



TOWN OF BLACK MOUNTAIN

Town Hall, 160 Midland Avenue, Black Mountain, NC 28711

Date: July 8, 2019 Time: 6:00 p.m.

Regular Session Agenda

*The agenda and all related documentation may be accessed electronically via Wi-Fi in Town Hall. From your laptop or smartphone, access the Town's website at www.townofblackmountain.org. Click on **Town Government** and select **Mayor and Board of Alderman** to download materials for all Town board meetings.*

 **Conserve resources; print only when necessary.**

The Town of Black Mountain is committed to providing accessible facilities, programs and services for all people in compliance with the American with Disabilities Act (ADA). Hearing assistive devices are available at the door.

Should you need other assistance or accommodation for this meeting, please contact Town Clerk Angela Reece at 419-9310, or by email at angela.reece@townofblackmountain.org (828) 419-9300 / TDD (800) 735-2962

1. CALL TO ORDER

- Welcome
- Pledge of Allegiance
- Invocation – *Rev. Steve Walton, Friendship Presbyterian Church, Black Mountain*
- Announcements – *Mayor Don Collins*

2. PROCLAMATIONS, AWARDS & RECOGNITION

A. Outgoing Boards & Commissions Members- Thank you for your service!

3. CITIZEN COMMENTS

*Individuals wishing to address the Board are asked to sign in at the entrance to the board room, indicating the topic(s) or agenda item(s) you wish to discuss, so that the chair may group speakers according to topic. The chair will recognize individuals requesting to address the Board. **Comments by any one speaker shall be limited to three (3) minutes.** If the topic you wish to discuss pertains to a **public hearing** scheduled for this meeting, please reserve your comment for the applicable public hearing.*

4. COMMUNICATIONS FROM BOARDS, COMMISSIONS & AGENCIES

A. ABC Board Annual Report – *Bill Christy, Chair*

B. Greenways Commission Annual Report

C. Swearing in of Boards & Commissions Members

5. CONSENT AGENDA

All items on the consent agenda are considered routine, to be enacted by one motion without discussion. If a member of the governing body requests discussion of an item, the item will be removed from the consent agenda and considered separately.

A. Adoption of Minutes

Motion: *To adopt the minutes of June 6, 2019 (Agenda Session), June 10, 2019 (Regular Session), and June 6, 2019 (Closed Sessions).*

TOWN OF BLACK MOUNTAIN- REGULAR SESSION AGENDA
July 8, 2019

- B. Call for Public Hearing to REZONE 300 Flat Creek Road from SR-2 (suburban residential) to TR-4 (town residential). **REZONING**

Motion: *To call for the public hearing to rezone 300 Flat Creek Road PIN #0710-51-3233.00000 from SR-2 (suburban residential) to TR-4 (town residential) to be held on Monday, August 12, 2019 at 6:00 p.m., or as soon thereafter as possible, in the Board Room of Town Hall at 160 Midland Avenue.*

Consent Motion: *To approve consent items A-B as presented.*

6. CITIZEN COMMENTS

*The chair will recognize individuals requesting to address the Board regarding the specific New Business or Unfinished Business items below. Comments by any one **speaker shall be limited to three (3) minutes.** If the topic you wish to discuss pertains to a **public hearing** scheduled for this meeting, please reserve your comment for the applicable public hearing.*

7. UNFINISHED BUSINESS

- A. Appointment to fill vacancies on Town Boards and Commissions

1. **Greenways Commission** – (1) unexpired term ending June 30, 2020

*1 applicant: **Brandon Moffitt** (new applicant applying for 1st full term)*

Nomination: _____

Motion: *To appoint _____ to fill an **unexpired term** ending **June 30, 2020** by a vote of _____ for and _____ against.*

***There will be one unexpired term vacancies left open pending new applications.**

2. **Planning Board** – (1) vacancy/ 3-yr term ending June 30, 2022

3 applicants:

***Jesse Gardner** (re-applying for 2nd full term)*

***Lisa Milton** (re-applying for 2nd full term)*

***Gregory Feightner** (new applicant- applying for 1st full term)*

Nomination: _____

Motion: *To appoint _____ to fill a 3 year term ending June 30, 2022 by a vote of _____ for and _____ against.*

TOWN OF BLACK MOUNTAIN- REGULAR SESSION AGENDA
July 8, 2019

3. **Zoning Board of Adjustment** – **3rd Alternate term**

1 applicant:

Gregory Feightner (new applicant – applying for 3rd Alternate seat)

Nomination: _____

Motion: To appoint _____ to fill the **3rd Alternate** seat by a vote of _____
for and _____ against.

8. NEW BUSINESS

A. Greenways Master Plan & Presentation – *Jessica Trotman, Planning Director*

Motion: To adopt the greenway master plan as presented [or as amended].

B. River Walk Greenway Update- *Josh Harrold, Town Manager*

C. Fourth Street Traffic Study Update – *Josh Harrold, Town Manager*

9. PUBLIC HEARING

*The chair will recognize individuals requesting to address the Board regarding the specific topic of the public hearing. **Public hearing comments by any on speaker shall be limited to ten (10) minutes.** The Mayor reserves the right to alter time limits and other rules of procedure at the beginning of each Public Hearing.*

A. Public Hearing to implement System Development Fees

-#O-19-15

Additional Information: <https://www.townofblackmountain.org/2424/System-Development-Fees-Study>

Motions:

1. To open the public hearing on Ordinance **#O-19-15**, to implement System Development Fees consistent with Article 8, System Development Fees “Public Water and Sewer System Development Fee Act”. (2017-138, s.1.) , NC G.S. 162A-Article 8.

2. **Public Comments**

TOWN OF BLACK MOUNTAIN- REGULAR SESSION AGENDA
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3. To close the public hearing.
 4. To approve Ordinance #O-19-15 as presented [or as amended] allowing the Town of Black Mountain to implement System Development Fees to be charged consistent with the requirements of NC G. S. Ch. 162A, Article. 8, as such may be amended from time to time.
- B.** Resolution to Adopt Fee Updates to the Water Rate and Fee Schedule for the Town of Black Mountain **#R-19-14**

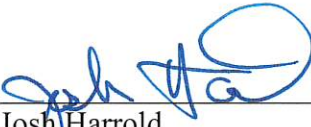
Motion: *To adopt Resolution R-19-14 to amend the Town of Black Mountain Fee Schedule to include System Development Fees consistent with the requirements of NC G. S. Ch. 162A, Article. 8*

10. COMMUNICATION FROM STAFF

- A. Town Attorney – Ron Sneed
- B. Town Manager – Josh Harrold

11. COMMUNICATION FROM MAYOR AND BOARD OF ALDERMEN

12. ADJOURNMENT



Josh Harrold
Town Manager

Recognition of Outgoing Boards & Commission Members

• Bill Christy	7 years of service	ABC Board
• Julie White	6 years of service	Greenways Commission
• Robyn Josephs	3 years of service	Greenways Commission
• Shannon-Heather Wall	3 years of service	Historic Preservation Commission
• Lauronda Teeple	3 years of service	Historic Preservation Commission
• Lisa Milton	4 years of service	Planning Board
• Jesse Gardner	3 years of service	Planning Board
• Peter Vazquez	6 years of service	Planning Board
• Terry McElrath	6 years of service	Recreation Commission
• Carolyn Johnson	3 years of service	Recreation Commission
• Larry Brank	3 years of service	Recreation Commission
• Rhea Bockhorst	2 years of service	Urban Forestry Commission
• John DeWitt	3 years of service	Zoning Board of Adjustment
• Robert Osmundsen	3 years of service	Zoning Board of Adjustment

Recognition/Swearing in of New Boards & Commission Members

• Roger Hibbard	ABC Board
• Ann Lutz	Greenways Commission
• Elizabeth Williams	Greenways Commission
• Christopher Collins	Planning Board
• Lauronda Teeple	Planning Board
• Susan Leive	Historic Preservation Commission
• Amanda Vollrath	Historic Preservation Commission
• Lee Reading	Recreation Commission
• Michael Nerder	Recreation Commission
• Steven Giles	Recreation Commission
• Marcus Durate	Recreation Commission
• Emily Sampson	Urban Forestry Commission
• Rhea Bockhorst	Urban Forestry Commission
• Scott Abila	Urban Forestry Commission
• John DeWitt	Zoning Board of Adjustment

- Robert Osmundsen Zoning Board of Adjustment
- Ted Mattson Zoning Board of Adjustment
- Janet McKimpson Zoning Board of Adjustment (1st Alternate)
- Charlotte McRaine Zoning Board of Adjustment (2nd Alternate)

TOWN OF BLACK MOUNTAIN BOARD OF ALDERMEN
REQUEST FOR BOARD ACTION
Meeting Date: July 8, 2019

SUBJECT: Call for Public Hearing to Rezone 300 Flat Creek Road from SR-2 (suburban residential to TR-4 (town residential)

AGENDA INFORMATION

Agenda Location:	CONSENT AGENDA
Item Number:	5B
Department:	Building, Planning and Zoning Services Department
Contact:	Jessica Trotman, Planning Director
Presenter:	Jessica Trotman, Planning Director

BRIEF SUMMARY: The owners of 300 Flat Creek Road have requested that their property located at 300 Flat Creek Road be zoned from SR-2 (suburban residential) to TR-4 (town residential). The Planning Board heard this request at their June 24, 2019 meeting and voted 3 to 3 (three members recommending the rezoning request and three members not recommending the rezoning request).

The property is as follows:
300 Flat Creek Road – PIN #0710-51-3233.00000

MOTION FOR CONSIDERATION: To call for a public hearing to rezone 300 Flat Creek Road from SR-2 (suburban residential) to TR-4 (town residential) to be held on Monday, August 12, 2019 at 6:00 p.m., or as soon thereafter as possible, in the Board Room of Town Hall at 160 Midland Avenue.

FUNDING SOURCE: N/A

ATTACHMENTS: Zoning Map

MANAGER’S COMMENTS AND RECOMMENDATIONS: To call for the public hearing to be held at the next regularly scheduled meeting on Monday, August 12, 2019, or as soon thereafter as possible.

300 Flat Creek Road





TOWN OF BLACK MOUNTAIN

Town Hall, 160 Midland Avenue, Black Mountain, NC 28711

Angela Reece, Town Clerk

(828)419-9310

BOARDS AND COMMISSIONS VACANCIES

I sent an email notification to all boards & commission members on January 23, 2018 notifying them of their status and asking them to consider re-applying for their seat if they are eligible. Some individuals indicated they do not wish to re-apply while others have submitted their applications for re-appointment. See below.

The Town of Black Mountain has vacancies on the following Boards and Commissions:

- **Greenways Commission**

2 unexpired terms ending June 2021

Both terms are currently vacant.

You have received 1 new application from **Brandon Moffitt**.

- **Historic Preservation Commission**

1 unexpired term ending June 2020

Both terms are currently vacant. You have received no new applications.

- **Planning Board**

1 full term ending June 2022

Jesse Gardner was appointed to serve a full term in 2016. He is re-applying to serve a second full term.

Lisa Milton was appointed to serve an unexpired term with one year remaining in 2015 and was re-appointed to her first full term in 2016. She is re-applying to serve a second full term.

Gregory Feightner is a new applicant applying for a full term.

- **Zoning Board of Adjustment**

3rd Alternate term

The 3rd Alternate term is currently vacant.

You have received 1 new application from ***Gregory Feightner***.

TOWN OF BLACK MOUNTAIN BOARD OF ALDERMEN
REQUEST FOR BOARD ACTION
Meeting Date: July 8, 2019

SUBJECT: Greenway Master Plan

AGENDA INFORMATION

Agenda Location:	NEW BUSINESS
Item Number:	7A
Department:	Building, Planning and Zoning Services Department
Contact:	Jessica Trotman, Planning Director
Presenter:	Jessica Trotman, Planning Director

BRIEF SUMMARY: The Greenway Master Plan has been updated to create a more professional planning document including community information, economic development data as well as priorities for future greenways. No new greenways are proposed. This update was led by Leslee Temple, who has many years of experience of designing greenways and currently serves on the Greenway Commission.

MOTION FOR CONSIDERATION: Adopted the updated greenway master plan as presented.

FUNDING SOURCE: N/A

ATTACHMENTS:

MANAGER'S COMMENTS AND RECOMMENDATIONS:



Black Mountain Greenway **MASTER PLAN**

Benefits Stewardship Priorities

Town of Black Mountain, NC
July 2019



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 Flat Creek Greenway Phase 2
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45 Medium Priority Greenways
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Appendices - Reference Excerpts

- A - Black Mountain Recreation & Parks Dept. 2025 Master Plan, 2017
- B - Black Mountain by Bike, 2016
- C - Buncombe County Greenways & Trails Master Plan, 2012
- D - Land of Sky Regional Council Blue Ridge Bike Plan, 2013
- E - Town of Black Mountain Pedestrian Transportation Plan, 2016
- F - US 70 / Swannanoa River Greenway Feasibility Study, 2010



FLAT CREEK GREENWAY

- 15 The Town of Black Mountain Pedestrian Transportation Plan
Existing Pedestrian Network 2008, Figure 10
- 16 The Town of Black Mountain Pedestrian Transportation Plan
Proposed Pedestrian Network 2008
- 17 Black Mountain by Bike
Black Mountain Pedestrian Network 2014, Figure 20
- 19 Black Mountain Comprehensive Update 2014
Black Mountain Bicycle Network, Figure 11
- 20 Black Mountain Comprehensive Update 2014
Black Mountain Parks & Recreation, Map 6-1



US 70 CROSSING OVER SWANNANOA RIVER

List of Exhibits



The Town of Black Mountain Greenways Commission wish to recognize the following people and agencies who have contributed resources to move this Greenway Master Plan from concept to reality including periodic updates, like this one. Collectively, their forward thinking and support is appreciated by not only the Commission but the patrons of our greenway and trail system.

Town of Black Mountain:

Board of Alderman
Planning Department
Recreation and Parks Department (including the Heath Initiative Committee)

Associated Agencies and/or Affiliated Organizations:

Buncombe County Greenway and Trails Commission
Catawba Lands Conservancy – Carolina Thread Trail
Federal Housing Administration
French Broad River Metropolitan Planning Organization (MPO)
Friends of Connect Buncombe
Land of Sky Regional Council
NC Division of Bicycle and Pedestrian Transportation
NC Division of Parks and Recreation Trails Program
US Environmental Health

Associated Reference Documents:

Black Mountain by Bike, 2016
Black Mountain Comprehensive Plan Update, 2014
Black Mountain Veterans Park Master Plan, 2016
Black Mountain Rec. & Parks Department 2025 Master Plan, 2017
Buncombe County Greenways & Trails Master Plan, 2012
Land of Sky Regional Council Blue Ridge Bike Plan, 2013
EPA Green Infrastructure Case Studies:
Municipal Policies for Managing Stormwater with Green Infrastructure, 2018
NCDOT Evaluating the Economic Impact of Shared Use Paths, 2017
North Carolina The Great Trails State, A Guide for Exploring the Trails of North Carolina, 2016
Town of Black Mountain Pedestrian Transportation Plan, 2015
Upper Swannanoa River Watershed Management Plan, 2016
US 70 / Swannanoa River Greenway Plan, 2010

Acknowledgements



IN-THE-OAKS TRAIL



The Town of Black Mountain has a vision and a mission of being one of the most walkable communities in the region. Town members have repeatedly expressed their desire for the development of a greenway system that connects key elements within the Town. The current paths at Lake Tomahawk, Riverwalk Park, Veterans Park, and the Flat Creek Greenway are heavily used by citizens and visitors of Black Mountain. Pedestrian and bike traffic throughout Town is increasing. It is important part of healthy living - greenways and trails are a practical and effective way to provide opportunities for exercise. This Greenway Master Plan presents a system that connects the community in ways that meet the desires and needs of the citizens and visitors of Black Mountain.

We have an opportunity to provide for sustainable growth, alternate transportation, and friendly, enjoyable recreational amenities for our residents, our visitors, and community groups, including, but not limited to, the Health Initiative, Safe Routes to Schools, Chamber of Commerce, and Parks and Recreation Department activities/programs. The continued development of a Greenway System in Black Mountain has far-reaching benefits (see section herein devoted to “Benefits of Greenways”):

- Quality of Life Enhancement
- Alternative Transportation
- Greenspace Conservation and Restoration
- Economic

Black Mountain extensively sought public input for the development of the Town 2014 Comprehensive Plan Update. One of the Action items identified in the plan was to “Establish a Greenway System to connect All Areas of the Community”. The public’s desire for greenways and a walkable community was noted in the following stated visions:

#2: Getting Around – Sidewalks border nearly every street, and are connected to a community-wide network of trails, walking paths, and bikeways.

#4: Recreation, Parks, and Open Space – We see a well-developed system of walking and biking trails adjacent to our streams, enjoyed by hikers, bicyclists, and others. This greenway system connects an assortment of schools, parks, open spaces, and neighborhoods.

Black Mountain’s own 2015 Pedestrian Transportation Plan acknowledges under Goals and Objectives to “expand greenway system as a means for connecting parks, open space, and schools; increasing recreation options along stream corridors . . .” and goes on to recommend the following:

Authorize the Greenway Commission to work through an existing non-profit organization to form the public-private partnerships needed to develop the Black Mountain Greenway System.

Apply for funding as appropriate from government grant organizations.

Determine which subsection of Town administration will have oversight of the greenways system, including both construction and maintenance.

Adopt an ordinance to enforce trail rules and use restrictions.

The 2015 Pedestrian Transportation Plan’s further implementation recommendations included, “The Greenway Commission along with the Planning Board and Recreation and Parks Commission, should take on the role of on-road bicycle and pedestrian planning to provide a network of off-road and on-road facilities that connects people to places.”

Land of Sky Regional Council Greenways Initiative identifies as one of their four (4) high priorities for regional connections, “along the Swannanoa River, connecting Black Mountain, Swannanoa, and Asheville, and extending over to Old Fort in McDowell County”. Land of Sky has recently launched an initiative to connect various communities and destinations with greenways that exist or are being planned. The Black Mountain Greenway Master Plan will be a part of this 146 mile trail network.

Introduction

“Connecting people and places safely and efficiently, with accountability and environmental sensitivity to enhance the economy, health, and well-being of North Carolina” - NCDOT Mission Statement

Mission of the Buncombe County Greenway & Trails Commission is “to support the development of an environmentally friendly system of connected trails and greenways to improve health, alternative travel, economic development, and recreation in coordination with towns, cities, communities, businesses, non-profit organizations, and adjacent counties”.

Excerpts from Buncombe County's Greenway & Trails Masterplan states “well planned and well-designed greenways can stand the test of time as uses, users, and influences change . . . Frederick Law Olmsted could be considered the father of greenways in America through his work on incorporating natural features and trails into urban public works projects. In the late 1800's Olmsted recognized the needs of different users of the time and the potential conflicts of those users along their recreation and transportation routes”.

The North Carolina (NC) Trails Program originated with the NC Trails System Act and is dedicated to helping citizens, organizations, and agencies plan, develop, and manage all types of trails ranging from greenways and trails for hiking, biking, and horseback to river trails and off highway vehicle trails. The NCDOT's 2017 Evaluating the Economic Impact Study notes that NC is positioning itself as the “Great Trails State” with prominent statewide and regional trail systems - i.e.: Mountains to Sea (1,000 miles), East Coast Greenway (continuous route along eastern coast), Carolina Thread Trail (220 miles). The approximately 100 mile Fonta Flora State Trail, connecting Morganton to Asheville, will include the main east/west spine of Black Mountain's Greenway System.

The support of the Town of Black Mountain, both in terms of money and staff time / expertise has been instrumental in getting this plan where it is today. Continuation of that support is critical for future development and success!

Continued public outreach efforts to educate the citizens about the wider expanse of this Master Plan will only enforce support from users and landowners whose properties may in some way be involved in future greenways. The Greenway Commission foresees businesses, civic groups, churches, local schools, and individuals participating and providing support for the development of the greenway system identified herein. With the assistance of our citizens and civic leaders, we will make this plan a reality!



LAKE TOMAHAWK LOOP



LAKE TOMAHAWK LOOP



Black Mountain is a town of approximately 8,000 people located in eastern Buncombe County, North Carolina and is a member of the French Broad River Metropolitan Planning Organization (MPO). As the popularity and possibilities for greenways has grown and expanded, facilities have been created to connect key areas and enhance recreational areas and opportunities.

Near the physical center of the Town is Lake Tomahawk, encircled by an existing, heavily-used walking path. Lake Tomahawk includes the Black Mountain pool, Lakeview Senior Center, tennis courts, playground, pavilion, and several gardens. Black Mountain Veterans Park is a multi-use park with softball fields, soccer pitch, 18-basket disc golf course, community garden, indoor soccer facility, and multiple trails. Veterans Park is connected to Vance Avenue to the east by half (1/2) mile paved In-The-Oaks Trail.

Black Mountain Primary School and Black Mountain Elementary School are located near the center of Town within a quarter (1/4) mile of each other. Owen Middle School and High School are located on the western edge of Town. Montreat College has a campus in the Town of Montreat to the north of Black Mountain and in Black Mountain itself just east of Veterans Park and adjacent to In-The-Oaks Trail. To the north and east of Black Mountain are the Montreat Conference Center and the Ridgecrest Conference Center, both with many historic and important hiking trails. Many of these trails connect to the Blue Ridge Parkway and, thusly, to regional recreational opportunities.

The Town of Black Mountain Greenway Master Plan connects desirable destinations using identified opportunities for greenway corridors. The Master Plan connects the public schools to one another and to the major parks in Town. The two (2) campuses of Montreat College are connected to one another and to the center of Town. The Master Plan provides connections to neighboring communities and to regional and state greenways planned to the east and west of Black Mountain.

Public input sought during the 2005 development of this Master Plan for Black Mountain Recreation and Parks also indicated a strong desire from the public for safe bike paths in addition to separated greenways. The Health Initiative Committee surveyed the public, hoping to obtain opinions about the needs relating to the public pool . . . instead the greatest need identified was for more bike paths / greenways!

In 2011 – 2012, the Black Mountain Greenways Commission participated in an evaluation process to prioritize remaining greenway projects and identified the trails that are most- needed and most-feasible in the near future. Those priorities were reflected in the 2017 Master Plan. Also included in that Master Plan were references to the updated Town's Comprehensive Plan, which highlights plans and policies to best serve and improve the community.

Since then, a great deal of momentum has been generated in regards to the benefits and essentials for greenways / trails at the regional and state levels, in addition to change in opportunities and priorities, including significant work / documents that address the Black Mountain greenways in particular, has led the Town's Greenway Commission to this 2019 update.



IN-THE-OAKS TRAIL



RIVERWALK GREENWAY

Background

“Greenway: a linear open space: a corridor composed of natural vegetation; used to create connected networks of open space that include traditional parks and natural areas.”

~ TBM Pedestrian Transportation Plan

The following excerpts from the Black Mountain Recreation and Parks Department 2025 Master Plan, completed and approved by the Board of Aldermen in December 2017, are pertinent to this update of the Greenways Master Plan:

Park Proposals and Recommendations:

7. A greenway system should be developed that connects all parks and that connects Black Mountain and Montreat. With the development of the In-the-Oaks property by Montreat College, the Town should partner with the college to develop a greenway/walking path between the Veterans Park and Cragmont and Lake Tomahawk Parks.

Priorities for Development:

2. Continue to develop the greenway system to tie all of the town's parks together through a series of walking and biking paths. This will enable our youth to access all facilities without having to travel along vehicular pathways.

State and National Trends in Recreation, Greenways and Trails:

A passive trend that holds a lot of promise is the desire for trails and the heavy use of those trails that do exist. Greenways top the list of requests from the 2013 Recreation Needs Assessment for Black Mountain. As more trails become available throughout the U.S. and people see the economic, social, and physical benefits of having these facilities, demand increase.

Earned Income Opportunities

Trail sponsors (partnerships) that adopt sections of the trails for maintenance and cleanup.



COMMUNITY GARDEN GREENWAY



IN-THE-OAKS TRAIL

Greenway segments are described and mapped on the following pages and identified as “completed”, “funded”, ‘high’, ‘medium’, or ‘low’ priority based on today’s understandings. Proposed routes are based on anticipated need(s) and represent current understandings and significance relative to other known regional and state trail projects.

This Master Plan is long range in nature. It is intended to provide a strategy for greenway growth by recognizing current gaps in connectivity. It is not a detailed planning or development document. It will, however, serve as a guide and framework for evaluation: supporting future decision-making and pursuit of funding opportunities.

Once funding has been procured and there is community support for a specific greenway, final alignment will be determined through a technical planning process. Assessment of alternate routes to what is shown herein may be possible to achieve a particular goal, especially as a result of the public input process. In greenway planning, this will primarily include, but will not be limited to:

- an assessment and evaluation of the existing conditions to properly inform and start a dialogue with landowners, other affected public agencies or private companies, and the community-at-large
- a public involvement process by way of stakeholder meetings, surveys, and other applicable means of engagement to identify any design obstacles and further refine alignment for the particular greenway design
- noticed public meeting(s) and input from the Greenway Commission, Planning Board, and Board of Alderman; in addition to any affected public agency or private company and Town of Black Mountain staff

Through the process, landowners, stakeholders, and the community-at-large will all have the opportunity to review and provide comment on a draft plan before the final alignment is adopted by the Greenway Commission, Planning Board, and Board of Alderman.

The result will be a greenway design which encompasses the needs and wishes of the Black Mountain community.



FLAT CREEK GREENWAY



AASHTO: American Association of State Highway and Transportation Officials; a nonprofit, nonpartisan association representing associated departments in 50 states (*TBM Pedestrian Transportation Plan*)

ADA: American Disabilities Act of 1991; civil rights protections to individuals with disabilities including equal opportunities in public accommodations . . . state and local government services (*TBM Pedestrian Transportation Plan*)

ATN: Alternative Transportation Network; connected system for travel using transportation other than private cars, such as walking, bicycling, rollerblading, et al (*TBM Pedestrian Transportation Plan*)

Barrel: structure designed hydraulically to take advantage of submergence to increase hydraulic capacity

Bicycle Facilities: a general term denoting improvements and provisions made by public agencies to accommodate or encourage bicycling; ie parking/storage facilities, shared roadways not specifically designated for bicycle use, bicycle lanes, paved shoulders, and sidepaths. (*TBM Pedestrian Transportation Plan*)

Bikeway: a route designated by NCDOT as suitable for recreational and/or commuter bicycling.

Black Mountain Parks and Greenways Foundation: uses individual and corporate philanthropic donations to develop and maintain parks, grounds, programs, and facilities throughout town. (*Black Mountain Recreation and Parks Department 2025 Master Plan*)

Connectivity: logical and physical interconnection of functionally related points so that people can move among them. (*TBM Pedestrian Transportation Plan*)

Connector: a greenway / trail, often a multi-use greenway / trail, which connects two (2) other greenways / trails or locations.

Conservation Easement: a legally binding agreement not to develop part of a property, but to leave it “natural” permanently or for some designated very long period of time regardless of ownership transfer. (*TBM Pedestrian Transportation Plan*)

Corridor: a spatial link between two (2) or more destinations. (*TBM Pedestrian Transportation Plan*)

Culvert: structure allowing water to flow under a road or trail

Drainage way: low-lying land along creeks or rivers, often in the 100-year floodplain or floodway that must remain undeveloped except with variances or exceptions from state, county, and federal regulations.

EPA: Environmental Protection Agency

FHWA: Federal Highway Administration

Fitness Trail: a pathway upon which users jog or walk between stations to perform various exercise tasks

Greenspace: land that has not been developed or has returned to its natural state.

Greenway:

- an open, natural or landscape corridor, often of relatively extended length, along creeks, utility easements, abandoned railroads, and publicly-owned property
- typically allows for two-way, multi-use traffic
- a continuous path with a stabilized surface that is designated for pedestrian and non-motorized vehicle use; frequently enhanced with benches, signs, water fountains, art/sculpture, and other applicable amenities
- trails, open pathways, sidewalks, and bike lanes that build corridors to connect our parks and businesses, schools, and neighborhoods, towns, and cities (*Buncombe County Greenways & Trails Master Plan*)
- a course for pedestrian and bicyclist use through linear open space, often times along a natural corridor, river, or stream

- shared use path, separate from a road, and can handle multiple uses at one time . . is not always paved (*Black Mountain Greenway Commission 02-20-18*)

- public infrastructure that provides important functions to not only offer transportation alternatives, but to protect public health, safety, and welfare:

- filtering pollutants from stormwater and providing an essential habitat for native vegetation that serves to cleanse water of sediment
- provide viable routes of travel for cyclists and pedestrians; serve as alternative transportation corridors for urban and suburban commuters
- serve the health and wellness needs of a community, providing close-to-work access to quality outdoor environments where residents can participate in doctor prescribed or self-initiated health and wellness programs (*TBM Pedestrian Transportation Plan*)

Greenway Corridor:

- off-road, multi-use facilities that provide excellent source for alternative transportation and recreation, typically take advantage of linear stream corridors, easements, and other tracts of open space; integrated with and serve as an off-road extension of the on-road pedestrian network (*TBM Pedestrian Transportation Plan*)

- linear open spaces connecting recreation, cultural, and natural areas; providing attractive views, open space preservation, and convenient recreation opportunities

Linear Park: an area developed for one or more varying modes of recreational travel such as walking, hiking, horseback riding, canoeing. Usually, linear parks are developed to provide a safe route to connect recreational facilities, schools, and residential neighborhoods. The acreage and service area of a linear park is variable and subject to existing natural and man-made features, the existence of public right-of-way, and the public demand for this type of park. In some cases, a feature, such as a stream or river, and the recreational use is a secondary objective. Linear parks are needed to provide safe transportation routes for walkers, joggers, and bicyclists. (*Black Mountain Recreation and Parks Department 2025 Master Plan*)

MPO: Metropolitan Planning Organization (of French Broad River)

MSD: Metropolitan Sewage District

NCDOT: North Carolina Department of Transportation

ORAR: Outdoor Recreation Access Route that connects accessible elements

Path: more generic, usually does not allow for multi-use; often of compacted dirt (*Greenway Commission Minutes 02-20-18*)

Pedestrian Network: framework of recommended facilities like, but not limited to, pedestrian corridors, sidewalks projects, intersection improvements, and greenways (*TBM Pedestrian Transportation Plan*)

ROW: Right-of-Way

SUP: Shared Use Path, also known as greenways or trails, are unique facilities physically separated from motor vehicles that allows a shared space in which bicyclists, pedestrians, and sometimes equestrian or other non-motorized users can travel; often constructed within an independent ROW and may follow a waterway, railroad, or utility corridor (*NCDOT Evaluating the Economic Impact of Shared Use Paths*)

TBM: Town of Black Mountain



The already completed greenways and the regional bikeways around Black Mountain are utilized daily by hundreds of residents and visitors. The popularity of these facilities is a resounding endorsement of the benefits they provide.

The 2017 Evaluating the Economic Impact of Shared Use Paths document completed by NCDOT and NC Division of Bicycle and Pedestrian Transportation “provides evidence of the economic benefits of a collaborative multi-modal transportation system, further making the case for bicycling and pedestrian facilities . . . now with solid North Carolina-specific data to back it up” proclaimed Julie White, NCDOT Deputy Secretary for multi-modal transportation in April 2018. See further information herein under the “Economic” paragraphs.

Further note, the NC Statewide Pedestrian and Bicycle Plan proclaims that investing in greenways adds many benefits to a community at relatively low cost by:

- Promoting physical, mental, and social well-being by providing outdoor places to relax, exercise, and socialize
- Providing easy walking or bicycling connections between neighborhoods, schools, parks, and trails
- Increasing property values, promoting tourism, and fostering local businesses by encouraging multi-modal traffic
- Improving overall quality of life
- Reducing traffic congestion
- Improving air quality

NC Statewide Pedestrian and Bicycle Plan was based on a five (5) ‘pillar’ format of (1) mobility, (2) safety, (3) economics, (4) health, and (5) stewardship / environmental. The Town of Black Mountain Greenways Commission includes “sociological benefit” and “community involvement” as critical additional ‘pillars’.

This update outlines plans for additional greenways that will make such benefits available on a much wider scale and enhance connectivity with existing sections. The following benefits of a greenway system in Black Mountain are further articulated in this section:

- Quality of Life Enhancement
- Alternative Transportation
- Greenspace Conservation and Restoration
- Economic

Quality of Life Enhancement

Greenways connect neighborhoods to each other and to schools, parks, nature preserves and shopping areas. They bring people together – folks can stop and talk to each other and get to know each other in ways that are impossible when they are confined to an automobile. Greenways provide rich and poor, young and old, and everyone in between with the environment to exercise or commute in an active, healthy way. As health improves, so does the self-esteem and community.

Alternative Transportation

From an environmental standpoint, traveling on a greenway is the most desirable choice. No fuel is burned, no pollutants are emitted, and fewer parking lots are needed. Greenways reduce our dependency on fossil fuels. They are a shelter from the gauntlet of vehicle traffic. Greenways assist vehicle drivers by taking some of the traffic off roads, thus relieving congestion and reducing wear and tear on the highway infrastructure.

Greenways offer the non-driving public, folks who may be too young, too old, impaired, or who simply choose not to drive [an estimated thirty percent (30%) of the population] a safe, enjoyable, dignified way to get around town.

Greenways offer safe connections to public transportation. They connect neighborhoods to schools and civic facilities. Hundreds of car trips could be eliminated daily.

Benefits of Greenways

Greenspace Conservation and Restoration

Open space constantly falls victim to commercial and residential development. Yet, on the fringes of development there are numerous areas and corridors whose natural beauty can be preserved or restored. Creating greenways along creeks and undeveloped land will protect biological diversity, water and air quality, and the natural beauty of our surroundings.

Greenway development will allow users to visit historical, archaeological, educational, and environmental sites that were previously inaccessible or even forgotten. Markers along the greenway will be easily readable and will allow walkers, joggers, and cyclists to enjoy the sites in a way simply not available from motorized transportation.

Economic

Places to eat and shop near the greenway are likely to see increases in business. It is much easier to simply step into a business than it is to find a parking space. In addition, there will be more customers, many of whom will be out-of-town guests / visitors, for local retail shops and restaurants including those that provide clothing and equipment for walking, skating, jogging, and cycling. New businesses may also spring up and real estate values will be enhanced.

TBM Planning Department notes that community health amenities such as greenways are attractive to site selection firms and support recruitment and retention for existing companies.

NCDOT in their 2017 Evaluating the Economic Impact of Shared Use Paths document further noted:

There is a growing realization and appreciation of the significant economic stimulus that results from large-scale physical improvement projects such as construction of pedestrian and bicycle infrastructure.

It is assumed that current tourism associated with bicycle and pedestrian activity will increase forty percent (40%): twenty percent (20%) from the addition of more greenways and twenty percent (20%) from increased connectivity, improved activities, and enhanced promotion of existing greenways.

The first approximation of the type and magnitude of economic impact suggests that there are a number of ways in which investment in bicycle and pedestrian infrastructure generates very real and very large economic returns, to the state and to its residents and businesses.



RIVERWALK PARK



RIVERWALK PARK



Greenways & Sidewalks

Sidewalks provide valuable links for the Greenway Master Plan. Constructed by the Town of Black Mountain and the NCDOT, the existing sidewalks provide connections where greenways are not always feasible. Adding more sidewalks as the Town has been doing over the past several years and are presently being designed and installed, gives citizens and visitors more access to both the greenways network and other pedestrian-friendly Town amenities. Planning for more sidewalks supports the vision of the Greenways Commission. Pursuing this vision will be an ongoing effort to fashion Black Mountain as one of the most non-vehicle connected town in North Carolina.

In pursuit of this vision, the Town and Board(s) / Commission(s) need to think creatively and realistically if this vision is to become a reality. Building sidewalks with curb and gutter may be ideal, but funding is rarely available. By adopting a policy that encourages expanding shoulders on all roads up to four feet (4') wide anywhere within the Town limits will add to our inventory or paths that could be used as unpaved walkable areas. As funding becomes available, these "paths" could be paved. In addition, whenever NCDOT repairs a road, their planners should be encouraged to widen the road and add a painted bicycle and pedestrian lane on at least one side of the road. The commitment of our Town's Board of Alderman to support and expand non-vehicle travel will be the key to greenway system success!

Comprehensive planning by the Town of Black Mountain in 2015 produced the Pedestrian Transportation Plan. Several key points are referenced and included in several sections herein.

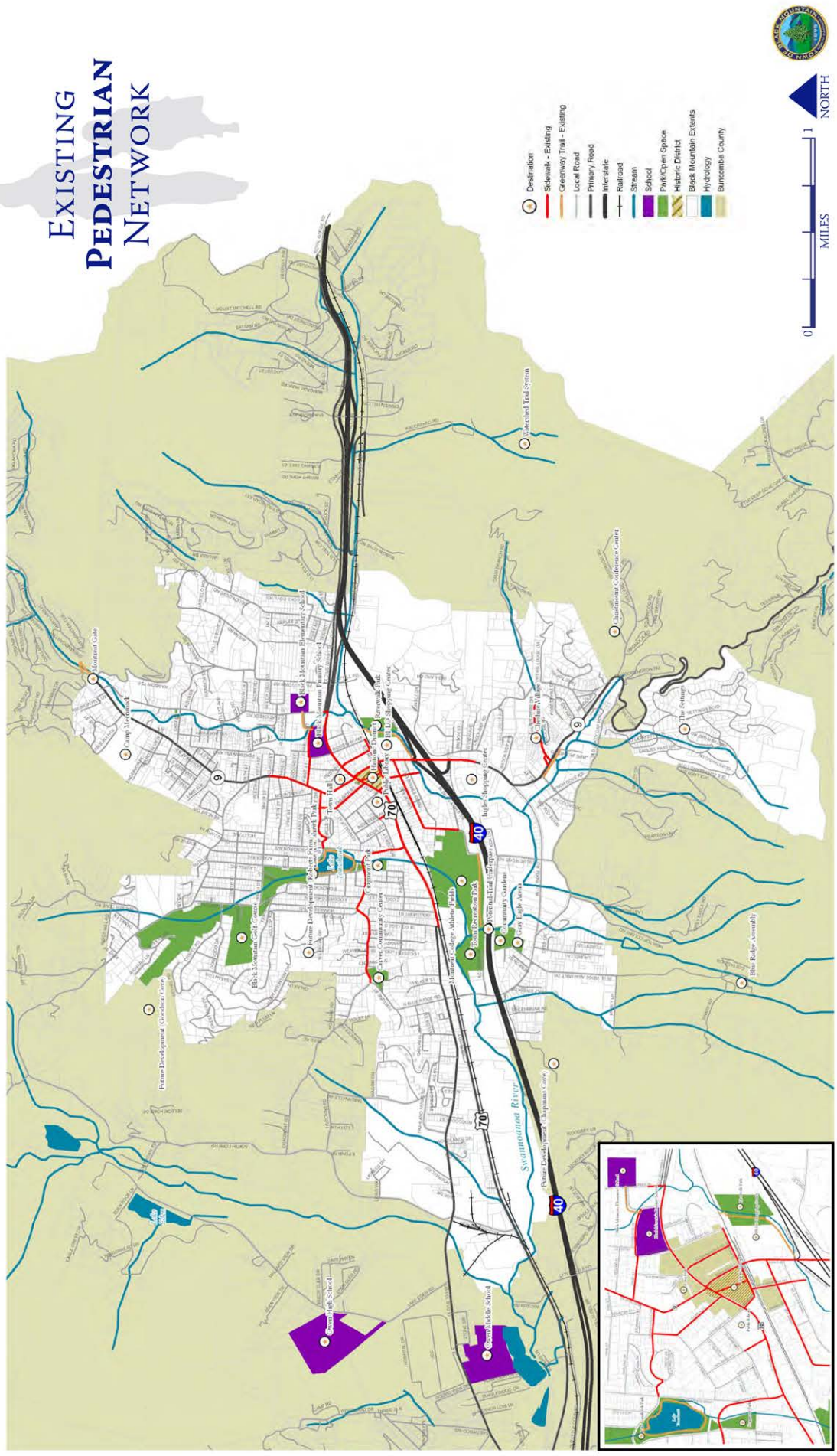
Key perspective to designing greenways is the American Disabilities Act of 1991. Applicable documents to be utilized when designing new greenways include, but may not be limited to:

- 2009 ANSI A 117.1 and Chapter 11
- 2010 ADA Standards
- 2012 North Carolina Building Code 1104.02 and 1109.14.3
- 2013 Federal Outdoor Area Standards
- North Carolina Administrative Code 105.1

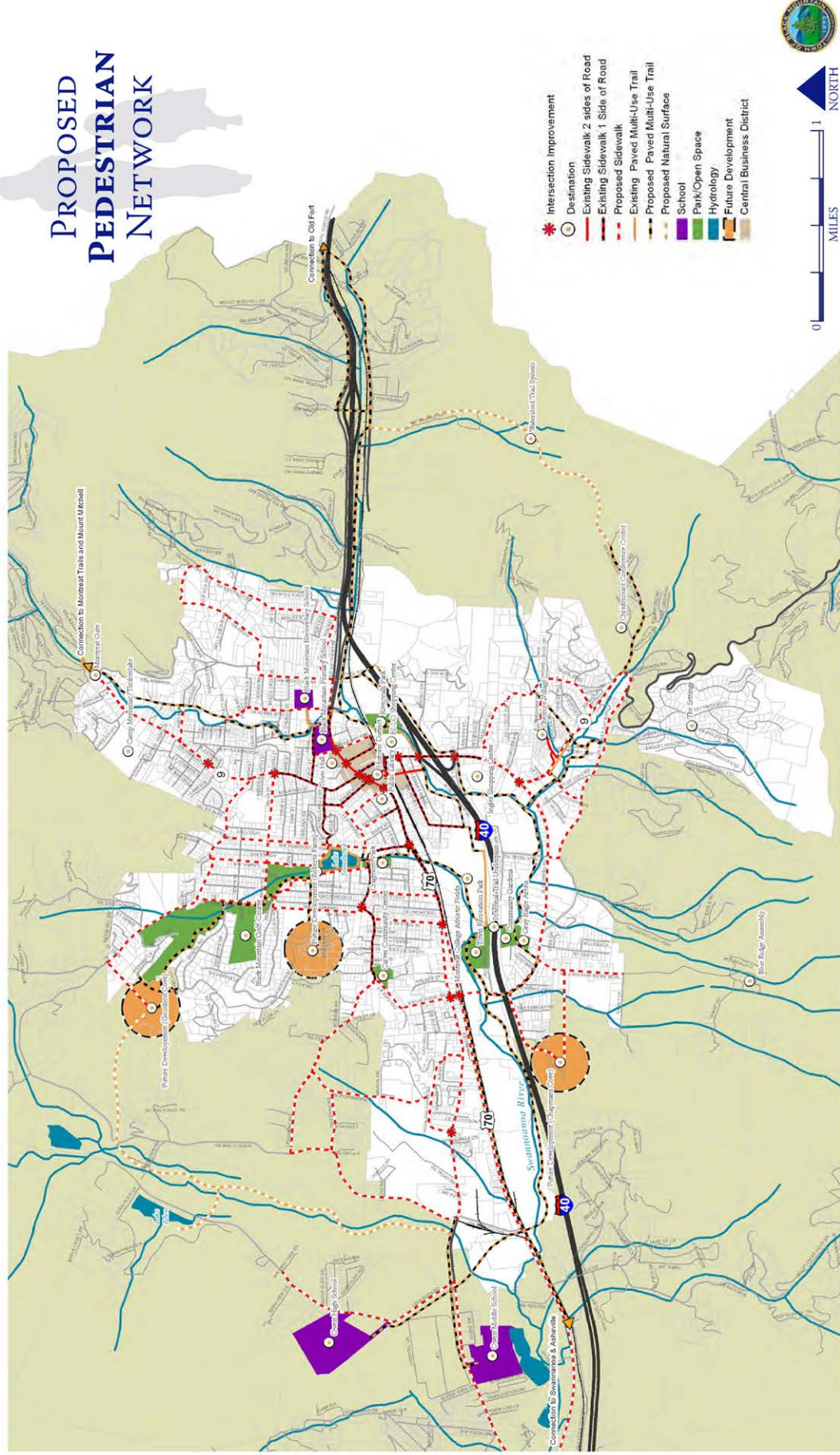


RIVERWALK PARK

Federal Housing Administration in 2012 noted that, "separated walking infrastructure can also reduce the rate of non-intersection pedestrian accidents by eighty-eight percent (88%)".

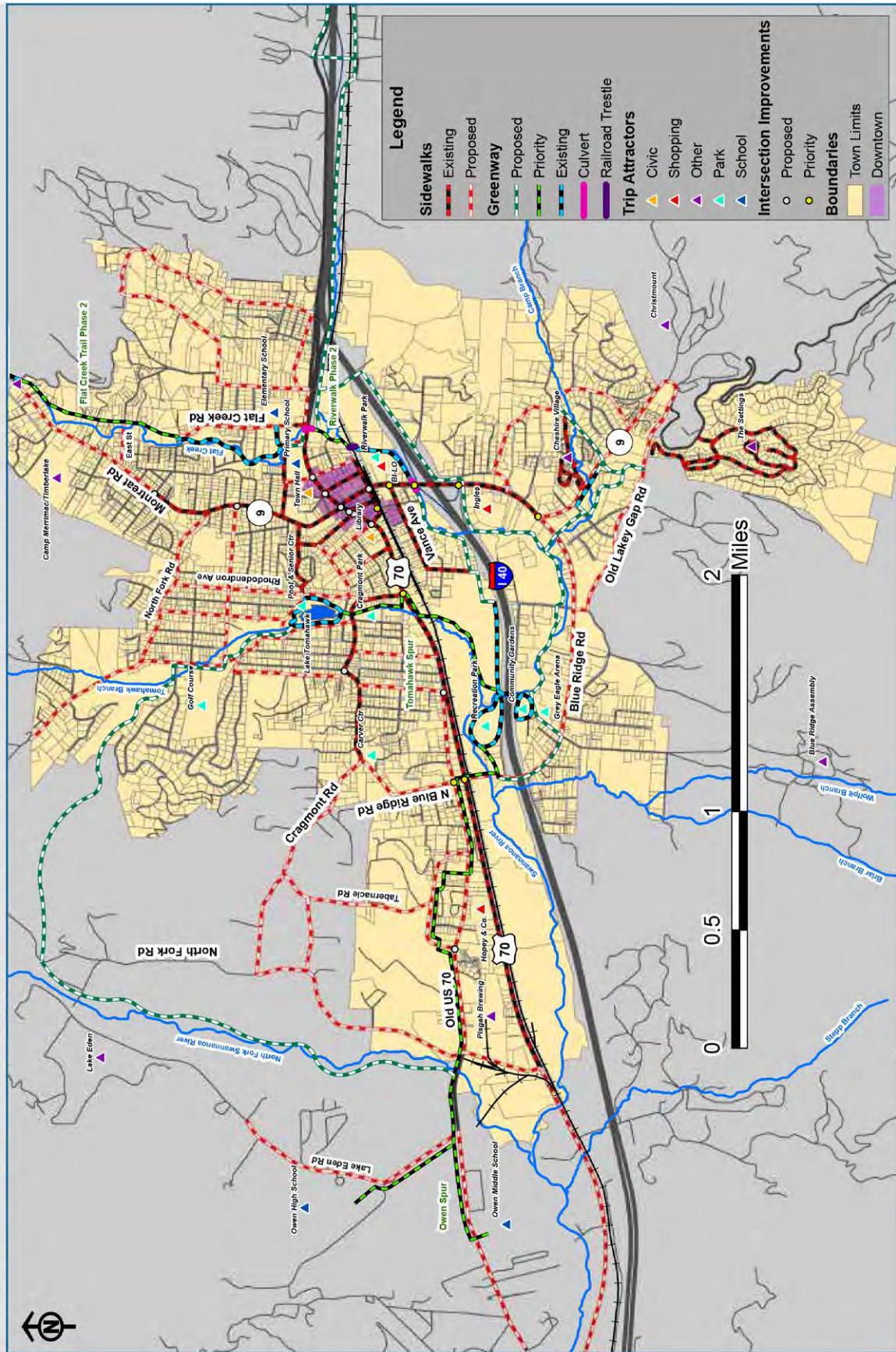


THE TOWN OF BLACK MOUNTAIN PEDESTRIAN TRANSPORTATION PLAN



THE TOWN OF BLACK MOUNTAIN PEDESTRIAN TRANSPORTATION PLAN

Figure 10—Black Mountain Pedestrian Network (2014 Black Mountain Comprehensive Plan Update)





Western North Carolina is blessed with a network of roads that, along with a moderate climate, allows year-round bicycling for pleasure, sports, and commuting. The best of these roads have been identified by cyclists and cycling organizations. NCDOT has designated them as “bikeways” by putting up signs saying “Share the Road”.

Bikeways provide accessibility to areas in Swannanoa, Grovemont, Lake Eden Road, Cragmont Road, North Folk Road [including its two (2) spurs that extend to the edge of the North Folk watershed], Lake Tomahawk, Laurel Circle, Montreat Road, Montreat Township, Flat Creek Road, Cotton Avenue, Portman Villa Road, Ridgecrest, Blue Ridge Road, Lakey Gap Road, and Highway 9.

There will be a natural interaction between these existing, very popular bikeways and the developing Black Mountain greenway system. Each will provide a different facet of a system that will encourage friendly, enjoyable recreation, as well as alternative transportation choices.

The signed Depot-to-Depot route through Black Mountain helps bicyclist find their way from the Old Train Depot to the Point Lookout trail, which is a three and a half (3.5) mile multi-modal trail that begins near the Buncombe/McDowell County line and proceeds east to Old Fort along the old US Highway 70 ROW.

The Black Mountain by Bike Plan, Land of Sky Regional Council Blue Ridge Bike Plan, and the NC Division of Bicycle and Pedestrian Transportation support the appropriate development for a system of regional/state bikeways.

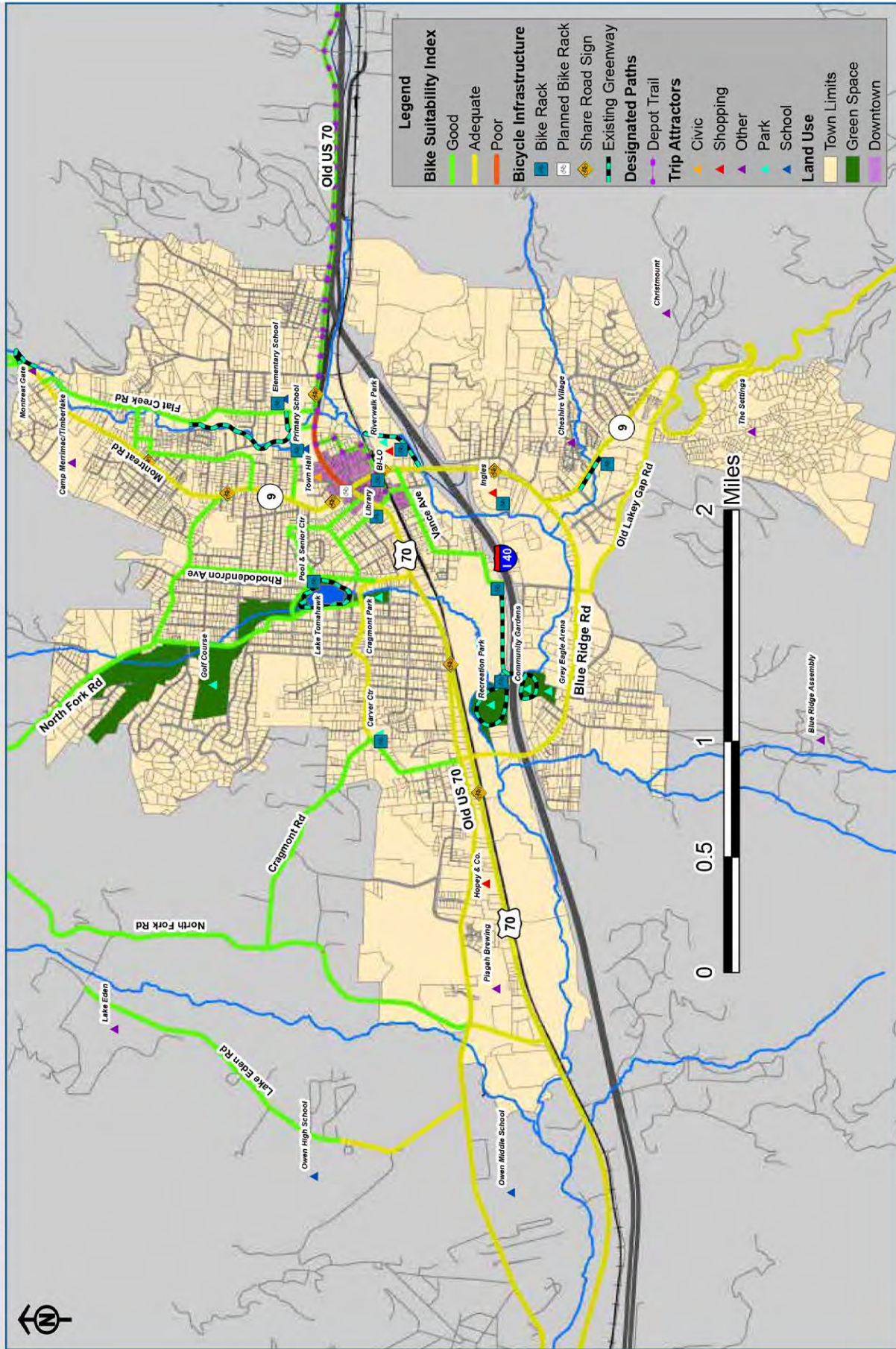


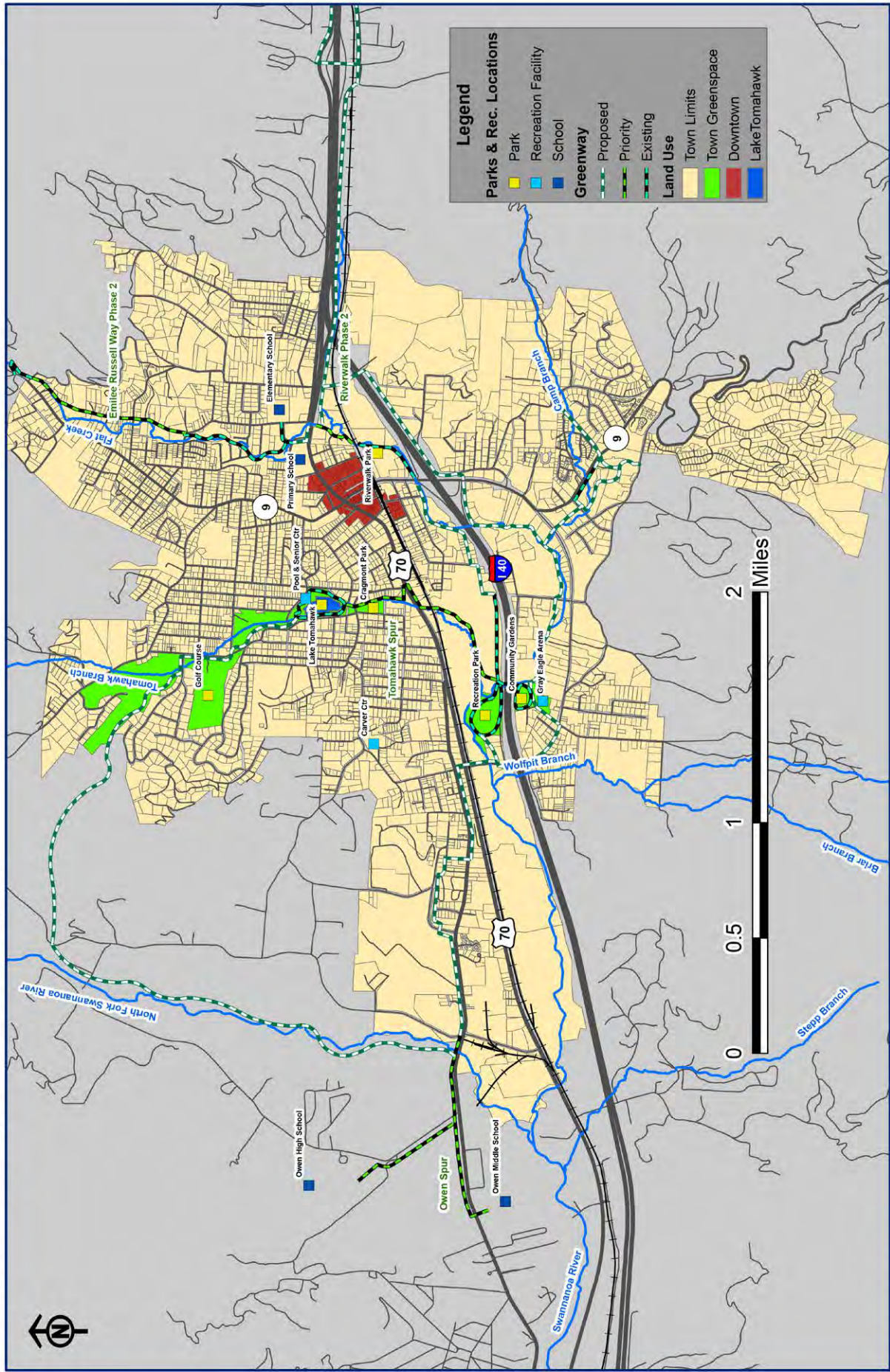
IN-THE-OAKS TRAIL

In 2010, the US Environmental Health noted “current pedestrian and bicycle commuters will be safer using dedicated pedestrian and bicycle roadways: studies have shown that marked bike lands can reduce crash rates by fifty percent (50%) when compared to unmarked roads..”

Regional Bikeways

Figure 11—Black Mountain Bicycle Network (2014 Black Mountain Comprehensive Plan Update)





Map 6-1 Black Mountain Parks & Recreation

For Reference Only - Not for Permitting Purposes



On the federal level, the Environmental Protection Agency (EPA) in 2010 produced *The Green Infrastructure Case Studies: Municipal Policies for Managing Stormwater with Green Infrastructure*. The twelve (12) cities surveyed determined that while “a strong motivation for these policies and programs is innovation in stormwater management, many communities are moving past the era of single objective spending and investing in runoff reduction and stormwater management strategies that have multiple benefits . . . green infrastructure approaches have a range of benefits for the social, environmental and economic conditions of a community” as further summarized below:

Environmental: increase carbon sequestration, improve air quality, additional recreation space, efficient land use, improve human health, flood protection, drinking water source protection, replenish groundwater, improve watershed health, protect or restore wildlife habitat, reduce sewer overflow events, restore impaired waters, meet regulatory requirements for receiving waters

Economic: reduce hard infrastructure construction costs, maintain aging infrastructure, increase land values, encourage economic development, reduce energy consumption and costs, increase life cycle cost savings

Social: establish urban greenways, provide pedestrian and bicycle access, create attractive streetscapes and rooftops that enhance livability and urban green space, educate the public about their role in stormwater management, urban heat island mitigation

Greenways located along waterways and in undeveloped open space provide numerous opportunities for preserving greenspace and educating the public about protecting biological diversity, water quality, and natural beauty. The creation of natural corridors and greenspaces in developed areas is an integral part of appropriate and eco-friendly-sensitive environmental planning.

Greenways and undeveloped open space also provide opportunities to visit and experience historical sites that might otherwise be inaccessible by vehicular traffic. The Black Mountain region is rich with history and the locations of many of our significant sites are well documented. Educational markers encourage conservation of our historical resources and foster a deeper appreciation of our cultural heritage.

In addition to noteworthy cultural features, this section’s primary concentration is on the following ecological attributes:

- Greenway Development Along Drainage Channels
- Water Quality and Riparian Buffers
- Storm Water Management
- Streambank Restoration

Greenway Development Along Drainage Channels

Greenways are frequently located adjacent to rivers and streams since these natural resources offer one of the few contiguous corridors remaining in development areas. This is especially true of the greenway system proposed herein for Black Mountain. Seven (7) of the segments herein are adjacent, at least in part, to existing waterways.

Maintaining a high level of water quality in these watercourses is paramount, as these rivers, streams, creeks form the headwaters of the Swannanoa River, a significant contributor to the French Broad River watershed.

Greenways located along these watercourses and drainage channels must be planned and designed to provide for the appropriate natural buffer between the greenway surface and the waterway. Such buffers will protect the natural ecology of the watershed system while minimizing damage from any associated erosion sediment.

Benefits of greenways along natural waterways and strategic drainage channels include:

- Acquisition and protection of environmentally sensitive areas.
- Improvement of vegetation quality by removing invasive species and restoring native plant communities.
- Development of protected natural corridors – providing safe and suitable avenues for daily movement and seasonal mitigation of valued wildlife.
- Improvement of water quality by diverting stormwater into constructed filtration systems.
- Enhancing public awareness of sensitive ecological systems through good stewardship and educational opportunities.

Stewardship Principles

Water Quality and Riparian Buffers

Greenways are important assets to an overall environmental restoration and preservation plan for riparian areas. Greenway construction provides many opportunities to enhance water quality.

Whereas most conventional development allows stormwater to flow directly into waterways, often across impervious surfaces and through defoliated areas, greenways are constructed such that they provide wetland filtration basins that are designed to intercept potentially polluted run-off from adjacent lands before the water reaches a principal watershed component.

Restoring native vegetation to stream banks, as part of a greenway improvement, provides further protection of the waterway. Wetland vegetation filters the water and slowly releases it back into the ground, thereby recharging the aquifer below ground. The width of the riparian buffer between the greenway surface material and the waterway and the depth and extent of wetland filtration basins are functions of slope steepness, soil structure, proximity to impervious surfaces, and other site conditions, as determined during the planning stage of a greenway.

Storm Water Management

Storm water management measures attempt to control the negative aspects of excessive storm water on related water bodies in which it flows. Environmentally sensitive greenway design is based on identifying and preserving the site's natural drainage patterns, including, but not limited to:

Avoiding natural drainage areas when possible and minimally disturbing such areas as feasible.

Using bridges or boardwalks to span large swales without impacting natural water course banks.

Preserving small drainage swales by installing a culvert at existing grade and building the greenway surface safely over the culvert.

Constructing "treatment wetlands" as necessary. This will allow the storm water to flow into a applicably planted wide shallow channel / wetland, slowing the rate of storm water release and filtering sediments and pollutants out of the storm water and allowing for groundwater infiltration.

Streambank Restoration

Streambank restoration is the structural and vegetative means of stabilizing a bank of a stream or watercourse. This could be for preventative measures or repair due to unstable or excessive erosion. Such erosion is often due to:

- (a) increased volume of water, especially with storm water surges,
- (b) increased sediment in the water, causing abrasion along the sides of the channel, and
- (c) lack of appropriate vegetative cover or erodible soil structure due to clearing or overuse of the streambank by animals or people.

Streambank restoration is a procedure that identifies the source of the erosion then stabilizes the bank through revegetation and/or structural means depending on the existing condition of the stream or watercourse bank.

Slope stabilization is economically and efficiently effected by revegetating the bank with native plants which can tolerate periodic flooding and are typically found in the region of the stream. Their roots will hold the soil in place and the vegetation will slow water velocity. The shade from the plants will keep the water temperature from rising and the vegetative structure will provide habitat for fish or amphibian species.



FLAT CREEK GREENWAY



Greenways, bike paths, and walking paths all require regular care and maintenance. This should be at the same respected level applied to parks and recreational facilities visited by the public. Poorly maintained greenways will appear uninviting, undesirable, unsuccessful, and dangerous.

Professional maintenance care, supplemented by volunteer efforts, would be the most reliable program for greenways. Depending on the greenway, the applicable maintenance may include, but not be limited to:

- Frequent/regular mowing
- Hard surface and or clearance/height trimming, including removal of any dead or dying plants
- Weed control on any hard surface provided for walking, biking, or the like
- Trash removal from containers provided along the trail system
- Removal of invasive plants and poisonous plant material
- Updating or repair of any signage or pavement painted markings
- Clearing of any culverts and like structures for storm water management
- Site furniture or amenities should be in safe condition without damage

A maintenance agreement, plan, and designation within the Town budget should be developed and annually renewed; along with funds set aside for emergency or unexpected repairs. Grant proposals could be submitted. An alternative could be private sector funds collected and set aside as a maintenance endowment.

Addressing the security needs of public greenways is essential to success. The proximity of visual development to greenway access points helps reduce criminal activity. Areas adjacent to trails are perceived of as less remote, less concealed. The introduction of a greenway into a neighborhood and retail area brings people out of their homes or businesses and increases community awareness, thus reducing criminal activity.

Greenways also give enforcement officers additional advantage points from which to patrol. As greenways develop and are patronized, people will interact with local police officers patrolling on foot or on bicycle – officers will also get to know the users. Contact is much more likely between a bicycle patrol officer and a trail user than a person inside their home/business and a patrol car.



LAKE TOMAHAWK LOOP



LAKE TOMAHAWK LOOP

Maintenance & Security



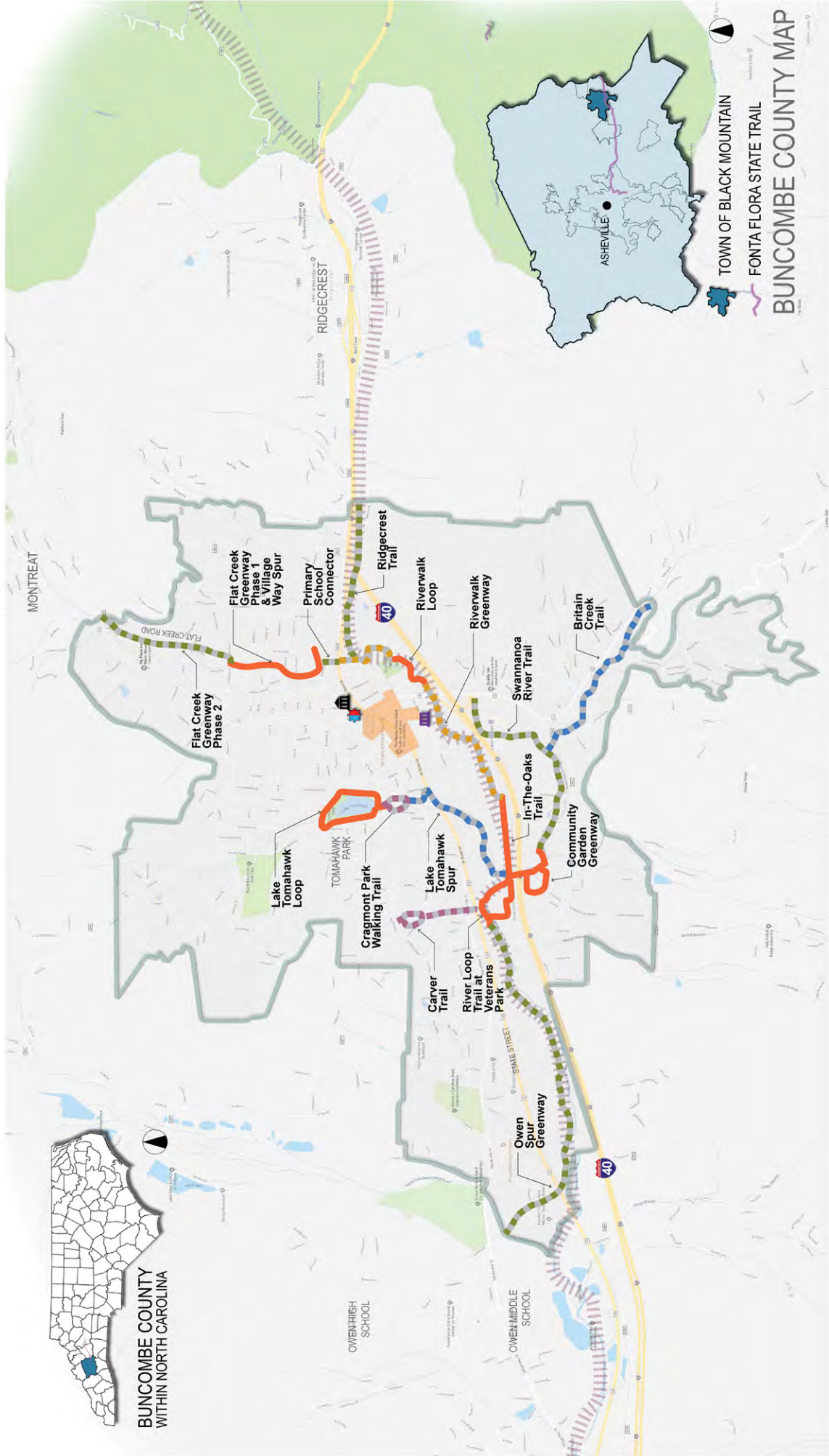
The following is a listing of probable funding / grant programs at the time of this document revision. The Town of Black Mountain annually engages in a budget process with information provided to the Board of Alderman who determines allocations.

American Greenways Eastman Kodak Awards (private corporation)
BUILD - Better Utilizing Investments to Leverage Development (USDOT)
CBDG – Community Block Development Grant (national/federal program)
CIP – Capital Improvement Project funding
CMAQ – Congestion Mitigation and Air Quality (national/federal program)
Conservation Alliance (non-profit organization)
CWMTF – Clean Water Management Trust Fund of NCDOT
Duke Energy Foundation (private funding)
HSIP – Highway Safety Improvement Program (national/federal program)
HWTF – Health and Wellness Trust Fund (state program)
LWCF – Land and Water Conservation Fund (state funding)
National Endowment of the Arts
NCDOT Bicycle and Pedestrian Program
NCDOT Recreation Trails Program
NC Adopt-a-Trail Grants
NC Division of Water Quality (319 program grants)
NC Farmland Preservation Trust Fund
NC National Heritage Trust Fund
NCPARTF – North Carolina Parks and Recreation Trust Fund
NCWRP – NC Wetlands Restoration Program
Pigeon River Fund (private foundation)
REI Trails Grant Program
RTCA – River Trails and Conservation Assistance (National Park Service)
RTP – Recreational Trails Program (national/federal program)
SR2S – Safe Routes to School program (national/federal program)
STP – Surface Transportation Program (national/federal program)
TIP (NCDOT) – Transportation Improvement Program; is an ongoing program which includes asking localities to present their transportation needs to state governments; a federally mandated funding source with a ten (10) year projection list of potential projects where federal dollars flow through the State and out to municipalities. 'Incidental' projects are those that can be incorporated into a scheduled roadway improvement project. 'Independent' projects are those that can stand alone such as a greenway, not related to a particular roadway.
USDA Natural Resource Conservation Service Wetlands Reserve Program



LAKE EDEN ROAD AT OWEN HIGH SCHOOL

Potential Funding Sources



BUNCOMBE COUNTY
WITHIN NORTH CAROLINA

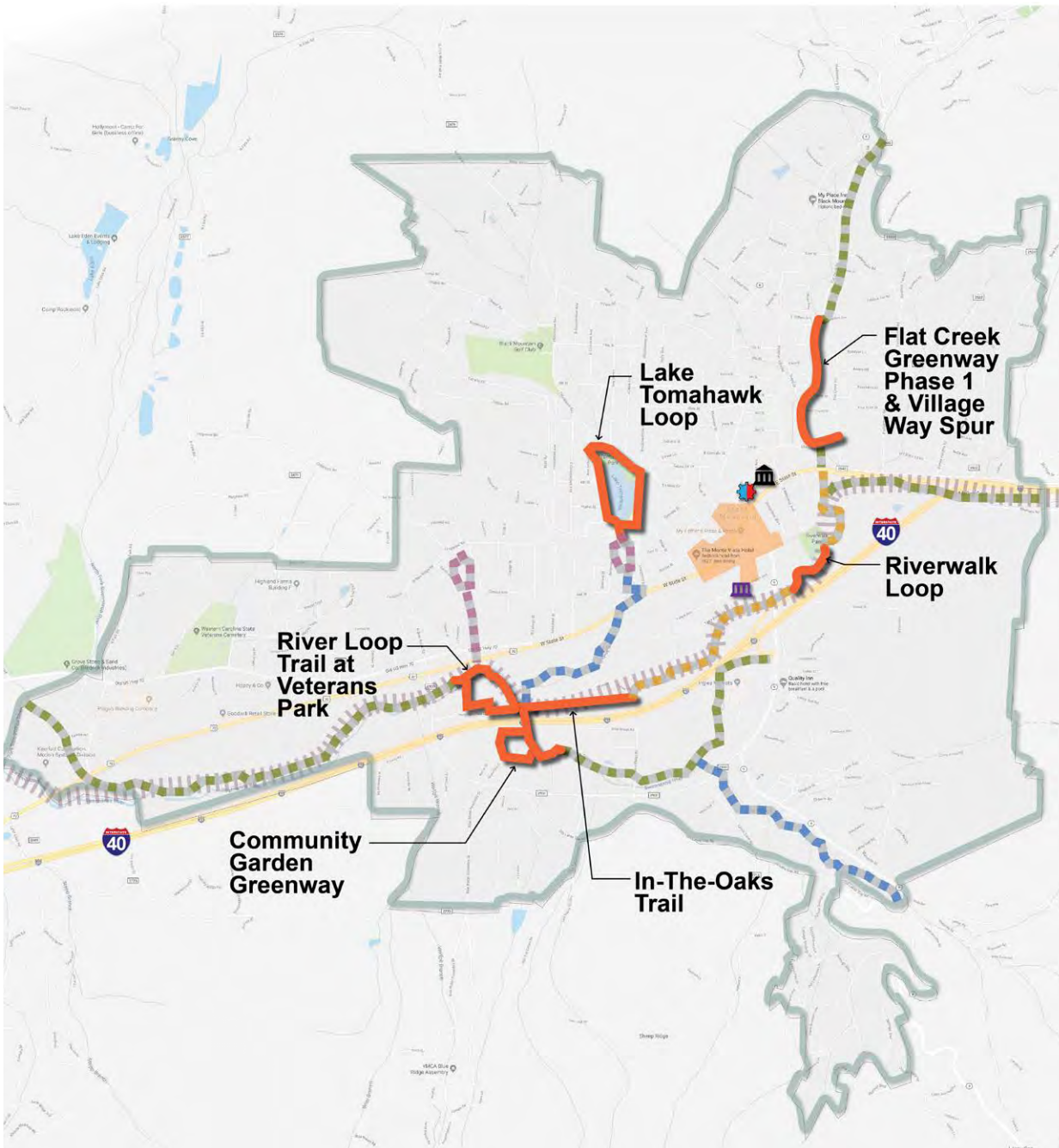
TOWN OF BLACK MOUNTAIN
FONTA FLORA STATE TRAIL
BUNCOMBE COUNTY MAP

LEGEND

- COMPLETED GREENWAYS
- FUNDED GREENWAYS
- HIGH PRIORITY GREENWAYS
- MEDIUM PRIORITY GREENWAYS
- LOW PRIORITY GREENWAYS
- BLACK MOUNTAIN TOWN HALL
- BLACK MOUNTAIN PUBLIC SERVICES, RECREATION & PARKS
- BLACK MOUNTAIN POLICE & FIRE DEPARTMENTS
- BLACK MOUNTAIN BUSINESS DISTRICT
- TOWN LIMITS
- FONTA FLORA STATE TRAIL

Overall Greenway Map

TOWN OF BLACK MOUNTAIN, NC



LEGEND

	COMPLETED GREENWAYS		BLACK MOUNTAIN TOWN HALL
	FUNDED GREENWAYS		BLACK MOUNTAIN PUBLIC SERVICES, RECREATION & PARKS
	HIGH PRIORITY GREENWAYS		BLACK MOUNTAIN POLICE & FIRE DEPARTMENTS
	MEDIUM PRIORITY GREENWAYS		BLACK MOUNTAIN BUSINESS DISTRICT
	LOW PRIORITY GREENWAYS		TOWN LIMITS
			FONTA FLORA STATE TRAIL

Completed Greenways

COMMUNITY GARDEN GREENWAY

Completed 2011

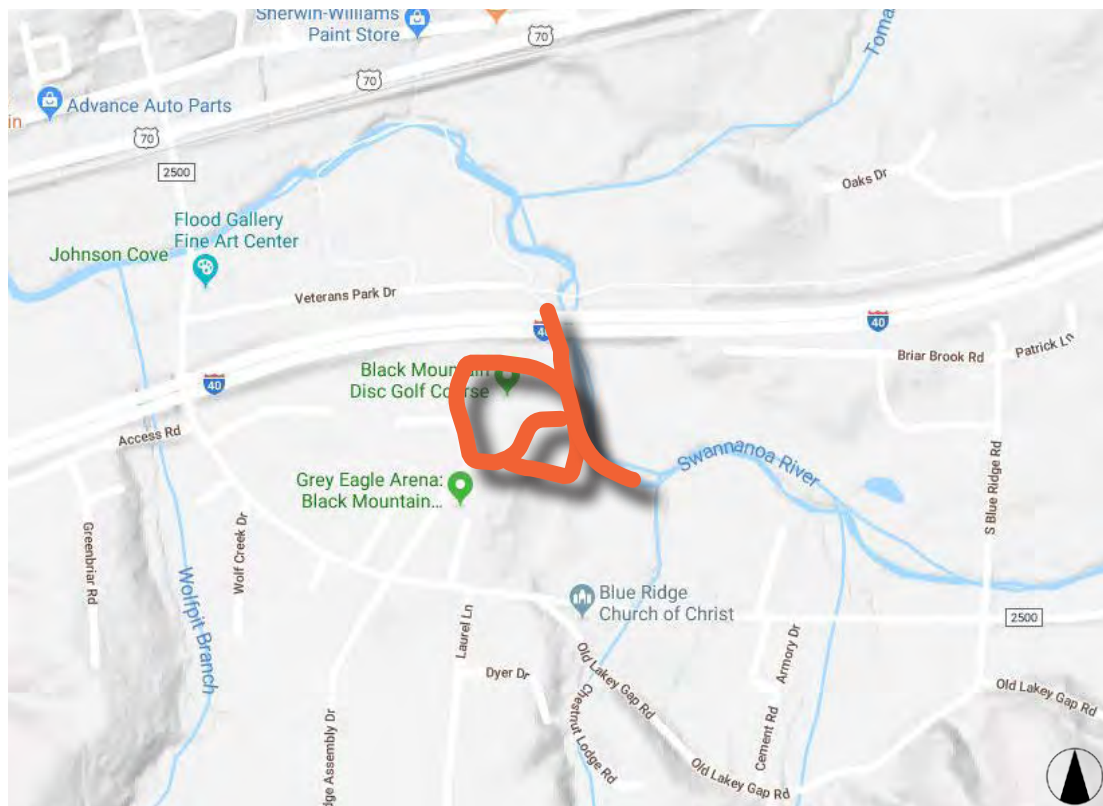
Approximately 0.25 miles



The Community Garden Greenway connects Black Mountain Veteran's Park to the Dr John Wilson Community Garden and the 'back 9' of the disc golf course with a spur up to the Grey Eagle Arena. This Greenway provides a safe and easy connection between communities north and south of I-40. Approximately one-quarter (1/4) mile in length, this section of the Greenway connects under the interstate to In-The-Oaks Trail and existing River Loop Trail at Veteran's Park.

Along the river, the trail is shaded by large poplars and maples, but soon opens to a small meadow and then arrives at the Community Gardens and Grey Eagle Arena, passing by over 100 fruit and nut trees/shrubs cared for by the community garden volunteers.

As of 2018, the Community Garden Greenway includes 'The Alchemy of Dawn', a visually appealing and mentally stimulating art piece, by local resident, Julia C Burr. The piece was made possible by an anonymous donor.



FLAT CREEK GREENWAY PHASE 1 & VILLAGE WAY SPUR

Completed 2011

Approximately 0.5 miles

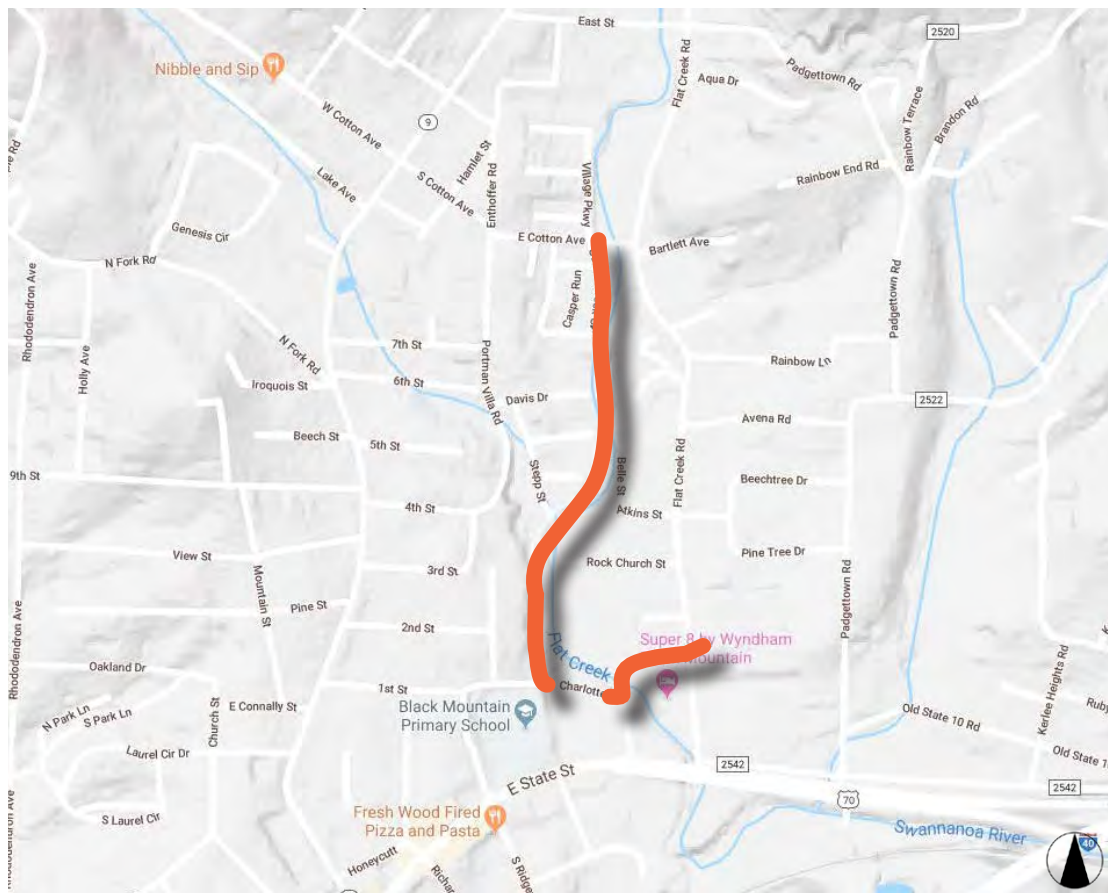


The Flat Creek Greenway Phase 1 extends mostly north-south from Charlotte Street behind the Primary School to Cotton Avenue at the north end. Phase 1 included a stream restoration project for Flat Creek. At the bridge crossing of Flat Creek, the Village Way Spur follows Village Way Road and connects to Black Mountain Elementary School via sidewalk.

Flat Creek Greenway offers residents in the nearby neighborhoods easy walking or biking access to the Primary and Elementary Schools, athletic fields, shopping center, and several local restaurants. The Primary School extensively uses this segment of the Greenway to hold outdoor classes; in particular for studying the ecology of Flat Creek.

When completed with proposed Phase 2, the Flat Creek Greenway will stretch almost one (1) mile, connecting the Town of Montreat to downtown Black Mountain and the proposed Ridgecrest Trail to the east of town.

See Flat Creek Greenway Phase 2 description in the section herein for High Priority Greenways.



IN-THE-OAKS TRAIL

Completed 1999

Approximately 0.5 miles



In-The-Oaks Trail connects Black Mountain Veteran's Park to the sidewalks in the heart of downtown and to the proposed Grey Eagle Trail section of the Community Garden Greenway, skirting the town along the river. It crosses the Swannanoa River at the edge of the park via a bridge and follows the edge of Montreat College's In-The-Oaks, through a shady pine forest, near the Swannanoa River not far from I-40. This greenway will connect to the Riverwalk Greenway using the proposed Grey Eagle Trail, providing miles of connectivity.

Existing amenities include a donation of right-of-way by In-The-Oaks Episcopal Conference Center and a well-constructed and maintained paved route with benches and trash receptacles. This completed section of the greenways trail system is heavily utilized, despite lacking complete connectivity to downtown Black Mountain.

In-The-Oaks Trail will become part of North Carolina's Fonta Flora State Trail.



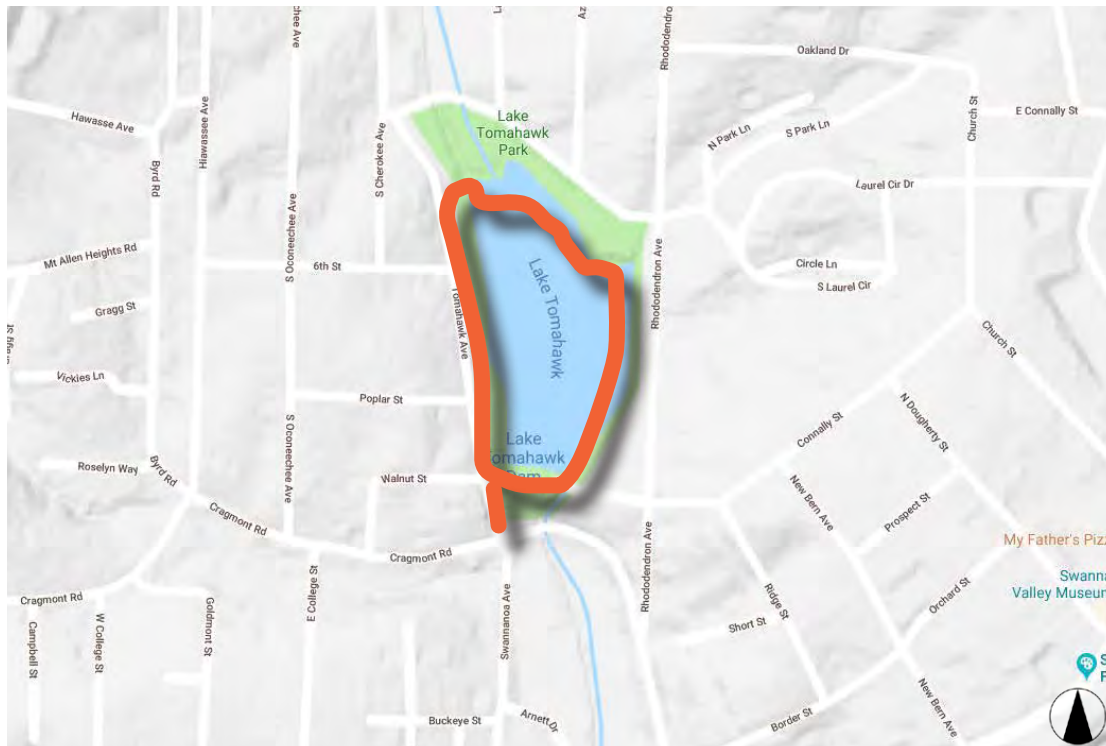
LAKE TOMAHAWK LOOP

Completed ~1975

Approximately 0.5 miles



Lake Tomahawk Loop is a pleasant, aggregate fine path around Lake Tomahawk within the sixteen (16) acre recreation area. The dam that created the lake was constructed around 1933 and is fed via Tomahawk Branch that weaves through Black Mountain Golf Course. Other amenities around the lake include a community swimming pool, activity center with meeting rooms, tennis courts, fishing pier, playground, public restrooms, horseshoe pits, and picnic pavilion.



RIVER LOOP TRAIL at Veteran's Park

Completed 1998

Approximately 1.6 miles

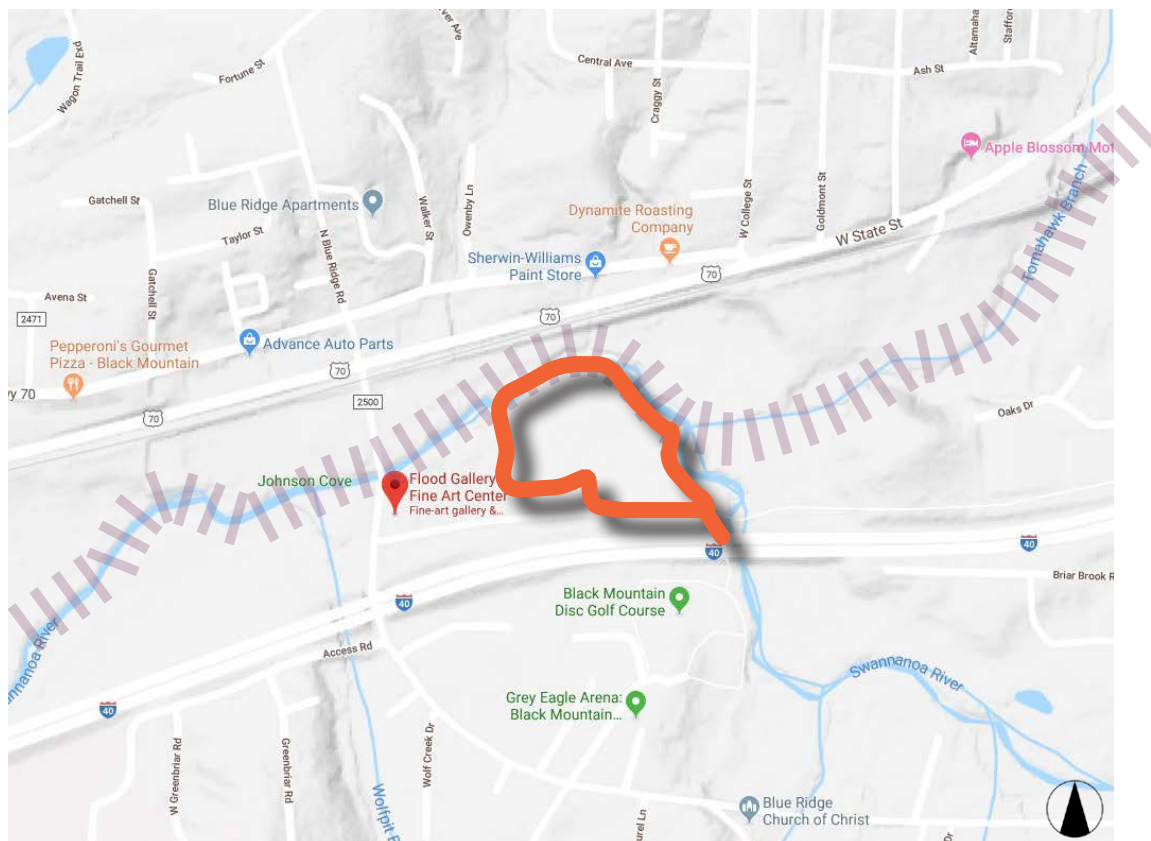


River Loop Trail at Veteran's Park circles around amenities in the northwest corner of the park, north of I-40. Drainage issues in the area contribute to annual erosion of the trail into the Swannanoa River. Stream bank restoration and compliance with ADA are primary concerns for continued use.

The October 2016 Black Mountain Veteran's Park Master Plan noted immediate need for the portion of the trail in the northwest corner to be rehabilitated.

Thanks to an anonymous donor, local artist Julia C. Burr has been commissioned to fashion a third piece of art in the southern portion of the River Loop Trail just before it goes under I-40.

The section of the River Loop Trail along the Swannanoa River will become part of the North Carolina Fonta Flora State Trail.



RIVERWALK LOOP

Completed 2003

Approximately 0.6 miles

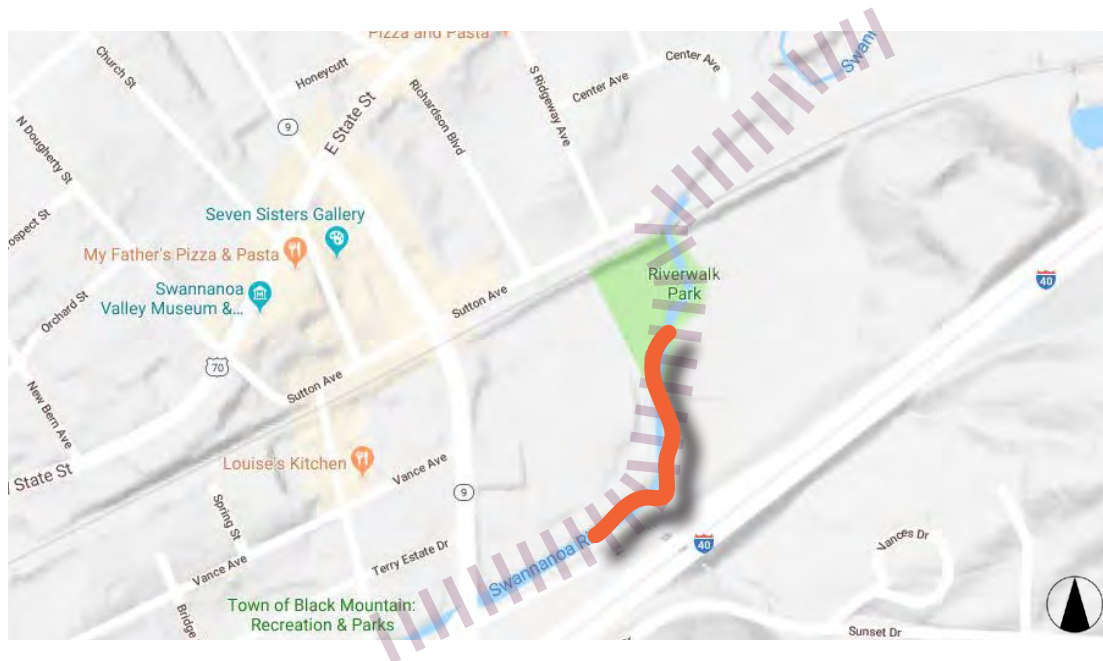


Riverwalk Loop is a feature within the two (2) acre Riverwalk Park along the Swannanoa River, off Highway 9. Construction of the park was a community effort of TBM, Warren Wilson College, and RiverLink*, along with the volunteer efforts of local school programs and the Town's Urban Forestry and Beautification Committees.

The neighborhood park includes picnic areas, play equipment, a dog park, wildflower meadow, and wetlands. A piece of art by local resident Julia C. Burr, entitled 'The Nest', highlights the importance of this Loop for birds and other pollinators. It was the first piece of public art for the TBM Greenway system and was made possible by an anonymous donor.

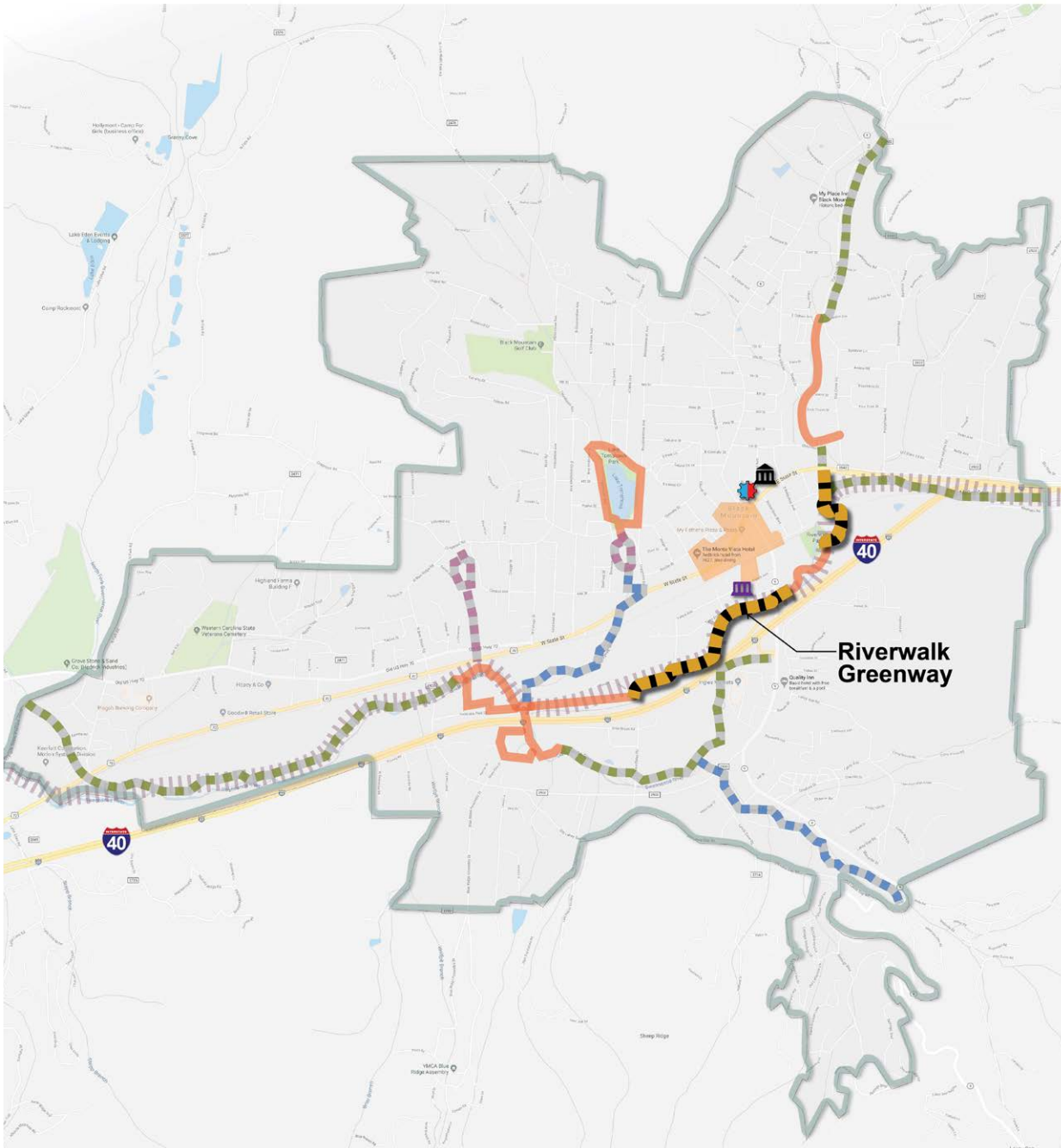
Portions of the existing trail that align with the proposed greenway will be paved, and once incorporated with the Riverwalk Greenway, Riverwalk Loop will be part of a major greenway 'connector' for the Town and part of North Carolina's Fonta Flora State Trail.

See Riverwalk Greenway description in the section herein for Funded Greenway.



**RiverLink was founded in 1986 to support the environmental and economic revitalization of the French Broad River and its watershed as a place to live, learn, work and play. RiverLink accomplishes its mission by providing permanent public access to the river through conservation and recreation easements, reclaiming contaminated lands for public use and enjoyment, and greenway development.*





LEGEND

	COMPLETED GREENWAYS		BLACK MOUNTAIN TOWN HALL
	FUNDED GREENWAYS		BLACK MOUNTAIN PUBLIC SERVICES, RECREATION & PARKS
	HIGH PRIORITY GREENWAYS		BLACK MOUNTAIN POLICE & FIRE DEPARTMENTS
	MEDIUM PRIORITY GREENWAYS		BLACK MOUNTAIN BUSINESS DISTRICT
	LOW PRIORITY GREENWAYS		TOWN LIMITS
			FONTA FLORA STATE TRAIL

Funded Greenway

RIVERWALK GREENWAY

Funded Greenway

Approximately 1.5 miles



Riverwalk Greenway was first identified as a priority by the TBM Greenways Commission in 2002. Since then, iterations of the corridor have been identified in the US 70/Swannanoa River Greenway Feasibility Study (2010), Buncombe County Masterplan (2012), TBM Comprehensive Plan (2014), and TBM Bike Plan (2016). The project has been ranked as a high priority in several of these plans and studies. Once completed, the Riverwalk Greenway will serve as a connector for these regionally significant trails and a part of the North Carolina Fonta Flora State Trail connecting Morganton to Asheville (approximately 100 miles total).

In generalities, the Greenway is an intensive and complex section that is proposed to cross under both US 70 and Highway 9, as well as under the Norfolk Southern rail line, just east of the Swannanoa River. It will also cross the Swannanoa River in two (2) locations via bridges. Demand to cross the Swannanoa for a third time is currently in consideration depending on the preferred alignment. The Greenway will also provide connectivity to the downtown core via a 'Depot Spur' from the TBM Office Facility on Black Mountain Avenue.

Currently the goal is to finalize greenway design plans, gain regulatory approvals, and identify necessary rights of ways/easements so that the project will be ready to advertise for construction services. The project is funded through the US Federal Highways Administration (FHWA), and is a NCDOT's State Transportation Improvement Program (STIP) Locally Administered Project (LAP).

The current design and engineering phase is anticipated to take approximately two (2) years. Scope includes landowner outreach, ROW appraisals, design approvals, public meetings, utility coordination, hydrologic and hydraulic modeling, bridge/underpass structural design, geotechnical study, transportation management plans, and environmental permitting approvals.

Once completed, Riverwalk Greenway will link the Flat Creek Greenway and Primary School Connector with the In-the-Oaks Trail, River Loop Trail, Owen Spur Greenway, and Swannanoa River Trail – total of approximately 8.5 miles. The Riverwalk Greenway is anticipated to be open to the public in 2022.

(See map on next page)



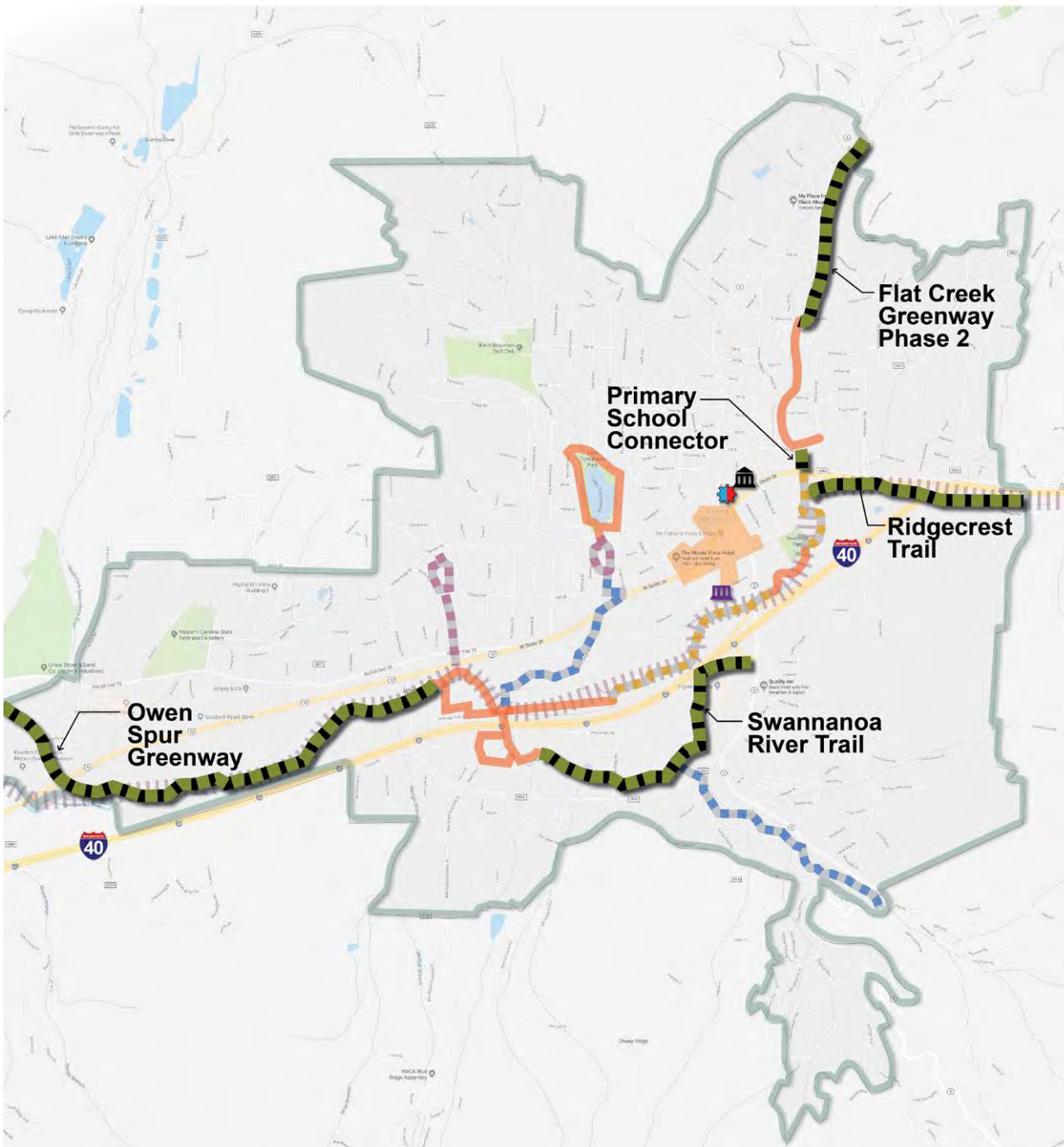
RIVERWALK GREENWAY

Funded Greenway

Approximately 1.5 miles



Illustrative portrayal of proposed greenway segment or connector is a representative alignment only and should not be construed as conclusive. Once funding is procured, citizens and landowners will be able to participate and voice their concerns during the public planning process.



LEGEND

	COMPLETED GREENWAYS		BLACK MOUNTAIN TOWN HALL
	FUNDED GREENWAYS		BLACK MOUNTAIN PUBLIC SERVICES, RECREATION & PARKS
	HIGH PRIORITY GREENWAYS		BLACK MOUNTAIN POLICE & FIRE DEPARTMENTS
	MEDIUM PRIORITY GREENWAYS		BLACK MOUNTAIN BUSINESS DISTRICT
	LOW PRIORITY GREENWAYS		TOWN LIMITS
			FONTA FLORA STATE TRAIL

High Priority Greenways

FLAT CREEK GREENWAY PHASE 2

High Priority

Approximately 0.4 miles



This is the last section of the greenway network before reaching the Montreat Gate. There is a possibility of utilizing MSD ROW in some locations. Although the MSD has previously given permission to use the sewer line ROW along Flat Creek, the density of housing and its close proximity to the creek suggest that it would be best to follow the existing road for the majority of greenway alignment – fairly level with medium traffic volume.

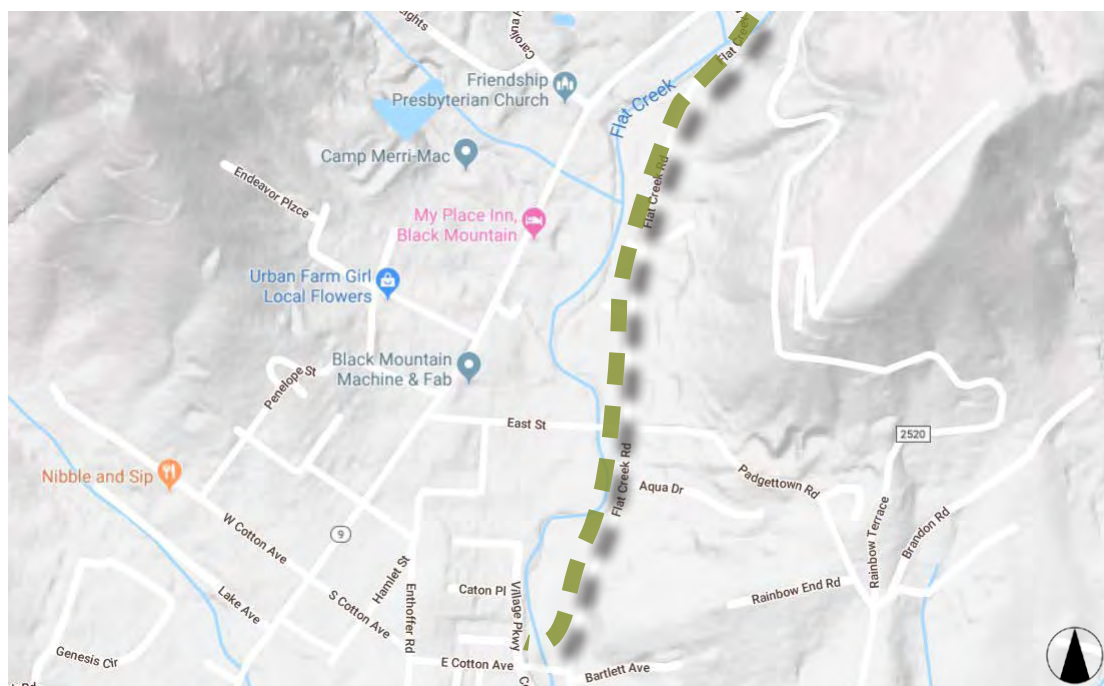
Future repaving or widening should include adding designated bike and pedestrian lanes. At the north end, the trail leaves Flat Creek Road and follows the creek and existing trails within Montreat Township to become visible behind the Montreat gate/entrance sign.

Flat Creek Greenway Phase 2 has been identified in NCDOTs STIP, as an engineering project scheduled to “construct new multi-use path from the existing Flat Creek Greenway Phase 1 trailhead near State Street and Charlotte Street to existing Riverwalk Loop near Riverwalk Park and extension west of NC9 near existing culvert”.

Phase 2 will connect the Town of Montreat to downtown Black Mountain. It will connect Montreat College's north and south campuses, allowing students safer travel between campuses and Black Mountain residents and visitors to enjoy additional recreation and entertainment. At least one (1) bridge will need to be built to cross Flat Creek.

From Black Mountain to Montreat Phase 2 also provides the opportunity to connect TBM to Pisgah National Forest and the Blue Ridge Parkway. This route is utilized for the renowned Mount Mitchell Challenge. It will reduce vehicle conflicts, traffic pattern impacts... providing a safer experience for trail users.

See further information included herein from the Black Mountain by Bike Plan... this Greenway section ranked 61/100 as to user priority in the document.

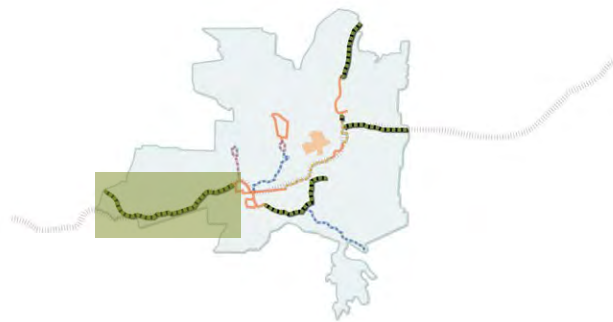


Illustrative portrayal of proposed greenway segment or connector is a representative alignment only and should not be construed as conclusive. Once funding is procured, citizens and landowners will be able to participate and voice their concerns during the public planning process.

OWEN SPUR GREENWAY

High Priority

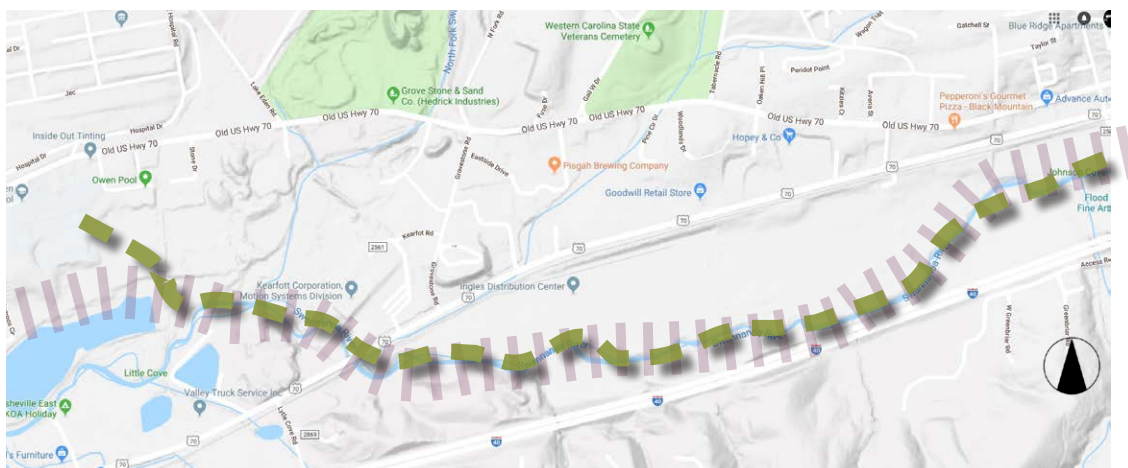
Approximately 2.0 miles



The Owen Spur Greenway will connect the River Loop Trail at Veterans Park to Owen High School, Owen Middle School, Owen District Pool, Swannanoa 4H Camp, and the Black Mountain Home for Children. Major advantage of this connector is that it will follow an abandoned section of railway line, potentially utilizing the existing trestle to cross the north branch of the Swannanoa River. The main trail will cross US 70 at the intersection of Lake Eden Road and will end at the Town of Black Mountain boundary. This Greenway section ranked 60/100 as to user priority in the Black Mountain by Bike Plan. A major portion of the Owen Spur Greenway will become part of the North Carolina Fonta Flora State Trail.



US 70 CROSSING OVER SWANNANOA RIVER

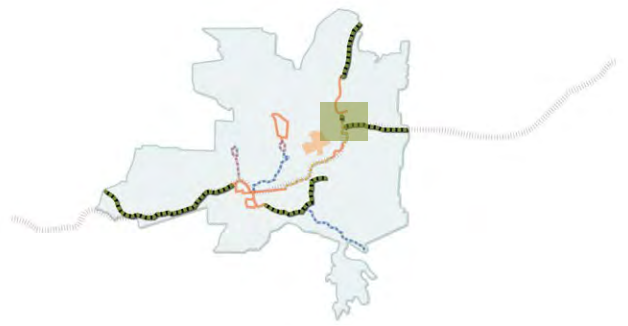


Illustrative portrayal of proposed greenway segment or connector is a representative alignment only and should not be construed as conclusive. Once funding is procured, citizens and landowners will be able to participate and voice their concerns during the public planning process.

PRIMARY SCHOOL CONNECTOR

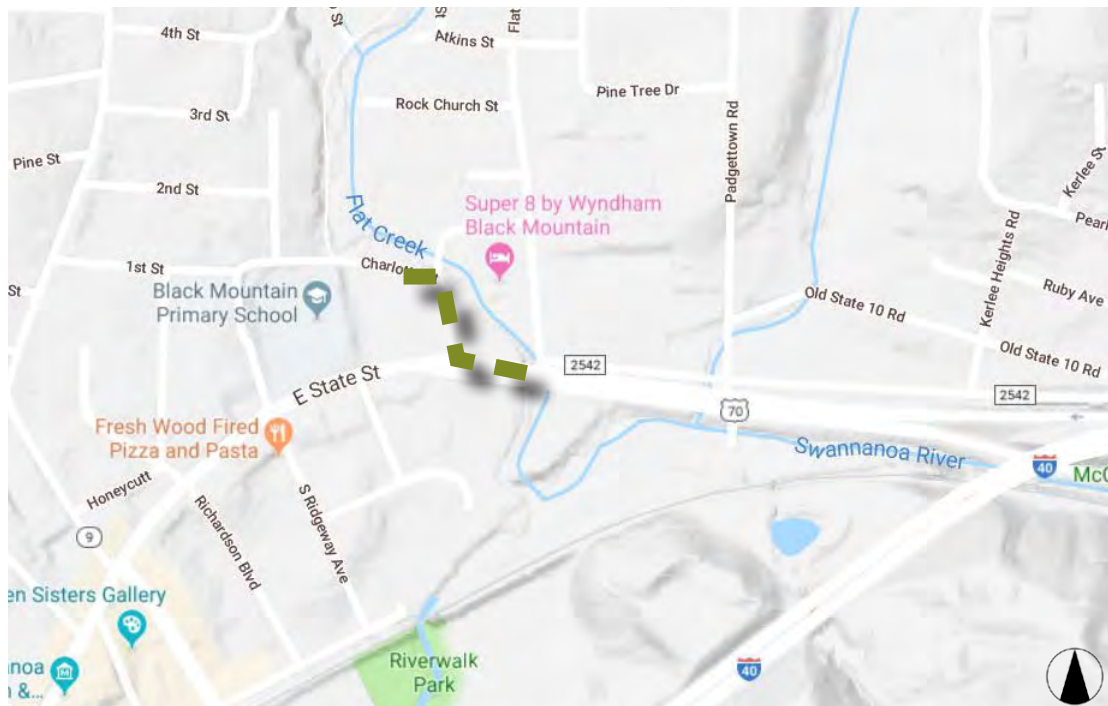
High Priority

Approximately 0.25 miles



This quarter mile section connects the Riverwalk Greenway and Flat Creek Greenway (including Phases 1 and 2).

Combined these three (3) pathways provide access from Montreat to the Ridgecrest Trail to the east. It also connects the elementary school to the Riverwalk Greenway, including Riverwalk Park. The Flat Creek Greenway Phase 1 and Village Way Spur are currently in place and connects the Elementary and Primary Schools to each other. Other existing amenities include paths and road in the lower part of the Spur / Trail and MSD permission in the upper part.

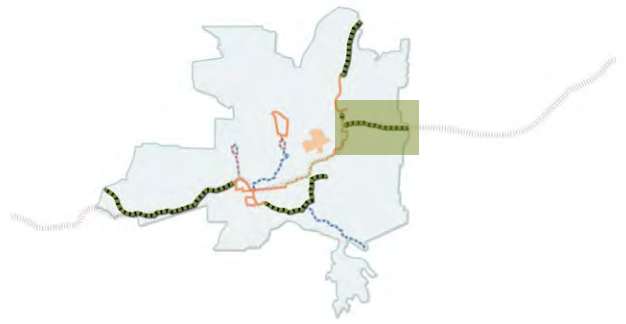


Illustrative portrayal of proposed greenway segment or connector is a representative alignment only and should not be construed as conclusive. Once funding is procured, citizens and landowners will be able to participate and voice their concerns during the public planning process.

RIDGECREST TRAIL

High Priority

Approximately 1.8 miles



Ridgecrest Trail will link the Town of Black Mountain to the community of Ridgecrest. The proposed alignment has the Ridgecrest Trail branching off from the Riverwalk Greenway where Flat Creek converges with the Swannanoa River. This Trail will follow the north side of the river using the existing MSD easement, will pass under I-40 bridge, and tie into old Highway 70 extension.

This connector will provide a link between the Ridgecrest Conference Center and the summer cottages of Ridgecrest to the Town of Black Mountain. The Trail passes near several historical landmarks, including the site of the Perley and Crockett Lumber Mills in addition to the passenger train depot for the Mount Mitchell railroad.

See Appendix F for further information from the US 70/Swannanoa River Greenway Feasibility Study completed in 2010.

Ridgecrest Trail will become part of North Carolina's Fonta Flora State Trail; connecting Black Mountain to Lake James and Point Lookout.

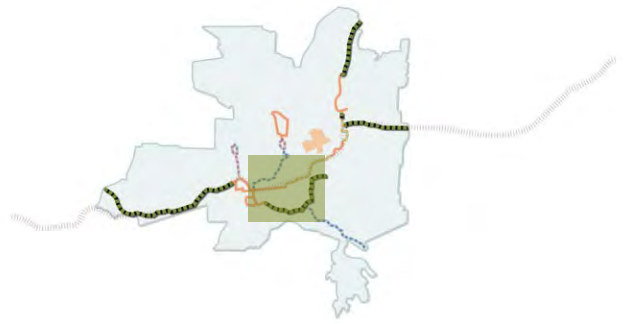


Illustrative portrayal of proposed greenway segment or connector is a representative alignment only and should not be construed as conclusive. Once funding is procured, citizens and landowners will be able to participate and voice their concerns during the public planning process.

SWANNANOA RIVER TRAIL

High Priority

Approximately 1.6 miles



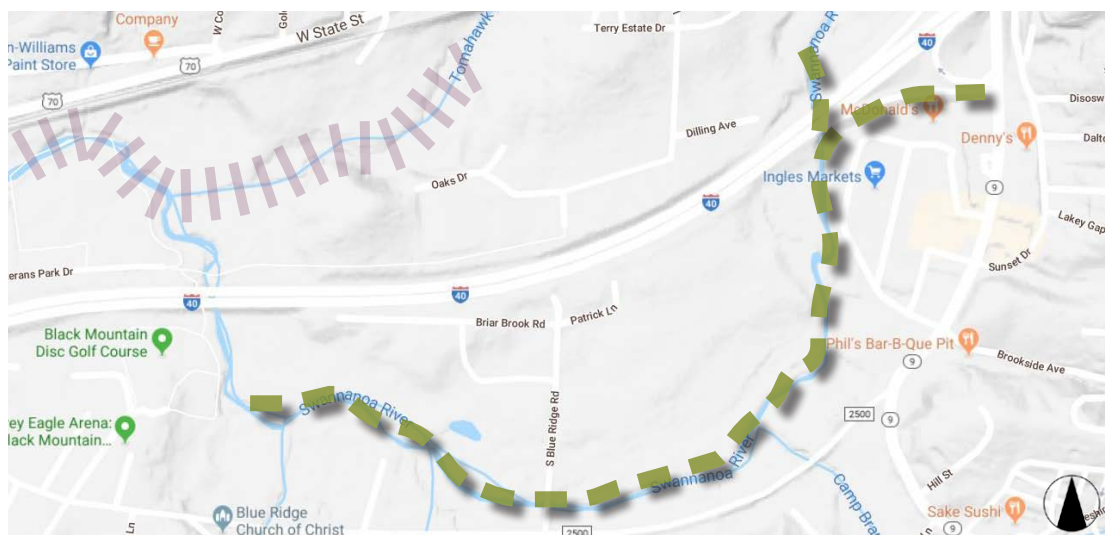
The Swannanoa River Trail is one (1) of only three (3) corridors identified that would be located on the South side of I-40. Name is derived from generally following along the Swannanoa River, which if able to be adjacent, could provide users the opportunity to experience a riverine ecosystem, while taking in scenic views of both the Swannanoa Range to the south, and Craggy Mountains of Pisgah National Forest to the north.

Whether by easements from private property owners, or bike and pedestrian roadway improvements along Blue Ridge Road, the corridor will serve a large population of residents and visitors to destination locations such as the YMCA Blue Ridge Assembly (average of 30,000 visitors annually as of 2012) and the future Avadim headquarters, anticipated to employ 551 people (projected as of 2018).

Swannanoa River Trail would be the connector between the Community Garden Greenway and the Britain Creek Trail. Near the northern terminus (behind the existing Ingles supermarket), utilization of the existing barrels that convey the Swannanoa River under I-40 would afford access to the Riverwalk Greenway and the North Carolina Fonta Flora Trail; avoiding the need for pedestrians to use the sidewalk along Highway 9 that crosses under the I-40, thereby avoiding precarious intersections and adjacency to high speed traffic.

A feasibility study for this corridor was conducted in 2008, which identified a potential alignment which primarily utilized a combination of encumbered conditions including, but not limited to, floodplain/floodway and utility easements such as a transmission line and sanitary sewer.

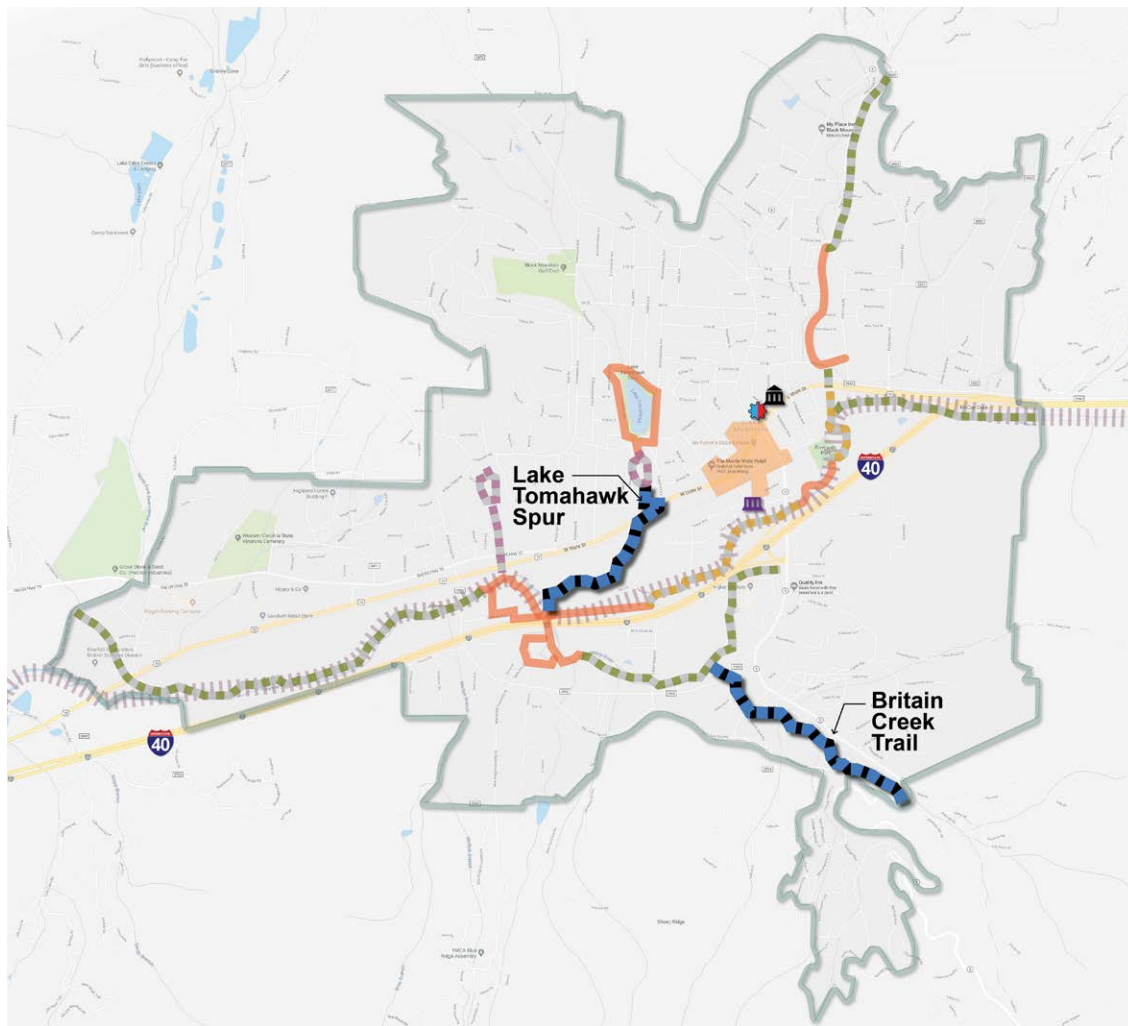
This greenway section ranked 51/100 as to user priority in the Black Mountain by Bike Plan. See Appendix F for further information from the US 70/Swannanoa River Greenway Feasibility Study completed in 2010.



Illustrative portrayal of proposed greenway segment or connector is a representative alignment only and should not be construed as conclusive. Once funding is procured, citizens and landowners will be able to participate and voice their concerns during the public planning process.



Medium Priority Greenways



LEGEND

	COMPLETED GREENWAYS		BLACK MOUNTAIN TOWN HALL
	FUNDED GREENWAYS		BLACK MOUNTAIN PUBLIC SERVICES, RECREATION & PARKS
	HIGH PRIORITY GREENWAYS		BLACK MOUNTAIN POLICE & FIRE DEPARTMENTS
	MEDIUM PRIORITY GREENWAYS		BLACK MOUNTAIN BUSINESS DISTRICT
	LOW PRIORITY GREENWAYS		TOWN LIMITS
			FONTA FLORA STATE TRAIL

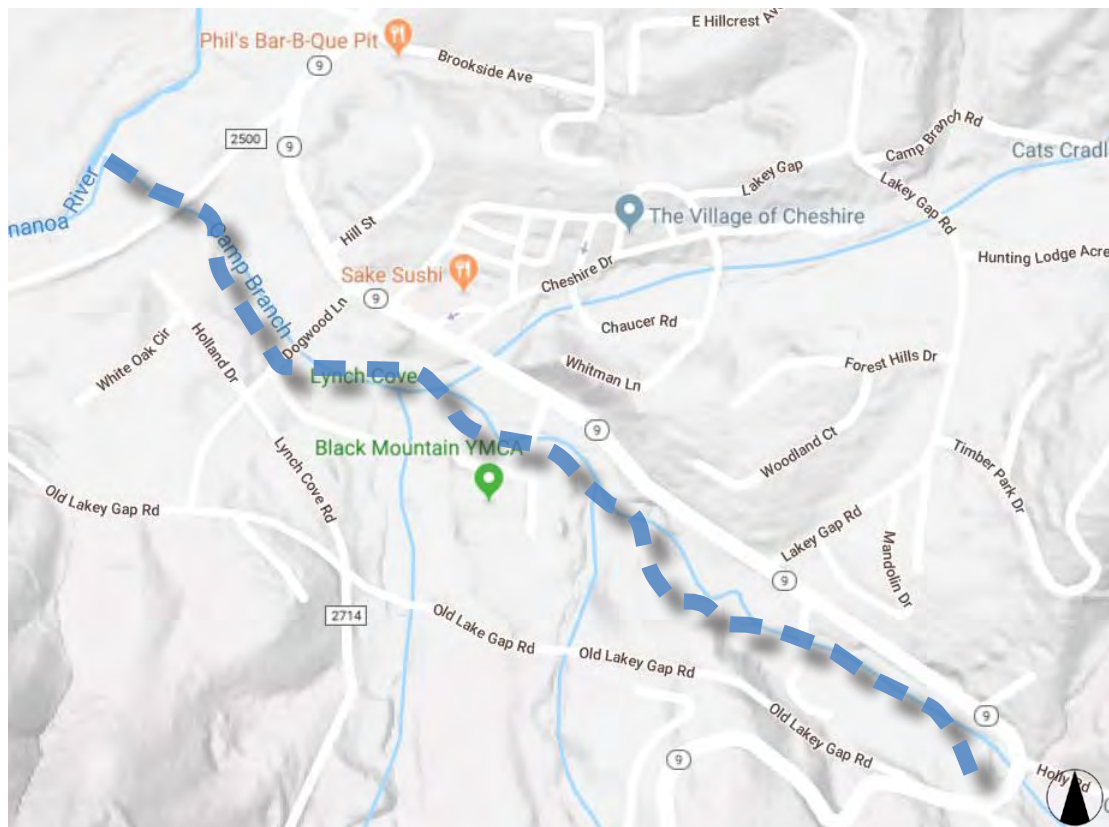
BRITAIN CREEK TRAIL

Medium Priority

Approximately 1.0 miles



Britain Creek Trail will connect the entrance of Christmount and neighborhoods adjoining Highway 9 with the Black Mountain YMCA and Ingles shopping area via the Swannanoa River Trail. This Trail will also expand the overall Town's pedestrian and bicycle network to the south and east creating future connection to Blue Ridge Road and parks within the Town system. For the majority of its alignment, the Trail will run adjacent to Britain Creek, which flows out of Christmount and joins Camp Branch before flowing into the Swannanoa River.

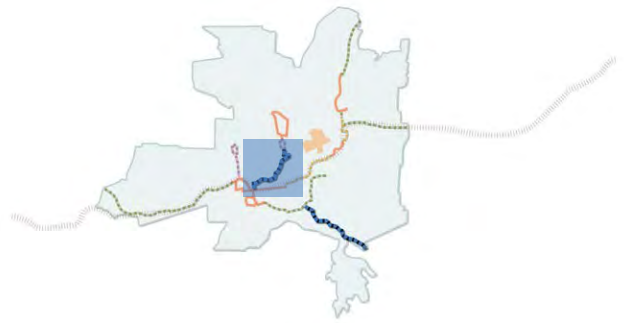


Illustrative portrayal of proposed greenway segment or connector is a representative alignment only and should not be construed as conclusive. Once funding is procured, citizens and landowners will be able to participate and voice their concerns during the public planning process.

LAKE TOMAHAWK SPUR

Medium Priority

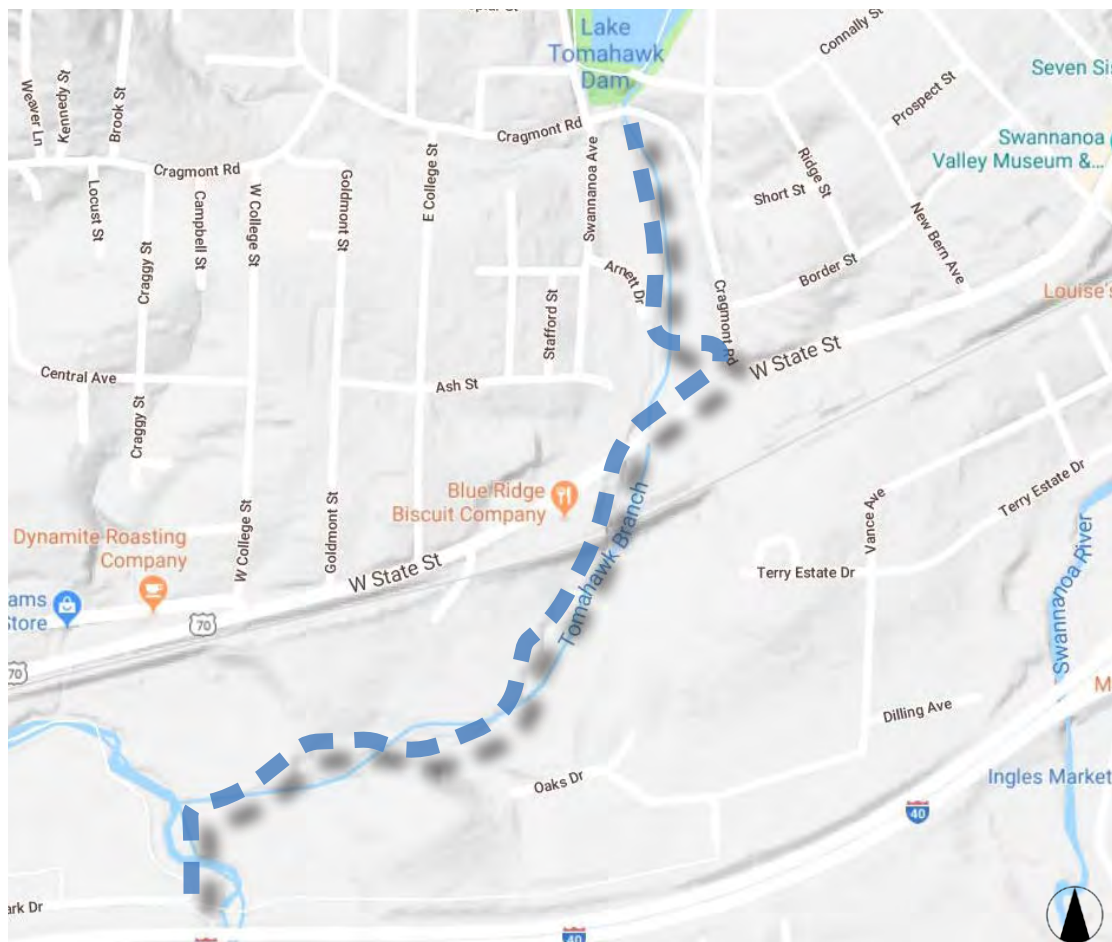
Approximately 0.8 miles



Lake Tomahawk Spur will connect two (2) major recreational areas – River Loop Trail at Veteran's Park and Lake Tomahawk Loop. From its junction with the In-The-Oaks Trail, this Spur follows the MSD ROW through the In-The-Oaks property, crossing under the railroad tracks and continuing to follow the ROW to the intersection with Cragmont Road. Crossing US 70 at the Cragmont traffic light, the Spur bears west onto Ash Street, then north again on Park until reaching Cragmont Park Walking Trail and Lake Tomahawk Loop. By using both Ash and Park Streets' unopened, dedicated ROWs, the heavily trafficked Cragmont Road would be avoided.

The Trail thus follows MSD ROW almost the entire distance from Veterans Park to Lake Tomahawk Park. Challenges include crossing the railroad tracks and two (2) busy intersections at two (2) crossings of Cragmont Road.

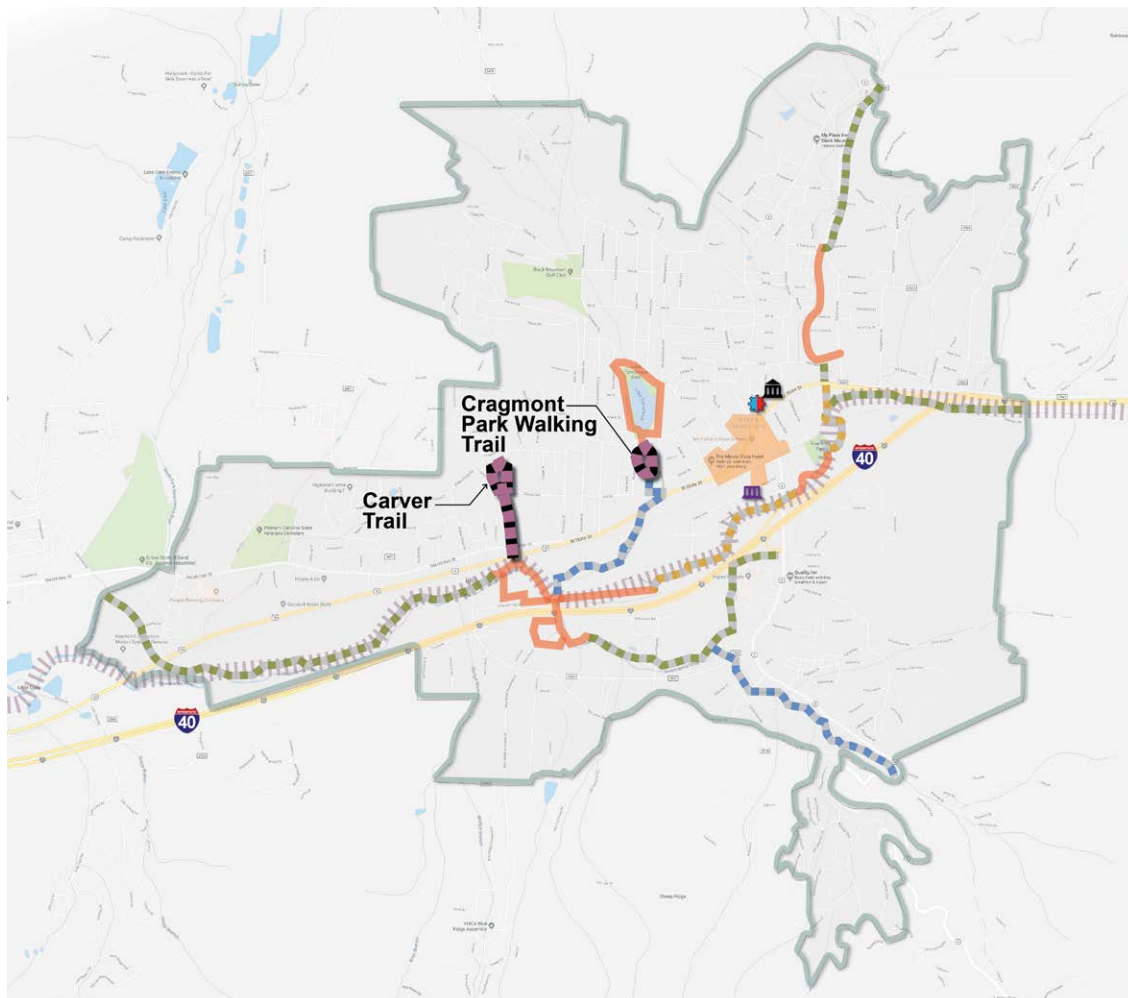
This Greenway section ranked 58/100 as to user priority in the Black Mountain by Bike Plan.



Illustrative portrayal of proposed greenway segment or connector is a representative alignment only and should not be construed as conclusive. Once funding is procured, citizens and landowners will be able to participate and voice their concerns during the public planning process.



Low Priority Greenways



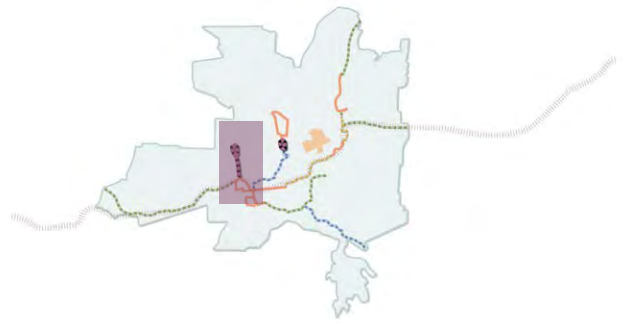
LEGEND

	COMPLETED GREENWAYS		BLACK MOUNTAIN TOWN HALL
	FUNDED GREENWAYS		BLACK MOUNTAIN PUBLIC SERVICES, RECREATION & PARKS
	HIGH PRIORITY GREENWAYS		BLACK MOUNTAIN POLICE & FIRE DEPARTMENTS
	MEDIUM PRIORITY GREENWAYS		BLACK MOUNTAIN BUSINESS DISTRICT
	LOW PRIORITY GREENWAYS		TOWN LIMITS
			FONTA FLORA STATE TRAIL

CARVER TRAIL

Low Priority

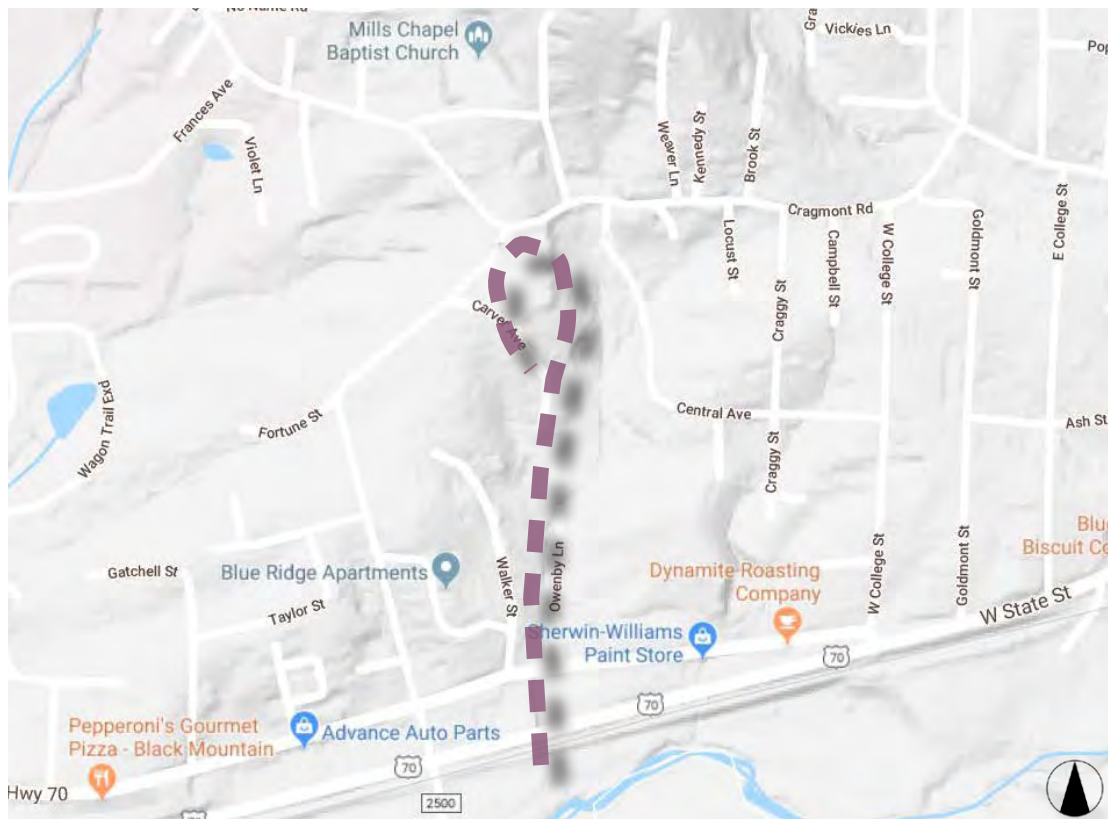
Approximately 0.5 miles



Currently in initial planning and pre-implementation stages, Carver Trail will primarily be a woodland path, allowing for enjoyment and use of the woods at Carver Community Center. This loop will connect to the sidewalk on Cragmont Avenue on the north end and Carver Community Center playground on the south end.

The Trail will allow school kids (and others) to explore nature in a safe walking space. In addition, the Trail will allow residents of the Blue Ridge Apartments to easily access Carver Community Center, including the Carver Community Garden, safely.

In the future, this Trail will have a spur connecting to old Highway 70 and across US 70 to Veterans Park or the Swannanoa River Trail. Final alignment may depend on landowners approval, final placement of other greenways, and possibly the future NCDOT Blue Ridge Road I-40 Interchange.



Illustrative portrayal of proposed greenway segment or connector is a representative alignment only and should not be construed as conclusive. Once funding is procured, citizens and landowners will be able to participate and voice their concerns during the public planning process.

CRAGMONT PARK WALKING TRAIL

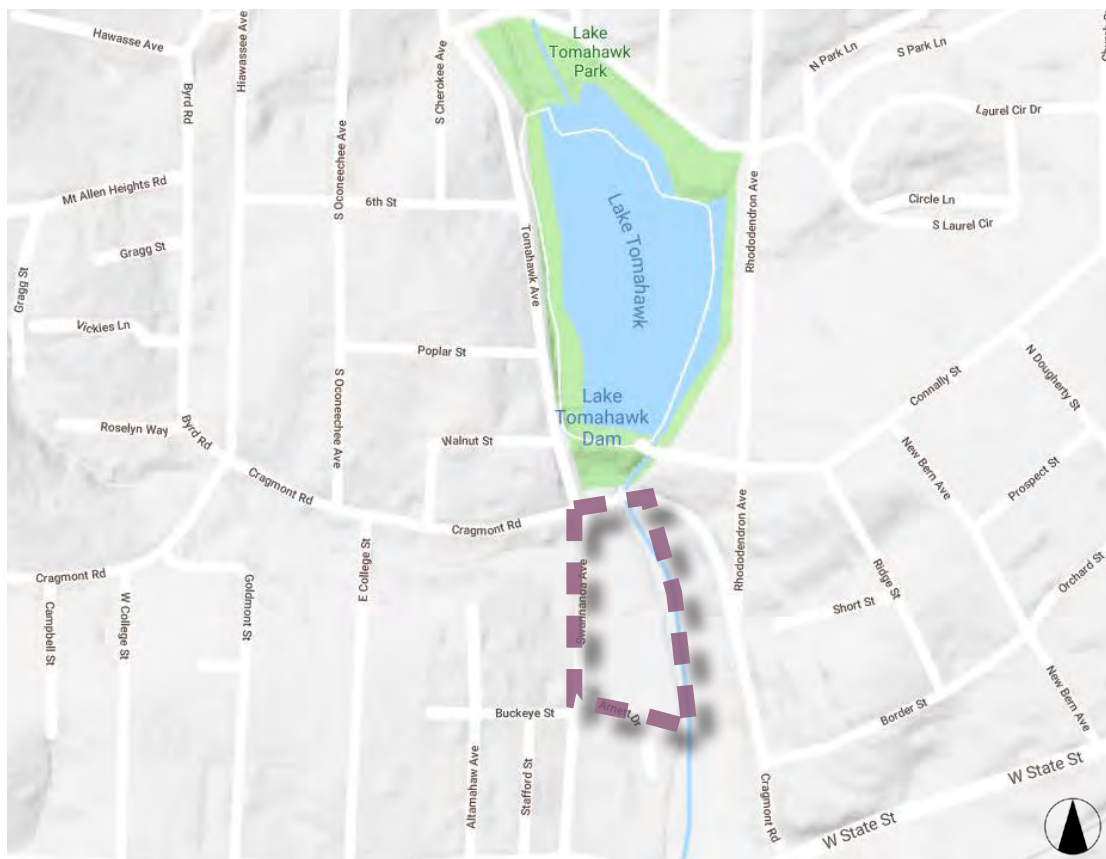
Low Priority

Approximately 0.5 miles



Cragmont Park was originally Youth Center Park. This four (4) acre neighborhood park is south of Lake Tomahawk at Cragmont Road and Swannanoa Avenue (extension of Tomahawk Avenue). The property was originally acquired by the Town in 1933 and redeveloped in 1978. In 1979 the Town received a Land and Water Conservation Fund Grant to develop the property for recreation purposes, including two (2) tennis courts, two (2) basketball courts, and an open field used for softball, football, soccer or the like, league practice.

In the Black Mountain Recreation and Parks Department 2025 Master Plan, notation was expressed for the need of a walking trail similar to (and possible extension of) the Lake Tomahawk Loop aggregate fine path around the perimeter of the park.



Illustrative portrayal of proposed greenway segment or connector is a representative alignment only and should not be construed as conclusive. Once funding is procured, citizens and landowners will be able to participate and voice their concerns during the public planning process.



APPENDIX 'A'

ASSOCIATED REFERENCE DOCUMENT

BLACK MOUNTAIN RECREATION & PARKS DEPT. 2025 MASTER PLAN, 2017

APPENDIX 'B'

ASSOCIATED REFERENCE DOCUMENT

BLACK MOUNTAIN BY BIKE, 2016

APPENDIX 'C'

ASSOCIATED REFERENCE DOCUMENT

BUNCOMBE COUNTY GREENWAYS & TRAILS MASTER PLAN, 2012

APPENDIX 'D'

ASSOCIATED REFERENCE DOCUMENT

LAND OF SKY REGIONAL COUNCIL BLUE RIDGE BIKE PLAN, 2013

APPENDIX 'E'

ASSOCIATED REFERENCE DOCUMENT

TOWN OF BLACK MOUNTAIN PEDESTRIAN TRANSPORTATION PLAN, 2016

APPENDIX 'F'

ASSOCIATED REFERENCE DOCUMENT

US 70 / SWANNANOVA RIVER GREENWAY FEASIBILITY STUDY, 2010

Appendices Index



**BLACK MOUNTAIN RECREATION AND PARKS DEPARTMENT
2025 MASTER PLAN**

Presented to:
THE TOWN OF BLACK MOUNTAIN, NORTH CAROLINA



**Black Mountain
Recreation & Parks**

By:
Casey Conner, Director
Black Mountain Recreation and Parks

Representing
Recreation Department Staff
Recreation Commission

ASSOCIATED REFERENCE DOCUMENTS:

**BLACK MOUNTAIN RECREATION
& PARKS DEPARTMENT
2025 MASTER PLAN, 2017**

Appendix 'A'

Table 6: Areas of Importance

NEED	Yes	No	Will use
Sidewalks	90	10	93
Walking trails	87	13	94
Year-round restroom facilities	87	13	90
Special events	85	15	86
Neighborhood parks	83	18	83
Connected greenways	80	20	84
Picnic pavilions	80	20	75
Parking	79	21	85
Greenways	77	23	82
Upgrading of existing facilities	76	24	64
Designated bike lanes	74	26	65
Community garden	73	27	43
Swim time for adults	71	29	56
Bicycle trails	70	30	66
Disabled access	68	32	37
Bicycle lanes	68	32	69
Accessible facilities	67	33	54
Deal with water runoff	66	34	65
Water exercise classes	65	35	58
Dog park	58	42	46
Fishing facilities	56	44	41
Restrooms at tennis complex	53	47	40
Greenhouse	53	47	48
Bike borrowing programs	51	49	39
Outdoor basketball courts	51	49	34
Aerobics	48	52	34
Community kitchen	48	52	29
Summer camp	45	55	22
Campgrounds	44	56	39
Rental spaces	39	61	23
Tennis courts	37	63	22
Indoor basketball courts	36	64	15
Tennis facilities	33	67	24
Tennis clinics support	30	70	9
Baseball fields	29	71	13

Attendance of Facilities and Participation in Programs

(Top 5)

- 1. Parks such as Tomahawk Park, Black Mountain Recreation Park**
- 2. Greenways**
- 3. Community centers such as Carver**
- 4. Athletic fields**
- 5. Centers such as the senior center**

Management Learning Laboratories

Facilities Opinions

- The existence of well-maintained parks adds to the quality of life in the community (95%)
- In general, I feel that Black Mountain is a healthy place to live (91%)
- Black Mountain can be made into a more “walkable” city (87%)
- There is a need for more walking facilities in Black Mountain (82%)
- In general, the recreation facilities that I have visited satisfy my needs (72%)

Management Learning Laboratories

Top Needs

(70% and more)

- *Sidewalks*
- *Walking trails*
- *Year-round restroom facilities*
- *Special events*
- *Neighborhood parks*
- *Connected greenways*
- *Picnic pavilions*
- *Parking*
- *Greenways*
- *Upgrading of existing facilities*
- *Designated bike lanes*
- *Community garden*
- *Swim time for adults*
- *Bicycle trails*

Management Learning Laboratories



ASSOCIATED REFERENCE DOCUMENT:
BLACK MOUNTAIN BY BIKE, 2016

Appendix 'B'

Key findings included the following:

- 80% of respondents would bicycle more often if there were more greenways
- 60% cycle at least once a month
- Over 83% bicycle for recreation or fitness, but only 43% bicycle for transportation to nearby destinations
- A surprisingly high 17% report commuting to work by bike. Demographic Questions reveal that 36% work in Black Mountain, and another 10% work within 10 miles of Black Mountain
- There are very few children of any age bicycling to school
- Over three fourths of respondents or their household members ride less due to the total lack of bicycle lanes or shoulders
- Bicycling events and activities would encourage 40% to bicycle more often

Figure 3 summarizes the most popular proposed greenway trails that would increase bicycling accessibility and ridership. Flat Creek Phase 2 to Montreat is the most popular, followed closely by Riverwalk/Dog Park to In-the Oaks Trail.

Figure 3—Which proposed greenway trails will do the most to promote bicycling in Black Mountain?

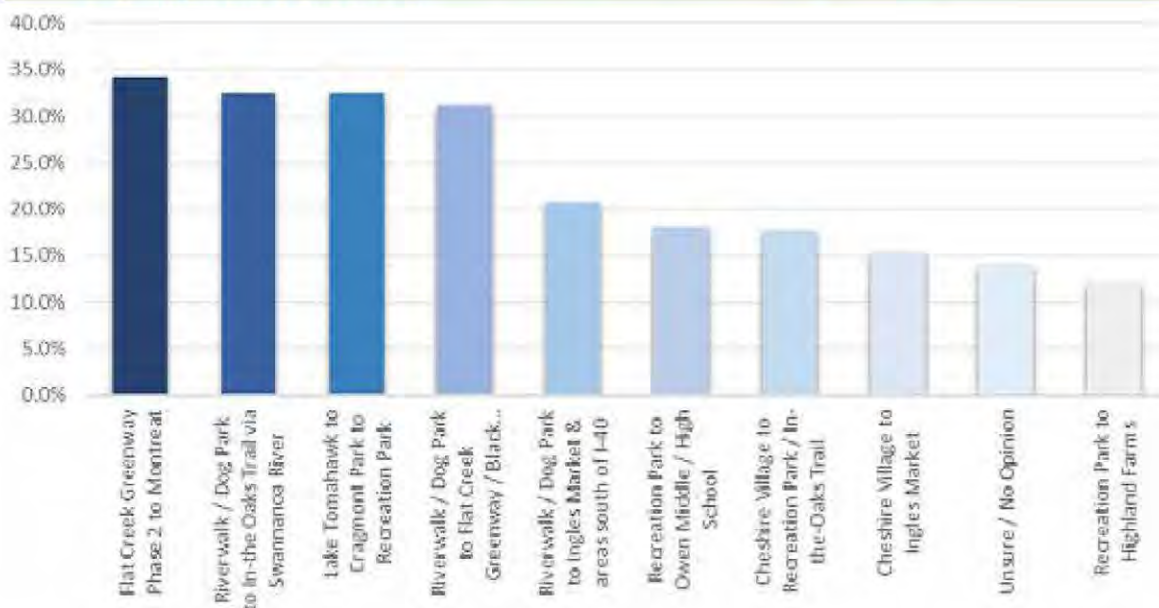


Figure 20— Projects Ranked By Score (Near-Term)				Rank	Project	Type of Improvement	Total Points (100 max.)
				1	RiverWalk Greenway Phase 2, Flat Creek Greenway to River Walk Dog Park	Multi-Use Trail	89
				2	RiverWalk Greenway Phase 3, Dog Park to In the Oaks Trail via Swannanoa River	Multi-Use Trail	79
				3	Montreat Rd (NC 9) from State St (US 70) to Montreat limits	Shared Lane Marking/Signage	68
				4	State St (US 70), from Cragmont Rd to Ridgeway Ave	Shared Lane/Bike Lane	68
				5	State St (US 70), from west Town Limit to Cragmont Ave	Shared Lane Marking/Signage	67
				6	State St (US 70), from Ridgeway Ave to East Town Limit	Shared Lane/Bike Lane	65
				7	Tomahawk Lake to Carver Center Neighborhood Greenway (various streets)	Shared Lane Marking/Signage	63
				8	Flat Creek Greenway Phase 2, Cotton Ave. to Town of Montreat limits	Multi-Use Trail	61
				9	Flat Creek to Tomahawk Lake Neighborhood Greenway (various streets)	Shared Lane Marking/Signage	60
				10	Owen Spur Greenway, Rec Park to Owen Middle/High School	Multi-Use Trail	60
				11	Broadway Ave (NC 9) from State St (US 70) to Blue Ridge Rd	Bikeable Shoulder/Bike Lane	58
				12	Tomahawk Branch Greenway, Lake Tomahawk to Rec Park via Cragmont Park	Multi-Use Trail	58
				13	Old US 70, from State/College Intersection to Owen Middle School	Bikeable Shoulder/Bike Lane	51
				14	Swannanoa River Greenway, Rec Park to RiverWalk Greenway	Multi-Use Trail	51
				15	Ridgecrest Connector Greenway, from RiverWalk to Kitsuma	Multi-Use Trail	51
				16	Blue Ridge Rd, from Old US 70 to Rec Park Entrance	Bikeable Shoulder/Bike Lane	46
				17	Blue Ridge Rd, from Rec Park Entrance to NC 9	Bikeable Shoulder/Bike Lane	45
				18	Carver to Highland Farms Greenway	Multi-Use Trail	44
				19	Cheshire to Swannanoa River Greenway, via Camp Branch/Britton Creek	Multi-Use Trail	40
				20	Flat Creek Rd/Padgettown Rd Neighborhood Greenway	Shared Lane Marking/Signage	39
				21	North Fork Road, Montreat Rd (NC 9) to Old US 70	Shared Lane Marking/Signage	36

Project 1



Riverwalk Greenway (Phase 2) Flat Creek Greenway to Riverwalk Dog Park



PROJECT DESCRIPTION

One of the more challenging greenway sections within Black Mountain, Riverwalk Phase II will connect existing Flat Creek Greenway (at the North end) to the Bi-Lo Dog Park, and into an existing segment of the Riverwalk Greenway.

A feasibility and conceptual design phase has recently been completed. The next phase, which will include Norfolk Southern schematic review and landowner outreach is began in 2015.

COST ESTIMATE

\$1.2 Million

LENGTH

0.46 Miles

USERS (see page 4 for more info)



ECONOMIC POTENTIAL

Completing this greenway and updating signage raises Black Mountain's stature as an active living destination & makes businesses more accessible.

INTERSECTIONS:

- State Street (US 70): The greenway is planned to be routed underneath this road. During design, connections to sidewalks and planned bicycling facilities should be incorporated to connect the route and make it safe and easy for people biking on State Street to access the greenway. Wayfinding signage should be placed on this and other nearby streets, as well as signage for pedestrians wishing to access the greenway from downtown.

CHALLENGES:

- Crossing the Swannanoa River twice
- Creating an underpass for a five lane highway (US Highway 70)
- Crossing under Norfolk Southern Railroad's rail line (and right of way).

INFLUENCES:

- Existing Flat Creek Greenway
- Proximity to Downtown
- Access to Food

CONNECTIONS:

- Flat Creek Greenway
- Existing Riverwalk Greenway
- Serves as integral component to overall connectivity

Project 1



Riverwalk Greenway (Phase 2) Flat Creek Greenway to Riverwalk Dog Park

Rendering of proposed greenway as it travels through an underpass



MAKING IT HEALTHIER

The proposed greenway links an existing greenway and neighborhoods it touches to a school, park and food outlets. It doesn't get much healthier than that. Greenways like this one help entice the "No Way, No How" riders to give it a try. Accent the greenway with other active living features such as community gardens and fix-it stations. The interface with the street should be designed to maximize safety of those using the route as this is typically overlooked during design with many interfaces defaulting to sidewalk-only templates instead of multi-use trail needs.

Potential Design Treatments & Accents



Mile markers are a useful feature along greenways to help orient users to their location and better understand how far they've biked, walked or jogged.



Trail Crossing warning sign in Asheville, NC.

Project 2



Riverwalk Greenway (Phase 3) Dog Park to In the Oaks Trail via Swannanoa River



PROJECT DESCRIPTION

Phase III will connect the existing segment of Riverwalk Greenway to the Oaks Trail, and the route has been preliminarily identified as following the Swannanoa River. Property acquisition is necessary along most of the route.

When combined with recommendations from the Swannanoa Flood Mitigation Study to create a wetland/impoundment, this section of greenway has potential to help create an interpretive greenway which can become an iconic destination and an ecological uplift for habitat.

INFLUENCES:

- Existing Riverwalk Greenway
- Proximity to Downtown
- Access to Food
- In the Oaks area and nearby neighborhoods.

CONNECTIONS:

- Oaks Trail
- Existing Riverwalk Greenway
- Serves as integral component to overall connectivity

INTERSECTIONS:

- Broadway Ave (NC 9): The greenway is plan to be routed underneath this road. Connections to sidewalks and planned bicycling facilities should be made to connect the route and make it safe and easy for people biking on NC 9 to access the greenway. Wayfinding signage should be placed on this and other nearby streets, as well as signage for pedestrians wishing to access the greenway from downtown.

CHALLENGES:

- NC 9 crossing.
- Constrained conditions due to building encroachment close to the Swannanoa River corridor and other private property limitations that limit achieving optimal design.

COST ESTIMATE

\$650,000

LENGTH

0.81 Miles

USERS (see page 4 for more info)



ECONOMIC POTENTIAL

Completing this greenway adds to the Depot to Depot trail and helps attract more visitors to the area.

Project 8



Flat Creek Greenway Phase 2



PROJECT DESCRIPTION

The existing section of Flat Creek Greenway is likely the most utilized greenway in Black Mountain and runs north from Black Mountain Primary School to Cotton Avenue. Phase 2 will serve to connect Black Mountain to the Town of Montreat, which, by utilizing Montreat's trail infrastructure, will ultimately connect into Pisgah National Forest and beyond.

The greenway would be characterized by riparian forests and views from the valley floor, and will likely see high user traffic.

INFLUENCES:

- Extension of highly used greenway
- Corridor between towns
- Access to schools
- Flat Creek Greenway

INTERSECTIONS:

- Montreat Road terminus: Special design considerations should be given at the northern terminus of the greenway at Montreat Road or another local street. Ingress/egress ramps from the street should be designed to match the width of the greenway and special signage and pavement markings should be added to alert motorists to trail users.

CONNECTIONS:

- Montreat
- Existing Flat Creek Greenway
- Pisgah National Forest

CHALLENGES:

- Multiple land owners means buy-in is required from many people with diverse opinions.
- Constrained condition in section between river and roadway will make it difficult to build trail to ultimate desired width or with wide vegetated buffers.

COST ESTIMATE

\$750,000

LENGTH

0.79 Miles

USERS (see page 4 for more info)



ECONOMIC POTENTIAL

Completing this greenway makes Montreat more accessible to visitors and residents.

Project 8



Flat Creek Greenway Phase 2



Example of a greenway that might at times run parallel with Flat Creek Road

MAKING IT HEALTHIER

Managing the likely high volume of users and diverse types of bicyclists on this route due to challenges to constructing bike lanes on Montreat Road (parallel to greenway) is important. Proper bicycling etiquette should be advised so users are not intimidated by groups of bicyclists or high speed bicyclists. This should be a neighborhood-based facility where low speed walkers and bicyclists are a priority. Signage and the design of the greenway need to contribute to this prioritization of user types.

Potential Design Treatments & Accents



Signs encouraging bicyclists to call out "on your left" help build a greenway culture respective of all users.



Suggesting speed reduction for bicyclists when pedestrians are present is positive messaging. Enforcing speed limits is difficult.

Chapter 4: Building a System for People Who Bike

Black Mountain By Bike

Project 9



Flat Creek to Tomahawk Lake Neighborhood Greenway



PROJECT DESCRIPTION

The Flat Creek Greenway to Tomahawk Lake Neighborhood Greenway creates a bicycle boulevard on local residential streets. This is recommended due to limited availability of right-of-way to build bike lanes or a greenway to link these destinations.

The route options include following Stepp, Portman Villa and 3rd St to reach Montreat Road. 1st Street from the Primary School is another route. The route then follows Pine, Connally Oakland/Park and Laurel Circle to reach Tomahawk Lake. A median with pedestrian refuge was recommended in the Safe Routes to School Action Plan for the NC-9 crossing and should be included in this project.

INFLUENCES:

- Flat Creek Greenway
- Tomahawk Lake
- Neighborhoods
- Black Mountain Primary School
- Future greenway connections

CONNECTIONS:

- Walking path around the lake
- Other connecting neighborhood greenways in this plan
- Future Flat Creek Greenway extension

INTERSECTIONS:

- Montreat Road: Crossing Montreat Road by bike (and potentially traveling a short distance along it or the sidewalk) presents a safety concern and psychological barrier. Recommendations for increased markings and signage along Montreat Road will help. Push buttons need for signal.
- Laurel Circle: Intersections with Laurel Circle has some sight distance concerns. Improving signage and trimming foliage will help.

CHALLENGES:

- Crossing Montreat Road remains the biggest challenge given that a short segment must be travelled along this route and poor LOS along the route. Signage and crossing treatments are needed to allow users to move safely. Full signals should be considered to allow for the short movement.

COST ESTIMATE

\$50,000

LENGTH

1.1 Miles

USERS (see page 4 for more info)

S&F

E&C

IbC

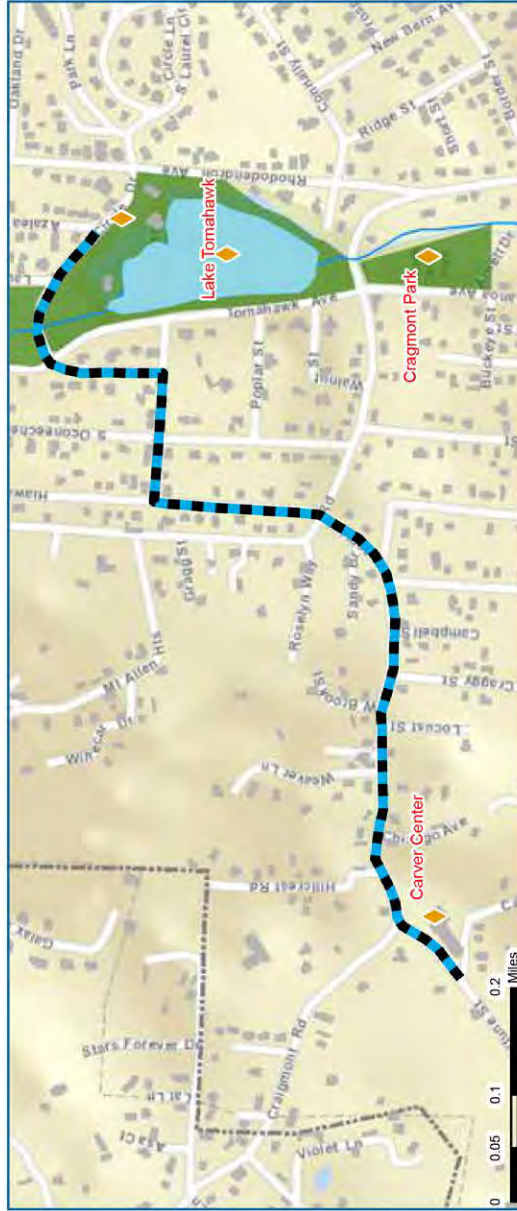
ECONOMIC POTENTIAL

Neighborhood greenways are visible indicators of community priorities and promote stable communities.

Project 7



Tomahawk Lake to Carver Center Neighborhood Greenway



PROJECT DESCRIPTION

The Tomahawk Lake to Carver Center Neighborhood Greenway creates a bicycle boulevard on local residential streets in lieu of bike lanes or a greenway, which are not possible due to property and topographical constraints (see Challenges).

Following Laurel Circle, Cherokee or Tomahawk, 6th St., Hiwassee or Oconeechee, and Cragmont/Fortune, this route should make motorists aware of bicyclists with the goal of slowing motorist speeds to allow for safe travel. Shared lane markings, signage and traffic calming accomplish these goals.

INFLUENCES:

- Tomahawk Lake
- Carver Center
- Neighborhoods
- Golf Course
- Future greenway connections

INTERSECTIONS:

- Cragmont & Hiwassee or Oconeechee: Provide shared lane markings and wayfinding for bike routes to ensure bicyclists know where to follow the route and alert motorists.
- Cragmont & Byrd: The geometry of this intersection creates challenges for turning bicyclists and sight distance for motorists entering the road. Ensure foliage is trimmed to maximize sight distance and provide warning signs to watch for bicyclists.

CONNECTIONS:

- Walking path around the lake
- Other recommended neighborhood greenways in this plan
- Future greenway to In the Oaks

CHALLENGES:

- Neighborhood greenways can start small with shared lane markings and signage. This will help users identify the route but does not address concerns over motorist speeds. More elaborate traffic calming measures, such as speed humps, chokers, chicanes and median islands at intersections will do more to slow traffic to speeds that make the route more suitable for riders of all ages and abilities. This requires more study.

COST ESTIMATE

\$40,000 (markings & signage)

LENGTH

1.3 miles

USERS (see page 4 for more info)

S&F E&C IbC

ECONOMIC POTENTIAL

Linking destinations via non-motorized modes helps residents save money.

Project 10



Owen Spur Greenway



PROJECT DESCRIPTION

Owen Middle School and High School are both located approximately 2 miles west of the Rec Park. The intent of the Owen Spur is to connect these schools into the greenway network. Two potential alignments have been identified to serve as this connection.

The more scenic and “off-line” (green/black) route involves natural and right of way constraints, but only involves a few landowners. The alternate route (green/white) would involve cooperation of multiple private land owners, buildings, and several roadway intersections. Further conceptual study is needed to determine which routes option is most feasible.

INFLUENCES:

- Access to Rec Park
- Access to existing greenway
- Access to schools

CONNECTIONS:

- Oaks Trail/Rec Park
- Schools
- Serves to connect beyond Black Mountain to the West

INTERSECTIONS:

- State Street (US 70): Provide dedicated crossing of this highway via a protected crosswalk, special signals and z-crossing (as shown in image on next page)
- Old US 70: Provide dedicated greenway crossing and signal at this street crossing.

CHALLENGES:

- Landowner willingness to engage in property acquisition or easement proceedings.
- Roadway intersections are numerous and will require special signalization.

COST ESTIMATE

\$2 Million

LENGTH

2+ Miles

USERS (see page 4 for more info)



ECONOMIC POTENTIAL

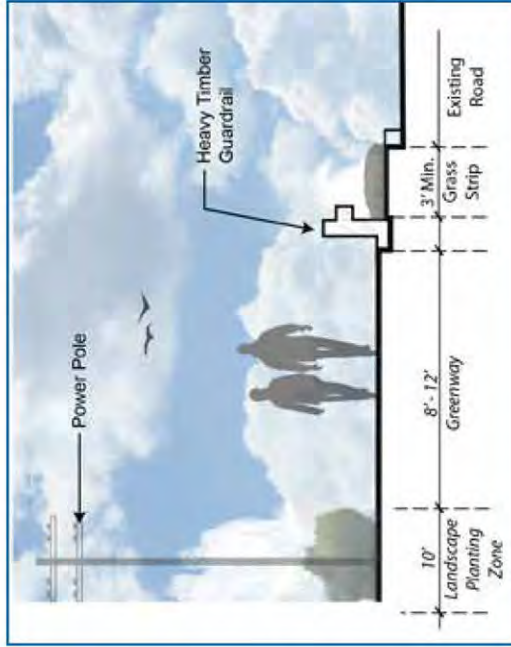
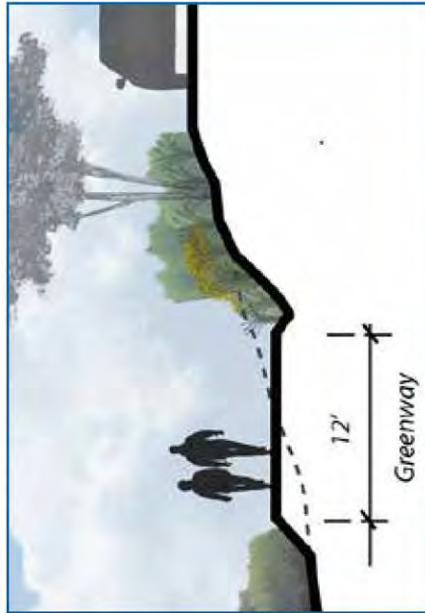
Connects to Asheville to Black Mountain planned greenway, which has incredible economic potential to attract bicycle tourism.

Project 10



Owen Spur Greenway

Options for the Owen Spur Greenway include a traditional greenway (left) or a sidepath alongside a road (right) that should be separated by a vertical rail if a 5-foot buffer from the top of the curb line is not feasible.



MAKING IT HEALTHIER

Linking the schools complex to the other parks and greenways provides an opportunity to promote lifelong healthy living habits for school-age children. A route that reduces street intersections is most preferred for safety and health reasons.

Such a greenway provides an opportunity for outdoor classrooms and more diverse learning experiences than are currently available at the school complex. Careful consideration must be given to highway crossings if this greenway is to be safe for users of all ages and abilities.

Potential Design Treatments & Accents



A z-crossing of a greenway through a major road prioritizes the safety of all users. Signals may be added.



Enhance the greenway near schools to increase opportunities for outdoor learning experiences.

Chapter 4: Building a System for People Who Bike

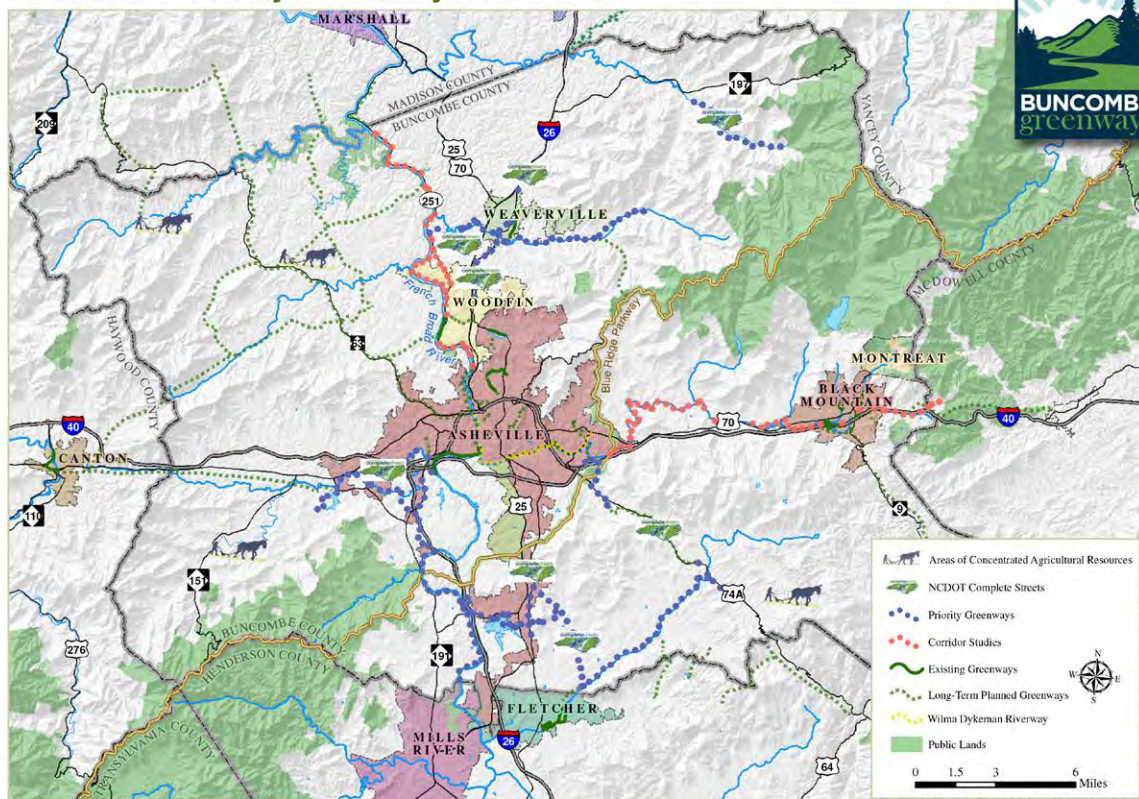
Black Mountain By Bike

Figure 22—Long-Term Projects

Project	Project Description	Length	Cost Estimate*
11. Broadway Ave (NC 9) from State St (US 70) to Blue Ridge Rd	Install shared lane markings and signage north of the railroad tracks. Narrow travel lanes or consider road diet to add bike lanes from the railroad tracks to south of I-40. Add bike lanes or bikeable shoulders from I-40 to Blue Ridge Road.	0.9 miles	\$100,000 (shared lane markings) to more than \$500,000 for bikeable shoulders
12. Tomahawk Branch Greenway, Lake Tomahawk to Rec Park via Cragmont Park	Construct a greenway along the creek, across State St (US 70) and the railroad to link the parks. A major crossing upgrade is required at State Street and a culvert or tunnel under the railroad would create the shortest route and not conflict with the tracks.	Up to 1 mile	Varies greatly based on tunnel and crossing feasibility
13. Old US 70, from State/College Intersection to Owen Middle School	Construct a bikeable Shoulder or bike lane along the route. Right-of-way is a major challenge on the route and the addition of an additional 8- to 10-feet of pavement could have impacts to adjacent properties.	2.4 miles	Up to \$1 million (construction cost only; right-of-way cost unknown)
14. Swannanoa River Greenway, Rec Park to RiverWalk Greenway	Construct greenway along the north side of the river (preferred) to link the planned RiverWalk Greenway to the Rec Park. This roughly 2-mile route provides a greenway linkage south of I-40 to serve neighborhoods and future growth in that area.	2 miles	\$2 million
15. Ridgecrest Connector Greenway, from RiverWalk to Kitsuma	Construct greenway or sidepath to link Black Mountain to Ridgecrest and the Kitsuma Peak Trail head. This will require coordination and partnership with county and Ridgecrest officials but should be a long-term goal.	3.5 miles	\$3.5 million
16. Blue Ridge Rd, from Old US 70 to Rec Park Entrance	Construct a minimum 5-foot wide bikeable shoulder or bike lane. A more optimal solution is a sidepath or cycle track to better move people through the area if there is a future interchange. The 2000 Blue Ridge Road interchange feasibility stated no special accommodations were necessary. This should be changed when/if DOT analyzes the interchange in more detail or replaces the bridge.	0.2 miles	\$200,000
17. Blue Ridge Rd, from Rec Park Entrance to NC 9	Construct a minimum 5-foot wide bikeable shoulder or bike lane. The 2000 Blue Ridge Road interchange feasibility stated no special accommodations were necessary. This should be changed when/if DOT analyzes the interchange in more detail. Shoulder widening could be considered if the road is resurfaced.	1.3 miles	\$500,000
18. Carver to Highland Farms Greenway	Construct a greenway trail from the Carver Center to Highland Farms along the road or on a dedicated alignment to link the destinations and the planned neighborhood greenway.	1 mile	\$1,000,000
19. Cheshire to Swannanoa River Greenway, via Camp Branch/Britton Creek	Construct a greenway trail that link Cheshire to the planned Swannanoa River Greenway along the creeks.	0.6 miles	\$600,000
20. Flat Creek Rd/Padgettown Rd Neighborhood Greenway	Mark shared lanes and installed signage to create a neighborhood greenway along these routes and linking Flat Creek Rd to Padgettown Road on Avena Rd or Rainbow Lane. Based on success of other neighborhood greenways, consider other traffic calming treatments.	Up to 2.3 miles	Up to \$100,000
21. North Fork Road, Montreat Rd (NC 9) to Old US 70	Mark shared lanes and install signage along this route to raise awareness of the presence of bicyclists. Seek opportunities to create some type of shoulder in a future resurfacing project by NCDOT.	4.8 miles	Up to \$200,000

* Cost estimates are based on planning level figures for construction/implementation in 2015 dollars. Land acquisition costs are unknown at this time since more specific alignments and land impacts are also unknown. Assume additional 10-15% of the construction cost for design services (not included in project cost as it will require separate scoping).

Buncombe County Greenways Overview



ASSOCIATED REFERENCE DOCUMENTS:

BUNCOMBE COUNTY GREENWAYS & TRAILS MASTER PLAN, 2012

Appendix 'C'

Community Influences & Destinations



Biltmore Forest

Influences & Destinations

- Large estate lots
- Blue Ridge Parkway
- Biltmore Estate
- Mountains-to-Sea Trail
- Carolina Day School



Black Mountain

Influences & Destinations

- Downtown & Lake Tomahawk
- Greenways, parks & garden
- Montreat College & The Oaks
- Swannanoa River
- Elementary & Primary School
- Ridgecrest
- Point Lookout Trail
- Retreats & camps
- Catawba Falls & Headwaters
- NC Highway 9 & US 70



Montreat

Influences & Destinations

- Montreat College
- Hiking trails
- Mt. Mitchell
- Downtown Black Mountain
- Point Lookout Trail
- Ridgecrest
- Black Mountain



Weaverville

Influences & Destinations

- Downtown Weaverville
- Nature Park
- Lake Louise & Reems Creek
- Vance Birthplace
- Blue Ridge Parkway
- North Buncombe schools
- Woodfin & North Asheville
- Windy Gap
- French Broad River



Point Lookout Trail to Old Fort.



Woodfin

Influences & Destinations

- YMCA Woodfin
- Woodfin Elementary School
- Riverside Park
- French Broad River
- Weaverville & North Asheville
- Woodfin Community Center
- Reynolds Village



Greenway at Woodfin's Riverside Park.

What we heard...

Context & Identity

- Acknowledge community identity and placemaking potential of greenways.
- Build upon community culture and themes.
- Incorporate art
- Engage youth & older adults.
- Recognize that support will vary among communities.
- Create “cool” communities.



Partnerships & Economic Development

- Develop a plan of action to keep the public sector engaged.
- Define what is already in place.
- Know the needs of the private sector.
- Reach out to schools, non-profits and land conservancies.
- Incentivize greenways investment.
- Work with law enforcement.



Access & Connectivity

- Provide direct connections from greenways to gathering places.
- Enhance neighborhoods through greenway connectivity.
- Prioritize schools, parks and natural areas.
- Understand the need for safety features at access points.
- Connections to transit are increasingly important.



Land Acquisition & Management

- Identify appropriate techniques.
- Develop a fee in lieu program for greenways development.
- Place requirements on development as with sewer, roads and water.
- Eminent domain is not preferred.
- Work to preserve large parcels.
- Get ahead of growth.

Funding Strategies

- Pursue a dedicated source of revenue.
- Communities should recognize a common interest in funding greenways.
- Identify less-restrictive (e.g. non-federal) funding sources.
- Coordinate funding to lessen burden on small towns.
- Development-based requirements can allay some costs.

Health Impacts

- Be equitable by constructing greenways in communities that benefit the most.
- Build upon the creativity, spirituality & salubrious lifestyles of people.
- Understand the impacts of safe practices & design on health.
- Recognize the positive role greenways play in stress relief, family dynamics, & mental health.
- Design and access matter.

What we heard...

Design

- Consider life-cycle maintenance costs in design and construction.
- Understand the need for visibility and how that relates to security for users.
- Explore different surface types based on context.
- Use local materials and green techniques.
- Recognizing the proper context for amenities is important.



Environment & Ecosystems

- Enhance floodplains and riparian zones.
- Restore streams along greenway routes.
- Connect people to natural features.
- Preserve “wild areas” and design greenways accordingly.
- Identify partners who can provide environmental benefits along with greenways and trails.



Responsibility & Liability

- Define how it affects towns, partners, volunteers and others.
- Develop agreements to lessen liability for private property owners.
- Establish, follow, and enforce policies for use.
- Protect volunteers.



Programs & Education

- Reach out to people of all ages and abilities.
- Build upon existing programs led by various non-profits.
- Coordinate with schools, universities, and colleges.
- Create demonstration projects.
- Develop training programs for greenway usage & maintenance.

Volunteers & Advocacy

- Keep volunteers and advocates engaged.
- Develop an Adopt-A-Trail program in cooperation with schools, retreat centers, neighborhood associations and non-profits.
- Actively promote greenways through various channels.
- Understand the impacts of tourism.

Utilities, NCDOT & Railroads

- Ensure these entities understand a desire to make them a partner.
- Identify easements and right-of-way that can benefit greenways.
- Engage them early in the planning and design of new greenways.
- Make sure they are at the table.
- Understand their business model.

US 70 / Swannanoa River Greenway



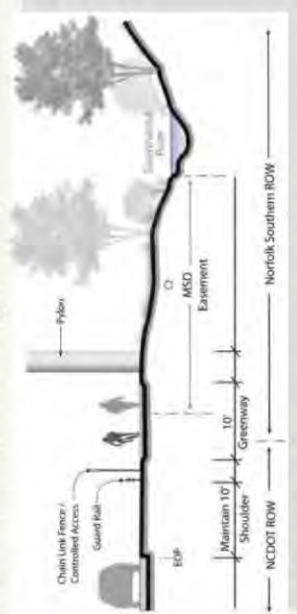
The greenway proposed along the US 70 and Swannanoa River Corridor is an 18-mile route with an eastern terminus at the Point Lookout Trail in McDowell County and a western terminus at Azalea Park in East Asheville—the eastern terminus of the Wilma Dykeman RiverWay Plan. A detailed corridor study was completed in 2010.

Influences: The trail generally runs along the Swannanoa River with section adjacent to US Highway 70. Key communities along the route include:

- Ridgecrest & Black Mountain
- Warren Wilson College
- Azalea Road Connection / Azalea Park
- Swannanoa Community
- Oteen/East Asheville
- Blue Ridge Parkway

The US 70 Swannanoa River Greenway has the potential to connect to population centers, public schools, Warren Wilson College, surrounding neighborhoods, several parks, other greenway trails, business, and shopping. In addition, pedestrian and bike safety has plagued certain areas within this corridor. This corridor would provide options for future users to safely and easily access the greenway offering a non-motorized transportation alternative. The planned greenway also crosses the Mountains-to-Sea Trail at the Blue Ridge Parkway.

Typology: The proposed route bisects diverse natural and manmade environments, which prompted the corridor study to recommend 6 cross section options based on constraints and opportunities. In general, a 10' asphalt trail (sample cross-section above) was the preferred treatment, with the exception of the area near Warren Wilson College



Likely Users



The User Experience: The proposed route traverses a diverse set of natural features along the Swannanoa River and makes connections to existing hiking trails at Warren Wilson College, the planned greenway within the City of Asheville to Azalea Park, numerous existing & planned greenways in Black Mountain, and the Point Lookout Trail in McDowell County. Potential exists for day trips taken from one end to another with incorporation of local farming, restaurants and brewpubs.

Potential Partners:

- Municipalities
- Warren Wilson College
- RiverLink
- NCDOT, Utilities, & Railroad
- Ridgecrest Assembly
- Blue Ridge Parkway



Fields at Warren Wilson College (left) and US Highway 70 (right) were major influences in the US 70 / Swannanoa River Greenway study.

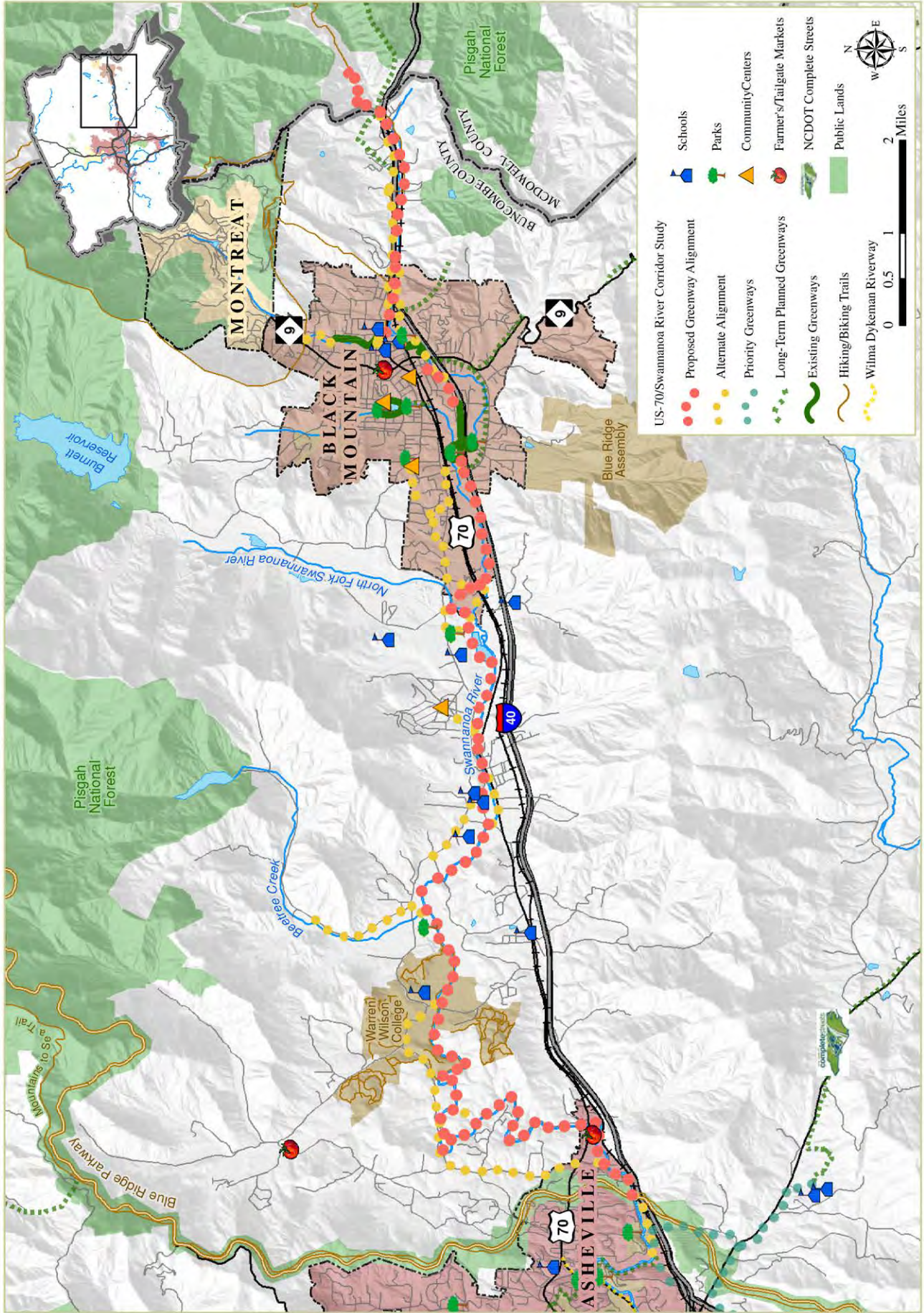
Major Challenges

Topographic/Natural Landforms, including steep terrain, and floodway impacts, such as river and tributary crossings. These features create right-of-way constraints in sections that are adjacent to US 70 or other roadways.

Existing Infrastructure forms physical barriers for development, including existing roadways and buildings, an active railroad, utility lines (wire-based, sewer & water), and drainage structures.

US 70 / Swannanoa River Greenway

DRAFT





ASSOCIATED REFERENCE DOCUMENTS:

LAND OF SKY REGIONAL COUNCIL
BLUE RIDGE BIKE PLAN, 2013

Appendix 'D'

The City of Asheville has a policy to sweep bicycle lanes twice as often as regular streets get swept. There is no policy for snow clearance, since snow in Asheville is infrequent and rarely stays on the ground more than 24 hours.

Education, Enforcement and Encouragement. The City of Asheville has four bicycle-mounted police officers assigned to downtown Asheville. The Asheville Bicycle and Pedestrian Task Force has been working with the Asheville Police Department to implement outreach to cyclists, which includes stopping bicyclists riding unsafely to recommend modifications (e.g. helmets, lights) and pass out lights. The lights for the most recent program have been donated by the Western North Carolina Bicycle Dealers Association.

TOWN OF BLACK MOUNTAIN

Located east of Asheville, the Town of Black Mountain has a walkable downtown and is an attractive destination for retirees and for recreation and dining. Warren Wilson College and the unincorporated area of Swannanoa are located between the City of Asheville and Black Mountain; the Town of Montreat and Montreat College are located to the north of town center.

Existing facilities. Black Mountain currently has no bike lanes, however there are 2.5 miles of greenways installed in town, with Garden Trail being one of the latest additions. Work is underway to extend the Flat Creek Greenway towards Montreat.

Banner for Black Mountain's Cycle to Farm Ride
[Http://cycletofarm.org/](http://cycletofarm.org/)

Mountain Mobility and Asheville Transit buses that serve Black Mountain have bicycle racks. There are no bicycle parking racks installed at bus stops.

Plans and Policies. Black Mountain does not have a dedicated bicycle and pedestrian planner. The Town Health Programs allocates some staff time to bicycle and greenway work (about 5-10% of a FTE). Black Mountain Greenways Commission meets on a regular basis, and local advocates are involved in bicycle issues and discussions through the Black Mountain Greenways Commission.

The Town of Black Mountain adopted a Recreation Master Plan and a Greenways Master Plan (2008).

The Town has not adopted a complete streets policy or similar policies. Black Mountain does not have any development ordinances requiring installation of bicycle parking racks in new development.

Education, Enforcement and Encouragement. The Town of Black Mountain was able to qualify for a Safe Routes to School grant and held two bicycle rodeos for school children. On average, one bicycle rodeo event is held per year with 50-100 participants. Black Mountain also participates in Strive Not to Drive week promotion and activities, and offers a lower entry fee to bicyclists at the town pool.

In the summer of 2012, the first "Cycle to Farm" fully-supported bicycle ride took place, a 63-mile ride connecting Black Mountain



Regional Priority Corridor 7 US 70 FROM ASHEVILLE TO BLACK MOUNTAIN

FEATURES:

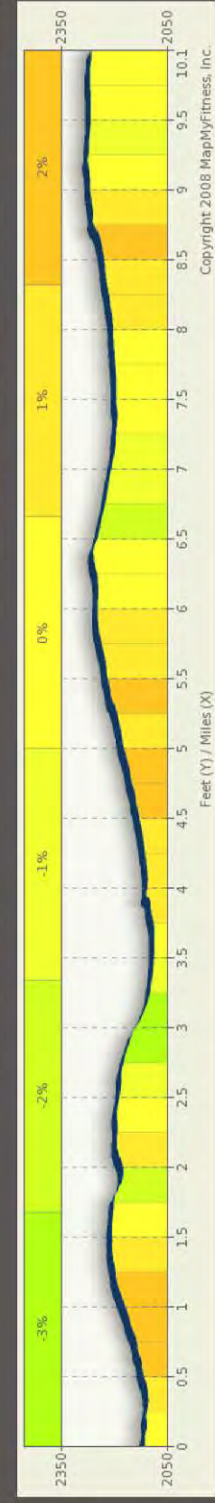
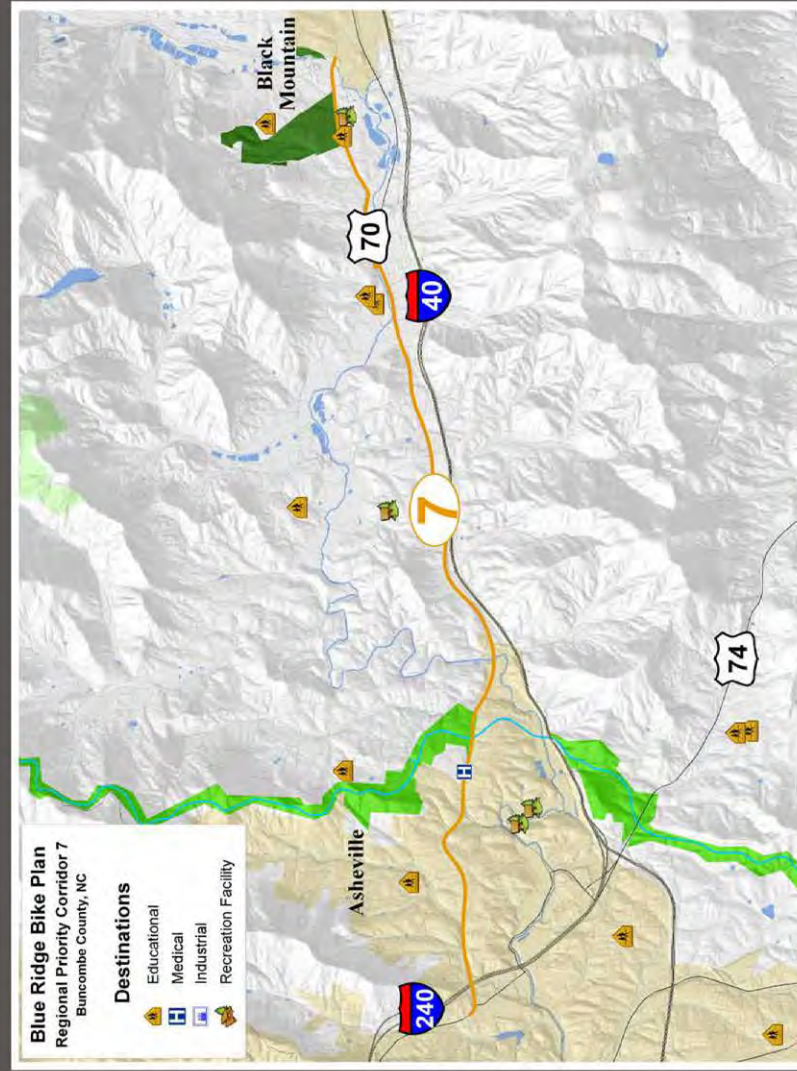
Length: 9.96 miles
Cost: \$2.998 million
plus \$75*

COMMUNITIES:

Asheville
Black Mountain
Swannanoa

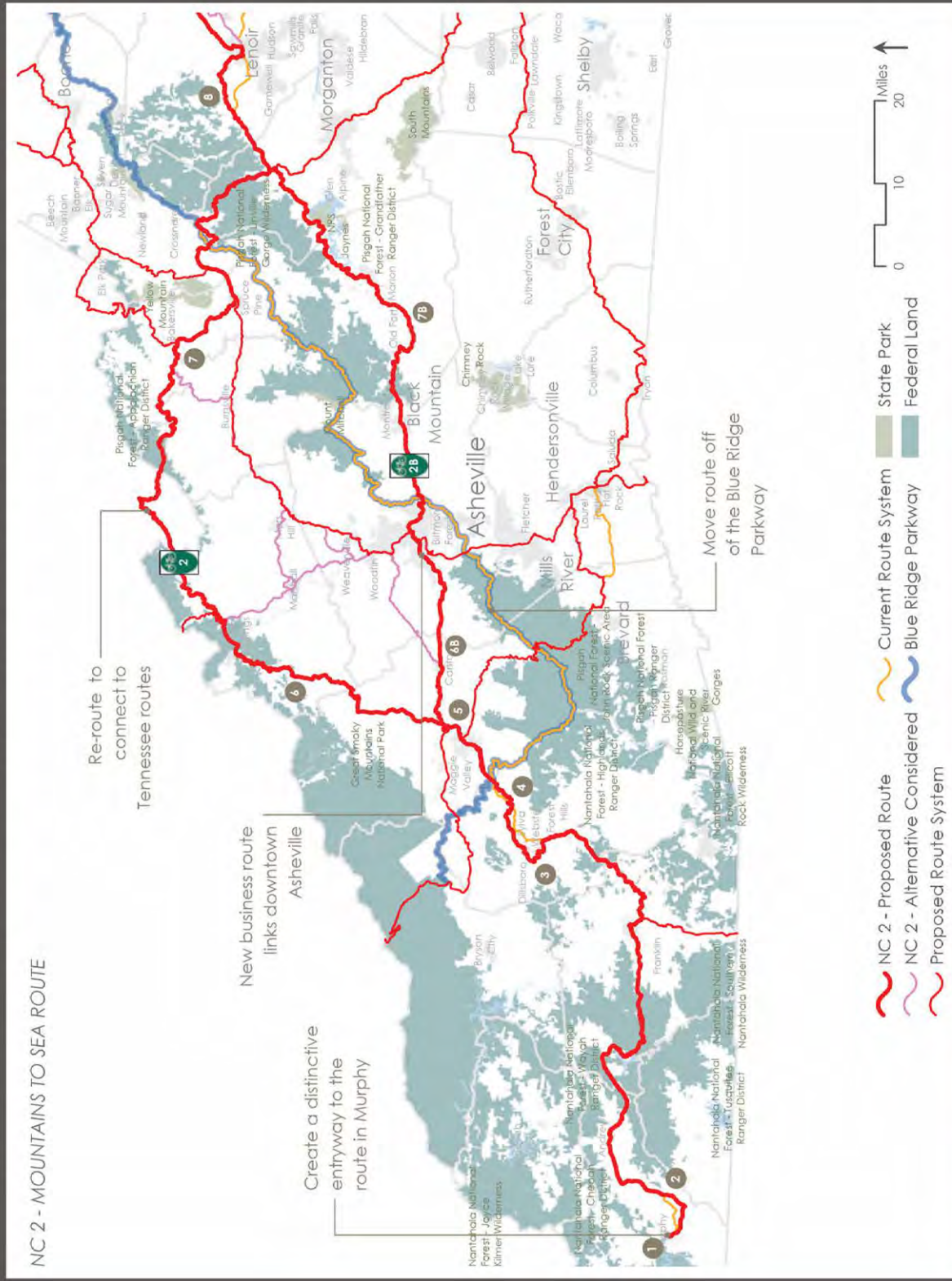
This 10-mile route links Asheville to downtown Black Mountain via US Highway 70 and the Old US 70 route along the only non-interstate east-west connection in eastern Buncombe County. The corridor recommendations include bikable shoulders and signage for the full distance. The corridor links the Tunnel Road/Mall area of Asheville to the Blue Ridge Parkway, the Swannanoa community and the town of Black Mountain. Nearby destinations include Warren Wilson College, Azalea Park and the VA Medical Center. Buncombe County has conducted a feasibility study for a parallel greenway along much of US 70 to link the Wilma Dykeman RiverWay to the Point Lookout Trail in McDowell County.

* For a feasibility study (US 70 at I-240 transition)



NC 2 - MOUNTAIN TO SEA ROUTE

WalkBikeNC details the re-route of NC 2 - Mountain to Sea Route in the table shown on page 40 and the map below.



Blue Ridge Bike Plan



THE TOWN of BLACK MOUNTAIN



PEDESTRIAN TRANSPORTATION PLAN

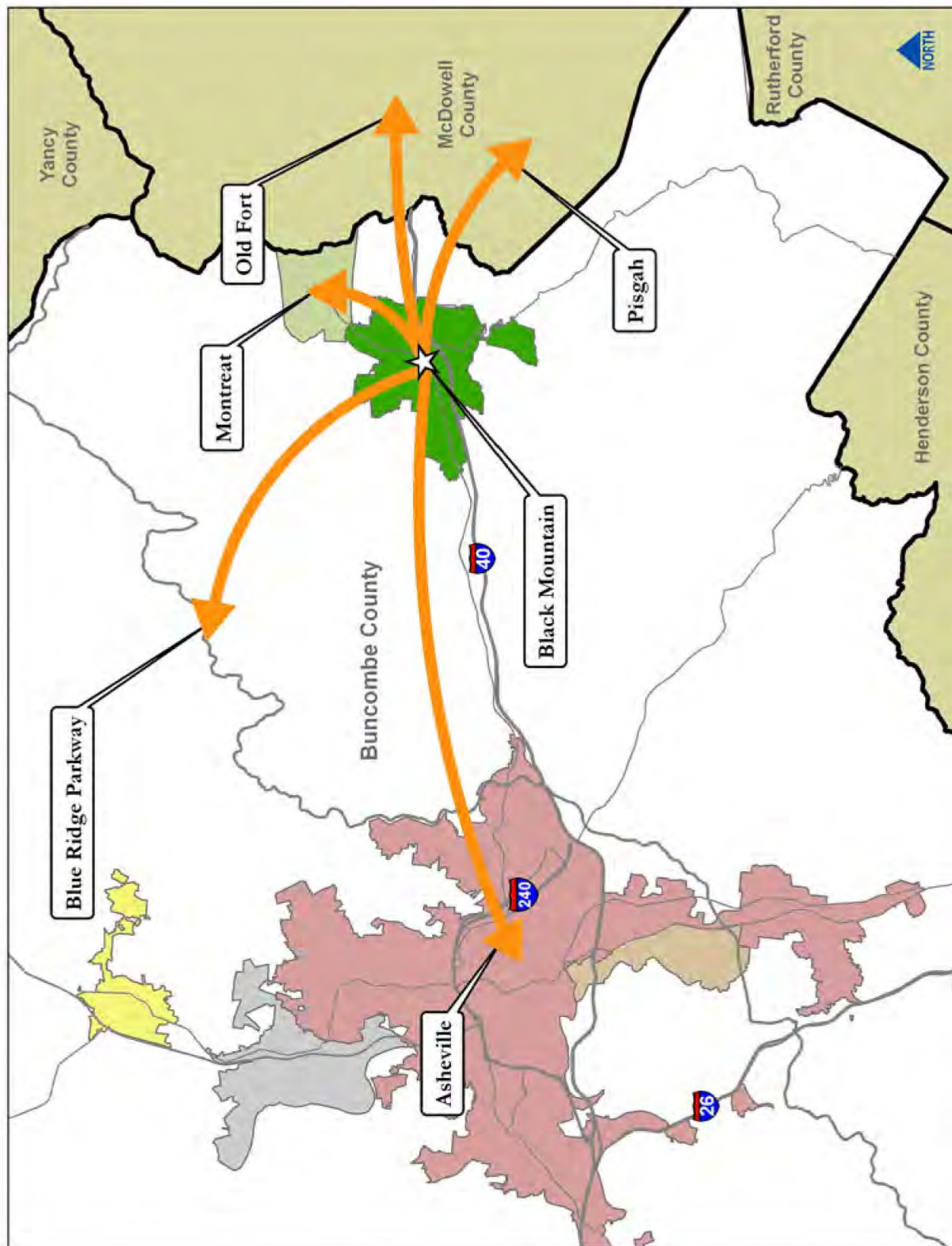


*Prepared for the Town of Black Mountain, NC
Prepared by Greenways Inc*

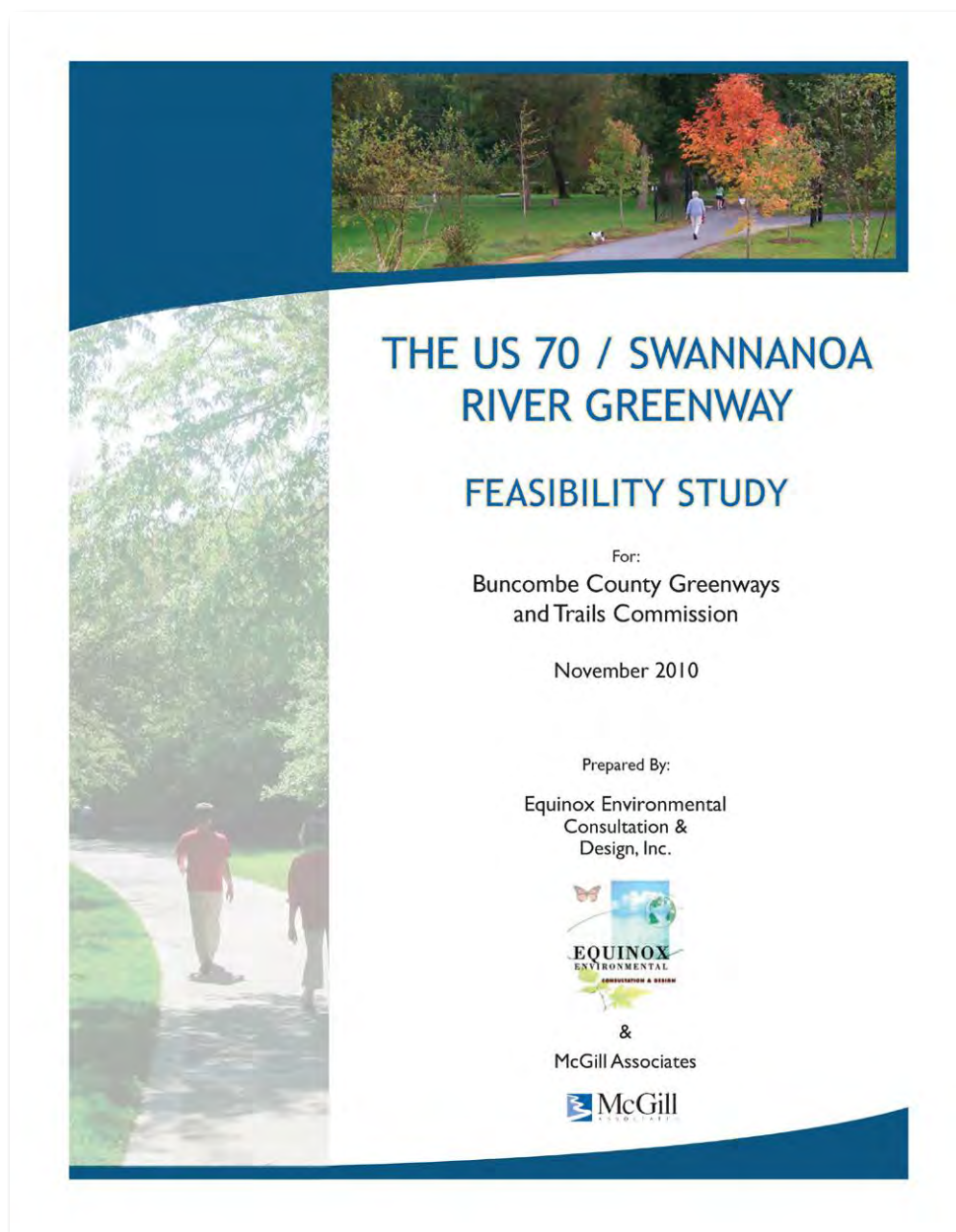
ASSOCIATED REFERENCE DOCUMENTS:

TOWN OF BLACK MOUNTAIN PEDESTRIAN TRANSPORTATION PLAN, 2016

Appendix 'E'



The regional connectivity map. The Town should pursue regional greenway connections. These connections can have a positive impact on recreation and tourism opportunities.



ASSOCIATED REFERENCE DOCUMENTS:

US 70 / SWANNANOA RIVER GREENWAY FEASIBILITY STUDY, 2010

Appendix 'F'

The Five Focus Areas

Focus Area 1: Ridgecrest & Black Mountain

Black Mountain has developed a Greenway Master Plan completed in August of 2002, prepared by the Greenways, Walkability and Biking Task Force which the Town has been implementing for a number of years. They also have several greenway segments that have been planned, designed, and built. The Feasibility Study connects to these existing and proposed trails. Black Mountain's biggest challenge is the number of areas where an easement along NCDOT or railroad right-of-way is needed. The recommended greenway alignment includes potential access points for the trail and primary and secondary routes. The preferred greenway alignment route passes through downtown. Because of conflicts with buildings, on-road parking, in addition to the rights-of-way, a range of options including sidewalks, lane widening, bike lanes, and off-road sections are recommended.

Ridgecrest (Point Lookout Trail to Petty Bridge)

From Point Lookout Trailhead, the greenway should follow Old US 70 along the Ridgecrest property to Yates Avenue Bridge. The lanes on Yates Avenue Bridge should be reduced to accommodate multi-use access. After the Yates Avenue Bridge, the greenway is to connect to Tripoli Trail via the Boscobel House property, utilizing either the Ridgecrest campground property or a road expansion of Yates Avenue to Dunsmore Bridge. After an at grade railroad crossing west of the Dunsmore Bridge the preferred greenway alignment is located to the south side of I-40 between Old US 70 East and the Swannanoa River (See Appendix C: Maps 1-2). This section of the greenway will have a combination of on-road and off-road sections.

At grade railroad crossings can be safety hazards if not designed properly. This would require a realignment of the road to allow a safer crossing for the greenway or a widening of the trail to allow bicycles to cross as close to 90 degrees as possible. If the option to widen the greenway to allow a 90 degree crossing is pursued, warning signs should be used that state "bikes cross at right angle" to provide sufficient warning. As well, the use of filler strips between the rails should be explored with Norfolk Southern. This is a challenge area due to the fact that for "every at-grade pedestrian railroad crossing allowed, Norfolk Southern wants to decommission three more". The preferred greenway should be located within the NCDOT ROW and parallel Old US 70 East. The fence line within a portion of this section is located adjacent to the road and serves as the NCDOT controlled access and will require relocating the fence line.

Black Mountain East/Petty Bridge (Petty Bridge to Flat Creek Road Proposed Roundabout)

The petty bridge is a critical part of the greenway and is one of the challenge areas for the greenway corridor. It is a challenge area due to spatial constraints of the bridge abutment, on-ramp/road, river and the NCDOT fence line which will require one of the following alternatives illustrated in the cross sections (See Appendix D: Possible Cross Sections #1-3). NCDOT will allow passage of a greenway under the Petty Bridge but recommends doing so without having to request relocation of the fence line which serves as an NCDOT Controlled Access. However, it will not be possible to locate the greenway alignment without relocating the controlled access, which will require NCDOT authorization from Raleigh. To further compound the complexity of this location, Norfolk Southern's right-of-way in this location is 100', essentially located immediately behind the existing guardrail next to the roadway. The preferred alignment will require approval from NCDOT, MSD, and Norfolk Southern. As a side note, a review by Norfolk Southern for a greenway that crosses railroad tracks is costly. Therefore significant efforts to limit crossing of the railroad with the primary route of the greenway/trail corridor have been studied throughout this project.

In the French Broad River Metropolitan Planning Organization's (MPO) US 70 Corridor Study, narrowing of US 70, east of the Flat Creek and Padgett Road intersections was recommended. This reduced cross section would provide ample space for the preferred greenway alignment as it passes under the Petty Bridge and moves towards Black Mountain. If this road work is not pursued the greenway could follow the MSD easement that parallels US 70 in this section of the corridor.

Downtown Black Mountain (Roundabout to the In-The-Oaks Trail)

The preferred greenway alignment will pass through downtown and connect to the existing In-the-Oaks Trail, from Flat Creek where a roundabout is proposed as part of the US 70 Corridor Study. It would follow the river and connect to Sutton Avenue which would tie into the sidewalk along Highway 9. The greenway would cross at the intersection of Highway 9 with Vance Avenue. The greenway would then follow the alignment of the “Polk Connector” identified in the Town of Black Mountain Greenway Master Plan which parallels a portion of the MSD sewer easement and utilizes existing rights-of-way. The trail would tie into the In-the-Oaks trail and the trail around the ball fields at Recreation Park. The greenway system through the Town would be predominately comprised of a sidewalk system with bike lanes to continue the greenway system. The sidewalk system is appropriate for this town center location for the greenway. There are several alternative routes for this section of the greenway system (See Appendix C: Map 3).

Black Mountain West (In-The-Oaks Trail to Grovestone Road)

The preferred greenway alignment as the greenway leaves Recreation Park heading west is to follow the Swannanoa River along the south side of the river (See Appendix C: Map 4). This would require passing through private property and creating a trail alignment that would avoid potential vehicle conflicts with the Ingles warehouse. This alignment would pass through wetlands and would provide a different user experience as a boardwalk system would be needed to sensitively traverse the wetland habitat. As well, a sidewalk has been recently built along US 70 and this should serve as the beginning of the sidewalk system that should parallel US 70 and provide an alternative alignment throughout the entire corridor.

Another option is to reduce US 70 by one lane at various stretches between Black Mountain and Oteen in order to accommodate a multi-modal trail facility that runs parallel to US 70 and within the right-of-way. This could be done by selectively eliminating the center lane that runs the course of the roadway between Cragmont Road in Black Mountain and Azalea Road in Asheville and implementing an access management plan. The design concept for this section would include a physical separation from the multimodal trail system such as a median which could also provide an environmental benefit by serving as a stormwater treatment area. The trail could become a sidewalk connection at urbanized areas within Swannanoa and Oteen where turning movements increase.

If it can be illustrated in a traffic model that a decrease of roadway width along US 70 would not decrease its capacity rating, then NCDOT might allow a re-design of the US 70 cross section to allow a trail within US 70 right-of-way. Therefore a trail alignment along US 70 has been provided with the intention for this greenway to be part of an MPO study to evaluate this option in their Traffic and Congestion Management System Planning (See Appendix H: Evaluation of Lane Reduction).

A final alternative provided includes the use of ROW along Tabernacle Road and Highlands Farm Road, in which the greenway would pass along Highland Farms and the Black Mountain Center. All alternatives tie into the Grovestone/Hedrick Industries property.

Significant Opportunities

- Existing I-40 ROW extends to Old US 70 E Hwy providing ample space for a greenway trail
- Government owned parcels along preferred alignment
- Connecting to Village Way and Flat Creek Greenway
- Several alternatives through downtown exist
- Support from Grovestone/Hedrick Industries property for a greenway
- Connecting to In-the-Oaks Trail

Significant Challenge Areas

- On-Grade Norfolk Southern Railroad Crossing near Dunsmore bridge
- Petty Bridge & NCDOT Controlled Access within this area and along Old US 70 East
- Need for a multiple ROW agreements from both NF Southern & NCDOT along several sections
- Passing under Highway 9 along the Swannanoa River

Recommendations:

- Back country railroad crossing permitting will be time consuming and new crossings are discouraged by Norfolk Southern. It is recommend that fencing be provided along the rails for some distance each side of the railroad crossing to keep greenway uses on the path. Also, pedestrian cross arms may be required. Work with Norfolk Southern to gain permission for an on-grade crossing near the Dunsmore Bridge. The use of bollards, signage and flangeway fillers will provide a safe intersection for trail users that will not interfere with train operation. It is important that the trail be designed to cross the railroad at a right angle. This will prevent trail users' bicycle or wheelchair wheels from getting trapped in the rail flangeway as well.
- Work with NCDOT to allow the greenway within the Controlled Access and relocate fence line that delineates the controlled access (Petty Bridge and sections adjacent to I-40)
- Start to acquire land for the greenway section starting with the largest landowners as a first priority including Ingles, and the Black Mountain Commerce Park, if these landowners are not willing to work with the County towards the provision of a greenway easement then the alternative options should be pursued.
- The greenway system through downtown Black Mountain should be predominately comprised of a sidewalk system with bike lanes to continue the greenway system.
- The regional greenway study should be included in the French Broad River MPO's (FBRMPO) Long Range Transportation Plan (LRTP) as a specific project that is modeled and studied for a road diet along US 70. The French Broad River MPO is currently updating its Long Range Transportation Plan (LRTP) that examines current and future transportation system needs in the FBRMPO region. The time horizon for the updated plan goes up to 2035. This option should be pursued regardless of the other greenway options as it could be a multimodal component to this regional greenway corridor. Specifically the traffic model should evaluate a four lane cross section that has the following:
 - o Six lanes immediately in front of the current Ingles Warehouse entrance;
 - o Limited access points to the south because of the railroad between Black Mountain and Asheville;
 - o Limited access points to the north between Black Mountain and Swannanoa; and
 - o Already been reduced to a three lane cross section within downtown Black Mountain.
- Grovestone/Hedrick Industries are potential supporters of the greenway project. A greenway easement should be secured for this property. Hedrick Industries will need a preliminary map indicating the preferred alignment, so they can review it and provide comments (See Appendix E: Map I).

Focus Area 2: Swannanoa

Buncombe County Greenways and Trails Commission has identified Swannanoa as the first priority area for a greenway in the County. The first segment of this project is called the "Pool to Park" segment and runs from the Owen Pool to Owen Park. The Swannanoa Pride Community Coalition and the Asheville Flood Damage Reduction Task Force, developed a conceptual Phase One Study for Owen Park to Owen Pool, this project takes this study a step further. The Swannanoa corridor contains significant parcels of undeveloped land along the river and a number of schools and County facilities along or near the river, such as schools, a park, a pool, and FEMA buyout lands. In the Swannanoa sector, the greenway route follows the river and MSD right-of-way as much as possible. In areas where remaining next to the river is difficult,

identification of alternative routes have been provided with the goal of returning to the river as soon as possible. Due to past efforts in Swannanoa including an attempt for incorporation and a Vision process by NC State, a voice of “no change” has been expressed by a few proponents of changing Swannanoa, which includes the greenway. In these cases, this information was considered in the development of the preferred alignment. The recommended alignment for the Pool to Park segment includes primary and alternative alignments, location for bridge crossing, identification of pocket parks and access areas, and spurs to local schools and other public buildings/parks.

Swannanoa East (Grovestone Road to Whitson Ave Bridge)

From Owen Pool and Owen Middle School, the preferred greenway alignment runs westward. The suggested trail alignment connects to Ridgewood Park, a County-owned property, that can provide public access to the greenway as well as other greenway facilities including trailhead parking. The preferred greenway would then follow the Swannanoa River with the secondary route serving as a sidewalk along US 70. A spur trail that connects to Owen High School, the 4H Camp and Camp Rockmount is also provided.

Central Swannanoa (Whitson Ave Bridge to Boulder Creek Park)

As the greenway corridor continues along the north side of the river a crossing is proposed across from the Grovemont neighborhood on a FEMA Buyout parcel (See Appendix C: Map 6). An on-road section that runs along Old US 70 to the Whitson Bridge does not have sufficient space to accommodate greenway facilities. Prior to the bridge crossing a spur trail that connects the Grovemont neighborhood to the commercial district is proposed. This is needed as there is an existing and well worn path in the narrow shoulder of Old US 70 which is a safety hazard. Once the greenway crosses to the south side of the river across a proposed bridge, it continues to the Whitson Bridge. The Whitson Bridge is a challenge area (Appendix D: Possible Cross Section #4 and Appendix E: Map 2) and will require a Traffic Impact Analysis. This intersection would require additional design and engineering to provide a safe pedestrian link. Another reason for a re-design of this intersection is the site of the former Beacon Plant which has been identified for future redevelopment. A spur trail connecting to the south side of US 70 is proposed to help support new business ventures. A sidewalk along US 70 from Whitson Avenue to Riverwood would also promote better walkability and connectivity for residents.

From Whitson Bridge the preferred greenway alignment follows Old US 70 connecting to the Community School & Garden and W.D. Williams Elementary School (See Appendix D: Possible Cross Section #5). The greenway would then cross the river via a pedestrian bridge parallel to the Riverwood Bridge and connect to Boulder Creek Park. Our site assessment revealed that the current Riverwood Bridge is not wide enough for a greenway trail and would require a pedestrian bridge (See Appendix E: Map 3). Boulder Park can serve as a pocket park providing greenway access and trailhead parking. From this point the greenway follows the MSD sewer easement located on the south side of the Swannanoa River. An alternative alignment has been provided after crossing the Whitson Bridge which follows the MSD sewer easement located to the north of the river; there are some spatial challenges however including the limited space available between the top of the bank, the building, and the river.

Swannanoa West/Warren Wilson College (Boulder Creek Park to Owen Park)

The preferred greenway alignment continues along the south side of the river and connects to Davidson Road, at this location the greenway will cross to the north to be located on the same side of the river as Charles Owen Park (See Appendix C: Map 7). Charles Owen Park is the largest park along the greenway corridor in Swannanoa and will serve as a major access point for the greenway corridor. The park will provide parking and already offers amenities such as pavilions, lighted baseball fields, basketball courts, restrooms, playground, picnic tables, grills, and a walking and bird watching trail. The Swannanoa River is a fish hatchery supported river, and the two lakes at Owen Park are open for lakeside fishing. River access should also be considered at this park to provide a location for boaters to put-in or take-out. The greenway would tie into the existing loop trail along the river. From this location the greenway would continue and pass through Warren Wilson College.

Significant Opportunities

- Within the Swannanoa section, there are six schools, two parks, a community pool, and four County-owned properties that should be incorporated into the greenway.
- Providing key connections to schools and parks (options for Safe Routes to School grants)
- Providing key connections to Grovemont and Beacon Village
- New Crosswalks to promote safer pedestrian environment

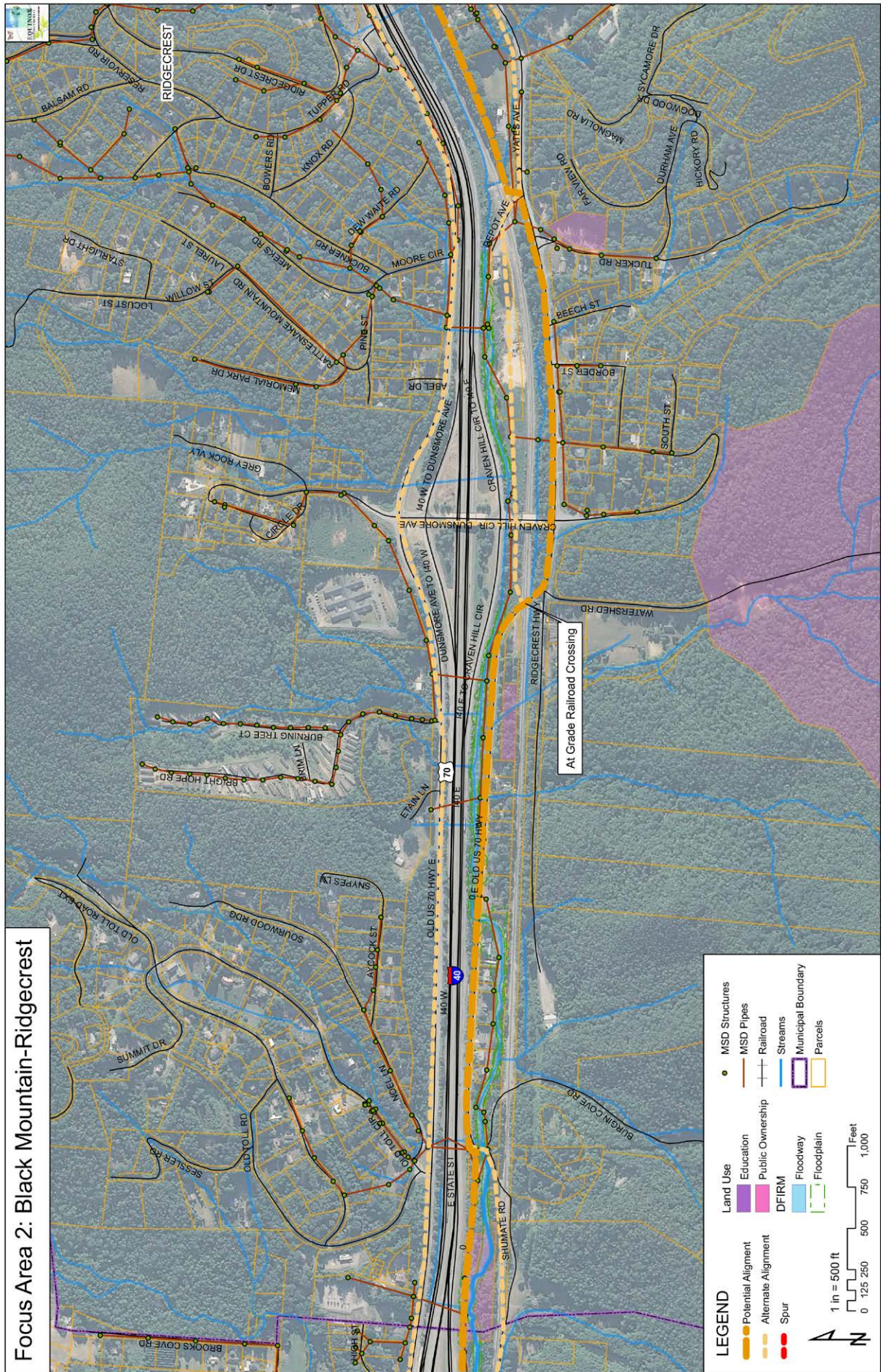
Significant Challenge Areas

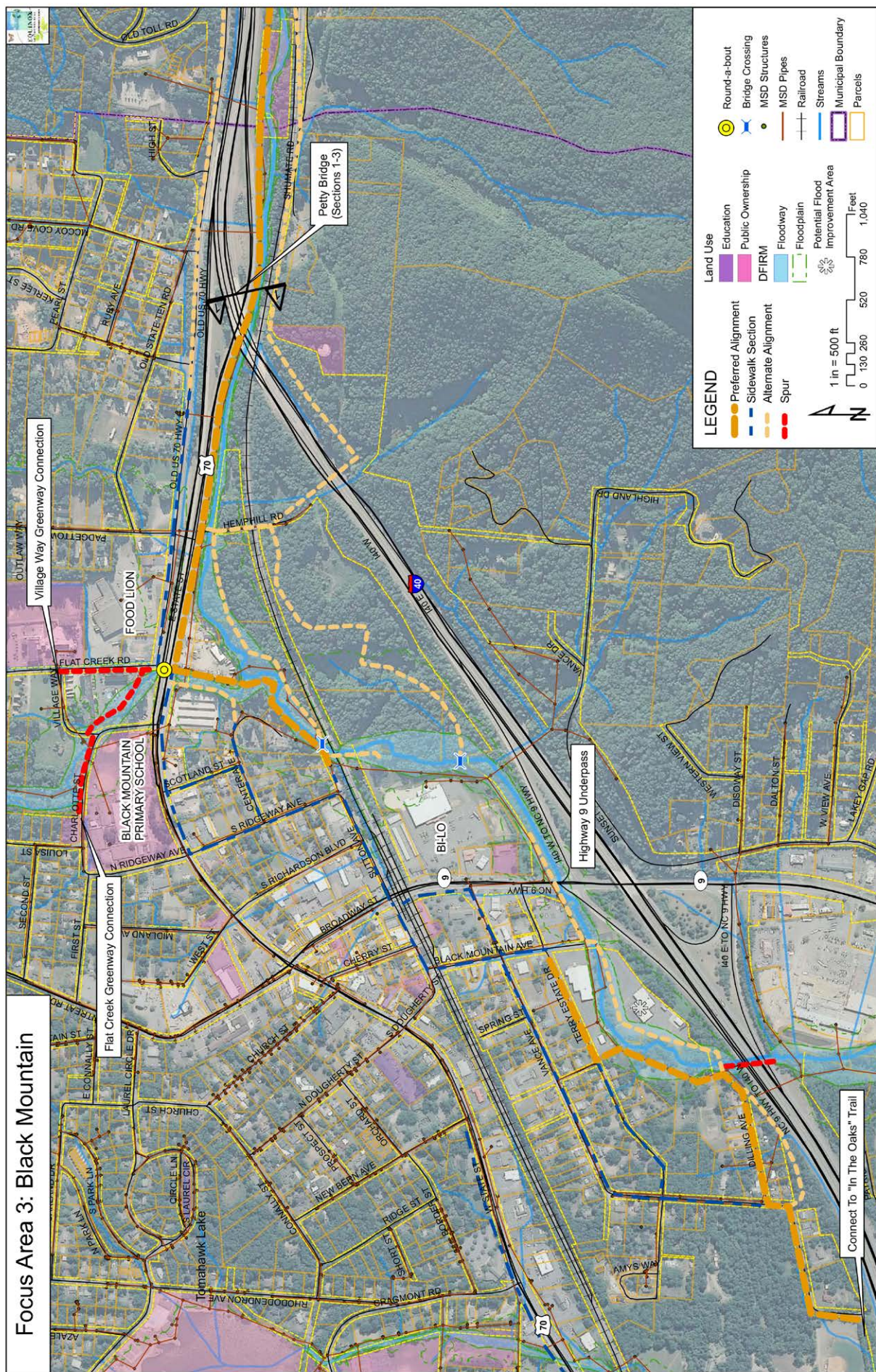
- Bridges & River Crossings
- Development along the Swannanoa River
- Strip Development Pattern for bicycle lanes
- Property Ownership
- Safety

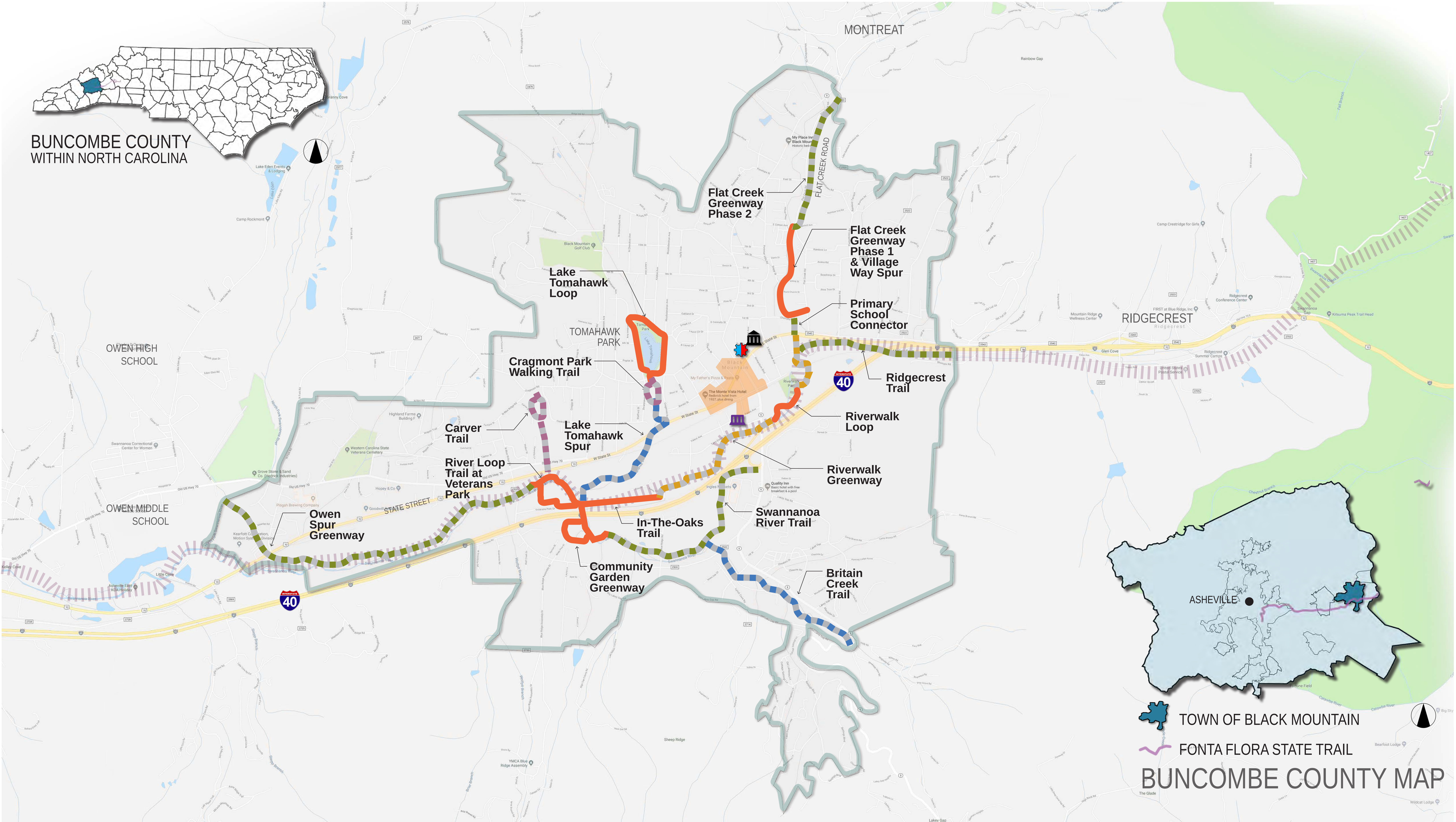
Recommendations:

- In this sector, the greenway route should follow the river and MSD right-of-way as much as possible (See Appendix D: Possible Cross Section #6);
- Since the Buncombe County Greenways and Trails Commission has identified Swannanoa as the first priority area for a greenway in the County, landowner outreach should start in this section;
- A Traffic Impact Study should be pursued to explore a road diet along US 70 and address modifications to the Whitson Bridge, the intersection for safe pedestrian crossing, and road modification for a sidewalk connection to Beacon Village;
- A proactive and organized approach to landowner outreach is needed as soon as the County is in the position to approach property owners;
- A focus in this corridor should be placed on safety and making safe connections for pedestrians and bicyclists. Due to the number of turning lanes a simple bicycle lane is not recommended unless a lane closure is possible along the north side of US 70. The lane closure, if approved by NCDOT, would allow for a median separation from the traffic and provide additional reaction time to minimize conflicts from turning vehicles passing through the bicycle lane. As well in such a scenario reducing the number of turning movements by consolidating driveway cuts would also provide a safer environment for a bicycle lane on the north side of US 70. There are fewer conflicts with turning lanes along the south side of US 70 in which a bicycle lane may be possible;
- Provide sidewalks on both sides of US 70 from Whitson Avenue to Riverwood Road. The sidewalks when possible should have a five foot median separation between the road and the sidewalk;
- Several crosswalks at intersections should be provided including Whitson Avenue, Patton Cove Road, and Riverwood Road to provide safer pedestrian connections.

Focus Area 2: Black Mountain-Ridgecrest







BUNCOMBE COUNTY
WITHIN NORTH CAROLINA

TOWN OF BLACK MOUNTAIN
FONTA FLORA STATE TRAIL
BUNCOMBE COUNTY MAP

Overall Greenway Map

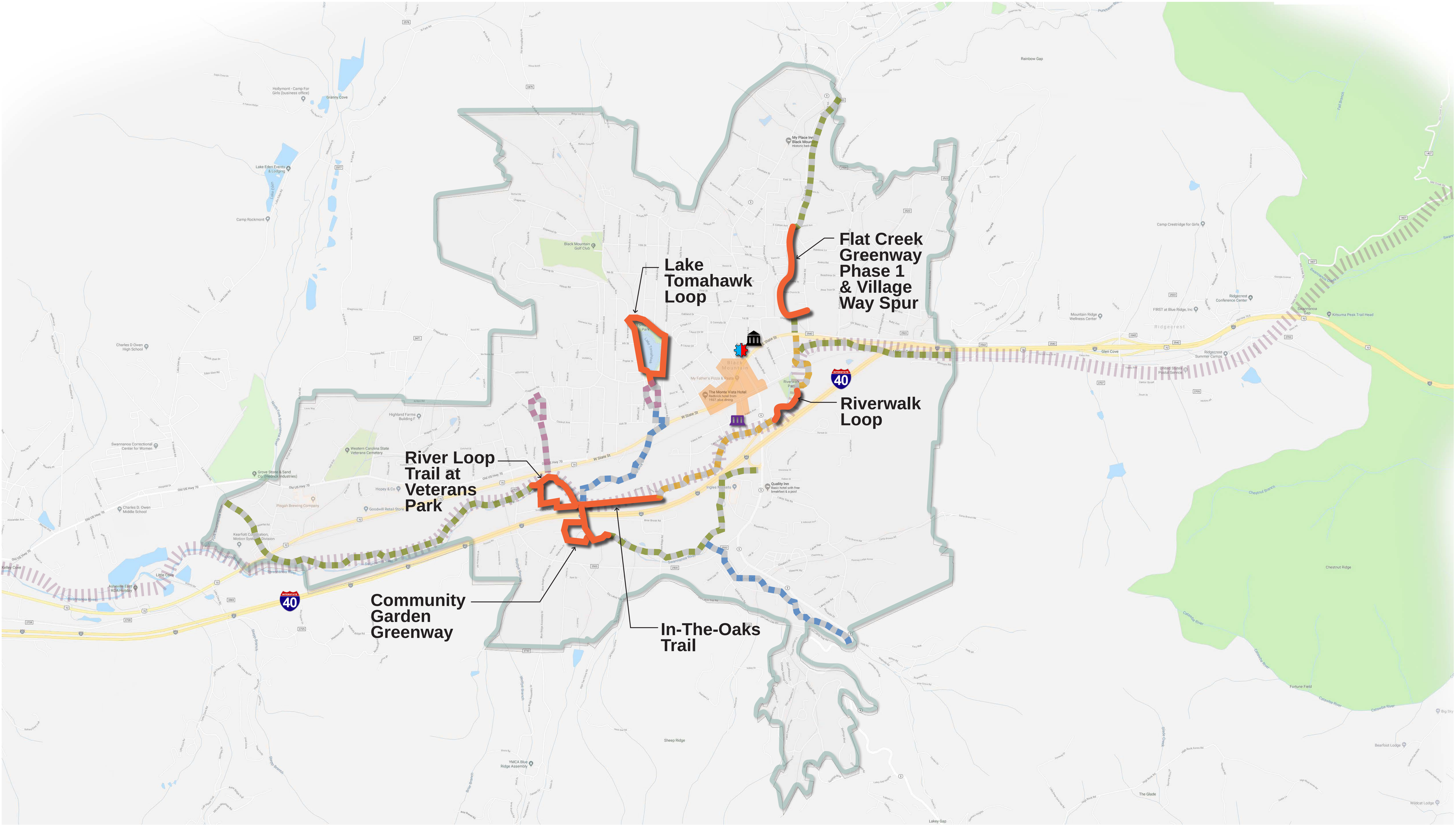
TOWN OF BLACK MOUNTAIN, NC

LEGEND

- COMPLETED GREENWAYS
- FUNDED GREENWAYS
- HIGH PRIORITY GREENWAYS
- MEDIUM PRIORITY GREENWAYS
- LOW PRIORITY GREENWAYS
- BLACK MOUNTAIN TOWN HALL
- BLACK MOUNTAIN PUBLIC SERVICES, RECREATION & PARKS
- BLACK MOUNTAIN POLICE & FIRE DEPARTMENTS
- BLACK MOUNTAIN BUSINESS DISTRICT
- TOWN LIMITS
- FONTA FLORA STATE TRAIL



DRAFT: 2019-04-07



Completed Greenways

TOWN OF BLACK MOUNTAIN, NC

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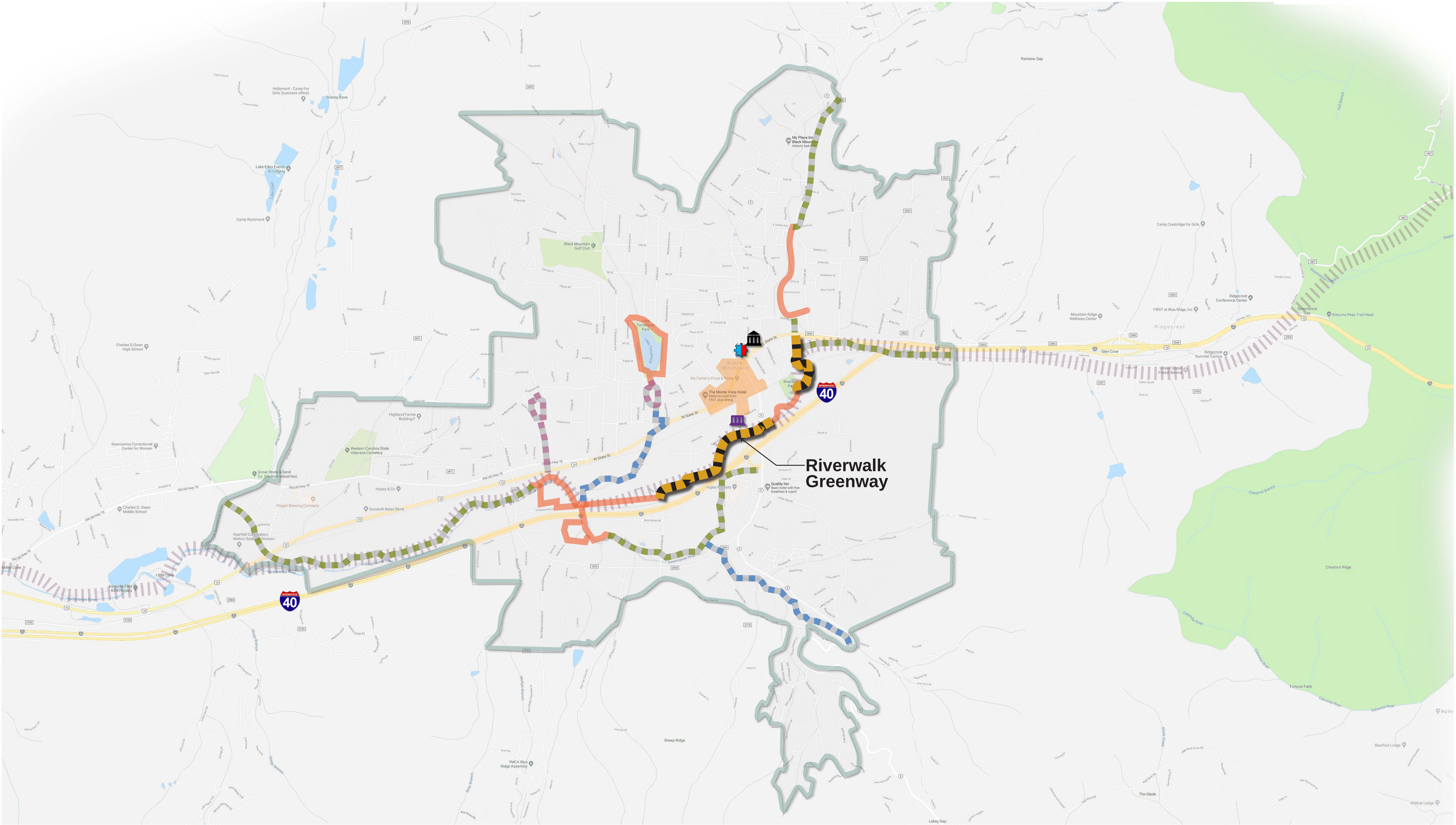
Completed Greenways

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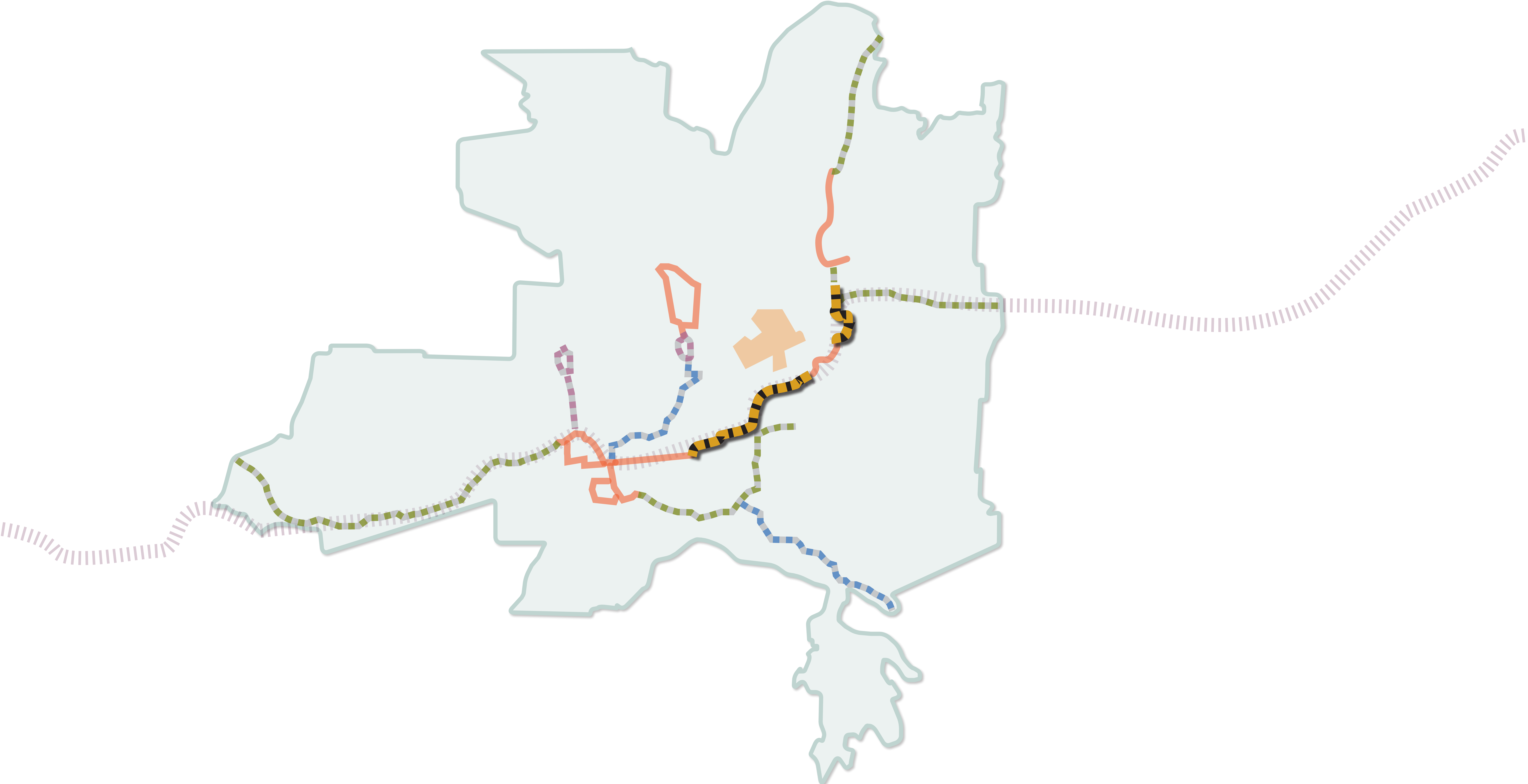


Funded Greenways

TOWN OF BLACK MOUNTAIN, NC

LEGEND

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Funded Greenways

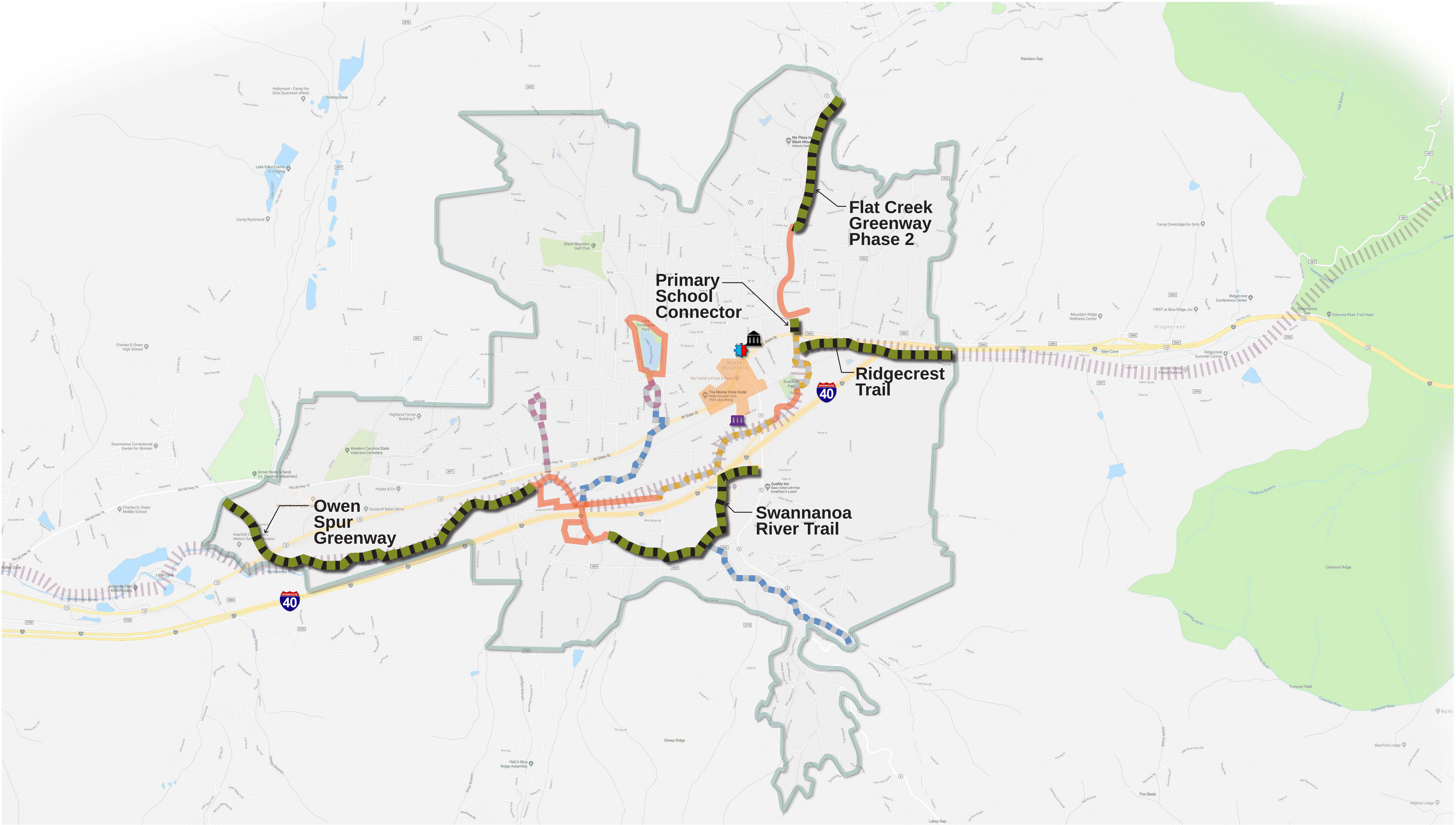
TOWN OF BLACK MOUNTAIN, NC

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| | FONTA FLORA STATE TRAIL | | |

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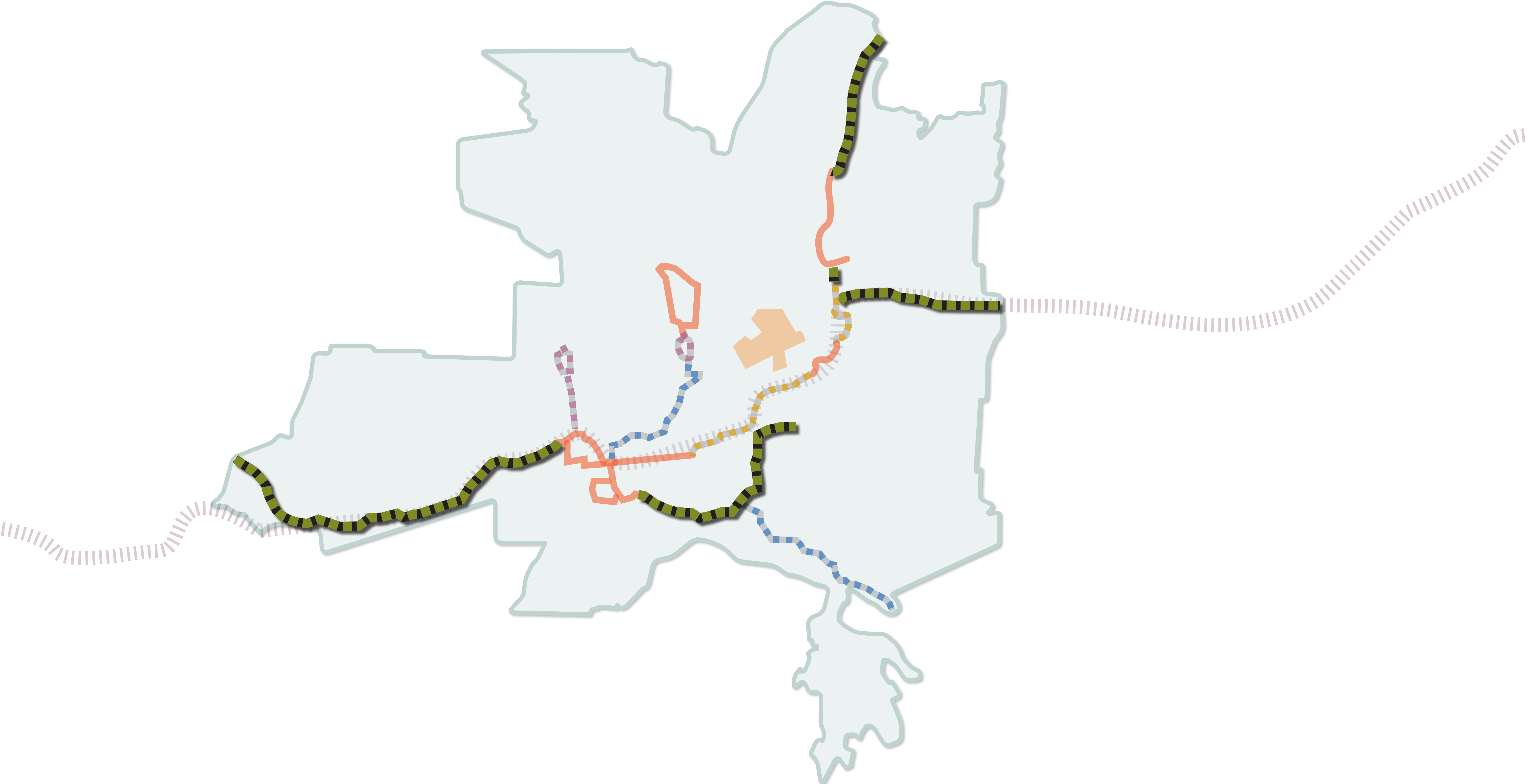
High Priority Greenways

TOWN OF BLACK MOUNTAIN, NC

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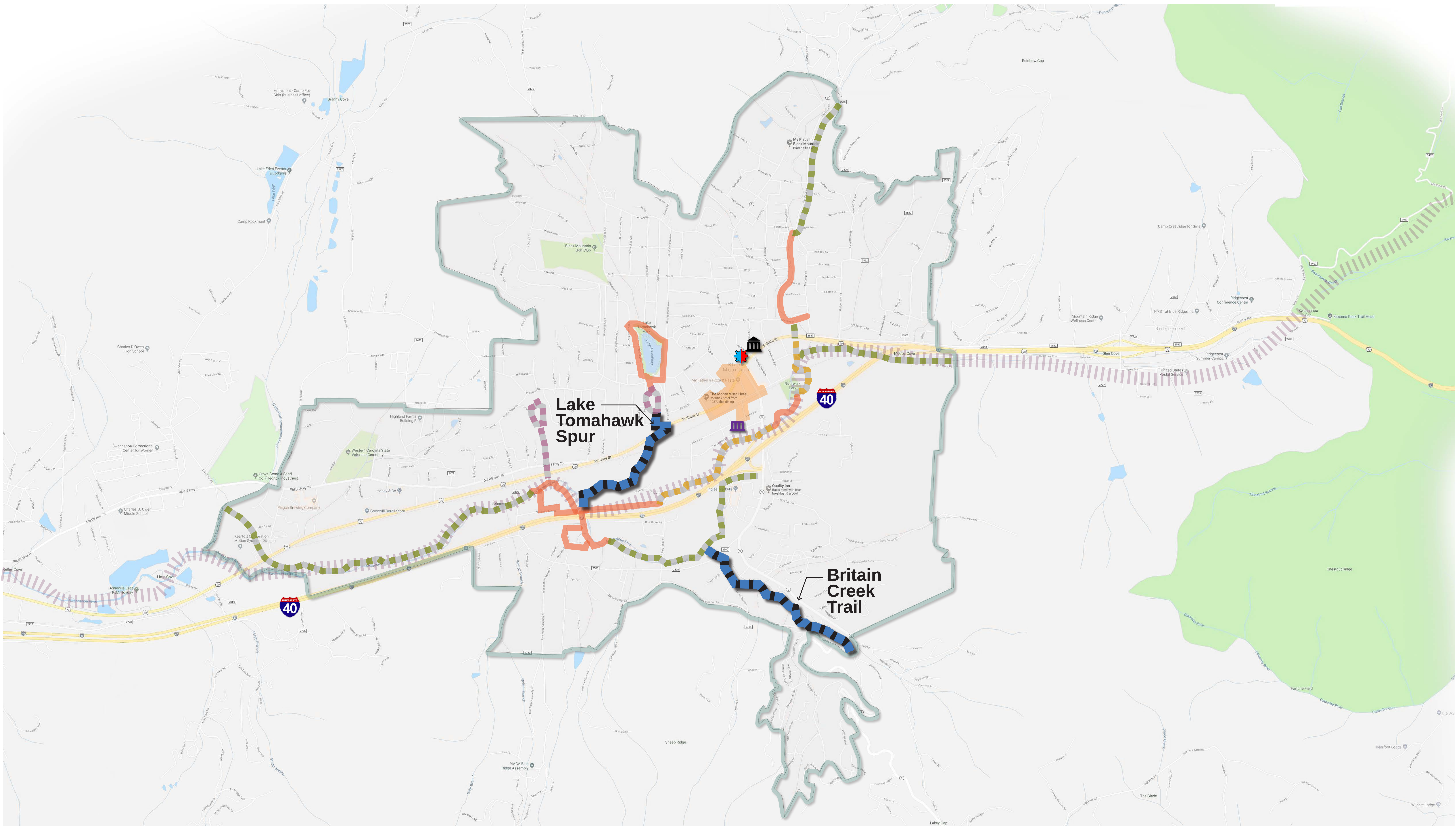


High Priority Greenways

TOWN OF BLACK MOUNTAIN, NC

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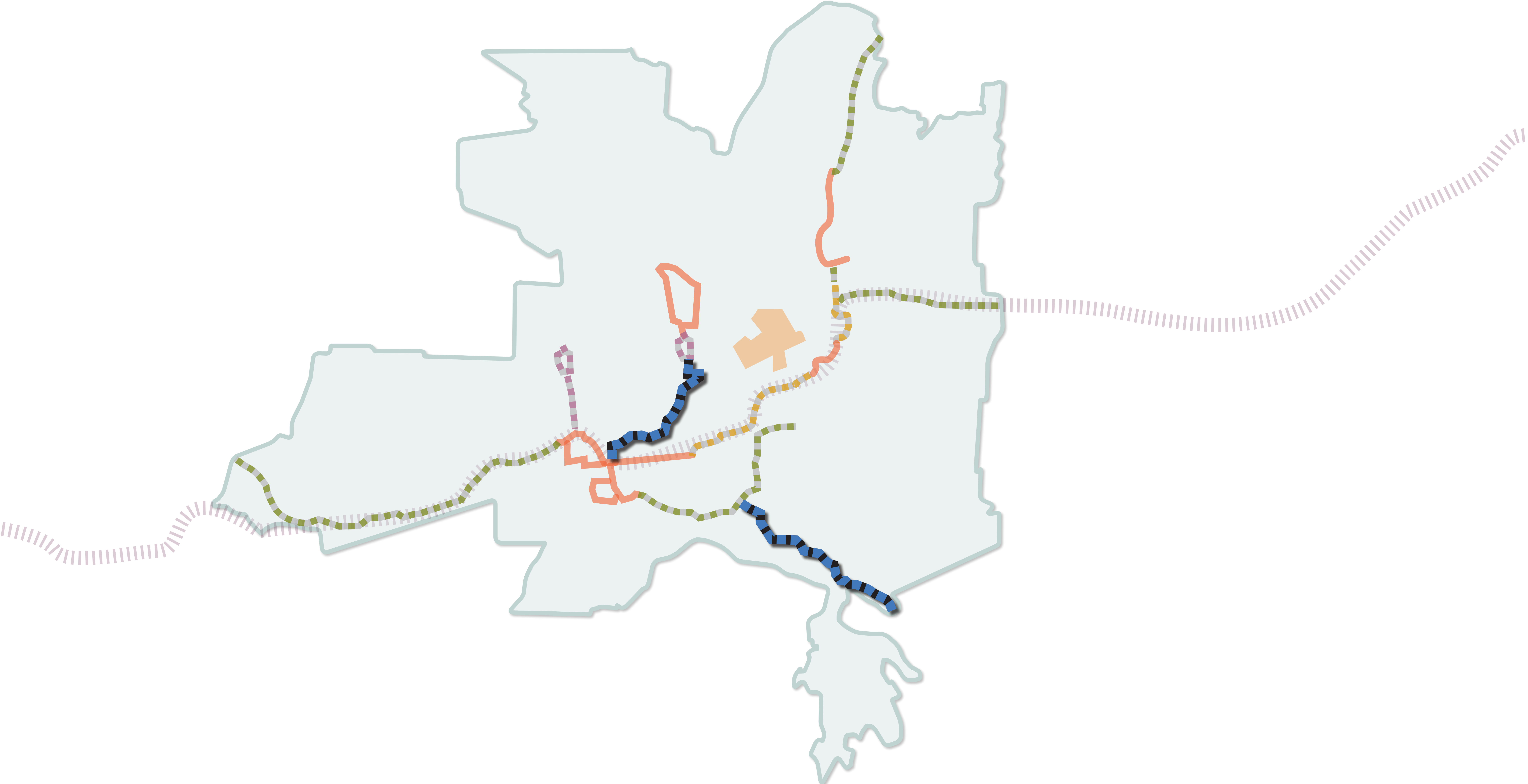


Medium Priority Greenways

TOWN OF BLACK MOUNTAIN, NC

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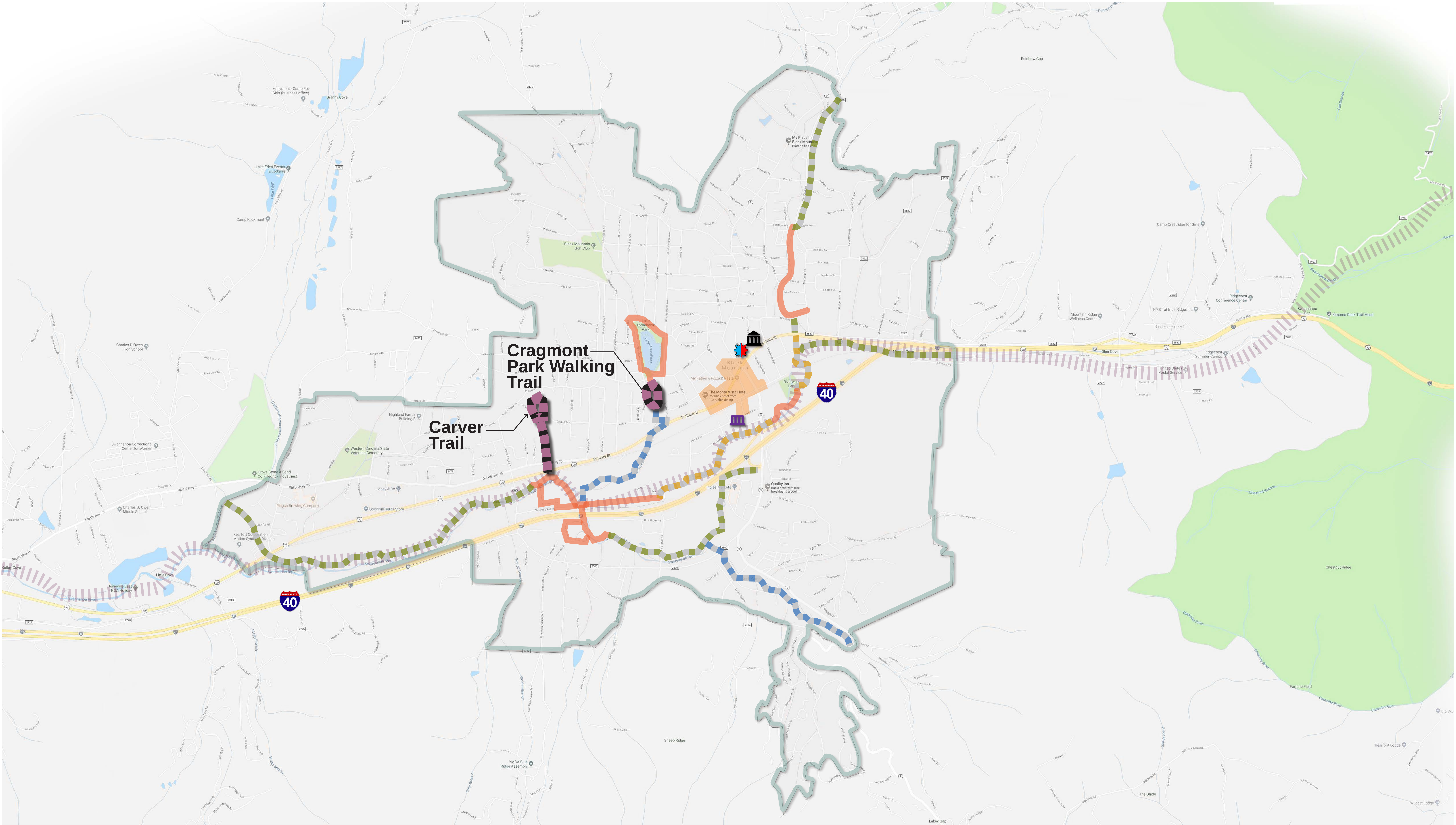
Medium Priority Greenways

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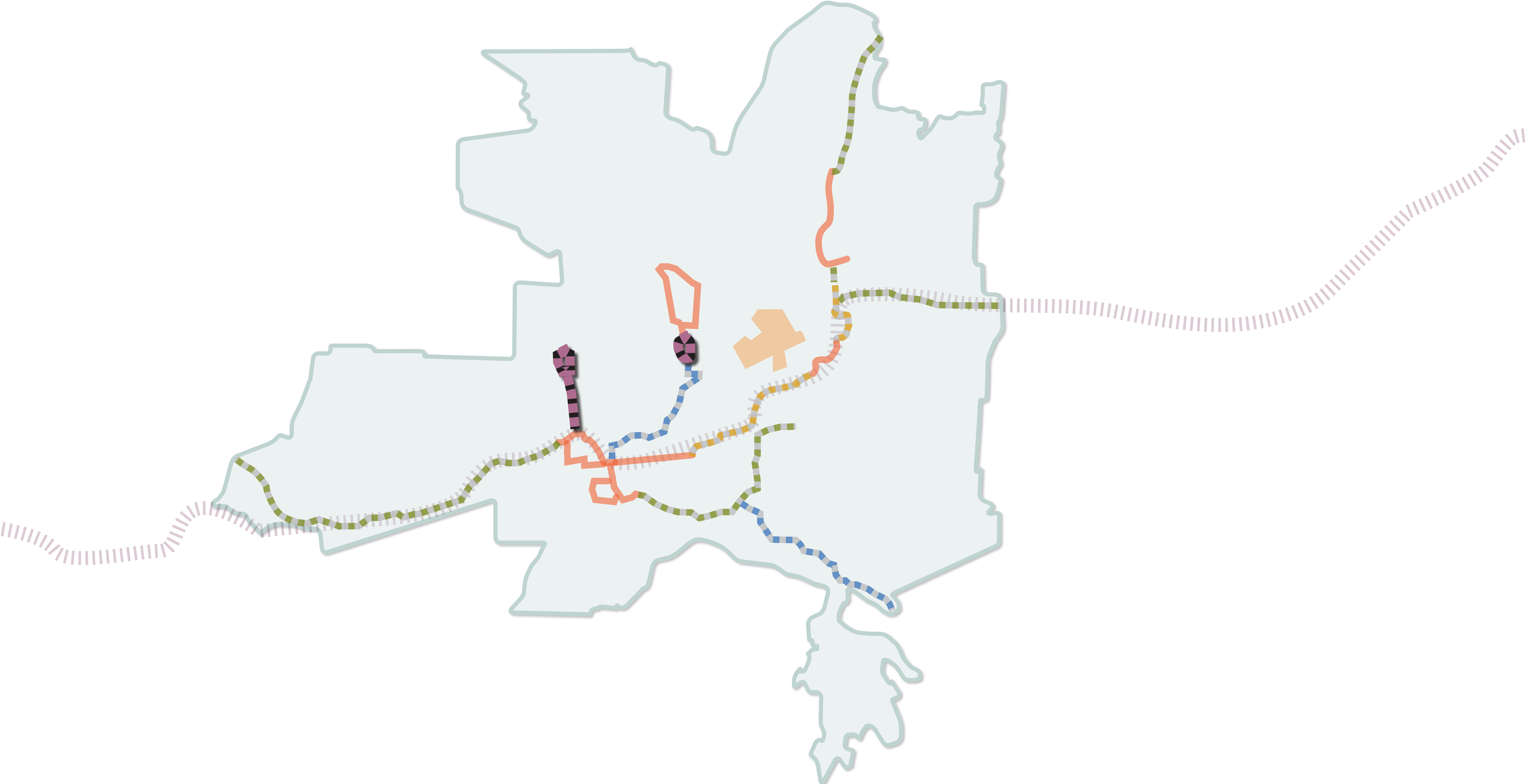


Low Priority Greenways

TOWN OF BLACK MOUNTAIN, NC

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Low Priority Greenways

TOWN OF BLACK MOUNTAIN, NC

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| | FONTA FLORA STATE TRAIL | | |



LEGAL NOTICE

BLACK MOUNTAIN BOARD OF ALDERMEN

PUBLIC HEARING

Monday, July 8, 2019 at 6:00 p.m.

The Black Mountain Board of Aldermen will meet on **Monday, July 8, 2019 at 6:00 p.m.** in the Board Room in the Town Hall Building, 160 Midland Avenue, Black Mountain, NC. The purpose of this meeting is to hold a public hearing to consider System Development Fees and the adoption of a System Development Fee Study as presented by McGill Associates.

The public is invited to comment prior to the meeting as well as during the public hearing. Public comments may be emailed to:
comments-sdfs@townofblackmountain.org

To view the study and for additional information please visit:

<https://nc-blackmountain.civicplus.com/2424/System-Development-Fees-Study>

The meeting is open to the public.



Angela Reece
Town Clerk

The Town of Black Mountain is committed to providing accessible facilities, programs and services for all people in compliance with the Americans with Disabilities Act (ADA). Should you need assistance or a particular accommodation for this meeting please contact, Angela Reece, Town Clerk at 419-9310 or by email at townclerk@townofblackmountain.org.

Posted to the Town Bulletin Board 05/23/19

www.townofblackmountain.org

AN ORDINANCE TO ADOPT SYSTEM DEVELOPMENT FEES FOR THE WATER AND SEWER SYSTEM AS AUTHORIZED BY ARTICLE 8 OF CHAPTER 162A OF THE NORTH CAROLINA GENERAL STATUTES.

WHEREAS, the North Carolina General Assembly has enacted Session Law 2017-138 (HB 436), known as the "Public Water and Sewer System Development Fee Act" amending Chapter 162A of the Generals Statutes to add a new Article 8, titled System Development Fees; and

WHEREAS, said statutes authorize the procedures and methods for the calculation and authorization of system development fees to be charged by local governments; and

WHEREAS, the Town of Black Mountain contracted with professional consulting engineers McGill Associates, to perform the system development fee analysis per the requirements of Session Law 2017-138, having posted public notice and written analysis on its website beginning May 23, 2019 and also provided means to solicit comments both through the website and via written means through the U.S. Mail, and has held a properly advertised public hearing on July 8, 2019, to receive additional public comments; and

WHEREAS, said statutes define a System Development Fee as a charge or assessment for service imposed with respect to new development to fund costs of capital improvements necessitated by and attributable to such new development, to recoup the costs of existing facilities which serve such new development, or a combination of those cost; and

WHEREAS, said statutes provide that System Development Fees may be collected for new development which increases the capacity necessary to serve that development as further described below.

(A) (1) System development fees shall be charged with respect to new development to fund costs of capital improvements to recoup a combination of costs consisting of the cost of existing facilities which serve such new development and the incremental cost of capital assets required for preserving and/or providing additional system capacity. System development fees shall be charged consistent with the requirements of G.S. Ch. 162A, Article 8 as such may be amended from time to time. Terms used in this section shall have the same meanings as set forth in G.S. Ch. 162A, Article 8.

(2) For purposes of this section, **NEW DEVELOPMENT** includes any of the following occurring after April 8, 2019 (the date the town began the written analysis process required by G.S. § 162A-205) that increases the water and/or sewer capacity necessary to serve that development:

- (a) The subdivision of land;
- (b) The construction, reconstruction, redevelopment, conversion, structural alteration, relocation, or enlargement of any structure which increases the number of service units; or
- (c) Any use or extension of the use of land which increases the number of service units.

ORDINANCE NO. **O-19-15**

(B) Beginning on the effective date of this section, system development fees shall apply to all new development except for fire line connections.

(C) System development fees shall not include and separate charges may be assessed for:

(1) A charge or fee to pay administrative, plan review, or inspection costs associated with permits required for development.

(2) Tap or hookup charges for the purpose of reimbursing the town for the actual costs of connecting the service unit to the system.

(3) Availability charges.

(4) Dedication of capital improvements onsite, adjacent, or ancillary to a development absent a written agreement providing credit or reimbursement to the developer pursuant to G.S. §§ 160A-320, 160A-499 or G.S. Ch. 160A, Art. 19, Part 3D as the same may be amended from time to time.

(5) Reimbursement to the town for its expenses in constructing or providing for water or sewer utility capital improvements adjacent or ancillary to the development if the owner or developer has agreed to be financially responsible for such expenses; however, such reimbursement shall be credited to any system development fee charged as required per G.S. § 162-207(c).

(D) System development fees will not be charged on buildings or other improvements constructed to replace like buildings provided that the replacement will not result in any increased capacity requirements over that required to serve the replaced building. System development fees are transferable between locations on different parcels of property as long as the parcels are contiguous or separated only by a street or alley and part of a single or multi-phased project shown on an approved site plan at the time of issuance of a building permit.

(E) (1) For new development involving the subdivision of land, the system development fee shall be collected at the later of the time of plat recordation, or when water or sewer service is committed by the town.

(2) For all other new development, system development fees are due at the earlier of the time of application for connection of the individual unit of development to the service or facilities, or when water or sewer service is committed by the town.

(3) For purposes of this section, water service shall be deemed committed by the town at such time as the Public Works Department has approved the connection and building permit(s) for the development are issued. Fees shall be assessed based on the schedule of fees in effect at the time the fees are collected.

(F) Additions, alterations to or replacements or change in use of existing buildings shall be required to pay a system development fee based on the rates applicable at the time of connection or at the time such addition, alteration, replacement or change in use is placed into service. When a change in use occurs, the new use will pay the difference calculated between the existing use and the proposed use.

(G) Buildings that contain more than one use shall have the system development fee calculated from the sum of each use in the building.

(H) (1) The following system development fee shall be paid for connections to the town municipal water system based on the customer's calculated anticipated daily flow rate in gallons per day (GPD). The system development fee shall be the same regardless of the customer's location inside or outside the municipal limits of the town.

Fee Charge: \$8.87 / GPD

(2) System development fees shall be based on the calculated (GPD) flow rate of the anticipated use or increase in use of the proposed structure. Flow rates shall be determined in accordance with the flow rates established in the North Carolina Administrative Code, 15A NCAC 2T.0114 and 15A NCAC 18C.0409 as such may be amended from time to time. A licensed professional engineer is required to calculate flow rates for other uses not included within the North Carolina Administrative Code, 15A NCAC 2T.0114 and 15A NCAC 18C.0409. The Town of Black Mountain shall not incur any expense associated with this requirement.

(I) In calculating system development fees with respect to new development, the town will credit the value of costs in excess of the development's proportionate share of connecting facilities required to be oversized for use of others outside of the development. No credit shall be applied, however, for water or sewer capital improvements on-site or to connect new development to water or sewer facilities.

(J) All system development fees collected by the town shall be deposited to the town's water capital reserve funds and expended as provided by G.S. § 162A-211, as such may be amended from time to time.

**NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF ALDERMEN
OF THE TOWN OF BLACK MOUNTAIN THAT:**

The Water System Development Fee Study prepared by McGill Associates, and published May, 23 2019, is adopted to assist in establishing Black Mountain's Water System Development Fee Charges, which shall be established annually and published as part of the Town's fee schedule within the Annual Budget Ordinance.

These System Development Fees shall be effective July 8, 2019, and shall be published annually in the Town's budget, or associated fee schedule. The system development fee calculation shall be updated at least every five (5) years or as required by G.S. Ch. 162A, Article 8.

I move the adoption of the foregoing ordinance.

Alderman

READ, APPROVED AND ADOPTED, by a vote of ____ to ____ this the ____ day of July, 2019.

ATTESTED:

Don Collins, Mayor

Angela Reece, Town Clerk

**COST- JUSTIFIED WATER SYSTEM
DEVELOPMENT FEES REPORT**

TOWN OF BLACK MOUNTAIN

BUNCOMBE COUNTY, NC



**COST- JUSTIFIED WATER SYSTEM
DEVELOPMENT FEES REPORT**

TOWN OF BLACK MOUNTAIN

BUNCOMBE COUNTY, NC

James Bourey, Director of Consulting Services
Dale R. Schepers, Senior Consultant



55 Broad Street
Asheville, NC 28801
828-412-4608

Firm License No.: C-0459

MAY, 2019
PROJECT NO. 19.02518

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EXECUTIVE SUMMARY and PURPOSE STATEMENT

Executive Summary:

The North Carolina General Assembly passed House Bill 436 in July 2017, amending Chapter 162A of the General Statutes by adding “Article 8, System Development Fees.” This amendment was enacted as “An Act to Provide for Uniform Authority to Implement System Development Fees for Public Water and Sewer Systems in North Carolina and to Clarify the Applicable Statute of Limitations” which requires compliance with designated calculation methodology.

In response to the House Bill 436, the Town of Black Mountain has retained McGill Associates to complete a system development fee analysis. Based on the Town of Black Mountain’s combination of existing system capacity and planned capital improvements to expand capacity, the development fee, in accordance with HB 436 rules for an Equivalent Residential Unit (ERU) for water, was calculated to be \$5,912. ERU is defined as the water (and sewer) capacities required to serve the most typical user type, which is a three-bedroom single-family dwelling.

The fee for other types of development can be calculated by applying the calculated cost of capacity per gallon of flow per day to the water demands for various uses as defined by NC Administrative Code 15A NCAC 18C .0409 and 15A NCAC 02T .0114 using the following table:

Table 0.0.1 – System Development Fee Calculation: Cost per Gallon per Day (\$/GPD)

Black Mountain System Development Fees: Cost per Gallon per Day Calculation		
Item	Cost-Justified System Development Fee Calculation	Cost of Capacity \$/ GPD
1	Water System	\$ 14.78

Purpose Statement:

This report documents the results of the approach, methodology and calculations for establishing system development fees in accordance with North Carolina General Statute 162A, Article 8 “System Development Fees”. Through House Bill 436 (HB 436), the General Assembly of North Carolina established a uniform approach and associated methodology required for local governmental units to calculate and implement System Development Fees (SDF) for public water and sewer systems. The SDF must be determined by a qualified engineer or financial professional using industry standard practices. A copy of HB 436 is included in Appendix A.

Existing fees collected for the purpose of offsetting capital costs of facilities that serve new development (typically defined as impact fees, capital recovery fees, capacity charges, etc.), in place on October 1, 2017, are required to be conformed to HB 436 no later than July 1, 2018 in order to become valid. Fees that remain non-conforming after July 1, 2018 are considered unlawful and revenues collected are at risk to be refunded along with the possibility of associated legal penalties.

The Town of Black Mountain retained McGill Associates (McGill) to review and make recommendations for revisions as necessary to water system SDFs to conform with HB 436. The approach, methodology and calculations are based on American Water Works Association (AWWA) Manual of Water Supply Practices – M1, Principles of Water Rates, Fees, and Charges, Seventh Edition.

McGill Associates is qualified in engineering disciplines and financial analysis and has the expertise and experience to determine system development fees. The firm has a long history of working with cities, towns, counties and special districts to provide professional advice on the setting of fees, the development of water master plans and capital improvement programs and the development of asset management plans.

Black Mountain has made significant investments in water system capital assets that provide capacity that is, and will be, available for new development. The town also desires to use System Development Fees to recover a portion of the costs associated with providing capacity.

The overall result of this effort will be establishing the maximum cost-justified System Development Fees allowable under HB 436. Black Mountain may elect to implement fees of lesser value; however, any adjustment must be calculated on a cost per unit volume basis.

This report does not constitute a recommendation of any SDF amount. The Town Council has full authority to charge any amount, up to the maximum, provided it is applied to the relative demands of new development proportionally.

System Development Fees are defined as a charge imposed on each new customer or development that generally offsets the incremental cost of replacing existing and/or constructing new capital assets to provide capacity that will continue to meet the demands placed on the system by each new customer or development. Since water system capacity must, without exception, exceed customer demands, the major infrastructure components providing this capacity, such as water treatment plants, reservoirs, wells, pump stations, etc., must be planned and constructed well in advance and in large enough increments to keep pace with anticipated demand on the available system capacity.

AWWA methodology cites legal consideration for determining SDF. A Rational Nexus, or reasonable relationship, must be established between the fee charged and the cost associated with providing capacity to new customers. The Rational Nexus Test consists of three elements: 1) a review of available planning documents to verify general alignment between capacity demands driven by projected development patterns and planned capital improvements that will be needed to create the required capacity; 2) a determination of the proportionate share of costs to be borne by new development through appropriate methodology and calculation and 3) establishing a reasonable apportionment of the cost to new development in relation to the benefits the new development will reasonably receive through appropriate methodology and calculations.

The first element of the Rational Nexus Test was determined to be favorable based on a review of the Town's 2014 Comprehensive Plan Update, existing water system available capacity, and capital improvements plan. The Comprehensive Plan anticipates a population of 10,500 by 2030. This translates into a system capacity requirement of approximately 0.973 MGD. Existing capacity is 0.788 MGD, requiring the addition of 0.186 MGD. Black Mountain has amended its water purchase agreement with the City of Asheville to secure 0.200 MGD by 2021, satisfying the projected 2030 water capacity requirement. The capital plan includes water line replacements to support delivery of the additional capacity and therefore demonstrates a rational nexus between the Comprehensive Plan's projection of capacity needs and planned water supply expansion and capital improvements to meet the demand projection.

The remaining elements of the Rational Nexus Test are 2) determining proportionate share of costs to be borne by new development and 3) establishing a reasonable cost to new development in relation to the benefits received by the new development will be determined through appropriate methodology and calculations in the following sections.

Three methods for calculating SDF meet the definition of HB 436 and will satisfy the Rational Nexus Test:

Buy-In Method

The Buy-In Method is used where existing system capacity is available to provide service to new development. New customers essentially “buy” their proportionate share of system capacity from the current customer base (“system owners”) at the current cost or value of the existing facilities. HB 436 requires appropriate adjustments to be made to the replacement cost such as “debt credits, grants, and other generally accepted valuation adjustments.”

Incremental Cost Method

The Incremental Cost (or Marginal Cost) Method is used to assign new development the incremental cost of capital assets required for preserving and/or providing additional system capacity. This method should include supporting details that identify construction costs, scheduling, financing, funding source(s), etc., tied to a capital improvements plan (CIP), utilities master plan, and/or other approved planning document(s) that cover a planning horizon of 10 to 20 years. HB 436 requires a revenue credit to be applied “against the projected aggregate cost of water or sewer capital improvements.”

Combined Method

The Combined Approach is a combination of the Buy-In and Incremental Cost Methods. It is used where existing assets provide some system capacity to accommodate new development, and applicable capital plan(s) also identify significant capital investment proposed to add infrastructure required to address future growth and capacity needs.

3.0

CALCULATION of SYSTEM DEVELOPMENT FEES

The *Combined Method* is the appropriate approach to calculating Black Mountain's system development fees. Existing system capacity and current construction is available to provide service to new customers in the near term. Future capacity-related projects are represented in the Capital Improvements Plan which require incremental cost calculations. Therefore, calculating SDF will require the combined method.

3.1 Existing System Capacity Availability

Water system design capacities are determined using average day demands and incorporate appropriate peaking factors that will adequately address maximum flow conditions that occur during high water use conditions. Black Mountain's total capacity of 0.0788 MGD is a combination of groundwater wells and water purchased from the City of Asheville. Combined demand is 0.661 MGD, which is 84% of capacity. The Town has secured an additional 0.100 MGD beginning June 1, 2020 through its purchase agreement with Asheville that will increase the overall capacity to 0.888 MGD. The water system's current available capacity is as follows:

Table 3.1.1 – Black Mountain Water System Available Capacity

Black Mountain Water and Sewer System Available Capacity				
Item	System Capacity - Million Gallons Per Day (MGD)	Design Capacity	Average Day	Available Capacity
1	Water System - Well Production	0.588	0.502	0.086
2	Water System - Water Purchase Agreement	0.200	0.163	0.037
Current Water Purchase Agreement provides for Capacity beyond 0.200 MGD if needed.				

3.2 Buy-In Calculation

After demonstrating that capacity is available, the value per gallon is calculated to determine the cost per gallon that will be applied to reimburse existing customers for constructing and maintaining available capacity in advance.

The preferred AWWA valuation approach is "replacement cost new less depreciation" (RCNLD). This approach is based on the premise that System Development Fees reflect the value of providing any given amount of new capacity at the cost of constructing the assets at the time the new customer is connected. This fairly compensates existing customers for carrying the costs of constructing and maintaining capacity built into the system in advance of when the new customers connect.

Replacement cost in the RCNLD calculation used the RS Means Historical Cost Index. RS Means has been publishing a construction cost index for over 70 years, collecting data from all facets of the industry to accurately track costs directly related to building and construction. This allows the present value (replacement cost new) of capital construction projects to be calculated on data provided by a very reliable, long-time industry leader. Depreciation assigned by the Town's fixed asset inventory uses the straight-line method, typically based on 30 to 50-year assignments of useful life for major capital assets, to represent a general decline in value over time.

Replacement Cost New (RCN) is therefore determined by applying the RS Means index to the original cost, then deducting the accumulated depreciation to reach RCNLD.

Assets included in the buy-in valuation are those that provide the available capacity of the system, are "owned" by the ratepayers, and therefore provide a benefit to all customers. Typically, these assets are water supply, treatment, pump stations, storage, transmission and distribution mains. Assets contributed by or paid for by developers are deducted from the calculation since these costs were not "paid" by the existing customers. Non-capacity related assets such as vehicles, computers and software are also excluded from the calculation.

Table 3.2.1 – Water System Cost per GPD of Existing Utility Assets Providing Available Capacity

Black Mountain Water System Development Fee Buy-In Valuation				
Item	System Asset Description	RCNLD	Excluded	Amount Eligible
	Water System Assets			
W1	Land	\$ 2,923,834	\$ -	\$ 2,923,834
W2	Water Main Infrastructure	\$ 10,102,854	\$ 272,308	\$ 9,830,546
W3	Vehicles and Equipment	\$ 408,547	\$ 191,081	\$ 217,465
	Subtotal - Water System Assets	\$ 13,435,234	\$ 463,389	\$ 12,971,845
	Less Revenue Credit: Outstanding Debt Principal			\$ (1,956,897)
	Equals: Net Water System Value			\$ 11,014,949
	Divide by: Water System Capacity (MGD)			0.788
	Equals: Unit Valuation of Water System (\$/MGD)			\$ 13,986,881
	Divide by: 1,000,000 gallons (\$/GPD)			\$ 13.99

3.3 Water Purchase Agreement

In February 2004 Black Mountain entered into a purchase agreement with the City of Asheville in the amount of 0.200 MGD. This agreement expressly states that Black Mountain has no ownership or dedication of capacity from the City of Asheville. Therefore, the capital cost of capacity may not be considered as part of the system development fee calculation.

3.4 **Incremental Cost Calculation** - Value of future capacity to be available to new customers through capital construction projects considered in the Town's Capital Improvements Plan (CIP) or similar master planning document.

Assigning value to future capacity-related assets requires a determination of cost in present-day dollars and a clearly defined capacity that the assets will provide. Engineers typically assign project costs and capacity needs developed through a conceptual design process, and adjust costs to the scheduled year of construction in the CIP. Present-day value can therefore be obtained using the same assumptions for inflation and then applied to the incremental cost calculation.

Tables 3.4.1, 3.4.2 – Cost per GPD for Incremental (Future) Capacity Related Assets

3.4.1

Black Mountain Water System Capacity-Related Component Incremental Valuation				
CIP Item	System Asset Description	Cost	Remaining Asset Value	SDF Component Valuation
Water System Assets				
WI 1	Montreat Road Water Line Replacement	\$ 1,000,000	\$ 78,823	\$ 921,177
<u>Valuation Adjustments and Calculation of Cost-Justified Fee</u>				
	Less Revenue Credit: 25% project cost per HB436			\$ (230,294)
	Less Value of Existing Asset Capacity			\$ (372,014)
	Equals: Value of Incremental Capacity			\$ 318,869
	Divided by: Incremental Capacity (MGD)			0.60
	Equals: Unit Valuation of Capacity (\$/MGD)			\$ 531,448
	Divided by: 1,000,000 gallons (\$/GPD)			\$ 0.53

3.4.2

Black Mountain Water System Development Fee Incremental Valuation				
CIP Item	System Asset Description	Cost	Remaining Asset Value	SDF Component Valuation
Sewer System Assets				
WI 2	NC 9 Water Line Replacement	\$ 750,000	\$ 58,956	\$ 691,044
<u>Valuation Adjustments and Calculation of Cost-Justified Fee</u>				
	Less Revenue Credit: 25% project cost per HB436			\$ (172,761)
	Less Value of Existing Asset Capacity			\$ (336,884)
	Equals: Value of Incremental Capacity			\$ 181,399
	Divided by: Incremental Capacity (MGD)			0.70
	Equals: Unit Valuation of Capacity (\$/MGD)			\$ 259,141
	Divided by: 1,000,000 gallons (\$/GPD)			\$ 0.26

3.5 Valuation Adjustments – The above system valuations include applicable credit adjustments for revenues anticipated from exiting user charges, donated infrastructure and grants.

HB 436 requires revenue credits to be applied to debt that is issued to construct water and sewer system assets that provide capacity for potential customers and are repaid by retail water rates and charges. To ensure that repayment for this debt is not collected twice from new customers; once through the SDF and again through retail rates and charges, the remaining outstanding debt principal amount is required to be applied as a credit against the projected aggregate cost of the capital improvements in the SDF calculation.

Contributed capital provided by new development, that exceeds the development's proportionate share of connecting facilities, shall also be credited. Contributed capital is identified as part of fixed asset review and included in the summary of ineligible assets in the above calculation.

Revenue credits are also required to be applied to incremental (future) capacity-related assets. HB 436 assumes rate-generated revenues projected through the capital planning horizon will provide a minimum of 25% of the funding required to construct the assets. The potential for generating revenue to offset future capital needs was discussed with the Town. Staff determined that realizing any funding beyond the minimum 25% would be unattainable. Therefore, 25% revenue credit is applied to the incremental capacity-related asset valuations.

3.6 Cost per Unit Volume – Dollar valued that can be applied uniformly to all potential customer.

This measure becomes the starting point for determining the maximum cost-justified water system development fee. Fees for different types of customers are based on this cost of capacity multiplied by the amount of capacity needed to serve each type or class of customer.

4.0 **SERVICE UNIT CALCULATIONS: EQUIVALENT RESIDENTIAL UNITS**

HB 436 requires SDF calculations to be applied to various categories of customer demands based on service units or Equivalent Residential Unit (ERU). ERU is defined as the water and sewer capacities required to serve the most typical user type, which is a three-bedroom single-family dwelling. North Carolina Division of Water Resources (DWR) design standards for constructing water and sewer systems, NC Administrative Code 15A NCAC 18C .0409 and 15A NCAC 02T .0114 respectively, establish daily flow requirements based this type of service connection. ERU can therefore be defined as 400 gallons per day for water and 360 gallons per day for sewer.

Table 4.0.1 – Cost-Justified System Development Fees: Equivalent Residential Unit, Water

Black Mountain System Development Fees: Equivalent Residential Unit Calculation				
Item	Cost-Justified System Development Fee Calculation	Capacity \$/ GPD	Demand GPD	Cost per Unit Capacity
1	Water System	\$ 14.78	400	\$ 5,912
	Total ERU			\$ 5,912

5.0 APPLICATION of SYSTEM DEVELOPMENT FEES and SERVICE UNIT EQUIVALENCY

NC Administrative Code 15A NCAC 18C .0409 and 15A NCAC 02T .0114, included in Appendix A, further define other service connection types and the associated water system demands sewer system flows on a per gallon per day basis. Therefore, these tables serve as an equivalency or conversion for use in determining applicable SDF for various categories of demand.

McGill Associates has calculated costs for water system capacity on a per gallon per day basis for the Town of Black Mountain. This calculation was performed using the Combined Method to account for the Town's combination of existing capacity, current improvements under construction and future capacity-related projects. This calculation resulted in a development fee ceiling of \$5,912 for an Equivalent Residential Unit (ERU). ERU is defined as the water and sewer capacities required to serve the most typical user type, which is a three-bedroom single-family dwelling. The fee for other types of development can be calculated by applying the calculated the cost of capacity per gallon of flow per day to the water demands for various uses as defined by NC Administrative Code 15A NCAC 18C .0409 and 15A NCAC 02T .0114.

Using NC Administrative Code 15A NCAC 18C .0409 and 15A NCAC 02T .0114 ensures that the same standard used to plan, design, construct and finance capital assets is applied as the same cost recovery basis to be applied to new development.

Appendix

House Bill 436

NC Administrative Code 15A NCAC 18C .0409

NC Administrative Code 15A NCAC 02T .0114

Revenue Credit: Outstanding Debt Principal

2014 Comprehensive Plan Update: Population Projection Section

Black Mountain Capital Improvements Program and Summary Table

RS Means Historical Cost Index

APPENDIX

GENERAL ASSEMBLY OF NORTH CAROLINA
SESSION 2017

SESSION LAW 2017-138
HOUSE BILL 436

AN ACT TO PROVIDE FOR UNIFORM AUTHORITY TO IMPLEMENT SYSTEM
DEVELOPMENT FEES FOR PUBLIC WATER AND SEWER SYSTEMS IN NORTH
CAROLINA AND TO CLARIFY THE APPLICABLE STATUTE OF LIMITATIONS.

The General Assembly of North Carolina enacts:

SECTION 1. Chapter 162A of the General Statutes is amended by adding a new Article to read:

"Article 8.

"System Development Fees.

"§ 162A-200. Short title.

This Article shall be known and may be cited as the "Public Water and Sewer System Development Fee Act."

"§ 162A-201. Definitions.

The following definitions apply in this Article:

- (1) Capital improvement. – A planned facility or expansion of capacity of an existing facility other than a capital rehabilitation project necessitated by and attributable to new development.
- (2) Capital rehabilitation project. – Any repair, maintenance, modernization, upgrade, update, replacement, or correction of deficiencies of a facility, including any expansion or other undertaking to increase the preexisting level of service for existing development.
- (3) Existing development. – Land subdivisions, structures, and land uses in existence at the start of the written analysis process required by G.S. 162A-205, no more than one year prior to the adoption of a system development fee.
- (4) Facility. – A water supply, treatment, storage, or distribution facility, or a wastewater collection, treatment, or disposal facility, including for reuse or reclamation of water, owned or operated, or to be owned or operated, by a local governmental unit and land associated with such facility.
- (5) Local governmental unit. – Any political subdivision of the State that owns or operates a facility, including those owned or operated pursuant to local act of the General Assembly or pursuant to Part 2 of Article 2 of Chapter 130A, Article 15 of Chapter 153A, Article 16 of Chapter 160A, or Articles 1, 4, 5, 5A, or 6 of Chapter 162A of the General Statutes.
- (6) New development. – Any of the following occurring after the date a local government begins the written analysis process required by G.S. 162A-205, no more than one year prior to the adoption of a system development fee, which increases the capacity necessary to serve that development:
 - a. The subdivision of land.



- b. The construction, reconstruction, redevelopment, conversion, structural alteration, relocation, or enlargement of any structure which increases the number of service units.
 - c. Any use or extension of the use of land which increases the number of service units.
- (7) Service. – Water or sewer service, or water and sewer service, provided by a local governmental unit.
- (8) Service unit. – A unit of measure, typically an equivalent residential unit, calculated in accordance with generally accepted engineering or planning standards.
- (9) System development fee. – A charge or assessment for service imposed with respect to new development to fund costs of capital improvements necessitated by and attributable to such new development, to recoup costs of existing facilities which serve such new development, or a combination of those costs, as provided in this Article. The term includes amortized charges, lump-sum charges, and any other fee that functions as described by this definition regardless of terminology. The term does not include any of the following:
 - a. A charge or fee to pay the administrative, plan review, or inspection costs associated with permits required for development.
 - b. Tap or hookup charges for the purpose of reimbursing the local governmental unit for the actual cost of connecting the service unit to the system.
 - c. Availability charges.
 - d. Dedication of capital improvements on-site, adjacent, or ancillary to a development absent a written agreement providing for credit or reimbursement to the developer pursuant to G.S. 153A-280, 153A-451, 160A-320, 160A-499 or Part 3A of Article 18, Chapter 153A or Part 3D of Article 19, Chapter 160A of the General Statutes.
 - e. Reimbursement to the local governmental unit for its expenses in constructing or providing for water or sewer utility capital improvements adjacent or ancillary to the development if the owner or developer has agreed to be financially responsible for such expenses; however, such reimbursement shall be credited to any system development fee charged as set forth in G.S. 162A-207(c).
- (10) System development fee analysis. – An analysis meeting the requirements of G.S. 162A-205.

"§ 162A-202. Reserved.

"§ 162A-203. Authorization of system development fee.

(a) A local governmental unit may adopt a system development fee for water or sewer service only in accordance with the conditions and limitations of this Article.

(b) A system development fee adopted by a local governmental unit under any lawful authority other than this Article and in effect on October 1, 2017, shall be conformed to the requirements of this Article not later than July 1, 2018.

"§ 162A-204. Reserved.

"§ 162A-205. Supporting analysis.

A system development fee shall be calculated based on a written analysis, which may constitute or be included in a capital improvements plan, that:

- (1) Is prepared by a financial professional or a licensed professional engineer qualified by experience and training or education to employ generally accepted accounting, engineering, and planning methodologies to calculate system development fees for public water and sewer systems.
- (2) Documents in reasonable detail the facts and data used in the analysis and their sufficiency and reliability.
- (3) Employs generally accepted accounting, engineering, and planning methodologies, including the buy-in, incremental cost or marginal cost, and combined cost methods for each service, setting forth appropriate analysis as to the consideration and selection of a method appropriate to the circumstances and adapted as necessary to satisfy all requirements of this Article.
- (4) Documents and demonstrates the reliable application of the methodologies to the facts and data, including all reasoning, analysis, and interim calculations underlying each identifiable component of the system development fee and the aggregate thereof.
- (5) Identifies all assumptions and limiting conditions affecting the analysis and demonstrates that they do not materially undermine the reliability of conclusions reached.
- (6) Calculates a final system development fee per service unit of new development and includes an equivalency or conversion table for use in determining the fees applicable for various categories of demand.
- (7) Covers a planning horizon of not less than 10 years nor more than 20 years.
- (8) Is adopted by resolution or ordinance of the local governmental unit in accordance with G.S. 162A-209.

"§ 162A-206. Reserved.

"§ 162A-207. Minimum requirements.

(a) Maximum. – A system development fee shall not exceed that calculated based on the system development fee analysis.

(b) Revenue Credit. – In applying the incremental cost or marginal cost, or the combined cost, method to calculate a system development fee with respect to water or sewer capital improvements, the system development fee analysis must include as part of that methodology a credit against the projected aggregate cost of water or sewer capital improvements. That credit shall be determined based upon generally accepted calculations and shall reflect a deduction of either the outstanding debt principal or the present value of projected water and sewer revenues received by the local governmental unit for the capital improvements necessitated by and attributable to such new development, anticipated over the course of the planning horizon. In no case shall the credit be less than twenty-five percent (25%) of the aggregate cost of capital improvements.

(c) Construction or Contributions Credit. – In calculating the system development fee with respect to new development, the local governmental unit shall credit the value of costs in excess of the development's proportionate share of connecting facilities required to be oversized for use of others outside of the development. No credit shall be applied, however, for water or sewer capital improvements on-site or to connect new development to water or sewer facilities.

"§ 162A-208. Reserved.

"§ 162A-209. Adoption and periodic review.

(a) For not less than 45 days prior to considering the adoption of a system development fee analysis, the local governmental unit shall post the analysis on its Web site and solicit and furnish a means to submit written comments, which shall be considered by the preparer of the analysis for possible modifications or revisions.

(b) After expiration of the period for posting, the governing body of the local governmental unit shall conduct a public hearing prior to considering adoption of the analysis with any modifications or revisions.

(c) The local governmental unit shall publish the system development fee in its annual budget or rate plan or ordinance. The local governmental unit shall update the system development fee analysis at least every five years.

"§ 162A-210. Reserved.

"§ 162A-211. Use and administration of revenue.

(a) Revenue from system development fees calculated using the incremental cost method or marginal cost method, exclusively or as part of the combined cost method, shall be expended only to pay:

- (1) Costs of constructing capital improvements including, and limited to, any of the following:
 - a. Construction contract prices.
 - b. Surveying and engineering fees.
 - c. Land acquisition cost.
 - d. Principal and interest on bonds, notes, or other obligations issued by or on behalf of the local governmental unit to finance any costs for an item listed in sub-subdivisions a. through c. of this subdivision.
- (2) Professional fees incurred by the local governmental unit for preparation of the system development fee analysis.
- (3) If no capital improvements are planned for construction within five years or the foregoing costs are otherwise paid or provided for, then principal and interest on bonds, notes, or other obligations issued by or on behalf of a local governmental unit to finance the construction or acquisition of existing capital improvements.

(b) Revenue from system development fees calculated using the buy-in method may be expended for previously completed capital improvements for which capacity exists and for capital rehabilitation projects. The basis for the buy-in calculation for previously completed capital improvements shall be determined by using a generally accepted method of valuing the actual or replacement costs of the capital improvement for which the buy-in fee is being collected less depreciation, debt credits, grants, and other generally accepted valuation adjustments.

(c) A local governmental unit may pledge a system development fee as security for the payment of debt service on a bond, note, or other obligation subject to compliance with the foregoing limitations.

(d) System development fee revenues shall be accounted for by means of a capital reserve fund established pursuant to Part 2 of Article 3 of Chapter 159 of the General Statutes and limited as to expenditure of funds in accordance with this section.

"§ 162A-212. Reserved.

"§ 162A-213. Time for collection of system development fees.

For new development involving the subdivision of land, the system development fee shall be collected by a local governmental unit either at the time of plat recordation or when water or sewer service for the subdivision or other development is committed by the local governmental unit. For all other new development, the local governmental unit shall collect the system development fee at the time of application for connection of the individual unit of development to the service or facilities.

"§ 162A-214. Reserved.

"§ 162A-215. Narrow construction.

Notwithstanding G.S. 153A-4 and G.S. 160A-4, in any judicial action interpreting this Article, all powers conferred by this Article shall be narrowly construed to ensure that system development fees do not unduly burden new development."

SECTION 2. G.S. 130A-64 reads as rewritten:

"§ 130A-64. Service charges and rates.

(a) A sanitary district board shall apply service charges and rates based upon the exact benefits derived. These service charges and rates shall be sufficient to provide funds for the maintenance, adequate depreciation and operation of the work of the district. If reasonable, the service charges and rates may include an amount sufficient to pay the principal and interest maturing on the outstanding bonds and, to the extent not otherwise provided for, bond anticipation notes of the district. Any surplus from operating revenues shall be set aside as a separate fund to be applied to the payment of interest on or to the retirement of bonds or bond anticipation notes. The sanitary district board may modify and adjust these service charges and rates.

(b) The district board may require system development fees only in accordance with Article 8 of Chapter 162A of the General Statutes."

SECTION 3. G.S. 153A-277 reads as rewritten:

"§ 153A-277. Authority to fix and enforce rates.

(a) A county may establish and revise from time to time schedules of rents, rates, fees, charges, and penalties for the use of or the services furnished or to be furnished by a public enterprise. Schedules of rents, rates, fees, charges, and penalties may vary for the same class of service in different areas of the county and may vary according to classes of service, and different schedules may be adopted for services provided outside of the county. A county may include a fee relating to subsurface discharge wastewater management systems and services on the property tax bill for the real property where the system for which the fee is imposed is located.

...

(a2) A county may require system development fees only in accordance with Article 8 of Chapter 162A of the General Statutes.

...."

SECTION 4.(a) G.S. 160A-314 reads as rewritten:

"§ 160A-314. Authority to fix and enforce rates.

(a) A city may establish and revise from time to time schedules of rents, rates, fees, charges, and penalties for the use of or the services furnished or to be furnished by any public enterprise. Schedules of rents, rates, fees, charges, and penalties may vary according to classes of service, and different schedules may be adopted for services provided outside the corporate limits of the city.

...

(e) A city may require system development fees only in accordance with Article 8 of Chapter 162A of the General Statutes."

SECTION 4.(b) G.S. 160A-317 is amended by adding a new subsection to read:

"(a4) System Development Fees. – A city may require system development fees only in accordance with Article 8 of Chapter 162A of the General Statutes."

SECTION 5.(a) G.S. 162A-6(a) is amended by adding a new subdivision to read:

"(9a) To impose and require system development fees only in accordance with Article 8 of this Chapter."

SECTION 5.(b) G.S. 162A-9 is amended by adding a new subsection to read:

"(a5) An authority may require system development fees only in accordance with Article 8 of this Chapter."

SECTION 6.(a) G.S. 162A-36(a) is amended by adding a new subdivision to read:

"(8a) To impose and require system development fees only in accordance with Article 8 of this Chapter."

SECTION 6.(b) G.S. 162A-49 reads as rewritten:

"§ 162A-49. Rates and charges for services.

(a) The district board may fix, and may revise from time to time, rents, rates, fees and other charges for the use of land for the services furnished or to be furnished by any water system or sewerage system or both. Such rents, rates, fees and charges shall not be subject to supervision or regulation by any bureau, board, commission, or other agency of the State or of any political subdivision. Any such rents, rates, fees and charges pledged to the payment of revenue bonds of the district shall be fixed and revised so that the revenues of the water system or sewerage system or both, together with any other available funds, shall be sufficient at all times to pay the cost of maintaining, repairing and operating the water system or the sewerage system or both, the revenues of which are pledged to the payment of such revenue bonds, including reserves for such purposes, and to pay the interest on and the principal of such revenue bonds as the same shall become due and payable and to provide reserves therefor. If any such rents, rates, fees and charges are pledged to the payment of any general obligation bonds issued under this Article, such rents, rates, fees and charges shall be fixed and revised so as to comply with the requirements of such pledge. The district board may provide methods for collection of such rents, rates, fees and charges and measures for enforcement of collection thereof, including penalties and the denial or discontinuance of service.

(b) The district board may require system development fees only in accordance with Article 8 of this Chapter."

SECTION 7.(a) G.S. 162A-69 is amended by adding a new subdivision to read:

"(8a) To impose and require system development fees only in accordance with Article 8 of this Chapter."

SECTION 7.(b) G.S. 162A-72 reads as rewritten:

"§ 162A-72. Rates and charges for services.

(a) The district board may fix, and may revise from time to time, rents, rates, fees and other charges for the use of and for the services furnished or to be furnished by any sewerage system. Such rents, rates, fees and charges shall not be subject to supervision or regulation by any bureau, board, commission, or other agency of the State or of any political subdivision. Any such rents, rates, fees and charges pledged to the payment of revenue bonds of the district shall be fixed and revised so that the revenues of the sewerage system, together with any other available funds, shall be sufficient at all times to pay the cost of maintaining, repairing and operating the sewerage system the revenues of which are pledged to the payment of such revenue bonds, including reserves for such purposes, and to pay the interest on and the principal of such revenue bonds as the same shall become due and payable and to provide reserves therefor. If any such rents, rates, fees and charges are pledged to the payment of any general obligation bonds issued under this Article, such rents, rates, fees and charges shall be fixed and revised so as to comply with the requirements of such pledge. The district board may provide methods for collection of such rents, rates, fees and charges and measures for enforcement of collection thereof, including penalties and the denial or discontinuance of service.

(b) The district board may require system development fees only in accordance with Article 8 of this Chapter."

SECTION 8. G.S. 162A-85.13 is amended by adding a new subsection to read:

"(a1) The district board may require system development fees only in accordance with Article 8 of this Chapter."

SECTION 9. G.S. 162A-88 reads as rewritten:

"§ 162A-88. District is a municipal corporation.

(a) The inhabitants of a county water and sewer district created pursuant to this Article are a body corporate and politic by the name specified by the board of commissioners. Under that name they are vested with all the property and rights of property belonging to the corporation; have perpetual succession; may sue and be sued; may contract and be contracted with; may acquire and hold any property, real and personal, devised, sold, or in any manner conveyed, dedicated to, or otherwise acquired by them, and from time to time may hold, invest, sell, or dispose of the same; may have a common seal and alter and renew it at will; may establish, revise and collect rates, fees or other charges and penalties for the use of or the services furnished or to be furnished by any sanitary sewer system, water system or sanitary sewer and water system of the district; and may exercise those powers conferred on them by this Article.

(b) The district board may require system development fees only in accordance with Article 8 of this Chapter."

SECTION 10.(a) G.S. 1-52(15) reads as rewritten:

"(15) For the recovery of taxes paid as provided in ~~G.S. 105-381~~. G.S. 105-381 or for the recovery of an unlawful fee, charge, or exaction collected by a county, municipality, or other unit of local government for water or sewer service or water and sewer service."

SECTION 10.(b) This section is to clarify and not alter G.S. 1-52.

SECTION 11. Sections 1 through 9 of this act become effective October 1, 2017, and apply to system development fees imposed on or after that date. Section 10 of this act, being a clarifying amendment, has retroactive effect and applies to claims accrued or pending prior to and after the date that section becomes law. Nothing in this act provides retroactive authority for any system development fee, or any similar fee for water or sewer services to be furnished, collected by a local governmental unit prior to October 1, 2017. The remainder of this act is effective when it becomes law and applies to claims accrued or pending prior to and after that date.

In the General Assembly read three times and ratified this the 29th day of June, 2017.

s/ Daniel J. Forest
President of the Senate

s/ Tim Moore
Speaker of the House of Representatives

s/ Roy Cooper
Governor

Approved 4:13 p.m. this 20th day of July, 2017

15A NCAC 18C .0409 SERVICE CONNECTIONS

(a) Local Water Supply Plan. Units of local government which are operating under a local water supply plan in accordance with G.S. 143-355(l) shall not be limited in the number of service connections.

(b) No local water supply plan. A public water system which does not have a local water supply plan as stated in Paragraph (a) shall limit its number of service connections as follows:

- (1) A public water system shall meet the daily flow requirements specified in Table 1:

Table 1: Daily Flow Requirements

Type of Service Connection	Daily Flow for Design
Residential	400 gallon/connection
Mobile Home Parks	250 gallon/connection
Campgrounds and Travel Trailer Parks	100 gallon/space
Marina	10 gallon/boat slip
Marina with bathhouse	30 gallon/boat slip
Rest Homes and Nursing Homes	
with laundry	120 gallon/bed
without laundry	60 gallon/bed
Schools	15 gallon/student
Day Care Facilities	15 gallon/student
Construction, work, or summer camps	60 gallon/person
Business, office, factory (exclusive of industrial use)	
without showers	25 gallon/person/shift
with showers	35 gallon/person/shift
Hospitals	300 gallon/bed

or;

- (2) A public water system serving different types of service connections shall meet the maximum daily demand calculated as follows:
- (A) Where records of the previous year are available that reflect daily usage, the average of the two highest consecutive days of record of the water treated shall be the value used to determine if there is capacity to serve additional service connections (unusual events such as massive line breaks or line flushings shall not be considered).
- (B) Where complete daily records of water treated are not available, the public water system shall multiply the daily average use based on the amount of water treated during the previous year of record by the appropriate factor to determine maximum daily demand, as follows:
- (i) A system serving a population of 10,000 or less shall multiply the daily average use by 2.5; or
- (ii) A system serving a population greater than 10,000 shall multiply the daily average use by 2.0.

History Note: Authority G.S. 130A-315; 103A-317; P.L. 93-523;
Eff. July 1, 1994.

15A NCAC 02T .0114 WASTEWATER DESIGN FLOW RATES

(a) This Rule shall be used to determine wastewater flow rates for all systems covered by this Subchapter unless alternate criteria are provided by a program specific rule and for flow used for the purposes of 15A NCAC 02H .0105. These are minimum design daily flow rates for normal use and occupancy situations. Higher flow rates may be required where usage and occupancy are atypical, including, those in Paragraph (e) of this Rule. Wastewater flow calculations must take hours of operation and anticipated maximum occupancies/usage into account when calculating peak flows for design.

(b) In determining the volume of sewage from dwelling units, the flow rate shall be 120 gallons per day per bedroom. The minimum volume of sewage from each dwelling unit shall be 240 gallons per day and each additional bedroom above two bedrooms shall increase the volume by 120 gallons per day. Each bedroom or any other room or addition that can reasonably be expected to function as a bedroom shall be considered a bedroom for design purposes. When the occupancy of a dwelling unit exceeds two persons per bedroom, the volume of sewage shall be determined by the maximum occupancy at a rate of 60 gallons per person per day.

(c) The following table shall be used to determine the minimum allowable design daily flow of wastewater facilities. Design flow rates for establishments not identified below shall be determined using available flow data, water-using fixtures, occupancy or operation patterns, and other measured data.

Type of Establishments	Daily Flow For Design
Barber and beauty shops	
Barber Shops	50 gal/chair
Beauty Shops	125 gal/booth or bowl
Businesses, offices and factories	
General business and office facilities	25 gal/employee/shift
Factories, excluding industrial waste	25 gal/employee/shift
Factories or businesses with showers or food preparation	35 gal/employee/shift
Warehouse	100 gal/loading bay
Warehouse – self storage (not including caretaker residence)	1 gal/unit
Churches	
Churches without kitchens, day care or camps	3 gal/seat
Churches with kitchen	5 gal/seat
Churches providing day care or camps	25 gal/person (child & employee)
Fire, rescue and emergency response facilities	
Fire or rescue stations without on site staff	25 gal/person
Fire or rescue stations with on-site staff	50 gal/person/shift
Food and drink facilities	
Banquet, dining hall	30 gal/seat
Bars, cocktail lounges	20 gal/seat
Caterers	50 gal/100 sq ft floor space
Restaurant, full Service	40 gal/seat
Restaurant, single service articles	20 gal/seat
Restaurant, drive-in	50 gal/car space
Restaurant, carry out only	50 gal/100 sq ft floor space
Institutions, dining halls	5 gal/meal
Deli	40 gal/100 sq ft floor space
Bakery	10 gal/100 sq ft floor space
Meat department, butcher shop or fish market	75 gal/100 sq ft floor space
Specialty food stand or kiosk	50 gal/100 sq ft floor space
Hotels and Motels	
Hotels, motels and bed & breakfast facilities, without in-room cooking facilities	120 gal/room
Hotels and motels, with in-room cooking facilities	175 gal/room
Resort hotels	200 gal/room
Cottages, cabins	200 gal/unit
Self service laundry facilities	500 gal/machine
Medical, dental, veterinary facilities	
Medical or dental offices	250 gal/practitioner/shift

Veterinary offices (not including boarding)	250 gal/practitioner/shift
Veterinary hospitals, kennels, animal boarding facilities	20 gal/pen, cage, kennel or stall
Hospitals, medical	300 gal/bed
Hospitals, mental	150 gal/bed
Convalescent, nursing, rest homes without laundry facilities	60 gal/bed
Convalescent, nursing, rest homes with laundry facilities	120 gal/bed
Residential care facilities	60 gal/person
Parks, recreation, camp grounds, R-V parks and other outdoor activity facilities	
Campgrounds with comfort station, without water or sewer hookups	75 gal/campsite
Campgrounds with water and sewer hookups	100 gal/campsite
Campground dump station facility	50 gal/space
Construction, hunting or work camps with flush toilets	60 gal/person
Construction, hunting or work camps with chemical or portable toilets	40 gal/person
Parks with restroom facilities	250 gal/plumbing fixture
Summer camps without food preparation or laundry facilities	30 gal/person
Summer camps with food preparation and laundry facilities	60 gal/person
Swimming pools, bathhouses and spas	10 gal/person
Public access restrooms	325 gal/plumbing fixture
Schools, preschools and day care	
Day care and preschool facilities	25 gal/person (child & employee)
Schools with cafeteria, gym and showers	15 gal/student
Schools with cafeteria	12 gal/student
Schools without cafeteria, gym or showers	10 gal/student
Boarding schools	60 gal/person (student & employee)
Service stations, car wash facilities	
Service stations, gas stations	250 gal/plumbing fixture
Car wash facilities (if recycling water see Rule .0235)	1200 gal/bay
Sports centers	
Bowling center	50 gal/lane
Fitness, exercise, karate or dance center	50 gal/100 sq ft
Tennis, racquet ball	50 gal/court
Gymnasium	50 gal/100 sq ft
Golf course with only minimal food service	250 gal/plumbing fixture
Country clubs	60 gal/member or patron
Mini golf, putt-putt	250 gal/plumbing fixture
Go-kart, motocross	250 gal/plumbing fixture
Batting cages, driving ranges	250 gal/plumbing fixture
Marinas without bathhouse	10 gal/slip
Marinas with bathhouse	30 gal/slip
Video game arcades, pool halls	250 gal/plumbing fixture
Stadiums, auditoriums, theaters, community centers	5 gal/seat
Stores, shopping centers, malls and flea markets	
Auto, boat, recreational vehicle dealerships/showrooms with restrooms	125 gal/plumbing fixture
Convenience stores, with food preparation	60 gal/100 sq ft
Convenience stores, without food preparation	250 gal/plumbing fixture
Flea markets	30 gal/stall
Shopping centers and malls with food service	130 gal/1000 sq ft
Stores and shopping centers without food service	100 gal/1000 sq ft
Transportation terminals – air, bus, train, ferry, port and dock	5 gal/passenger

(d) Design daily flow rates for proposed non-residential developments where the types of use and occupancy are not known shall be designed for a minimum of 880 gallons per acre or the applicant shall specify an anticipated flow based upon anticipated or potential uses.

(e) Conditions applicable to the use of the above design daily flow rates:

- (1) For restaurants, convenience stores, service stations and public access restroom facilities, higher design daily flow rates shall be required based on higher expected usage where use is increased because of its proximity to highways, malls, beaches, or other similar high use areas.
- (2) Residential property on barrier islands and similar communities located south or east of the Atlantic Intracoastal Waterway used as vacation rental as defined in G.S. 42A-4 shall use 120 gallons per day per habitable room. Habitable room shall mean a room or enclosed floor space used or intended to be used for living or sleeping, excluding kitchens and dining areas, bathrooms, shower rooms, water closet compartments, laundries, pantries, foyers, connecting corridors, closets, and storage spaces.

(f) An adjusted daily sewage flow design rate shall be granted for permitted but not yet tributary connections and future connections tributary to the system upon showing that a sewage system is adequate to meet actual daily wastewater flows from a facility included in Paragraph (b) or (c) of this Rule without causing flow violations at the receiving wastewater treatment plant or capacity related sanitary sewer overflows within the collection system as follows:

- (1) Documented, representative data from that facility or a comparable facility shall be submitted by an authorized signing official in accordance with Rule .0106 of this Section to the Division as follows for all flow reduction request:
 - (A) Dates of flow meter calibrations during the time frame evaluated and indication if any adjustments were necessary.
 - (B) A breakdown of the type of connections (e.g. two bedroom units, three bedroom units) and number of customers for each month of submitted data as applicable. Identification of any non-residential connections including subdivision clubhouses/pools, restaurants, schools, churches and businesses. For each non-residential connection, information as identified in Paragraph (c) of this Rule (e.g. 200 seat church, 40 seat restaurant, 35 person pool bathhouse).
 - (C) Owner of the collection system.
 - (D) Age of the collection system.
 - (E) Analysis of inflow and infiltration within the collection system or receiving treatment plant, as applicable.
 - (F) Where a dedicated wastewater treatment plant serves the specific area and is representative of the residential wastewater usage, at least the 12 most recent consecutive monthly average wastewater flow readings and the daily total wastewater flow readings for the highest average wastewater flow month per customers as reported to the Division.
 - (G) Where daily data from a wastewater treatment plant cannot be utilized or is not representative of the project area: at least 12 months worth of monthly average wastewater flows from the receiving treatment plant shall be evaluated to determine the peak sewage month. Daily wastewater flows shall then be taken from a flow meter installed at the most downstream point of the collection area for the peak month selected that is representative of the project area. Justification for the selected placement of the flow meter shall also be provided.
 - (H) An estimated minimum design daily sewage flow rate shall be taken by calculating the numerical average of the top three daily readings for the highest average flow month. The calculations shall also account for seasonal variations, excessive inflow and infiltration, age and suspected meter reading/recording errors.
- (2) The Division shall evaluate all data submitted but shall also consider other factors in granting, with or without adjustment, or denying a flow reduction request including: applicable weather conditions during the data period (i.e. rainy or drought), other historical monitoring data for the particular facility or other similar facilities available to the Division, the general accuracy of monitoring reports and flow meter readings, and facility usage (i.e., resort area).
- (3) Flow increases shall be required if the calculations in Subparagraph (f)(1) of this Rule yield design flows higher than that specified in Paragraphs (b) or (c) of this Rule.
- (4) The applicant/owner shall retain the letter of any approved adjusted daily design flow rate for the life of the facility and shall transfer such letter to any new system owner.

Town of Black Mountain					
Debt Recap through FY33					
Origin Date	Rate	Maturity Year	Water Fund	Original Principal	Balance at 6/30/19
2012	2.22%	2031	Sewer Line Ext	974,345.00	584,607.00
2012	2.59%	2031	Water Line Replacement	991,540.00	568,591.74
2011	0.00%	2030	Tomahawk Stormwater	188,542.00	103,698.20
2018	3.49%	2033	304 Black Mountain Ave	750,000.00	700,000.00
			WATER FUND TOTAL		3,236,677.00
				-	1,956,896.94

2014 Comprehensive Plan Update for the Town of Black Mountain

*Prepared by the Town of Black Mountain with assistance
from Land-of-Sky Regional Council*



Adopted January 13th, 2014

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1.7: Community Conditions and Trends

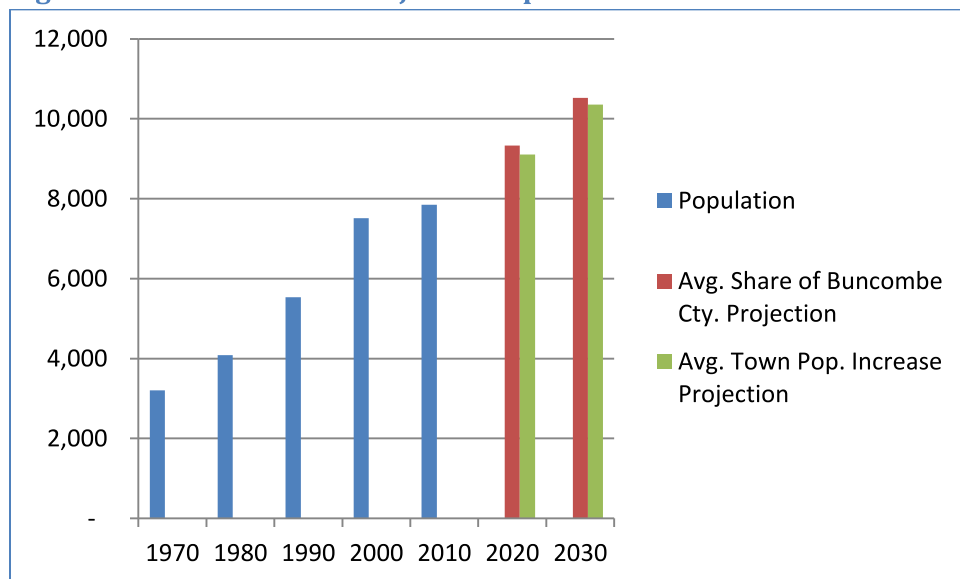
This section provides an analysis of conditions and trends related to Black Mountain's population, demographics, housing, income, employment and commuting patterns. This analysis is used to identify existing and emerging issues to be considered in the Comprehensive Plan Update. Important findings include the sharp reduction in the Town's population growth rate, the rapidly increasing share of senior citizens in this population, and the persistent lack of affordable housing in Black Mountain, which may prevent younger middle and working-class families from making their home here.

Measures of Population Change and Composition

Population Growth of Black Mountain, Past and Projected

- From 1970 until the time of the US Census in April of 2000, the permanent population of the Town of Black Mountain grew from about 3,200 residents to over 7,500 residents-- more than doubling during this period (**Figure 1-5**). During the last decade, however, population growth in Black Mountain slowed considerably, increasing by only 4 percent. Much of this drop off can be attributed to the Great Recession, which began at the end of 2008. Emerging factors that may also explain this trend include a shrinking amount of available land for development within the Town, and an increasing share of retirees that do not contribute to the birth rate. Home purchases by retirees and seasonal residents may also prevent younger families with less wealth from finding affordable housing in Black Mountain.

Figure 1-5 Historical and Projected Population for Town of Black Mountain



- Municipal population growth projections are generally made using either the historical average share of the County population or the historical average increase in the municipal population (**Table 1-4**). Based on these projections, Black Mountain population growth is expected to rebound, but to a more modest rate of roughly 15%, surpassing 9,000 by 2020 and possibly growing to a population of 10,500 by 2030.

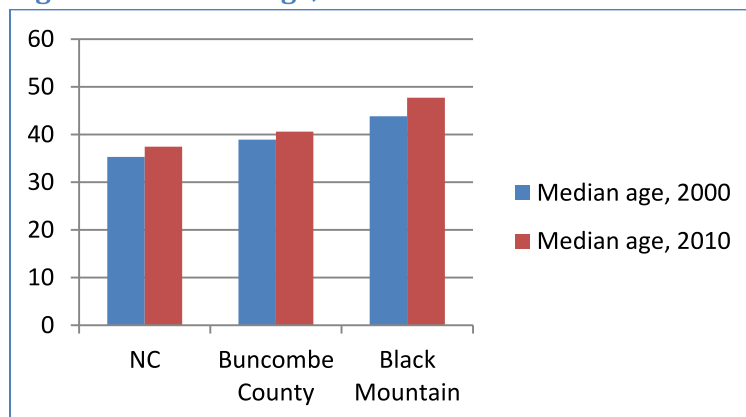
Table 1-4 Population Growth in Black Mountain and Buncombe County, 1970 to 2010

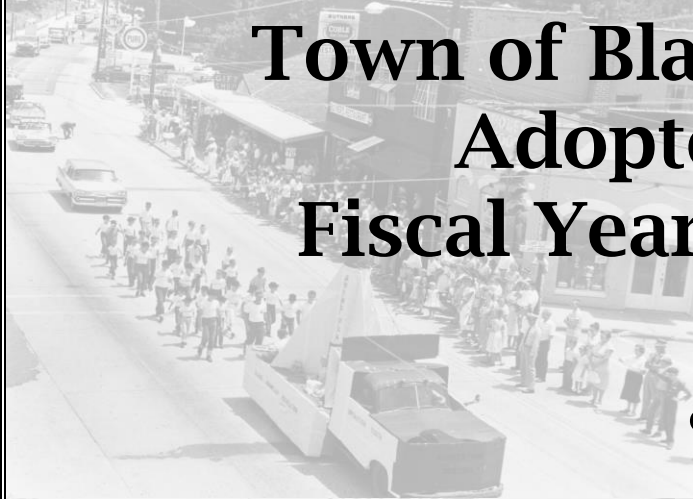
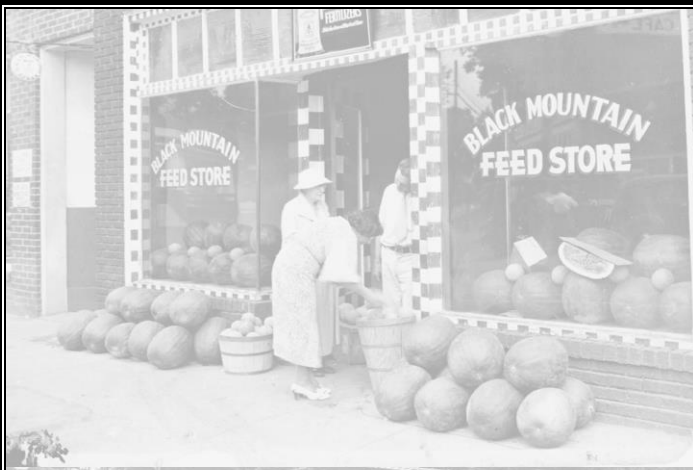
Year	Black Mt Pop	Buncombe County Pop.	Black Mt Share of Buncombe County Pop.	Black Mt. Pop. Change	Black Mt. Pop. Change %	Buncombe Pop. Change %
1970	3,204	145,022	2.21%			
1980	4,083	160,897	2.54%	879	27%	11%
1990	5,533	174,357	3.17%	1,450	36%	8%
2000	7,511	206,365	3.64%	1,978	36%	18%
2010	7,848	238,318	3.29%	337	4%	15%

- Municipal population projections can be complicated by annexation, but the mountainous topography of the Swannanoa Valley and recent state legislation restricting involuntary annexation limit future population contributions from the expansion of Town limits. The Town's annexation of The Settings, a largely undeveloped new subdivision, had a marginal impact on the Town's population.

Population Composition by Age Group

- In 2000 the median age in Black Mountain was almost 44, which was older than the state and County median age by 8.5 and 4.9 years, respectively ([Figure 1-6](#)). Over the last decade the median age has increased to 47, expanding this median age gap. This trend reflects Black Mountain's growing popularity as a retirement destination. Town decisions affecting land use, transportation, and facility design will need to become increasingly sensitive to the needs of seniors.
- When breaking the population change in Black Mountain down by age group we also see a noticeable drop in the population of individuals between the ages of 35 and 44 ([Figure 1-7](#)). It will be important to find ways to keep Black Mountain attractive to younger generations, who will ultimately bring future cultural and economic investment.

Figure 1-6 Median Age, 2000 and 2010



Town of Black Mountain Adopted Budget Fiscal Year 2018-2019

and

Five Year Capital Improvement Plan Fiscal Year 2019-2023



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3091 - WATER DEPARTMENT SUMMARY

The Water division of the Public Services Department is responsible for water production via wells and water purchased from the City of Asheville. Other responsibilities include water distribution, maintenance of storage tanks, pumps, in ground water lines, valves and meters, and dam compliance.

PROJECT DESCRIPTION	FY 18-19	FY 19-20	FY 20-21	FY 21-22	FY 22-23	FUTURE	TOTAL
General waterline maint//replacement	100,000	100,000	100,000	100,000	100,000	100,000	600,000
Generators	50,000	-	-	-	-	-	50,000
Montreat Road Valves	27,500	-	-	-	-	-	27,500
Montreat Road Waterline	-	-	500,000	500,000	-	-	1,000,000
Well Pumps	20,000	-	-	-	-	-	20,000
NC 9 Line	-	-	-	-	-	750,000	750,000
AMR	125,000	125,000	125,000	125,000	125,000	125,000	750,000
Painting of Water Tanks	-	-	-	-	75,000	-	75,000
Utility Truck	40,000	-	-	-	-	-	40,000
Renovation of 304 Black Mtn Ave	25,000	-	-	-	-	-	25,000
Fencing at 304 Black Mtn Ave	16,000	-	-	-	-	-	16,000
TOTALS	\$ 403,500	\$ 225,000	\$ 725,000	\$ 725,000	\$ 300,000	\$ 975,000	\$3,353,500

EXPENSE CLASSIFICATION	FY 18-19	FY 19-20	FY 20-21	FY 21-22	FY 22-23	FUTURE	TOTAL
Planning/Design/Engineering	-	-	50,000	50,000	-	100,000	200,000
Land	-	-	-	-	-	-	-
Construction	100,000	100,000	550,000	550,000	100,000	750,000	2,150,000
Equipment	303,500	125,000	125,000	125,000	200,000	125,000	1,003,500
TOTALS	\$ 403,500	\$ 225,000	\$ 725,000	\$ 725,000	\$ 300,000	\$ 975,000	\$3,353,500

REVENUE CLASSIFICATION	FY 18-19	FY 19-20	FY 20-21	FY 21-22	FY 22-23	FUTURE	TOTAL
Operating Revenues	403,500	225,000	725,000	725,000	300,000	975,000	3,353,500
Debt/Financing	-	-	-	-	-	-	-
Grant	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-
TOTALS	\$ 403,500	\$ 225,000	\$ 725,000	\$ 725,000	\$ 300,000	\$ 975,000	\$3,353,500

CIP PROJECT REQUEST FORM

PROJECT TITLE: General Waterline Maintenance	DEPARTMENT: Water	NUMBER:	PRIORITY: ORGANIZATIONAL	PRIORITY: DEPARTMENTAL 1
DESCRIPTION: The lifespan of the average cast or PVC waterline is approximately 75-100 years. There are approximately 64 miles of waterlines owned by the Town. This means the Town needs to replace around 1 mile each fiscal year. Cost will vary depending on the waterline size and composition.				

EXPENSE CLASSIFICATION	FY 18-19	FY 19-20	FY 20-21	FY 21-22	FY 22-23	FUTURE	TOTAL
Planning/Design/Engineering	-	-	-	-	-	-	-
Land	-	-	-	-	-	-	-
Construction	100,000	100,000	100,000	100,000	100,000	100,000	600,000
Equipment	-	-	-	-	-	-	-
TOTAL	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 600,000

REVENUE CLASSIFICATION	FY 18-19	FY 19-20	FY 20-21	FY 21-22	FY 22-23	FUTURE	TOTAL
Operating Revenues	100,000	100,000	100,000	100,000	100,000	100,000	600,000
Debt/Financing	-	-	-	-	-	-	-
Grant	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-
TOTAL	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 600,000

CIP PROJECT REQUEST FORM

PROJECT TITLE: Generators	DEPARTMENT: Water	NUMBER:	PRIORITY: ORGANIZATIONAL	PRIORITY: DEPARTMENTAL 1
DESCRIPTION: This is to purchase 3 onsite automatic transfer generators for the water booster stations (new Toll Road booster station, Chapel Road booster station, Hemphill booster station). In the event of power failures, this prevents any interruptions in the water system. These generators can be run by natural gas or propane. Installation will be done in-house. The combined cost of these three generators is less than one mobile diesel generator.				

EXPENSE CLASSIFICATION	FY 18-19	FY 19-20	FY 20-21	FY 21-22	FY 22-23	FUTURE	TOTAL
Planning/Design/Engineering	-	-	-	-	-	-	-
Land	-	-	-	-	-	-	-
Construction	-	-	-	-	-	-	-
Equipment	50,000	-	-	-	-	-	50,000
TOTAL	\$ 50,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 50,000

REVENUE CLASSIFICATION	FY 18-19	FY 19-20	FY 20-21	FY 21-22	FY 22-23	FUTURE	TOTAL
Operating Revenues	50,000	-	-	-	-	-	50,000
Debt/Financing	-	-	-	-	-	-	-
Grant	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-
TOTAL	\$ 50,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 50,000

CIP PROJECT REQUEST FORM

PROJECT TITLE: Montreat Rd Valves	DEPARTMENT: Water	NUMBER:	PRIORITY: ORGANIZATIONAL	PRIORITY: DEPARTMENTAL 1
DESCRIPTION: The Town are currently unable to isolate water issues on the 6" pit cast water line on Montreat Road. Installing 5 cut-in valves (2 at Ninth St and Montreat Rd, and 3 periodically spaced up Montreat Road) will allow the Town to isolate sections of the line for maintenance and/or repair, without having to work under pressure This will create a safer environment for crews, reduce water loss and reduce the number of customers impacted during an incident.				

EXPENSE CLASSIFICATION	FY 18-19	FY 19-20	FY 20-21	FY 21-22	FY 22-23	FUTURE	TOTAL
Planning/Design/Engineering	-	-	-	-	-	-	-
Land	-	-	-	-	-	-	-
Construction	-	-	-	-	-	-	-
Equipment	27,500	-	-	-	-	-	27,500
TOTAL	\$ 27,500	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 27,500

REVENUE CLASSIFICATION	FY 18-19	FY 19-20	FY 20-21	FY 21-22	FY 22-23	FUTURE	TOTAL
Operating Revenues	27,500	-	-	-	-	-	27,500
Debt/Financing	-	-	-	-	-	-	-
Grant	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-
TOTAL	\$ 27,500	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 27,500

CIP PROJECT REQUEST FORM

PROJECT TITLE: Montreat Road Water Line Replacement	DEPARTMENT: Water	NUMBER:	PRIORITY: ORGANIZATIONAL	PRIORITY: DEPARTMENTAL 1
DESCRIPTION: This project is to replace a 6" ductile iron pipe that is approximately 65 years old from the Country Food Store on Montreat Road to the Montreat Gate. This line will be replaced with an 8" ductile iron pipe.				

EXPENSE CLASSIFICATION	FY 18-19	FY 19-20	FY 20-21	FY 21-22	FY 22-23	FUTURE	TOTAL
Planning/Design/Engineering	-	-	50,000	50,000	-	-	100,000
Land	-	-	-	-	-	-	-
Construction	-	-	450,000	450,000	-	-	900,000
Equipment	-	-	-	-	-	-	-
TOTAL	\$ -	\$ -	\$ 500,000	\$ 500,000	\$ -	\$ -	\$ 1,000,000

REVENUE CLASSIFICATION	FY 18-19	FY 19-20	FY 20-21	FY 21-22	FY 22-23	FUTURE	TOTAL
Operating Revenues	-	-	500,000	500,000	-	-	1,000,000
Debt/Financing	-	-	-	-	-	-	-
Grant	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-
TOTAL	\$ -	\$ -	\$ 500,000	\$ 500,000	\$ -	\$ -	\$ 1,000,000

CIP PROJECT REQUEST FORM

PROJECT TITLE: Well pumps	DEPARTMENT: Water	NUMBER:	PRIORITY: ORGANIZATIONAL	PRIORITY: DEPARTMENTAL 1
DESCRIPTION: This is to replace the pump, motor, piping and wiring on Well #19 and Well #4. Well #19 is only pumping at 45% capacity; around 36,000 gallons per day. Well #4 is pumping at 77% capacity; around 56,000 gallons per day. Currently these two wells make up close to 20% of the water that the Town produces daily. The Town produces approximately 500,000 gallons of water per day. Improvements to these wells would add close to 60,000 gallons per day to that total.				

EXPENSE CLASSIFICATION	FY 18-19	FY 19-20	FY 20-21	FY 21-22	FY 22-23	FUTURE	TOTAL
Planning/Design/Engineering	-	-	-	-	-	-	-
Land	-	-	-	-	-	-	-
Construction	-	-	-	-	-	-	-
Equipment	20,000	-	-	-	-	-	20,000
TOTAL	\$ 20,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 20,000

REVENUE CLASSIFICATION	FY 18-19	FY 19-20	FY 20-21	FY 21-22	FY 22-23	FUTURE	TOTAL
Operating Revenues	20,000	-	-	-	-	-	20,000
Debt/Financing	-	-	-	-	-	-	-
Grant	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-
TOTAL	\$ 20,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 20,000

CIP PROJECT REQUEST FORM

PROJECT TITLE: NC 9 Water Line Replacement	DEPARTMENT: Water	NUMBER:	PRIORITY: ORGANIZATIONAL	PRIORITY: DEPARTMENTAL 1
DESCRIPTION: The existing water line running from the railroad tracks at NC 9 to Dogwood Lane is an 8" to 6" AC line. In the last year, the Town has repaired two major breaks. This line is outdated and needs to be replaced with 10" ductile line. Due to the complexity of the project, it will have to be contracted out. Therefore, quotes would have to be obtained to give accurate budget projections.				

EXPENSE CLASSIFICATION	FY 18-19	FY 19-20	FY 20-21	FY 21-22	FY 22-23	FUTURE	TOTAL
Planning/Design/Engineering	-	-	-	-	-	100,000	100,000
Land	-	-	-	-	-	-	-
Construction	-	-	-	-	-	650,000	650,000
Equipment	-	-	-	-	-	-	-
TOTAL	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 750,000	\$ 750,000

REVENUE CLASSIFICATION	FY 18-19	FY 19-20	FY 20-21	FY 21-22	FY 22-23	FUTURE	TOTAL
Operating Revenues	-	-	-	-	-	750,000	750,000
Debt/Financing	-	-	-	-	-	-	-
Grant	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-
TOTAL	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 750,000	\$ 750,000

CIP PROJECT REQUEST FORM

PROJECT TITLE: AMR	DEPARTMENT: Water	NUMBER:	PRIORITY: ORGANIZATIONAL	PRIORITY: DEPARTMENTAL 1
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DESCRIPTION:
In recent years, the technology involved in automatic meter reads has improved greatly. Montreat and Asheville have successfully used AMR's for the past four years. The Assistant Town Manager and Public Services staff have spent time observing the operation of these meters and questioning the staff from Montreat and Asheville, and have become very impressed with the reliability of the product. Montreat is able to read all 700 of their meters in one hour. The Town has been testing 50 meters for the last eighteen months and the results have been very positive. Moving to automated meters will free up the meter reader position to work on public services or water projects for a minimum of three weeks of every month, as well as provide the Town with better information when excessive water use occurs in customer usage. The switchover to the AMR is planned over five years. The payback on this project is expected to be between five and seven and a half years.

EXPENSE CLASSIFICATION	FY 18-19	FY 19-20	FY 20-21	FY 21-22	FY 22-23	FUTURE	TOTAL
Planning/Design/Engineering	-	-	-	-	-	-	-
Land	-	-	-	-	-	-	-
Construction	-	-	-	-	-	-	-
Equipment	125,000	125,000	125,000	125,000	125,000	125,000	750,000
TOTAL	\$ 125,000	\$ 125,000	\$ 125,000	\$ 125,000	\$ 125,000	\$ 125,000	\$ 750,000

REVENUE CLASSIFICATION	FY 18-19	FY 19-20	FY 20-21	FY 21-22	FY 22-23	FUTURE	TOTAL
Operating Revenues	125,000	125,000	125,000	125,000	125,000	125,000	750,000
Debt/Financing	-	-	-	-	-	-	-
Grant	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-
TOTAL	\$ 125,000	\$ 125,000	\$ 125,000	\$ 125,000	\$ 125,000	\$ 125,000	\$ 750,000



CIP PROJECT REQUEST FORM

PROJECT TITLE: Painting of water tanks	DEPARTMENT: Water	NUMBER:	PRIORITY: ORGANIZATIONAL	PRIORITY: DEPARTMENTAL 1
DESCRIPTION: Funds will be used to pressure wash and paint the Charmeldee tank, Hemphill tank, three separate tanks located at Black Mountain Estates and the South tank in Christmont. All rusted areas where paint has failed will be cleaned, a spot prime coat of an epoxy-mastic primer will be applied to all bare metal surfaces and one full finish coat of polyurethane applied to all exterior surfaces. This is on a 5-year cycle.				

EXPENSE CLASSIFICATION	FY 18-19	FY 19-20	FY 20-21	FY 21-22	FY 22-23	FUTURE	TOTAL
Planning/Design/Engineering	-	-	-	-	-	-	-
Land	-	-	-	-	-	-	-
Construction	-	-	-	-	-	-	-
Equipment	-	-	-	-	75,000	-	75,000
TOTAL	\$ -	\$ -	\$ -	\$ -	\$ 75,000	\$ -	\$ 75,000

REVENUE CLASSIFICATION	FY 18-19	FY 19-20	FY 20-21	FY 21-22	FY 22-23	FUTURE	TOTAL
Operating Revenues	-	-	-	-	75,000	-	75,000
Debt/Financing	-	-	-	-	-	-	-
Grant	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-
TOTAL	\$ -	\$ -	\$ -	\$ -	\$ 75,000	\$ -	\$ 75,000



Black Mountain Capacity-Related Water System CIP FY20 through FY30: Summary

Item	Water	FY20	FY21	FY22	FY23	FY24	FUTURE	Totals
W11	Montreat Road Water Line Replacement			\$ 500,000	\$ 500,000		\$ 750,000	\$ 1,000,000
W12	NC 9 Water Line Replacement						\$ 750,000	\$ 750,000
Total Water		\$ -	\$ -	\$ 500,000	\$ 500,000	\$ -		\$ 1,750,000
Town Capital Improvement Funding Sources								
	Fund Balance	FY20	FY21	FY22	FY23	FY24	FUTURE	Totals
	Debt Proceeds							\$ -
	Grant							\$ -
	Pay as you go							\$ -
	Other							\$ -
Total Funding Available		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total: Capacity-Related Assets								

Historical Cost Indexes

The table below lists both the RSMMeans® historical cost index based on Jan. 1, 1993 = 100 as well as the computed value of an index based on Jan. 1, 2019 costs. Since the Jan. 1, 2019 figure is estimated, space is left to write in the actual index figures as they become available through the quarterly *RSMMeans Construction Cost Indexes*.

To compute the actual index based on Jan. 1, 2019 = 100, divide the historical cost index for a particular year by the actual Jan. 1, 2019 construction cost index. Space has been left to advance the index figures as the year progresses.

Year	Historical Cost Index Jan. 1, 1993 = 100		Current Index Based on Jan. 1, 2019 = 100		Year	Historical Cost Index Jan. 1, 1993 = 100		Current Index Based on Jan. 1, 2019 = 100		Year	Historical Cost Index Jan. 1, 1993 = 100		Current Index Based on Jan. 1, 2019 = 100	
	Est.	Actual	Est.	Actual		Actual		Est.	Actual		Actual		Est.	Actual
Oct 2019*	227.3		100.0	100.0	July 2004	143.7		63.2		July 1986	84.2		37.1	
July 2019*					2003	132.0		58.1		1985	82.6		36.3	
April 2019*					2002	128.7		56.6		1984	82.0		36.1	
Jan 2019*					2001	125.1		55.0		1983	80.2		35.3	
July 2018		222.9	98.1		2000	120.9		53.2		1982	76.1		33.5	
2017		213.6	94.0		1999	117.6		51.7		1981	70.0		30.8	
2016		207.3	91.2		1998	115.1		50.6		1980	62.9		27.7	
2015		206.2	90.7		1997	112.8		49.6		1979	57.8		25.4	
2014		204.9	90.1		1996	110.2		48.5		1978	53.5		23.5	
2013		201.2	88.5		1995	107.6		47.3		1977	49.5		21.8	
2012		194.6	85.6		1994	104.4		45.9		1976	46.9		20.6	
2011		191.2	84.1		1993	101.7		44.7		1975	44.8		19.7	
2010		183.5	80.7		1992	99.4		43.7		1974	41.4		18.2	
2009		180.1	79.2		1991	96.8		42.6		1973	37.7		16.6	
2008		180.4	79.4		1990	94.3		41.5		1972	34.8		15.3	
2007		169.4	74.5		1989	92.1		40.5		1971	32.1		14.1	
2006		162.0	71.3		1988	89.9		39.5		1970	28.7		12.6	
2005		151.6	66.7		1987	87.7		38.6		1969	26.9		11.8	

Adjustments to Costs

The "Historical Cost Index" can be used to convert national average building costs at a particular time to the approximate building costs for some other time.

Example:

Estimate and compare construction costs for different years in the same city.

To estimate the national average construction cost of a building in 1970, knowing that it cost \$900,000 in 2019:

INDEX in 1970 = 28.7

INDEX in 2019 = 227.3

Time Adjustment Using the Historical Cost Indexes:

$$\frac{\text{Index for Year A}}{\text{Index for Year B}} \times \text{Cost in Year B} = \text{Cost in Year A}$$

$$\frac{\text{INDEX 1970}}{\text{INDEX 2019}} \times \text{Cost 2019} = \text{Cost 1970}$$

$$\frac{28.7}{227.3} \times \$900,000 = .126 \times \$900,000 = \$113,400$$

The construction cost of the building in 1970 was \$113,400.

Note: The city cost indexes for Canada can be used to convert U.S. national averages to local costs in Canadian dollars.

Example:

To estimate and compare the cost of a building in Toronto, ON in 2019 with the known cost of \$600,000 (US\$) in New York, NY in 2019:

INDEX Toronto = 110.1

INDEX New York = 132.1

$$\frac{\text{INDEX Toronto}}{\text{INDEX New York}} \times \text{Cost New York} = \text{Cost Toronto}$$

$$\frac{110.1}{132.1} \times \$600,000 = .834 \times \$600,000 = \$500,076$$

The construction cost of the building in Toronto is \$500,076 (CN\$).

*Historical Cost Index updates and other resources are provided on the following website:
<http://info.thegordiangroup.com/RSMMeans.html>

RESOLUTION #R-19-14

RESOLUTION TO ADOPT FEE UPDATES TO THE WATER RATE AND FEE SCHEDULE FOR THE TOWN OF BLACK MOUNTAIN, NORTH CAROLINA PURSUANT TO NC GS 162A

WHEREAS, the North Carolina General Assembly enacted House Bill 436 in July 2017, amending Chapter 162A of the North Carolina General Statutes by adding "Article 8 System Development Fees; and; and

WHEREAS, said statute authorizes the procedures and methods for the calculation and authorization of system development fees to be charged by local governments; and

WHEREAS, the statute authorizes a local government to adopt a system development fee calculated based upon a written analysis prepared by a financial professional or licensed professional engineer; and

WHEREAS, the Town of Black Mountain contracted with professional engineering firm McGill Associates, a qualified and licensed professional engineer and consulting firm to perform a system development fee analysis; and:

WHEREAS, McGill Associates prepared a computerized calculator which will determine System Development Fees for water based on the Cost per Gallon per Day Calculation table by using water and sewer demands as defined by NC Administrative Code 15A NCAC 18C .0409 and 15A NCAC 02T .0114 (attached Exhibit A)

WHEREAS, the Town of Black Mountain has taken all required steps pursuant to Article 8 of NCGS 162A, including posting of the fee analysis study on the Town's website for forty-five (45) days and solicited public comments regarding the same; conducted a public hearing on July 8, 2019 to receive additional public comment, which was properly noticed through advertisement; and adoption of this resolution to include the determination of the system development fees;

NOW, THEREFORE, BE IT RESOLVED by the Board of Aldermen of the Town of Black Mountain that:

1. The System Development Fee Study, prepared by McGill Associates is hereby adopted to establish Black Mountain's Water System Development Fee Rate and Schedule;
2. The calculated cost per gallon per day established per the System Development Fee Study is as follows:

WATER: \$8.87/GPD

3. The percentage of the above values to be charged in calculating the total System Development Fee per unit by utilization of the System Development Fee Calculator program shall be 60%. These fees shall apply equally to applicants for properties both inside and outside the Town of Black Mountain City Limits.

4. Fees are based, for Residential applicants, on number of bedrooms, and for Business applicants, on type and occupancy. (see attached exhibit A: NCAC tables) All applicants must inquire with Water Administration (water department) for fee determination.

5. The Town Council shall review and/or update the System Development Fee rate schedule no earlier than five (5) years and no later than ten (10) years from the date of this resolution, unless otherwise required by North Carolina law.

These Water System Development Fees shall be effective as of the date of this Resolution and all Water fee and rate schedules shall be included and published in the annual budget for the Town of Black Mountain, North Carolina.

I move the adoption of the foregoing resolution:

Alderman

READ, APPROVED AND ADOPTED, by a vote of ____ to ____ this the 8th day of July, 2019.

ATTEST:

Don Collins, Mayor

Angela Reece, Town Clerk

Josh Harrold, Town Manager

15A NCAC 18C .0409 SERVICE CONNECTIONS

(a) Local Water Supply Plan. Units of local government which are operating under a local water supply plan in accordance with G.S. 143-355(l) shall not be limited in the number of service connections.

(b) No local water supply plan. A public water system which does not have a local water supply plan as stated in Paragraph (a) shall limit its number of service connections as follows:

- (1) A public water system shall meet the daily flow requirements specified in Table 1:

Table 1: Daily Flow Requirements

Type of Service Connection	Daily Flow for Design
Residential	400 gallon/connection
Mobile Home Parks	250 gallon/connection
Campgrounds and Travel Trailer Parks	100 gallon/space
Marina	10 gallon/boat slip
Marina with bathhouse	30 gallon/boat slip
Rest Homes and Nursing Homes	
with laundry	120 gallon/bed
without laundry	60 gallon/bed
Schools	15 gallon/student
Day Care Facilities	15 gallon/student
Construction, work, or summer camps	60 gallon/person
Business, office, factory (exclusive of industrial use)	
without showers	25 gallon/person/shift
with showers	35 gallon/person/shift
Hospitals	300 gallon/bed

or;

- (2) A public water system serving different types of service connections shall meet the maximum daily demand calculated as follows:
- (A) Where records of the previous year are available that reflect daily usage, the average of the two highest consecutive days of record of the water treated shall be the value used to determine if there is capacity to serve additional service connections (unusual events such as massive line breaks or line flushings shall not be considered).
- (B) Where complete daily records of water treated are not available, the public water system shall multiply the daily average use based on the amount of water treated during the previous year of record by the appropriate factor to determine maximum daily demand, as follows:
- (i) A system serving a population of 10,000 or less shall multiply the daily average use by 2.5; or
- (ii) A system serving a population greater than 10,000 shall multiply the daily average use by 2.0.

History Note: Authority G.S. 130A-315; 103A-317; P.L. 93-523;
Eff. July 1, 1994.

15A NCAC 02T .0114 WASTEWATER DESIGN FLOW RATES

(a) This Rule shall be used to determine wastewater flow rates for all systems covered by this Subchapter unless alternate criteria are provided by a program specific rule and for flow used for the purposes of 15A NCAC 02H .0105. These are minimum design daily flow rates for normal use and occupancy situations. Higher flow rates may be required where usage and occupancy are atypical, including, those in Paragraph (e) of this Rule. Wastewater flow calculations must take hours of operation and anticipated maximum occupancies/usage into account when calculating peak flows for design.

(b) In determining the volume of sewage from dwelling units, the flow rate shall be 120 gallons per day per bedroom. The minimum volume of sewage from each dwelling unit shall be 240 gallons per day and each additional bedroom above two bedrooms shall increase the volume by 120 gallons per day. Each bedroom or any other room or addition that can reasonably be expected to function as a bedroom shall be considered a bedroom for design purposes. When the occupancy of a dwelling unit exceeds two persons per bedroom, the volume of sewage shall be determined by the maximum occupancy at a rate of 60 gallons per person per day.

(c) The following table shall be used to determine the minimum allowable design daily flow of wastewater facilities. Design flow rates for establishments not identified below shall be determined using available flow data, water-using fixtures, occupancy or operation patterns, and other measured data.

Type of Establishments	Daily Flow For Design
Barber and beauty shops	
Barber Shops	50 gal/chair
Beauty Shops	125 gal/booth or bowl
Businesses, offices and factories	
General business and office facilities	25 gal/employee/shift
Factories, excluding industrial waste	25 gal/employee/shift
Factories or businesses with showers or food preparation	35 gal/employee/shift
Warehouse	100 gal/loading bay
Warehouse – self storage (not including caretaker residence)	1 gal/unit
Churches	
Churches without kitchens, day care or camps	3 gal/seat
Churches with kitchen	5 gal/seat
Churches providing day care or camps	25 gal/person (child & employee)
Fire, rescue and emergency response facilities	
Fire or rescue stations without on site staff	25 gal/person
Fire or rescue stations with on-site staff	50 gal/person/shift
Food and drink facilities	
Banquet, dining hall	30 gal/seat
Bars, cocktail lounges	20 gal/seat
Caterers	50 gal/100 sq ft floor space
Restaurant, full Service	40 gal/seat
Restaurant, single service articles	20 gal/seat
Restaurant, drive-in	50 gal/car space
Restaurant, carry out only	50 gal/100 sq ft floor space
Institutions, dining halls	5 gal/meal
Deli	40 gal/100 sq ft floor space
Bakery	10 gal/100 sq ft floor space
Meat department, butcher shop or fish market	75 gal/100 sq ft floor space
Specialty food stand or kiosk	50 gal/100 sq ft floor space
Hotels and Motels	
Hotels, motels and bed & breakfast facilities, without in-room cooking facilities	120 gal/room
Hotels and motels, with in-room cooking facilities	175 gal/room
Resort hotels	200 gal/room
Cottages, cabins	200 gal/unit
Self service laundry facilities	500 gal/machine
Medical, dental, veterinary facilities	
Medical or dental offices	250 gal/practitioner/shift

Veterinary offices (not including boarding)	250 gal/practitioner/shift
Veterinary hospitals, kennels, animal boarding facilities	20 gal/pen, cage, kennel or stall
Hospitals, medical	300 gal/bed
Hospitals, mental	150 gal/bed
Convalescent, nursing, rest homes without laundry facilities	60 gal/bed
Convalescent, nursing, rest homes with laundry facilities	120 gal/bed
Residential care facilities	60 gal/person
Parks, recreation, camp grounds, R-V parks and other outdoor activity facilities	
Campgrounds with comfort station, without water or sewer hookups	75 gal/campsite
Campgrounds with water and sewer hookups	100 gal/campsite
Campground dump station facility	50 gal/space
Construction, hunting or work camps with flush toilets	60 gal/person
Construction, hunting or work camps with chemical or portable toilets	40 gal/person
Parks with restroom facilities	250 gal/plumbing fixture
Summer camps without food preparation or laundry facilities	30 gal/person
Summer camps with food preparation and laundry facilities	60 gal/person
Swimming pools, bathhouses and spas	10 gal/person
Public access restrooms	325 gal/plumbing fixture
Schools, preschools and day care	
Day care and preschool facilities	25 gal/person (child & employee)
Schools with cafeteria, gym and showers	15 gal/student
Schools with cafeteria	12 gal/student
Schools without cafeteria, gym or showers	10 gal/student
Boarding schools	60 gal/person (student & employee)
Service stations, car wash facilities	
Service stations, gas stations	250 gal/plumbing fixture
Car wash facilities (if recycling water see Rule .0235)	1200 gal/bay
Sports centers	
Bowling center	50 gal/lane
Fitness, exercise, karate or dance center	50 gal/100 sq ft
Tennis, racquet ball	50 gal/court
Gymnasium	50 gal/100 sq ft
Golf course with only minimal food service	250 gal/plumbing fixture
Country clubs	60 gal/member or patron
Mini golf, putt-putt	250 gal/plumbing fixture
Go-kart, motocross	250 gal/plumbing fixture
Batting cages, driving ranges	250 gal/plumbing fixture
Marinas without bathhouse	10 gal/slip
Marinas with bathhouse	30 gal/slip
Video game arcades, pool halls	250 gal/plumbing fixture
Stadiums, auditoriums, theaters, community centers	5 gal/seat
Stores, shopping centers, malls and flea markets	
Auto, boat, recreational vehicle dealerships/showrooms with restrooms	125 gal/plumbing fixture
Convenience stores, with food preparation	60 gal/100 sq ft
Convenience stores, without food preparation	250 gal/plumbing fixture
Flea markets	30 gal/stall
Shopping centers and malls with food service	130 gal/1000 sq ft
Stores and shopping centers without food service	100 gal/1000 sq ft
Transportation terminals – air, bus, train, ferry, port and dock	5 gal/passenger

(d) Design daily flow rates for proposed non-residential developments where the types of use and occupancy are not known shall be designed for a minimum of 880 gallons per acre or the applicant shall specify an anticipated flow based upon anticipated or potential uses.

(e) Conditions applicable to the use of the above design daily flow rates:

- (1) For restaurants, convenience stores, service stations and public access restroom facilities, higher design daily flow rates shall be required based on higher expected usage where use is increased because of its proximity to highways, malls, beaches, or other similar high use areas.
- (2) Residential property on barrier islands and similar communities located south or east of the Atlantic Intracoastal Waterway used as vacation rental as defined in G.S. 42A-4 shall use 120 gallons per day per habitable room. Habitable room shall mean a room or enclosed floor space used or intended to be used for living or sleeping, excluding kitchens and dining areas, bathrooms, shower rooms, water closet compartments, laundries, pantries, foyers, connecting corridors, closets, and storage spaces.

(f) An adjusted daily sewage flow design rate shall be granted for permitted but not yet tributary connections and future connections tributary to the system upon showing that a sewage system is adequate to meet actual daily wastewater flows from a facility included in Paragraph (b) or (c) of this Rule without causing flow violations at the receiving wastewater treatment plant or capacity related sanitary sewer overflows within the collection system as follows:

- (1) Documented, representative data from that facility or a comparable facility shall be submitted by an authorized signing official in accordance with Rule .0106 of this Section to the Division as follows for all flow reduction request:
 - (A) Dates of flow meter calibrations during the time frame evaluated and indication if any adjustments were necessary.
 - (B) A breakdown of the type of connections (e.g. two bedroom units, three bedroom units) and number of customers for each month of submitted data as applicable. Identification of any non-residential connections including subdivision clubhouses/pools, restaurants, schools, churches and businesses. For each non-residential connection, information as identified in Paragraph (c) of this Rule (e.g. 200 seat church, 40 seat restaurant, 35 person pool bathhouse).
 - (C) Owner of the collection system.
 - (D) Age of the collection system.
 - (E) Analysis of inflow and infiltration within the collection system or receiving treatment plant, as applicable.
 - (F) Where a dedicated wastewater treatment plant serves the specific area and is representative of the residential wastewater usage, at least the 12 most recent consecutive monthly average wastewater flow readings and the daily total wastewater flow readings for the highest average wastewater flow month per customers as reported to the Division.
 - (G) Where daily data from a wastewater treatment plant cannot be utilized or is not representative of the project area: at least 12 months worth of monthly average wastewater flows from the receiving treatment plant shall be evaluated to determine the peak sewage month. Daily wastewater flows shall then be taken from a flow meter installed at the most downstream point of the collection area for the peak month selected that is representative of the project area. Justification for the selected placement of the flow meter shall also be provided.
 - (H) An estimated minimum design daily sewage flow rate shall be taken by calculating the numerical average of the top three daily readings for the highest average flow month. The calculations shall also account for seasonal variations, excessive inflow and infiltration, age and suspected meter reading/recording errors.
- (2) The Division shall evaluate all data submitted but shall also consider other factors in granting, with or without adjustment, or denying a flow reduction request including: applicable weather conditions during the data period (i.e. rainy or drought), other historical monitoring data for the particular facility or other similar facilities available to the Division, the general accuracy of monitoring reports and flow meter readings, and facility usage (i.e., resort area).
- (3) Flow increases shall be required if the calculations in Subparagraph (f)(1) of this Rule yield design flows higher than that specified in Paragraphs (b) or (c) of this Rule.
- (4) The applicant/owner shall retain the letter of any approved adjusted daily design flow rate for the life of the facility and shall transfer such letter to any new system owner.

History Note: Authority G.S. 143-215.1; 143-215.3(a)(1);
Eff. September 1, 2006.

Minutes Follow
this Section



TOWN OF BLACK MOUNTAIN BOARD OF ALDERMEN
AGENDA WORKSHOP MEETING MINUTES
June 6, 2019

THE BLACK MOUNTAIN BOARD OF ALDERMEN held an agenda workshop on Thursday, June 5, 2019 at 5:00 p.m. in the board room of Town Hall, 160 Midland Avenue, Black Mountain, NC. The purpose of the meeting was to review the agenda for the regular monthly meeting scheduled for Monday, June 10, 2019 at 6:00 p.m.

1. CALL TO ORDER

Mayor Don Collins called the meeting to order at 5:00 p.m. with the following members present:

Mayor Don Collins
Vice Mayor Maggie Tuttle
Alderman Larry B. Harris
Alderman Carlos Showers
Alderman Ryan Stone
Alderman Tim Raines

The following staff members were present:

Josh Harrold, Town Manager
Dean Luebke, Assistant Town Manager
Angela L. Reece, Town Clerk
Ron Sneed, Town Attorney

Shawn Freeman, Police Chief
Scottie Harris, Fire Chief
Jessica Trotman, Planning Director
Joshua Henderson, Recreation Director
Jamey Matthews, Public Works Director

The Board reviewed the items that were proposed for the June 10, 2019 regular session meeting and made no changes.

Mayor Don Collins opened the meeting. Town Manager, Josh Harrold presented the proposed agenda to the Board of Aldermen. Minister Jack Taylor of Mountain View Church, Black Mountain will give the invocation. Manager Harrold stated a proclamation honoring Bob McMurray will be presented at the regular meeting.

Town Manager, Josh Harrold discussed **Item 4A**, System Development Fee Study, stating this study is required by NC General Statutes for municipalities who will issue system development fees (old terminology - “*impact fees*”). Manager Harrold stated Dale Schepers, Senior Consultant with McGill Associates will present the report to the Board at their regular meeting. The following information and notice was posted on the Town’s website in accordance with NC House Bill 436 on May 22, 2019.

Black Mountain Board of Aldermen
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Purpose and Statement

The North Carolina General Assembly passed [House Bill 436](#) in July 2017, amending Chapter 162A of the General Statutes by adding “Article 8, System Development Fees.” This amendment was enacted as “An Act to Provide for Uniform Authority to Implement System Development Fees for Public Water and Sewer Systems in North Carolina and to clarify the Applicable Statute of Limitations” which requires compliance with designated calculation methodology. Through House Bill 436 (HB 436), the General Assembly of North Carolina established a uniform approach and associated methodology required for local governmental units to calculate and implement System Development Fees (SDF) for public water and sewer systems.

What are System Development Fees?

System Development Fees are defined as a charge imposed on each new customer or development that generally offsets the incremental cost of replacing existing and/or constructing new capital assets to provide capacity that will continue to meet the demands placed on the system by each new customer or development. Since water system capacity must, without exception, exceed customer demands, the major infrastructure components providing this capacity, such as water treatment plants, reservoirs, wells, pump stations, etc., must be planned and constructed well in advance and in large enough increments to keep pace with anticipated demand on the available system capacity.

More Information

The Town of Black Mountain retained McGill Associates (McGill) to review and make recommendations for revisions as necessary to water system development fees (SDFs) to conform with HB436. McGill Associates is a qualified in engineering disciplines and financial analysis and has the expertise and experience to determine system development fees. McGill has prepared a report of their findings and are encouraging public comment.

Public Presentation & Hearing Notice

McGill Associates will **present the System Development Fee Study Findings** to the Town of Black Mountain Board of Aldermen and Citizens at the regularly scheduled Board of Aldermen meeting on **Monday, June 10, 2019 at 6:00 p.m.** in the board room of Town Hall located at 160 Midland Ave. Black Mountain NC 28711.

The Town of Black Mountain will hold a **public hearing** on the System Development Fee Study during their regularly scheduled meeting on **Monday, July 8, 2019 at 6:00 p.m.** in the board room of Town Hall located at 160 Midland Ave. Black Mountain NC 28711.

Public Comment

Public comments regarding system development fees are encouraged and may be submitted via email to comments-sffs@townofblackmountain.org . There will also be a comment period during the public hearing in July on this matter. A copy of the System Development Fee Study is available online at www.townofblackmountain.org.

Town Manager, Josh Harrold discussed **Item 5B**, Budget Amendment for Fund Transfer to Fiscal Year 2020 stating this amendment is necessary to move budgeted funds to the next fiscal year to continue installation of automatic water meters.

Black Mountain Board of Aldermen
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Town Manager, Josh Harrold discussed **Item 7D** Town of Black Mountain Procurement Policy stating this policy mainly reflects current processes but places it within a policy.

Attorney Ron Sneed discussed **Item 5E**, Hemphill Property Resolution recalling previous direction given by the Board of Aldermen regarding rejection of a small portion of the Hemphill property in lieu of a secondary park access point as well as a future greenway right of way access. “The Board of Aldermen of the Town of Black Mountain does reject the offer of that portion of the Hemphill property described on the Buncombe County Tax Maps as PIN #0619-55-7327-00000, and that strip of land twenty feet in width bounded on its southern edge by the northern boundary of that property of Wm. Michael Begley shown on the Buncombe County Tax Maps as PIN #0619-65-0344-00000 if the following conditions are met.”

Attorney Ron Sneed discussed **Item 8A**, Offer received to purchase Town owned property located at 2992 U.S. Hwy 70, Black Mountain NC (Former Public Works Building) giving guidance per NC G.S. 160A-265. Article 12, Sale and Disposition of Property. Board members discussed interest in pursuing the sale of this property but agreed having an appraisal beforehand would inform their decisions moving forward. The Board directed staff to obtain an appraisal of the property.

Town Manager, Josh Harrold discussed **Item 8B**, Boards & Commissions Vacancies. Mayor Don Collins stated the preference of the board is to allow members to sit two terms then sit out a year before applying again in order to promote diversity and inclusion on all boards and commissions.

Town Manager, Josh Harrold discussed **Item 9C**, Text Amendment to Building Permit Ordinance stating staff would like to add a sentence to the draft ordinance indicating “the application shall also include any information required by statute”. Attorney Sneed stated the building code will change over time and said the language allows the ordinance to remain current.

Mayor Collins clarified term limits for board and commission members is mandated in their policy manual which is available on the Town’s website at www.townofblackmountain.org along with membership rosters and dates of service.

Manger Harrold stated he has met with John DeWitt (Children and Friends Inc.) who is requesting consideration of a lease of property on White Pine Drive in anticipation of receiving a construction loan for a new daycare facility. Alderman Larry B. Harris inquired regarding a past MOU (memorandum of understanding) in support of Children and Friends. Attorney Sneed stated if the Board was favorable to the idea of leasing property to the daycare he would need direction to prepare a lease. Attorney Sneed stated any lease would be treated as a sale of property if the term is more than 10 years. Alderman Carlos Showers clarified that funding of the facility is contingent upon a lease for the property. The Board agreed to visit this issue at their regularly scheduled July meeting.

Alderman Larry B. Harris moved to enter into closed session to consult with the town attorney, as permitted in NCGS § 143.318.11(a)(3) at 5:15 p.m. The motion was unanimously approved by a vote of 5-0.

Alderman Larry B. Harris moved to return to open session at 5:30 p.m. The motion was unanimously approved by a vote of 5-0.

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Alderman Larry B. Harris moved to enter into closed session to discuss personnel matters, as permitted in NCGS § 143.318.11(a)(6) at 5:15 p.m. The motion was unanimously approved by a vote of 5-0.

Alderman Larry B. Harris moved to return to open session at 5:30 p.m. The motion was unanimously approved by a vote of 5-0.

There was no further discussion.

There being no further discussion, on a motion by Alderman Larry B. Harris with a vote of 5-0 Mayor Don Collins adjourned the meeting at 5:30 p.m.

ATTEST:

Angela L. Reece, Town Clerk

Don Collins, Mayor



TOWN OF BLACK MOUNTAIN

Town Hall, 160 Midland Avenue, Black Mountain, NC 28711

Date: **June 10, 2019** Time: **6:00 p.m.** **Regular Session Minutes**

*The agenda and all related documentation may be accessed electronically via Wi-Fi in Town Hall. From your laptop or smartphone, access the Town's website at www.townofblackmountain.org. Click on **Town Government** and select **Mayor and Board of Alderman** to download materials for all Town board meetings.*

 **Conserve resources; print only when necessary.**

The Town of Black Mountain is committed to providing accessible facilities, programs and services for all people in compliance with the American with Disabilities Act (ADA). Hearing assistive devices are available at the door.

*Should you need other assistance or accommodation for this meeting, please contact
Town Clerk Angela Reece at 419-9310, or by email at townclerk@townofblackmountain.org
(828) 419-9300 / TDD (800) 735-2962*

1. CALL TO ORDER

Mayor Don Collins called the meeting to order at 6:00 p.m. with the following members present:

Mayor Don Collins
Vice Mayor Maggie Tuttle
Alderman Larry B. Harris
Alderman Ryan Stone - absent
Alderman Carlos Showers
Alderman Tim Raines

The following staff members were present:

Josh Harrold, Town Manager
Dean Luebbe, Assistant Town Manager/Finance Director
Angela Reece, Town Clerk
Ron Sneed, Town Attorney
Shawn Freeman, Police Chief
Scottie Harris, Fire Chief

Mayor Don Collins welcomed everyone and led the Pledge of Allegiance. Minister Jack Taylor of Mountain View Church, Black Mountain gave the invocation.

Mayor Collins thanked everyone in attendance and expressed appreciation to all those who were attending for the first time and also the viewing audience. The re-broadcast of each regular meeting is shown throughout the month on Charter Cable's Buncombe County Channel 192 at 8:00 p.m. on Sundays. Meetings initially air the same week in which they occur and are shown weekly until the next regularly scheduled meeting. Citizens may also go to the Town website www.townofblackmountain.org at any time and view the most recent regular meeting of the Board.

Mayor Collins stated he received a letter from the NC Department of Natural and Cultural Resources announcing the approval of a historical marker honoring Rafael Guastavino 1842-1908 (Builder who developed tile construction method widely used in vaults and domes.

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Designed vaulted ceilings at Biltmore House in 1894. Lived 1 mile SE). The marker will be erected on Hwy 9 near the SW side of the interchange with I-40. Mayor Collins stated the Swannanoa Valley Museum is planning a dedication, tentatively set for December 7, 2019 and said a webpage about the markers will be mounted soon at www.ncmarkers.com.

2. PROCLAMATION AND AWARD RECOGNITION

A. Proclamation Honoring Bob McMurray

Alderman Carlos Showers presented the proclamation honoring retiring Chamber of Commerce Director, Bob McMurray for his years of service to the Town and Swannanoa Valley. The Board of Aldermen extend their thanks and appreciation to Director McMurray and bid him well wishes in his retirement.

3. CITIZEN COMMENTS

*Individuals wishing to address the Board are asked to sign in at the entrance to the board room, indicating the topic(s) or agenda item(s) you wish to discuss, so that the chair may group speakers according to topic. The chair will recognize individuals requesting to address the Board. **Comments by any one speaker shall be limited to three (3) minutes.** If the topic you wish to discuss pertains to a **public hearing** scheduled for this meeting, please reserve your comment for the applicable public hearing.*

Sheridan Hill of Black Mountain Tennis Association addressed the Board of Aldermen as a member of the Urban Forestry Commission stating the Commission has been participating with local entities to develop an urban forestry management plan.

Marilyn Sobanski of Black Mountain addressed the Board of Aldermen regarding decisions to protect natural resources for future generations.

Mary Standeart of Montreat addressed the Board of Aldermen regarding even year elections. Ms. Standeart stated she feels citizens of Montreat and Black Mountain are being disenfranchised by the passage of the even year elections.

4. COMMUNICATIONS FROM BOARDS, COMMISSIONS & AGENCIES

A. System Development Fee Study-McGill Associates, P.A.- Dale Schepers, Senior Consultant

Dale Schepers presented the System Development Fee Study to the Board of Aldermen. This study is made part of and included in these minutes and may be viewed and downloaded in its entirety at www.townofblackmountain.org. Mr. Shepers recalled The North Carolina General Assembly passed [House Bill 436](#) in July 2017, amending Chapter 162A of the General Statutes by adding “Article 8, System Development Fees.” This amendment was enacted as “An Act to Provide for Uniform Authority to Implement System Development Fees for Public Water and Sewer Systems in North Carolina and to clarify the Applicable Statute of Limitations” which requires compliance with designated calculation methodology.

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Through House Bill 436 (HB 436), the General Assembly of North Carolina established a uniform approach and associated methodology required for local governmental units to calculate and implement System Development Fees (SDF) for public water and sewer systems.

System Development Fees are defined as a charge imposed on each new customer or development that generally offsets the incremental cost of replacing existing and/or constructing new capital assets to provide capacity that will continue to meet the demands placed on the system by each new customer or development. Since water system capacity must, without exception, exceed customer demands, the major infrastructure components providing this capacity, such as water treatment plants, reservoirs, wells, pump stations, etc., must be planned and constructed well in advance and in large enough increments to keep pace with anticipated demand on the available system capacity.

Public comments regarding system development fees are encouraged and may be submitted via email to comments-sffs@townofblackmountain.org. There will also be a comment period during the public hearing on Monday, July 8, 2019 at 6:00 p.m. at 160 Midland Ave. Black Mountain on this matter.

B. Capital Projects Fund Update – Dean Luebbe, Assistant Town Manager/Finance Director

Dean Luebbe presented the Capital Projects Fund Update to the Board of Aldermen which is made part of and included in these minutes. Mr. Luebbe reminded the public that a capital project fund accounts for expenditures spanning over multiple budget years. Mr. Luebbe stated the Town has five active capital projects including watershed restoration, River Walk greenway phase II, Tomahawk Stream Stabilization, Veterans Park, and Commerce Park. Mr. Luebbe discussed the projects with the Board. Mr. Luebbe stated the River Walk Greenway project is valued over \$5M and said the Town will have contributed approximately \$1M which include contributions from the County at its conclusion.

5. CONSENT AGENDA

All items on the consent agenda are considered routine, to be enacted by one motion without discussion. If a member of the governing body requests discussion of an item, the item will be removed from the consent agenda and considered separately.

Town Manager, Josh Harrold presented the consent agenda to the Board of Aldermen.

A. Adoption of Minutes

Motion: *To adopt the minutes of May 9, 2019 (Agenda Session), May 13, 2019 (Regular Session), May 9, 2019 (Special Call), May 20, 2019 (Budget Workshop)*

B. Budget Amendment for Fund Transfer to FY20

#FY2019-20

Motion: *To approve Budget Amendment #FY2019-20 as submitted, increasing the expense accounts, 3091-8100-542 (Transfer to Water Capital Reserve Fund) by \$125,000, and to decrease the expense account 3091-8100-730 (Capital Outlay) by \$125,000, and increasing the expense account 1010-5300-580 (Transfer to*

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General Capital Reserve Fund) by \$100,000 and to decrease the expense account 1010-5300-730 (Capital Outlay) by \$100,000.

Manager Harrold stated this amendment is necessary to reflect a transfer to Fiscal Year 20 budget for the capital reserve fund to purchase automatic water meters. He stated the total fund will include current budgeted funds in the amount of \$450,000 to purchase automatic water meters. Manager Harrold stated the same action is necessary to reflect a transfer for capital outlay for the Fire Department which includes \$395,000 toward the purchase of a fire truck and \$120,000 for renovations at their department of the restrooms and kitchen area.

Vice Mayor Maggie Tuttle moved to approve consent items A-B as presented.

The motion was approved by a vote of 4-0.

6. CITIZEN COMMENTS

The chair will recognize individuals requesting to address the Board regarding the specific New Business or Unfinished Business items below. Comments by any one speaker shall be limited to three (3) minutes.

If the topic you wish to discuss pertains to a public hearing scheduled for this meeting, please reserve your comment for the applicable public hearing.

There were no citizen comments.

7. UNFINISHED BUSINESS

A. Montessori Lease Amendment

Manager Harrold stated the current lease is a five year lease with two years remaining and said this amendment is to allow the use of additional space with no additional fees. Alderman Larry B. Harris reminded everyone there is an escape clause in the lease which allows the Town to retake the property with one year notice in the event it is needed.

Alderman Larry B. Harris moved to approve the Montessori School Lease amendment as presented. The motion was approved by a vote of 4-0.

B. Art in the Afternoon Lease

Manager Harrold stated this program is also located in the Carver Center and is utilizing approximately 2,577 feet of space known as the “annex” portion of the building. Manager Harrold stated the lease amount is \$1,000 per month beginning June 1, 2019. Manager Harrold stated the Town Attorney drafted the lease and the term is for two months and can be revisited in August 2019.

Vice Mayor Maggie Tuttle move to approve the Art in the Afternoon Lease as presented. The motion was approved by a vote of 4-0.

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C. Resolution Authorizing the Town of Black Mountain to Engage in Electronic Payments
as Defined by NC G.S. 159-28 or NC G.S. 115C-441 **#R-19-10**

Manager Harrold stated this resolution authorizes the Town to engage in electronic payments and sets forth provisions to implement a policy. Alderman Larry B. Harris reminded the public this item and the following policy is a recommendation from the auditors and will provide guidelines for staff when procuring items.

Alderman Larry B. Harris moved to approve Resolution #R-19-10 authorizing the Town of Black Mountain to engage in electronic payments as defined by NC G.S. 159-28 or NC G.S. 115C-441 as presented. The motion was approved by a vote of 4-0.

D. Town of Black Mountain Procurement Policy

Manager Harrold stated this policy sets forth guidelines for purchasing card usage and procurement of goods and services. Manager Harrold stated the policy also sets forth guidelines and dollar thresholds for contracts to be brought before the Board of Aldermen for approval. Manager Harrold stated if a contract is budgeted then the policy will allow the Manager to execute the contract as long as the Town Attorney has also reviewed it. Manager Harrold reminded the Board they may not see every single contract as long as it has been budgeted for and previously discussed with the Board. Manager Harrold stated there is a more in depth travel policy included within the manual as well.

Alderman Carlos Showers moved to approve the Town of Black Mountain Procurement Policy as presented. The motion was approved by a vote of 4-0.

E. Hemphill Property Resolution **#R-19-11**

Manager Harrold stated this resolution includes language as requested by the Board of Aldermen with regards to a greenway easement through the Begley property in exchange for not accepting a small portion of the Hemphill property as discussed at the agenda meeting. Alderman Larry B. Harris stated this resolution allows the promotion and development of the Hemphill property as a public park through attaining a future greenway easement and secondary access. Mayor Collins stated this brings the Town one step closer to obtaining a very large green space for a park.

Alderman Larry B. Harris moved to approve Resolution #R-19-11 as presented. The motion was approved by a vote of 4-0.

F. Mayor & Board of Aldermen Compensation Ordinance **#O-19-14**

Manager Harrold stated staff has discussed this with the Town Attorney and attorneys at the UNC School of Government. Manager Harrold stated NC General Statute 160A-3 and 160A-64 allows the Town to amend the compensation ordinance superseding the Town Charter

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provisions. The proposed ordinance restores compensation at the same rate as budgeted in the year 2017.

Vice Mayor Maggie Tuttle moved to approve Ordinance #O-19-14 to reinstate compensation for the Board of Aldermen and Mayor as previously existed prior to the passage of O-17-11. The motion was approved by a vote of 4-0.

8. NEW BUSINESS

- A.** Offer received to purchase Town owned property located at 2992 U.S. Hwy 70, Black Mountain NC (Former Public Works Building)

Manager Harrold stated the town has received an offer to purchase Town owned property located at 2992 U.S. Hwy 70, Black Mountain NC (Former Public Works Building) and recalled discussion among Board members at the agenda meeting regarding their preference to entertain the offer pursuant to NC G.S. 160A-265. Article 12, Sale and Disposition of Property. The Board of Aldermen directed to pursue an appraisal of the property and return this information for discussion at a regularly scheduled meeting.

Alderman Carlos Showers stated the Board has received an email regarding the property being used as a community center and said his concern is the parking and proximity to the highway and said he feels it is not a secure area for youth to be in.

- B.** Appointment to fill vacancies on Town Boards and Commissions

- 1. ABC Board – (1) vacancy/3-yr term ending June 30, 2022**

Alderman Carlos Showers moved to appoint Roger Hibbard to fill a 3 year term ending June 30, 2022. The motion was approved by a vote of 4-0.

Alderman Larry B. Harris moved to appoint Roger Hibbard as Chair of the ABC Board pursuant to NC G.S. 18B-700(a) . The motion was approved by a vote of 4-0.

- 2. Greenways Commission – (2) vacancies/ 3-yr terms ending June 30, 2022
AND (2) unexpired term ending June 30, 2020**

Vice Mayor Maggie Tuttle moved to appoint Ann Lutz to fill a 3 year term ending June 30, 2022. The motion was approved by a vote of 4-0.

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Alderman Carlos Showers moved to appoint Elizabeth Williams to fill a 3 year term ending June 30, 2022. The motion was approved by a vote of 4-0.

***There will be two unexpired term vacancies left open pending new applications.**

3. **Historic Preservation Commission** – (2) vacancy/ 3-yr terms ending June 30, 2022
AND (1) unexpired term ending June 30, 2020

Alderman Carlos Showers moved to appoint Susan Leive to fill a 3 year term ending June 30, 2022. The motion was approved by a vote of 4-0.

Vice Mayor Maggie Tuttle moved to appoint Amanda Vollrath to fill a 3 year term ending June 30, 2022. The motion was approved by a vote of 4-0.

***There will be 1 unexpired term vacancy left open pending new applications.**

4. **Planning Board** – (3) vacancy/ 3-yr term ending June 30, 2022

Alderman Tim Raines moved to appoint Chris Collins to fill a 3 year term ending June 30, 2022. The motion was approved by a vote of 4-0.

Vice Mayor Maggie Tuttle moved to appoint Lauronda Teeple to fill a 3 year term ending June 30, 2022. The motion was approved by a vote of 4-0.

***There will be one full term vacancy left open pending new applications.**

5. **Recreation Commission** – (3) vacancies/ 3-yr terms ending June 30, 2022

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AND (1) unexpired term ending June 30, 2021

Vice Mayor Maggie Tuttle moved to appoint Lee Reading to fill a 3 year term ending June 30, 2022. The motion was approved by a vote of 4-0.

Alderman Carlos Showers moved to appoint Michael Nerder to fill a 3 year term ending June 30, 2022. The motion was approved by a vote of 4-0.

Alderman Tim Raines moved to appoint Steven Giles to fill a 3 year term ending June 30, 2022. The motion was approved by a vote of 4-0.

Alderman Larry B. Harris moved to appoint Marcus Durate to fill to fill an unexpired term ending June 30, 2021. The motion was approved by a vote of 4-0.

6. Urban Forestry Commission– (1) vacancies/ 3-yr term ending June 30, 2022

AND (1) unexpired term ending June 30, 2020

AND (1) unexpired term ending June 30, 2021

Mayor Collins advised the Board of Aldermen of one Candidate, Emily Sampson, becoming a possible part-time employee in July and reminded the Board that the personnel policy prohibits employees from serving on advisory boards and commissions. Alderman Larry B. Harris directed staff to inform Ms. Sampson of this requirement upon her employment with the Town and to ask for a resignation.

Alderman Larry B. Harris moved to appoint Emily Sampson to fill an unexpired term ending June 30, 2020. The motion was approved by a vote of 4-0.

Alderman Carlos Showers moved to appoint Rhea Bockhorst to fill a 3 year term ending June 30, 2022. The motion was approved by a vote of 4-0.

Alderman Carlos Showers moved to appoint Scott Abila to fill an unexpired term ending June 30, 2021. The motion was approved by a vote of 4-0.

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7. **Zoning Board of Adjustment** – (3) vacancies/ 3-yr term ending June 30, 2022
AND 3rd Alternate term

Alderman Larry B. Harris moved to appoint Robert Osmundsen to fill a 3 year term ending June 30, 2022. The motion was approved by a vote of 4-0.

Alderman Larry B. Harris moved to appoint John DeWitt to fill a 3 year term ending June 30, 2022. The motion was approved by a vote of 4-0.

Alderman Larry B. Harris moved to appoint Ted Mattson to fill a 3 year term ending June 30, 2022. The motion was approved by a vote of 4-0.

Per policy, current alternates shall move forward as follows:

1st Alternate Janet McKimpson

2nd Alternate Charlotte McRaine

***There will be a 3rd Alterate vacancy left open pending new applications.**

9. PUBLIC HEARING

The chair will recognize individuals requesting to address the Board regarding the specific topic of the public hearing. Public hearing comments by any on speaker shall be limited to ten (10) minutes. The Mayor reserves the right to alter time limits and other rules of procedure at the beginning of each Public Hearing.

A. Public Hearing to Close an Unopened, Platted Street known as Campbell Street #R-19-12

*Alderman Larry B. Harris moved to open the public hearing for Resolution #R-19-12 to Close Unopened, Platted Street known as Campbell Street.
The motion was approved by a vote of 4-0.*

Planning Director Jessica Trotman stated residents petitioned and were successful in closing the opposite end of this street in 1986 and said residents are petitioning again to close another portion. Director Trotman stated there are no planned utilities located there and said this portion is approximately 120 feet long and is wooded.

There were no citizen comments.

*Vice Mayor Maggie Tuttle moved to close the public hearing.
The motion was approved by a vote of 4-0*

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Alderman Larry B. Harris moved to approve Resolution #R-19-12 for the street closure for Campbell Street.

The motion was approved by a vote of 4-0

B. Public Hearing to Close an Unopened, Platted Street known as Campbell Street #R-19-13

Alderman Larry B. Harris moved to open the public hearing.

The motion was approved by a vote of 4-0.

Planning Director Jessica Trotman stated the Planning Board has petitioned for the middle of this section of street to be closed. Alderman Larry B. Harris reminded the public that the Board of Aldermen generally follow the Planning Board's request with street closures.

There were no citizen comments.

Vice Mayor Maggie Tuttle moved to close the public hearing.

The motion was approved by a vote of 4-0

Alderman Larry B. Harris moved to approve Resolution #R-19-13 for the street closure for Campbell Street.

The motion was approved by a vote of 4-0

C. Public Hearing for Building Permit Ordinance Text Amendments

#O-19-11

Planning Director Jessica Trotman stated this amendment brings all requirements for the building permit into ordinance and noted one requirement is the ability to obtain approval from MSD to tie into the sewer system. Director Trotman stated language has been added requiring the Town's building permits to also be in compliance with NC laws.

Alderman Larry B. Harris moved to open the public hearing.

The motion was approved by a vote of 4-0.

There were no citizen comments.

Alderman Tim Raines moved to close the public hearing.

The motion was approved by a vote of 4-0

Vice Mayor Maggie Tuttle moved to approve Ordinance #O-19-11, Building Permit Ordinance Text Amendments as presented.

The motion was approved by a vote of 4-0

D. Public Hearing for FY19-20 Budget

#O-19-10

Black Mountain Board of Aldermen
Regular Session Minutes – June 10, 2019

Manager Harrold presented the final recommended FY19-20 Budget to the Board of Aldermen. The budget message and ordinance are made part of and attached to these minutes. The FY2019-20 Budget may be viewed and downloaded in its entirety by visiting the Town's website at www.townofblackmountain.org. Manager Harrold stated services will remain the same and said overall debt has been reduced by \$510,252 and stated the tax will remain the same at .33. Alderman Larry B. Harris also reminded the public employees were given a 2.5% cost of living allowance. Mayor Collins stated the Town is spending half a million dollars in recreation in this budget and stated this was higher than any other municipality in the area our size and commended staff for their efforts to make all the programs possible.

***Alderman Larry B. Harris moved to open the public hearing.
The motion was approved by a vote of 4-0.***

Roberta Madden of Black Mountain addressed the Board of Aldermen stating her one concern is funding for the 2019 election.

***Alderman Larry B. Harris moved to close the public hearing.
The motion was approved by a vote of 4-0***

Alderman Carlos Showers moved to approve Ordinance #O-19-10 FY19-20 Budget as presented. The motion was approved by a vote of 4-0

Alderman Carlos Showers reminded the public a budget amendment may be done to cover the cost of an election if necessary for 2019.

10. COMMUNICATION FROM STAFF

- A.** Josh Harrold - Manager Harrold reminded citizens the Town of Black Mountain offices will be closed on July 4, 2019 and stated the regular meeting will take place on July 8, 2019 with the agenda meeting. Manager Harrold also announced he has promoted Town Clerk, Angela Reece as Assistant to the Manager. Ms. Reece will continue to retain the duties as Town Clerk as well.

11. COMMUNICATION FROM MAYOR AND BOARD OF ALDERMEN

Alderman Larry B. Harris thanked local news reporter, Fred McCormick for his work on an article on the Black Mountain Endowment which has reached over \$1M. Alderman Harris stated the article was well written and said the local paper is both a benefit and a blessing.

Alderman Carlos Showers invited the public to attend the retirement celebration for Bob McMurray on June 26, 2019 at 5:00 p.m. at the new Hampton Inn.

12. ADJOURNMENT

Black Mountain Board of Aldermen
Regular Session Minutes – June 10, 2019

There being no further business, on a motion made by Alderman Carlos Showers and with a vote of 4-0, Mayor Don Collins adjourned the meeting at 7:22 p.m.

ATTEST:

Angela L. Reece, Town Clerk

Don Collins, Mayor

Attachments to Regular Session Minutes

COST- JUSTIFIED WATER SYSTEM DEVELOPMENT FEES REPORT

TOWN OF BLACK MOUNTAIN

BUNCOMBE COUNTY, NC

James Bourey, Director of Consulting Services
Dale R. Schepers, Senior Consultant



55 Broad Street
Asheville, NC 28801
828-412-4608

Firm License No.: C-0459

MAY, 2019
PROJECT NO. 19.02518

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EXECUTIVE SUMMARY and PURPOSE STATEMENT

Executive Summary:

The North Carolina General Assembly passed House Bill 436 in July 2017, amending Chapter 162A of the General Statutes by adding "Article 8, System Development Fees." This amendment was enacted as "An Act to Provide for Uniform Authority to Implement System Development Fees for Public Water and Sewer Systems in North Carolina and to Clarify the Applicable Statute of Limitations" which requires compliance with designated calculation methodology.

In response to the House Bill 436, the Town of Black Mountain has retained McGill Associates to complete a system development fee analysis. Based on the Town of Black Mountain's combination of existing system capacity and planned capital improvements to expand capacity, the development fee, in accordance with HB 436 rules for an Equivalent Residential Unit (ERU) for water, was calculated to be \$5,912. ERU is defined as the water (and sewer) capacities required to serve the most typical user type, which is a three-bedroom single-family dwelling.

The fee for other types of development can be calculated by applying the calculated cost of capacity per gallon of flow per day to the water demands for various uses as defined by NC Administrative Code 15A NCAC 18C .0409 and 15A NCAC 02T .0114 using the following table:

Table 0.0.1 – System Development Fee Calculation: Cost per Gallon per Day (\$/GPD)

Black Mountain System Development Fees: Cost per Gallon per Day Calculation		
Item	Cost-Justified System Development Fee Calculation	Cost of Capacity \$/ GPD
1	Water System	\$ 14.78

Purpose Statement:

This report documents the results of the approach, methodology and calculations for establishing system development fees in accordance with North Carolina General Statute 162A, Article 8 "System Development Fees". Through House Bill 436 (HB 436), the General Assembly of North Carolina established a uniform approach and associated methodology required for local governmental units to calculate and implement System Development Fees (SDF) for public water and sewer systems. The SDF must be determined by a qualified engineer or financial professional using industry standard practices. A copy of HB 436 is included in Appendix A.

Existing fees collected for the purpose of offsetting capital costs of facilities that serve new development (typically defined as impact fees, capital recovery fees, capacity charges, etc.), in place on October 1, 2017, are required to be conformed to HB 436 no later than July 1, 2018 in order to become valid. Fees that remain non-conforming after July 1, 2018 are considered unlawful and revenues collected are at risk to be refunded along with the possibility of associated legal penalties.

The Town of Black Mountain retained McGill Associates (McGill) to review and make recommendations for revisions as necessary to water system SDFs to conform with HB 436. The approach, methodology and calculations are based on American Water Works Association (AWWA) Manual of Water Supply Practices – M1, Principles of Water Rates, Fees, and Charges, Seventh Edition.

McGill Associates is qualified in engineering disciplines and financial analysis and has the expertise and experience to determine system development fees. The firm has a long history of working with cities, towns, counties and special districts to provide professional advice on the setting of fees, the development of water master plans and capital improvement programs and the development of asset management plans.

Black Mountain has made significant investments in water system capital assets that provide capacity that is, and will be, available for new development. The town also desires to use System Development Fees to recover a portion of the costs associated with providing capacity.

The overall result of this effort will be establishing the maximum cost-justified System Development Fees allowable under HB 436. Black Mountain may elect to implement fees of lesser value; however, any adjustment must be calculated on a cost per unit volume basis.

This report does not constitute a recommendation of any SDF amount. The Town Council has full authority to charge any amount, up to the maximum, provided it is applied to the relative demands of new development proportionally.

System Development Fees are defined as a charge imposed on each new customer or development that generally offsets the incremental cost of replacing existing and/or constructing new capital assets to provide capacity that will continue to meet the demands placed on the system by each new customer or development. Since water system capacity must, without exception, exceed customer demands, the major infrastructure components providing this capacity, such as water treatment plants, reservoirs, wells, pump stations, etc., must be planned and constructed well in advance and in large enough increments to keep pace with anticipated demand on the available system capacity.

AWWA methodology cites legal consideration for determining SDF. A Rational Nexus, or reasonable relationship, must be established between the fee charged and the cost associated with providing capacity to new customers. The Rational Nexus Test consists of three elements: 1) a review of available planning documents to verify general alignment between capacity demands driven by projected development patterns and planned capital improvements that will be needed to create the required capacity; 2) a determination of the proportionate share of costs to be borne by new development through appropriate methodology and calculation and 3) establishing a reasonable apportionment of the cost to new development in relation to the benefits the new development will reasonably receive through appropriate methodology and calculations.

The first element of the Rational Nexus Test was determined to be favorable based on a review of the Town's 2014 Comprehensive Plan Update, existing water system available capacity, and capital improvements plan. The Comprehensive Plan anticipates a population of 10,500 by 2030. This translates into a system capacity requirement of approximately 0.973 MGD. Existing capacity is 0.788 MGD, requiring the addition of 0.186 MGD. Black Mountain has amended its water purchase agreement with the City of Asheville to secure 0.200 MGD by 2021, satisfying the projected 2030 water capacity requirement. The capital plan includes water line replacements to support delivery of the additional capacity and therefore demonstrates a rational nexus between the Comprehensive Plan's projection of capacity needs and planned water supply expansion and capital improvements to meet the demand projection.

The remaining elements of the Rational Nexus Test are 2) determining proportionate share of costs to be borne by new development and 3) establishing a reasonable cost to new development in relation to the benefits received by the new development will be determined through appropriate methodology and calculations in the following sections.

Three methods for calculating SDF meet the definition of HB 436 and will satisfy the Rational Nexus Test:

Buy-In Method

The Buy-In Method is used where existing system capacity is available to provide service to new development. New customers essentially “buy” their proportionate share of system capacity from the current customer base (“system owners”) at the current cost or value of the existing facilities. HB 436 requires appropriate adjustments to be made to the replacement cost such as “debt credits, grants, and other generally accepted valuation adjustments.”

Incremental Cost Method

The Incremental Cost (or Marginal Cost) Method is used to assign new development the incremental cost of capital assets required for preserving and/or providing additional system capacity. This method should include supporting details that identify construction costs, scheduling, financing, funding source(s), etc., tied to a capital improvements plan (CIP), utilities master plan, and/or other approved planning document(s) that cover a planning horizon of 10 to 20 years. HB 436 requires a revenue credit to be applied “against the projected aggregate cost of water or sewer capital improvements.”

Combined Method

The Combined Approach is a combination of the Buy-In and Incremental Cost Methods. It is used where existing assets provide some system capacity to accommodate new development, and applicable capital plan(s) also identify significant capital investment proposed to add infrastructure required to address future growth and capacity needs.

3.0

CALCULATION of SYSTEM DEVELOPMENT FEES

The *Combined Method* is the appropriate approach to calculating Black Mountain's system development fees. Existing system capacity and current construction is available to provide service to new customers in the near term. Future capacity-related projects are represented in the Capital Improvements Plan which require incremental cost calculations. Therefore, calculating SDF will require the combined method.

3.1 Existing System Capacity Availability

Water system design capacities are determined using average day demands and incorporate appropriate peaking factors that will adequately address maximum flow conditions that occur during high water use conditions. Black Mountain's total capacity of 0.0788 MGD is a combination of groundwater wells and water purchased from the City of Asheville. Combined demand is 0.661 MGD, which is 84% of capacity. The Town has secured an additional 0.100 MGD beginning June 1, 2020 through its purchase agreement with Asheville that will increase the overall capacity to 0.888 MGD. The water system's current available capacity is as follows:

Table 3.1.1 – Black Mountain Water System Available Capacity

Black Mountain Water and Sewer System Available Capacity				
Item	System Capacity - Million Gallons Per Day (MGD)	Design Capacity	Average Day	Available Capacity
1	Water System - Well Production	0.588	0.502	0.086
2	Water System - Water Purchase Agreement	0.200	0.163	0.037
Current Water Purchase Agreement provides for Capacity beyond 0.200 MGD if needed.				

3.2 Buy-In Calculation

After demonstrating that capacity is available, the value per gallon is calculated to determine the cost per gallon that will be applied to reimburse existing customers for constructing and maintaining available capacity in advance.

The preferred AWWA valuation approach is "replacement cost new less depreciation" (RCNLD). This approach is based on the premise that System Development Fees reflect the value of providing any given amount of new capacity at the cost of constructing the assets at the time the new customer is connected. This fairly compensates existing customers for carrying the costs of constructing and maintaining capacity built into the system in advance of when the new customers connect.

Replacement cost in the RCNLD calculation used the RS Means Historical Cost Index. RS Means has been publishing a construction cost index for over 70 years, collecting data from all facets of the industry to accurately track costs directly related to building and construction. This allows the present value (replacement cost new) of capital construction projects to be calculated on data provided by a very reliable, long-time industry leader. Depreciation assigned by the Town's fixed asset inventory uses the straight-line method, typically based on 30 to 50-year assignments of useful life for major capital assets, to represent a general decline in value over time.

Replacement Cost New (RCN) is therefore determined by applying the RS Means index to the original cost, then deducting the accumulated depreciation to reach RCNLD.

Assets included in the buy-in valuation are those that provide the available capacity of the system, are "owned" by the ratepayers, and therefore provide a benefit to all customers. Typically, these assets are water supply, treatment, pump stations, storage, transmission and distribution mains. Assets contributed by or paid for by developers are deducted from the calculation since these costs were not "paid" by the existing customers. Non-capacity related assets such as vehicles, computers and software are also excluded from the calculation.

Table 3.2.1 – Water System Cost per GPD of Existing Utility Assets Providing Available Capacity

Black Mountain Water System Development Fee Buy-In Valuation				
Item	System Asset Description	RCNLD	Excluded	Amount Eligible
Water System Assets				
W1	Land	\$ 2,923,834	\$ -	\$ 2,923,834
W2	Water Main Infrastructure	\$ 10,102,854	\$ 272,308	\$ 9,830,546
W3	Vehicles and Equipment	\$ 408,547	\$ 191,081	\$ 217,465
	Subtotal - Water System Assets	\$ 13,435,234	\$ 463,389	\$ 12,971,845
	Less Revenue Credit: Outstanding Debt Principal			\$ (1,956,897)
	Equals: Net Water System Value			\$ 11,014,949
	Divide by: Water System Capacity (MGD)			0.788
	Equals: Unit Valuation of Water System (\$/MGD)			\$ 13,986,881
	Divide by: 1,000,000 gallons (\$/GPD)			\$ 13.99

3.3 Water Purchase Agreement

In February 2004 Black Mountain entered into a purchase agreement with the City of Asheville in the amount of 0.200 MGD. This agreement expressly states that Black Mountain has no ownership or dedication of capacity from the City of Asheville. Therefore, the capital cost of capacity may not be considered as part of the system development fee calculation.

3.4 Incremental Cost Calculation - Value of future capacity to be available to new customers through capital construction projects considered in the Town's Capital Improvements Plan (CIP) or similar master planning document.

Assigning value to future capacity-related assets requires a determination of cost in present-day dollars and a clearly defined capacity that the assets will provide. Engineers typically assign project costs and capacity needs developed through a conceptual design process, and adjust costs to the scheduled year of construction in the CIP. Present-day value can therefore be obtained using the same assumptions for inflation and then applied to the incremental cost calculation.

Tables 3.4.1, 3.4.2 – Cost per GPD for Incremental (Future) Capacity Related Assets

3.4.1

Black Mountain Water System Capacity-Related Component Incremental Valuation				
CIP Item	System Asset Description	Cost	Remaining Asset Value	SDF Component Valuation
Water System Assets				
WI 1	Montreat Road Water Line Replacement	\$ 1,000,000	\$ 78,823	\$ 921,177
<u>Valuation Adjustments and Calculation of Cost-Justified Fee</u>				
	Less Revenue Credit: 25% project cost per HB436			\$ (230,294)
	Less Value of Existing Asset Capacity			\$ (372,014)
	Equals: Value of Incremental Capacity			\$ 318,869
	Divided by: Incremental Capacity (MGD)			0.60
	Equals: Unit Valuation of Capacity (\$/MGD)			\$ 531,448
	Divided by: 1,000,000 gallons (\$/GPD)			\$ 0.53

3.4.2

Black Mountain Water System Development Fee Incremental Valuation				
CIP Item	System Asset Description	Cost	Remaining Asset Value	SDF Component Valuation
Sewer System Assets				
WI 2	NC 9 Water Line Replacement	\$ 750,000	\$ 58,956	\$ 691,044
<u>Valuation Adjustments and Calculation of Cost-Justified Fee</u>				
	Less Revenue Credit: 25% project cost per HB436			\$ (172,761)
	Less Value of Existing Asset Capacity			\$ (336,884)
	Equals: Value of Incremental Capacity			\$ 181,399
	Divided by: Incremental Capacity (MGD)			0.70
	Equals: Unit Valuation of Capacity (\$/MGD)			\$ 259,141
	Divided by: 1,000,000 gallons (\$/GPD)			\$ 0.26

3.5 Valuation Adjustments – The above system valuations include applicable credit adjustments for revenues anticipated from exiting user charges, donated infrastructure and grants.

HB 436 requires revenue credits to be applied to debt that is issued to construct water and sewer system assets that provide capacity for potential customers and are repaid by retail water rates and charges. To ensure that repayment for this debt is not collected twice from new customers; once through the SDF and again through retail rates and charges, the remaining outstanding debt principal amount is required to be applied as a credit against the projected aggregate cost of the capital improvements in the SDF calculation.

Contributed capital provided by new development, that exceeds the development's proportionate share of connecting facilities, shall also be credited. Contributed capital is identified as part of fixed asset review and included in the summary of ineligible assets in the above calculation.

Revenue credits are also required to be applied to incremental (future) capacity-related assets. HB 436 assumes rate-generated revenues projected through the capital planning horizon will provide a minimum of 25% of the funding required to construct the assets. The potential for generating revenue to offset future capital needs was discussed with the Town. Staff determined that realizing any funding beyond the minimum 25% would be unattainable. Therefore, 25% revenue credit is applied to the incremental capacity-related asset valuations.

3.6 Cost per Unit Volume – Dollar valued that can be applied uniformly to all potential customer.

This measure becomes the starting point for determining the maximum cost-justified water system development fee. Fees for different types of customers are based on this cost of capacity multiplied by the amount of capacity needed to serve each type or class of customer.

4.0 SERVICE UNIT CALCULATIONS: EQUIVALENT RESIDENTIAL UNITS

HB 436 requires SDF calculations to be applied to various categories of customer demands based on service units or Equivalent Residential Unit (ERU). ERU is defined as the water and sewer capacities required to serve the most typical user type, which is a three-bedroom single-family dwelling. North Carolina Division of Water Resources (DWR) design standards for constructing water and sewer systems, NC Administrative Code 15A NCAC 18C .0409 and 15A NCAC 02T .0114 respectively, establish daily flow requirements based this type of service connection. ERU can therefore be defined as 400 gallons per day for water and 360 gallons per day for sewer.

Table 4.0.1 – Cost-Justified System Development Fees: Equivalent Residential Unit, Water

Black Mountain System Development Fees: Equivalent Residential Unit Calculation				
Item	Cost-Justified System Development Fee Calculation	Capacity \$/ GPD	Demand GPD	Cost per Unit Capacity
1	Water System	\$ 14.78	400	\$ 5,912
	Total ERU			\$ 5,912

5.0 APPLICATION of SYSTEM DEVELOPMENT FEES and SERVICE UNIT EQUIVALENCY

NC Administrative Code 15A NCAC 18C .0409 and 15A NCAC 02T .0114, included in Appendix A, further define other service connection types and the associated water system demands sewer system flows on a per gallon per day basis. Therefore, these tables serve as an equivalency or conversion for use in determining applicable SDF for various categories of demand.

McGill Associates has calculated costs for water system capacity on a per gallon per day basis for the Town of Black Mountain. This calculation was performed using the Combined Method to account for the Town's combination of existing capacity, current improvements under construction and future capacity-related projects. This calculation resulted in a development fee ceiling of \$5,912 for an Equivalent Residential Unit (ERU). ERU is defined as the water and sewer capacities required to serve the most typical user type, which is a three-bedroom single-family dwelling. The fee for other types of development can be calculated by applying the calculated the cost of capacity per gallon of flow per day to the water demands for various uses as defined by NC Administrative Code 15A NCAC 18C .0409 and 15A NCAC 02T .0114.

Using NC Administrative Code 15A NCAC 18C .0409 and 15A NCAC 02T .0114 ensures that the same standard used to plan, design, construct and finance capital assets is applied as the same cost recovery basis to be applied to new development.

Appendix

House Bill 436

NC Administrative Code 15A NCAC 18C .0409

NC Administrative Code 15A NCAC 02T .0114

Revenue Credit: Outstanding Debt Principal

2014 Comprehensive Plan Update: Population Projection Section

Black Mountain Capital Improvements Program and Summary Table

RS Means Historical Cost Index

Fund 6300 - Watershed Restoration CPF

Expenditure	Budget	Actual
Prof Serv	63,775	62,635
Capital	75,000	58,075
Total	138,775	120,710

Revenue

Pigeon River Fund	30,000	30,000
NC DEQ Grant	73,775	61,558
Transfer from General Fund	35,000	35,000
Total	138,775	126,558

Fund Balance at 5/31/19

5,848

Reimbursed at 60% thru Land of Sky

Projects include work at the library, golf course parking lot, and portions of the actual golf course. The project on Church St was cancelled.

Fund 6400 - Riverwalk Greenway CPF

Expenditure	Budget	Actual
Prof Serv	950,000	223,024
Capital	1,208,750	-
Total	2,158,750	223,024

Revenue

NCDOT -STP grant	1,727,000	161,090
Transfer from General Fund	298,750	270,000
Contribution from Buncombe County	133,000	133,000
Total	2,158,750	564,090

Fund Balance at 5/31/19

341,066

Reimbursed at 80% thru NCDOT.

Total budget will ultimately be in the \$5,000,000 range.

\$400,000 of the Town match has been pledged from Buncombe County.
(\$133,000 received in April of 2019.)

Fund 6500 - Tomahawk Stream Stabilization CPF

Expenditure	Budget	Actual
Prof Serv	21,272	21,272
Capital	70,878	70,878
Total	92,150	92,150

Revenue

NC Div of Environmental Quality	46,075	46,075
Transfer from General Fund	46,075	81,075
Total	92,150	127,150

Fund Balance at 5/31/19

35,000

Reimbursed at 50% thru NC DEQ

The Town is currently \$35,000 "ahead" on our match.

The Town has been awarded a \$74,000 which expires on 6/30/2020 (our match is \$37,000)

Projects involve improvements to Tomahawk Stream at the golf course.

Fund 6600 - Veterans Park Improvements CPF

Expenditure	Budget		Actual
Prof Serv		5,000	2,087
Capital		85,000	85,000
Total		90,000	87,087

Revenue

PARTF Grant		-	-
Transfer from General Fund		90,000	90,000
Total		90,000	90,000

Fund Balance at 5/31/19

2,913

On 9/12/18 the Town was awarded a PARTF grant of \$211,024. We are required to match \$211,024. The land the Town purchased in May of 2017, will count toward our match, and will be valued in the \$150,000 range. The Kiwanis Club has also pledged \$40,000 toward this meaning the Town may need to contribute an additional \$20,000 to complete the project.

The Town is expecting to start this project shortly.

The grant currently has an expiration date of 10/31/2021.

Projects include a full time restroom, a playground, and a pavillion.

Fund 6700 - Commerce Park Infrastructure CPF

Expenditure	Budget	Actual
Prof Serv	110,000	31,645
Capital	1,545,160	760,033
Total	1,655,160	791,678

Revenue

Golden Leaf Grant	775,000	-
EDA Grant	827,580	241,300
Commerce Park Grant	52,580	12,990
Total	1,655,160	254,290

Fund Balance at 5/31/19

(537,388)

Expecting reimb from Golden Leaf in early June for \$181,130

Will be requesting reimb for a total of 300K plus by 6/13/19



Town of Black Mountain

160 Midland Avenue • Black Mountain, North Carolina 28711
Phone (828) 419-9300 • Fax (828) 669-4204 • TDD 800-735-2962

www.townofblackmountain.org

June 10, 2019

The Honorable Don Collins, Mayor
Board of Alderman
Town of Black Mountain, North Carolina

Dear Mayor and Board of Alderman:

I am pleased to submit for your consideration the proposed budget for Fiscal Year 2019-20. This budget is balanced with respect to revenues and expenditures and meets all requirements of the North Carolina Local Government Budget and Fiscal Control Act.

Overview

Black Mountain's Total Budget for FY 2019-20 is **\$11,592,230**, an increase of **3.45%** from the previous fiscal year. Personnel, operating and debt costs show increases from the FY18-19 adopted budget, while capital costs shows a decrease. The increase in personnel costs is mainly due to a 2.5% COLA adjustment for all full time employees, a new police officer position and an increase in LGERS contribution to the retirement system.

Town Services

The Town of Black Mountain stays committed to the continuation of all of its existing services for the upcoming fiscal year to include recreation and parks, finance, administration, planning and zoning, building inspections, public services, residential garbage and recycling, police, and fire. All services are proposed to continue at current service delivery levels for the upcoming fiscal year; however, the Town will assume service and maintenance associated with 300 new water customers that are being transferred from the City of Asheville.

Grants

As always, the Town continues to look for grants during the year to supplement our programs and services for every department. In FY 2019-20 we will continue implementation of the NCDOT STP-DA funding for Phase II of the Riverwalk Greenway, PARTF Grant for improvements at Veterans Park including streambank restoration, playground, outdoor pavilion and overflow parking, and NCDWR funding to continue streambank restoration at the Town's golf course. The Town will also be applying for a Duke Energy grant to implement stream bank restoration along the Swannanoa River.

Fire Inspections

The Fire Department has requested to begin charging fees for inspection services. Fire inspections are required by state law for businesses, dormitories, assembly uses and rental properties. The Fire Department has put together a fee schedule outlining when fees are charged and the amount. Other jurisdictions were consulted in the formation of this schedule and are similar in fee amounts.

Fund Balance

The total fund balance for the Town of Black Mountain General Fund is **estimated** to be \$4,402,000 or 51% of projected General Fund expenditures at 06/30/19. This includes restricted fund balances, capital reserve fund and our unassigned fund balance. This estimate represents an increase in the total fund balance of \$200,000 from FY18 audited figures.

Based on our most recent audit for the period ending June 30, 2018, **unassigned** fund balance was \$2,812,979 or 30.5% of General Fund expenditures. This is a decrease from \$2,826,373 or 35% of General Fund Expenditures, due almost entirely to the fact that FY17-18 expenditures were considerably higher than previous years because of the purchase of the building at 304 Black Mountain Avenue. The Town has a fund balance policy requiring a percentage of 30%.

Debt

The Town is currently budgeted to expend \$618,203 on debt service in FY19-20. This amount includes debt in the amount of \$151,415 related to the Police Department communications upgrade approved by the Board at the July 2018 Board meeting. At 6/30/19, the Town will have outstanding debt of \$4,099,047. As currently budgeted, total Town debt will be \$3,588,795 at 6/30/20. The proposed budget reduces total debt by \$510,252 in FY19-20.

Capital Reserve Funds

It is estimated that the Capital Reserve Fund for the General Fund will have a balance of \$395,000 at June 30, 2019. These reserves are committed for building renovations and truck replacement at the Fire Department. The Water Capital Reserve Fund will have a balance of \$325,000 at June 30, 2019, which is designated for automated water meter replacement.

Capital Project Funds, which differ slightly from Capital Reserve Funds, have been set up for the Swannanoa Watershed Restoration, Riverwalk Greenway, Tomahawk Stream, Veterans Park, and Commerce Park Infrastructure because the Town anticipates expending funds on these projects in FY 19-20 and future years.

Legislative Changes

The Local Government Retirement System (LGERS) is requiring a larger increase this year than past years. A LGERS internal policy, established in 2016, projected the amount of increase needed to sustain the retirement system; however, the policy underestimated the needed contributions from local governments. In the past, the required increase has been 0.25 % per year. The required increase will now be 1.20% per year.

General Fund Highlights

The FY 19-20 recommended General Fund budget is \$9,288,007, a 4.49% increase from the FY 18-19 budget.

Personnel

One full time policer officer has been added in FY19-20 at a cost of \$61,250.

The Governing Board has elected to reinstate their compensation, which was last paid in June of 2017 at a cost of \$44,600.

One part time building inspector has been budgeted in the planning department at a cost of \$25,000.

A 2.5% COLA salary adjustment accounts for an increase of \$100,000.

Operating

Police – \$21,500 has been budgeted to replace nine of the eighteen tasers for the department. The remaining nine will be budgeted next fiscal year.

Fire - \$36,000 has been budgeted for turnout gear. The Town's goal is that every full time firefighter should have two sets of turnout gear.

Sanitation – Collection costs have increased by \$40,000 in FY19-20.

Recreation – Pool – Chemicals and assorted equipment replacement have increased expenses by \$14,000.

Capital

Public Buildings - \$39,000 has been budgeted for IT needs, the continuation of the Downtown Streetscape project, and the second half of the new Town website.

Planning – The Planning Department capital budget includes matching funds for the Riverwalk Greenway (\$80,000), and the Tomahawk Stream restoration project (\$40,000). \$65,000 has also been budgeted for Riverwalk contingency and the Comprehensive Plan update.

Fire - \$75,000 has been budgeted for the purchase of a vehicle to replace Truck 4, and \$80,000 has been budgeted to be transferred into the Capital Reserve Fund for the replacement of Engine 41.

Police - \$51,000 has been budgeted for a vehicle.

Streets and Powell Bill – \$349,500 has been budgeted in full, including \$150,000 for paving, \$54,500 for a new vehicle, \$100,000 for the next section of the Highway 9 sidewalk, and \$45,000 for sidewalk repair and street striping.

Recreation - \$93,100 has been budgeted, which includes \$60,000 for tennis courts, \$15,000 for repairs to the Grey Eagle roof, and \$18,100 for improvements to Lake Tomahawk senior center.

General Fund Revenues

Ad Val/DMV Taxes - Budgeted at \$4,199,000, a 5.77% increase from FY18-19. Ad Val and DMV taxes make up 45% of all General Fund revenues.

Sales tax – Budgeted \$72,000 higher than FY18-19 levels, based on State projections. Buncombe County continues to be one of the strongest economic drivers in the State.

Franchise Taxes – Budgeted \$8,500 lower than FY18-19 levels, based on State projections. As higher numbers move away from traditional telephone and television services, franchise taxes have declined in recent years.

Buildings Permits – Budgeted \$50,000 less than FY18-19 figures. FY19 will be the first year since 2011, that Building Permit revenue has not shown an increase from the previous year.

Fund Balance Appropriated – Currently budgeted at \$105,517. In the last five fiscal years, the Town has averaged appropriated fund balance of \$207,000 in the adopted budget. Fund balance appropriated typically is increased by approximately \$150,000 during the fiscal year.

Water Fund Highlights

The FY19-20 Water Fund is recommended at \$1,689,122, a 1.76% decrease from FY 18-19.

Personnel

A 2.5% COLA salary adjustment accounts for an increase of \$12,200

The part time positions in the Customer Service Division have been eliminated and replaced with a full time position. This was an increase of \$29,000 in the FY19-20 budget.

Operating

Total water operating expenses have increased by \$46,000 mainly related to the Town having to contract for services for the Water Quality Operator position.

Capital

Capital is budgeted at \$322,000, a decrease of \$81,500 from the FY18-19 budget. Major budgeted items include, AMR (\$125,000), general waterline replacements (\$100,000) and a tractor (\$65,000).

Water Fund Revenues

The Town has budgeted a 4% rate adjustment for FY19-20. The Town will be formulating a detailed three year budget for the Water Fund which will better guide the Town on future funding needs as the Town takes over the 600 Asheville customers.

Golf Fund Highlights

The FY19-20 Golf Fund is recommended at \$615,100, a 2.95% increase from FY18-19

Personnel

No personnel changes are anticipated for the Golf Course in FY19-20.

Operations

The total operating cost of the golf course is \$3,000 higher than FY18-19 levels.

Capital

There are no capital improvements budgeted for the golf course in FY 19-20.

Golf Fund Revenues

For the first time since 2014, there will be no rate increases at the Golf Course. This is in large part due to the condition of the course as the busy golf season arrives. The area has received significant rain recently and portions of the course are still showing the effects of the heavy rain.

Conclusion

The tax payers of Black Mountain should be proud of our emphasis on fiscal responsibility with a regionally competitive tax rate, a low level of debt service and the continued strengthening of our Fund Balance. In addition, we continue to pursue grant opportunities, streamline our service levels and make wise capital investments. Our commitment to excellence makes the Town of Black Mountain one of the greatest places to live, work and raise a family.

I appreciate the guidance and support from the Mayor and Board of Aldermen during this process. I would also like to thank the Department Heads and staff for their work in developing this budget.

Copies of this document will be posted on the Town's website and available for public review in the Town Clerk's office. If I may be of any assistance, please don't hesitate to contact me.

Respectfully submitted,

Josh Harrold
Town Manager

ORDINANCE NO. O-19-10

AN ORDINANCE TO APPROPRIATE FUNDS AND RAISE REVENUES FOR THE FISCAL YEAR BEGINNING JULY 1, 2019 AND ENDING JUNE 30, 2020

BE IT ORDAINED by the Board of Alderman of the Town of Black Mountain, North Carolina, that:

SECTION ONE. The following amounts are hereby appropriated for the operation of the Town government and its activities for the fiscal year beginning July 1, 2019 and ending June 30, 2020, according to the following schedules:

SCHEDULE A. GENERAL FUND

DEPARTMENT NAME	AMOUNT
GOVERNING BOARD	162,100
ADMINISTRATION	698,506
PUBLIC BUILDINGS	731,376
POLICE DEPARTMENT	2,228,159
FIRE DEPARTMENT	1,902,303
PLANNING AND DEVELOPMENT	582,235
PUBLIC SERVICES	2,220,428
RECREATION AND PARKS	762,900
GENERAL FUND TOTALS	\$ 9,288,007

SCHEDULE B. WATER FUND

DEPARTMENT NAME	AMOUNT
ADMINISTRATION - CUSTOMER SERVICE DIVISION	156,100
PUBLIC SERVICES - WATER OPERATIONS DIVISION	1,533,022
WATER FUND TOTALS	\$ 1,689,122

SCHEDULE C. GOLF FUND

DEPARTMENT NAME	AMOUNT
GOLF OPERATIONS	450,500
PRO SHOP	164,600
GOLF FUND TOTALS	\$ 615,100

SECTION TWO. It is estimated that the following revenues will be available during the fiscal year beginning July 1, 2019 and ending June 30, 2020 to make the foregoing appropriations, according to the following schedules:

SCHEDULE A. GENERAL FUND

Account Description	FY19-20 Adopted Budget
2018 AD VALOREM TAXES	5,000
2019 AD VALOREM TAXES	3,961,000
TAX INTEREST	8,000
2019 DMV TAXES	225,000
Ad Valorem / DMV Taxes	4,199,000

BUSINESS REGISTRATION	9,000
AUTOMOBILE LICENSES	33,000
LOCAL SALES TAX	1,726,000
RENTAL TAXES	1,500
Other Taxes	1,769,500

ELECTRICITY FRANCHISE TAX	500,000
TELECOMMUNICATION TAX	60,000
PIPED NATURAL GAS EXCISE TAX	20,000
WINE & BEER TAX	38,000
ABC REVENUE	54,000
VIDEO PRGM TAX	120,000
SOLID WASTE DISPOSAL TAX	5,500
CONTROLLED SUBSTANCE TAX	5,000
NC FIRE TAX STATE BUILDINGS	20,000
Unrestricted Revenues	822,500

ABC REVENUE - POLICE	15,000
PUBLIC SAFETY DONATIONS	20,000
POWELL BILL	238,000
SR. CTR. DEVELOPMENT GRANT	12,000
SLOT REVENUES	6,000
TRAFFIC STUDY GRANT	-
Restricted Revenues	291,000

COURT COSTS	800
FIRE INSPECTION FEES	25,000
BUILDING PERMITS	245,000
STORMWATER PERMITS	5,000
VARIANCE AND REVIEW FEES	7,500
Permits & Fees	283,300

Account Description	FY19-20 Adopted Budget
FIRE PROTECTION	1,250,000
POOL REVENUE	53,000
POOL CONCESSIONS	15,000
POOL RENTALS	5,000
LAKEVIEW UPSTAIRS RENTALS	22,000
LAKEVIEW DOWNSTAIRS RENTALS	3,000
PAVILION & GAZEBO RENTALS	2,000
ADULT SPORTS	8,000
YOUTH SPORTS	42,000
SUMMER CAMP	15,000
RECREATION - SENIOR CITIZEN	6,000
CARVER CENTER RENTALS	45,000
CARVER CENTER ACTIVITIES	2,500
SPECIAL EVENTS	10,500
GARDEN ACTIVITIES	2,500
REC PARK RENTALS	750
BOUNCE HOUSE RENTALS	7,500
GREY EAGLE ARENA REVENUES	6,000
SPONSORSHIPS	14,100
Sales & Services	1,509,850

ACTIVITY DONATIONS	5,000
INTEREST ON INVESTMENTS	90,100
MISC REVENUE	20,000
SALE OF EQUIPMENT AND VEHICLE	8,000
TAKE HOME VEHICLE REIMB	7,200
FUND BALANCE APPROPRIATED	105,517
INTERFUND TRANS FROM GOLF	30,000
INTERFUND TRANS FROM WATER	127,090
MONTREAT DISPATCHERS	19,950
Other	412,857

TOTAL GENERAL FUND REVENUES **9,288,007**

SCHEDULE B. WATER FUND

Account Description	FY19-20 Adopted Budget
MSD BILLING FEE REVENUE	84,000
WATER SALES	1,160,000
WATER TAPS	50,000
SERVICES CHARGE REVENUE	30,000
IMPACT FEES	48,000
SPECIAL BOND REVENUE	112,000
INTEREST IN INVESTMENTS	40,000
MISC REVENUE	2,000
LATE FEES	30,000
FUND BALANCE APPROPRIATED	133,122
TOTAL WATER FUND REVENUES	\$ 1,689,122

SCHEDULE C. GOLF FUND

Account Description	FY19-20 Adopted Budget
GREEN FEES	240,000
MEMBERSHIPS	95,000
GOLF CARTS	240,100
MISC	3,000
PRO SHOP MERCHANDISE	30,000
19TH HOLE REVENUE	4,000
SALE OF EQUIPMENT	3,000
TOTAL GOLF FUND REVENUES	\$ 615,100

SECTION THREE. There is hereby levied the following rate of tax on each one hundred dollars (\$100) valuation of taxable property, as listed for taxes as of January 1, 2019, for the purpose of raising the current year's tax revenue, as set for in the foregoing estimates of revenue in order to finance the foregoing appropriations:

GENERAL FUND (for the general expenses incident to the proper government of the Town and for the payment of interest and principal on outstanding debt):

TOTAL RATE per \$100 valuation of taxable property - 33.25 cents

Such rates of tax are based on an estimated valuation for the purpose of taxation of \$1,194,968,892 and an estimated rate of collection of 99.7 percent.

SECTION FOUR. Appropriations are authorized by department totals. The Finance Officer is authorized to reallocate departmental appropriations among various line item objects of expenditures and revenues as necessary during the budget year. However, any actual changes to salary or compensation of any employee, for any reason (except for COLA amounts approved in this document) shall be approved by the Board of Aldermen before such change takes effect.

The Town Manager (Budget Officer) is authorized to reallocate appropriations among departments within a limit of 5% of each fund (General, Water, Golf Funds). Any such transfers shall be reported to the Board of Alderman at its next regular meeting following the transfer and shall be entered into the official minutes of the Town of Black Mountain.

SECTION FIVE. Copies of this ordinance shall be furnished to the Town Manager, Finance Director, Town Clerk, and the Deputy Finance Officer for their direction in the disbursement of the Town's funds and for public inspection.

Duly adopted this 10th day of June 2019.

ATTEST:

Don Collins, Mayor

Angela Reece, Town Clerk