The purpose of this study is to examine the feasibility of constructing a greenway along Mud Creek from Erkwood Drive, north to White Street. This multi-use path, parallel to Mud Creek will provide safe pedestrian and bicycle amenities connecting the neighborhoods and commercial areas.
This report analyzes both natural and built environmental constraints. Other considerations that were analyzed included connections to existing and planned greenways adjacent to the study area limits and existing conditions. Also, site visits combined with a geographic information systems (GIS) analysis were performed to identify the following: community features, environmental resources, and demographic data. Additionally, existing plans were reviewed to acquire information on the study area’s history.
Existing Conditions

Existing conditions and barriers associated with the project study area are displayed in this map.
Opportunities and Barriers

### Opportunities and Barriers Considered:

- Connections to destinations and points of interest
- Connectivity across the region
- Potential economic development opportunities
- Environmental protection
- Physical and topographic barriers
- Constraints associated with the floodplain
- Constraints associated with utilities
- Impacts to landowners and to the natural and human environment
- Challenges associated with right-of-way (ROW)
- Funding opportunities

Demographic Analysis

### Demographics Analyzed:

- Population and age
- Minority and race
- Limited English Proficiency and Language Assistance
- Income and housing
- Car ownership
- Commuting patterns
Public Participation

Stakeholders were engaged during three events: Oversight Committee meetings, Property Owner Meetings, and a Virtual Public Meeting.

Online surveys were distributed to both the property owners and the general public. Overall, 6 responses were collected from property owners and 64 responses were collected from the general public. Survey responses were collected between November 2nd, 2020, and November 30th, 2020.

Mud Creek Greenway

83% of property owners would support an attached multi-use path on Jonesborough Street.

86% of the general public believes that the Mud Creek Greenway is a good alternative for off-road facilities and bicycle and pedestrian connections.
Recommendations

The alternatives for the Mud Creek Greenway were recommended after careful review of design considerations (human and natural environment) and design criteria. Specifics for each are provided above and below, respectively.
Initial Greenway Recommendations

Three conceptual trail alignments and five trailheads were created based on the data collected and the opportunities and barriers that have been identified.
Preferred Mud Creek Greenway Alternative

This alternative was selected based on analysis, prioritization matrix, and stakeholder input. The preferred alternative includes a combination of segments from Alternatives 1 and 3.

Legend:
- Study Area
- Trail Alternative 1
- Trail Alternative 3
- Environmental Education (Boardwalks / Overlooks)
- Trailhead Connections
- Trailhead
- Proposed Gravity Main
- Creek / Standing Water Streams
- Flood Zone and Floodplain
- 4-ft Elevation Contours
- Potential Rapid Flashing Beacon at Pedestrian Crossing
- Clearing / Sewer Easement Access

*Trails are located outside of 30ft stream buffer

Estimated Cost:
$3,785,000
White Street Section

2 - 5' Bike lanes, 6' sidewalk, and crosswalks to 12' multi-use path on Jonesborough Street

Not to Scale
White Street Section
2 - 5' Bike lanes, 6' sidewalk, and crosswalks to 12' multi-use path on Jonesborough Street

Not to Scale
Jonesborough Street Section
12’ Attached multi-use path

Not to Scale
Jonesborough Street Section
12' Attached multi-use path

EXISTING CONDITIONS
9' TRAVEL LANE
9' TRAVEL LANE
12' ATTACHED MULTI-USE PATH
± 20' ROW

EXISTING CONDITIONS

Not to Scale

42° BARRIER PER AASHTO
Jonesborough Street Section
12' Detached multi-use path

Cross Sections

Not to Scale
Jonesborough Street Section
12' Detached multi-use path

Not to Scale
Final design should place the trail 30 ft from the stream (outside of 30 ft stream buffer) or permits will be required.
Mud Creek Section
12' Multi-use path

Final design should place the trail 30 ft from the stream (outside of 30 ft stream buffer) or permits will be required.

Not to Scale
Mud Creek Section
± 12’ Pedestrian bridge

Not to Scale
Mud Creek Section
± 12’ Pedestrian bridge

Cross Sections

Not to Scale
Mud Creek Section
12’ Elevated boardwalk

Not to Scale
Mud Creek Section
12’ Elevated boardwalk

Cross Sections

Not to Scale
MUD CREEK GREENWAY
TRAILHEAD CONCEPTUAL RENDERING

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MUD CREEK GREENWAY
MULTI-MODAL PATH CONCEPTUAL RENDERING II

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Phasing Plan

It will take two years to design the entire greenway (includes surveying). Between years 2 and 3, NEPA documentation will be prepared. Between years 3 and 5, ROW acquisition will begin, followed by construction. Construction could be broken down by the greenway sections (Alternative 3, Jonesborough Street, and the bridge over Mud Creek) between the two alternatives.

Potential Funding Sources

- Surface Transportation Block Grant
- Transportation Alternatives Program (TAP)
- Henderson County Tourism Development Authority (TDA)

Land Acquisition Strategies

- Fee Simple
- Option
- Right of First Refusal
- Easement
- Remainder Interest/Life Estate
- Donation
- Purchase/Lease Back

Coordination Opportunities

- Blue Ridge Bicycle Club
- Carolina Thread Trail
- City of Hendersonville
- Conserving Carolina
- North Carolina Department of Environmental Quality (NC DEQ)
- North Carolina Department of Transportation
- RiverLink
- MountainTrue
- French Broad River Metropolitan Organization
- United States Army Corps of Engineers (USACE)