ARC recognizes these challenges and the need to build a multi-year pipeline of projects to develop “shovel ready” segments for construction funds.

ARC will divide federal funding between construction projects and advancing the planning of future

segments. Locations along regional trail corridors without identified projects will be prioritized for scoping studies to advance local projects and anticipate future expansion of the Regional Trail Network.

Some trail projects may not warrant the use of federal funding and can be built less expensively and more quickly with local or private funding. ARC recognizes many of those segments may be critical to completing a regional trail network and will help convene stakeholders and develop strategies to advance planning, funding, and completion of those segments.



SCOPING STUDIES TO SUPPORT NETWORK EXPANSION

Scoping studies can be a critical step between a “line on a map” included in transportation plans and detailed engineering feasibility studies or federal funding applications. The general steps of a scoping study should be:

- **Jurisdiction & Agency Coordination**
 - The trail project sponsor should meet with appropriate staff from affected or involved agencies to discuss the proposed project concept, alternatives, and impacts; define agency roles and responsibilities; discuss the collaboration and public involvement process needed; and to reconfirm funding match commitments and schedule.
- **Project Schedule** – A schedule should identify major milestones for tasks and deliverables, approximate completion dates, and participation needs for public involvement, stakeholder committees, or other necessary outreach activities.
- **Impact Analysis** – An initial impact analysis should be completed to ensure feasibility as project concept alternatives are evaluated and finalized. This analysis will include considerations for other transportation projects or developments (underway or proposed) in the vicinity; inter-jurisdictional coordination needs; project location concerns such as environmental or historical impacts, utilities, or property values if right-of-way is needed; and any organized opposition.
- **Scoping Phase Project Overview** – Present the final concept alternative chosen and provide documentation supporting project feasibility and cost.



Among the many benefits of trails, they provide opportunities for people to connect with nature.

PROJECT PRIORITIZATION

ARC recognizes the need to close existing gaps between Regional Trails, such as the Silver Comet Trail and the Beltline, as well as expand the network of regional trails into every county in the region.

First, ARC will focus on **increasing the connectivity of the regional trail system by filling identified network gaps**. Trails of Regional Significance form a regional hub-and-spoke type of system that, when completed, will connect all four quadrants of the region to the core and form a “walking and biking highway system” for active transportation. Giving priority to trail projects that connect to existing Trails of Regional Significance is grounded in the cost-benefit analysis contained in this report: **filling priority gaps in the system will generate greater benefits at a lower cost**.

Second, ARC will be opportunistic and strategic with respect to expanding

the existing system beyond its current extent. ARC is uniquely positioned to facilitate inter-jurisdictional trail planning and implementation through convening and technical assistance. If the opportunity to develop additional

regionally significant trails arises along a particular corridor or in a specific part of the region, ARC will work to support implementation of the proposed trail.

Regional Trail Score Card

ARC will **develop a location-based project scoring card for submitted trail projects** that includes the following factors to prioritize and identify trails of regional significance:

- ☐ Does the project assist with meeting the goal of having at least one regionally significant trail in every county in the region?
- ☐ Does the project improve trail access to or within at Equitable Target Area?
- ☐ Does the project connect to an existing Trail of Regional Significance?
- ☐ Does the project connect to an Activity Center or High Demand Area?
- ☐ Does the project connect to a federal, state, or local park?

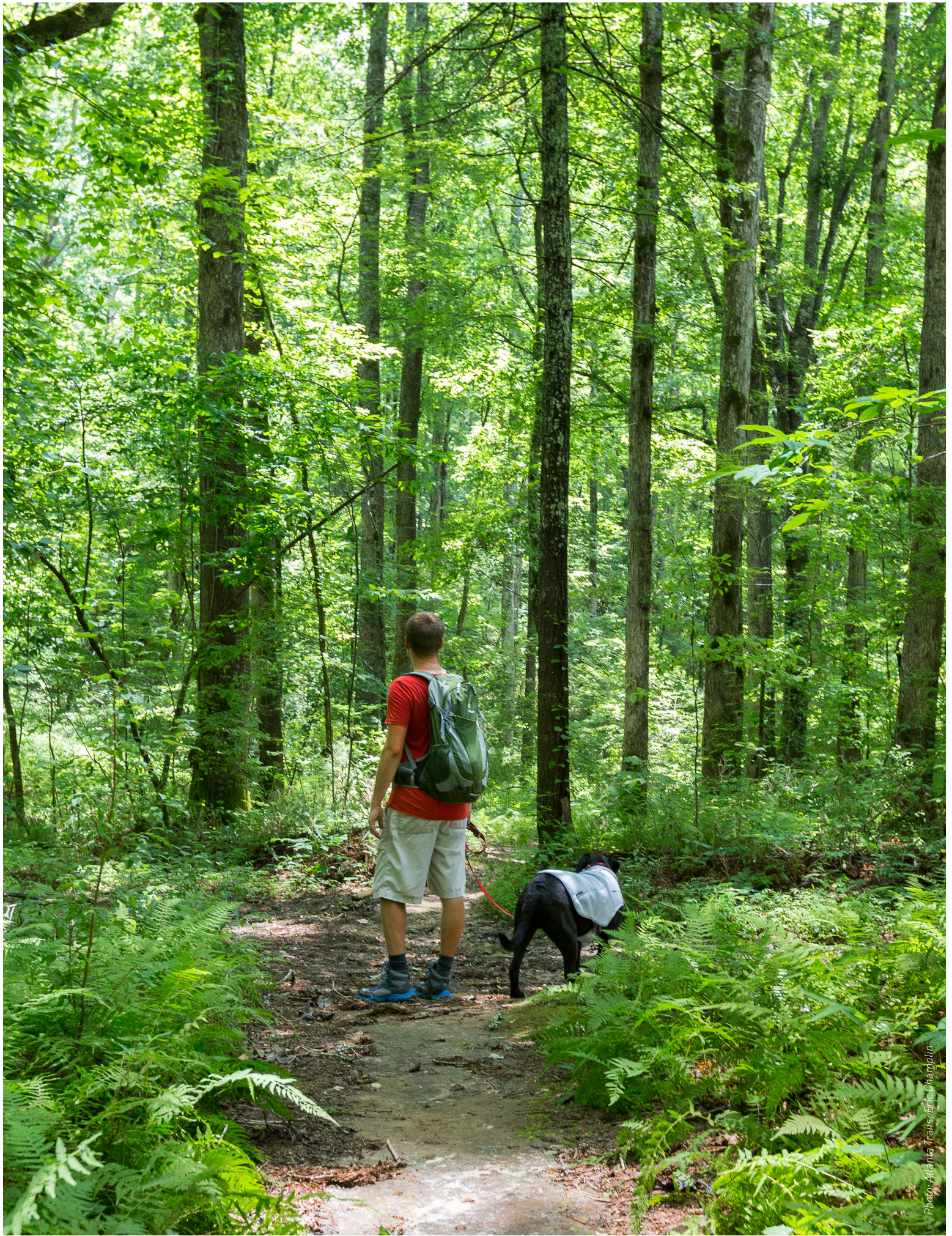


DESIGN STANDARDS FOR REGIONAL TRAILS

Regional Trails should:

- Be at least 12 feet wide to allow for comfortable passing even when users in the opposite direction are walking or biking two-abreast, and wider in dense areas where demand is likely to be high.
- Meet or exceed guidance put forth in AASHTO's *Guide for the Development of Bicycle Facilities* for physical separation from the roadway if built as a "sidepath".
- Include wayfinding signage that provides information about popular destinations.
- Provide safe, convenient crossings that minimize delay and out-of-direction travel for people walking and bicycling.
- Include support facilities at trailheads and along the route including seating, trash cans, water fountains, bathrooms, bike parking, and/or public art.
- Accommodate the full range of bicycle types, including cargo bikes, tandems, recumbents, tag-along/trailerbikes, and bicycle trailers.

**REGIONAL TRAILS
RECEIVING
FUNDING FROM ARC
WILL BE BUILT TO A
HIGH STANDARD**



Trails as Superhighways

Many metropolitan regions around the world are beginning to cast their regional trail networks as “bicycle superhighways”. The concept is a direct acknowledgement of the transportation and mobility roles that trail facilities can serve when they provide connections throughout a metro region.

The Capital Region of Denmark, the metropolitan area surrounding Copenhagen, calls their network “Supercykelstier”, or Cycle Superhighways. The routes, existing and in progress, will span 467 km (290 mi) and average 17-22 km (10-13 mi) outside the city. Routes follow regional transit lines or major roadways and

use existing infrastructure where available.

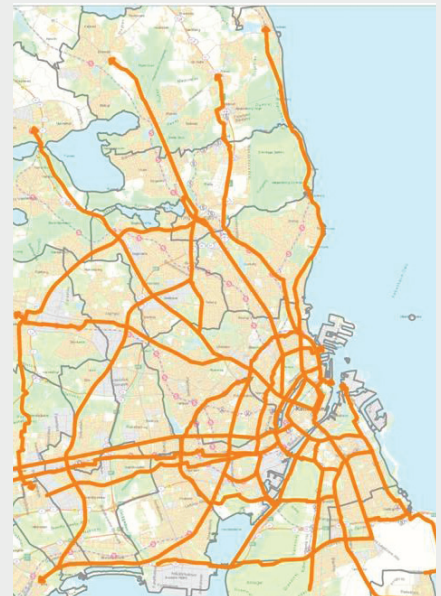
The goal of the system is to “attract more cycle commuters” and routes are selected that meet the following criteria:

- Prioritizes bikes before other means of transport whenever possible;
- Follows the optimum line as closely as possible;
- Connects and crosses through municipalities;
- Has a high and uniform quality throughout the route.

In regions where half of all trips are by bicycle or those with relatively few active commute trips, building a connected, comfortable, and direct system can positively impact commute trips, improve health, and reduce congestion.

Other world-class cities and metro regions pursuing similar networks are:

- London, UK
- Paris, France
- Oslo, Norway
- Munich and Berlin, Germany
- Dallas, Texas



Source: “Cycle Superhighways”, Capital Region of Denmark, May 2014

CONVENING & COORDINATION

Trails in metro Atlanta have historically been developed in short fragments without consideration for connecting to the larger region. Trails of regional significance, such as the Beltline and Silver Comet, have changed the focus of dialogue to filling in the gaps.

Creating a cohesive trail system will require communication between many agencies, city officials, and property owners to identify gaps and acquire right of way. The Atlanta Regional Commission can host regional conversations and provide assistance to local municipalities interested in developing or expanding an existing trail within a regional framework. Convening stakeholders, facilitating meetings, coordinating site visits, preparing research and planning materials, and documenting ongoing efforts and regional gaps can all help advance a regional trail system.

Regional Trails Taskforce

Developing a regional trail network will require communication, coordination, and consensus amongst agencies and elected officials. The Atlanta Regional Commission

hosted a Regional Trails Taskforce comprised of ARC board members from July 2016 to January 2017, with the intention of incorporating elected official input into this Regional Trail Report. The agency can continue hosting a regional trail taskforce with elected officials, partner agencies, and community groups.

Trail Corridor Taskforces

Many trail efforts may need a dedicated team of local champions to advance specific segments or cultivate a local vision for future corridors. These groups could be formed as “Gap Closure Taskforce” or a “New Trail Taskforce” and be comprised of community members, elected officials, regional or state agencies, and local property owners. ARC can host, facilitate, or provide technical support to these groups as they develop the resources needed to develop new trail projects.

Regional Trail Forums

A regional trail network will take a lot of time, energy, and enthusiasm from participants from across metropolitan Atlanta. ARC can host an annual or every-other-year

Regional Trail Forum to bring together trail funders, community members, elected officials, and national leaders. The forum can highlight best-practices from across the region and nation, provide education on trail planning and design, and help community members and elected officials get networked on trail opportunities.

Regional Collaboration

ARC collaborates with a wide range of programs and stakeholders through our many agency roles. Natural resource protection and green infrastructure programs such as Proctor Creek offer a natural linkage to trail development to increase access to corridors and provide new transportation options. Economic development projects such as the Aerotropolis Alliance offer opportunities to use trails for job access, tourism, and community development. ARC will continue to look for regional projects where trails can be incorporated and used to support multiple outcomes for transportation, development, and the environment across the region.



EVALUATION

Regional Trail Performance Measures

Performance measures are critical for evaluating the long-term performance of the regional trail network. Some measures should be process oriented – amount of effort going to trail development and building – and some should be outcome oriented – number of people using trails, proportion of people with convenient access to trails, and trail access by disadvantaged communities.

Long-term data can help regional and local decision-makers understand where improvements need to be made, where future expansion corridors should be prioritized, and how trails are positively contributing to the region.

ARC will use the following measures to evaluate progress on regional trails:

- Number of trail miles constructed per year
- Amount of funding allocated to trails in the TIP per year
- Number of trail scoping studies per year
- Percentage of identified gaps with current scoping studies
- Trail use per month
- Percent of people that live within a 5-minute walk or bike ride of a trail
- Percent of people that work within a 5-minute walk or bike ride of a trail

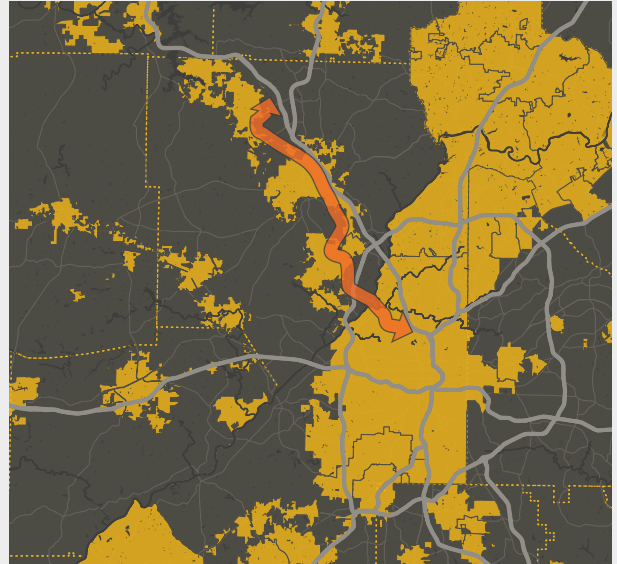
MAKE THE RIGHT DECISION AT THE RIGHT SCALE

Region, County, and City

Projects must have a clear and broadly-accepted vision at the largest of geographic scales and in many cases may originate in a parks and recreation plan or an active transportation plan. These project definitions often only include a conceptual level of design detail and a general level of stakeholder involvement and participation, but they involve public discussion that is critical to projects moving forward.

FACTORS TO CONSIDER

- Need for intergovernmental or inter-agency coordination to develop a common project understand and implementation strategy
- Engagement—or likelihood—of project ‘champions’ or advocates who constitute a link between planning concept and public acceptance
- Key institutional and government objectives that project should help to meet
- Differences in local policy or legislation that may mean differences in design along a project’s length



Neighborhood and Corridor

It is critical at this scale for projects to understand barriers and potential opportunities for resource-sharing. There is also likely to be a basic idea, or at least a set of options, for specific alignments of bicycle and pedestrian routes or specific points for improvements to be made.

FACTORS TO CONSIDER

- Physical constraints such as topography, infrastructure, and natural features
- Capital project plans or public programs already making infrastructure investments to which bike and pedestrian elements might be added

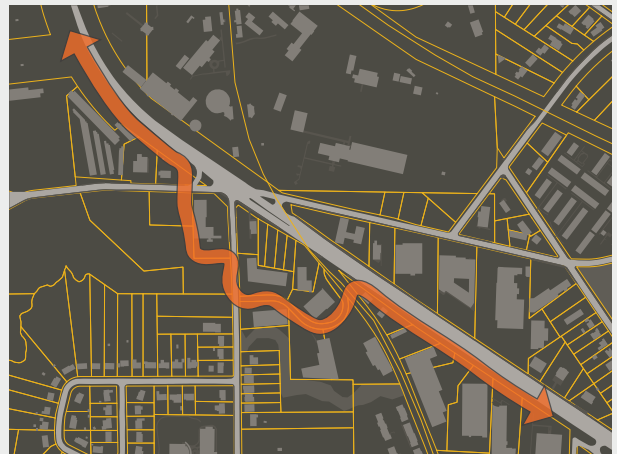


Street and Block

This is the scale where facility design is most important as specific details of the built environment affect basic safety and comfort of cyclists and pedestrians. This is also where partnerships and agreements (such as easements) have a more specific bearing on the alignment of a project and the ways it navigates the built environment.

FACTORS TO CONSIDER

- Potential locations of easements, right-of-way to acquire or public land to share
- Existing and planned street design, capital projects, and private development activity



LOCAL FRAMEWORK FOR ADVANCING A REGIONAL TRAIL NETWORK



PARTICIPATING IN REGIONAL TRAIL CONVERSATIONS

Many trail segments may meet both regional and local connectivity needs. As ARC and regional trail stakeholders continue to develop a Regional Trail Network, communication and coordination are important for advancing both regional and local goals.



PLANNING & PROJECT IDENTIFICATION

Identifying regionally significant trail projects in local comprehensive transportation plans and/or stand-alone trail master plans is the first step towards understanding connections to both local and regional destinations. From a comprehensive scan of local trail opportunities, key regionally significant projects can be identified for further development.



PROJECT DEVELOPMENT & SCOPING

Projects that are well developed and have a scoping or concept report are better positioned to be competitive for federal funding. Scoping studies should examine opportunities, alternatives, potential risks, project costs, and other factors to advance the project prior to engineering design.



FUNDING

ARC programs federal funding for trail projects but local funding sources may often be more effective on short or small-scope projects. See pages 77-79 of *Walk.Bike.Thrive!* Part 1 for additional guidance on when to consider tapping various kinds of funding for a given project type.



ADOPTING SUPPORTIVE POLICIES

Local ordinances can be critical for positioning future investments or projects for success. Roadway ordinances such as complete streets can expand a local bikeway to support trails and access to destinations. Vision Zero policies can provide evaluation for areas of concern for safety. Other local policies outlined in *Walk.Bike.Thrive!* can position communities as livable destinations along trail corridors.



EVALUATING OUTCOMES

Long-term evaluation of local projects can justify investments, help plan for future trail corridor expansions, or identify areas of concern along existing corridors. Local communities should, at a minimum, monitor trail miles, dollars spent, numbers of trips, safety concerns, and user feedback. See pages 71-75 of *Walk.Bike.Thrive!* Part 1 for more information on evaluation.

