



OVERMOUNTAIN VICTORY NATIONAL HISTORIC TRAIL MASTER PLAN



LAKE JAMES » MORGANTON

SUMMER 2015

"THE LANDOWNER IS THE ONLY PERSON THAT CAN
ACTUALLY GIVE THIS GIFT FOR THE REST OF ETERNITY."

– JUDY PERRY, OVNHT TRAIL ENTHUSIAST



LAKE JAMES >> MORGANTON

PRODUCED FOR

US National Park Service

Burke County

City of Morganton

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INTRODUCTION

THE OVERMOUNTAIN VICTORY NATIONAL HISTORIC TRAIL IS 330 MILES IN LENGTH AND INCLUDES PORTIONS OF VIRGINIA, TENNESSEE, NORTH CAROLINA AND SOUTH CAROLINA. THE TRAIL COMMEMORATES THE SIGNIFICANCE OF THE PATRIOT MILITIA THAT MARCHED OVER THE APPALACHIAN MOUNTAINS TO DEFEAT THE BRITISH-LED LOYALIST ARMY AT THE BATTLE OF KINGS MOUNTAIN ON OCTOBER 8, 1780.

THIS TRAIL MASTER PLAN SERVES AS A ROAD MAP FOR ESTABLISHING A SECTION OF THE OVERMOUNTAIN VICTORY NATIONAL HISTORIC TRAIL (OVNHT) IN NORTH CAROLINA FROM LAKE JAMES TO THE CITY OF MORGANTON.

INTRODUCTION

BACKGROUND

In 2014, Burke County successfully secured partnership funds from the National Park Service (NPS) and provided additional funding to develop a comprehensive trail master plan for the Catawba River corridor from Lake James to Morganton. The NPS willingly provided funding for this trail initiative because it was along this corridor that in 1780 the “Overmountain Men” marched on their way to the Battle of Kings Mountain where they defeated a British led army to “turn the tide” of the Revolutionary War. It is expected that trail developed along this corridor with permanent protection measures in place (easements, fee simple, right of way, etc) will be certified by the NPS as part of the Overmountain Victory National Historic Trail.

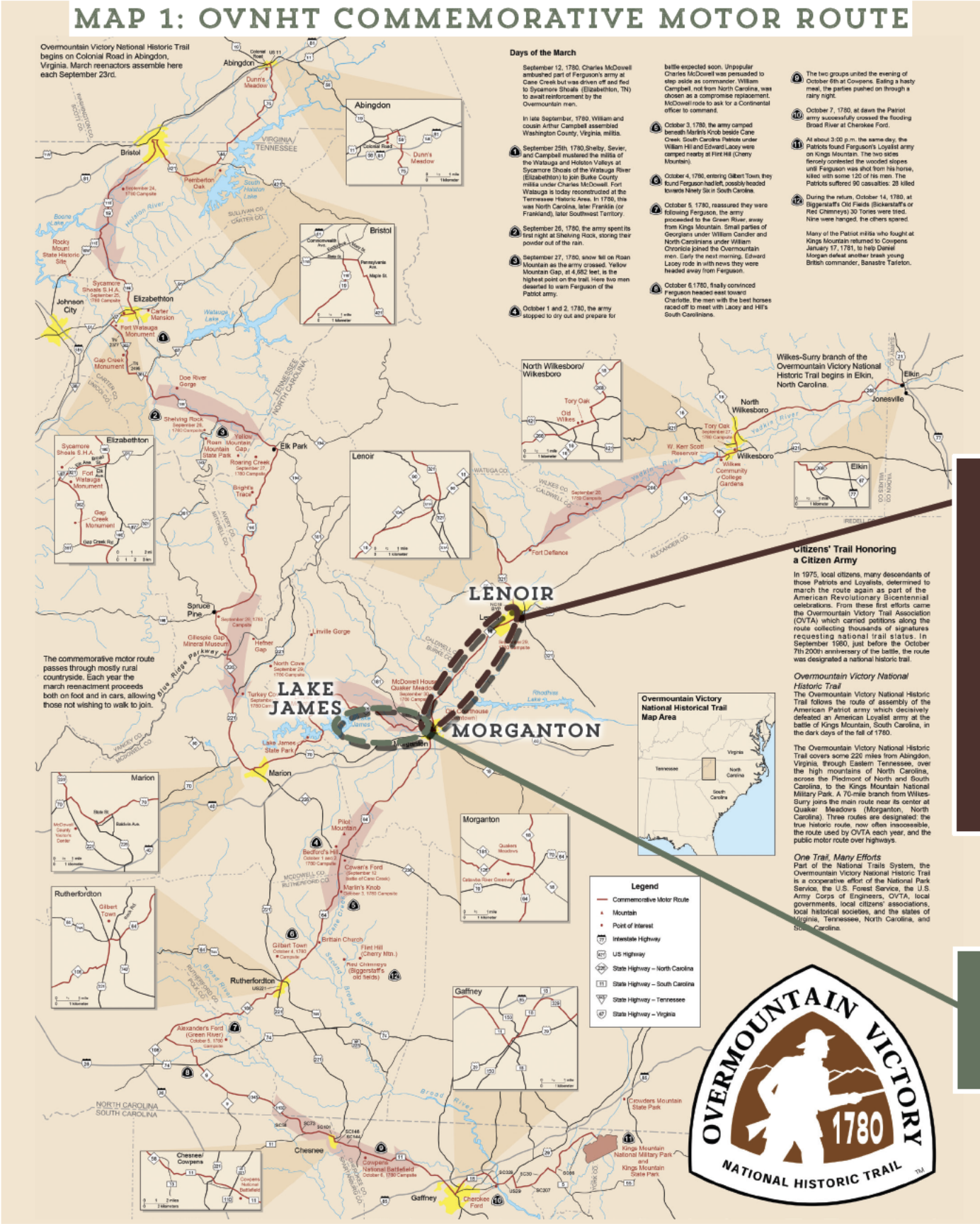
To be certified as part of the Overmountain Victory National Historic Trail, the trail segment must be constructed within one-half mile of the historic route taken by the patriots. Ongoing research, including segments of the Yellow Mountain Road, continue to be explored as additional routes possibly used by some Overmountain Men, yet are not recognized as part of the official historic route as determined by the congressionally appointed advisory committee, therefore not eligible for certification. For the purposes of this plan, the study area recognizes the current NPS designated historic route and extends one-half mile on either side of the Catawba River.

BURKE COUNTY AND MORGANTON: A HISTORY OF TRAIL DEVELOPMENT

Since the creation of the Lake James State Park in 2004, the North Carolina Division of Parks and Recreation has worked to create and expands its trail network throughout the park. Burke County officials, aware of the quality of life benefits and economic impact associated with trail development, have also become immersed in the creation of a trail system – the Fonta Flora Trail – to loop the whole of Lake James. This trail is being spearheaded by Burke County leadership, but will ultimately become part of the NC park system.

The City of Morganton has worked for more than two decades to create a greenway system that parallels the Catawba River. The Catawba River Greenway now extends nearly four miles and connects many of the City’s parks, schools, and business areas.

Portions of the trail systems at both Lake James and within the City of Morganton are certified as part of the Overmountain Victory National Historic Trail. This plan strives to unify the OVNHT along the Catawba River corridor.



THE SISTER PLAN

This trail plan was developed in conjunction with another Overmountain Victory National Historic Trail master plan that extends along the Lower Creek Corridor from Lenoir to Morganton. Although two separate plans were developed, the planning process was combined for the complete corridor from Lake James to Morganton to

THIS PLAN'S STUDY AREA

This trail section spans from Lake James to Morganton.

PLAN GOALS



A CRITICAL
COMPONENT OF
THIS PLAN WAS
LANDOWNER
OUTREACH.

- 1 Specific Trail Routes.** Identify a specific and feasible trail route within a 1/2 mile of the known historic Overmountain Victory National Historic Trail as determined by NPS;
- 2 Landowner Outreach.** Make a direct appeal to landowners identified during the analysis and record their sentiments for providing a trail easement;
- 3 Visual Plan.** Create a visual plan that provides renderings and schematics to demonstrate trail character;

- 4 Support Other Community Goals.** Identify opportunities to leverage trail development to further support other community goals, including economic development, historic preservation, public health, and environmental stewardship; and
- 5 Social Media.** Incorporate modern social media marketing tools within the trail and signage infrastructure to promote the development of “user generated” marketing content.

PLANNING PROCESS

1. Direction Setting and Project Launch | September 2014

The consultant team met with local trail and government leaders to discuss general environmental constraints and opportunities for trail connectivity.

2. Research | October - January 2015

The consultant team conducted a thorough environmental site analysis of the study area and determined feasible trail route options. With the trail routes identified, a landowner contact list was developed.

3. Landowner Outreach | February - March 2015

Landowners with property along an identified feasible trail route were invited to a special meeting to learn more

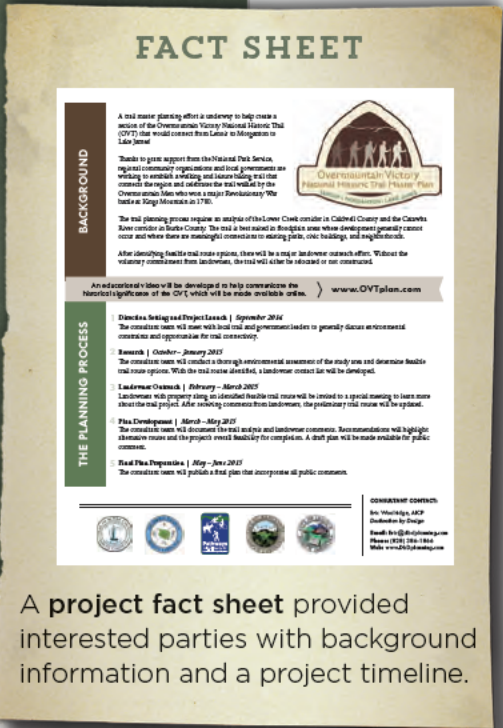
about the trail project. After receiving comments from landowners, the preliminary trail routes were revised accordingly.

4. Plan Development | March - May 2015

The consultant team worked in tandem with local leaders to develop a preferred trail alignment. Renderings and schematics were provided to visually support the trail recommendations.

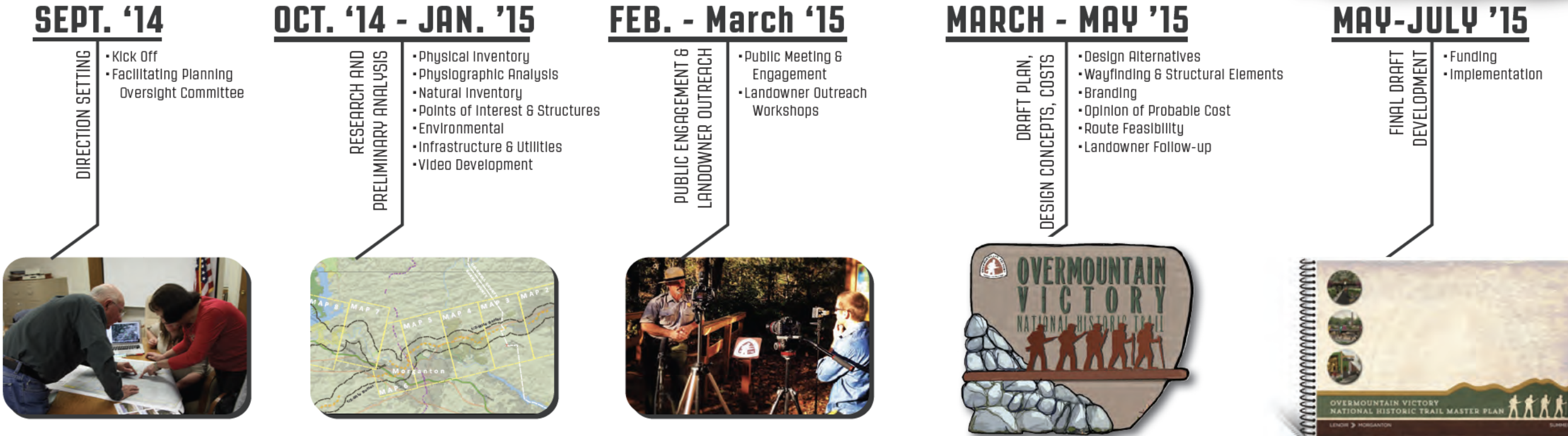
5. Final Plan Preparation | May - July 2015

Publish the Final Plan for review by the public and elected officials.



A project fact sheet provided interested parties with background information and a project timeline.

PROJECT TIMELINE



PLAN ORGANIZATION



CHAPTER I.

EXISTING CONDITIONS, ANALYSIS, AND PRELIMINARY ALIGNMENTS

This chapter provides a comprehensive overview and analysis of the opportunities and constraints found throughout the study area. The analysis begins with a brief description of the study area followed by a comprehensive discussion of the natural and built environments and their implications for trail suitability, trail design features, permitting, costs, etc. This chapter concludes with a map and photographic series that highlights a host of preliminary trail route alternatives.



CHAPTER II.

LANDOWNER ENGAGEMENT

Significant efforts were made to reach out to landowners where the preliminary analysis indicates that the trail is most suitable. This chapter describes the landowner outreach process and provides highlights from the landowner workshop meetings.



CHAPTER III.

TRAIL CHARACTER AND DESIGN GUIDELINES

This chapter is dedicated to visually defining the various trail types to be used throughout the corridor. Also, design concepts are provided for trail user orientation signage, mile markers, historic markers, and other trail support facilities. Social Media is explored as a mechanism for trail promotion and marketing.



CHAPTER IV.

RECOMMENDATIONS

The final chapter is organized according to four (4) planning sections. Each planning section description includes a map that identifies a preferred alignment. Each planning section further incorporates the analysis and design elements from the previous chapters along with a host of supporting renderings and design schematics.



CHAPTER 1

EXISTING CONDITIONS, ANALYSIS, AND PRELIMINARY ALIGNMENTS

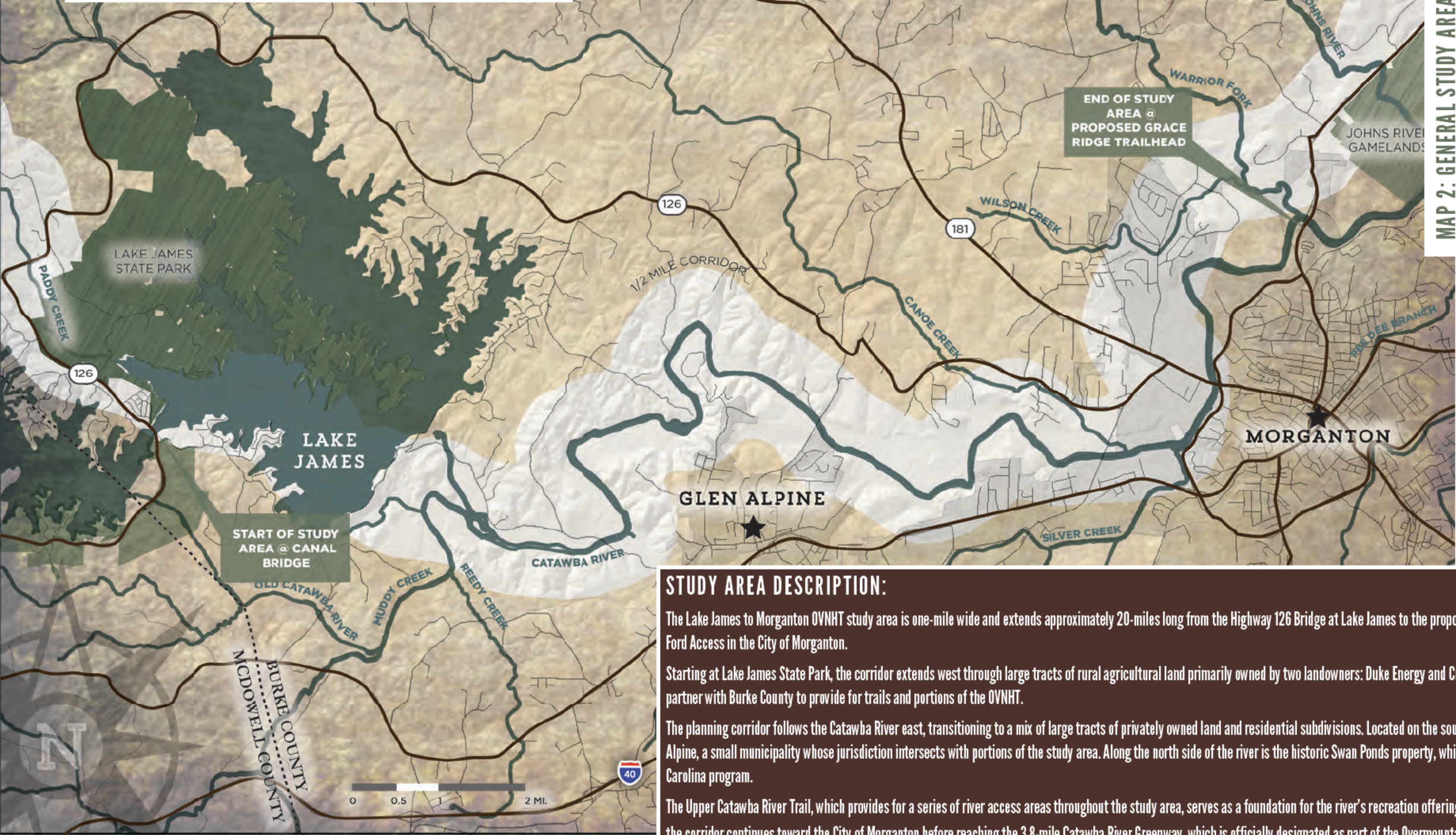
**A COMPREHENSIVE
OVERVIEW AND
ANALYSIS OF THE
OPPORTUNITIES AND
CONSTRAINTS FOUND
THROUGHOUT THE
STUDY AREA.**

The analysis begins with a brief description of the study area followed by a comprehensive discussion of the natural and built environments and their implications for trail suitability, trail design features, permitting, costs, etc. This chapter concludes with a map and photographic series that highlights a host of preliminary trail route alternatives.

IN THIS CHAPTER

- A. Study Area Description
- B. Natural Environment Analysis
- C. Human/Built Environment Analysis
- D. Map, Photo, and Preliminary Trail Route Alternatives

STUDY AREA



STUDY AREA DESCRIPTION:

The Lake James to Morganton OVNHT study area is one-mile wide and extends approximately 20-miles long from the Highway 126 Bridge at Lake James to the proposed Grace Ridge Trailhead near Rocky Ford Access in the City of Morganton.

Starting at Lake James State Park, the corridor extends west through large tracts of rural agricultural land primarily owned by two landowners: Duke Energy and Crescent Resources, which continue to partner with Burke County to provide for trails and portions of the OVNHT.

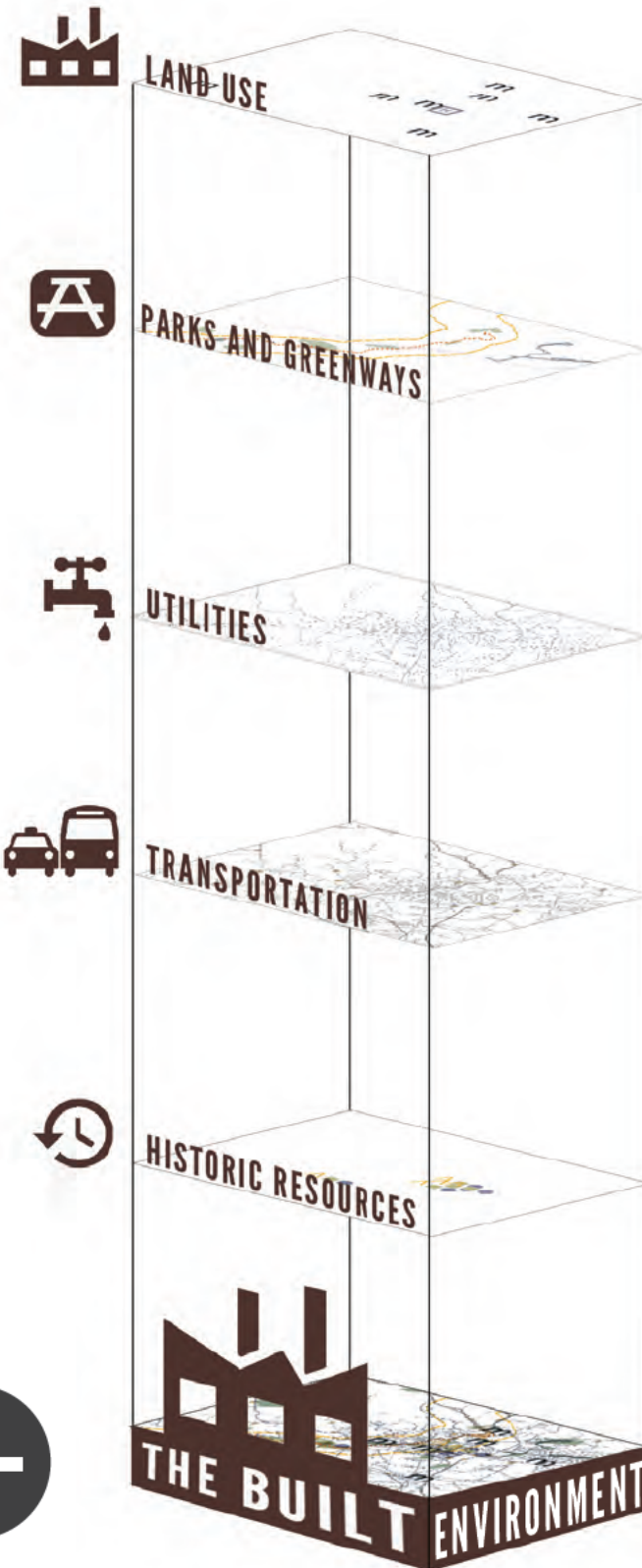
The planning corridor follows the Catawba River east, transitioning to a mix of large tracts of privately owned land and residential subdivisions. Located on the south side of the Catawba River is Glen Alpine, a small municipality whose jurisdiction intersects with portions of the study area. Along the north side of the river is the historic Swan Ponds property, which is part of the Preservation North Carolina program.

The Upper Catawba River Trail, which provides for a series of river access areas throughout the study area, serves as a foundation for the river's recreation offerings. Land parcels become smaller as the corridor continues toward the City of Morganton before reaching the 3.8-mile Catawba River Greenway, which is officially designated as part of the Overmountain Victory National Historic Trail.



THE LAKE JAMES TO MORGANTON OVNHT STUDY AREA IS ONE-MILE WIDE AND EXTENDS APPROXIMATELY 20-MILES LONG FROM THE HIGHWAY 126 BRIDGE AT LAKE JAMES (CANAL BRIDGE) TO THE PROPOSED GRACE RIDGE TRAILHEAD NEAR THE ROCKY FORD ACCESS IN THE CITY OF MORGANTON.

ANALYSIS WORKFLOW



ALTERNATE TRAIL
ROUTES WERE
DETERMINED
BASED ON AN
ANALYSIS OF THE
NATURAL AND BUILT
ENVIRONMENTS.





THE NATURAL ENVIRONMENT

The opportunities and constraints found within the natural environment are critical for determining suitable trail locations and feasibility, ideal user experiences, construction costs, and necessary permits.

This section explores the implications of the study area's natural environment for establishing the Overmountain Victory National Historic Trail from Lake James to Morganton and includes five (5) parts: 1) Floodplains; 2) Wetlands and Hydric Soils; 3) Streams, Lakes, and Ponds; 4) Steep Slopes; and 5) Rare Flora and Fauna.

photo: visitnc.com



“WITHIN THIS STUDY AREA, MUCH OF THE FLOODPLAIN AREAS ALONG THE CATAWBA CREEK CORRIDOR ARE IDEAL FOR GREENWAY DEVELOPMENT.”



FLOODPLAINS

Floodplain areas provide both an opportunity and constraint for trail development. Since traditional development is often not suitable within floodplain areas, private landowners are often more willing to provide access for public trails within these areas. Also, these scenic areas often attract wildlife, which creates an engaging trail experience. Within this study area, much of the floodplain areas along the Catawba Creek corridor are ideal for greenway development.

Although development is regulated within the floodplain, greenways and trails are allowed and can be permitted. Sound trail engineering techniques are necessary to ensure trails can sustain flooding. To the extent possible, greenway alignments should be avoided within the floodway².

² Avoid disturbance in the floodway. Avoid placement of structures or disturbance within the floodway. Floodways are regulated locally and by the Federal Emergency Management Agency (FEMA). Fill, structures (walls, kiosks, etc), and impervious services are discouraged. Any structures located within the floodway require a no-impact/no-rise certification through FEMA. These studies can vary on cost but can range from \$2,500-\$15,000 depending on complexity.



WETLANDS AND HYDRIC SOILS

The study area includes several wetland areas as identified on the National Wetland Inventory (NWI). According to NWI, there are likely smaller wetland areas within the study corridor that are not indicated within their inventory that could impact final trail alignments. Hydric soils in combination with wetland plant species and wetland hydrology are considered indicators of a wetland, which require costly permitting if impacted³.

³ If wetlands are unavoidable, utilize elevated boardwalk systems. Boardwalks allow for travel over flat, poorly draining soils, standing water, and wetland features and have significantly less impact than other options. A section 404 (Clean Water Act) Permit may be required if the wetland is considered jurisdictional by the USACE. This means that the wetland is not isolated and part of a broader lake or water system. A small boardwalk for a non-isolated wetland with limited fill or dredging may qualify for a programmatic Nationwide Permit. Nationwide Permits are designed to streamline the permitting process for actions with limited disturbances. In addition to permitting, disturbances exceeding a tenth (0.1) of an acre would require mitigation which can increase project costs. Impacts under a tenth (0.1) of an acre do not trigger mitigation fees.



STREAMS, LAKES, AND PONDS

The County, State, and Federal government regulate the many waterbodies found throughout the study area⁴. The Catawba River is the dominant waterway within this corridor. Canoe Creek, located to the west of Morganton, is a tributary of the Catawba that serves as a possible trail corridor.

⁴ Maintain a 50-foot buffer from all waterways, particularly those regulated under the Catawba River Buffer Rules. The state requires a 50-foot buffer along the shorelines of Catawba River and associated lakes. Streams within the study area are identified by the State of North Carolina as having poor water quality and maintaining or improving an adequate vegetated buffer is crucial to improving the quality. Zone 1 of this buffer includes an undisturbed 30-foot buffer from top of bank in which trails are discouraged. Zone 2 is an additional 20-foot buffer. This zone allows for managed vegetation and trails and greenways. While trails are an allowable use within Zone 2, the NC Division of Water Quality requires a permit (through DWQ or designated local government). The applicant must show that disturbance has been minimized and no other alternatives exist.



STEEP SLOPES

Much of the corridor has gently rolling topography. The most challenging slopes will be along the banks of the Catawba River near the Glen Alpine area and Lake James. The trail should be designed for grades under 5% slope if possible. Natural surface trails can vary up to 10% slope. In steeper areas, this will be a design challenge. Alignments proposed in this study should be designed with these guidelines and may require a larger corridor to incorporate a more gradual trail grade.



RARE FLORA AND FAUNA

The State Natural Heritage Program provides data identifying the state’s most sensitive environmental areas to be avoided; these areas are incorporated within the analysis map series at the end of this chapter. Also, rare flora and fauna species can also exist outside of these designated areas, which can alter final trail alignments prior to construction. Species identified by the State Natural Heritage Program within this study area as of January 2015 include⁵:



Coordination with the U.S. Fish and Wildlife (USFWS) is an important aspect of the design process. Involving USFWS early on in the process can help avoid potential planning obstacles related to federally protected species. Additionally, permits like Section 401 and 404 (described above in Wetland and Streams) will initiate the review of the State Natural Heritage Program database. If species are found within the project area, State or Federal requirements may dictate avoidance or mitigation.

- A. Dwarf-flowered Heartleaf (see Map 1, found on Duke Energy held lands)
- B. White Trillium (see Map 2 recorded to be in the larger Glen Alpine area)
- C. Carolina Foothills Crayfish and Eastern Creekshell (see Map 3, found along the Catawba)



THE BUILT ENVIRONMENT

The opportunities and constraints found within the built and human environment are critical for determining suitable trail locations and feasibility, ideal user experiences, construction costs, and necessary permits.

This section highlights five (5) built environmental features and their implications for developing the Overmountain Victory Trail from Lake James to Morganton, including: 1) Land Use; 2) Existing Trails and Parks; 3) Utilities; 4) Transportation; and 5) Historic Resources.

photo by others

“THE WESTERN EXTENT OF THE STUDY AREA IS TYPIFIED BY A RURAL WOODED LANDSCAPE WITH LARGE TRACTS OF LAND.”



Western Section

The western extent of the study area is typified by a rural wooded landscape with large tracts of land, many which are owned by Crescent Communities, Duke Energy, NC State Parks, and family trusts. Many of these large tracts are leased as tree and plant nurseries. The fertilization of these crops must be considered when providing for public trails.



Central Section

The central section of the corridor has a mixed of both large tracts and small tracts, many which serve second-home owners. Many of the large landowners have owned their property for multiple generations, while smaller tracts have been purchased for retirement or personal retreats. Throughout the planning process, both of these groups described issues with trash and other problems with the general public and river users. This history serves as a barrier for obtaining trail easements.



The City of Morganton

The City of Morganton and its western edge is typified by single-family residential growth. Dense pockets of land development create a challenge for creating a public trail.



EXISTING PARKS AND GREENWAYS

“BURKE COUNTY AND MORGANTON HAVE A COLLECTION OF PARKS AND GREENWAYS THAT SERVE AS IDEAL LOCATIONS FOR TRAIL CONNECTIONS.”

Burke County and Morganton have a collection of parks and greenways that are ideal for trail connections. Some of these major assets include:



The Proposed Fonta Flora State Trail

The Fonta Flora State Trail will provide for a complete loop around Lake James. This trail was designated in 2015 as an official state trail by the NC General Assembly. Portions of this trail will also serve as certified sections of the OVNHT.



Lake James State Park

This state park is one of the most significant linkages throughout the planning corridor and serves as the western terminus of the study area.



Canal Bridge Public Access

NC State Parks currently manages the Canal Bridge Public Access which is located near the western terminus of the study area. Although the access is a significant asset within the planning corridor, NC Department of Parks and Recreation Administrative Code does not allow any boating access area to serve a dual purpose such as providing for an OVNHT trailhead.



Bridgewater Fishing Access

This public fishing access area and canoe launch is owned by Duke Power, which has plans to further improve the site.



Watermill River Access

This public fishing access area near Glen Alpine is owned by Burke County.



City of Morganton Parks and Greenways

The City has many parks and greenways to connect, such as the Catawba River Greenway, Freedom Park and Greenway, Catawba Meadows Park, Rocky Ford Access, and the Catawba River Soccer Complex.

UTILITIES

The study area has a complex matrix of utilities that include transmission lines, utility towers, water lines, and sewer infrastructure. Both sewer and water lines are indicated on the subsequent map series. However, the maps do not include transmission lines.

Locations where the potential trail alignment intersects with sewer or water lines have been indicated on the map and notes (ie. Canoe Creek). Sewer lines are often compatible with trails since existing easements preclude development. However, the easement will often need to be modified to provide for a public trail.

TRANSPORTATION



The study area analysis including an extensive review of the existing transportation network including the North Carolina Department of Transportation (NCDOT) right-of-way (ROW), NCDOT plans, existing bike and pedestrian infrastructure (crosswalks, bike lanes, etc.), railways, and existing greenways.

NCDOT's right-of-way was analyzed for the ability to accommodate a trail alignment or accommodate a widened shoulder. These opportunities are shown on the Site Analysis Maps with corresponding opportunities and constraints notes.

Norfolk Southern has an operational rail on south side of the Catawba River. If this rail were to ever become abandoned, a significant opportunity would exist to establish a considerable section of trail. The right-of-way and adjacent lands were analyzed as a potential future route, as illustrated in the maps and notes.



HISTORIC RESOURCES

“THE OVNHT SHOULD LINK, PRESERVE, AND INTERPRET HISTORIC AND CULTURAL SITES ALONG ITS ROUTE.”

The Overmountain Victory National Historic Trail Route and Buffer

The original Overmountain Victory National Historic Trail (OVNHT) route was identified by a National Parks Service research team. The team relied on the 1881 account of the march, which has been amended by local historians, descendent of battle participants, and other sources. As part of this congressionally designated trail, any officially designated portion of the OVNHT must lie within a one-mile corridor (half-mile on either side) of the historic route.

Sensitive Cultural Resource Areas

Culturally sensitive resource areas have been mapped based on input from the NC State Historic Preservation Office (SHPO). The majority of these areas are recorded along the Catawba River. These sites should be avoided due to the possibility of historic resources that could be destroyed with ground disturbance⁶.

Historic Sites and Landscape

SHPO oversees a large database of historic sites and resources. All resources, including those related to the OVNHT, are included within the subsequent analysis map series. These resources include information from SHPO surveys as well as a large list of sites related to the National Register of Historic Places (which the National Park Service oversees but individual States manage). The most critical sites include those listed on the National Register (NR) or determined eligible (DOE) as they have further protection under Section 106 of the National Historic Preservation Act. The National Park Service has emphasized that as part of this study and trail development, that historic/cultural resources should be linked, preserved, and interpreted. Specific resources that directly relate to the history of the Overmountain Victory National Historic Trail are noted within the subsequent analysis maps and notes and include:

Lake James Historic Farm Houses. Several farmhouses are considered historic including, the Benfield Farmhouse, the Rust House and Perkins Store (which currently serves as a Bed and Breakfast), and the Perkins Farmhouse.

McDowell Hosue/ Quaker Meadows. (See exhibit on the following page.)

Quaker Meadows Cemetery. Quaker Meadows is identified as one of the earliest known sites associated with white settlement in Western North Carolina. The Quaker Meadows Cemetery served as the cemetery to the first settlers in the area, was utilized between 1767 and 1879, and includes over 61 marked grave sites.



Charles and Joseph McDowell are buried along with several other revolutionary war soldiers.

Swan Pond. Swan Pond was settled as a plantation just after the Revolutionary War by war veteran Waightsville Avery, an influential political leader and early white settler of Western North Carolina. Waightsville represented Burke County as a legislator for many years and is perhaps most famous for a supposed duel with President Andrew Jackson. The current house was built in 1848. Several generations of Averys lived on the property and influenced in the region. Swan Pond is still intact as a large private estate.

⁶ Sensitive Cultural Resources and Permitting: Any construction funded or permitted by the federal government will trigger a project review by SHPO of any resources covered under Section 106 (National Historic Preservation Act). These resources could include human remains, burial sites, archeology sites, and historic sites. If it is found that the action of trail construction could potentially adversely affect cultural resources, the SHPO will work with the related Federal Agency to eliminate or minimize the effect.

⁷ Historic Sites and Permitting: In general, a greenway would have no effect or a complimentary relationship to preservation of these



Exhibit 1: McDowell House / Quaker Meadows

MCDOWELL HOUSE/ QUAKER MEADOWS

Quaker Meadows was settled as a plantation around 1760 by Joseph McDowell and was inherited by Joseph's son, Charles. Charles was a colonel in the Revolutionary War in 1780, in which he led the large encampment of Overmountain Men to stay on his estate (that included Quaker Meadows). He was a critical leader that laid plans to attack the British at the Battle of Kings Mountain. The original

house no longer exists, but the house on-site today was built by Charles's son in 1812 and is the oldest existing brick house in Burke County. The restored house currently belongs to the Historic Burke Foundation. It is the meeting place for Overmountain Victory National Historic Trail re-enactors who commemorate the 1780 encampment every September.

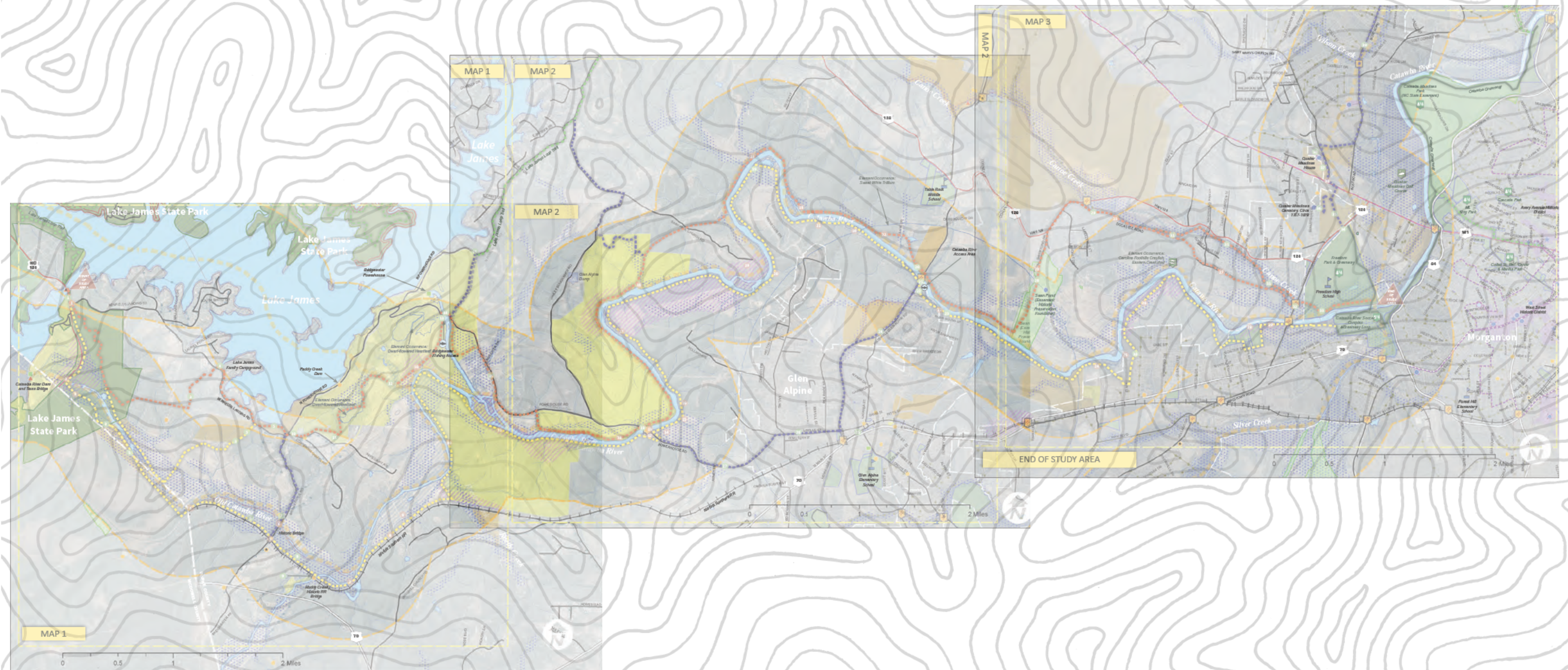
The original Quaker Meadows Plantation now includes

portions of the county fairgrounds, golf course, and some commercial areas. The meadows hosted a major encampment in 1780 for over 1,400 of the Overmountain troops. It is said that commanders met and planned the attack on loyalists under a large oak, now termed the Council Oak. A commemorative plaque and young oak now grows where the Council Oak once stood.



MAP AND PHOTO SERIES: PRELIMINARY TRAIL ROUTE ALTERNATIVES

The map and photographic series, which spatially incorporates the natural and built environment analysis, highlights a host of preliminary trail route alternatives. These routes were further refined by local leaders to identify and engage landowners. This information will serve as an ongoing reference guide as alternative routes may need to be developed due to unforeseen barriers.



STUDY AREA 1 SITE ANALYSIS

LEGEND

- Alignment 'A'

Alignment 'B'

Connectors

20-Foot Contours

County Boundary

Municipal Boundaries

Property Lines

Duke Energy Properties

Crescent Resources Properties

Civic Landmarks

Hospitals

Public Health Departments

Public Libraries

Colleges and Universities

Schools

Historic Sites and Districts

National Register (NR) of Historic Places Site

NR and Local Landmark

National Register Historic District (NRHD)

NRHD Boundary

Local District Center Point

Study List (SL)

SL and Landmark

SL and Determined Eligible (DOE)

SL, DOE, and Landmark

DOE NRHD

Surveyed

Surveyed in NRHD

Site Gone

Sensitive Cultural Resources

Transportation

Bike Route

NCDOT Bridge Locations

Rail Roads

Roads/Interstates

Interstates

Local Roads

State and County Roads

State Roads

Utilities

Waterlines

Sewer

Opportunities

Constraints

OVNHT & Other Recreation

Overmountain Victory NH Trail

OVNHT 1/2-Mile Buffer

Existing Trails

Proposed Trails

Fishing Access

Parks

Golf Courses

Managed Lands

Federal & State Ownership

Private

Municipal/County Owned Properties

State Natural Heritage Data

Element Occurrences

Plant

Animal Assemblage

Animal

Natural Community

Natural Heritage Areas

Exceptional

Very High

High

Moderate

General

Unranked

Hydrology

Wetlands (NW)

Hydric Soils

Waterbodies

Streams

Flood Zones

Floodway

100-Year Floodplain

500-Year Floodplain
- The map displays the Lake James State Park area, including the Old Catawba River, Lake James, and surrounding roads and trails. Key features include:

 - Trails:** Overmountain Victory NH Trail, Existing Trails, Proposed Trails.
 - Roads:** NC 126, BENFIELDS LANDING RD, LAUREL POINTE DR, SOUTH SHORE DR, MALLARD CREEK DR, N POWERHOUSE RD, CORPUS CHAPEL RD, RAYS DARYAVE, SNOWELL CHURCH RD, TOSE BLVD, HICKORY DR.
 - Landmarks:** Lake James State Park, Lake James, Paddy Creek Dam, Muddy Creek Historic RR Bridge, Historic Bridge, Lake James Family Campground, Bridgewater Powerhouse, Bridgewater Fishing Access.
 - Natural Heritage Data:** Element Occurrences (Plant, Animal Assemblage, Animal, Natural Community), Natural Heritage Areas (Exceptional, Very High, High, Moderate, General, Unranked).
 - Hydrology:** Wetlands (NW), Hydric Soils, Waterbodies, Streams, Flood Zones, Floodway, 100-Year Floodplain, 500-Year Floodplain.
 - Connectors:** Alignment 'A', Alignment 'B', Connectors.
 - Opportunities and Constraints:** 50 Opportunities, 38 Constraints.

A scale bar at the bottom indicates distances up to 2 miles. The map is labeled 'STUDY AREA 1' in the bottom left corner.
- Map 3: Study Area 1 Site Analysis
- 20

STUDY AREA 1 OPPORTUNITIES & CONSTRAINTS

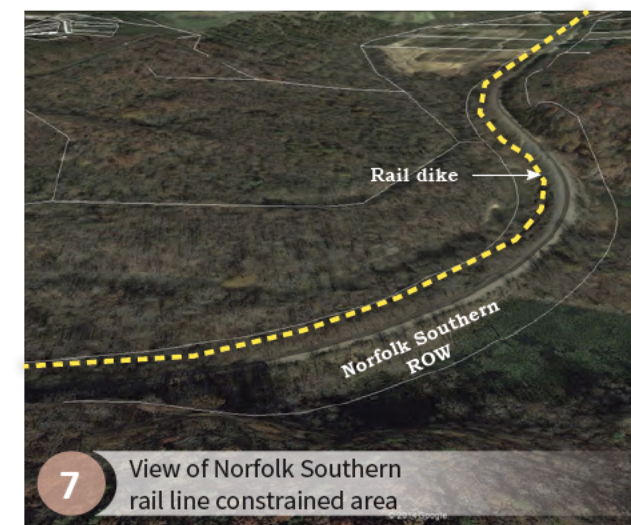
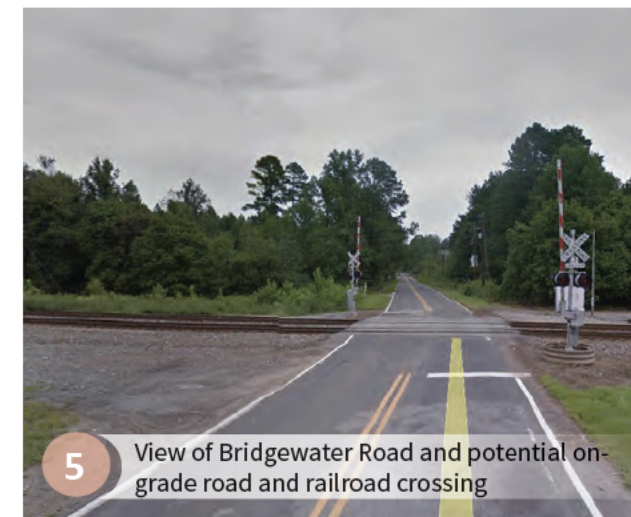
OPPORTUNITIES

- 1 Potential Trailhead and improvement area
- 2 Maintained open meadow
- 3 Routes utilize private dirt roads
- 4 Connect to Lake James Family Campground and single-family residential development by paralleling Benfields Landing Road
- 5 Potential amenable landowner
- 6 Flat area with potential to use Norfolk Southern right-of-way (around 200-feet) or adjacent private lands for alignment
- 7 Bridgewater Road could be an excellent connector route or a preferred alignment if one alignment section was determined unfeasible
- 7 Bridgewater Road hosts a Bed and Breakfast and may have opportunity for greenway related commercial
- 8 Area is relatively flat
- 9 Utilize Muddy Creek Historic Rail Road Bridge
- 10 Potential amendable landowner on north side—alignment could utilize or parallel Corpening Chapel Road
- 11 Potential amendable landowner on north side—alignment could utilize or parallel Rays Dairy Avenue
- 12 Alignment parallels private road
- 13 Potential trailhead at Bridge Water Fishing Access Area
- 14 Powerhouse Road bridge has ample deck width to allow for on-grade bridge crossing
- 15 Potential connection to North Powerhouse Road and Lake James Loop Trail
- 16 Powerhouse Road has 60-feet of right-of-way and is fairly flat through the rest of this area going east



CONSTRAINTS

- 1 Steep hillside may require greenway alignment to parallel Highway 126 until the crossing of Benfields Landing Road
- 2 Hwy 126 Bridge has narrow shoulder with railing obstruction for several hundred feet—would likely require a bridge attachment
- 3 Wetland/low lying area
- 4 Area has stream crossing and significant fill slope from rail road bed and would require alignment to be in floodway or elevated on a structure
- 5 At-grade road crossing on Bridgewater Road
- 6 Bridgewater Road bridge has narrow shoulder and would need to have a bridge attachment or separate pedestrian bridge
- 7 Rail-bed is on elevated dike and significant fill slope from rail road bed and would require alignment to be in floodway or elevated on a structure
- 8 Large disturbance area (possible motor cross track) within and adjacent to Norfolk Southern right-of-way
- 9 Tree farm
- 10 Sensitive cultural resource areas



STUDY AREA 2 SITE ANALYSIS

LEGEND

- Alignment 'A'

Alignment 'B'

Connectors

20-Foot Contours

County Boundary

Municipal Boundaries

Property Lines

Duke Energy Properties

Crescent Resources Properties

Civic Landmarks

Hospitals

Public Health Departments

Public Libraries

Colleges and Universities

Schools

Historic Sites and Districts

National Register (NR) of Historic Places Site

NR and Local Landmark

National Register Historic District (NRHD)

NRHD Boundary

Local District Center Point

Study List (SL)

SL and Landmark

SL and Determined Eligible (DOE)

SL, DOE, and Landmark

DOE NRHD

Surveyed

Surveyed in NRHD

Site Gone

Sensitive Cultural Resources

Transportation

Bike Route

NCDOT Bridge Locations

Rail Roads

Roads/Interstates

Interstates

Local Roads

State and County Roads

State Roads

Utilities

Waterlines

Sewer

OVNHT & Other Recreation

Overmountain Victory NH Trail

OVNHT 1/2-Mile Buffer

Existing Trails

Proposed Trails

Fishing Access

Parks

Golf Courses

Managed Lands

Federal & State Ownership

Private

Municipal/County Owned Properties

State Natural Heritage Data

Element Occurrences

Plant

Animal Assemblage

Animal

Natural Community

Natural Heritage Areas

Exceptional

Very High

High

Moderate

General

Unranked

Hydrology

Wetlands (NW)

Hydric Soils

Waterbodies

Streams

Flood Zones

Floodway

100-Year Floodplain

500-Year Floodplain
- Map 4: Study Area 2 Site Analysis
- 22

STUDY AREA 2 OPPORTUNITIES & CONSTRAINTS

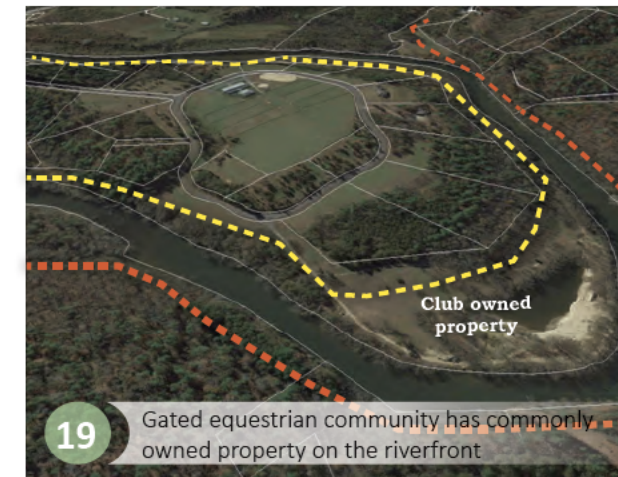
OPPORTUNITIES

- 17 Utilize 60-foot right-of-way (with 18-20-foot shoulder) on Powerhouse Road
- 18 Potential for bridge underpass at low-flow periods—but on-grade crossing of Powerhouse Road may be more practical
- 18 Bridge decking may accommodate a shoulder for on-grade crossing across the Catawba River
- 19 Existing trail easement may allow for greenway accommodation in gated equestrian community—land bordering the Catawba River is owned by the club/community
- 20 Potential amenable land owner
- 21 Bridge clearance across the Catawba River would allow for a greenway underpass on either sides but lacks adequate shoulder on bridge deck for crossing the river
- 22 Burke County's Catawba River Access Area—potential trailhead location
- 23 Subdivision platted but properties bordering river appear to be undeveloped and still owned by developer
- 24 Watermill Glen Alpine Road/Turkey Tail Lane right-of-way has 60-foot right-of-way with approximately 30-feet of shoulder on the western side
- 25 Downtown Glen Alpine hosts a commercial area that could serve greenway tourism including a bike shop, winery, and bed and breakfast
- 26 Linville Street has an approximately 5-foot sidewalk through the majority of downtown Glen Alpine
- 27 Powerhouse Road has 60-foot of right-of-way and relatively flat terrain into Glen Alpine



CONSTRAINTS

- 11 Sensitive cultural resource area
- 12 Homesite is close to Catawba River—alignment would need to navigate around it
- 13 Bridge clearance may not be desirable for a greenway underpass and on-grade crossing may be necessary
- 14 Tree farm
- 15 Trust property
- 16 Homesite located fairly close to Catawba River
- 17 Sensitive cultural resource areas
- 18 Wetland/low lying areas
- 19 Trust property not likely to be amendable to a greenway
- 20 Trust property
- 21 Use of some private property in drainage would be needed for alignment
- 22 This alignment may be less probable due to the intersection with several small privately held parcels



STUDY AREA 3 SITE ANALYSIS

LEGEND

- Alignment 'A'

Alignment 'B'

Connectors

20-Foot Contours

County Boundary

Municipal Boundaries

Property Lines

Duke Energy Properties

Crescent Resources Properties

Civic Landmarks

Hospitals

Public Health Departments

Public Libraries

Colleges and Universities

Schools

Historic Sites and Districts

National Register (NR) of Historic Places Site

NR and Local Landmark

National Register Historic District (NRHD)

NRHD Boundary

Local District Center Point

Study List (SL)

SL and Landmark

SL and Determined Eligible (DOE)

SL, DOE, and Landmark

DOE NRHD

Surveyed

Surveyed in NRHD

Site Gone

Sensitive Cultural Resources

Transportation

Bike Route

NCDOT Bridge Locations

Rail Roads

Roads/Interstates

Interstates

Local Roads

State and County Roads

State Roads

Utilities

Waterlines

Sewer

OVNHT & Other Recreation

Overmountain Victory NH Trail

OVNHT 1/2-Mile Buffer

Existing Trails

Proposed Trails

Fishing Access

Parks

Golf Courses

Managed Lands

Federal & State Ownership

Private

Municipal/County Owned Properties

State Natural Heritage Data

Element Occurrences

Plant

Animal Assemblage

Animal

Natural Community

Natural Heritage Areas

Exceptional

Very High

High

Moderate

General

Unranked

Hydrology

Wetlands (NW)

Hydric Soils

Waterbodies

Streams

Flood Zones

Floodway

100-Year Floodplain

500-Year Floodplain

Opportunities

Constraints
- Map 5: Study Area 3 Site Analysis

END OF STUDY AREA
- 24

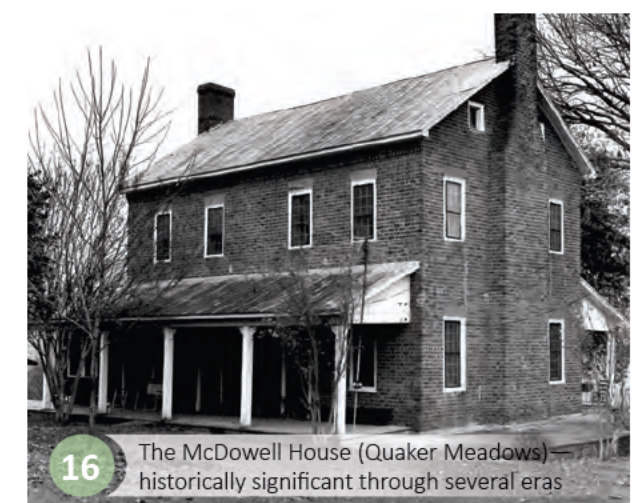
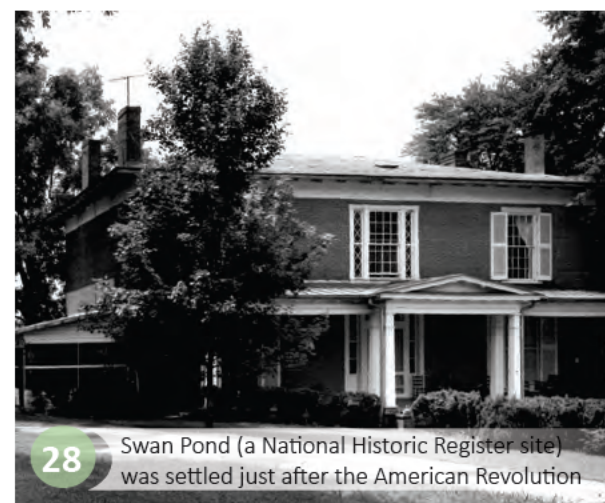
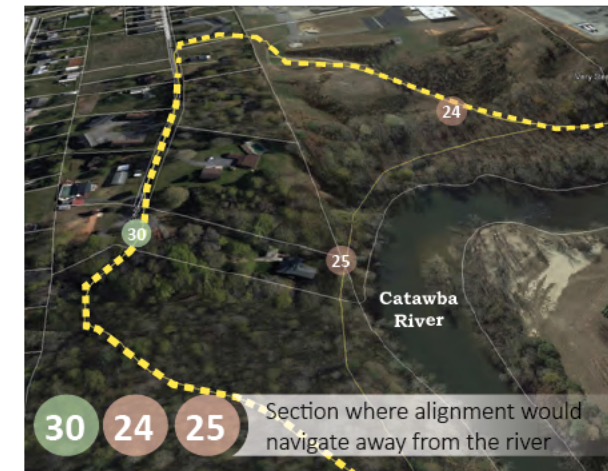
STUDY AREA 3 OPPORTUNITIES & CONSTRAINTS

OPPORTUNITIES

- 28 Historic farm (Swan Pond)
- 29 Alignment could parallel Docastee Road
- 30 Alignment could travel on-road on Elm Street and would need to travel through private property to access along the river
- 31 Alignment overlaps with sewer lines/easements
- 32 Canoe Creek bridge may accommodate a greenway underpass and separated pedestrian lane
- 33 Connection could use some current path alignments through Freedom Park
- 34 Intersection has planned signalization improvements
- 35 Development is planned to link in sidewalk infrastructure and will link to the north side of Hwy 181
- 36 Connection to Quaker Meadows Cemetery—a historically significant OVT site
- 37 Potential amenable landowner—property was historically a part of Quaker Meadows
- 38 Connection to Quaker Meadows House—a historically significant OVT site
- 39 Bost Road has significant 60-foot right-of-way and could serve as a connection to a neighboring subdivision

CONSTRAINTS

- 23 Alignment leaves OVT mile-buffer
- 24 Topography is steep with a bluff that drops off behind buildings—alignment could need a switchback in this location
- 25 Homesite close to the Catawba River would make an adjacent river alignment less likely
- 26 Sensitive cultural resources area and trustee property
- 27 Alignment on Cresthill Drive would need to be on-road or the construction of a 5-foot sidewalk—which is less than the recommended minimum 10-foot path for a greenway in suburban/urban areas
- 28 Access is restricted on the Morganton Water Plant but alignment is proposed around the perimeter and would require fencing (also a sensitive cultural resource area)
- 29 Sensitive cultural resource area and wetlands
- 30 Intersection of Saint Marys Church Road and Highway 181 is signalized but no crosswalks exist





CHAPTER 2

LANDOWNER ENGAGEMENT

**LANDOWNER
OUTREACH AND
ENGAGEMENT WAS
A KEY COMPONENT
OF THE PLANNING
PROCESS.**

The environmental analysis (Chapter 1) was critical to determine physically feasible locations for trail development. However, significant portions of these routes impact private property and require landowner outreach to fully assess trail feasibility. This chapter highlights the good-faith effort to engage landowners throughout the planning process.

THE ENGAGEMENT PROCESS

-  Identifying the Landowners
-  Landowner Communications
-  Landowner Workshop
-  Trail Route Re-evaluation

 IDENTIFY THE LANDOWNERS

Feasibility Analysis

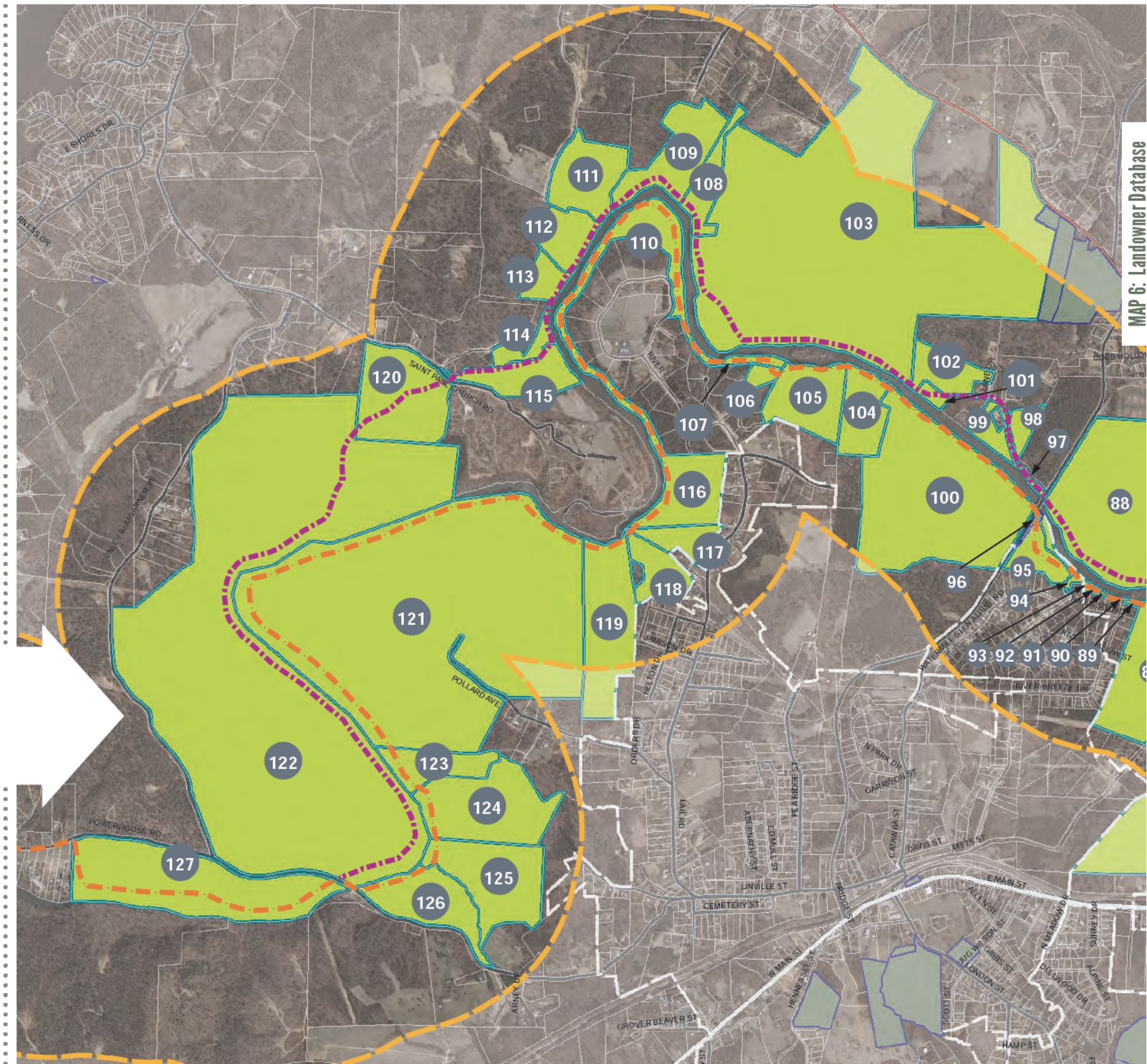
Trail alternatives were developed based upon an environmental feasibility analysis (see Chapter 1).

Landowner Database

A mailing database was created that included all property owners impacted by the preliminary trail alignment(s).

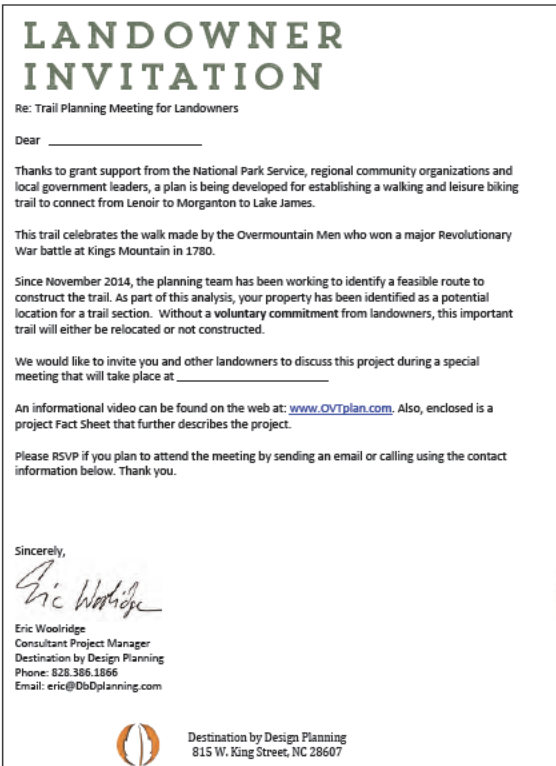
STEP 1: DETERMINE
WHERE THE TRAIL IS
FEASIBLE (CHAPTER 1).

STEP 2: START A
CONVERSATION WITH
LANDOWNERS.





VIDEO PRODUCTION



LANDOWNER COMMUNICATIONS

Video Production

A custom video, specifically produced for landowners, highlighted the story of the Overmountain Victory National Historic Trail and included a request for landowner participation.

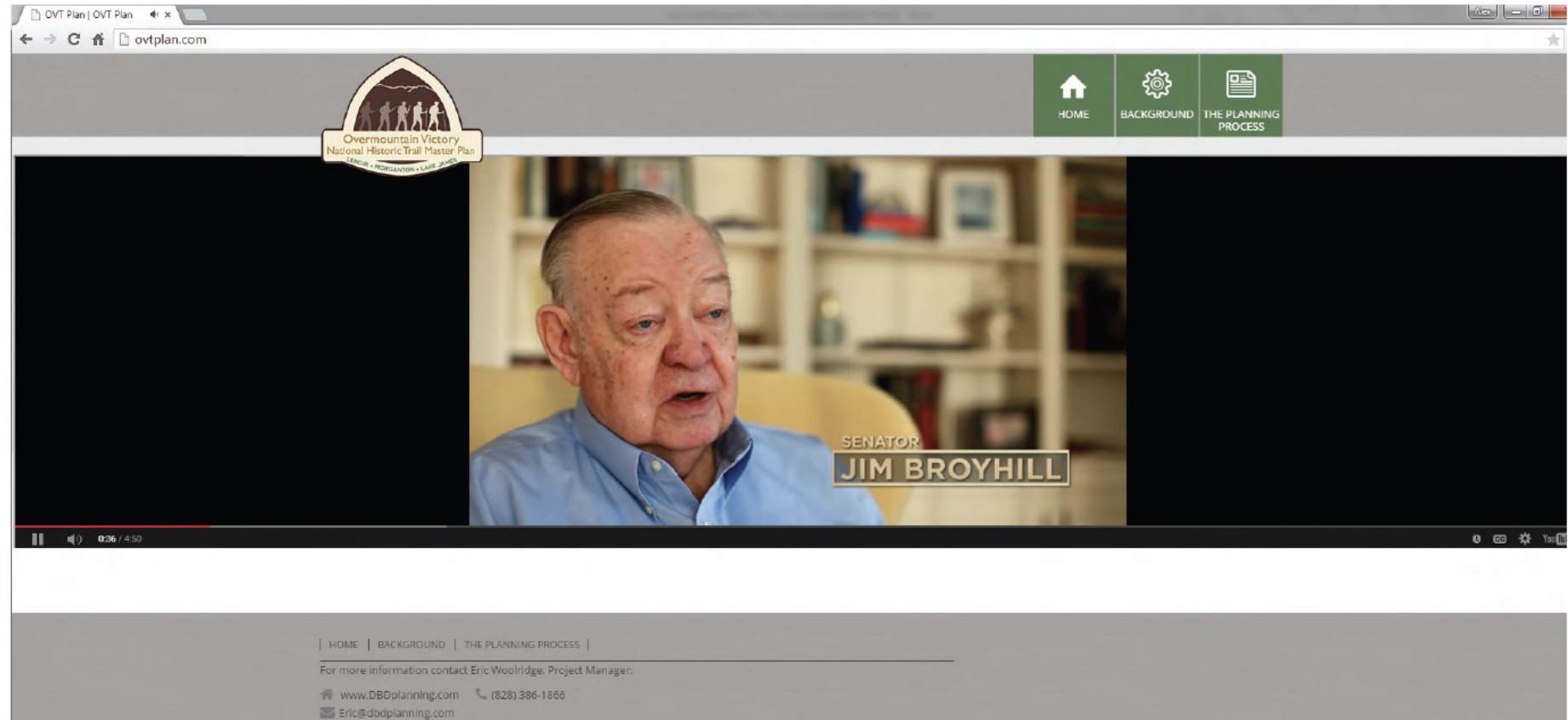
Web Portal

The project website, OVTplan.com, provides information about the planning process and features the landowner outreach video.

Landowner Invitation

Formal letters were sent to all landowners directing them to the website and requesting their attendance at a special meeting.

WEB PORTAL



 LANDOWNER WORKSHOP

Video Showing

After signing in, the landowner workshop began with a viewing of the custom video.

Focus Group

Focus groups were organized according to various geographic areas throughout the study area. Landowners were able to ask questions about their specific property and the associated trail alignment.

Sentiment Card


Landowner Interest Survey

Name _____
Address _____
Phone Number _____
Email _____

Please share your level of interest for providing for the public trail. (check below)

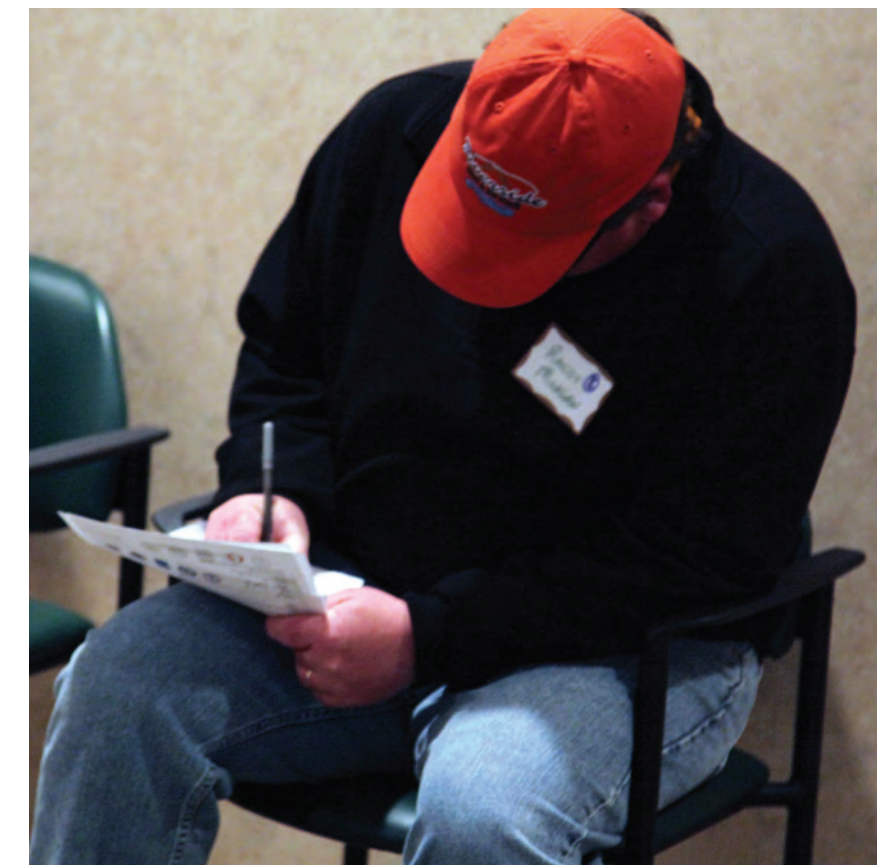
☐ Not interested at this time
☐ Somewhat interested and welcome further discussions
☐ Very interested

The meeting concluded with landowners noting their level of willingness to provide a trail easement via the Landowner Interest Survey.



ON MARCH 5, 2015,
23 LANDOWNERS
ATTENDED THE
LANDOWNER
WORKSHOP AT THE
BURKE COUNTY
GOVERNMENT
CENTER.

A similar landowner meeting was held for the Lenoir to Morganton sister OVNHT plan in Caldwell County on March 10, 2015. The photos seen here are from both events.



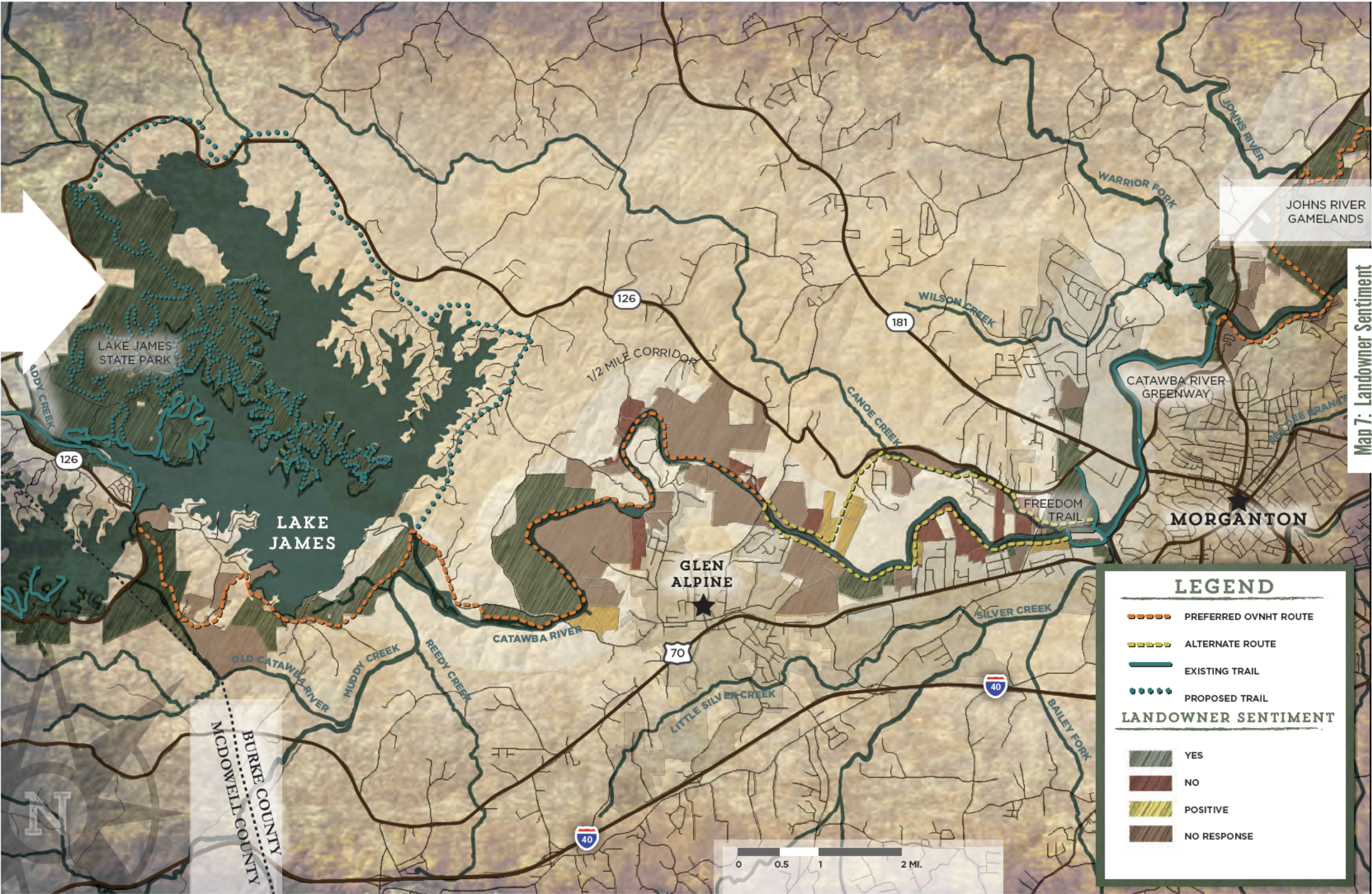


TRAIL ROUTE RE-EVALUATION

Revise Trail Alignments

“Landowner Sentiment” was helpful for determining the preferred alignment and was included as a component of the final map series (Chapter 4).

A COMBINATION OF FACTORS, INCLUDING THE NATURAL ENVIRONMENT, THE BUILT ENVIRONMENT, AND LANDOWNER SENTIMENT, WERE USED TO DETERMINE THE PREFERRED TRAIL ALIGNMENT (CHAPTER 4).



CHAPTER
TRAIL CHARACTER & DESIGN
GUIDELINES

**THIS CHAPTER PROVIDES
DESIGN DETAILS FOR
VARIOUS TRAIL TYPES
AND SIGNAGE AND
OFFERS INSIGHT FOR
INCORPORATING SOCIAL
MEDIA.**

- Between Lake James and Morganton exists a diverse natural and built environment. Specific trail types must be applied throughout the corridor to ensure minimal maintenance and the best user experience.
- This chapter defines three trail types and illustrates their transitions along the preferred trail alignment as fully described in the subsequent chapter.
- A specific theme is presented for signage, wayfinding, and trail support facilities. This chapter concludes with recommendations for using social media to market the trail and its history.

IN THIS CHAPTER

- A. Trail Types
- B. Trail Profile
- C. Signage and Wayfinding
- D. Social Media Marketing

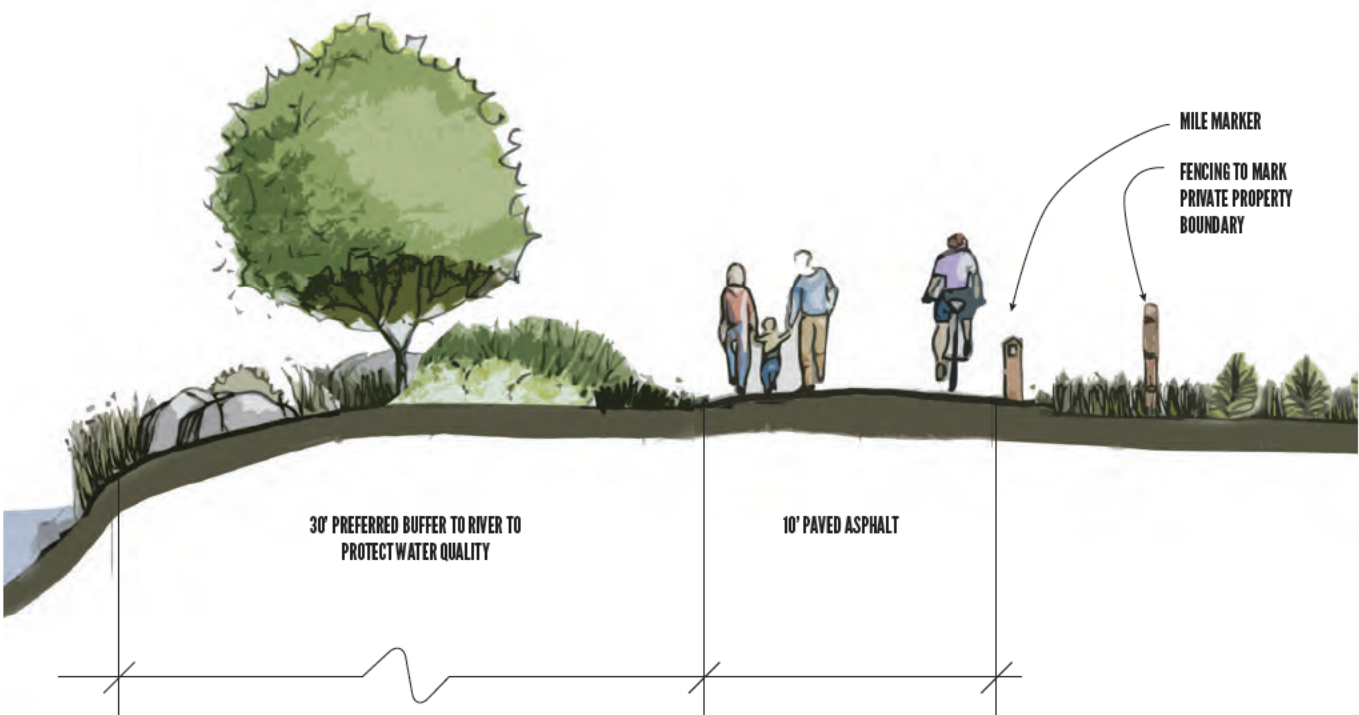
TRAIL TYPES

Three trail types are proposed along the preferred alignment. A specific trail type is proposed according to its surrounding environment, whether it's located within a rural or urban area, and the opportunity to create a meaningful user experience.



PHOTO: The Catawba River Greenway incorporates approximately four miles of certified Overmountain Victory National Historic Trail.

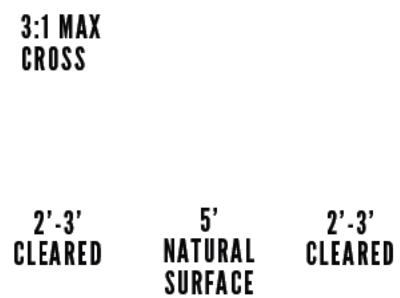
photo: discoverburkecounty.com



TYPICAL GREENWAY

10' PAVED ASPHALT

- User Group: Multi-use
- Material: Paved Asphalt
- Preferred Width: 10'
- Average Construction Cost: \$80/ln. ft.
- Preferred Easement Width: 50'
- Minimum Easement Width: 20'



MULTI-USE TRAIL

5' NATURAL SURFACE

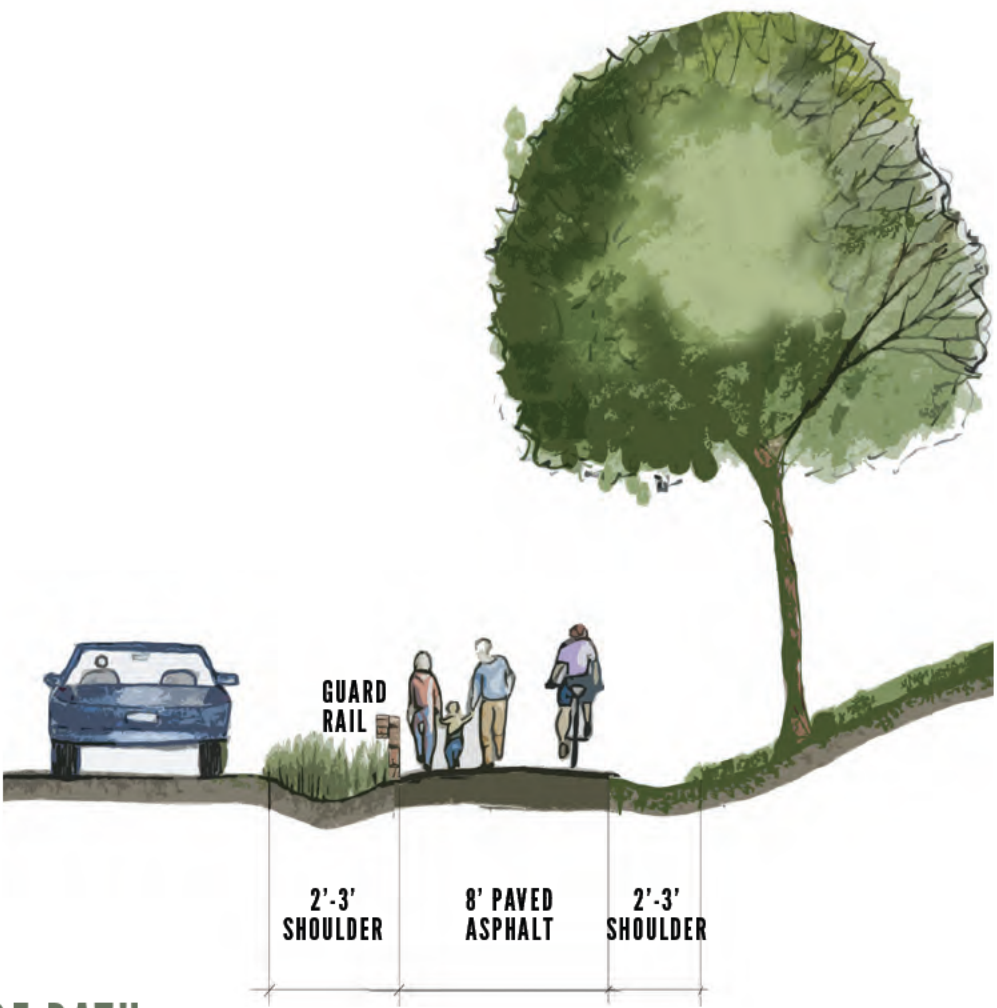
User Group: Hikers and Cyclists

Material: Crushed gravel fines

Preferred Width: 5'

Average Construction Cost: \$12/ln. ft.

Preferred Easement Width: 50'



NCDOT SIDE PATH

8' PAVED ASPHALT

User Group: Multi-use

Material: Paved asphalt

Preferred Width: 8'

Average Construction Cost: \$120/ln. ft.

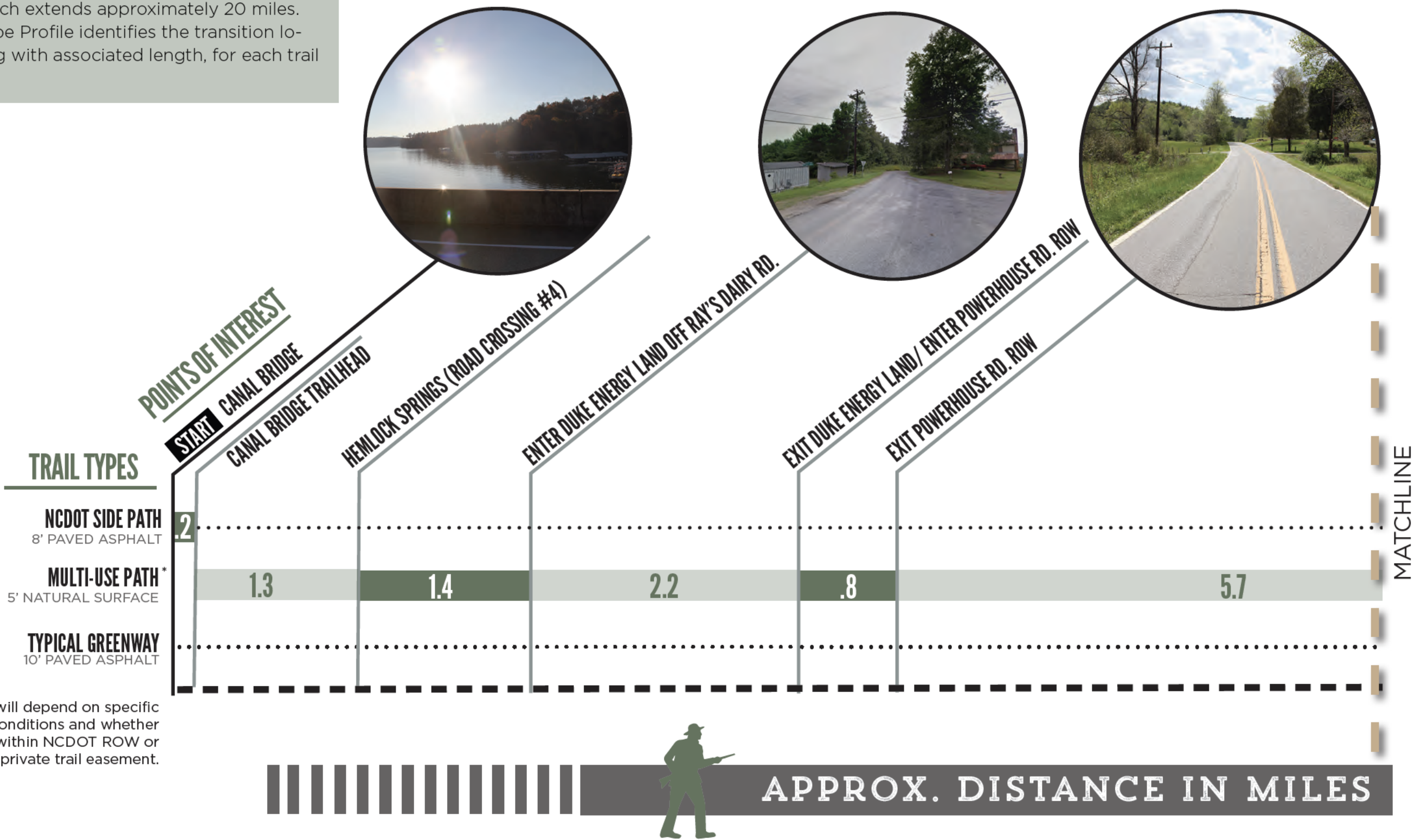
Preferred Easement Width: 25'

Minimum Easement Width: 25'

Note: Trail to be approved in accordance with NCDOT encroachment agreement.

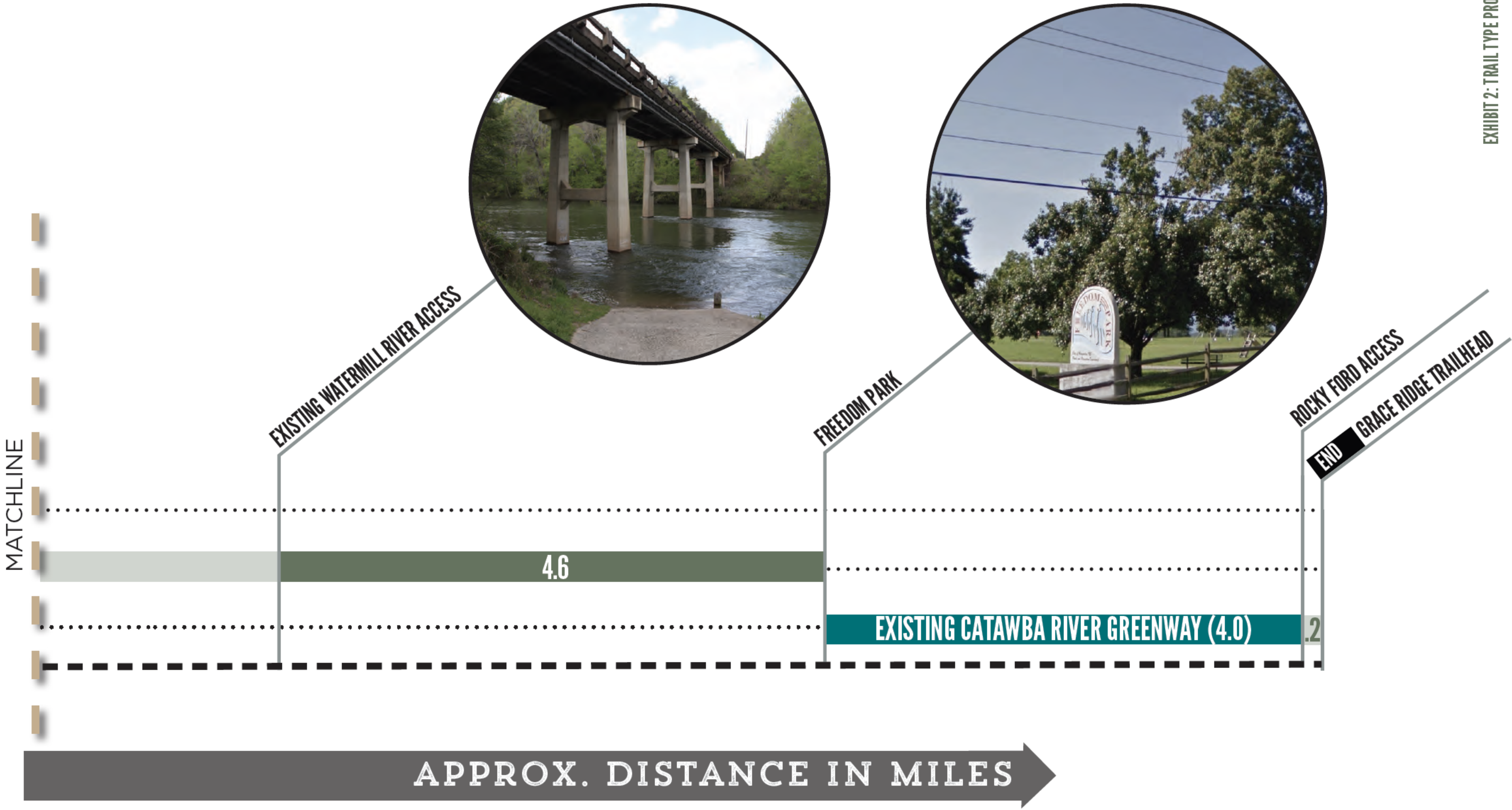
TRAIL TYPE PROFILE

There are two (2) trail type transitions proposed along the preferred trail route, which extends approximately 20 miles. The Trail Type Profile identifies the transition location, along with associated length, for each trail type.



*Final trail type will depend on specific environmental conditions and whether trail is located within NCDOT ROW or within a private trail easement.

EXHIBIT 2: TRAIL TYPE PROFILE



SIGNAGE AND WAYFINDING

The OVNHT signage family provides for a modern rustic theme and incorporates materials consisting of metal, rock, and concrete. The signage family serves as a template and can be altered and further refined depending on local preferences and specific site needs and opportunities.



Monument Sign

Trailhead ID

Break-away sign
for use along
NCDOT Roads



Map Kiosk

Spur Trail
ID to Historical Site

Confidence
Marker

SOCIAL MEDIA: THE NEW WORD OF MOUTH

Trail users should be encouraged to utilize social media to share their experiences with their "friends" and "followers." Special signage along the trail will signal users to consider posting pictures of themselves or their friend group as the walk or ride bikes along the trail. In addition, special props and features should be developed during the final design phase. After all, who can market this destination-quality trail better than the trail users themselves? Let's take advantage of social media -- the new word of mouth.

#TRAIL2VICTORY

The proposed official hashtag for the OVNHT is "Trail-2Victory." The use of this hashtag will allow local tourism leaders to curate local photos and content that can be shared on websites and re-posted through other social media platforms.

#FINDYOURPARK

Find Your Park is the official centennial campaign of the National Park Service (NPS). The NPS is encouraging National Park enthusiasts to use the hashtag "findyourpark" when posting to social media. The OVNHT can help continue this campaign for years to come by encouraging the use of this hashtag at unique locations along the trail.

TRAIL USERS
SHOULD BE
ENCOURAGED TO
UTILIZE SOCIAL
MEDIA TO SHARE
THEIR EXPERIENCES
WITH THEIR "FRIENDS"
AND "FOLLOWERS."



EXHIBIT 3: SOCIAL MEDIA



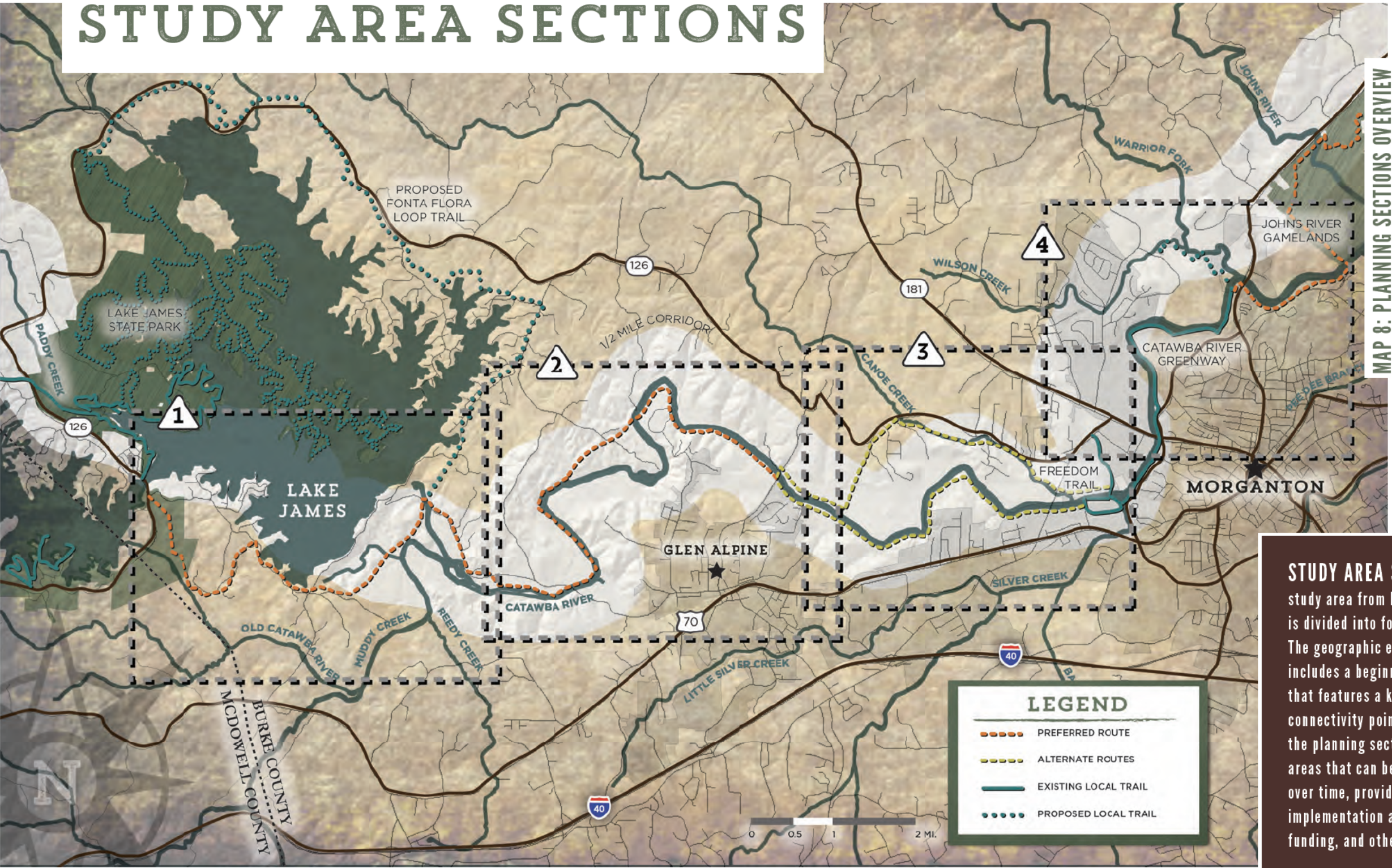
"FIND YOUR PARK" IS THE OFFICIAL CENTENNIAL CAMPAIGN OF THE NATIONAL PARK SERVICE (NPS). THE NPS IS ENCOURAGING NATIONAL PARK ENTHUSIASTS TO USE THE HASHTAG "FINDYOURPARK" WHEN POSTING TO SOCIAL MEDIA.

CHAPTER 4
RECOMMENDATIONS

THIS CHAPTER SERVES AS THE HEART OF THE LAKE JAMES TO MORGANTON OVNHT MASTER PLAN.

IN THIS CHAPTER

- A. About the Planning Section Maps
- B. Quick Facts: Learn about each Planning Section



THE 20 MILE STUDY AREA FROM LAKE JAMES TO MORGANTON IS DIVIDED INTO FOUR (4) PLANNING SECTIONS; THIS CHAPTER IS ORGANIZED ACCORDINGLY.



EACH PLANNING SECTION IS ANCHORED BY A MAP THAT HIGHLIGHTS PROPOSED TRAIL ROUTES, TRAIL FEATURES, AND LANDOWNER SENTIMENT.



ABOUT THE PLANNING SECTION MAPS

Each planning section is anchored by a map that highlights proposed trail routes, trail features, and landowner sentiment. The proposed routes are identified as either preferred, alternate, or spur. These trail alignments are the result of extensive analysis, including environmental feasibility, landowner willingness, and insights provided by local government and local trail development leaders.

Noted **trail features** include the physical infrastructure and facilities that support the proposed trail. These features are highlighted along the preferred route and provide critical information for developing an estimate of probable cost for each section. These features include trailheads and crossings associated with either a road or water feature. Trailheads will provide for parking

and trail user orientation. Road crossings indicate the need to provide for traffic calming measures and appropriate signage for both trail users and motorists. Major bridges indicate a significant stream or river crossing that requires a bridge greater than 20 feet in length. A minor bridge/culvert demonstrates the need to cross a relatively small stream; at this broad level of planning, it remains uncertain whether a small bridge or culvert is necessary.

MORGANTON >> LAKE JAMES: BY THE NUMBERS

20.4 >> TRAIL MILES

9 >> TRAILHEADS

15 >> ROAD CROSSINGS

7 >> MAJOR BRIDGES

69 >> MINOR BRIDGES/ CULVERTS

\$2.8 M >> APPROX. COST



QUICK FACTS

Each planning section begins with a “quick facts” exhibit. This information includes the trail distance, trail type (see Chapter 4: Design Guidelines), and key features and assets associated with each section. Also, an Estimate of Probable Cost is provided, which is further described within the written text for each planning section.

VICINITY MAP

CANAL BRIDGE >> POWERHOUSE ROAD

TOTAL LENGTH: 5.9 miles

TRAIL TYPE: 5 Foot Natural Surface

ESTIMATED COST: \$ 985,372

POINTS OF INTEREST: Lake James

Canal Bridge Trailhead

Bridgewater River Access

Lake James Family Campground

SECTION 1

PROPOSED TRAILS

This planning section extends 5.9 miles from Canal Bridge to Powerhouse Road. Canal Bridge, which serves at the westernmost terminus of the entire planning study area, is also the terminus of an existing section of certified OVNHT that meanders through Lake James State Park. Considering there are major landowners throughout this section that are sympathetic to the mission of the OVNHT, including Duke Power and Crescent Resources, an opportunity exists to implement a significant portion of this trail section within a relatively short timeframe.



From Canal Bridge the preferred route extends south and then east before paralleling Hemlock Springs Road and connecting to Lake James Family Campground. From here, the trail will parallel Benfields Landing Road before reaching a vista and beach area on Lake James. As the trail continues east over Paddy's Creek Dam, another vista opportunity exists, which could accommodate a primitive camping area.

The preferred route ultimately connects to the existing Bridgewater River Access, which is maintained by Duke Power and is programmed for further infrastructure improvements. Users will need to cross the Muddy Creek Bridge and continue on the east side of Muddy Creek before continuing parallel along Powerhouse Road. This planning section ends where the trail leaves Powerhouse Road and connects to established trail easements that follow the Catawba River.

PHOTOS: (1) Canal Bridge serves as the westernmost terminus of the entire planning area. (2) A trailhead is proposed on Duke Energy property located adjacent to the Canal Bridge Public Access. (3) Bridgewater River Access is a major feature to be connected via the preferred route.

TRAIL FEATURES

TRAILHEADS

Two trailheads are proposed within this planning section. The Canal Bridge Trailhead is proposed on property currently owned by Duke Power. From here, a short spur trail, approximately 1,000' in length, will serve as a connector to the preferred trail route. The second trailhead is proposed at the Bridgewater River Access, which is a major feature to be connected via the preferred trail route. Both of these locations provide an opportunity to display information about the trail and its history must be developed. This portion of trail could take significant time and expense to implement, thus creating the need for another trailhead along Advent Road should this entire planning section not be developed within a single project.



**CANAL BRIDGE >>
POWERHOUSE ROAD**

TOTAL LENGTH: 5.9 miles

TRAIL TYPE: NCDOT Side Path
Multi-use Trail

ESTIMATED COST: \$985,372

POINTS OF INTEREST: Lake James
Canal Bridge Trailhead
Canal Bridge Public Access
Bridgewater River Access
Lake James Family Campground



MAP 9: PLANNING SECTION 1

CHAPTER 4

CROSSINGS

Proposed within this section are seven (7) road crossings, two (2) major bridges, and twenty-three (23) minor bridges/culverts.

The primary route crosses a combination of major roads and local roads throughout this section. Benfields Landing Road is a significant road that will need to be crossed near Canal Bridge and again near Lake James Family Campground. A significant crossing is also necessary across Bridgewater Road near its intersection with Benfields Landing Road.

The two major bridge crossings exist at Canal Bridge and the Muddy Creek Bridge near the Bridgewater Public River Access. Both of these bridges will require appropriate treatments that signal motorists of possible trail users.



04

PHOTOS: (4) Benfields Landing Road is a significant road crossing within this planning section.



LAKE JAMES FAMILY CAMPGROUND

EXHIBIT 4: LAKE JAMES FAMILY CAMPGROUND



EXISTING

The preferred alignment extends parallel to Benfields Landing Road and provides a direct connection to the Lake James Family Campground. This trail section will be notable to passing motorist and will create interest for those visiting the campground and Lake James area.



EXHIBIT 5: POWERHOUSE BRIDGE

POWERHOUSE RD. BRIDGE

The Powerhouse Bridge will need to be modified to appropriately accommodate OVNHT users.



EXISTING

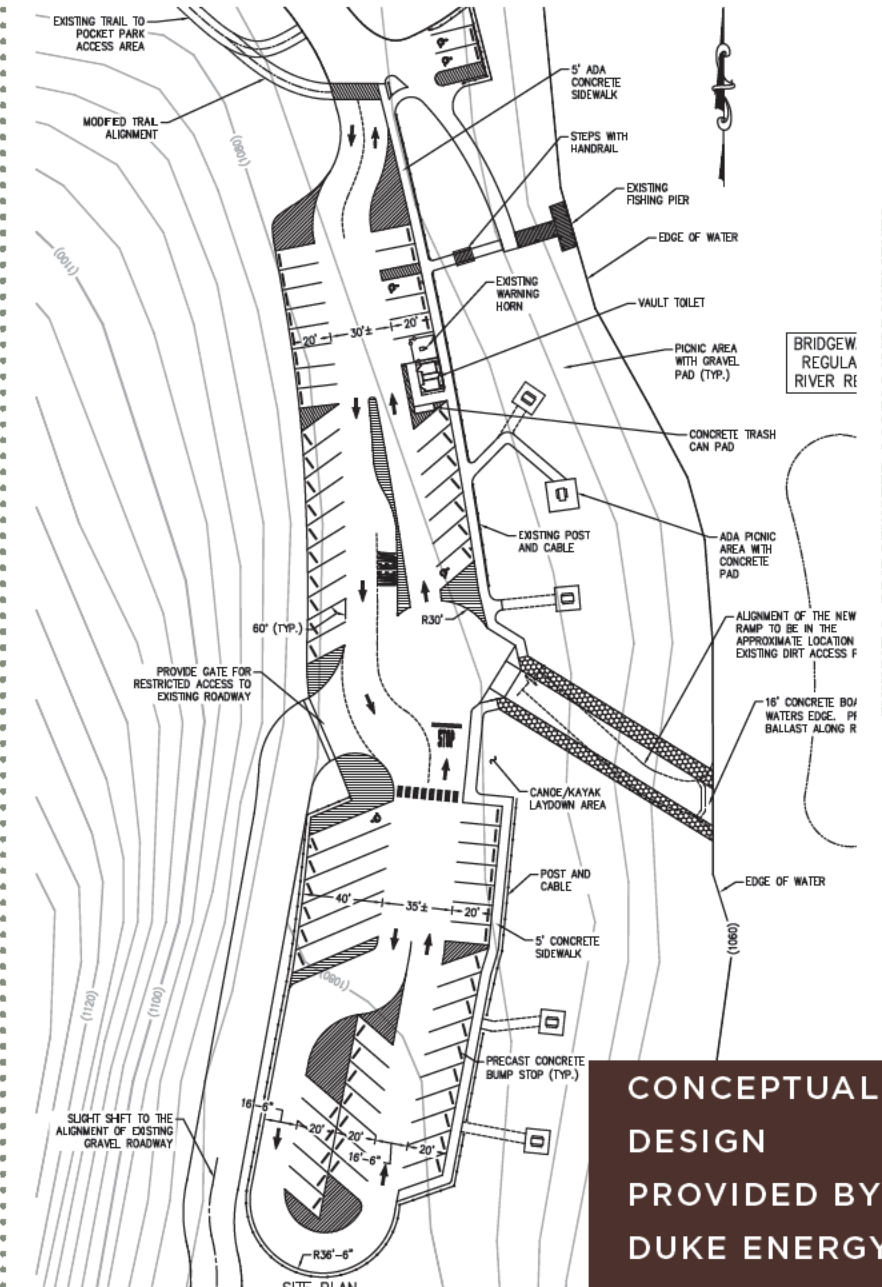


EXHIBIT 6: BRIDGEWATER ACCESS IMPROVEMENTS

CONCEPTUAL
DESIGN
PROVIDED BY
DUKE ENERGY

DUKE ENERGY BRIDGEWATER ACCESS IMPROVEMENTS

The Bridgewater Access is popular among fisherman and boaters. Duke Power has plans to significantly enhance the site, providing for additional parking and an enhanced boat launch area.

SECTION 2

VICINITY MAP



 **POWERHOUSE ROAD >> WATERMILL RIVER ACCESS**

TOTAL LENGTH:	5.7 Miles
TRAIL TYPE:	Multi-use Trail
ESTIMATED COST:	\$884,652
POINTS OF INTEREST:	Planned NC Wildlife Resources River Access River Access Watermill River Access

PROPOSED TRAILS

This planning section extends 5.7 miles from Powerhouse Road to Watermill River Access.

The preferred route continues along the north side of the Catawba River after crossing Powerhouse Road in the vicinity of North Bend Access: a planned NC Wildlife Resources River Access. Farther east, there are large tracts where landowners have expressed their unwillingness to provide a trail easement. With successful negotiations with other surrounding landowners, the trail will need to bridge the Catawba River and connect on its south side where there are secured existing trail easements. From here, the trail will continue on the south side and connect to the existing Watermill River Access.



05

TRAIL FEATURES

TRAILHEADS

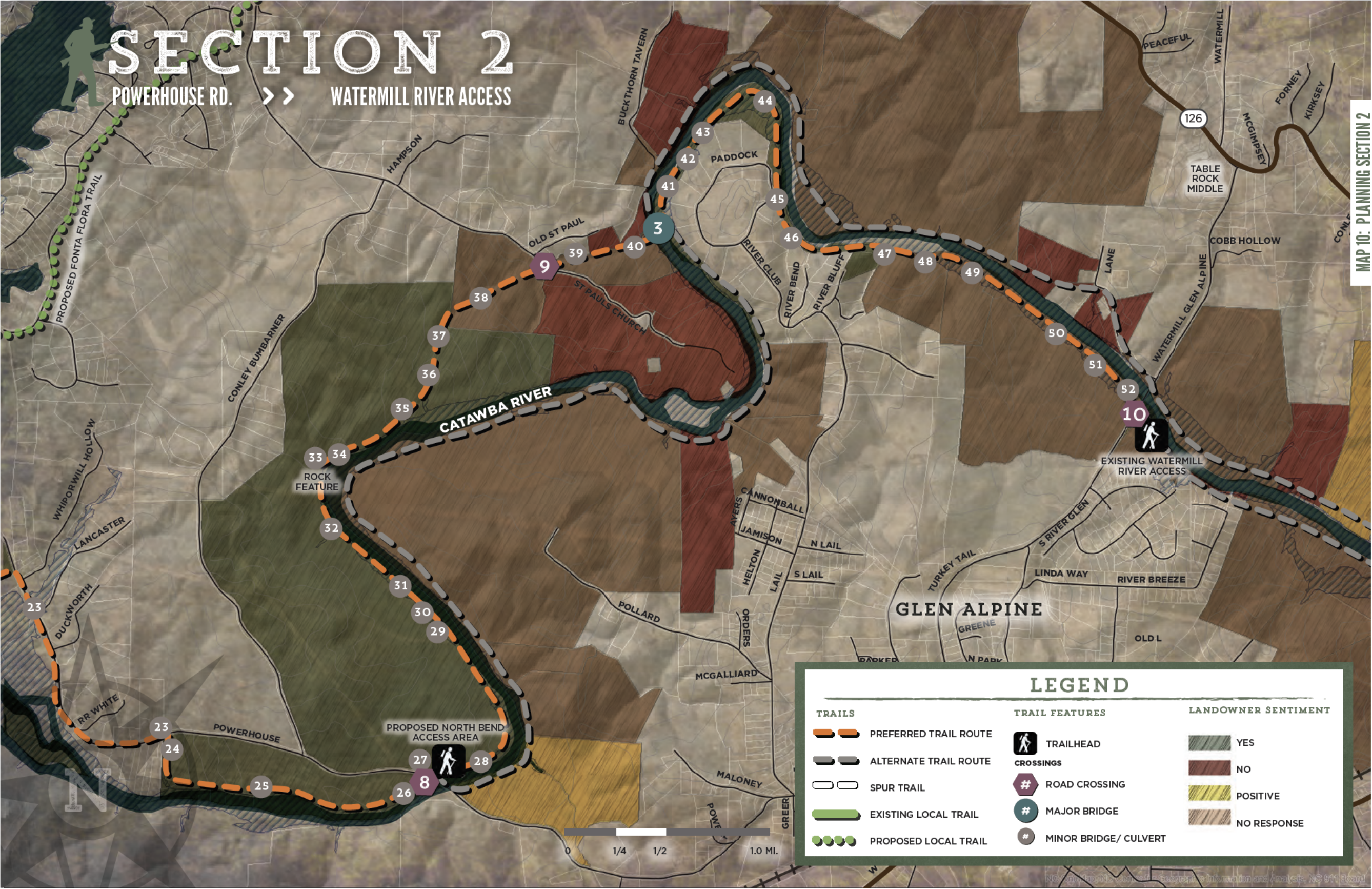
Two trailheads are proposed within this planning section. The first is proposed along the Catawba River at Powerhouse Road where NC Wildlife Resources will ultimately construct a river access area. This access should provide for OVNHT information and welcome its users. The second trailhead is proposed at the existing Watermill River Access. The trail will need to extend under the Watermill Bridge to connect with this access area, which can use some minor enhancements to organize parking and orient users to area recreation opportunities.



06

PHOTOS: (5 & 6) The existing Watermill River Access could serve as an important OVNHT Trailhead.





CHAPTER 4

CROSSINGS

Proposed within this section are three (3) road crossings, one (1) major bridge, and twenty-nine (29) minor bridges/culverts.



The first major road crossing exists at Powerhouse Road where an initial visual inspection revealed that the trail will likely need to cross the road rather utilize a trail underpass. However, during the design and engineering phase or with the development of the river access planned in this vicinity, an opportunity for a trail underpass should be further explored. The second crossing is along Saint Pauls Church Road, a rural collector road that the trail will need to cross to again reach the Catawba River. The final road crossing in this section is located at Watermill Bridge, which provides sufficient room to accommodate a trail underpass.

The only necessary major bridge crossing is centrally located within the planning section. This bridge will allow the trail to avoid landowners located on the north side of the Catawba River that are unwilling to provide trail easements, while accessing existing trail easements located on the south side of the river within the River Club

PHOTOS: (7) The trail will need to cross (crossing #8) Powerhouse Road.



OFF THE ROAD AGAIN @ POWERHOUSE



After paralleling the Powerhouse Road for approximately one mile, the preferred route leaves the roadside, extends south to the Catawba River, and takes advantage of trail easements provided by Duke Power.

EXHIBIT 8: WATERMILL RIVER ACCESS ENHANCEMENTS



WATERMILL RIVER ACCESS ENHANCEMENTS

EXISTING



The existing Watermill River Access serves as an ideal location to organize and orient OVNHT users. Future enhancements at this pocket park might include paved parking, a picnic shelter, and an information kiosk.

SECTION 3



WATERMILL RIVER ACCESS >> FREEDOM PARK

TOTAL LENGTH:	4.6 Miles
TRAIL TYPE:	Multi-Use Trail
ESTIMATED COST:	\$296,956
POINTS OF INTEREST:	Watermill River Access
	Catawba River Soccer Complex
	Freedom Park
	Freedom Park High School

PROPOSED TRAILS

This planning section extends 4.6 miles from Watermill River Access to Freedom Park. This section is recognized as the most challenging area within the study area in regards to feasibility for implementation. There are such significant challenges on both the north and south side of the Catawba River that a preferred route is not provided, but rather only two alternative routes.

Since the previous planning section (Section 2) highlighted the existing Watermill River Access as its eastern terminus, ideally the trail would continue along the south side of the Catawba River. However, development density and noted unwilling landowners represent significant challenges on the south side of the river. Along the north side of the river, Swan Pond would serve as an ideal connection since its part of the NC Preservation Program. Also, the Canoe Creek corridor serves as an environmentally suitable location for a trail, but again, landowner issues within this vicinity present a barrier.

This planning section will require significant landowner outreach that is beyond the scope of this study. Furthermore, the consultant team determined that a specific preferred route could result in the further alienation of area landowners.



08

TRAIL FEATURES

TRAILHEADS

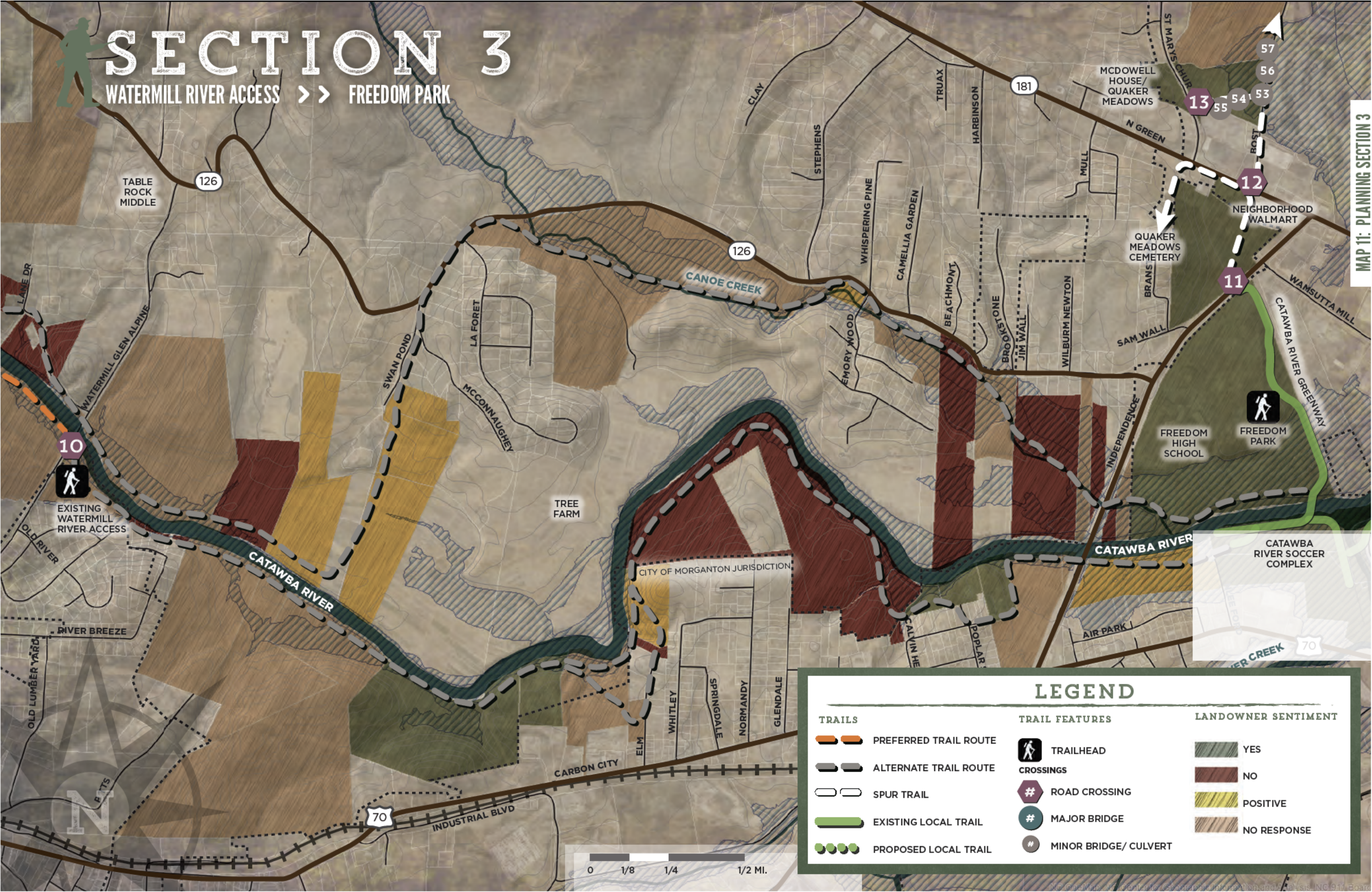
The only trailhead proposed within this planning section currently exists at Freedom Park, which provides access to a certified section of OVNHT. Enhancements at this trailhead might involve incorporating trail signage and other features noted within this plan.



09

PHOTOS: (8) Swan Pond would serve as an ideal connection point. (9) Freedom Park has an existing section of certified OVNHT.





SECTION 4

VICINITY MAP



 **FREEDOM PARK >> GRACE RIDGE TRAILHEAD**

TOTAL LENGTH: 4.2 Miles

TRAIL TYPE: Existing Typical Greenway
Typical Greenway

ESTIMATED COST: \$609,480*

POINTS OF INTEREST: Freedom Park
McDowell House/ Quaker Meadows
Quaker Meadows Cemetery
Catawba Meadows Park
Rocky Ford Access
Grace Ridge Trailhead

* Total cost of Section 4 including spur trail and associated trail features is approximately \$2,607,080. While important, the spur trail isn't critical to connect the OVNHT.

PROPOSED TRAILS

This planning section extends 4.2 miles from Freedom Park to Grace Ridge Trailhead.

This section primarily highlights an existing and certified section of the OVNHT. However, within this area exists an opportunity for a spur trail that will link OVNHT historical assets, including the McDowell House. Furthermore, this section serves as the eastern terminus of this plan and as the southern terminus of the OVNHT sister plan than extends north to the City of Lenoir.

From Freedom Park a spur trail is proposed to cross Independence Boulevard and then over Highway 181 to connect to the historic McDowell House, which is further examined in Chapter 1. The spur trail alignment then extends east to Bost Road before heading north until reaching the northern intersection of Bost Road and Lost Corner Road. After heading east on Lost Corner Road, the trail can access existing trail easements along the Warrior Fork corridor (see Appendix A-6 & A-7). A



10

major bridge over the Catawba River would be necessary to reach the existing trailhead at the Rocky Ford Access. If complete, this spur trail would create an approximate 8.5 mile loop.

The Rocky Ford Access serves as the southern terminus of the OVNHT sister plan that extends north to the City of Lenoir. The preferred alignment for this planned trail segment would connect to Rock Ford Access after utilizing a trail underpass at the Highway 18/64 bridge.



11

PHOTOS: (10) The McDowell House is an important historical asset worthy of connection via a spur trail. (11) Significant greenway easements are secured along Warrior Creek (see Appendix A-6 & A-7).





CHAPTER 4

TRAILHEADS

Two trailheads are noted within this planning section. Rocky Ford Access serves as the existing trailhead for the northern terminus of the Catawba River Greenway and Morgan-ton's certified section of the OVNHT. The trailhead would benefit from improved parking and trail user orientation. A new OVNHT trail-head is proposed along Highway 18/64 adjacent to the Grace Ridge Retirement Community. A spur trail will connect the parking area to the proposed OVNHT along the Catawba River.



CROSSINGS

The proposed spur trail will require four (4) road crossings, two (2) new major bridges, and seventeen (17) minor bridges/culverts.

Major road crossings are required at Independence Boulevard, Highway 181, Bost Road, and Lost Corner Road. All of these crossings will require treatments appropriate to signal motorists of trail users.

As previously noted, a major bridge over the Catawba River will be necessary to reach the existing trailhead at

PHOTOS: (12) The design and planning team meets with local officials at the existing Rocky Ford Access to determine a preferred trail alignment.



GRACE RIDGE TRAILHEAD

A

new OVNHT trailhead is proposed along Highway 18/64 adjacent to the Grace Ridge Retirement Community. A spur trail will connect the parking area to the proposed OVNHT along the Catawba River.



EXHIBIT 10: HIGHWAY 18/64 UNDERPASS

HIGHWAY 18/64 UNDERPASS

EXISTING



The 18/64 underpass in Morganton is critical for connecting the existing Rock Ford Access/Catawba River Greenway with the Johns River Game Lands.



CHAPTER 5

IMPLEMENTATION

TO CONSTRUCT THE OVNHT FROM LAKE JAMES TO MORGANTON WILL BE NO SMALL TASK, BUT WITH TIME, PERSEVERANCE, AND A LITTLE LUCK, THERE IS NO DOUBT THAT A DESTINATION-QUALITY TRAIL IS WITHIN GRASP.

This chapter aims to summarize details regarding each Planning Section and establish responsibilities and priorities for trail implementation. Furthermore, this chapter describes the “Trail Rubicon,” or the focus areas that when developed, result in a perception that the complete trail is imminent and widespread support ensues.

IN THIS CHAPTER

- A. Implementation by Section and Responsibilities
- B. Priority Implementation Areas and Responsibilities
- C. Trail Rubicon
- D. Trail Support Spectrum

IMPLEMENTATION

IMPLEMENTATION BY SECTION AND RESPONSIBILITY

The table below provides key implementation information associated with each planning section. Key Challenges include a summary of the most difficult barriers for realizing each trail section. Many of these barriers include costly features or note the need to acquire trail easements from private landowners. Most importantly, this table assigns an Implementing Agency to each planning section.



IMPLEMENTATION DETAILS BY SECTION AND RESPONSIBILITY

SECTION	DISTANCE	KEY CHALLENGES	ESTIMATED BUDGET	IMPLEMENTING AGENCY
SECTION 1-Canal Bridge to Powerhouse Rd.	5.9	Canal Bridge Crossing; NCDOT Side Paths along Benfields Landing Rd. and Powerhouse Rd; Benfields Landing Crossing; Muddy Creek Bridge Crossing; Securing Landowner Trail Easements	\$2,239,900.00	Burke County
SECTION 2-Powerhouse Rd. to Watermill River Access	5.7	Securing Landowner Trail Easements; Catawba River Bridge; Watermill Glen Alpine Rd. Underpass	\$884,652.00	Burke County
SECTION 3- Watermill River Access to Freedom Park	4.6	Securing Landowner Trail Easements	\$296,956.00	Burke County, City of Morganton
SECTION 4- Freedom Park to Rocky Ford Access	4.2	Spur Trail to McDowell House; Highway 181 Crossing; Highway 18/64 Underpass	\$609,480.00*	City of Morganton
ALL SECTIONS TOTAL	20.4		\$4,030,988.00	

* Estimated budget shown above pertains only to the completion of the preferred OVNHT route. Total cost of Section 4 including spur trail loop and associated trail features is approximately \$2,607,080.

EXHIBIT 11: IMPLEMENTATION DETAILS BY SECTION AND RESPONSIBILITY

PRIORITY IMPLEMENTATION AREAS & RESPONSIBILITIES

Burke County and Morganton must work in tandem to successfully realize the OVNHT. Trail implementation does not have to occur in a specific, linear order according to each planning section. In fact, the priority areas for implementation are merely suggestions and are in no way intended to hem creativity or necessary work in "lower" priority areas. Trail implementation is an art and requires the acumen to recognize and then seize opportunities, whether related to funding, land-owner willingness, politics, etc.

The table below supports a trail development strategy that prioritizes areas west of Watermill River Access (sections 1 and 2). If these were to be fully developed, this would likely provide the formula for "Trail Rubicon," the point in which the public, elected officials, and partnership funding agencies recognize that connectivity and complete implementation is imminent. At this point significant momentum and synergy would likely propel forward the completion of the OVNHT from Lake James to Morganton.

TRAIL RUBICON: FINDING THE POINT OF NO RETURN

Think snowball effect. Which sections of the trail need to be developed before there is widespread support and a collective energy, beyond that of the community's traditional trail support base, to ensure that the OVNHT is complete? These trail section or focus areas represent the Trail Rubicon. Between Lenoir and Morganton, there are three areas:



EXHIBIT 12: TRAIL RUBICON

PRIORITY IMPLEMENTATION AREAS AND RESPONSIBILITIES

IMPLEMENTING AGENCY	PRIORITY ONE	PRIORITY TWO
Burke County	Section 1: Canal Bridge to Powerhouse Road	Section 2: Powerhouse Road to Watermill River Access; Section 3: Watermill River Access to Freedom Park
City of Morganton	Section 4: Rocky Ford Access to Grace Ridge Trailhead	Section 4: Spur to McDowell House

EXHIBIT 13: PRIORITY IMPLEMENTATION AREAS



TRAIL SUPPORT SPECTRUM

Creating a destination-quality trail system requires a significant commitment from local governments, including staff time, the holding of land and trail easements, and the dedication of local funding.

Each local government must evaluate the OVNHT in relationship to its other priorities. However, a trail of this magnitude should be recognized as an economic development initiative that will provide a return on investment. Furthermore, each jurisdiction must not merely

spend local funds, but instead must leverage their funds to obtain support from partnership funding agencies sympathetic to the creation of trails and the OVNHT.

The “Trail Support Spectrum” illustrates the steps local governments can take to support trail development.

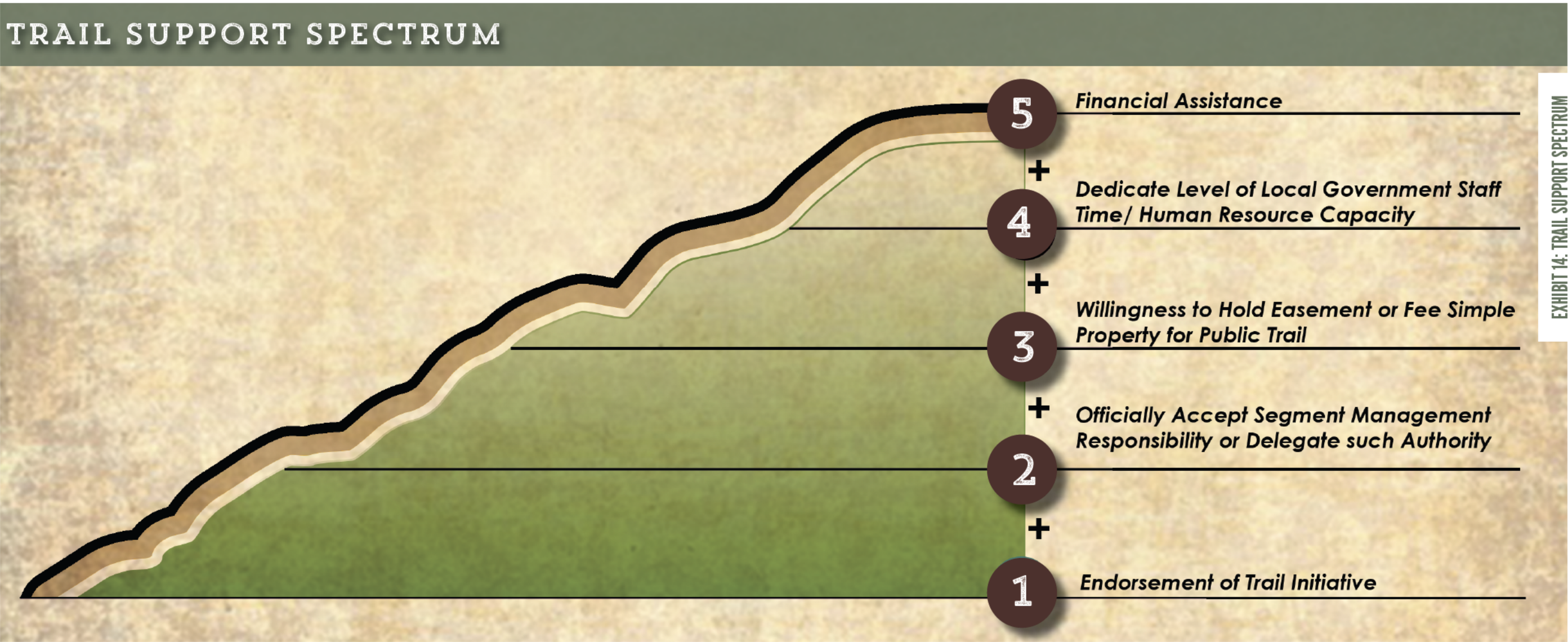


EXHIBIT 14: TRAIL SUPPORT SPECTRUM

APPENDIX

APPENDIX

(A1) BUDGET

SECTION 1- CANAL BRIDGE TO POWERHOUSE ROAD	UNITS	UNIT COST	TOTAL COST
Canal Bridge Trailhead	1	\$125,000.00	\$125,000.00
Multi-Use Trail (5 ft. Natural Surface)	30096	\$12.00	\$361,152.00
NCDOT Side Path (6 ft. Paved Asphalt) ①	1056	\$120.00	\$126,720.00
Road Crossings	7	\$5,500.00	\$38,500.00
Major Bridges	2	\$75,000.00	\$150,000.00
Minor Bridge/ Culvert	23	\$8,000.00	\$184,000.00
Total Cost			\$985,372.00
SECTION 2- POWERHOUSE RD. TO WATERMILL RIVER ACCESS	UNITS	UNIT COST	TOTAL COST
Existing Watermill River Access Improvements	1	\$125,000.00	\$125,000.00
Multi-Use Trail (5 ft. Natural Surface)	30096	\$12.00	\$361,152.00
Road Crossings	3	\$5,500.00	\$16,500.00
Major Bridges	1	\$150,000.00	\$150,000.00
Minor Bridge/ Culvert	29	\$8,000.00	\$232,000.00
Total Cost			\$884,652.00
SECTION 3- WATERMILL RIVER ACCESS TO FREEDOM PARK	UNITS	UNIT COST	TOTAL COST
Multi-Use Trail (5 ft. Natural Surface)	24288	\$12.00	\$291,456.00
Road Crossings	1	\$5,500.00	\$5,500.00
Major Bridges	TBD		
Minor Bridge/ Culvert	TBD		
Total Cost			\$296,956.00
SECTION 4- FREEDOM PARK TO NORTHERN CATAWBA RIVER GREENWAY TRAILHEAD	UNITS	UNIT COST	TOTAL COST
Grace Ridge Trailhead	1	\$325,000.00	\$325,000.00
Typical Greenway (10 ft. Paved Asphalt)	1056	\$80.00	\$84,480.00
Road Crossings	0	\$5,500.00	\$0.00
Major Bridges	0	\$175,000.00	\$0.00
Minor Bridge/ Culvert	0	\$8,000.00	\$0.00
18/64 Underpass (Road Crossing)	1	\$200,000.00	\$200,000.00
Total Cost			\$609,480.00②
ALL SECTIONS TOTAL			\$2,776,460.00

① Unit cost based on NCDOT estimate provided to Burke County on 6/17/2015. Final trail type will depend on specific environmental conditions and whether trail is located within NCDOT ROW or within a private trail easement.

② Estimated budget shown above pertains only to the completion of the preferred OVNHT route. Total cost of Section 4 including spur trail loop and associated trail features is approximately \$2,607,080.

(A2) FACT SHEET

(A3) LANDOWNER LETTER

FACT SHEET

BACKGROUND

A trail master planning effort is underway to help create a section of the Overmountain Victory National Historic Trail (OVT) that would connect from Lenoir to Morganton to Lake James!

Thanks to grant support from the National Park Service, regional community organizations and local governments are working to establish a walking and leisure biking trail that connects the region and celebrates the trail walked by the Overmountain Men who won a major Revolutionary War battle at Kings Mountain in 1780.

The trail planning process requires an analysis of the Lower Creek corridor in Caldwell County and the Catawba River corridor in Burke County. The trail is best suited in floodplain areas where development generally cannot occur and where there are meaningful connections to existing parks, civic buildings, and neighborhoods.

After identifying feasible trail route options, there will be a major landowner outreach effort. Without the voluntary commitment from landowners, the trail will either be relocated or not constructed.

An educational video will be developed to help communicate the historical significance of the OVT, which will be made available online. www.OVTplan.com

THE PLANNING PROCESS

1 Direction Setting and Project Launch | September 2014

The consultant team will meet with local trail and government leaders to generally discuss environmental constraints and opportunities for trail connectivity.

2 Research | October – January 2015

The consultant team will conduct a thorough environmental assessment of the study area and determine feasible trail route options. With the trail routes identified, a landowner contact list will be developed.

3 Landowner Outreach | February – March 2015

Landowners with property along an identified feasible trail route will be invited to a special meeting to learn more about the trail project. After receiving comments from landowners, the preliminary trail routes will be updated.

4 Plan Development | March – May 2015

The consultant team will document the trail analysis and landowner comments. Recommendations will highlight alternative routes and the project’s overall feasibility for completion. A draft plan will be made available for public comment.

5 Final Plan Preparation | May – June 2015

The consultant team will publish a final plan that incorporates all public comments.



CONSULTANT CONTACT:

Eric Woolridge, AICP
Destination by Design

Email: Eric@dbdplanning.com
Phone: (828) 386-1866
Web: www.DbdPlanning.com

Date: February 16, 2015

Re: Trail Planning Meeting for Landowners

Dear _____

Thanks to grant support from the National Park Service, regional community organizations and local government leaders, a plan is being developed for establishing a walking and leisure biking trail to connect from Lenoir to Morganton to Lake James.

This trail celebrates the walk made by the Overmountain Men who won a major Revolutionary War battle at Kings Mountain in 1780.

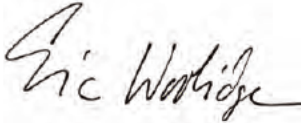
Since November 2014, the planning team has been working to identify a feasible route to construct the trail. As part of this analysis, your property has been identified as a potential location for a trail section. Without a **voluntary commitment** from landowners, this important trail will either be relocated or not constructed.

We would like to invite you and other landowners to discuss this project during a special meeting that will take place at _____

An informational video can be found on the web at: www.OVTplan.com. Also, enclosed is a project Fact Sheet that further describes the project.

Please RSVP if you plan to attend the meeting by sending an email or calling using the contact information below. Thank you.

Sincerely,





Eric Woolridge
Consultant Project Manager
Destination by Design Planning
Phone: 828.386.1866
Email: eric@DbDplanning.com



Destination by Design Planning
815 W. King Street, NC 28607

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(A4) LANDOWNER INTEREST SURVEY

Note: The completed Landowner Interest Surveys were provided to local government leaders.



Landowner Interest Survey

Name _____

Address _____

Phone Number _____

Email _____

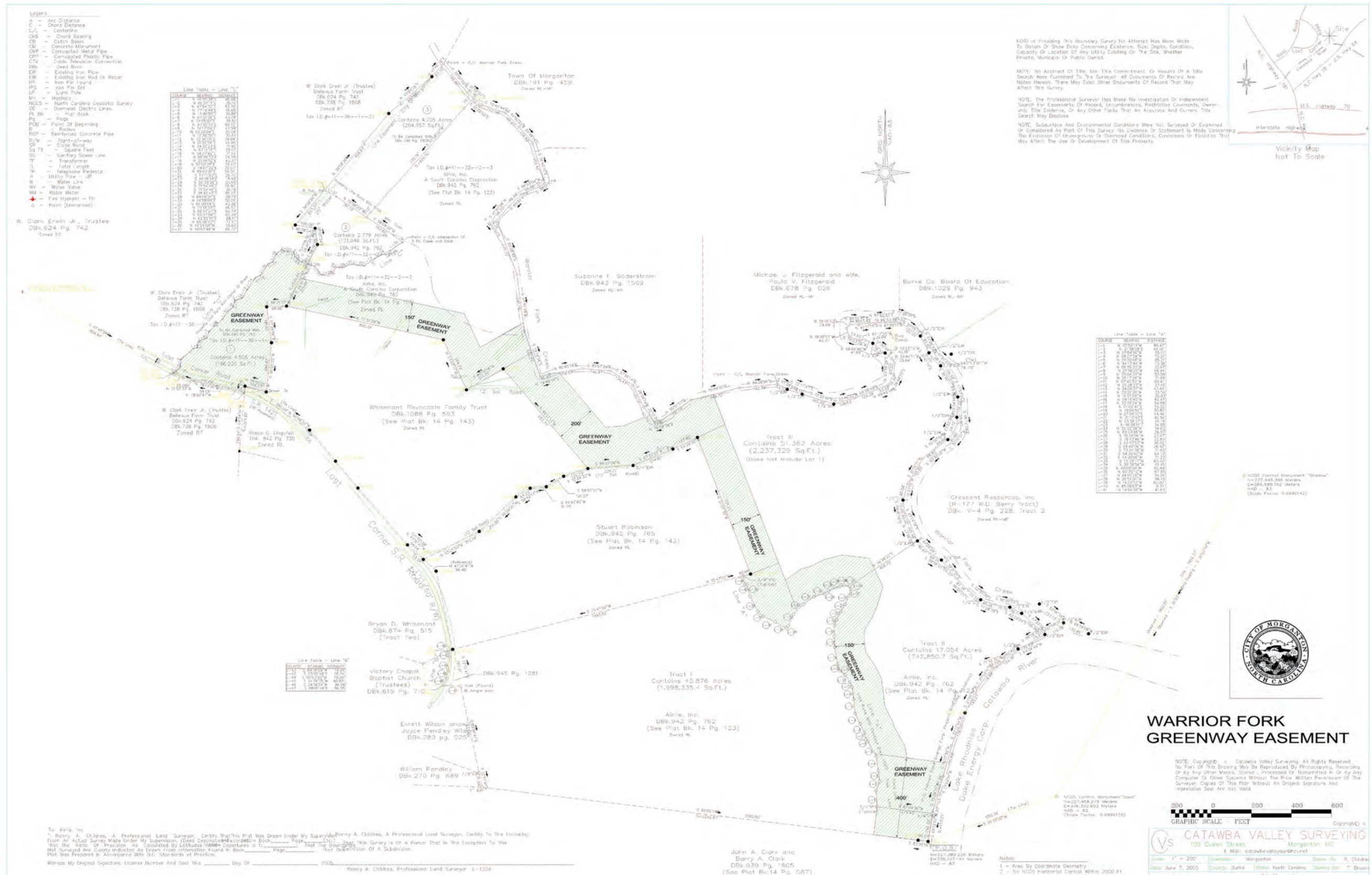
Please share your level of interest for providing for the public trail. (check below)

- ☐ Not interested at this time
- ☐ Somewhat interested and welcome further discussions
- ☐ Very interested

(A5) FUNDING SOURCES

PARTNERSHIP FUNDING AGENCY	ACTIVE LIVING/ BUILT- ENVIRONMENT IMPLICATIONS	MAXIMUM AMOUNT	MATCHING FUNDS REQUIRED	DEADLINES
TIGER	Construction provided all easements are secure.	N/A (min. \$1 million)	\$0 (for rural counties	May (typical)
Clean Water Management Trust Fund (www.cwmff.net)	Land Acquisition: Fee Simple or Easement. Must protect floodplain areas. Greenway trails and other park areas are allowed.	Based on 6/2015 discussion w/ staff, a \$750K / multi-year application would be welcome.	Not specified, but 20% is competitive	February 1st
NC Water Resources (www.ncwater.org)	River access areas or greenways along rivers	N/A	50%	January 1st and June 1st
Recreation Trails Program (ncparks.gov/About/grants/main.php)	All types of trails and greenways	\$100,000.00	25%	February 1st
Parks and Recreation Trust Fund (ncparks.gov/About/grants/main.php)	All types of parks, trails, and recreation facilities	\$500,000.00	50%	February 1st
Bikes Belong Foundation	Trails and Greenways	\$10,000.00	20%	May 24th
NCDOT Transportation Plan For Bike and Pedestrian Projects	Bike and Pedestrian Projects- both engineering and construction	N/A (for major projects)	20% generally	N/A

(A6) WARRIOR FORK GREENWAY EASEMENT









keep the story alive