# BRIGHT Opportunities for Whitesburg, Kentucky

Analysis and strategy recommendations for Whitesburg's BRIGHT corridor

Pine Mountain Planning Collaborative
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# **Table of Contents**

4	Executive Summary	55	Brownfields
		55	Assessment of Current Conditions
5	Chapter 1: Introduction	58	SWOT
	·	60	General Strategies
6	Whitesburg Overview		Recommendations
7	Demographic Information		
9	BRIGHT	63	Community Engagement
10	Problem Statements and Goals	63	Assessment of Current Conditions
12	Methodology	64	SWOT
12	Project Study Area	65	Recommendations
13	Chapter 2: Analysis	69	Chapter 3: Synthesis and Implementation
14	Downtown	70	Summary Alternatives Analysis Matrix
14	Assessment of Current Conditions	73	Conclusion
18	SWOT		
19	General Strategies	74	References
27	Recommendations	75	Appendices
			A: National Register of Historic Places Addresses
30	Riverfront		B: Historic Preservation Tax Credit Information
33	Assessment of Current Conditions		C: Zoning
36	SWOT		D: Trail Existing Conditions and Analysis
37	General Strategies		E: Catalyst Site Data
41	Recommendations		F: Riverfront Additional Resources
			G: Brownfields Additional Resources
44	Walking Trail		H: Kentucky Municipal Legal Framework
45	Assessment of Current Conditions		

46

47

**SWOT** 

General Strategies Recommendations

# **Executive Summary**

### **Purpose**

This report asseses existing conditions within a roughly one-mile corridor encompassing the river, trail, and the historic downtown district in the city of Whitesburg, the county seat of Letcher, Kentucky. This assessment lays a foundation for Whitesburg to participate in the Environmental Law Institute's Blight Revitalization Initiative for Green Healthy Towns (BRIGHT) program. It inventories assets and challenges, highlights resources, and offers a palette of design opportunities, and strategies for community directed corridor revitalization.

#### **Corridor**

The study corridor encompasses a centrally located, 250 acre portion of Whitesburg stretching from the pedestrian bridge west of downtown to Riverside Park. It includes the downtown commercial area, Appalshop's offices, and parts of several residential neighborhoods. A former railway track that used to pass along East Main Street, and through the city provides a well-graded right-of-way along the length of the corridor. A paved multi-use trail occupies this right-of-way at the western edge of the study corridor and beyond to Hazard Road, but the trail ends abruptly at the start of East Main Street. The North Fork Kentucky River is crossed multiple times by vehicle and pedestrian bridges within the corridor's boundaries.

#### **Process**

The study corridor was divided into sections for assessment: DOWNTOWN, TRAIL, RIVERFRONT, BROWNFIELD SITES, and COMMUNITY

ENGAGEMENT. For each of these sections, different assessment methods were used to produce Strength - Weakness - Opportunity - Threat (SWOT) analyses. These guided strategy research and ideation of applicable development or retrofit strategies and relevant precedents, as requested by our client. 'Catalyst sites' were selected to demonstrate design opportunities at key points within the corridor.

#### **Deliverables**

A main output from the project is a digitized database including community engagement process implementation resources, maps, GIS data, municipal documents, graphic designs and visualizations. This database arms Appalshop with resources for later steps in the BRIGHT Program process. This report also serves as a visual portfolio of analyses and strategies that can be used to intiate and inform ongoing dialogue about possibilities and community preferences for future development.

### **Key Recommendations Summary**

Downtown

- •Use federal and state historic preservation resources to support building rehabilitation.
- •Consolidate commercial development resources on City website.
- •Consider vacant building ordinance, escalating fee structure, or higher tax for vacant buildings. •Invest in public infrastructure to promote connectivity and sense of place.

### Riverfront

- •Add public amenities and message boards
- •Extend river stewardship program

•Install a green infrastructure pilot project

#### Trail

- •Implement wayfinding, interpretive signage, and public art opportunities
- •Incentivize trail use for public health outcomes
- •Raise awareness of the trail and its benefits through pop-up programming

#### **Brownfields**

- •Collaborate with projects that promote healthfields in Whitesburg
- •Use passive treatment systems for abandoned mine drainage
- •Connect landowners and potential investors to brownfield resources

### Community Engagement

- •Collaborative multi-stakeholder engagement structure for redevelopment strategy planning
- •Volunteer opportunities with tactical urbanism installations
- •Engage residents in final design phase with interactive art and engagement practices

### **Report Organization**

The report is structured around the five principal sections of the BRIGHT corridor assessment. The introductory chapter begins by defining critical issues and setting goals. Context and assessment follow. Analysis, general strategies, and catalyst site design opportunities, where applicable, complete each section. These different threads of analysis are gathered together by a preliminary alternatives assessment in the final chapter.

# **Chapter 1: Introduction**

BRIGHT Program Context Project Methodology Whitesburg Overview Demographic Information Problem Statements and Goals







# **BRIGHT Program Context**

The Environmental Law Institute, a nonpartisan research and education center based in Washington DC, is currently developing the Blight Revitalization Initiative for Green Healthy Towns (BRIGHT) technical assistance program. The underlying assertion of this program is that brownfield redevelopment has far greater benefits if undertaken within the context of a larger corridor area and with multiple goals informed by local community interests.

The BRIGHT program seeks environmental justice through multifunctional projects that can achieve environmental, economic, and social benefits. The BRIGHT program framework includes seven stages of corridor assessment, planning, and redevelopment. ELI is currently working on a Blight Revitalization

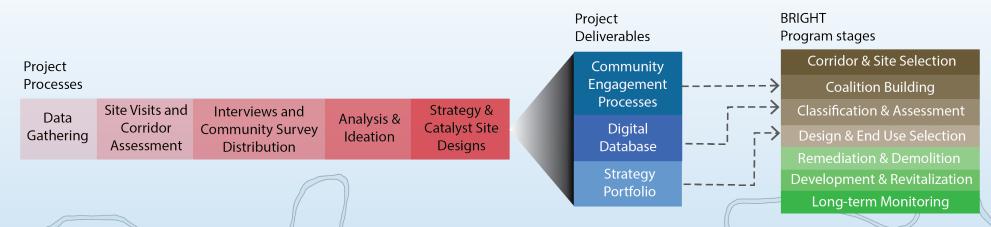
Toolkit of policies and strategies that can support similar efforts across diverse localities.

Whitesburg's participation in the BRIGHT program is an opportunity to connect with funding and other resources in and beyond the region. At the same time, Whitesburg would offer a rural complement to the primarily urban corridors currently involved with ELI's BRIGHT Program (other BRIGHT corridors are located in Washington DC and Detroit, for example). Ultimately, this helps develop a wider array of tools for the forthcoming Blight Revitalization Toolkit.

As the graphic below shows, this project's processes and deliverables fit within several of the BRIGHT program stages by providing assessment, strategies for coalition building, and design ideas.

### The Role of the Corridor Assessment

The work completed in this assessment sets outs baseline mapping and inventories in written, visual, and digital forms to assist with the 'Classification & Assessment' phase. The community engagement recommendations can play a specific role moving forward with coalition building. The strategies and design opportunities proposed begin the process of design and end use selection.



# **Project Methodology**

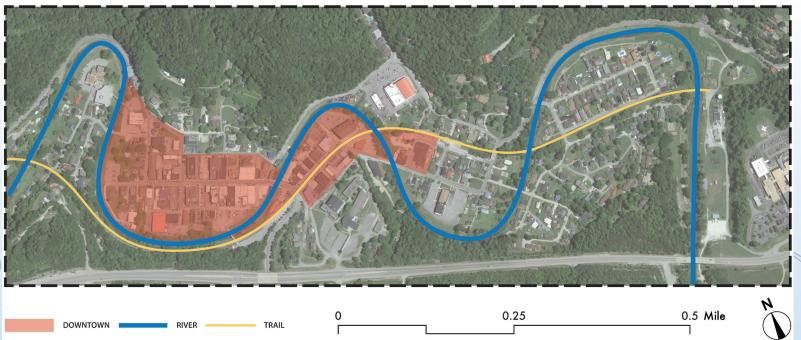
To approach the study area comprehensively, the assessment and analysis was first divided into three key components: the historic downtown, trail corridor, the riverfront of the North Fork Kentucky River.

The team made three site visits to walk the corridor, assess the various components and gather data, and interview key stakeholders. With the support of Appalshop, a community survey was distributed by mail and online.

During the assessment process, the team also worked with local residents to identify and map potential brownfield sites. This assessment and analysis phase was constrained at times by the distance to Whitesburg and lack of readily available digital resources, but ultimately a series of strategies was generated for each component of the study corridor, with both short-term and long-term actions in mind.

To synthesize these lists of recommendations, catalyst sites were chosen that demonstrated potential to integrate different structural and social pieces into compelling projects fitting with expressed stakeholder concerns and the goals of the BRIGHT program. An alternatives analyst also provided a tool for ranking strategies based on criteria, although these results are preliminary and will be further directed and shaped by future community engagement processes.

# **Project Study Area**



# Whitesburg Overview

The city of Whitesburg plays key civic, health, and cultural roles in Letcher County, Kentucky. Historically, it functioned as a railroad hub for transporting coal and timber, key commodities extracted from the Eastern Kentucky region. It is the county seat and an incorporated city in its own right since 1867. Downtown Whitesburg houses numerous civic institutions, including both City and County government office buildings as well as institutions such as the Letcher County Library and Health Department.

Other regional healthcare facilities are located close to downtown: the Whitesburg ARH Hospital, the Mountain Comprehensive Health Corporation, and the Southeast Kentucky Community & Technical College, with strong nursing and related programs. Whitesburg's

successful Farmers Market also addresses health issues through fresh food access programming.

Despite being a small city with a population of 2,000, Whitesburg adds vibrancy to the strong Appalachian heritage of the region by hosting multiple music and cultural festivals throughout the year: the Mountain Heritage Festival, Seedtime on the Cumberland, Cowan Creek Mountain Music School, and others. The presence of Appalshop, a 40-year-old cultural and media non-profit organization, and it's many affiliated projects, like the non-commercial community radio station WMMT, support Whitesburg's role in perserving, evoloving and transmitting Appalachian culture.

The North Fork of the Kentucky River begins in the upper elevations of mountainous Letcher County. It weaves through Whitesburg, accented by numerous bridges. Although the river offers lovely views and recreational potential, water quality is marred by industrial pollution both past and present. Further impacts to water quality of the river stem from residential sewer pollution, in the headwater regions above the city, and from the city's own troubled sewer system.

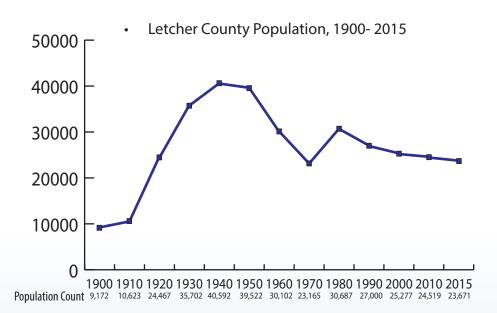
Whitesburg's historic railroad no longer exists, and the the railroad bed has been partially converted to a multi-use trail that currently connects the western public school buildings to the center of town. The eastern portion has not been completed, nor have connections to regional trail networks along Pine Mountain three miles east of the city.



# **Demographic Information**

### **Population**

2010 Census, 2011-2015 ACS Estimates, Kentucky State Data Center

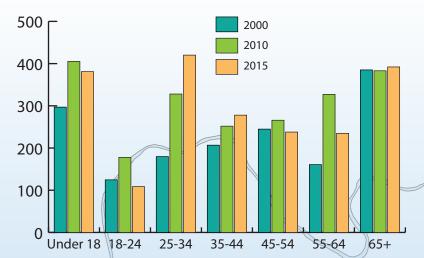


• Whitesburg Population, 2000-2015
2500
2000
2000
2010
2015
Population Count • 1600
2139
2053

Letcher County's population peaked at 40,592 in 1940. It reached a low of 23,165 in 1970 and jumped up to 30,000 in 1980. The county's population has been steadily declining since 1980 and is now at its lowest level since 1970, at 23,671.

While Letcher County's population declined from 2000 to 2010, Whitesburg's population increased by more than 500 residents.

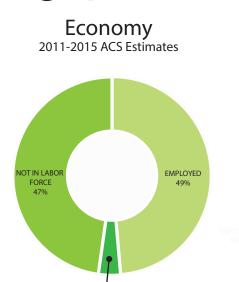
Whitesburg Age Distribution, 2000-2015



Whitesburg's age distribution remained relatively consistant from 2000 to 2015. However, the population of 25 to 34-year-olds increased significantly from 2010 to 2015, from 328 to 420.

**Employment** 

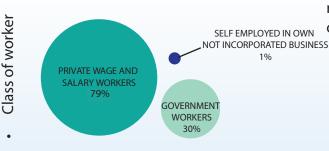
# **Demographic Information**



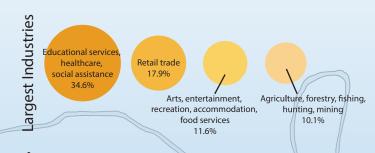
Only half of Whitesburg's population is in the labor force. More than a quarter of those who are employed work for the government. Whitesburg is home to both Letcher County's and Whitesburg's government buildings, both large employers in the city.

Almost 80 percent of employed residents are private wage and salary workers, and only 1 percent own their own business. This suggest that barriers exist to entrepreneurship in Whitesburg.

The largest industries are educational services, healthcare, and social assistance. Agriculture, forestry, fishing, hunting and mining combined only comprise ten percent of Whitesburg's employment.



UNEMPLOYED



# **Problem Statements and Goals**

While Whitesburg has many assets, it faces similar struggles as other small communities in the central Appalachian region. Industry and population decline, as well as legacy pollutants, pose complex questions and challenges for strengthening social, environmental, and economic capital. The purpose of this report cannot, and should not, be to offer silver bullet solutions or grand schemes. Instead, it provides an assessment of existing conditions within a roughly one-mile corridor encompassing the river, trail, and a historic downtown district that can enable Whitesburg to participate in the Environmental Law Institute's Blight Revitalization Initiative for Green Healthy Towns (BRIGHT) program. It offers a palette of design opportunities, ideas, and implementation strategies for community stakeholder-directed corridor revitalization which could improve quality of life, environmental resources, and economic energy within Whitesburg.

### **Downtown**

Whitesburg's Downtown is a center of government, history, and culture in the region. This portion of the BRIGHT corridor analysis examines the infrastructural and economic health of the Downtown corridor and compiles resources and strategies to support the process of further planning for Downtown development.

#### **Problem Statement**

Downtown Whitesburg has a distinct historic character and culture, but faces challenges with vacant buildings, commercial development, and pedestrian connectivity through the corridor.

#### Goal

Strengthen Downtown Whitesburg's role as a local and regional cultural and economic destination and improve its walkability and connections to the river and trail.

#### Riverfront

**Problem Statement** 

The Whitesburg community has shown a lack of trust in the North Fork Kentucky River due to long-standing poor quality and contamination from mining and other pollution. Multiple attempts have been made to raise water quality, but addressing the multiple causes of nonpoint pollution have achieved limited results, so local water advocates want complementary approaches for improving the riverfront.

### Goals

- •Improve riverfront quality and public perception of the North Fork Kentucky River in Whitesburg
- •Create more opportunities for positive experiences along the riverfront
- •Remediate and prevent stormwater pollution and erosion

#### Trail

The BRIGHT program lists mobility - specifically bike and walk paths - and "healthfields", among project priorities. ELI notes that "healthfields" are defined by the EPA as "end uses that improve the health and wellness of the community" and that they may include parks and open space. With this rationale, Whiteburg's existing downtown trail and remaining undeveloped corridor are considered integral to addressing BRIGHT priorities, and thus comprise a dedicated portion of this investigation.

### **Problem Statement**

Whitesburg's downtown trail offers a fantastic amenity for the community that has the potential to improve transportation, civic health, and quality of life. At present, however, it lacks definition, cohesion, and a distinct character.

### Goals

- •Improve visibility and awareness of Whitesburg's existing trail.
- Improve connections between important local destinations in order to provide alternative transportation opportunities.
- •Create a sense of place that speaks to Whitesburg's history, culture, and natural environment.
- •Use trail development initiatives to enhance health and wellbeing.

### **Brownfields**

**Problem Statement** 

Suspected brownfields have never been mapped in Whitesburg, although local residents have knowledge of potentially contaminated sites. This report initiated a comprehensive assent of potential brownfields in Whitesburg, one of the key steps in the BRIGHT methodology.

#### Goals

Inventory and map potential brownfield sites
 Provide information about resources, funding, and remediation strategies that can be carried forward in further BRIGHT program steps

### **Community Engagement**

This report as a whole investigates and suggests possibilities Whitesburg and Appalshop could pursue to improve economic conditions, quality of life, and ecological health in the area. With any individual project, or with a redevelopment plan and strategy as a whole, the use of community engaged implementation processes can empower residents as decision makers to a greater or lesser degree. Processes that maximize community decision control, if done well, create better ideas, more widely supported plans, and less resistance from key stakeholder groups, ultimately ensuring the long-term success of redevelopment efforts.

### **Problem Statement**

Past community engagement efforts have surfaced deep community tensions. While

there exists strong networks of social capital in the community, there are stark divisions between sub-communities. Further, some stakeholders express frustration with inconsistent levels of resident or stakeholder engagement in past and present collaborative structures. Despite these difficulties, for development to be successful in the long-term, community members and stakeholders should be involved at every stage of planning, design, and implementation.

#### Goals

- •Deeply engage residents and stakeholders like businesses, non-profits, and elected officials in the process of planning, design, and implementation of redevelopment and revitalization projects.
- •Build social networks through community engagement and collaboration that can achieve greater outcomes in the long-term.
- •Establish sense of ownership and empowerment over development plans and project among residents; reduce resistance to development projects by establishing common ground and general consensus about the best paths forward.

# **Chapter 2: Analysis**

### Downtown

**Assessment of Current Conditions** 

**SWOT** 

**Existing Plans** 

**General Strategies** 

Recommendations

### Riverfront

**Assessment of Current Conditions** 

**SWOT** 

**Existing Plans** 

**General Strategies** 

Recommendations

## Walking Trail

**Assessment of Current Conditions** 

**SWOT** 

**Existing Plans** 

**General Strategies** 

Recommendations

### **Brownfields**

**Assessment of Current Conditions** 

**SWOT** 

**Existing Plans** 

**General Strategies** 

Recommendations

## **Community Engagement**

**Assessment of Current Conditions** 

**SWOT** 

**General Strategies** 

Recommendations



## **Downtown: Assessment of Current Conditions**

Downtown Whitesburg is a quarter-mile corridor with mixed-use commercial, residential, medical, professional services, churches, non-profit organizations and government functions.

### **Commercial activity**

Whitesburg's Downtown has anchors that give it a distinct identity as a cultural and economic hub in Eastern Kentucky. As the Letcher County seat of government, Whitesburg's Downtown is home to Letcher County office buildings and the courthouse. Appalshop, Roundabout Music Company, tattoo parlours, and the new Summit City coffee shop are nodes of culture and arts. Dining options such as Heritage Kitchen, Streetside Cafe, and the Thirsty Heifer draw people working and visiting Downtown.

However, with population decline, broad economic challenges in the Appalachian region, and competition from big box stores such as Walmart, Downtown Whitesburg has faced challenges in retaining its identity as a commercial center.

Downtown Whitesburg is a center of activity during the day because of its strong government and professional service presence, but has fewer commercial establishments to generate activity after

business hours and on weekends. It has a strong supply of government buildings and eight professional service functions, including banks, insurance, law offices, and funeral homes. A number of NGOs and medical offices also have offices Downtown, which bring employees from Whitesburg and the surrounding county to Whitesburg's downtown district during weekdays.

However, while Downtown Whitesburg has a mixture of uses, it has an undersupply of restaurant, hospitality, and residential units. Its weekend population does not match the weekday level, primarily because Downtown Whitesburg has a limited selection of

restaurants, shops, cafes, public spaces, and entertainment venues.

This is represented in differences in parking demand during the weekdays and weekends. Weekday demand for parking is high, generating demand for the parking lots and street parking in the corridor. An observational study

showed that almost all parking spaces were filled on a weekday at 3:00 pm. In contrast, parking lots are mostly empty on typical weekends, excluding Farmers Markets and festivals. Downtown Whitesburg could become more of a weekend destination if it had more retail, restaurants, and public spaces to attract residents and visitors.

### **Sense of place**

Downtown is situated in a location with very distinct characteristics, but has yet to use these assets to strengthen its unique sense of place. The North Fork of the Kentucky River winds along the northern border of the



Main Street Whitesburg. Source: Author's Own.

Downtown corridor and the city's walking trail utilizes a portion of East Main Street to connect the two paved segments. However, the river and trail are not connected to the Downtown corridor with formalized infrastructural connections. Whitesburg can capitalize on its river and trail assets to strengthen Downtown's sense of place by improving access to the river and walking trail with enhanced pedestrian connections, directional signage, and public space development.

#### **Historic Preservation**

Whitesburg is registered as a National Historic District on the National Registry of Historic Places and the Kentucky Heritage Council, which qualifies owners of contributing historic buildings for tax credits towards the rehabilitation of their buildings. 86 buildings within the district are considered "contributing structures" due to their historic architecture. Structures contributing to the historic district represent Late Victorian, Late 19th and 20th American, Late 19th and 20th century Revival, and Modern Movement architectural styles. A list of these buildings' addresses, year built, and "contributing" status is included in Appendix A.

The National Historic District designation gives building owners in Whitesburg access to the Federal Historic Preservation Tax Incentives program administered through the National Park Service and Internal Revenue

Service. The program partners with State Historic Preservation Offices to help building owners apply for tax credits to rehabilitate their properties. The Kentucky Heritage Council has a similar program that provides additional tax credits for qualifying structures. These processes are explained in more depth in Appendix B.

The historic rehabilitation tax incentives through the federal government include:

- •A 20% tax credit for the certified rehabilitation of certified historic structures
- •A 10% tax credit for the rehabilitation of non-historic, non-residential buildings built before 1936
- •The rehabilitation must be a substantial one and must involve a depreciable building
- •A tax credit lowers the amount of income tax owed.
- •The 20% rehabilitation tax credit equals 20% of the amount spent in a certified rehabilitation of a certified historic structure.
- •This credit is available for properties rehabilitated for commercial, industrial, agricultural, or rental residential purposes, but not for properties used exclusively as the owner's private residence.
- •A certified historic structure is a building

that is listed individually in the National Register of Historic Places OR a building that is located in a registered historic district and certified by the National Park Service as contributing to the historic significance of that district

Information on the process of applying for historic preservation tax credits through both the federal and state governments is included in Appendix B.

Whitesburg National Register Historic District Map



Whitesburg was approved as a Historic District in 2006 through both the National Registry of Historic Places and Kentucky Heritage Council. This map and accompanying architectural and historical discriptions, are included in the National Register of Historic Places registration form in Appendix A.

### **Pending Development**

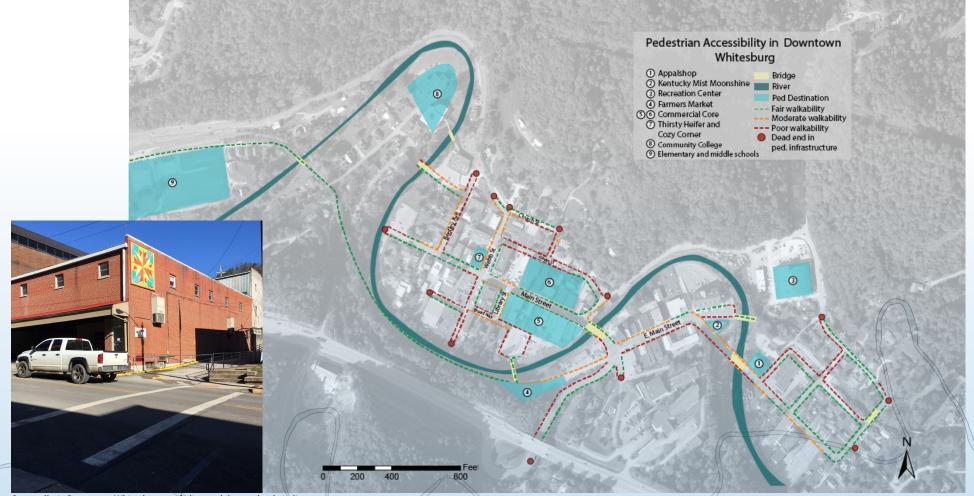
The Daniel Boone Hotel is slated for redevelopment with a proposed 45 guest rooms, boutique shops, and a high-end restaurant. A local architect drew the plans for the renovations and the project received two \$500,000 grants, one from the Appalachian Regional Commission and another from the Department for Local Government.

### **Pedestrian Connectivity**

Pedestrian infrastructure conditions were assessed through observational studies during site visits and on Google Earth. The sidewalks in Whitesburg are 4.5 feet wide or narrower and some locations do not have sidewalks at all. Most segments around the commercial core of Main Street have continuous sidewalks, but some are

interrupted by large curbcuts that presents safety risks for pedestrians. The narrowness of the sidewalks leaves little space for street trees or other green street features.

The crosswalks across Main Street do not have highly visible markings; they consist of two parallel white strips that are not clearly designated for pedestrians and difficult to see.



Crosswalks in Downtown Whitesburg are fading and do not clearly indicate that they are designated for pedestrians. Source: Author's Own.

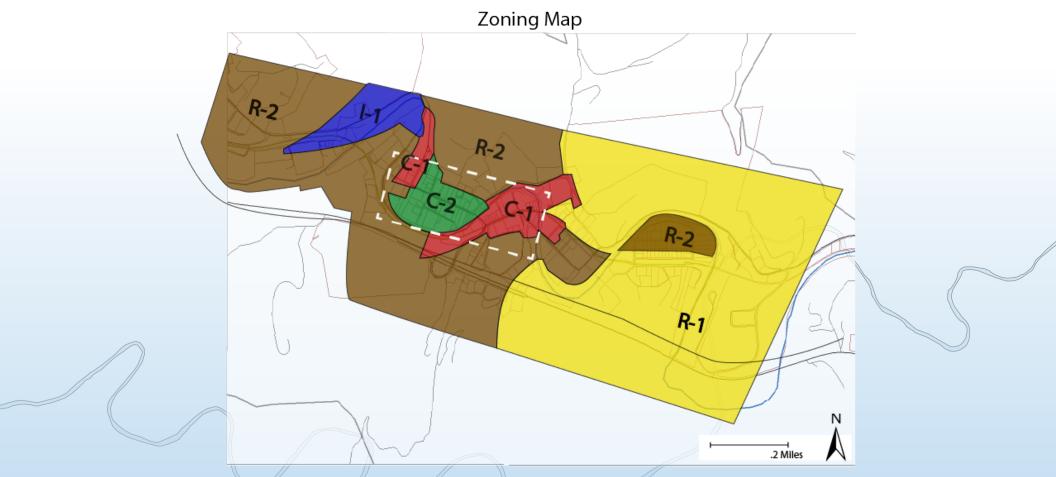
Pedestrian connectivity is inconsistent in Downtown Whitesburg. Source: Author's Own.

### **Zoning code**

Whitesburg's zoning code was adopted in 1965 and continues to govern land use in the city. The code divides Whitesburg into five zones- Residential (R-1 and R-2), Commercial (C-1 and C-2) and Industrial. R-1 and C-1 zones are lower density than R-2 and C-2 zones, meaning that buildings in these zones are required to have larger setbacks, lower heights, and larger yards. A table listing the specific requirements for each zone table are included in Appendix A.

Downtown Whitesburg is zoned C-2 on Main Street and C-1 on East Main Street. These zones support mixed-use development, permitting residential, commercial, and office development within the corridor. Main Street's C-2 zoning allows higher density than East Main Street, which is zoned C-1. This is reflected in relatively high density on Main Street, which has predominantly attached three-storey building, and lower density on East Main Street, which has one and two-storey detached buildings.

Whitesburg does not have a Planning Department. The Fire Chief plays the role of the zoning administrator, and provides consultations for individuals interested in building in the city. Zoning information for Whitesburg is not yet available online.



## **Downtown: SWOT**

### **Strengths**

- -Historic infrastructure creates a strong sense of place
- -Tax credit and grant opportunities to rehabilitate properties
- -Proximity to river
- -Strong farmer's market
- -Concentration of government and professional services attracts people from Whitesburg and surrounding counties during business hours

-Growing population of 25-34-year olds in Whitesburg strengthens Whitesburg's role as a cultural hub in the region

### Weaknesses

- -Vacant properties with rehabilitation needs
- -Gaps in commercial and restaurant sectors
- -Disconnectivity of pedestrian infrastructure

## **Opportunities**

- -Rehabilitate vacant properties to fill gaps in Downtown market
- -Make pedestrian infrastructure improvements to ease non-vehicular travel through the corridor and connect key nodes
- -Attract businesses to complement existing restaurants
- -Strengthen Downtown's sense of place to attract visitors and residents

### **Threats**

- -Generally weak market in Appalachia due to decline of coal industry
- -Competition for government and NGO funding for business development and infrastructure projects



Downtown Whitesburg has distinct publicart that creates a sense of place. Source: Author's Own.

Downtown Whitesburg's role as a local and regional destination can be improved by addressing vacancy, business development, and pedestrian connectivity within Downtown.

# **Downtown: General Strategies**

### **Vacancy**

Whitesburg's vacancy rate is relatively low compared to other towns in the county, but rehabilitating and occupying vacant buildings is a key component to revitalizing downtowns. A commercially vibrant downtown can help to draw regional visitors to Whitesburg.

Whitesburg's ¼-mile downtown corridor has at least nine unoccupied buildings. They are in different conditions; some require small repairs, while others would require rehabilitation of the entire structure of the building. Most vacant buildings are concentrated on the eastern side of the river on East Main Street.

Vacancy in Whitesburg is caused by a variety of factors. In many cases, the cost of rehabilitating buildings is too high for building owners to afford. Some building owners inherited property from family members and do not have an immediate need to bring the building to usable condition. Others own buildings and expect unaffordably high rental payments from tenants.

Because of the many different factors underlying building vacancy, a single policy may not be able to fully address the issue and may cause more harm to building owners than the good they bring to Downtown. Therefore, the following vacant building policies are presented as available strategies,

but should be considered and debated in depth with the community and City Council to determine the best way to respond to vacancies.

Policies to address vacancy

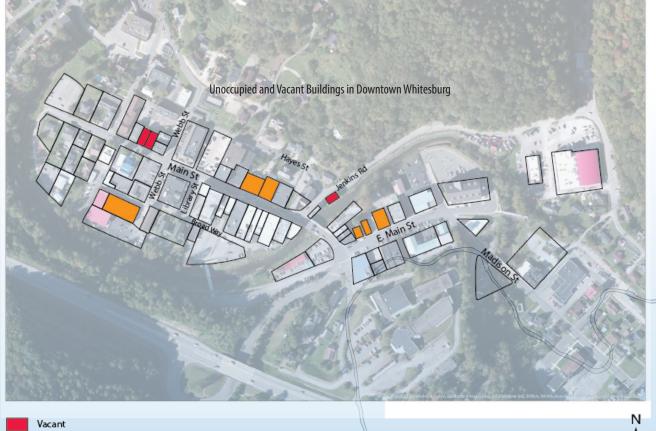
Unoccupied Storefront

The legal definition of "vacant building" varies by jurisdiction and not all unoccupied buildings are vacant. For example, a building may be empty for a short period while waiting

for a new tenant to rent, but this does not mean that the building is vacant.

Whitesburg's building code does not define vacancy, so Louisville, Kentucky was examined to establish a frame of reference for cities in the state of Kentucky.

In Louisville, three criteria must be met to designate a property "vacant". 1. A Property Maintenance violation is open on the



structure or lot; 2. It has been determined by a Code Enforcement Officer to be "vacant" at least one year; 3. It has been referred to the city government for abatement action (cleaning, mowing, boarding, demolition). The Kentucky Statute on Abandoned Urban Property (KRS 132.012) defines "abandoned urban property" as any vacant structure or vacant or unimproved lot or parcel of ground in a predominantly developed urban area which has been vacant or unimproved for a period of at least one year and which:

- a) Because it is dilapidated, unsanitary, unsafe, vermin infested, or otherwise dangerous to the safety of persons, it is unfit for its intended use; or
- b) By reason of neglect or lack of maintenance has become a place for the accumulation of trash and debris, or has become infested with rodents or other vermin; or
- c) Has been tax delinquent for a period of at least three years; or
- d) It is located within a development area established under KRS 65.7049, 65.7051, and 65.7053.

Whitesburg has properties that may fall under this definition, giving the local government authority to increase the tax rate on the property if it remains vacant.

Many cities in the United States have similar issues with vacant buildings and have addressed them with various policies.

- 1. Strengthen building code enforcement
- 2. Create a Vacant Property Registration

Ordinance to track vacant properties and enforce building maintenance standards

- 3. Introduce a fee structure for vacancy that increases each year the property is vacant
- 4. Increase the tax rate for vacant buildings
- 5. Introducing a receivership program to facilitate redevelopment of properties by non-owners

Strengthen building code enforcement

Baltimore has developed a system to address its 17,000 vacant buildings through heightened code enforcement. Buildings that do not comply with the building code are issued warnings, citations, and ultimately may go to auction.

The Vacants to Values Code Enforcement Streamlining follows the following process:

- 1. Violation notice issued
- 2. Citation process warning letter issued
- 3. First citation issued
- 4. Second citation issued
- 5. Litigation prep/title work initiated
- 6. Title received/ case filed
- 7. Property goes to auction
- 8. Property goes to settlement

Baltimore's vacant building program operates on a much larger scale than Whitesburg and this system is dependent on a large bureaucratic framework. Whitesburg may consider a process that is scaled down, but still addresses the central theme of enforcing the building code to ensure that properties are maintained and functional for commercial or residential uses.

*Create Vacant Property Registration Ordinance* (VPRO)

Vacant Property Registration Ordinances can help local governments to track the vacant buildings within the city and take steps to encourage the rehabilitation of these buildings through fine structures and vacant building registration fees. Ordinances include coverage (which areas are covered by the ordinance), requirements (registration fees, maintenance, insurance, rehabilitation plans), sanctions or penalties (fines, criminal penalties, liens) (Lee et.al 2015).

The objectives of a VPRO are to

- 1. Ensure that owners of vacant properties are known to the city and other interest parties
- 2. Ensure that owners of vacant properties are aware of the obligations of ownership under relevant regulations
- 3. Ensure that owners meet minimum standards of maintenance of vacant properties

The Vacant Property Registration Ordinance includes:

- 1. Clear definition of which properties and parties must register
- 2. Registration requirements and procedures
- 3. Fee structure
- 4. Obligations of owner for maintaining the property
- 5. Penalties for failing to register in timely fashion

The specific characteristics of the VPRO can be specified by the local government. Cities such as Bellevue, Kentucky, which has a population a little over twice the size of Whitesburg's, has a VPRO that charges vacant building owners a fine of \$500 for each year the property remains vacant and an additional fine each day the building violates maintenance requirements (Bellevue, KY).

Introduce Escalating Fee Structure for vacancy

Cities may set high fees in their VPROs to motivate owners to rehabilitate their properties.

The effect can be enhanced by

- 1. Waiving or deferring the fee for buildings scheduled for rehabilitation
- 2. Rebating fees paid for the year when a vacant building is restored and put back to use
- 3. Graduated fee schedule- fee goes up each year the building remains vacant
- 4. Municipality should be willing and able to take responsibility for properties that owners abandon due to high fees (Lee et. al 2015).

Louisville uses an escalating fee structure for its vacant buildings. If buildings violate Louisville's Property Maintenance Code, residents can issue a complaint to the Louisville Metro Government, which performs an inspection and issues a citation or violation if the property does not comply with the Code. The owner of the property must pay increasing fees if the property continues to violate the Code. Each year the property

remains vacant, the fee for building code violations increases. If fees and citations are not paid, Louisville Metro may file a lien against the property and ultimately may institute foreclosure action (City of Louisville).

The City of Whitesburg does not currently have an escalating fee structure to deter owners from leaving buildings vacant, but this type of system may encourage building owners to repair the property to usable condition or sell it at a reasonable price. Property records in Whitesburg indicate that the City of Whitesburg has not instituted foreclosure action on any of the properties believed to be vacant. Whitesburg does not have a large number of vacant buildings, but those that are vacant have had structural damage for many years and may see more investment in vacant properties if a fee system similar to Louisville's were introduced.

*Increase the tax rate for vacant buildings* 

DC taxes occupied residential property at \$.85 per \$100 value, but vacant properties at \$5 per \$100 and blighted property at \$10 per \$100.

This strategy runs the risk of leading to tax delinquency for property owners in cities with weak economic markets.

Institute a receivership program to rehabilitate vacant buildings

A third strategy is to use receivership to allow the City to appoint a receiver to restore the building to use. The original owner has the option to regain ownership over the building by making the receiver whole or the property is sold at court by the court or by the receiver (Kelly 2004). Baltimore has used this strategy and it may be a good option for areas like Downtown Whitesburg that want to preserve buildings in specific corridors without investing large amounts of public money. Vacant Properties Project: Data on vacant buildings collected from registered vacant and boarded buildings, neighborhood windshield surveys, zero water usage data, USPS undeliverable addresses, foreclosures and developer held for rehab info.



A vacant building on Jenkins Road no longer has a roof and is uninhabitable. This property may be a good candidate for government action through one of the vacant building policies explained in this report. Source: Author's own.

Rehabilitating vacant properties Most of Whitesburg is registered as the Whitesburg Historic District through the National Park Service's National Register, and historic properties considered "contributing structures" are eligible for historic tax credits. Through this program, building owners can receive a 20 percent tax credit for rehabilitation projects for commercial uses. The rehabilitation must follow historic preservation guidelines established by the National Park Service to preserve certain features of the building that help define the building's historic character and meet IRS requirements (page 9 of Tax Incentives doc). This is one resource to support building renovation to add commercial functions downtown.

Brownfield remediation grants through the US Environmental Protection Agency can also provide financial support for properties that have real or perceived contamination. A combination of available federal, state, and local resources can help to rehabilitate properties that may currently be too costly for owners to rehabilitate.

Engaging the community around vacancy
Another way to strengthen energy around vacant building rehabilitation is to garner community interest and engagement. The historic character of the buildings is an asset that can be used to engage residents and visitors around bringing vacant buildings back to usable condition.

A group of Carnegie Mellon students in Wilkinsburg, Pennsylvania organized a Vacant Home Tour, which centered on relaying stories of the history of the community's vacant buildings through organized tours. The tour engaged residents in mapping the narrative of their community, collecting old pictures and stories of the homes, and showcasing homes through guided walks. The tour was followed by a workshop on how to acquire vacant buildings and access resources for rehabilitation.

A similar historical tour of vacant buildings in Whitesburg may change perceptions of vacant buildings by initiating discussions about their history and legacy in the city. Local residents could compile information and artifacts to shape a narrative around the buildings and wider Downtown corridor and serve as tour

leaders. This activity may renew appreciation for the vacant buildings and potentially incentivize owners to seek resources to rehabilitate the properties as public pressure and interest increases.

### **Commercial development**

Three main commercial nodes anchor Downtown Whitesburg: the Kentucky Mist moonshine distillery on the far East side of

the Downtown corridor, a concentration of commercial businesses in the central block of Downtown, and the Thirsty Heifer restaurant further west on Main Street. The commercial nodes are currently isolated from one another because of vacancies and poor pedestrian infrastructure between them, but could be connected with greater commercial activity in vacant buildings and improved sidewalk connectivity.

### Infrastructural fixes

- 1. Focus on rehabilitating and attracting commercial activity in vacant properties on East Main Street to connect Kentucky Mist and the commercial core
- 2. Consider widening sidewalks or inserting bumpouts to support outdoor dining, accommodate benches, and provide space for



A vacant building on Main Street has significant structural damage, but beautiful historic architecture. This would be a good site to feature on a historic tour of Whitesburg's vacant buildings. The building is also eligible for historic preservation tax credits. Source: Author's Own.

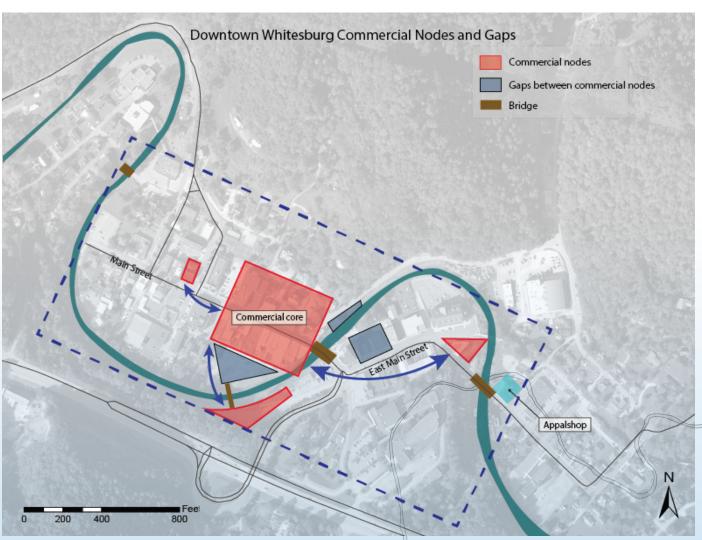
street trees on East Main Street to strengthen the rightof-way's role as a public space.

3. Improve pedestrian connections between the walking trail and Downtown with directional signage and fully connected sidewalks from the Farmers Market site to Main Street.

### Programmatic strategies

- 1. Consolidate a list of business-ready properties that require little or no additional investment for businesses to move in.
- 2. Connect entrepreneurs with loan and grant opportunities to support building rehabilitation.
- 3. Take advantage of C-1 and C-2 zoning to support mixeduse residential and commercial developments Downtown.

Priority Development Areas
Downtown Whitesburg's short-term
commercial development should
support the existing commercial core
and connect anchors on East Main
Street with those on Main Street. The
commercial core highlighted in red
on the map below is home to most
restaurants and businesses, while
the western portion of Main Street
is predominantly residential and
professional services, providing fewer
destinations for visitors.



Most businesses are located within the central block of the Downtown corridor, highlighted above. Three other commercial nodes generate activity Downtown, but these are disconnected from the commercial core by poor pedestrian connections and vacancies.

Connect entrepreneurs to business development resource organizations

- The **Southeast Kentucky Economic Development Corporation (SKED)** provides entrepreneurship training, business loans, technical assistance, and sample business plans to residents in Southeast Kentucky.
- SBA 504 loans can be used to purchase land and buildings, construct new facilities, purchase machinery and equipment with a useful life of at least ten years, make renovations and additions to existing buildings, and cover fees for architects, lawyers, environmental studies, appraisals, and interest on the construction.
- The Kentucky Economic Development Finance Authority (KEDFA) supports small business creation through access to capital, business mentoring, and support in expanding business markets.

KEDFA administers the Kentucky Small Business Tax Credit Program (KSBTC), which offers tax credits of between \$3,500 and \$25,000 per year for small businesses that have hired and sustained at least one employee in the past year and purchased at least \$5,000 in qualifying equipment or technology

It also administers the Kentucky Small Business Credit Initiative (KSBCI), which makes it easier for small businesses to underwrite a loan by connecting lenders with entrepreneurs who have creditworthy small business credit requests that do not qualify for normal underwriting standards.

- Kentucky Highlands Promise Zone helps connect residents in Eastern Kentucky with federal, non-governmental organization, and private foundation grants.. a.The website provides up-to-date information on open grant applications that range from business development grants to technical assistance for transportation systems.
- **SOAR** works exclusively in Appalachia to provide business training, create public-private partnerships, and develop modern co-working facilities to serve as business innovation hubs.
- The Mountain Association for Community Economic Development (MACED)

administers the Economic Transition for Eastern Kentucky (ETEK) Initiative, which provides retraining and entrepreneurial technical assistance services targeted to dislocated coal workers, leads an intern program in the energy efficiency sector, and administers a venture capital loan fund. This program operates in 54 counties in Eastern Kentucky and includes Whitesburg.

- The **Center for Rural Development** hosts an annual Entrepreneurial Leadership Institute, which brings together high school freshmen, sophomores, and juniors for a weeklong program with courses, guest speakers, and tours of local businesses.

Online business resources

In addition to financial resources to support business development, business owners must be connected with physical space, permits, inspections, and other practical information. Interviews with business owners in Whitesburg indicated that the resources needed to open a business are decentralized and not currently accessible on the City's

### **Redevelopment Ready**

Detroit's Redevelopment Ready Communities toolkit provides a framework for assessing the regulations, plans, and capital improvement priorities in communities to guide development. Whitesburg's downtown corridor was assessed through this framework to determine areas for further planning and identify priority development sites.

Whitesburg should consider developing a master plan and capital improvement plan with the help of the data, recommendations, and community engagement processes provided in this report.



The developers of the Daniel Boone Hotel received \$500,000 in grants to renovate the building on Main Street and create 45 guest rooms. Source: WMYT News.

website. The City could help entrepreneurs to open businesses in Whitesburg by consolidating all relevant resources on a Business Development page on the City of Whitesburg's website.

These resources include:

- 1. A list of business-ready units
- 2. A link to Whitesburg's zoning and building codes
- 3. An overview of the development review process, relevant contact information, meeting schedules, and fee schedule
- 4. Links to register the business with the state
- 5. Building permit requirements and application
- 6. Information on obtaining an inspection to operate retail food establishments
- 7. Steps to connect to water, sewer, gas and electricity
- 8. Steps to obtain a fire inspection
- 9. An overview of property taxes and food/ beverage taxes
- 10. A list of historic properties eligible for tax credits
- 11. A list of brownfield properties eligible for remediation grants

The Town of Abingdon, Virginia provides resources for business development on its

website in a Business Assistance page that lays out steps to opening a business in the city. A similarly clear and accessible format would be helpful for individuals in Whitesburg looking to understand the process.

Although easing access to business development resources will not encourage commercial development in itself, it will support prospective entrepreneurs in the process of understanding how development review works in Whitesburg, the specific characteristics of the sites they are considering for their business, and the steps necessary to have the space ready for opening day.

Digitization will reduce reliance on the Fire



Abingdon's website helps entrepreneurs to connect with the resources needed to navigate Abingdon's zoning laws, permitting requirements, and business resources. Source: www.growabingdon.com

Chief to provide hard copies to prospective business owners and make it possible for people living outside of Whitesburg to understand the regulatory environment of the city without having to go into the government office for reference materials.

Prospective business owners will still need to meet with government employees to discuss and apply for permits and inspections. Clearer information on the website will make it easier for them to find the correct points of contact and arrange appointments.

Many resources that were previously available only in hard copy were digitized and prepared for the website through this project.

### **Pedestrian Connectivity**

Part of what sets Downtown Whitesburg apart from newer commercial areas in the city is its density and mixture of offices, residences, and commercial development. The proximity of a variety of uses sets the conditions for strong walkability, which can create vibrancy Downtown. However, the existing pedestrian infrastructure is disconnected and in poor condition in many places. Improvements to pedestrian infrastructure and streetscape conditions can make Whitesburg a more comfortable place for people to visit and travel through without a car, contributing to its distinct sense of place.

### **Strategies**

1. Sidewalks should provide a continuous surface for pedestrians of all levels of mobility.

Holes in the sidewalk and disconuation of sidewalk infrastructure makes it difficult for all pedestrians to walk, particularly the elderly and young children. These issues should be addressed to allow uninterrupted walkability through the Downtown corridor.

- 2. Benches are important amenities on sidewalks to provide resting places for pedestrians. They also increase the number of people outside, contributing to greater safety with more eyes on the street.
- 3. Crosswalks can be used as both a pedestrian

safety tool and public art.

Crosswalks can be used to complement the existing public art in Whitesburg and serve as a community engagement tool to strengthen walkability Downtown.

Artistic crosswalks in Madrid, Spain enhance the visibility of crosswalks, entice people to walk instead of drive, and strengthen the distinct identity of the neighborhoods they are in.

4. Street trees provide shade and lower temperatures in urban areas, enhancing comfort for pedestrians in hot summer months. Street trees typically require a planting space of at least four feet and Whitesburg's current sidewalk infrastructure is not wide enough to accommodate this. Bulbouts in the sidewalk could provide more space by widening the sidewalk in certain places without having to widen the entire sidewalk space. Bulbouts also serve as a traffic calming measure because they narrow the roadway.



Madrid's colorful sidewalks serve as functional street art and strengthen neighborhoods' sense of place. Source: Smithsonian Magazine.



East Main Street's sidewalks could use street trees, benches, shrubs, and improved sidewalk surface to make walking more comfortable. Source: Author's Own.

## **Downtown: Recommendations Overview**

### **Vacancy**

#### Short-term

- Organize a historic vacant building tour to showcase the history of buildings to the community and garner public support for their rehabilitation.
- Connect building owners with existing tax credits, grants, and loans to support building rehabilitation.

### Long-term

 Consider policies to address vacant properties with structural damage or unrealistic rental rates.

### **Commercial Development**

#### Short-term

- Consolidate business resources on the City of Whitesburg website.
- Develop a list of business-ready sites and make it easily accessible to entrepreneurs.
- Invest in public infrastructure in the commercial core and between commercial nodes.

### Long-term

 Develop master plan and capital improvements plan to guide public investment.

### **Pedestrian Connectivity**

#### Short-term

- Repaint existing crosswalks with zebra pattern to clearly delineate them from other road markings.
- Add new crosswalks and consider a public art function.
- Consider widening sidewalks or building bulb-outs on Main Street to provide space for shrubs or street trees..
- Add benches along the sidewalk to provide resting places for pedestrians
- Provide clear signage to direct pedestrians from Main Street to the walking trail.

### Long-term

 Consider adding a sidewalk along the periphery of the parking lot between Main Street and the bridge to the Farmers Market to enhance pedestrian safety.



Cozy Corner and the Thirsty Heifer are commercial anchors on the west side of the Downtown corridor.
Source: Author's Own

# **Downtown: Recommendations**

### **Catalyst Site: Jenkins Road**

This site is situated adjacent to the river at the junction of the eastern and western portions of downtown Whitesburg within a key viewshed. The site presents an opportunity to enhance physical connections between

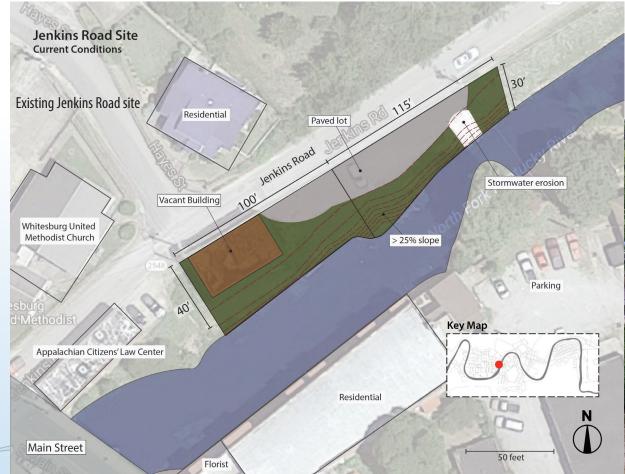
the river and both the downtown commercial area and residential neighborhood. The poor state of the building indicates that it would be a good candidate for demolition and redevelopment due to its internal structural deficiency and lack of roof.

This site is currently divided into two parcels, one with a vacant building in severe disrepair

and the other with a paved lot.

There is very little buffer between the site and Jenkins Road, which can be addressed through streetscape improvements or a larger setback between a building and the road.

This site lies within the North Fork Kentucky River 100-year floodplain, also called the Special Flood Hazard Area (SFHA). Mandatory flood insurance purchase requirements apply in all SFHAs, meaning that the SFHA zone requires the top of the lowest floor of a building to be built at or above the base flood elevation. This is an important consideration for improvements to the site.



Jenkins Road: Photograph of current site. Source: Author's Own.

Existing site conditions on Jenkins Road. Source: Author's Own.

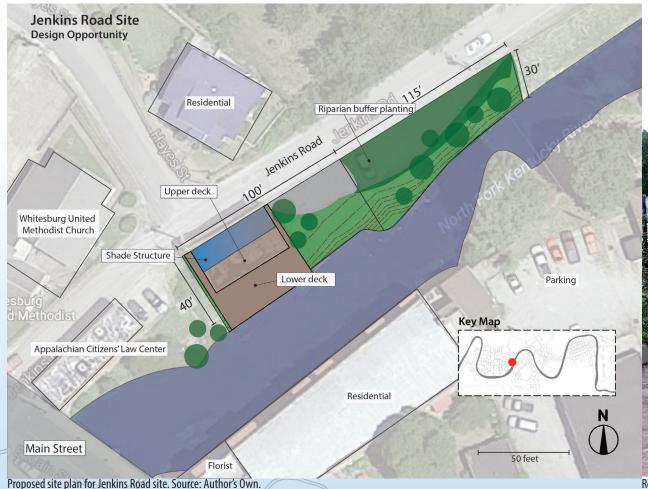
Although this site is located on Jenkins Road and not Main Street, it is just over one hundred feet from Main Street and has existing sidewalk infrastructure connecting to the center of the downtown corridor. This indicates that a commercial or public space function at the site would be easily integrated into downtown. The site is also located at the terminus of Hayes Street, a primarily residential street, which provides an opportunity for residential development

that fits into the residential context of Hayes Street. This location may be well suited for a mixed-use development that capitalizes on both the proximity to downtown and the adjacent residential units or a public park that fills a need for public spaces in the downtown corridor.

The building is a potential brownfield and could be eligible for EPA testing and remediation assistance.

The goals for the site include address stormwater erosion from the parking lot, rehabilitating and reusing a derelict vacant building for a public use, and improving the viewshed looking north from Main St. bridge

The site is well situated to grant access to the river with an ADA accessible deck covered by a shade structure and dock extending over river.



Rendering of potential Jenkins Road site

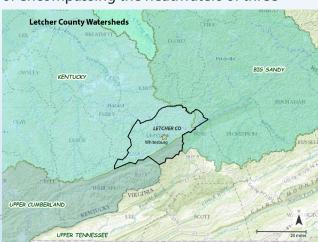
Rehabilitating the building with a publicly accessible deck could activate the site and enhance connections to the river.

# **Riverfront: Context**

This portion of the BRIGHT corridor analysis examines the riverfront of the North Fork Kentucky River as it winds through Whitesburg. Key goals for this analysis and the recommendations that follow are to help improve public perception of the North Fork Kentucky River in Whitesburg by addressing the riverfront's environmental quality while adding opportunities for enjoyment and stewardship. Both short-term and long-term strategies are proposed to meet these goals by creating more positive features along the riverfront, while remediating riverbank damage and preventing stormwater pollution and erosion.

### **Watershed**

Hydrology of Whitesburg and Letcher County Letcher County has the unique position of encompassing the headwaters of three



regionally important rivers: the North Fork of the Kentucky River, the Poor Fork of the Cumberland River, and the Levisa Fork of the Big Sandy River. This elevates the importance of land management and water quality issues in the county and in Whitesburg, as impacts will be carried downstream.

The North Fork Kentucky River meanders through Whitesburg with several small streams entering the waterway from nearby mountain drainages.

Many buildings and structures lie within the 100 year floodplain, although local residents do not recall significant flooding issues in the past 50 years.

# Water quality relationship between City and County

Water quality is an expressed concern in Whitesburg, but much of the pollution occurs upstream from historic mining and logging, acid mine drainage, and straight pipes releasing untreated sewage directly into waterways. It is beyond the scope of this assessment to address these pollution sources, but Whitesburg-based nonprofit Headwaters leads county-level efforts to improve the regional watershed. Currently a National Parks Service grant has been awarded for monitoring and remediation

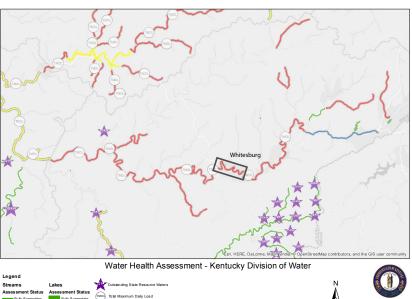


Figure: Kentucky Division of Water Water Health Assessment: the North Fork Kentucky River up and downstream of Whitesburg has been classified as "non supporting." Source: http://kygis.maps.arcgis.com/

in three subwatersheds immediately north of Whitesburg, where samples have shown consistently high levels of E. coli, heavy metals, and sulfates.

The following excerpt from the grant application demonstrates the urgency and interrelatedness of water quality issues in the City and County:

Headwaters, the City of Whitesburg, and Letcher County as a whole are at a critical point where water quality should be addressed urgently. Community members desire restored trust in drinking water supplies and improved stream health for environmental well-being, recreation, and economic development.

### **Regional Biodiversity & Conservation**

### Description of ecoregion

Eastern Kentucky is part of the Appalachian Mixed Mesophytic Forest ecoregion, one of 200 ecoregions identified by the World Wildlife Fund as most crucial for conservation to protection global biodiversity. The mixed mesophytic forests stretch from Alabama to Pennsylvania following the north-south mountain ranges. They are labeled by the WWF as 'critical/endangered' due to historic agriculture, road building, mining and logging. Biodiversity in freshwater communities of this ecoregion is particularly high, with many different endemic species of amphibians and invertebrates recorded in streams and rivers.

#### **Conservation Areas**

The Kentucky State Nature Preserves
Commission has determined that across the state 99% of the forests and prairies and 80% of the wetlands existing 200 years ago have been lost. Parts of eastern Kentucky's mixed mesophytic forests have been protected through a variety of federal and state conservation designations. The Daniel Boone National Forest and the Cumberland Gap National Historic Park can be reached in less than two hours driving from Whitesburg. Letcher County contains several regionally significant conservation areas that are within 15 miles of Whitesburg. These areas

are managed by a range of conservation stakeholders, who could be potential allies and information resources for river restoration work within Whitesburg.

The relative richness in biodiversity and conservation areas close to Whitesburg increases potential gains for participation in regional tourism schemes such as Kentucky Trail Towns or collaborative projects with conservation organizations. Given this context, the condition of the riverfront becomes an important visible reflection of the City's participation in protecting and celebrating the natural heritage of the region, and an opportunity to help reconnect local residents and visitors to the river.

### **Climate & Geology**

Climate and geology underpin the regional hydrology and vegetation patterns affecting

the North Fork Kentucky River now and in the future.

#### Climate

The average annual air temperature in eastern Kentucky has been rising slightly in recent decades, although the region has not shown increased temperature and precipitation trends over the last 50 years to the same extent as the rest of the commonwealth. Climate data shows winters becoming more mild in Kentucky. Temperatures, winter and spring precipitation, and extreme weather events, such as thunderstorms and heat waves, are predicted to increase in Kentucky in the next century according to climate models.

### **Conservation Areas Around Whitesburg**

Hensley-Pine Mountain Wildlife Management Area: 4,849 acre area managed by the Kentucky Department of Fish and Wildlife Resources that follows the crest of Pine Mountain and contains highly intact mesophytic forests.

Lilley Cornett Woods: a 550 acre state preserve and registered national natural landmark, contains old growth forests, high biodiversity, and an ecological research station managed by Eastern Kentucky University.

Bad Branch State Nature Preserve: a 2,785 acre preserve protecting the scenic Bad Branch gorge under joint ownership and management by the Nature Conservancy and the Kentucky State Nature Preserves Commission. It protects one of the largest concentrations of rare and uncommon species known in the state. Bad Branch has also been designated as one of only nine Kentucky Wild Rivers, which brings offers additional conservation protection measures for the river corridor.

Given Whitesburg's historically mild summer temperatures (average highs around 90 degrees F), the predicted temperature shifts may not offer great challenges, but a projected increase in precipitation could put more pressure on waterways during high flow periods, resulting in more erosion and possibly flooding. Whitesburg's average annual precipitation of 52.78" situates it at the upper end of the range for the state, and the summer months have the highest average precipitation. This suggests that summer storms deliver large amounts of rain to Whitesburg and intense rain events pose greater runoff challenges because water cannot be infiltrated rapidly enough.

### Soil

The relationship between the North Fork Kentucky River and the surrounding land in Whitesburg depends in part on the characteristics of the soil. Data obtained from the USDA NCRS's National Cooperative Soil Survey Map shows that three categories of soil compose the BRIGHT corridor, with one type, 'uUdoC,' predominating. Soil information in Appendix B shows that all three soils found in the corridor are classified as well drained, but also belong to the Hydrologic Soil Group C. This means that water does not infiltrate into the soil very quickly during rain events and increases the need for effective stormwater management along the riverfront within the corridor to augment the native soil's limited capacity to quickly infiltrate runoff and

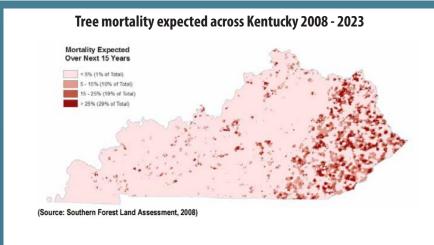
prevent erosion.

### **Local Stakeholders and Activities**

Headwaters Inc., a non profit organization based on Letcher County in Kentucky, began 12 years ago as an entity to promote the interest of water resource management and water quality in the area. It aims to improve the watersheds in Letcher County by educating the community with accurate and timely information and promotes community ownership of the water in Whitesburg. Headwaters works with multiple stakeholders, including other watershed groups and

local governments and collaborates with water clean up initiatives with local high school students. **Experience in Whitesburg** has shown a lack of trust in the river due to longstanding poor quality and contamination from mining metal waste. Multiple attempts have been made to improve water quality but addressing the multiple causes of nonpoint pollution are very difficult with limited improvements, so focusing on enhancing and restoring the riverfront may achieve more benefits than focusing on water quality.

River stewardship activities are also undertaken by local students led by a Letcher County Central High School chemistry teacher, who has been has been actively involved with the river community work in Whitesburg for over 15 years. The students' clean up happens twice a year along a 1.5 mile stretch in Whitesburg and a large amount of trash buried in the riverbank mud is removed each time. The stream cleanup has positive effects on students' awareness of proper trash removal but concern remains that a regional and community effort is needed to enable people to consider the river as part of their community and take ownership of their own community assets.



### **Regional Concerns**

Letcher County has over 75 endangered species of flora and fauna, including Kentucky's only known nesting pair of common ravens (Corvus corax), according to the Kentucky State Nature Preserves Commission's 2015 County List Report. Eastern Kentucky is also under threat from multiple exotic species of plants and insects, and parts of the region have predicted to see severe tree mortality in the next 10 years.

# **Riverfront: Assessment of Current Conditions**

### **Reach Assessment**

In order to document the existing features along the riverfront, we conducted a site assessment in early March 2017 using the Unified Stream Assessment Survey methodology published by Center for Watershed Protection. The assessment focused on two reaches of the North Fork Kentucky River with key links to both the multi-use trail and downtown Whitesburg, shown below. We also documented vegetation characteristics of the riverbanks, or riparian buffer zones, although this part of the assessment was limited by the time of



#### Reach 1

Reach 1, located close to downtown was about .24 mile stretch. Overall, Reach 1 was in suboptimal state with only 20-40% of stable habitat. Less than 50% of the riverbank surfaces was covered due to a high disruption of native streambank vegetation and moderate rate of downcutting. Exotic species, including Japanese honeysuckle vines (Lonicera japonica) and Chinese privet

(Ligustrum sinense), were observed in the understory of the wooded areas.

The average width of vegetated buffer zone

along the river fluctuated with some areas less than 10 feet, and predominant floodplain vegetation type was turf. Floodplain habitat had no evidence of standing water, but showed encroachment from parking lots and other manmade structures. Stormwater outfall pipes were observed with erosion gullies. Comprehensive floodplain quality and

connection of Reach 1 was in a suboptimal state. Detailed assessment tables are located in the digital database.

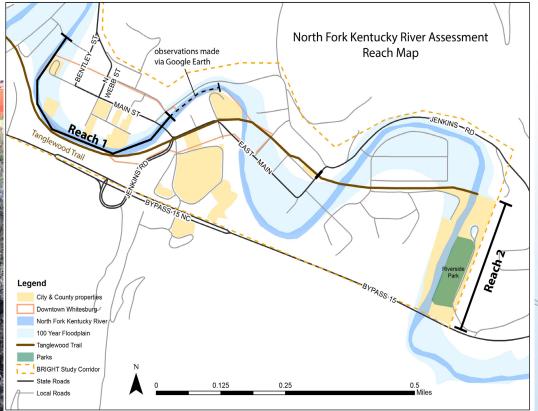


Figure: Stormwater erosion site Downtown.

#### Reach 2

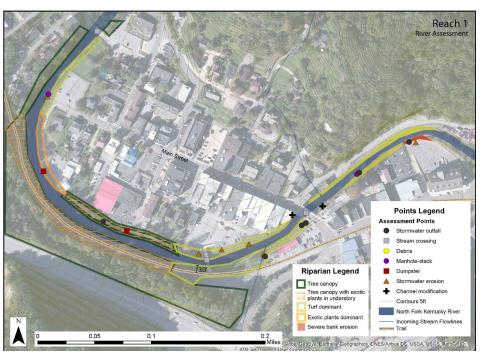
Reach 2 is about .25 miles ending close to Whitesburg ARH hospital and Riverside Park. The overall condition of Reach 2 was marginal with 20-40% mix of stable habitat. The bank in Reach 2 has more consistent tree canopy than Reach 1. However there is still a moderate bank erosion with evidence of past downcutting.

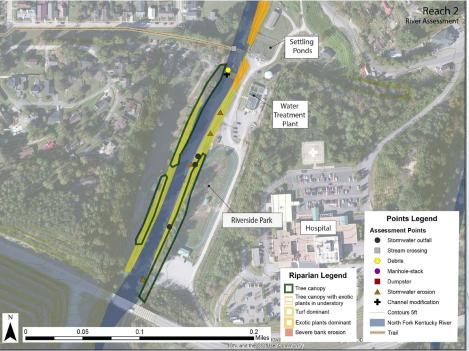
Riverside Park was previously a wetland, but filled in to create the park, according to local reports. Three stormwater outfalls below Riverside Park demonstrate this alteration of the floodplain. Overall, the vegetated buffer zone consisted of turf and some large trees beneath close to the park.

The park has a walking track, playground, and bandstand, but no formal connections to the riverfront through signage or public amenities like benches, despite its location along the river. Erosion gullies below the storwater outfall pipes slice across the floodplain and pose potential hazards for people who might want to walk along the bank.



River bank in Reach 2.





### **Impervious Surface Area Assessment**

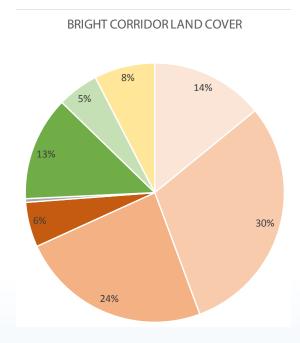
When impervious surfaces such as pavement, buildings, and roads replace vegetation and topsoil, significant effects on land cover and watershed health often follow. Impervious surfaces direct precipitation directly into drains rather than into the ground, and this stormwater runoff carries a harmful mix of unfiltered pollutants from vehicles and other urban sources. Trends in urbanized streams include altered flow regimes, decreasing aquatic species diversity and die off of more sensitive taxa, and higher levels of chemical pollutants, and decreased aquatic species richness.

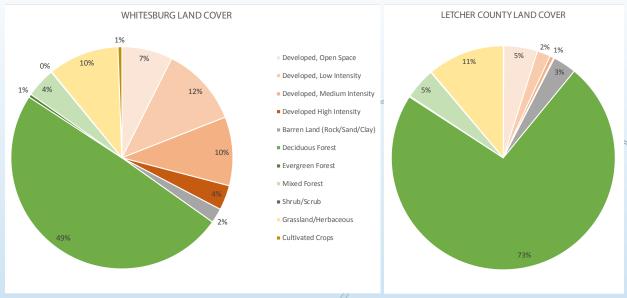
Estimating the total amount of impervious area indicates the amount of stress on an urbanized river due to stormwater runoff. GIS analysis of the 2011 National Land Cover Dataset comparing land cover percentages within the BRIGHT corridor, Whitesburg, and Letcher County shows that developed land makes a far greater portion of total land cover in Whitesburg than in primarily rural Letcher County.

The resolution of NLCD data is too broad to come to precise total impervious surface area, but it offers some telling estimates and comparisons. Within the BRIGHT corridor, almost 75% of the land is classified as 'Developed' (ranging from 20-100% IA), compared to 33% 'Developed' land cover in Whitesburg and only 7% 'Developed' land

cover in Letcher County.

The total area of the BRIGHT Corridor categorized as 'Developed' is 182 acres, which can generate a large amount of runoff. Assuming that roughly 50% of those 182 acres is fully impervious surface (like roof tops, roads, and parking lots), 40% is residential lots, and 10% is woodland, and given the runoff attributes of the local soil described above, the approximate amount of runoff generated from 1" of rainfall would be over 4 million gallons. That's the equivalent volume to filling an entire football field (including end zones) with water to a depth of over 30 feet!





# **Riverfront: SWOT**

### **Strengths**

- Active existing litter clean-up program along the river with local students.
- Headwaters organization based in Whitesburg brings organizational capacity with established connections to other organizations and agencies.
- The river channel, although highly impacted by surrounding development, has not been artificially channelized or buried in pipes, which will make restoration techniques less expensive
- Some areas of the riverfront have gentle slopes that could make good access points for walking close to the river

### Weaknesses

- Some physical infrastructure detracts from the visual appeal of the river, such as the combined sewer overflow manhole stacks
- Some parts of the riparian zone are not easily accessible due to steep slopes

## **Opportunities**

- River restoration within the city can have a positive influence on this larger initiative by creating visible and educational improvements to the riparian buffer and access points. Aesthetic improvements can also bolster the town's position as a tourism destination.
- Much of the worst stormwater runoff erosion was observed coming off public parking lots, offering the potential to work with the municipality to install demonstration stormwater management techniques

### **Threats**

- Addressing invasive vegetation along riverbanks will require sustained removal and monitoring
- May need to counter perception that riverfront improvements are not as important as addressing larger water quality issues in county, and therefore are not worth the effort



# **Riverfront: General Strategies**

### **Short-term Strategies**

#### Initiate stormwater management pilot project on publicly owned parking lot

A key opportunity from the riverfront assessment is that many stormwater erosion sites along the corridor are occurring on publicly owned parking lots. Using one or more of these sites, such as the parking lot at the western end of Main Street as a pilot project could provide a highly visible way of showing local citizens that the government and partner organizations are initiating steps to improve the riverfront and encourage participation in other proposed strategies. This pilot project could be a riparian buffer establishment, or a more engineered technique such as a bioswale or rain garden. Education signage and community events focused on the project should be prioritized to build public awareness. Many inspirations for innovative green infrastructure projects can be found on the Chesapeake Stormwater Network website.

#### **Extend river stewardship program**

The community river engagement program in Whitesburg involving local high school students could be developed to include wider range of activities to get involved with the river. Some of the river community engagement work examples can be found from volunteer programs in Qunnipiac River Watershed Association.

#### Precedent

**Qunnipiac River Watershed Association** (QRWA) based on Meriden, Connecticut, hosts many volunteer events that brings the local Qunnipiac river and the community residents together. Their main working force is made up of community resident volunteers that run programs and events in educational outreach, advocacy, monitoring, conservation, restoration and recreational public access. One example from the QRWA program is a riverWATCH program which encourage people to report illegal or harmful activities like dumping and gain more awareness of nonpoint source pollution. QRWA is also involved with outreach programs such as marking storm drains, making educational flyers, and briefing municipal officials.

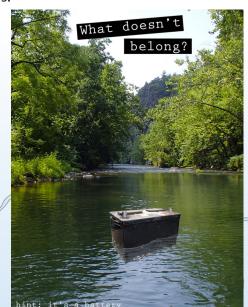
#### River signage

Kiosks could serve as message boards for river clean-up events, or display art or posters relating to the history of Whitesburg and ecological significance of the region. Simple reminders about proper disposal of chemicals or lawn care techniques could also be posted to help residents connect their own actions to river health. This could serve as a positive first

step to promoting and visualizing a positive river culture in Whitesburg.

#### Precedent

Rivanna Conservation Alliance maintains kiosks along the Rivanna River corridor, a tributary of the James River in central Virginia. The kiosks display awareness posters about not dumping trash in the river (Fig XX), posters designed by local university students about important historical sites along the corridor, trail and kayaking maps, and information about water quality and safety for recreational users.



One car battery contains 18 pounds of lead & 1 pound of sulfic acid. Recycle your car batteries properly. Your Rivanna River will thank you. WWW.RIVANNARIVER.ORG / 434-97.RIVER / EXEC@RIVANNARIVER.ORG

**RIVANNA** 

Above left: Pollution awareness raising poster produced by Rivanna Conservation Alliance.







Left: Top: Airline Trail, Lieutenant River Benches, CT Middle: Light Festival, Aether & Hemera light installation Bottom: Chilhowee Reservoir Fishing Pier, Tennessee

# Join stormwater management networks to connect to resources

Although Whitesburg does not have an officially permitted Phase II Municipal Separate Storm Sewer System (MS4), which would entail requirements for monitoring, public outreach, and other stormwater management components, it is still possible to take advantage of regional stormwater management resources. The Kentucky Stormwater Association, a nonprofit organization of MS4 municipalities, stormwater professionals, vendors, and other agencies offers training, networking, and implementation support for stormwater permitting and solutions, with associate (non-voting) partnerships available. The newsletters, quarterly meetings, or annual conferences would be a good platform for connecting to regional stormwater resources and finding potential funding mechanisms.

### Increase public amenities along the river

In order for the community residents to better enjoy the riverfront, it can be equipped with amenities such as benches, picnic tables, rock bridges, docks, light installations, and water fountains. Case studies with these amenities can be found throughout river parks around the world.

### **Long-term Strategies**

# Riparian buffer restoration and enhancement

The suboptimal vegetation and floodplain conditions observed along the riverfront can be addressed by restoring and enhancing riparian buffers, the adjacent land zones along streams where vegetation is strongly influenced by the presence of water. Riparian buffers are important for good water quality because they prevent sediment, nitrogen, phosphorus, pesticides and other pollutants from reaching a stream. The most effective buffers include a native grass or herbaceous filter strip along with deep rooted trees and shrubs close to the stream.

Using plant species from the mixed mesophytic forest ecoregion will visually connect Whitesburg to the surrounding conservation areas. Botanists and ecologists involved with those areas could be contacted to consult on species selection and sourcing. It may be possible to sustainably source and cultivate some of the locally endangered species and involved student groups in monitoring the plantings. This would enhance Whitesburg's sense of place in the ecoregion, both for visitors and residents. Native plants also form more extensive root systems that would more effectively stabilize banks and deliver higher ecological service value.

Scientific studies have shown that the

width requirements for buffers depend on the desired function. Given that fishing is a popular pastime in Whitesburg according to our interviews, a minimum riparian buffer zone of 30 feet to enhance aquatic habitat is desirable, although even a 10 foot buffer will provide some bank stabilization and stream shading.Resources for designing and funding riparian buffer projects are listed in Appendix F.

#### Precedent

A case study of a successful riparian buffer restoration can be found in Pierceville Run, a small headwater stream within the larger South Branch Codorus Creek watershed in southeastern Pennsylvania. Pierceville's main goal for riparian buffer restoration was to reduce sediment and phosphorus runoff into the stream through streambank stabilization,

livestock exclusion and the establishment of riparian buffers. The buffer work included planting grasses, forbs and 600 trees along the river. The results of this river restoration project were significant: the sediment loads to Pierceville Run have been reduced by an estimated 39 percent. The result also showed that the river passed aquatic habitat assessment in with the Index of Biotic Integrity (IBI) value of 71.3, which qualifies as a healthy and unimpaired aquatic ecosystem.

#### **Retrofit stormwater outfalls**

As noted in the reach assessments, stormwater water pipes project frequently along the river banks, often extending several feet into the air and causing outflow to hit the ground below with higher velocity. This exacerbates erosion issues and detracts from the riverfront. With engineering consultation,

it is possible to retrofit these outfalls by shortening the pipes and installing geotextile fabric and appropriately sized rip-rap rocks that will slow down the stormwater outfall discharge and prevent erosion. Resources for designing these retrofits are listed in Appendix F.

# Orient new development toward the river and incorporate the river into Whitesburg's economic development strategies.

The majority of buildings in downtown Whitesburg have their backs to the river. This reduces the aesthetic quality and incentives for people to go near the river. Parking lots with erosion gullies, extended stormwater outfall pipes, and dumpsters do not provide an inviting interface with the river. In future development in Whitesburg, design and



Cross section showing superior roots of native riparian species Source: Tennessee Urban Riparian Buffer Handbook

Mature buffer with maintained border to turf area Source: Tennessee Urban Riparian Buffer Handbook

Erosion retrofit strategy for stormwater outfall Source: Wellesley, MA

land use standards could be put in place to require new building on the southern side of the existing downtown to front the river. This would create a small riverside promenade that could allow people to enjoy the river as they conduct errands or business downtown.

Precedent: Thomas, West Virginia

Thomas, WV, a former coal town with a population of less than 600, offers regionally popular music venues, restaurants, and antique stores. Like Whitesburg, Thomas is located in an area with conservation and recreational assets, and it carves out a niche as a creative town, drawing visitors from east coast cities like Washington DC, over 3 hours driving distance. The main street in the town, East Avenue, overlooks the North Fork of the Blackwater River with buildings oriented looking out over the river. The website for

'New Historic Thomas,' non-profit community group leading redevelopment initiatives contains information on both a riverside park redevelopment and brownfields initiatives.

# Establish a green jobs training in green infrastructure management

Installation and maintenance of stormwater green infrastructure, including riparian buffer systems, can lead to opportunities for entrepreneurs to establish regional businesses. A longer term strategy that could become feasible would be to help establish a green jobs training in partnership with Eastern Kentucky Community College and other agencies. Examples of green infrastructure job training programs can be found on the EPA's website. Online training modules are available as well, such as the StormwaterPA

Green Infrastructure training. This strategy depends on creating the social and regulatory environment where green infrastructure is valued, so it may not be viable in the short term.



Thomas, WV. Source: www.newhistoricthomas.com.

### **Riverfront: Recommendations Overview**

#### Short-term Strategies

- Initiate stormwater management pilot project on publicly owned parking lot
- Extend river stewardship program
- River signage
- Join stormwater management networks to connect to resources
- Increase public amenities along the river

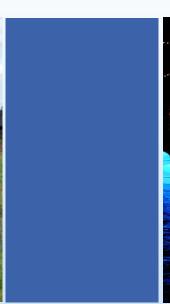
#### Long-term Strategies

- Riparian buffer restoration and enhancement
- Retrofit stormwater outfalls.
- Orient new development toward the river and incorporate the river into Whitesburg's economic development strategies.
- Establish a green jobs training in green infrastructure management.



Top right: Bishang Park, Singapore. Source: www.landzine.com. Bottom right: Schulkyll River river lights.Source: www.mapio.net. Bottom left: Restored riparian river zone in Pierceville Run, PA. Source: www. chesapeakebay.net.







### **Riverfront: Recommendations**

#### **Catalyst Site: Main Street Bioswale Site**

The Main Street bioswale site is located at the edge of the Main street Downtown. It is a publicly owned parking lot, with potential to leverage greater interest from the local government. It is a good location for future public space development because it is located next to the river, is not currently used, it has visible impacts of runoff upstream and has clear interactions with the river bank. The Main Street bioswale site can bring out greater awareness and educational values of the river to Whitesburg community members.

#### **Current Conditions**

This .47 acreage of parcel is a city-owned cement paved parking lot that is not utilized to its maximum value. The parking lot is currently largely underutilized compared with other parcels of the downtown area. Erosion and runoff deposits from the uphill are apparent, and which some of the erosion points have been modified in some places by the placement of concrete.

#### **Opportunities**

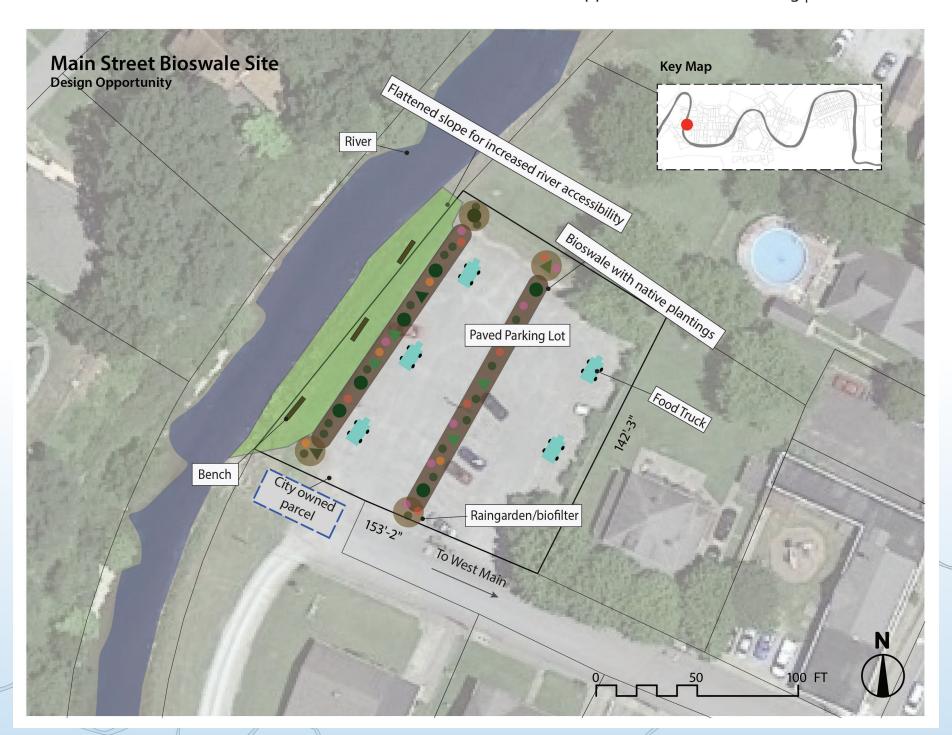
This parcel offers a good existing point of interaction between Downtown and the river.

Bioswales and rain gardens can be used to modify stormwater runoff from the site.

The draw of the site as a public space can be enhanced with programming such as food trucks during events or on weekends. Visible improvement in the intersection of downtown and river can bring people's awareness of the river in Whitesburg.







### **Trail: Context**

Whitesburg enjoys the benefit of an asphalt surface, mixed-use trail. A former rail corridor, the existing paved section runs from Hazard Road in the west to Veterans Memorial Park at its eastern extent. From there, the corridor alignment follows along East Main Street, and then is evident as a predominantly sod right-of-way that abuts residential neighborhoods – for example, Upper Bottom – until it arrives at Riverside Park in the east.

#### **Regional Context**

Whitesburg is conveniently located within easy access of many recreational opportunities, including several long-distance trails.

The Pine Mountain State Scenic Trail - also known as the Pine Mountain Trail - is an important regional route that is currently under development. When complete, it will run approximately 120 miles and link Matewan, West Virginia, Breaks Interstate Park near Elkhorn City, Kentucky in the east, and Cumberland Gap National Historic Park near Middlesboro in the west.

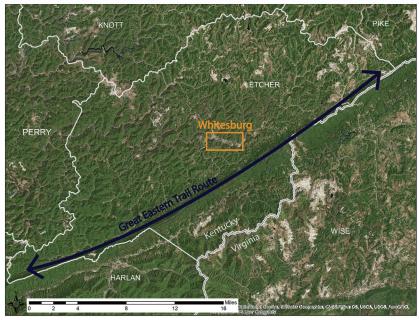
The State of Kentucky offers a Trail Town Certification Program that seeks to encourage regional trail-based tourism. At present, a total of 15 communities throughout the state are certified, including several that are in close proximity to Whitesburg: Elkhorn City, Cumberland, Benham and Lynch, and Livingstone. The fact that Elkhorn City serves as a 'gateway' to the Pine Mountain Trail was a significant factor for its award of Trail Town status.

The required criteria in order to qualify for Trail Town designation include:

- Close proximity to a national or state park, forest or recreational areas and near trail systems including water trails
- Integration of cultural, historical and agricultural elements into the overall experience
- Intent to be part of the Cross Kentucky Trail system

Perks of acceptance into the program include expanded marketing opportunities bestowed by the state, including designation in maps, visitor guides, and digital outlets, and on highway signage and window decals for participating businesses. Arguably more important, however, are the rewards Whitesburg stands to reap in matters of transportation, health, and the environment. Whitesburg has already taken

some steps toward Trail Town certification. While a regional focus falls outside the scope of this project, it is nonetheless important to consider localized trail initiatives within their larger network context. In 2014, a plan for the Tanglewood Downhill Trail was proposed that would extend Whitesburg's downtown trail eastward and connect with the Pine Mountain Trail. While there has been little definitive follow-up on this front, this work demonstrates an awareness of and appetite for the many potential benefits and opportunities that may be achieved by connecting to the larger regional trail network.



Context Map showing Whitesburg in relation to Great Eastern Trail Route. Source: Authors' Own.

# **Trail: Existing Conditions**

#### **Overview and Methodology**

The assessment of the existing downtown trail was broken down into three principal undertakings: a site survey, an analysis of existing conditions and regional context, and stakeholder interviews. For the sake of this investigation the trail is considered in three distinct sections: the existing paved trail from the trestle bridge to the west of downtown (the trail runs extends to Hazard Road - this section will be considered but falls outside the project's focus area) to Veterans Memorial Park in the east, the as-yet non-delineated section from Veterans Memorial Park along East Main Street to the trestle bridge at its northeast extent, and the remaining section that runs from this point along established residential communities to Riverside Park at the eastern edge of downtown.

The survey consisted of an extensive walking tour whereby existing conditions - including materiality, microclimate, character and form of the built and natural environment, points of interest, infrastructure, site furnishings, grading, etc. - were empirically observed and recorded. A site analysis of the existing features and qualities in turn began to uncover opportunities and catalyst sites. Stakeholder interviews were crucial in providing necessary background and helping to solidify prudent focal points for our study.

As part of the analysis, the State of Kentucky's Trail Town Assessment methodology was employed, using their "key connecting elements" - Trailhead, Gateway, Center, and Nodes – to identify opportunities within Whitesburg's existing fabric. While the future of the Trail Town program is unknown, it seemed prudent to use this characterization in hopes that it may assist in facilitating future trail initiatives. The one exception to this was the 'Access Trail' element, which was intentionally left out of this investigation. This refers to the point where the community trail connects to a larger regional network. While it is important to consider Whitesburg in the context of the Pine Mountain Trail, this project involves a considerably narrower corridor and it is thus not applicable here.

The following captures the existing conditions of the three aforementioned corridor sections:

# Section 1: Trestle Bridge West of Downtown to Veterans Memorial Park

Surface: Asphalt, approximately 6-8' wide

Topography: Minimal grade change

Landscape/Microclimate: Scenic, forested section between trestle bridge and farmer's market parking lot; excellent views to downtown and river

Physical Features: Benches (2), light standards (at regular intervals); trestle bridge (1); Whitesburg pedestrian bridge at farmers market site; art installation by Doug Adams; currently no signage, maps or wayfinding

Points of Interest: West Whitesburg Elementary School, Whitesburg Middle School, Whitesburg recreational grounds (tennis courts, swimming pool, skate park, soccer field and training grounds), Southeast Kentucky Community & Technical College, Letcher County Farmers' Market site

#### Overview:

The first section explored at the western



Trestle bridge west of downtown at the western extent of study corridor (Source: Authors' Own)

edge of the BRIGHT study corridor runs from the trestle bridge west of downtown Whitesburg to Veterans Memorial Park. Already established as a paved trail suitable for walking or cycling, it serves as an important foundational piece from which to work from, especially considering that it links important sites - schools, recreation, etc. - with the downtown district. The key concerns with this section are a lack of visual wayfinding cues, and the lack of interface and transition between its eastern extent and surrounding destinations, such as the downtown corridor, East Main Street, Veterans Memorial Park, etc.

# Section 2: Veterans Memorial Park to trestle bridge at end of East Main

*Surface*: Gravel parking lot, asphalt, concrete sidewalk

Topography: Minimal grade change

Landscape/Microclimate: Lack of green cover; no street trees

Physical Features: Trestle bridge (1) at east end of East Main Street, formerly with historic marker (removed); currently no signage, maps or wayfinding

Points of Interest: Letcher County Farmers'
Market site, Whitesburg City Hall, Whitesburg
Police Department, Letcher County Health
Department, Kentucky Mist Moonshine

#### Overview:

The second section of the trail runs from Veterans Memorial Park along East Main Street until it reaches the North Fork of the Kentucky River near the Letcher County Health Department. One key concern with this section is the unfriendly pedestrian experience that arises from an abundance of automobile-based infrastructure, and a lack of clear pedestrian route delineation along East Main. This is compounded by the fact that a continuous sidewalk is only provided along the north side of the street. The walkway on the south side is frequently interrupted, largely due to the allocation of parking and vehicular access.

# Section 3: East Main to Riverside Park

Surface: Gravel, asphalt, sod lawn

Topography: Minimal grade change

Landscape/Microclimate: Moderate tree cover; green space

Physical Features: Trestle bridges
(2), east of 5th Street pedestrian
underpass and at Whitesburg
Water Plant (adjacent Riverside
Park); currently no signage, maps or
wayfinding
Points of Interest: Appalshop,
Riverside Park, Whitesburg ARH
Hospital

#### Overview:

The final section of the trail route assessed within the BRIGHT study corridor leads through Appalshop's property east of downtown, and follows adjacent Indiana Avenue before passing under the 5th Street bridge. It then runs along the Upper Bottom neighborhood and ends at the pedestrian bridge just north of the Whitesburg Water Treatment Plant and dam. Key concerns with this section of the proposed route include concerns about obtaining ROW from private landowners who may want to develop the property outlined in orange in the Current Conditions diagram, and improving the connection from the trail to Riverside Park and the hospital beyond.



View from Veterans Memorial Park toward East Main Street (Source: Authors' Own)

### **Trail: SWOT**

### Strengths

- Former rail corridor; very little grade change; easily accessible by many modes of transport
- Links civic, residential and commercial destinations downtown with schools (elementary/middle school), recreational grounds and sports fields, and the West Whitesburg commercial corridor along Hazard Road
- Provides a path by which one may experience Whitesburg's rich heritage (industrial, cultural, environmental)

### Weaknesses

- Lacks visibility and definition
- No existing signage or wayfinding
- Further easement negotiation required

### **Opportunities**

- Strengthen connection between the river and city
- Showcase Local Public Art
- Interpretive signage denoting important historic/cultural/environmental sites

### **Threats**

- Political indifference
- Inaction
- Corridor fragmentation (through development, for example)



Corridor east of the Kentucky Power site looking toward 5th Street bridge, south of Downtown, and at Farmers Market Pavilion (Source: Authors' Own)





# **Trail: Strategies**

Whitesburg's downtown trail offers a host of opportunities for improvements that have the potential to significantly contribute to the health and wellbeing of its residents.

As succinctly stated by the Community and Economic Development Initiative of Kentucky (CEDIK), "The development of a trail system can help a community improve recreational, travel and health assets and generate revenue."

While the positive health effects of physical exercise are widely known, there are myriad additional benefits that may gleaned from community trails. For example, a growing body of evidence is increasingly pointing to the economic benefits of trail development. One such study from 2007 revealed that visitors to the Virginia Creeper Trail – a 35-mile rail trail that runs from Abingdon to Whitetop, VA – spent \$1.59 million annually providing an estimated 27 new full time jobs.

Whitesburg's downtown trail is well-positioned to incorporate features of complete streets, greenways, and recreational trails into its extents. Complete streets refer to streets that incorporate a full range of users as opposed to prioritizing one or two modes of transport – for example, routes where pedestrians, cyclists, and automobiles are each given equal status. Greenways are transportation corridors that also provide

meaningful interactions with the natural environment, thereby improving the overall experience for the user. Recreational trails are perhaps more self-evident: routes that are predominantly oriented toward experiences that offer incentives for exploration and exercise. When these elements are combined, many outcomes for positive health, travel (including convenience, efficiency, etc.) and sociocultural experiences are possible.

Finally, trail development work, when sufficiently inclusive, may serve as a rallying point for a community that has the potential to strengthen bonds among residents, and improve civic pride. "When done well, the (trail) planning process provides opportunities for meaningful interaction and strengthens civic engagement."

The following general strategies seek to address each of these points, ideally inciting collaborative processes that ultimately succeed in advancing transportation, civic health, and quality of life goals. They have also been crafted with consideration of the "Elements of a Trail Town Strategy" from the Kentucky Trail Town How to Guide.

#### Implement Wayfinding and Signage

As noted in the overview of existing conditions, at present the Whitesburg

downtown trail has no signage or wayfinding means for users to navigate its extents. This poses a significant obstacle for anyone who is not already familiar with the existing trail route, thus impeding factions of potential users that may include visitors, tourists, new residents, or simply first-time users.

Maps and visual cues make it clear to a trail user that they are on a formal, sanctioned route that has been carefully conceived and indicate that a certain level of thought has been put into the pedestrian/cyclist experience. Conversely, an unmarked trail evokes uncertainty and questions in the mind of the user: "Am I supposed to be on this trail?"; "Will this take me to where I need to go?"; "Where will I end up if I follow it?" Questions such as these will typically result in a level of discomfort that leads to a reversion to more familiar transportation modes and



Proposed directional and wayfinding signage for Hindman, Kentucky. Source: CEDIK

routes – e.g. getting into a vehicle and driving to a destination. Wayfinding is therefore not only an important way to enhance the user experience, but also to achieve positive economic and health outcomes for a community.

As a first step, CEDIK recommends conducting a wayfinding project inventory for the community to identify its existing assets that can then inform development processes. According to CEDIK, these should include biological/physical information, social/ economic information, and historical/cultural information. In the case of Whitesburg, there is a wealth of assets – historic, cultural and environmental – to call attention to, e.g. the downtown historic district, beautifully preserved trestle bridges and building architecture, and a rail corridor that speaks to the city's industrial legacy and heritage.

Public art provides a unique opportunity to link aesthetically pleasing visual cues with the trail while conveying a sense of place to visitors and residents alike. At present, there are a number of public art installations throughout Whitesburg's downtown district, one of which is located along the existing paved trail (see above image). Incorporating an expanded network of public art opportunity sites

# Incentivize Trail Use for Public Health Outcomes

Improved civic health is one of the most enticing achievements that is possible with trail development. While physical features are crucial, it is important to couple these with incentives that further entice and encourage use of the trail. These can take on many forms. In Whitesburg's case, one prudent opportunity might be to consider ways to link major destinations and/or points of interest. In strategizing for public health, youth are an important demographic to consider. Furthermore, the existing downtown trail connects Whitesburg with two schools - West Whitesburg Elementary and Whitesburg Middle School. As such, there is a wonderful opportunity to incentivize walking and cycling to work/school via the trail. While no longer applicable, the former Kentucky Safe Routes to School Program is an example of such an endeavor.

The Centers for Disease Control and Prevention (CDC) recognize the potent link between trails, open space, and health. In 2016, in conjunction with the National Park Service, they published the Parks, Trails, and Health Workbook that is an excellent reference for communities as they consider these intertwined issues. They outline a series of steps that are recommended to be undertaken by the interested community:

- 1. Create a community health profile.
- 1.2. Construct community profile
- 1.3. Collect disease prevalence and risk factor data to determine health needs of population

- 1.4. Identify community health goals that have been defined by local health community, schools, and nonprofit organizations1.5. Agree on baseline data that address project goals and support monitoring and evaluation
- 2. Site Assessment
- 3. Site Planning
- 4. Park and Trail System Planning
- 5. Monitoring and Evaluation

This effort seeks to provide a foundation for steps 2 and 3, in hopes that assistance on these fronts may catalyze collaboration among stakeholders.

Case Study: Birch Bay, Washington - see

Appendix C'Parks, Trails, and Health Workbook' pg. 25.

#### Raise Awareness of the Trail Through Popup Programming

Recognizing that major funding opportunities are not always readily available, it is important to consider more easily achievable methods that strive for similar results. In some cases, it is also advisable to test interventions prior to fully committing to their implementation. One opportunity that checks each of these boxes is to devise "pop-up" programming or physical interventions that raise awareness of the trail and its potential benefits for the community. "Pop-up" terminology refers to interventions that offer relative ease of implementation and which are temporary in nature; an alternative name for this is tactical urbanism, which can

be considered a way "to improve public spaces using low-cost, temporary measures."

East Main Street serves as an important civic corridor – it is host to the Fire Department, Police Station, City of Whitesburg offices, and Letcher County Health Department – and offers enticing architectural character for expanded commercial activity. Additionally, it acts as the eastern "gateway" to downtown Whitesburg, with important sightlines to Veterans Memorial Park and the North Fork of the Kentucky River from the Main Street Bridge. During peak business hours there is a significant volume of vehicles parked along East Main – in parallel parking stalls on the north side of the street and perpendicular

stalls on the south side. Based on the current lane width and space reserved for parking, there are opportunities for street realignment without incurring losses to the total number of parking spaces available.

One possible tactical urbanism project would be to shift the East Main Street lanes and parallel parking stalls 3-4' from north sidewalk curb, accommodating an enlarged public realm and sidewalk area. Planters and non-permanent paint could be used to delineate expanded public space, affording opportunities for collaboration with residents and local businesses, e.g. a community "build day", plants supplied by a local florist, etc.

Many positive outcomes may result from a "pop-up" event. For example, bringing attention to the temporary installation, eliciting community member questions and feedback, and perhaps expanding preconceived notions of what may or may not be possible.

#### Install unpaved trail along Kentucky Avenue to preserve space for future development

The northern edge of the empty parcel running along Kentucky Avenue presents a good opportunity for integrating the trail into streetscape amenities, while still separating it from car traffic for safety. The existing sidewalk on the northern side of Kentucky Ave. lacks sufficient width for a multi use trail. The figures below show how the trail (symbolized as a

> bike lane) could pass in front of future houses potentially developed on the empty parcel. Trees would shade the

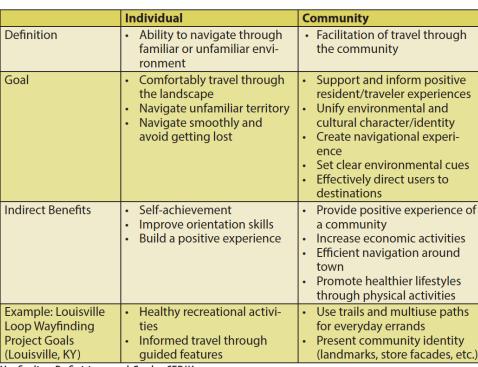


#### Left:

Wayfinding definitions and goals for individuals and communities Source: CEDIK

#### Right:

Public art installation along the existing downtown trail. Source: Authors' Own



Wayfinding Definitions and Goals-CEDIK

path while providing an amenity and some screening for the residents, and the proximity of the trail could make the housing more desirable and raise roperty values.

# Coordinate on creative short-term uses of Upper Bottom parcel

While respecting the property owner's interest in future development, the empty parcel could still be utilized temporarily to improve the trail. Wayfinding signs and seating could be installed. Community gardening offers an opportunity for temporary use that aligns well with the BRIGHT 'healthfield' focus on creating recreational and healthy food opportunities on brownfield site. An initial step before fully developing this idea would be to sample the soil and test for metals and other contaminants since the site follows the old

railway bed and address any concerns with soil quality.

It is also recommended to consider growing cane fruit crops, like blackberries and raspberries. These fruit are far less susceptible to soil contamination since parts growing in or on the ground are not consumed. Berries are perennial and require less water than

vegetable crops, which is a benefit given the limited water on the site. They begin to produce fruit more rapidly than fruit trees, have well-known nutritional benefits and popular flavors, and ever-bearing varieties provide a long season of fruit. Furthermore, the UK

Cooperative Extension program annually sells different varieties of berry plants far below market value and ships them to regional offices for pickup. This project would require good community partners, such as the Letcher County Farmers Market, Appal-Tree, or the local cooperative extension office, to organize management of the gardens.





Left: "Pop-up" bike lane in Mountain View, California. Source: http:// www.greatstreetsmv. orq.

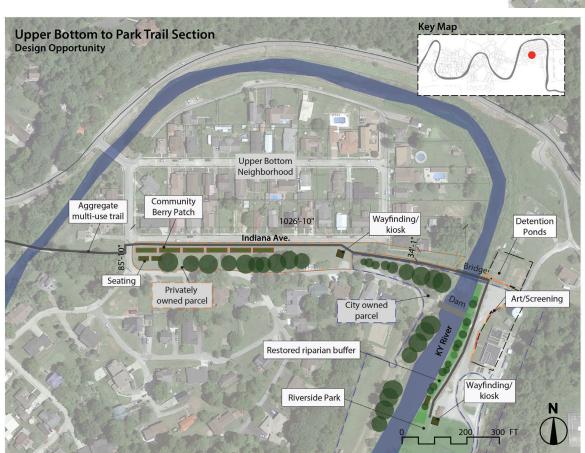
Right: Proposed and existing street section on Kentucky Avenue. Source: Author's Own.

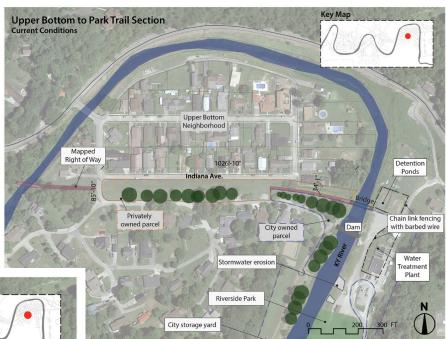




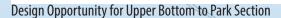
#### Improve connection to Riverside Park and Hospital

Currently to walk from the final pedestrian bridge to Riverside Park passes barbed wire fencings and eroded riverbanks, with no shade or designated walking path. These concerns could be addressed using strategies outlined elsewhere in the report: adding screening, restoring the riparian buffer below the parking lot, and installing a river kiosk at the park entrance. It is also important to connect the trail and park to the hospital along a pedestrian route. While work continues on the regional trail network, which would provide access along the northern entrance to the hospital, a short-term connection to the hospital could be explored by directing pedestrians along the access road with appropriate signs and safeguards from vehicles, if the hospital is amenable to this approach.





Current Upper Bottom to Park Trail Section



## **Trail: Recommendations**

#### **Catalyst Site: Midtown Corridor**

#### Corridor Significance

The Midtown Trail Corridor connects the on-street East Main Trail Corridor to the undeveloped remainder of the trail. It presents an opportunity for Appalshop to lead next effort to extend trail by working with own property, but it is necessary to consider the linkages and obstacles beyond Appalshop's parcel.

#### **Current Conditions**

This stretch of trail comprises five parcels with different owners including Appalshop, Kentucky Power, and the city. The zoning is a mix of commercial and residential (See Appendix C for details on parcel ownership and characteristics).

A key site and current pinch point in the trail route belongs to Kentucky Power (outlined in red in the Current Conditions diagram). It has been identified by multiple stakeholders as a problematic site that would require a resolution in order to move forward with the broader trail masterplan.

A mapped 12.5' gap between property boundaries, visible on the GIS property data, received for this project opens the possibility that legally a designated trail right-of-way (ROW) along the original railbed. Further research and surveying is needed to confirm the exact dimensions of this area.

The eastern parcel in the Midtown Corridor is a city-owned parcel that leads to an underpass beneath avenue. Boggy conditions were observed on multiple site visits in this low point along the trail corridor.

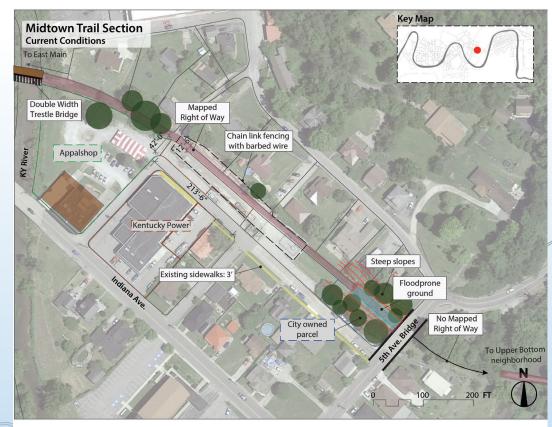
#### **Opportunities**

If the mapped ROW is upheld and the storage yard shifts in compliance, then the trail could be extended through Appalshop's property along the original railbed route with an

aggregate surface and multiple plantings for shade and habitat value. Screening the chain link fence could be accomplished by installing artistic synthetic sheeting. Once the trail reaches the low, wet area before the underpass, elevating the surface to a wooden boardwalk will

enable users to navigate the section. Murals under the bridge would enhance the visual appeal.

If the preferred route becomes unfeasible, an alternative route could be developed along the Appalshop property and existing sidewalk by installing wayfinding signs and crosswalks. The original route could be picked up again by building stairs on the city owned parcel to meet the proposed boardwalk. This approach is less desirable because it is not suitable for bicycle traffic.





Rendering of proposed trail design

### **Brownfields: Assessment of Current Conditions**

As defined by the EPA, brownfields are sites where previous uses have left behind contamination, or the perception of contamination. They result from a wide range of historic and current activities, and can be found in nearly every community in the United States. While brownfields can cause environmental damage, public health risks, and redevelopment barriers, they can also be turned into a community asset through planning and design. The prevalence of coal mining in Letcher County, as well as old industrial sites, like former auto repair and service station sites, present brownfield remediation needs and opportunities that can be guided by the BRIGHT framework.

#### Potential Brownfield Sites

This report initiated a comprehensive assessment of potential brownfields in Whitesburg, one of the key steps in the BRIGHT methodology. Methods used to identify potential brownfield sites within and around the BRIGHT corridor included working with local residents, consulting state resources, and checking historic landuse maps. Longtime Whitesburg residents provided the majority of site information by noting previous uses and level of confidence in probably contamination on printed base maps prepared for the study. This important component of the assessment took time to complete so our subsequent in-

terpretations and analysis are preliminary and should be further verified with more conversations and research as the corridor project progresses.

The Kentucky Brownfield Redevelopment Program responded to our inquiry about registered brownfields in Whitesburg, but advised working with local community members to identify potential sites because the state brownfield inventory has only a limited number of registered sites.

Consultation of the Statewide Underground Storage Tank (UST) database maintained by the Kentucky DEP Division of Waste Management revealed over 30 registered underground storage tanks in Whitesburg. Although this database was not researched exhaustively due to time constraints, an initial search show 13 underground storage tanks registered in 1976 for the Childers Bulk Oil Plant Site (Site #4 in table below, located east of corridor so not pictured in Bright Corridor Brownfield Assessment Map).

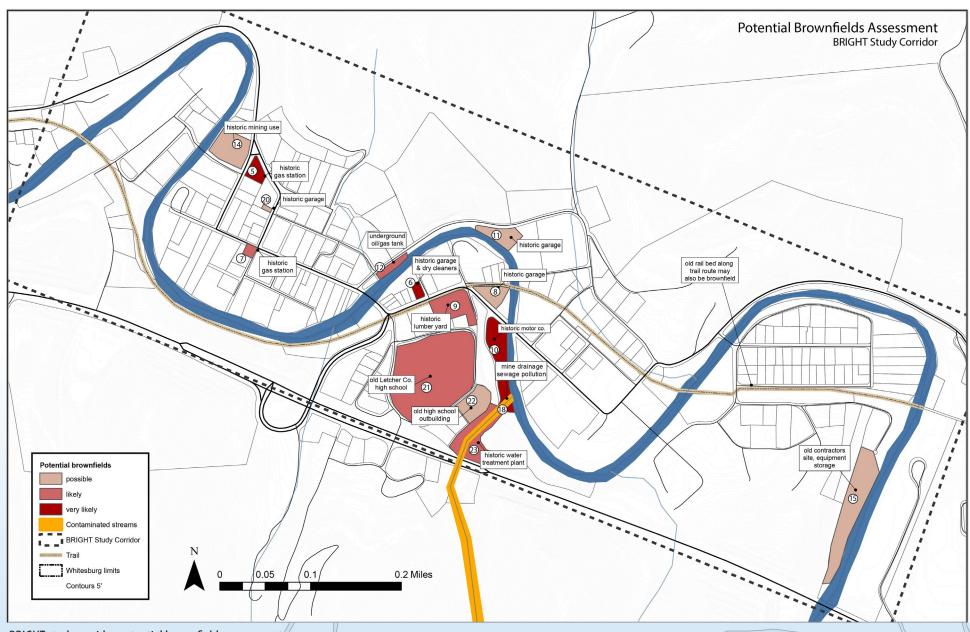
Sanborn Fire Insurance maps of Whitesburg from 1927 added additional potential sites to the inventory, and supported evidence for other sites identified by Whitesburg residents. The sites, both within and outside the BRIGHT corridor, are now inventoried as a GIS file in the Whitesburg BRIGHT digital database.

Historic service stations and car garages are the most common type of potential brownfields identified, with several sites having USTs still suspected to be underground. These sites are likely to be contaminated with metals, petroleum products, solvents, and surfactants especially if the USTs have leaked. For some identified brownfields, the range of predicted contaminants is less clear. Further testing for specific site contaminants will be necessary before sites can be prioritized and detailed remediation plans made.

The current uses for potential sites also varies significantly. Some sites have been paved over as parking lots, others have functional and in-use buildings, but several have vacant and derelict structures and do not appear to be in use.

#### Existing plans

The former high school just south of downtown (GIS ID #21), has been purchased by the Mountain Comprehensive Health Corporation (MCHC), according to local information. They intend to renovate the building for medical services, and are they working with a coalition of other local groups to provide a range of health-promoting uses, including a commercial kitchen for processing locally grown food.



BRIGHT study corridor potential brownfields assessment.

GIS ID	Site name/description	Contamination confidence	Area (acres)	Historic Uses	Current Uses	Contaminant	Local knowledge	Sanborn maps
1	rail yard	very likely	8.94	rail yard	water treatment plant	rail related	Yes	No
2	Sandlick Creek parcel	possible	0.97	unknown	intersection site of Sandlick Creek	mine drainage	Yes	No
4	Childers Oil site	very likely	5.06	oil tanks and equipment	oil tanks and equipment	petrochemicals	Yes	No
5	Bentley Street gas station	very likely	0.25	old gas station (UST suspected)	individual office building on site	petrochemicals	Yes	No
6	East Main & 1st Street	very likely	0.11	car repair garage, then dry cleaning business	vacant	petrochemicals, dry cleaning chemicals	Yes	Yes
7	Main Street gas station	likely	0.10	gas station (UST suspected)	parking lot	petrochemicals	Yes	No
8	Kentucky Mist site	possible	0.35	car repair garage	Kentucky Mist moonshine distillery	petrochemicals	Yes	Yes
9	Old lumber yard	likely	0.81	lumber yard and processing	paved parking lot and office building	lumber related	Yes	Yes
10	Boone Building	very likely	1.03	motor company (suspected pumps and UST capped illegally)	Appalshop	petrochemicals	Yes	No
11	Jenkins Road site	possible	0.45	car repair garage	car repair shop	petrochemicals	Yes	Yes
12	Telecom building	likely	0.19	old gas or oil tank underground	vacant and dilapidated	petrochemicals	Yes	No
14	Bridge Street	possible	0.78	mining related use	unknown	mining related	Yes	No
15	Contractors lot	possible	1.83	old contractors site, equipment storage	city owned, equipment and materials yard	petrochemicals	Yes	No
20	Webb Street repair shop	possible	0.03	car repair garage	parking lot	petrochemicals	No	Yes
21	Old Letcher Co. high school	likely	4.61	high school	renovations beginning for health center	asbestos	Yes	No
22	Old high school accessory building	possible	0.59	unknown	appears unused	asbestos	Unknown	No
23	old water treatment plant	likely	0.83	water treatment plant	city owned, no apparent consistent use	chemical	Yes	No

#### **Contaminated Streams**

The prevalence of coal mining in Letcher County, along with insufficient sewage infrastructure, impacts surface water quality, as evidenced by the impaired designation of the North Fork Kentucky River (see Riverfront). Surface or groundwater flowing through unreclaimed coal mines often becomes polluted with metals and highly acidic to the point that aquatic life is not supported. Local residents identified three streams likely polluted by abandoned mine drainage entering the North Fork Kentucky River in Whitesburg. Remediating these streams may involve interventions outside of the BRIGHT corridor, but could have an impact on water quality in the river in the city.



Polluted stream leaving an unreclaimed mine in Letcher county. Source: Author's Own.

### **Brownfields: SWOT**

### Strengths

- Local non-profits owning potential brownfields, such as Appalshop, may be willing to take on remediation projects and are eligible for grant funding to complete them.
- The locality has access to certain types of funding for brownfields redevelopment, which could be leveraged to address brownfields on public property (see map on the following page for a reference to public properties in the BRIGHT corridor.
- The Kentucky Brownfield Redevelopment Program offers many tools for communities to use as they plan and search for funding, and the department was very efficient in responding to inquiries.

### Weaknesses

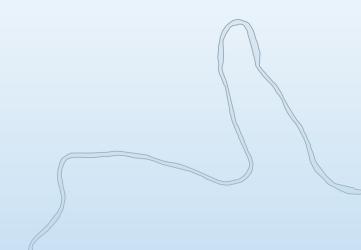
- Understanding the threats to ground and surface water will require consulting experts, which could be expensive.
- Potential exists for misunderstanding in the community about risks or benefits Prudently navigating the social context around discussion of brownfield sites around residences or workplaces should be emphasized at every stage of the longer corridor planning and redevelopment process.
- Two of the buildings identified as vacant in the Downtown Analysis (GIS ID #6, 12) are potential brownfield sites.

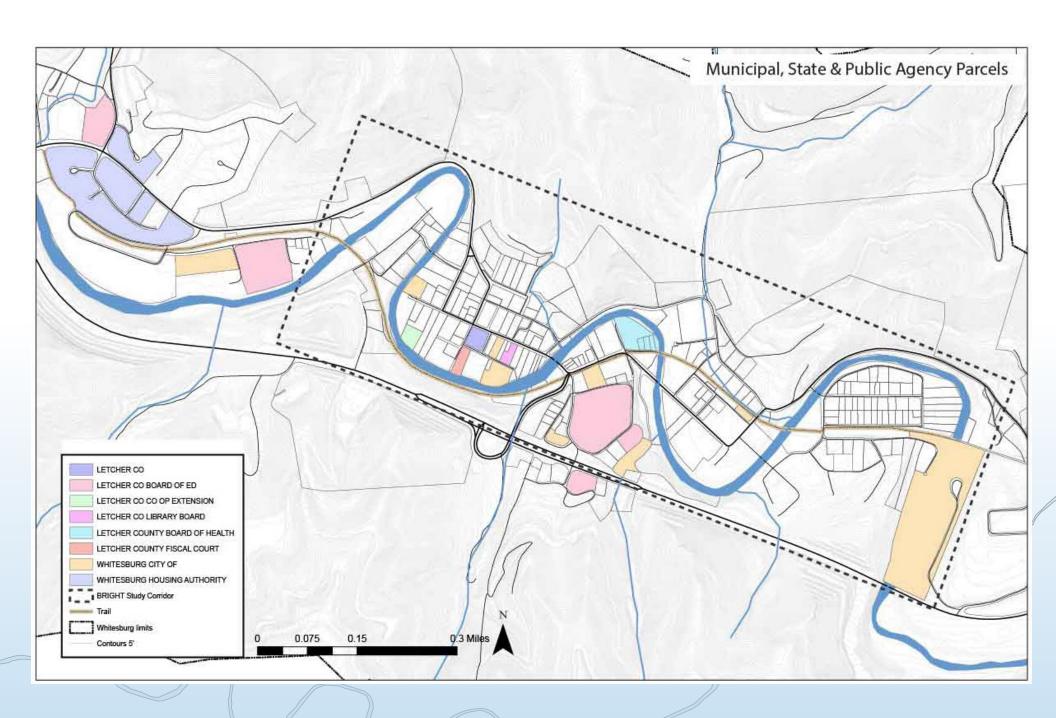
### **Opportunities**

- If innovative remediation techniques are used for either the brownfield land sites or the contaminated streams, Appalshop could be involved in documenting the work and sharing it through their media projects.
- According to the Kentucky Brownfields Redevelopment Program, businesses and individuals can sometimes access additional incentives for projects by partnering with eligible local governments or nonprofits, so pursuing public-private partnerships may present additional resources.

### **Threats**

- Eligibility for some brownfields programs depends on following correct protocols when purchasing properties





## **Brownfields: Recommendations**

# Collaborate with projects that promote healthfields in Whitesburg

A key concept promoted by the BRIGHT program is the creation of 'healthfields' in place brownfields. The EPA's 'Brownfields to Healthfields' program works to convert brownfields in unresourced communities into spaces for increased health care, recreation and healthy foods, education, and jobs. The program emphasizes a community stakeholder-led approach to developing these healthfield plans and takes a strong environmental justice stance.

The beginning redevelopment of the old Letcher County High School has many of the desired features in a healthfield and is likely to need asbestos clean up, so conservations should be initiated with MCHC to collaborate on planning and support redevelopment of old high school building with brownfields resources.

# Pursue resources to remediate petroleum brownfields and underground storage tanks (UST)

Since 10 of 15 potential brownfield sites identified may have contamination related to oil and gas, targeting resources specifically focused on remediating or treating petroleum brownfields may provide more opportunities. The EPA website has a section on 'Petroleum

Brownfields' and the Cleaner Commonwealth Fund is currently accepting grant application for petroleum cleanups (see Appendix D Funding Sources and Incentives).

# Promote the economic benefits of remediation projects

Make the case of brownfield redevelopment generating economic activity, including new jobs. In the case of cleaning up abandoned mines and polluted streams, studies have shown that for every \$1 spent on remediation, an additional \$1.36 circulates through the local economy. Area property values and recreational spending may also increase as a result of remediation.



Diagram outlining framework of healthfields. Source: Suzi Ruhl, JD, MPH, Office of Environmental Justice, EPA A comprehensive study on brownfield redevelopment by the Northeast Midwest Institute showed that brownfield development has provided multiple fiscal benefits to localities through direct and indirect effective including the following:

Finding: From the micro/project-specific perspective, public investments in brownfields are generally recouped from local taxes generated by the project within about five years, although tax credits may extend this period. From the macro perspective, the U.S. Conference of Mayors survey found that redeveloped brownfields in 62 surveyed cities could lead to \$408 million in annual local tax revenue. Further, the survey found that redeveloping remaining brownfields could generate between \$1.3 and \$3.8 billion in local taxes.

Presenting this potential, while not overstating unknowns, could help motivate community community response to local investments in brownfields as an economic development mechanism.

# Attend Central Appalachian Regional Brownfields Summit

For the second year, West Virginia is hosting a regional summit on brownfields, taking place in Morgantown, West Virginia in September 2017 with the theme of 'Ready, Set, Redevelop'. The summit includes training for licensed remediation specialists,

a grant writing workshop, and mobile workshops highlighting brownfields projects in Morgantown. The second day of the conference focuses on regional brownfields topics impacting Central Appalachia. Attending this event would help build a network and gather ideas and skills for brownfield redevelopment work.

# Investigate passive treatment systems for abandoned mine drainage at the stream entering the Boone building site

Overlaying potential brownfields, toxic streams, and public property, and Appalshop parcels revealed a dense area of sites located in the central portion of the BRIGHT study corridor which present an opportunity for developing a passive treatment system for the polluted unnamed stream which crosses through the former water treatment plant site and Appalshop's Boone Building site

before joining the Kentucky River (See Central Stream and Brownfields map on following page). Significant slopes exist in this area but engineers and designers could be brought on to study and design a passive treatment system like the example below that works with the topography and ideally addresses land pollution as well. Partnerships with universities could facilitate this type of project.

#### **Connect to regional brownfields networks**

For the second year, West Virginia is hosting the Central Appalachian Regional Brownfields Summit summit, taking place in Morgantown, West Virginia in September 2017 with the theme of 'Ready, Set, Redevelop'. The summit includes training for licensed remediation specialists, a grant writing workshop, and mobile workshops highlighting brownfields projects in Morgantown. The second day of the conference focuses on regional Marchand Passive System - Westmoreland County



Source: Hedin Environmental

#### Common Passive Technologies Used in the Eastern US for Coal Mine Drainage

Ponds — oxidize Fe, settle solids, mixing Constructed Wetlands — polishing, Mn and solids removal

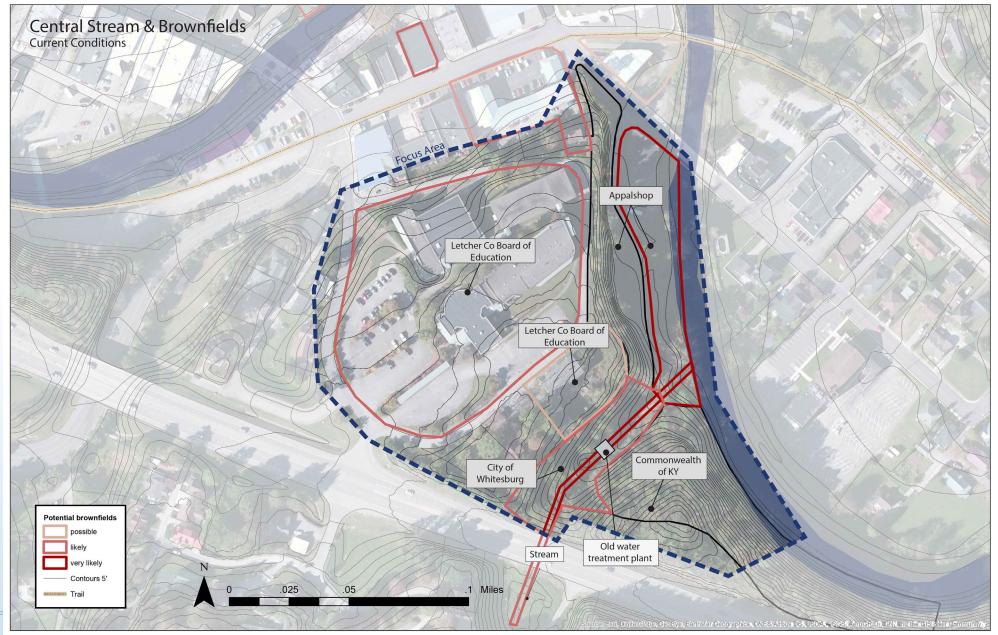
Anoxic limestone beds — alkalinity generation Oxic limestone beds — alkalinity generation, metal removal, polishing

Vertical flow ponds — alkalinity generation and metal removal

brownfields topics impacting Central Appalachia. Attending this event would help build a network and gather ideas and skills for brownfield redevelopment work.

# Connect landowners and potential investors to brownfield resources

The brownfields inventory in Whitesburg and connections with the Kentucky Brownfield Program and the BRIGHT program should be made available to landowners and potential investors. A corridor coalition, or economic development coordinator, could prepare and distribute information about these resources as needed so that landowners are aware of the available resources and can be incentivized to redevelop independently or seek public-private partnerships.



Potential passive treatment system/brownfield remediation sites. Map depicts confidence level of brownfields and property ownership.

# **Community Engagement: Assessment of Current Conditions**

Recent planning and development efforts, like Virginia Tech's Community Development Assistance Center's (CDAC) concerning the East Main Street area, have demonstrated that existing tensions and divisions within the community can hinder efforts at attracting new development or making changes to the built environment. Whitesburg is a small town, and relationships between residents, organizations and stakeholder groups are strong, sometimes multi-generational, and occasionally full of potential strife. On the positive side, this also denotes strong potential and existing social capital, a measure of the value generated by relationships between individuals in a social network. Like financial capital, social capital is a necessary ingredient in the longterm resilience, development and improvement of a community.

Our project as a whole was forced to reckon with these tensions, and to avoid wading into community conflicts with our approach, assessment processes and final recommendations. For this reason, we have not generated plans or hard and fast recommendations, but rather a collection of observations, ideas, and potential strategies for achieving the goals of the BRIGHT program.

In any community, plans for new development or change can be contentious. Often this discourages planners and community activists from pursuing community engagement and dialogue, for fear of being bogged down. Unfortunately, avoiding broad public engagement is just as likely to cause delays, conflict and project failures in the long term. Using dialogue and collaboration processes, common ground can be established amongst stakeholders, conflict deescalated, social capital built and scarce resources shared to achieve greater outcomes.

It is our assessment that despite past difficulties with community engaged planning processes in Whitesburg, any successful campaign to attract development and improve quality of life will need the active support of a broad section of the community. We assess that stakeholders and organizations in the community, like Appalshop, KFTC, Headwaters and others, have the kinds of expertise and experience in community organizing and grassroots strategic planning needed to facilitate or participate in effective community engagement processes.

While our team designed and initiated distribution of a community survey to gather information about community priorities for development and ways to improve quality of life, to date, we have received few responses given various delays. We recommend that this survey continue to be distributed and responses considered in the prioritization of future development.







# **Community Engagement: SWOT**

### **Strengths**

- •A diverse set of stakeholders, including the Appalshop, ACLC, KFTC and other groups with some experience engaging in or facilitating dialogue based strategic planning efforts.
- •Strong social networks and high potential or existing social capital reserves.
- •Relatively small, tight knit community allowing for easier communication.

#### **Weaknesses**

- •Lack of organizational resources and capacity to take on new engagement processes.
- •Lack of capacity at the local and state government levels to facilitate community engagement or planning processes in general.

### **Threats**

- •Lack of funding and potential loss of existing funding for community engagement or other organizational activities.
- •A poorly managed or ill-defined process could lead to more conflict and tension within the community.

### **Opportunities**

- •Multi-stakeholder and informal community planning group could combine organizational resources to achieve greater outcomes.
- •Residents and community members engaged and organized could provide capacity, labor and social capital sufficient to achieve low-hanging fruit improvements recommended in this report.
- •Guerilla gardening, popup parks and other tactical urbanism projects could actively engage residents in a long term process of improving the streetscape and environment.



# **Community Engagement: General Strategies**

Community engagement in development or community planning can be thought of as falling along a spectrum between informing and empowering those directly impacted by the results of the plan. As an advocate of community empowerment and democratic governance in the Appalachian region, Appalshop should advocate the use of community engaged design and implementation processes to enact this value while planning for concrete economic and quality of life improvements in revitalization efforts.

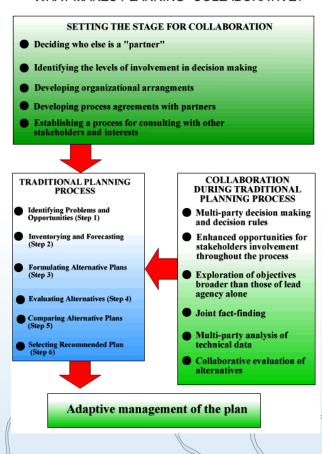
High levels of public engagement and community empowerment come with costs. Longer time frames, higher costs, special

resources, skills or technologies may all be needed. Lower cost planning processes, however, may produce final products that face opposition, overlook important community knowledge, or even unintentionally hurt already marginalized communities.

The actual costs and benefits of these variables can be difficult to assess ahead of time. Low cost projects with high levels of public engagement can potentially generate broad community awareness and support for future revitalization efforts, trading social capital for financial capital in those later projects. Community support will be vital to larger scope, more expensive projects and development plans over the long haul.

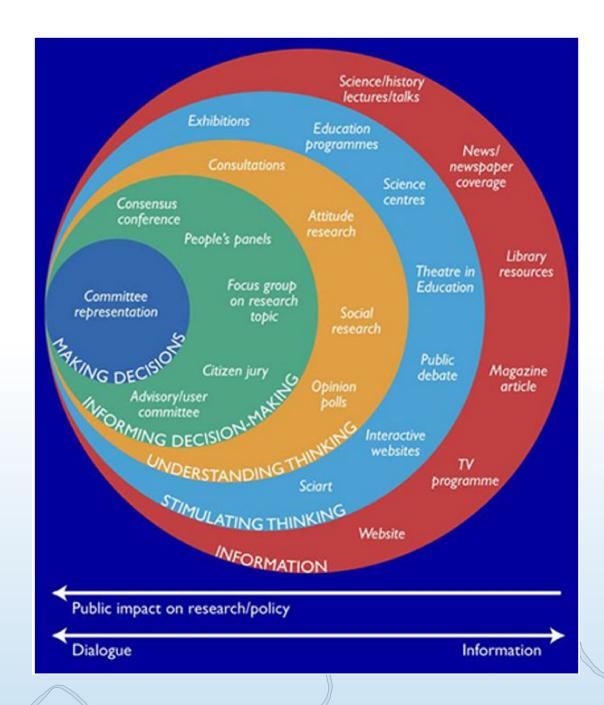
#### INCREASING IMPACT ON THE DECISION INFORM CONSULT INVOLVE COLLABORATE **EMPOWER** To provide the public To obtain public To work directly with To partner with PUBLIC PARTICIPATION GOAL with balanced and feedback on analysis, the public throughout the public in each objective information alternatives and/or the process to ensure decisions. decision including to assist them in that public concerns understanding the and aspirations the development of problem, alternatives, are consistently alternatives and the opportunities and/or understood and identification of the solutions. considered. We will keep you We will work We will keep you We will work with PROMISE TO THE PUBLIC informed. informed, listen to you to ensure that together with you to what you decide. and acknowledge vour concerns and concerns and aspirations are directly and incorporate aspirations, and reflected in the vour advice and provide feedback alternatives developed on how public and provide feedback input influenced the on how public the maximum extent decision. We will seek input influenced the your feedback on decision. drafts and proposals.

#### WHAT MAKES PLANNING "COLLABORATIVE?"



Activities included in a community engagement process can vary widely, depending on variables like the scope of the project, capacity of the convenors, stakeholder interest and the demographics of communities impacted by the plans or final product. The above graphics, and resources included in the attached database, can inform the ultimate design of community engagement processes.

We make recommendations for three general types of processes below. The first, a collaborative, multi-stakeholder engagement structure is a long term recommendation meant to evolve over time as planning for development and revitalization evolves in Whitesburg. The second and third are both geared toward lower hanging fruit like near-term improvements to the walking trail, riverfront and downtown streetscape in town. The latter could be organized by a collaborative stakeholder group, or could serve as a precursor and recruitment tool for a longer-lasting collaborative planning process.



## **Community Engagement: Recommendations**

# Collaborative multi-stakeholder engagement structure for community redevelopment

a. Basic idea is that a steering committee of stakeholder representatives provides governance for an ongoing corridor redevelopment effort that plays out over a multi-year timeframe. The above timeline graphic, from the attached "Community Planning Handbook" is one example of what this process could look like. The stakeholder group

b. Activities: Regular steering committee and broader stakeholder group meetings. Public workshops, focus and work groups,

c. Benefits: Gather broad input but maintain manageable and delineated governance and decision making structures. Share resources and expertise across stakeholder groups. Build



towards stakeholder consensus of long-term development plans.

d. Costs and Resources: Ongoing staffing and labor requirements, long-term commitment.

# Volunteer opportunities with tactical urbanism installations for riverfront, trail and streetscape improvements.

a. Tactical urbanism is a broad category of activities and projects that engage community members in design and installation of temporary or semi-permanent re-design of portions of the built environment.

b. Activities: Community design workshops, meetings and gatherings. Installation events. Neighbors work together in design and installation.

c. Benefits: Empowers communities to improve their shared spaces together;



creates new relationships; Helps envision and generate ideas for further improvements. Non-permanent interventions need minimal to no permitting.

d. Costs and resources: Staff or other dedicated staffing to facilitate design. Relatively low cost materials.

Engage residents in final design phase of trail improvements, riverfront improvements or economic development projects with interactive art and engagement practices.

a.The basic idea is to use tools like the Hester Street Collaborative's mobile trail design and planning kit to bring workshops to the public, and allow residents to offer ideas, priorities and concerns about community development plans or projects.

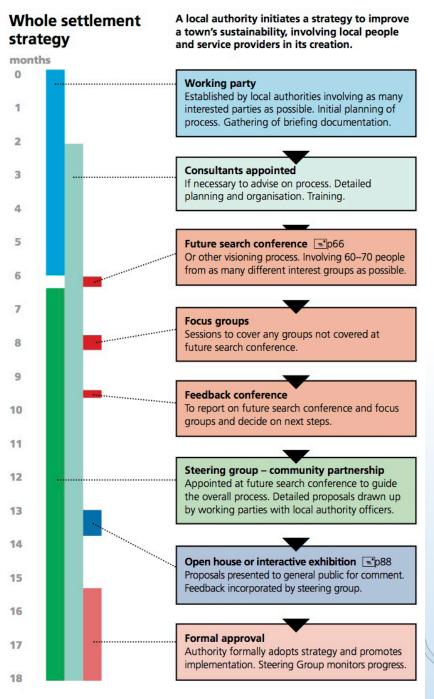


b. The kit includes a laminated satellite map of the area, fabric representation of the trail, corridor or other focus area, and tokens representing things like signs, access points, benches or other components being considered in the plan. The kit fits into a metal toolbox, and when unfolded the tokens, attached to small magnets, can be placed by residents, inputs captured, and ideas compiled to inform the final design.

Benefits: Relatively low-cost, fun and interactive. Directly engages residents and community members in visioning possible improvements and priorities.

d. Costs: Production, printing, staff time to design tool.

Level of Engagement &	Level of Impact					
Method/ Tool	Level 3	Level 2	Level 1			
	(high)	(medium)	(low)			
CONSULT	· <b></b>					
Written Community Survey (including	**	**	*			
random surveying)/ Questionnaire						
Invite written submissions	**	**	*			
Host one/ a series of 'focus group' sessions	**	**	*			
Anonymous suggestion/ feedback box		*	*			
Telephone survey	**	**	*			
Hotline/ Phone-in to Council	*	*	*			
Intercept interview – asking people in	**	**				
public places						
Social media	**	**	*			
Public meetings	*	*				
Online discussion forum/ random surveys	**	**				
World Café – facilitated group	**	**				
discussions/feedback to larger group						
INVOLVE						
Meetings with key stakeholders	***	***	*			
Meetings with other target groups e.g.						
youth, parents, Aboriginal and Torres Strait	**	**	*			
Islander peoples, people living with						
disabilities, aged, CaLD groups						
Site Tour/ Meeting with stakeholders	**	**				
Workshop sessions	**	**				
Community forum/ debate	*	*				
A community reference group	*	*				
COLLABORATE						
Community Summit	*					
Expert reference groups/ committees	**					
	**	*				
Community Advisory Committee						
Community Advisory Committee	*					



• Schematics of tools and strategies for building a community engagement process. Source: Community Planning Handbook.

# **Chapter 3: Synthesis and Implementation**

Summary Alternatives Analysis Matrix
Phasing
Community Engaged Design and Implementation
Next Steps
Conclusion







# **Alternatives Analysis Matrix**

#### **Alternatives Analysis Matrix**

Analysis of each section in our corridor assessment generated many ideas and strategies. We recognize that this decision phase will be undertaken after our project is completed, but developed a criteria for analyzing alternative proposals that can be used as a guide. We established five criteria under general headings of 'Feasibility' and 'Benefits' respectively, which speak to the fiscal, social, and environmental impacts of the strategy. The strategies for each section were compared only against others in the same section, with the best options (or least cost) receiving a score of 3, mid-range options receiving a score of 2, and the least effective or most challenging (abbreviated as worst in the table key) receiving a score of 1. Narrative sections for each section explain the reasoning behind the scores. The matrix appears on the following page.

#### Downtown

The Downtown alternatives are divided between strategies to address vacant buildings, commercial development, and pedestrian connections. Commercial development strategies primarily involve consolidating information and resources that are currently difficult to access. These strategies-"Develop list of business-ready sites" and "Consolidate business resources online"- require little invest-

ment beyond staff time, have low regulatory hurdles, and would contribute to economic benefits by helping prospective entrepreneurs with the details of opening a business.

Vacant building policies are more politically challenging because they involve strengthening the role of government in private property matters, which can be controversial, especially in small cities like Whitesburg. However, a community engagement strategy to bring community members together through a vacant building tour is an easily organized and implemented activity that could play a significant role in changing perceptions of vacancies, which is reflected in its high score in the alternatives analysis.

Strategies to improve pedestrian connections by repaving sidewalks and painting crosswalks would be politically feasible and would contribute to a more walkable Downtown. Planting street trees would be more difficult because of high capital costs involved and the accompanying need to widen sidewalks or create bulb-outs to allow trees to have enough soil. Street trees may be difficult to implement politically because of the other economic priorities in the town. However, their benefits are significant, as they would contribute to placemaking, public health, land values, and environmental restoration.

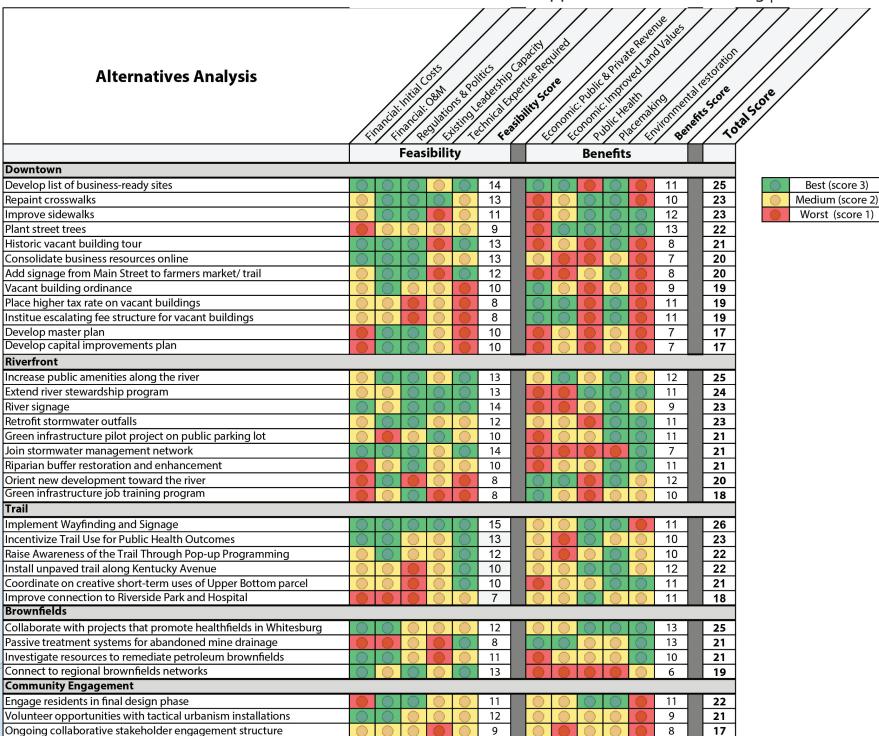
Riverfront

Feasibility for riverfront strategies was strongly influenced by the time length of implementation. Long-term strategies such as riparian buffer restoration, establishing a green jobs program, and orienting a new development toward the river require a higher level of expertise for the full implementation and larger scale coalitions that are harder to implement quickly. Short term strategies such as increasing public amenities to increase the access to the river, joining stormwater network and improving river signage do not require multiple steps to be implemented and therefore scored higher for implementation feasibility.

Both the short term and long term strategies' benefits bring economic revenues, although many are indirect benefits achieved through improving the physical environment close to downtown and positively affecting property values. Most of the strategies, both short and long term, have significant benefits on environmental restoration and placemaking since they combine riverfront enhancement with increased community engagement.

Trail

'Implement Wayfinding and Signage' ranked highest for feasibility since it has few financial burdens or regulatory hurdles anticipated, in addition to the fact that it is low-tech. It ranked second-highest (three-way tie) for ben-



efits: while it is difficult to quantify the benefits - whether economic, health, etc. - gleaned from wayfinding/signage, the high scores reflect areas that are anticipated to be positively affected by increased trail usership (resulting from wayfinding/signage improvements).

'Incentivize Trail Use for Public Health Outcomes' ranked second-highest for feasibility: the assumption is that there are a number of programs that could be implemented without significant financial or regulatory requirements. It ranked lowest for benefits: it is difficult to make a correlation between the initiative and economic benefits.

'Raise Awareness of the Trail Through Pop-up Programming' ranked in the mid-range for feasibility: it is assumed that the temporary, low-tech nature of tactical urbanism-based interventions presents considerably fewer obstacles than more permanent changes. It ranked lowest for benefits: because the concept is based on an ephemeral intervention, it is difficult to assert longer term impacts.

'Install unpaved trail along Kentucky Avenue' ranked second-lowest (two-way tie) for feasibility: this ease of implementing this initiative is a little difficult to project with privately-owned properties and easement negotiation factoring into the equation; from a construction standpoint, it would be a relatively easy and low cost build. It ranked highest for benefits: these scores are operating on the assumption that connection from the downtown trail to Upper Bottom has already been made; if achieved, this would form a contig-

uous route from key destinations in the west (and downtown) to Riverside Park in the east; there is also significant potential for increasing property values.

'Coordinate on creative short-term uses of Upper Bottom parcel' ranked second-lowest for feasibility: the main hurdles anticipated here have to do with the facilitation of an inclusive community engagement process, and dealing with the private property and easement logistics. It ranked second-highest for benefits: many positive outcomes could result from a successful community engagement process, including the generation of short-term solutions that improve aesthetics and quality of life for residents.

'Improve connection to Riverside Park and Hospital' ranked lowest for feasibility: these scores do not intend to diminish the importance of this initiative; rather, they aim to be realistic in speculating that this will be a longer term endeavor that requires fairly significant time, capital, and stakeholder engagement inputs. This would be a major step toward both a contiguous local trail corridor and also a prospective future connection to the regional network; access to these trail amenities would hospital patients and staff would have the potential to yield massive health and wellbeing benefits *Brownfields* 

The strategies for brownfields range from preliminary steps like networking at regional conferences, to the large-scale project of installing a passive treatment system for mine

drainage. The initial steps, networking and investigating petroleum brownfield resources, are more feasible, although expert guidance could facilitate the process. They could lay a foundation to make larger projects more attainable, but their benefits will be indirect. Collaborating with current redevelopment projects that promote healthfields scored well in both feasibility and benefits since a health development project is beginning in the old high school building. As further work within the BRIGHT framework progresses, the alternatives analysis method could be used again to compare more specific strategies.

#### Community Engagement

Fitting the community engagement strategies into the alternatives analysis proved challenging because some areas were less applicable. Nevertheless the analysis shows that the strategies are generally inexpensive, particularly in comparison to infrastructure projects. Like brownfields, community engagement strategies could yield many indirect benefits that would enhance other strategies. These strategies are also fundamental to the BRIGHT process and building a corridor coalition in Whitesburg.

## Conclusion

This report has sought to examine a tract of land and water from a many different angles: economics, infrastructure, connectivity, environment, and community. It bridges scales from regional to city to site. It is not intended to be reductive or prescriptive about what should happen next in Whitesburg, but rather a toolkit of recommendations and design ideas that can be considered within the community and developed further if desired. We recognize the city's historical, current and nascent assets, and we both hope and anticipate that its future, although not carefree, will be bright.



## References

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## **Appendix A: National Register of Historic Places Addresses**

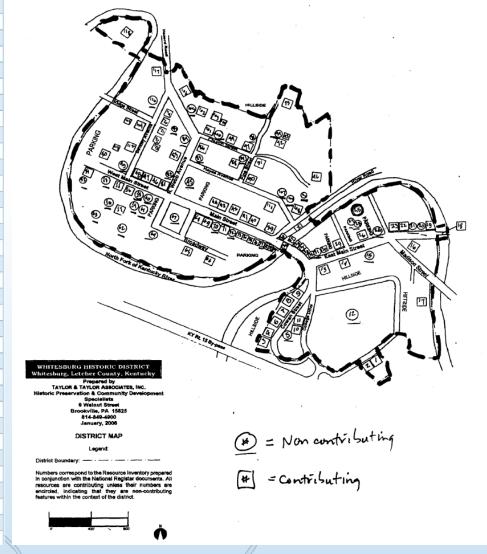
Properties with "NC" next to the year are "non-contributing" structures and are not eligible for tax credits.

Properties in Whitesburg Historic District	Year built
66 Walnut Street	1925
52 Walnut Street	1925
Cowan Street	1920
82 Cowan Street	1913-1924
Opposite 82 Cowan Street	1975 NC
70 Cowan Street	1920
58 Cowan Street	1920
50 Cowan Street	1950
32 Cowan Street	1950
107 College Drive	1920
129 College Drive	1920
Whitesburg High School	1940 NC
10 East Main Street	1920
215 East Main Street	1912, 1921
50-84 East Main Street	1912 NC
115 Madison Street- Kentucky Mist	1925
Madison Street	1925
L & N Railroad Bridge	1911
West Main Street	1950
155 East Main Street	1970 NC
153 West Main Street	1910 NC
125 East Main Street	1930
East Main Street	1940
109 East Main Street	1930 NC
228 East Main Street	1990 NC
22 East Main Street	1948
rear 22 East Main Street	1980 NC
Storage Shed 22 East Main Street	2000 NC
57-59 East Main Street	1930
35 East Main Street	1950
East Main Street	1960 NC
Kentucky Hotel East Main Street	1917
351-353 Main Street	1925
347 Main Street	1950
345 Main Street	1951
Main Street Bridge	1941
Main Street Sewerage Pump Station	1925
317 Main Street	1936
283 Main Street- Whitesburg Methodist	1940
257 Main Street- A&P Building	1950
	//

a	e not engible for tax credits.	
	253 Main Street- Holstein Building	1930
	Main Street- U.S. Post Office	1938
	203 Main Street	1950
	187 Main Street- Bank of Whitesburg	1913
	155 Main Street- Community Trust Bank	2000 NC
	120-124 West Main Street- W.E. Cook Building	1914
	67 West Main Street- Johnson Hotel	1950
	65 West Main Street- Craft Funeral Home	1935
	59 West Main Street	1920 NC
	33 West Main Street- N.M. Webb House	1921
	14 West Main Street	1956
	Rear, 14 West Main Street (shed)	1980 NC
	28 West Main Street	1910 NC
	38 West Main Street	1970
	40 West Main Street	1920
	50 West Main Street	1920
	133 West Main Street	1950
	60 West Main Street	1980 NC
	102 Main Street	1921 NC
	Rear 102 Main Street	1980 NC
	46 Broadway	1960 NC
	6 Broadway	1966 NC
	103 Broadway- Presbyterian Church	1931, 1954
	Broadway- Mountain Eagle Office Building	1925
	156 Main Street- Letcher County Court House	1964; 1999 NC
	178 Main Street- Frazier Building	1914
	Main Street- Daniel Boone Hotel	1920
	198-206 Main Street	1925 NC
	214 Main Street- John A. Webb Building	1925
	220 Main Street- Caudill Library	1971 NC
	238 Main Street- Masonic Lodge	1919
	252 Main Street- Holbrook Building	1922
	260 Main Street	1925
	272 Main Street- Mullins Department Store	1922
	280 Main Street	1925 NC
	286-290 Main Street	1925
	294-298 Main Street- Adams Hotel	1925
	304 Main Street	1925
	127 West Main Street	1914
	21 North Webb Avenue	1910 NC
	41 North Webb Avenue- Old City Hall	1948

65 North Webb Avenue	1970 NC
Rear, 65 North Webb Avenue	1990 NC
62 North Webb Avenue	1950
60 North Webb Avenue	2005 NC
Hayes Avenue	1970 NC
118 Hayes Avenue	1930
26 Pine Street- Ira Fields House	1897
74 Pine Street	1920
Side, 74 Pine Street- shed	1930
Side, 74 Pine Street- carport	1980 NC
120 Pine Street	1930
13 Church Street	1925
104 Church Street	1925
Rear, 104 Church Street	2000 NC
120 Church Street	1920
130 Church Street	1920 NC
148 Church Street	1900
162 Church Street	1930
158 Church Street	1920
Rear, 158 Church Street	1930
Church Street	1960 NC
188 Church Street	1928
42 Hayes Avenue	1970 NC
6 Hayes Avenue- Col. Sayer House	1900
Rear, 6 Hayes Avenue- Gazebo	1990 NC
Rear, 6 Hayes Avenue- Garage	1970 NC
478 Hayes Avenue- Coy Holstein House	1948
90 Bentley Avenue- Lee Adams House	1938
Rear, 90 Bentley Avenue	1938
72 Bentley Avenue- Lawrence Lewis House	1940
Rear, 72 Bentley Avenue	1940
Bentley Avenue- College bookstore	1990 NC
Coca Cola Bottling Plant	1941
35 Bentley Avenue	1920
45 Bentley Avenue	1925
65 Bentley Avenue	1930
81 Bentley Avenue	1930
Rear, 81 Bentley Avenue- garage	1930
River Road- Commercial building	1930
Public Roadways	Collectively a contributing site
Stone Retaining walls	1911 and after

The full descriptions of properties registered under the Whitesburg Historic District, including date of construction and architectural details, is included in the accompanying database.



## **Appendix B: Historic Preservation Tax Credit Information**

Requirements for Historic Preservation Tax Credits

### National Register Historic Preservation Tax Credit

•Owners of the buildings within historic districts must complete Part 1 of the Historic Preservation Certification Application- Evaluation of Significance and submit it to the State Historic Preservation Office, which reviews the application and forwards it to the NPS, which then determines whether the building contributes to the historic district based on the "Standards for Evaluating Significance within Registered Historic Districts" building then becomes certified historic structure

Because Whitesburg is already certified as a Historic District, owners of historic buildings or houses considered "contributing structures" do not need to complete Part 1 of the Historic Preservation Certification Application. These structures are listed in Appendix A.

Application for rehabilitation tax credit:

The National Park Service must certify rehabilitation projects seeking the 20% rehabilitation tax credit. NPS approves that the rehabilitation is consistent with the historic character of the property. The rehabilitation may not damage, destroy, or cover materials or features, either in the building's interior or exterior, which help define the building's historic character. Specific aspects of the historic character of

buildings within the Whitesburg Historic District are described in the Historic Preservation District application.

1.Owners seeking certification of rehabilitation work must complete Part 2 of the Historic Preservation Certification Application- Description of Rehabilitation.

a.Individuals with long-term leases on the building may also apply if their remaining lease period is at least 27.5 years for residential property or 39 years for nonresidential properties.

1.The owner submits the application to the Kentucky Heritage Council, which is Kentucky's State Historic Preservation Office (SHPO). ADDRESS

2.The Kentucky Heritage Council provides technical assistance on appropriate rehabilitation treatments, provides advice on applications, may make a site visit, and provides a recommendation to the National Park Service with the rehabilitation application.

3. The NPS reviews the rehabilitation application and determines whether the project complies with the "Secretary of the Interior's Standards for Rehabilitation". It then issues a certification decision based on the project's conformance with these standards.

4.Owners are encouraged to apply before they

start work on the building.

5.After rehabilitation work is completed, the owner submits Part 3 of the Historic Preservation Certification Application- Request for Certification of Completed Work to the Kentucky Heritage Council, which then forwards it to the NPS with a recommendation for certification.

6.The NPS reviews the project against the rehabilitation work proposed in Part 2- Description of Rehabilitation.

7.Projects that meet the Standards for Rehabilitation are approved as "certified rehabilitations" and receive the 20% rehabilitation tax credit.

The NPS charges processing fees for both the review of proposed work (Part 2) and review of completed projects (Part 3).

IRS Requirements for 20% rehabilitation tax credit:

1. The building must be depreciable.

and must be used in a trade or business or held for the production of income. This includes office, commercial, industrial, or agricultural uses. It may not serve exclusively as the owner's private residence.

1. The rehabilitation must be substantial.

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  additions to the building, new building con-78 a.Rehabilitation expenditures must exceed \$5,000 or the adjusted basis of the building and its structural components (whichever is greater) during a 24-month period selected by the taxpayer.
- 1. Phased rehabilitations are expected to be completed in two or more distinct stages of development, so they have 60 months to meet the "substantial rehabilitation test", rather than 24 months.
- a. The phase rule applies only if
- i.A set of architectural plans and specifications outlines and describes all rehabilitation phases;
- ii. The plans are completed before the physical rehabilitation work begins; and
- iii.It can be reasonably expected that all phases will be completed.
- 1. The property must be returned to use (placed in service).
- 2. The building must be a certified historic structure when returned to use (placed in service).
- 3. Qualified rehabilitation expenditures include costs of the work on the historic building, architectural and engineering fees, site survey fees, legal expenses, development fees, and other construction-related costs. They do not include acquisition or furnishing costs, new

struction, parking lots, sidewalks, landscaping, or other related facilities.

Claiming the rehabilitation tax credit:

- 1.IRS form 3468 for the tax year in which the rehabilitated building is placed in service.
- 2.NPS certification of completed work (Application Part 3) must be filed with the tax return claiming the tax credit.

Recapture of the credit:

- 1. The owner must hold the building for five full years after completing the rehabilitation or pay back the credit.
- 2.If the owner sells the building within a year after it is placed in service, 100% of the credit is recaptured by the IRS and the owner will not receive the credit. For properties held between one and five years, the tax credit recapture amount is reduced by 20 percent per year.
- 3. Rehabilitated property is depreciated using the straight-line method over 27.5 years for residential property and over 39 years for nonresidential property. The depreciable basis of the rehabilitated building must be reduced by the full amount of the tax credit claimed (14).

Building owners may also be eligible for a 10% rehabilitation tax credit if their building is a non-historic building placed in service before

1936.

More information can be found in the NPS Historic Preservation Tax Incentives booklet at https://www.nps.gov/tps/tax-incentives/taxdocs/about-tax-incentives-2012.pdf.

## **Kentucky Historic Preservation Tax Credit** [http://heritage.ky.gov/incentives/]

- •30% of qualified rehabilitation expenses offered as a state tax credit for owner-occupied residences; minimum investment of \$20,000 required; total credit must not exceed \$60,000
- •20% of qualified rehabilitation expenses available for all other properties; total credit must not exceed \$400,000

These tax credits are available for buildings listed in the National Register of Historic Places or located in a historic district listed in the National Register and certified by the Kentucky Heritage Council as contributing structures of the National Register district.

The building must be rehabilitated according to the standards of the Department of the Interior. [https://www.nps.gov/tps/standards/ rehabilitation/rehab/stand.html

3-step process:

- 1.Preliminary application- Evaluation of National Register Status
- 2.Description of Proposed Rehabilitation
- 3. Request for Certification of Completed Work

# **Appendix C: Zoning**

Zoning Districts

District	Name	Permitted Uses			
		By Right	Prohibited	Conditional Use	
R-1	Single Family Residential	Only detached one family and two family dwellings permitted Only certain home occupation uses permitted Home occupations		Medical facility, golf course, mobile home park	
R-2	Multiple Family Residential	R-1 uses, multiple family dwellings, boarding houses, garage apartments, accessory units	none	Child care, home beauty shop, medical facility, mobile home park	
C-1	General Highway Commercial District	Antiques, automobile services and sale, parking lot, financial, shops, motels, restaurants, laundromats, offices	Wholesale, storage, warehousing, animal hospital, coal or lumber yard, other non retail uses Residences, "except where residence is an incidental use to principal use on lot and located with the building housing the principal use."	None	
C-2	Central Commercial Zone	C-1 uses, all types of retail and services	Same as C-1	none	
I-1	General Industrial	Manufacturing, fabrication, processing, retail sales, building materials, storage, freight	none	none	

District	Area Regulations				
	Minimum Front yard setback	Minimum side yard setback	Minimum rear yard setback		
R-1	and the second s	Interior lots: 10 ft for single story, 15 ft for two-story buildings Accessory buildings on corner lots: 20 ft Other accessory buildings: 5 ft Public and semi-public buildings: 40 ft	From main building: 25 ft Accessory buildings: 10 ft		
R-2	Same as R-1	Interior lots: 6 ft for single story, plus 2 ft per additional story Accessory buildings: 4 ft Public and semi-public buildings: 40 ft	From main building: 20 ft Accessory buildings: 10 ft		

C-1	thoroughfares	5 ft Next to residential: 15 ft Next to street: 15 ft	15 ft
C-2		None, except multifamily residences which are the same as R-2	None, except multifamily residences which are the same as R-2
I-1	50 ft	25 ft Next to residential: 50 ft	25 ft

District	Site Development Requirements				
	Minimum lot area	Minimum lot width	Minimum lot depth	Maximum coverage	Maximum building height
R-1	Single family:7500 sq ft Two-family: 9000 sq ft	75 ft at front build line	100 ft	Interior lots: 40% Corner lots: 45% Accessory buildings: 35% of rear yard	2 stories
R-2	Multi-family:	50 ft at front build line for single and two family, adding 10 ft per additional dwelling, not required to exceed 125 ft		45%	45 ft
C-1	none	none	none	75%	45 ft
C-2	None, except multifamily residences which are the same as R-2	None, except multifamily residences which are the same as R-2	None, except multifamily residences which are the same as R-2	none	none
I-1	.5 acre	100 ft	nonce	75%	none

## **Appendix C: Original Zoning Map (1965)**

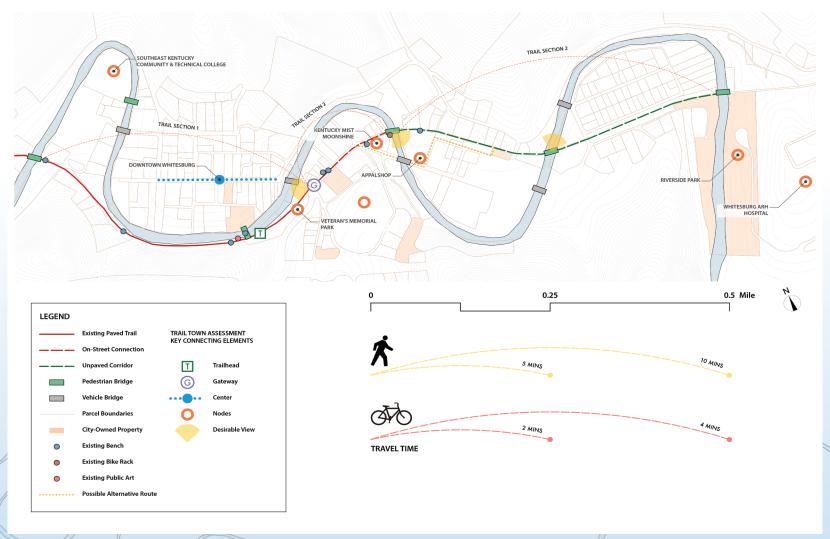
This is the only version of the zoning map currently in circulation. It is located in the Fire Chief's office in hard copy. It was translated digitally and included in the Downtown Existing Conditions portion of the report. The full zoning code text is included in the database accompanying this

report.



# **Appendix D: Trail Existing Conditions and Analysis**

#### TRAIL: EXISTING CONDITIONS + ANALYSIS



## **Appendix E: Catalyst Site Data**

#### I. Jenkins Road Site

1. Property address and ownership, general features of property

a.Parcel ID 057-50-00-033.00

i.Parcel Address: 1537 Jenkins Rd Whitesburg,

KY 41858

ii.Owner: CABLE HOLDCO EXCHANGE IV-2

LLC

iii.Mailing Address: 1 Comcast Center Philadel-

phia, PA 19103

iv.Date of Last Sale: 2006 v.Last Sale Price: \$10,000

vi.Acreage: .090

b.Parcel ID 057-50-00-033.01

i.Parcel Address: No address; immediately east of 1537 Jenkins Rd Whitesburg, KY 41858 ii.Owner: COMBS HERMAN SR ESTATE

**Betty Conley** 

iii.Mailing Address: 816 CARRINGTON RD

KNOXVILLE TN 37909 iv.Date of Last Sale: unknown v.Last Sale Price: unknown

vi.Acreage: .085

2.Permitted uses and regulatory constraints

a.Zoning: C-2 Central Commercial

b.Floodplain: Both parcels within this site lie in the North Fork Kentucky River 100-year floodplain, also called the Special Flood Hazard Area (SFHA), determined by FEMA. Mandatory flood insurance purchase requirements apply in all SFHAs. The SFHA zone is AE, meaning that "the National Flood Insurance Program (NFIP) requires that the top of the lowest floor

of a building must be at or above the base flood elevation; however, there are no standards for foundations other than the general performance standard that the building be anchored to resist floatation, collapse, and lateral movement." 3.Site plan with measurements (See Site Conditions map)

a.130' pedestrian distance to Main Street b.350' pedestrian distance to trail corridor (East Main Street)

4. Corridor Significance

5.Proposed use with layout and precedent a.Site goals: address stormwater erosion from parking lot, address derelict building, improve viewshed looking north from Main St. bridge b.Proposed use: ADA accessible deck with shade structure and dock extending over river

#### II. Main Street Bioswale Site

a.Parcel ID? 13.01

i.Parcel Address: West Main St. Parking Lot

ii.Owner: City of Whitesburg iii.Mailing Address: City Hall iv.Date of Last Sale:

v.Last Sale Price: vi.Acreage: .047 b.Adjacent properties i.East: Parcel ID Unlisted

1.Parcel Address: 136 WEST MAIN STREET

2.Owner: Unlisted

3. Mailing Address: 816 CARRINGTON RD

KNOXVILLE TN 37909

4.Date of Last Sale: unknown 5.Last Sale Price: unknown

6.Acreage: .085

ii.North: Two Parcels Unidentified in Available

Data

1.No Information Available

2.Acreage: 0.58 + .59

iii.South: Parcel ID 057-50-00-001.00

1.Parcel Address: Main St

2.Owner: KIRKLAND PAUL AND ROSE 3.Mailing Address: 14 MAIN ST WHITES-

BURG 41858

4.Date of Last Sale: 5/1/1961 5.Last Sale Price: 13000 6.Assessment Value: 67,500

7.Acreage: .72

iv.South and East: Parcel ID Unlisted

1. Apparently 2 or even 3 residence structures.

2.Acerage: .66

v.West, across River: Parcel ID057-40-00-030.00

1.Parcel Address: Main St

2.Owner: WEBB JODY R & MALOREY

3. Mailing Address: 48 FIELDS CLIFF WHITES-

BURG KY41858

4.Date of Last Sale: 8/5/2009

5.Last Sale Price: 67000

6.Assessment Value: 67000

7.Acreage: .0.29

vi.West and South, across River: Parcel ID: 057-

40 - 00 - 028.00

1.Parcel Address: Main St

2.Owner: BENTON ANTHONY & KATINA

3. Mailing Address: 6900 BEATRICE DRIVE

KALAMAZOO MI 49009 4.Date of Last Sale:4/1/2004 5.Last Sale Price: 298970 6.Assessment Value: 266000

7.Acreage: 1.2

1.Permitted uses and regulatory constraints

a. Zoning: C-2 Central Commercial

i.Permitted Uses: All retail and service uses, service stations, and C-1 uses that promote the development of a downtown retail district ii.Area Regulations: No setbacks or off-street

parking required

iii.Site Development Requirements: No minimum lot, maximum coverage, or maximum

height requirements

Floodplain: Both parcels within this site lie in the North Fork Kentucky River 100-year floodplain, also called the Special Flood Hazard Area (SFHA), determined by FEMA.

#### III. Midtown Trail Site

i.Parcel ID: 057-50-00-100.00 ii.Parcel Address: None given

iii.Owner: Appalshop

iv.Mailing Address: None given v.Date of Last Sale: None given vi.Last Sale Price: None given

vii.Acreage: 1.08

b.Parcel 2

i.Parcel ID: 057-50-00-101.00 ii.Parcel Address: None given iii.Owner: Kentucky Power Co. iv.Mailing Address: None given v.Date of Last Sale: 5/1/1995 vi.Last Sale Price: \$450,000 vii.Acreage: 0.16 c.Parcel 3

i.Parcel ID: 057-50-00-121.01 ii.Parcel Address: None given

iii.Owner: COMBS APARTMENTS INC C/O

MATILDA MCWILLIAMS

iv.Mailing Address: PO BOX 294 CREST-

WOOD KY 40014

v.Date of Last Sale: None given vi.Last Sale Price: None given

vii.Acreage: .048

d.Parcel 4

i.Parcel ID: 057-50-00-121.00 ii.Parcel Address: None given iii.Owner: No data in file iv.Mailing Address: None given v.Date of Last Sale: None given vi.Last Sale Price: None given

vii.Acreage: .25 e.Parcel 5

i.Parcel ID: 057-50-00-122.00 ii.Parcel Address: None given iii.Owner: City of Whitesburg iv.Mailing Address: None given v.Date of Last Sale: None given vi.Last Sale Price: None given

vii.Acreage: .19

1. Permitted uses and regulatory constraints

i.Zoning

1.C-1: Parcels 1 and 2

a. Side setbacks required to be 5 feet from nearest building or structure. Rear setbacks required to be 15 feet.

2.R-2: Parcels 3-5

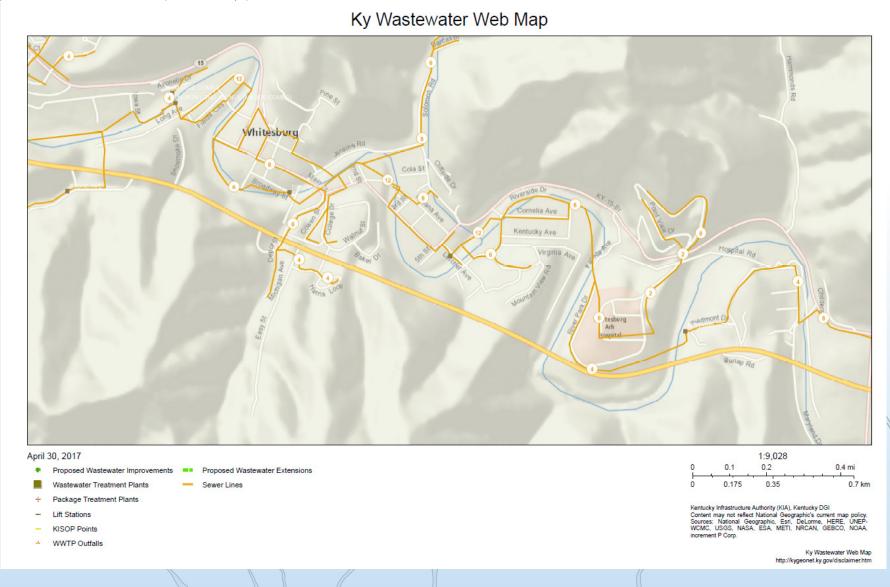
ii.Floodplain:expected to be minimally affected

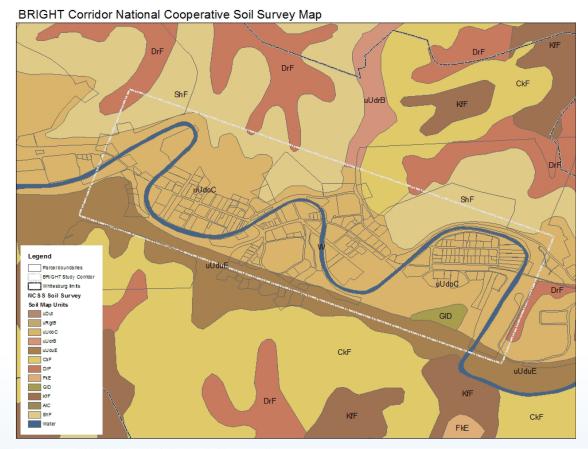
- falls just outside 100 year floodplain.

## **Appendix F: Riverfront**

### **Wastewater Infrastructure**

Sewerlines and lift stations throughout Whitesburg carry wastewater to the Whitesburg Wastewater Treatment Plant, 1.5 miles northwest of downtown. Combined sewer overflow (CSO) man-hole stacks are visible along the river and recorded in the Urban Stream Assessment but the stormwater outfall pipes directly into the river indicate that Whitesburg also has a separate stormwater conveyance system. According to interviews with locals, combined sewer overflows during storm events are not considered to be an issue whether raw sewage is noticed, but pipe leakage and station failure are periodically problematic.





### Summary Table for BRIGHT study corridor

Soil Map Unit	SMU Full Name	Typical profile (abbreviated)	Slope	Drainage	Hydrologic Soil Group**
uUdoC	Udorthents-Urban land complex	0-42 in: very channery silt loam*	0 to 15 percent	Well drained	С
<u>uUduE</u>	Udorthents-Urban land-Rock outcrop complex	0-80 in: extremely parachannery silt loam	0 to 35 percent	Well drained	С
GID	Gilpin-Shelocta complex	0-34 in: loam and silty clay loam	12 to 25 percent	Well drained	С

#### Soil

Channery Soil = A soil that is, by volume, more than 15 percent thin, flat fragments of sandstone, shale, slate, limestone, or schist as much as 6 inches along the longest axis. A single piece is called a channer. (Source: New England Soil Glossary of Soil Science Terms http://nesoil.com/gloss.htm)

\*\*Hydrologic Soil Groups have similar runoff potential under similar storm and cover conditions and so are used to estimate direct runoff from rainfall. Group C Soils have a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission. (Source: USDA Natural Resources Conservation Service, Updated Hydrologic Soil Groups. https://www.nrcs.usda.gov/wps/PA\_NRCSConsumption/download?cid...ext=pdf)

The complete SCSS Soil Report generated by the USDA Web Soil Survey is stored in project database.

### **Riparian Buffer Resources: Design**

Tennessee Urban Riparian Buffer Handbook
This comprehensive manual published in
2015 focuses on urban buffers in a similar
ecoregional context. It includes resources for
design, community installation, monitoring,
and more.

Riparian Forest Buffer Design and Maintenance Published by Maryland Department of Natural Resources Forest Service in 2005, this manual describes the variety of installation options for riparian buffers and how to decide the best course of action based on local site characteristics.

Manual 4: Urban Stream Repair Practices, Urban Subwatershed Restoration Manual Series
One of many manuals available from the Center for Watershed Protection. This is from the same series of manuals as the reach assessment methodology.

### **Riparian Buffer Resources: Funding**

Cumberland Plateau Stewardship Fund
A fund administered by the National Fish
and Wildlife Foundation (NFWF) focused on
restoring native forests within the Cumberland Plateau region for increased wildlife and
freshwater species health. Funding priorities
including restoring and enhancing riparian
forests and freshwater habitat. Grants range
from \$50,000 to \$200,000. One RFP per year
(due February). Application requires 1:1 match
ratio of non-federal cash or in-kind services.

Kentucky River Authority Watershed Grant Program

Funds projects up to \$3,000. In 2016 one of the funded projects was a riparian buffer enhancement in Jessamine County.

#### The Stream Team

A group of stream restoration specialists in the Kentucky Department of Fish and Wildlife Resources (KDFWR) who identify and undertake stream restoration projects statewide. The Stream Team works with private landowners and others to identify stream restoration projects, with a priority on repairing failing streambanks. Projects are funded from the Mitigation Fund held in trust solely for repairing streams and wetlands. This programs requires that a permanent conservation easement preventing future development be placed on the property, typically at least 50 feet wide on each side of the restored stream.

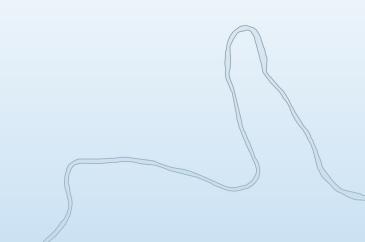
## KENTUCKY CLEAN WATER STATE REVOLVING FUND

The CWSRF, also referred to as Fund A, is a 20-year loan program for planning, design and construction of wastewater infrastructure projects, storm water projects and nonpoint source projects. To be considered eligible to receive a CWSRF loan, a project must be identified on Kentucky's annual Intended Use Plan/Project Priority List (IUP/PPL). This ranking of proposed projects to award funding has many criteria listed in the guidance document, but the North Fork Kentucky River

reaches around Whitesburg are listed on the most recent 'Integrated Report to Congress on the Condition of Water Resources in Kentucky' as polluted by sedimentation, pH, and fecal coliform.

### **Retrofit Stormwater Outfalls: Design**

- 1. NRCS Engineering, Maryland. Design Guide MD#6 Riprap Design Methods, (2004) https://www.nrcs.usda.gov/Internet/FSE\_DOCU-MENTS/nrcs144p2\_025594.pdf
- 2.Center for Watershed Protection, FINAL REPORT Stormwater Retrofit Opportunities on Public Lands in Fluvanna County (2010) http://www.rivannariverbasin.org/docs/Rivanna-Clearinghouse/Fluvanna-Stormwater-Report/Fluvanna\_County\_Stormwater\_Retrofits\_Report\_FINAL.pdf



## **Appendix G: Brownfields**

#### Resources

Finding, Purchasing and Redeveloping Brownfields in Kentucky: introductory manual from the Kentucky Brownfield Redevelopment Program

## **Funding Sources and Incentives**

Cleaner Commonwealth Fund (CCF)
In 2012, the Kentucky Brownfield Redevelopment Program established a revolving loan fund for brownfield cleanups in Kentucky with funding from the U.S. Environmental Protection Agency (EPA). There are two pools of money in the Cleaner Commonwealth Fund:

1) grants open to local governments, agencies, and nonprofits and 2) loans available to the public and to nonprofits

To be eligible for the CCF, the property purchaser must follow the All Appropriate Inquiries (AAI) assessment rules and had an AAI performed no longer than six months prior to purchase.

The CCF is currently accepting grant application for petroleum cleanups.

Voluntary Environmental Remediation Property Income Tax Credit A state income tax credit of up to \$150,000 per taxpayer is available to cover costs to remediate contamination on qualifying voluntary environmental remediation property. The amount of the allowable credit for any tax year is limited to 25 percent of the maximum credit approved. The credit may be carried forward for up to 10 years. (see KRS 132.020(1)(c); 132.200(21); 141.418; 224.01-400; and 224.01-405).

### **Property Tax Incentives**

A statewide brownfield incentives program provides a state property tax rate of \$0.015 per \$100 value assessed on all qualifying voluntary environmental remediation property if the purchaser obtains a covenant not to sue from the Environmental and Public Protection Cabinet. The rate applies for three years following the covenant's start and afterward the regular property tax rats apply. Local property taxes are also exempt for the three-year period (see New Chapter of KRS 132).

## **Appendix H: Kentucky Municipal Government Framework**

Primary Source (for all references unless explicitly cited otherwise: Kentucky Legislative Research Commission's Informational Bulletin No. 145 Kentucky Municipal Statutory Law, revised October 2016. http://www.lrc.ky.gov/lrcpubs/ib145.pdf

### **Historical Background**

Before the 1891 revision of the Kentucky State Constitution, municipal governments had no legal authority and operated solely at the favor of the state legislature. The 1891 Constitution made cities, counties, special districts, and school districts into legal entities, albeit still only with power granted explicitly by the state (also known as the Dillon's rule system of local authority). Cities and counties achieved more autonomy in the 1970s and 80s when they received 'home rule' powers allowing them to pass their own ordinances as long as these do not conflict with state law.

The 1891 Constitution also established six classes of cities based on population and governed by distinct laws. In 2014, a new system of city classification was enacted. 'Cities of the first class' have mayors and aldermen as local officials; 'Home Rule' cities have mayors, councilors, city managers, and commissioners. Whitesburg is classified as a Home Rule city.

### **Municipal Debt Regulation**

The state legislature has the authority to set limits on local governments' maximum amount of debt incurred. In the last 20 years, cities have been given more freedom to incur multi-year debts to finance public projects, but debt limitations are still based on population. A city of less than 3,000, such as Whitesburg, is prohibited from taking on debt larger than 3 percent on the total assessed taxable property values. Localities are also required by state law to adopt balanced budgets prior to the start of the fiscal year.

### **Municipal Real Property Tax Regulation**

The state regulates local governments' ability to grant tax exemptions to attract businesses, but the General Assembly can grant cities the power to tax-exempt manufacturing companies for up to 5 years as a relocation incentive.

The General Assembly can also authorize local governments to grant property reassessment moratoriums for a period not to exceed 5 years for the purpose of "encouraging the repair, rehabilitation, or restoration" of existing improvements on real property (Section 172b).

The state sets maximum municipal tax rates based on population: cities less than 10,000 residents are capped at \$.75/\$100 Taxable Property assessed value. Municipalities are allowed to set different tax rates within the same taxing district "relate directly to differences between nonrevenue-producing governmental services and benefits giving land urban character which are furnished in one or several areas in contrast to other areas of the taxing district." (KY Constitution 1891, Section 172a). With this Constitutional backing, cities may employing Tax Increment Financing designating a local development area and generating revenue for the development area through license levies, tax revenue, special assets, or issuing bonds (p. 82, or see Kentucky Revised Statutes (KRS) 65.7041–65.7069). If a development area is established, however, these property is not eligible for the reassessment moratorium described above.

#### **Utilities**

Of possible application to the Whitesburg trail right-of-way question, Section 163 of the 1891 Constitution "prohibits utilities from constructing any apparatus on public ways or property without the consent of the city legislative body or board unless such right had been granted prior to the date of the constitution" (p. 13).

#### **Land Use Control**

Land use control powers for municipal governments are outlined in KRS Chapter 100. Counties and cities are not required to regulate land use unless population exceeds 300,000, but if they decide to do so then they must follow the process in Chapter 100. First, a 'planning unit' boundary is established, with a procedural preference for joint city-county units that better address geographic issues. Then a planning commission must be established, with at least 5 members serving 4 year terms and meeting at least 6 times a year. The planning commission must prepare a comprehensive plan with four required elements: goals and objectives, land use plan, transportation plan, and community facilities plan.

Once the goals and objectives and land use plan are adopted, the local government can establish zoning ordinances, also called the zoning code. Finally, a board of adjustment must be established with 3,5, or 7 members appointed by the mayor with council approval. This board can grant conditional use permits and the enlargement or extension of a nonconforming use (uses existing before the enactment of zoning code that do not follow the rules).

### **Overlay Districts**

"Any city or consolidated local government that uses zoning regulations may by ordinance create an overlay district. The purpose of an overlay district is to supplement existing zoning regulations in a city by regulating repairs and renovations to buildings in a specified area. Cities that create districts may delegate oversight responsibility of the district to city agencies, departments, or nonprofit city corporations (KRS 82.650–82.670)" (p. 113).

### Whitesburg's Options for Land Use Regulation

In the 2010 Planning Units list published by the Kentucky Transportation Cabinet, which appears to be the most recent list available, Whitesburg is classified as a 'City Independent' planning units with an inactive Zoning Board. The contact listed is Gary Mullins (contact information: 38 East Main Street Whitesburg, KY 41858, phone: 606.633.2203). Letcher County is not listed as a planning unit.

The potential exists for Whitesburg and Letcher County to establish a joint city-county unit, which is the recommended unit by the state legislature. Benefits from a joint planning unit could include greater capacity to address issues important to both city and county residents such as water quality and economic development. City and county could also share the task of electing and funding the planning commission.