A BLUEPRINT FOR GREENWAYS
IN THE HEART OF ALABAMA

A Manual for Implementation of Greenway Plans
Using Five Mile Creek Greenway as an Example

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INTRODUCTION

The Regional Planning Commission of Greater Birmingham (RPCGB), through the Building Communities Program, contracted the writing of an instructional document for the implementation of greenway plans in Central Alabama. The document was written to respond to the need for interconnected trails for commuting, recreation and wellness, and economic development.

The Health Action Partnership, led by the Jefferson County Department of Health and in partnership with the Community Foundation of Greater Birmingham, received more than $13 million from 2010-2012 to address obesity and tobacco use in the Greater Birmingham area. Local organizations, including RPCGB, worked with the Jefferson County Department of Health to use $6.3 million to implement policy and systems changes that improve nutrition and physical activity. Part of that funding produced a greenway master plan, Our One Mile, developed for Jefferson County through the Freshwater Land Trust. The master plan was verified though stakeholder meetings among municipalities and citizens for identification of a network of trails and pathways that connect key assets.

This document is formatted as a guide for planning, funding and building greenways for municipalities in Central Alabama so they might take advantage of the Our One Mile Master Plan. It looks at local and regional projects that are successfully implementing regional greenway plans. An outstanding regional example of a Greenway Implementation Group is the PATH Foundation of Atlanta, a very successful 501(c)(3) that implements trail location plans in Atlanta, Georgia and surrounding counties. A local Greenway Implementation Group is the Five Mile Creek Greenway Partnership and Five Mile Creek Greenway Capital Improvement Cooperative District. Details of the Five Mile Creek Greenway project, including the history of the formation of the Five Mile Creek Greenway Partnership and Five Mile Creek Capital Improvement Cooperative District, are presented in the Appendix as a template for local success.

The Five Mile Creek Partnership was formalized in 2002 with an intergovernmental agreement executed among the cities of Center Point, Tarrant, Fultondale, Birmingham, Brookside and Graysville, the Jefferson County Commission, the Freshwater Land Trust, Cawaco Resource Conservation and Development Council (Cawaco) and the RPCGB. The Partnership produced a Five Mile Creek Trail Location Study in April 2008, which envisions a network of greenways and water trails (blueways) along Five Mile Creek from its headwaters in Center Point to its confluence with the Locust Fork of the Black Warrior River. The Five Mile Creek Greenway Plan expands on that work.
A Blueprint for Greenways in the Heart of Alabama

A Manual for Implementation of Greenway Plans Using Five Mile Creek Greenway as an Example

CHAPTER 1: PLANNING A GREENWAY

It has been said that the difference between a dream and a goal is a plan. On the way to achieving the goal of an interconnected greenway system, plans should be made to guide the final outcome. In this chapter concepts including greenway master planning and community master planning are addressed. A greenway master plan is a long term outline of a greenway project with a strong community involvement component. The plan does not give specific surveyed boundaries or exact cost of construction, but instead shows major trail and park locations and estimated construction costs. A comprehensive plan for a city or town is developed by land use planners to determine community goals and aspirations in terms of community development. A greenway system should be part of that plan along with utilities, transportation and housing.

Greenway Implementation Group

A greenway master plan should prioritize projects within the plan area. Within the plan there may be sections that are implemented under different authority or structure. For this publication, the lead group will be called the Greenway Implementation Group. This could be a local land trust, park system, private nonprofit that specializes in recreation or even a municipality. Each project is as unique as the setting.

Greenway Master Plans – Existing Documents

As of December 2011, there is no master plan for greenways in central Alabama. The Regional Planning Commission of Greater Birmingham (RPCGB) monitors the progress of all greenway and park projects in the six county area that includes Blount, Chilton, Jefferson, St. Clair, Shelby, and Walker. Information on Jefferson County is the most complete, due to its population density and the increased number of projects funded through availability of federal funding for air quality improvement. In January 2012, the “Our One Mile” greenway master plan for Jefferson County should be complete, funded through a grant from the Center for Disease Control.

When the Our One Mile greenway master plan is complete, each Jefferson County jurisdiction should adopt the plan into their city comprehensive plan. Adoption into the comprehensive plan will allow private and public funding opportunities to be available. Location of the FEMA flood areas, utility easements and basic land use must be included in the master plan for effective implementation. Some jurisdictions will have in-house records of these data; others may need assistance from the RPCGB.
If a master plan for your greenway project is included in the comprehensive plan for the jurisdiction, future development should include connections to the greenway. Greenways and trails add value to residential and commercial districts. Basic quality of life elements can be improved with a connected trails system including decreased traffic congestion and increased mental and physical health. Reserving trail corridors in development plans costs less in the long run.

Along with the planning process, each jurisdiction should be aware of opportunities to piggyback design and construction with other local utility or transportation projects. A cooperative effort between municipalities can save money for both parties. For example, relocation of a sewer line can allow for the addition of a crushed stone path within the right-of-way as part of the trail system. If the utility line requires an access road and secured gated access, this is a perfect win-win situation for implementation of a local trail connection. These opportunities need to be monitored throughout the project.

**FEMA Floodway Maps**

Flood Insurance Rate Maps provide the location of flood prone areas. Zone AE indicates the zone where base flood elevations are provided. Zone A indicates areas with a 1% annual chance of flooding and a 26% chance of flooding over the life of a 30-year mortgage. Because detailed analyses are not performed for such areas, no depths or base flood elevations are shown within these zones. Zone X indicates the area to be outside the 100 and 500-year floodplains. These maps are available to the public through the FEMA web site at [www.fema.gov](http://www.fema.gov) map center.

In areas where flooding is a hazard to dwellings and businesses, trails can be designed to include elevated boardwalks, bridges, porous surfaces and other design elements to allow for non-motorized transportation routes. If water quality can be improved through techniques such as natural channel design, then additional environmental benefits can be added to the project to the benefit of the jurisdiction. These considerations should be incorporated into the design whenever possible for long term project viability.

**Utility Easements**

Part of the master plan should include a record of existing sewer, power, gas and other utility easements. Area agreements with linear utilities for access to maintenance roads can be good for both entities. The Greenway Implementation Group can maintain the trails with mowing and additional patrolling, providing a service to the utility while allowing connection across jurisdictions.

In Tarrant, Alabama, an abandoned water aqueduct was incorporated into the trail system. This section of the Tarrant Aqueduct Trail parallels an alley and connects three local schools.
Land Donation
When piecing together a linear greenway plan, taking into consideration utility rights-of-way, FEMA maps, zoning, and land donation from a citizen or company comes into play. Before an appraisal, land survey or preliminary engineering investigation are initiated, an Intent to Purchase document should be completed. This protects the investment of the Greenway Investment Group and the landowner as well. Stating the specific intent of the donation is best accomplished on the front end of the project. The Freshwater Land Trust is a good resource for information on land donation and conservation easements for greenways.

Greenspace
The master plan for a greenway should identify greenspaces and connections to other existing and planned parks, trails and recreational areas. If multiple municipalities are working as partners on a collaborative project, for consistency each community master plan should refer to the same greenspace plan.

There are several banks of information regarding existing open space in Jefferson County. The RPCGB is completing an update of the Birmingham Regional Active Transportation Plan.1 The Jefferson County Greenways Master Plan, scheduled to be available in January 2012, will provide a map of proposed trail locations designated by countywide stakeholder meetings. Each trail will be identified by use, and a cost estimate for each use will be defined in the Greenway Master Plan.

The Freshwater Land Trust in central Alabama has a database which identifies critical land for water quality protection along waterways. The newly formed Alabama Trails Commission,2 administered by Alabama Department of Economic and Community Development (ADECA), will also record data on open space resources on a statewide level.

Resources for Planning3
The Federal Highway Administration suggests the following resources for assistance in greenway planning and funding.

1 2035 Birmingham Regional Active Transportation Plan, A Strategic Plan for Walkways and Bikeways in Jefferson and Shelby Counties, August 2011.
3 ALDOT, FHWA
**Rivers, Trails, and Conservation Assistance (RTCA)** program of the National Park Service provides assistance to local governments and organizations, as well as state and federal agencies, to plan greenways, protect rivers, develop trails, conserve their character of the landscape, and help groups achieve their conservation and recreation goals. Recently, the Alabama Scenic River Trail received assistance from the RTCA, for technical assistance relating to development of a comprehensive map, establishment of a membership and volunteer program, and setting the stage for designation as a National Recreational Trail. (Source: National Park Service, USDI, Southeastern Region of RTCA Program.)

**The Conservation Fund’s American Greenways Program** is a national nonprofit program devoted to all aspects of planning and implementing greenways and greenways systems. The organization has published a number of books on greenways and can be contacted for information on numerous greenway planning topics including the initiation of community greenways activities and the economic benefits of greenways. The organization also has a tremendous amount of in-house information on statewide, regional and community-based greenway initiatives across the country that may be useful in planning a local project.

**Rails to Trails Conservancy (RTC)** is an organization devoted to converting abandoned railroad lines into multi-use trails for public use. RTC is a nonprofit organization that works in partnership with citizen groups, public agencies, railroad companies and other organizations carrying out a program of technical assistance, public education and advocacy.

**The Trust for Public Land (TPL)** is a national, nonprofit conservation organization that protects land for people. Trust for Public Land Conservation Services program is a full-service greenway and scenic assessment program that offers technical assistance, public education and outreach, community organizing, and acquisition expertise to local governments, land trusts, citizen groups, private land-owners and public agencies. TPL also assists local governments with the financing of natural, historic, cultural and recreational resources through programs such as Lease/Purchase, Buy and Hold and Phased Acquisition.

**National and statewide nonprofit organizations**, such as The Nature Conservancy and the National Audubon Society, have their own preserves and sanctuaries to protect significant habitat areas. Local land trusts also effectively conserve community natural resource lands. These groups can help a community plan a greenway network.

**Rails to Trails**

Railroads opened up the United States for commerce and travel in the 1800’s. Alabama is one of the few states that have railroad lines that run north-south and east-west. The railroad and numerous spurs were primarily built to accommodate mineral transportation including coal and coal and iron manufacturing supplies. Some of the rail routes are no longer used in Alabama. Railroads have the option of either filing for abandonment or railbanking the route for use as a trail. Many of these abandoned lines have become casual travel routes.

Using rail corridors for trail systems has the advantage of minimum steepness at 1-2% grade and intact bridge crossings. The routes can be scenic and filled with historic sites. Rail beds are stable for most uses if the granite
bedding material is left in place. A disadvantage of using rail corridors in a regional greenway plan is the possibility of ground contamination from spilled fuels or minerals.

Most citizens are not aware of railbanking in Alabama, although it is common in the eastern US. For example, the 135-mile Great Allegheny Passage\(^4\) is built on a railbanked corridor. The Surface Transportation Board (STB) has permanent jurisdiction over all railroad corridors and the railbanked line is subject to possible future restoration of rail service. The abandoning railroad can apply to the STB to resume rail service on a railbanked corridor. The terms and conditions of a transfer back to rail service would be determined by the STB.

Railbanking (as defined by the National Trails System Act, 16 USC 1247(d)) is “a voluntary agreement between a railroad company and a trail agency to use an out-of-service rail corridor as a trail until some railroad might need the corridor again for rail service. Because a railbanked corridor is not considered abandoned, it can be sold, leased or donated to a trail manager without reverting to adjacent landowners. The railbanking provisions of the National Trails System Act as adopted by Congress in 1983 have preserved 4,431 miles of rail corridors in 33 states that would otherwise have been abandoned.”\(^5\)

**Tools**

Within the community master plan there are two elements that can be used to further integrate the components of planning and greenways—SmartCode and overlay districts.

**SmartCode**

SmartCode is a model transect-based planning and zoning document based on environmental analysis. It addresses all scales of planning, from the region to the community to the block and building. The template is intended for local calibration to a town or neighborhood. As a form-based code, the SmartCode keeps settlements compact and rural lands open, literally reforming the sprawling patterns of separated-use zoning.\(^6\)

**Best Use for Greenway Planning**

SmartCode can be locally customized based on what local stakeholders want in their area. The SmartCode supports community vision, local character, conservation of open lands, transit options, and walkable and mixed-use neighborhoods. The advantage of adopting SmartCode across the Five Mile Creek Greenway watershed is that the greenway plans can be integrated into current and future plans. For example, when new building plans are considered, a connection to the greenway trail system will be a part of that consideration. That way, future connections will be naturally integrated into growth and development. Rather than being based on use and density, the SmartCode is based on the physical “form” of the buildings and development, based on the context of the region. Jefferson County, Graysville and Gardendale have adopted SmartCode zoning. This places 10.2 of 16.45 miles of the Rail Trail in SmartCode areas.

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\(^4\) www.gaptrail.org

\(^5\) www.railstotrails.org

\(^6\) www.smartcodecentral.org
Local Assistance

In October 2010, the Jefferson County Commission adopted a SmartCode Floating Overlay District. The SmartCode is a relatively new approach to zoning and development in unincorporated Jefferson County, yet it is essentially a return to more traditional neighborhood planning practices. The SmartCode gives developers the flexibility and opportunity to create developments that provide for more walkable communities centered around villages and transportation nodes, and which preserve a greater amount of natural area and open space for the residents of those communities. The SmartCode adopted in Jefferson County is one that developers can opt-in, instead of trying to develop under the County’s existing zoning districts and regulations. It is part of the County’s comprehensive plan.

Overlay Districts

Overlay districts provide a means to incorporate various development regulations across a specified area. These districts are special zones that lay on top of existing zoning categories to supplement or supersede existing regulations. They usually provide a higher level of regulation than that required by the existing zoning classification, but they can also permit exceptions or require a less-restrictive guideline. In cases where conflicting standards are given by an overlay district and the underlying zoning category, the overlay district takes priority. Overlay districts are used to accomplish a variety of development, transportation, and land use goals such as access management, protection of historic or natural resources, safety, standardization of a historic district, implementation of development guidelines, protection of the quality of surface water, and even special taxing or financing.

Overlay districts can be implemented by passing a law that appends existing land use regulations without having to go through the process of rewriting the underlying zoning requirements/regulations. Communities can also easily modify overlay districts, should they decide to change the requirements or coverage area.

Best Use for Greenway Planning

An overlay district, like the Jefferson County SmartCode Floating Overlay District, is placed over another base district or multiple base districts. Overlay districts are often used for regulating large areas that include multiple single use zoning. Additional restrictions concerning building and site development can be imposed within the overlay districts and uses which conflict with the goals of the overlay district can be eliminated. The intent and purpose of the overlay district must be clearly laid out in the zoning regulations.

An example of an overlay district would be a water quality overlay district to protect a waterway from non-point source pollution. The overlay district could define a setback from the resource for clear cutting, soil disturbance or mining to protect the water quality. Since rivers and streams run through a large part of the community and multiple zoning districts, an overlay district could be used to impose additional restrictions onto each of the base zoning districts along the waterway.

A floating zone is a type of zone that is not mapped when it is adopted. Its location is determined at a later date. Floating zones are used when a town has identified a need, but has not identified an appropriate location.
A greenway overlay zone could include development standards related to the greenway setback, floor area ratio, open space, landscaping, navigation, and design guidelines. Regulations related to public recreational trails, public viewpoints, view corridors and fills, excavations and structures could also be included to protect investments. Natural geology, vistas, and plant communities can be preserved using a greenway overlay zone.

The decision-making body for the greenway overlay zone could be a Greenway Chamber of Commerce or Greenway Capital Improvement District. Greenway-affiliated businesses, such as fishing, camping, biking and other outdoor activities, would be part of the Greenway Chamber of Commerce, which would protect and promote the greenway.

Some benefits of greenway overlay districts, defined as a setback off of greenway right-of-way, include:
- Promote shade tree cover on greenway
- Prevent new roads crossing greenway
- Landscape guidelines for invasive plant control and erosion control
- Safety standards for intersection with greenway
- Emergency vehicle access

Overlay districts can accomplish the following:
- Provide design guidelines that create a particular look and feel of an area
- Protect valuable resources
- Help meet community goals and objectives
- Maintain current codes while addressing a special need of an area within a zone

Steps to Establishing an Overlay District

1. A study or report is compiled that details the purpose and goals of the overlay district and ensures that it is tied to the objectives of the comprehensive plan or the stated goals of the community.

2. The boundary is simply and clearly defined, which is known as “spatial definition.”

3. Applicant information is compiled into a formal application to demonstrate the need for the overlay district.

4. The community’s reviewing body (typically a review board comprised of citizens and/or planning staff, or possibly the planning commission) evaluates for compliance with current standards.

5. The local governing body (greenway district) must approve the application before it is voted on.
Local Assistance
The primary requirement for using an overlay district is that there must be a zoning ordinance in place prior to implementation. Quite simply, if there is no zoning to be overlaid, an overlay district is not possible. Additionally, there must also be a clear and defensible purpose for implementing the overlay district, such as stated goals and objectives from a local plan or study.

Because of the extensive review process necessary to implement and manage an overlay district, this tool is best suited for communities or agencies that have an adequate professional planning staff. Typically, interpretation of technical issues associated with the application and overlay ordinance requirements is needed; therefore, having an experienced planner on staff would be beneficial.7

The land use ordinance below is adapted from Franklin County, Florida. The ordinance has three objectives: (1) adequate provision of greenway facilities, including evaluation of recreational needs; (2) access to recreational facilities; and (3) public-private coordination.

SAMPLE PLANNING ORDINANCE

The goal of recreation and open space planning is to provide adequate quality and quantity of recreation facilities, so that citizens and visitors to the greenway can be assured ample open space, resources, and use-based recreational opportunities.

OBJECTIVE 1 – Adequate Provision of Greenway Facilities

The Greenway Implementation Group shall assure adequate provision of greenway facilities by implementing the following policies.

Policy 1.1: The Greenway Implementation Group shall adopt the Recreation and Open Space Plan.

Policy 1.2: The Greenway Implementation Group shall adopt recognized level of service (LOS) standards for facility and site provision, consistent with the district’s Capital Improvements Element.

Policy 1.3: The Greenway Implementation Group shall monitor regional needs through the Alabama Department of Economic and Community Affairs (ADECA) and conduct a recreation needs assessment for ascertaining the most needed user-based recreation facilities. These needs will be incorporated into future capital improvement planning.

Policy 1.4: The Greenway Implementation Group shall preserve and maintain existing parks and recreation facilities through the use of operating budgets and proper management techniques.

Policy 1.5: The Greenway Implementation Group shall correct existing deficiencies in parks and recreational facilities to bring them into compliance with the adopted LOS standards.

**Coordination: Funding, Planning and Engineering**

Once the master plan is adopted, local governments should budget for planning and engineering required for the project. Failure to establish funding and costs at this time in the process could become a major obstacle later on. Support for up to 20% of the project costs should be set aside for efficient planning and engineering.

If any federal money will be used, the project site must be cleared for environmental and cultural impacts. Part of the planning costs may include a Phase 1 and Phase 2 Environmental Assessment, preparation of legal documents for conservation or maintenance easements, land surveys, and other due diligence that may be unique to the project. This can be a lengthy process and should begin as soon as the pre-engineering documents are finalized.

Local trail location identification should include information from the Flood Insurance Rate Map and major utility locations (electric, gas, water and sewer rights-of-way). The Flood Insurance Rate Map shows the location of 100-500 year floodways. These areas may be an opportunity for special tax benefits to landowners, called conservation easements. The easements can allow permanent access to the floodway for recreation with a tax break to the landowners. Utility company maps showing electric, gas, and water line easements may provide a dual purpose for maintenance roads and walking trails.

**Safety Considerations**

One way of creating a safe environment for greenways and trails is to use park and landscape design to prevent crime.\(^8\) Crime Prevention Through Environmental Design (CPTED) is a phrase described by C. Ray Jeffreys in his 1971 book of the same title. Jeffreys defines CPTED as the "proper design and effective use of the built environment that can lead to a reduction in the fear and the incidence of crime, and an improvement in the quality of life."

CPTED principles provide park users a comforting, safe feeling while discouraging potential criminals, therefore reducing crime proactively and unobtrusively. It is not a checklist, nor is it an easy fix for all situations. Good CPTED for one area may be completely inappropriate in another area.

For example, raising the crown of a tree in one area may open up the field of vision in a trail, but in another area it could kill the tree. A fix for the latter area would involve diverting the trail instead of trimming the tree. Therefore, CPTED is site and situation specific.

There are four main principles to CPTED:

1. **Natural Surveillance.** This is keeping the environment maintained so that people can be easily seen by other users, staff, and anyone who may pass by the park, trail or playground.

2. **Natural Access Control.** It is desirable to have natural access ingress and egress controlled by some means, such as a fence or flower bed. In other cases, a hedge or path could work. The important thing

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\(^8\) Joel McCormick, National Recreation and Park Association, 2010
is that something should signal “walk here” and “do not walk there.” A person in a walking area should not look out of place.

3. Territoriality. Territorial reinforcement is used to distinguish public and private spaces. This can be done by a number of means, including signage, flower beds and mowing. The idea is to show that someone owns and cares about the space. A space that is not used for legitimate park entertainment can quickly be used for some illegitimate, illegal, or unwanted activity.

4. Maintenance. Parks should only build what can be maintained. Without maintenance, a public area is inviting criminal behavior. Joe Murray, an arborist consultant and biology professor at Blue Ridge Community College in Staunton, Virginia, is a member of the Safer By Design Coalition, an organization that grew within the state because of interest in CPTED. Murray says that CPTED is well established in Europe and that the coalition is living proof that there is a growing interest in the United States.

**Maintenance**

The plan for greenway maintenance should be addressed in the beginning of the master plan. This is often an afterthought as planning, designing and building take precedence. If the greenway master plan involves multiple municipalities, maintenance issues can become a major problem. The following are maintenance plan suggestions from successful greenway managers.

- In every grant and fundraising effort, 20% must be set aside in a maintenance fund. (Path Foundation, Atlanta)
- All daily maintenance should be contracted annually to one entity. This includes mowing and edging. (Path Foundation, Atlanta)
- A second maintenance agreement should be made for incidents outside of the prescribed daily maintenance. Twenty percent of the annual maintenance budget should be set aside for major repairs—downed trees, bridge washout due to storms, and damaged fences and gates. (Path Foundation, Atlanta)
- Graffiti and minor vandalism should be corrected within 24 hours to deter further incidents. (Murfreesboro, Tennessee)

These guidelines keep the trails clean and accessible. When multiple jurisdictions try to keep the trail mowed and clean, gaps in maintenance are likely to occur. If budgets are cut or tax revenues are low, early investment in greenway maintenance funds can assure safety on the greenway. An annual maintenance contract should be bid by the Greenway Implementation Group. The landscape company that wins the annual contract will get great publicity from being seen on the trails every day.

**Choosing the Trail Surface**

The advice the Rail to Trails Conservancy gives on the type of surface for rail beds considers intended use and costs. For example, hard surfaces such as asphalt and concrete are more expensive but accommodate more types of trail use. Hard surface trails also require less maintenance, but replacement costs should also be considered. The asphalt on the Chief Ladiga Trail in northwest Alabama required replacement after 15 years of use. Trail users on wheels—street bicycles, skates, wheelchairs—prefer hard surfaces with low grade. Below are some pros and cons of various trail surfaces.
Hard Surfaces

Asphalt
- Works well for bicycle commuters or inline skaters, but typically can’t be used by equestrians
- Requires minor maintenance such as crack patching
- Has a life expectancy of seven to 15 years
- Flexible surface that requires use to remain pliable and will last longer with heavy use
- Possible environmental contamination during construction
- Often used in urban areas or near trailheads and access points where the average user travels two to four miles

Concrete
- Hardest, most expensive, longest lasting (up to 25 years or more)
- Appropriate for urban areas with severe climate swings and susceptibility to flooding

Crushed/granular stone (limestone, sandstone, crushed rock)
- Holds up well under heavy use
- Complements aesthetic of natural landscape
- Accommodates nearly every trail user (except inline skaters), if crushed and compacted properly

Soil cement
- A mixture of pulverized native soil and Portland cement, rolled and compacted into very dense surface
- Cheaper than asphalt
- Drainage very important to prevent erosion.

Resin-based stabilized material
- A tree product that binds aggregate or soil particles together
- Less environmental impact than asphalt
- Cheaper if surface is stabilized soil
- Aesthetics better match surrounding environment

Boardwalk
- Used for wetland areas
- The most expensive per mile to build, followed by concrete then asphalt.

Recycled materials
- Old rubber tires worked into concrete were used on Florida’s Withlacoochee State Trail
- Becoming more popular
- No extensive testing to evaluate longevity or wear tendencies
Soft Surfaces

Natural earth
- Maintenance includes fixing drainage problems, repairing eroded areas, removing new vegetation
- Costs $50,000 to $70,000 per mile for a 10-foot-wide trail
- Can be built by volunteers

Wood chips
- Blends well with the natural environment
- Works well as parallel tread next to asphalt or concrete
- Decomposes rapidly
- Does not accommodate wheelchair use
- Requires constant maintenance to keep width and surface steady
- Entire surface needs replacement every two years
- Costs $65,000 to $85,000 per mile for a 10-foot-wide trail
- Can be built by volunteers

The cost of surfacing a trail with asphalt or concrete may be prohibitive in the beginning stages of trail building. This initial expense should not deter plans if trail development needs to begin right away. It may be possible to upgrade from a soft surface, like dirt or crushed stone, to a hard surface, like asphalt or concrete, once funding has been secured. For example, the Cannon Valley Trail in Minnesota began as crushed stone, and was later upgraded to asphalt to accommodate community needs.

Liability
When a new recreational space is designed for the public, municipalities may turn their attention to liability issues. The Alabama Recreational Use Statute addresses some of those issues. Note that this is for non-commercial use.

Alabama Recreational Use Statute, Title 35: Property
Chapter 15: DUTY OF CARE OWED PERSONS ON PREMISES FOR SPORTING OR RECREATIONAL PURPOSES
Article 1: Limitation of Liability for Non-commercial Public Recreational Use of Land
§35-15-20. Legislative Intent
It is hereby declared that there is a need for outdoor recreational areas in this state which are open for public use and enjoyment; that the use and maintenance of these areas will provide beauty and openess for the benefit of the public and also assist in preserving the health, safety, and welfare of the population; that it is in the public interest to encourage owners of land to make such areas available to the public for non-commercial recreational purposes by limiting such owners’ liability towards persons entering thereon for such purposes; that such limitation on liability would encourage owners of land to allow non-commercial public recreational use of land which would not otherwise be open to the public, thereby reducing state expenditures needed to provide such areas.
Georgia has a similar law regarding public and private recreation liability. As with the Alabama rule, landowners must provide a standard of care and not charge for admission to the property.9

The purpose of Georgia’s Recreational Property Act (RPA) is “to encourage owners of land to make land and water areas available to the public for recreational purposes by limiting the owners’ liability toward persons entering thereon for recreational purposes.” The RPA does not grant total immunity from liability to landowners who allow public recreation on their land. Rather, the RPA offers a limitation on the duty of care owed by the landowner to recreational users subject to certain statutory conditions. Landowners will not be liable unless they violate this standard of care.

The RPA applies to both privately and publicly owned land so long as a fee is not charged for the use of the land. For example, the courts have found that the RPA applies to both a public school playground and a church playground accessible to the public during non-school hours. The statute applies to land leased to the state, or a subdivision of the state such as a local government, for recreational purposes unless otherwise specified in writing. The RPA does not apply to vacant lots in residential areas.

The Georgia Supreme Court has established a test for establishing willful failure to guard or warn. It requires actual knowledge of an owner that: (1) his property is being used for recreational purposes; (2) a condition exists involving an unreasonable risk of death or serious bodily harm; and (3) the condition is not apparent to those using the property. Having this knowledge, the owner (4) must have chosen not to guard or warn in disregard of the possible consequences.

The following is a safety ordinance from Jackson County, Oregon.

BEAR CREEK GREENWAY ORDINANCE

This ordinance was established by the Jackson County Board of Commissioners to establish common enforceable regulations of activities through the Bear Creek Greenway and does not pre-empt local authority. The ordinance defines what type of vehicle is permitted on the greenway and what uses are permitted. Specifically fires, firearms, hours of operation, companion animals, littering, vandalism, camping, fireworks, hunting and noise.

Jackson County established an intergovernmental agreement for multi-jurisdictional law enforcement in 1999 for the Bear Creek Greenway. Three cities and the county signed the agreement. The agreement was for the optimal health, safety and enjoyment of the public. The guidance document is the Bear Creek Greenway Management Plan.

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9 Excerpts from April 1996 Paper by Ronnie Abellera, under the supervision of Laurie Fowler J.D., LL.M. for the Georgia Environmental Policy Institute.
CHAPTER 2: COMPONENTS OF PROJECT SUCCESS

Identification of stakeholders emerge is the key to success of the project. Local project support comes from elected officials, businesses, nonprofits, county and regional agencies, outdoor recreation groups and involved citizens. Structure for the support group or partnership should be defined. The central organizing group for planning, development and maintenance will be referred to as the Greenway Implementation Group (GIG).

There are many options for the structure of a GIG. In general, the most successful greenway projects have three groups that work together in different aspects, including a nonprofit organization, an elected officials group, and a volunteer “friends” group (Figure 1). Each serves a different function. There are no hard and fast rules for how and how much they overlap. That is best defined by the local culture.

The nonprofit group may access grants from private foundations such as the Community Foundation of Greater Birmingham and other philanthropic groups willing to invest in well-designed projects. This is also the gateway for corporate contributions to projects. Corporate greenway sponsors in the Atlanta area that helped build the Silver Comet Rail Trail and the Emerald Ring Trail around the city include Cox Cable and The Coca Cola Company. Local industry partners may also want to contribute through the nonprofit mechanism. The Freshwater Land Trust has had great success partnering with El Paso Gas and Alabama Power. The nonprofit structure requires a savvy staff that is able to write and administer grants, manage fiscal responsibilities and provide technical expertise. Some existing local nonprofits can be used in this role, such as Cawaco RC&D Council or the Freshwater Land Trust. In some cases it is best to form a new nonprofit specific to the project. For example, a nonprofit whose mission is education has different funding opportunities than a nonprofit that works in land preservation.

Elected officials and leaders can take on the structure of a tax district for support of the project. The tax district can take many forms and responsibilities. Some districts can receive property, receive state and federal appropriations, have limited tax liability, or own, manage and operate greenways. For example, the Alabama legislature formed the Red Mountain Greenway and Recreational Area Commission to own, manage and operate Red Mountain Park. The Coosa River Storage Annex in Talladega County is working under a public park authority. Five Mile Creek Capital Improvement Cooperative District was formed by the Alabama legislature in 2010 to provide an entity to receive the deed to the 16.5 CSX Cane Creek Branch for a rail trail.

The third part of a successful greenway organization is a Friends of the Greenway group. These groups can become a nonprofit or remain an informal support group. These organizations can assist in marketing, volunteer events, fundraising and management of the greenway. A local example is the Friends of the Railroad District in Birmingham, Alabama formed a 501(c)(3) nonprofit to oversee project management for Railroad Park in downtown Birmingham that opened in 2010.

These three components are addressed in depth in this chapter, beginning with the formation and legal definition of Capital Improvement District, Park Authorities, and Tax Increment Districts.
Organizing a Greenway Implementation Group

Choosing a mechanism to best serve the needs of a Greenway Implementation Group should be the best fit for the political dynamic of the greenway area. Some options are: a Capital Improvement Cooperative District, Public Park and Recreation Authority, County Public Park and Recreation Board, and a Municipal Public Park and Recreation Board.

Only the Capital Improvement Cooperative District (CICD) and Public Park and Recreation Authority (PPRA) are able to include multiple counties and municipalities. There is also no explicit statutory limitation on the geographic boundaries of the area, as there is for the two park board models. The main difference between them is the organizational purpose.

CICD - To encourage and facilitate cooperative efforts by public entities to provide projects for their own use and for the use and benefit of others.

PPRA – Promoting public interest and participation in sports, athletics, and recreational activities though acquiring, enlarging, improving, expanding, owning, operating, leasing and disposing of park and recreation related properties.

One of the most important aspects of these park entities is that all of them carry limited liability. Without limited liability, greenway systems, trails and their associated activities would be no fun! Fear of being liable for
accidents would not provide the activities and facilities needed to maximize the recreational potential of the greenway. No falling! No contact with water! No snakes! No fun!

**Capital Improvement Cooperative District (CICD)**

A CICD has been used to implement various projects in Alabama. A district was one of the options considered by the Five Mile Creek Greenway Partnership to create a multi-jurisdictional entity for greenway ownership and development. A legal description of the CICD is found in Section 11-99B of the Alabama Code. The procedure involves filing an application for incorporation of the district with the adoption of resolutions approving or denying application by member governments.

There are major advantages of a CICD over other options, such as a park authority, that suited the mission of the Five Mile Creek Greenway project. A CICD has a broad purpose that can be used for any project for member governments and their citizens. Also the CICD may use public rights-of-way without prior approval of the state, its agencies or the county government. The Five Mile Creek Greenway District is the first in Alabama to define its mission as greenway development.

Other advantages of a CICD are:
- the ability to acquire, hold and sell property
- the ability to issue bonds
- the ability to develop and manage property
- tax exemption
- limitation on liability
- the ability to enter into and execute contracts
- the ability to sue and be sued
- the ability to cooperate and make contracts with federal, local and state governments
- the ability to sell/convey any portion of the projects operated
- the ability to lease projects
- mortgage/pledge interest in projects as security for its bonds

As with most organizations, a board of directors must be appointed and by-laws must be written. The initial board consists of the number of members specified in the Articles of Incorporation apportioned among and elected by the governing bodies of the participating counties and municipalities. If elected by a governing body of their county or municipality, the director must be a duly qualified elector of the county or municipality, respectively. An attorney must be active in the filing of the CICD incorporation documents and other legal obligations after the district is formed.
**How to Form a Capital Improvement Cooperative District**

1. Identify participating municipalities
2. Identify physical boundaries of the project
3. Engage city attorney to prepare incorporation documents
4. Identify a voting citizen in each municipality
5. Identify three incorporators (usually mayor or council member)
6. Have each municipality council sign a resolution for membership
7. Have attorney submit paperwork to Secretary of State

**Public Park and Recreation Authority**

The Public Park and Recreation Authority joins multiple counties and municipalities to promote public interest in sports. An example of a park authority in Alabama is the Coosa River Storage Annex in Talladega County. The Annex includes 2,832 acres that the National Park Service was given responsibility for as a result of Base Closure and Realignment. The Talladega property is formally known as the Coosa River Annex Depot, which was developed just prior to World War II as an ammunition depot. The Brecon area was, at that time, a powder and ammunition producing facility for the war effort. The property is being developed as a multi-use recreational facility containing Off-Highway Vehicle (OHV), equestrian, walking, mountain biking and hiking trails, along with a variety of other unique recreational venues. The lead nonprofit for this venue is the Cheaha Trail Riders, Inc.

The best Greenway Implementation Group model for this project was to form a Park Authority. The National Park Service’s (NPS) Federal Lands to Parks program awarded the Public Park Authority to the cities of Lincoln and Talladega in late 2010. Development began in March 2011 and the total development cost is estimated to be over $50 million within the next 10-15 years, with a revenue impact to the State of Alabama estimated to be over $20 million annually when completed. The Talladega County Commission will transfer the deed for the property to this Authority via the National Park Service. Lincoln and Talladega will work together to develop the Annex property according to the plan submitted by Lincoln and accepted by the NPS.

**How to Form a Park Authority**

1. At least one member must be a Class 4 municipality
2. Identify participating municipalities
3. Identify physical boundaries of the project
4. Engage city attorney to prepare incorporation documents
5. Identify a voting citizen in each municipality
6. Identify three incorporators (usually mayor or council member)
7. Have each municipality council sign a resolution for membership
8. Have attorney submit paperwork to Secretary of State
Friends: Citizen Commitment to the Project

One of the most valuable members of the Greenway Implementation Group is the local chamber of commerce. A chamber of commerce is a business network. The chambers are the premier local business advocates and a key to promotion of economic development through tourism.

In Central Alabama, the Birmingham Business Alliance (BBA) represents a merger of the Birmingham Chamber of Commerce and Metropolitan Development Board (MDB). The BBA focuses on the economic growth of the seven-county (Bibb, Blount, Chilton, Jefferson, Shelby, St. Clair, and Walker) Birmingham region. Bringing the Chamber and MDB together allows business leaders to create a much stronger and well-rounded entity to promote dynamic growth and improve the quality of life in the region.10

The BBA is a dynamic advocate, unifying voice, and constant catalyst for economic development and business prosperity for the Birmingham region. They produce Birmingham Magazine to promote the area. Smaller city chambers support community events that can promote greenways, such as community festivals and sponsorship of greenway activities.

Local Partnership
The Five Mile Creek Greenway Partnership is a group of municipalities, nonprofits and the RPCGB operating under a Memorandum of Agreement to support all members as they pursue the Five Mile Creek Greenway plan. The group is unique in the commitment of its members to persevere with the plan and support one another.

Friends Groups
Many greenway efforts have a Friends of the Greenway group that bring in private funding. Sometimes that funding is used to match state or federal funding but it can also be used outright to finance priority items. These groups bring another element to the regional implementation of a greenways plan. Attaining federal and state funding can be a lengthy process. Through private agencies, grants are often targeted to a specific project and additional money may be garnered from fundraising. Friends groups also bring out individuals dedicated to improving their own neighborhood, heath and recreational opportunities.

Friends of the Greenway groups often evolve into a nonprofit status known as 501(c)(3). They can form an agreement with the greenway managers to assist in the development, fundraising, and management of the greenway. This provides a group of local supporters who are less likely to change with the political election cycle. They can solicit support from public and private sector resources, such as elected officials, colleges and universities, and volunteer organizations.

10 http://www.birminghambusinessalliance.com/about
Friends groups help oversee sections of trails to report any problems, work on special clean-up projects, assist with the creation of trail enhancements (interpretive signs, kiosk, mile markers, benches, etc.) and decisions concerning their placement, and represent their communities on greenway matters. They can also preserve and interpret historic and natural resources along the greenway, and develop communications, programs, activities, and community partnerships to stimulate increased use and enjoyment. Some local committees, each representing one to three towns, and participants in the Adopt-a-Trail program provide maintenance and oversight for open sections of trail, and have input on matters of planning and development. Examples of activities of these volunteer groups are: art festivals, creek clean-ups, funding for additional amenities, water quality programs for schools, and purchase of kayaks and bicycles. Memberships are often at low cost to families and can provide additional greenway privileges.

Below are some examples of successful Friends of Greenway organizations in the Southeast.

**Friends of Red Mountain Park**, Birmingham, Alabama is a group of volunteers who are united in thinking that Red Mountain Park will be a win-win situation for all in Birmingham. Their mission is to promote, enhance, and enjoy Red Mountain Park. They are a 501(c)(3) nonprofit organization which serves as a bridge between the community and the park Commission and staff. [www.friendsofredmountainpark.org](http://www.friendsofredmountainpark.org)

**The Friends of the Greenway**, Murfreesboro, Tennessee, aids the Murfreesboro Parks and Recreation Department in achieving the goals and objectives of the Murfreesboro Greenway System. [www.murffeesborotn.gov](http://www.murffeesborotn.gov)

**Madison Greenway & Trails, Inc.**, Madison, Alabama, is a nonprofit organization representing the interests of people wanting greater access to walking and hiking trails, bicycle paths, preservation of natural areas and resources, preservation of access to historical sites, and planning related to community land use and development. [www.madisongreenways.org](http://www.madisongreenways.org)

**MillionMile Greenway** based in Atlanta, Georgia, “helps communities find and conserve greenways that connect neighborhoods and larger communities to each other, to nearby natural areas, to recreation, and eventually to greenspaces everywhere.”¹¹ They serve greenway efforts across the Southeast with capacity building grants and other support. They are volunteer-based with strong corporate sponsorship. [www.millionmilegreenway.org](http://www.millionmilegreenway.org). Below are the values of the MillionMile Greenway.

- Greenways should have three components — conservation, recreation and connectivity.
- Positive change happens when interested citizens team with local governments and private landowners to conserve and connect greenspaces.
- Citizens who want to conserve and enjoy greenspace should have the resources, tools, and network of contacts they need to work effectively.
- A network of paths linking parks and other greenspaces increases the utility of every greenspace and expands recreational opportunities for everyone.
- Greenspaces and their connecting greenways give us access to nature, to recreation, and to each other.
- Communities will fight hardest for the natural places they know best.
- Harnessing the passion of local communities is the easiest way to move the needle in conserving their local greenspaces.

¹¹[www.millionmilegreenway.org](http://www.millionmilegreenway.org)
How to Form a Friends of the Greenway

1. Visit other Friends groups for ideas
2. Survey local chambers of commerce for project interest
3. Present the master plan to local groups
4. Identify local leadership
5. Begin media campaign for membership and activities

Nonprofit Partners

Several nonprofits in Central Alabama have worked with open space, and greenways. Each has their own expertise and could be valuable partners when forming advisory boards or partnerships. The following pages have profiles of some of these groups.
FOREVER WILD LAND TRUST, Alabama

Profile
Forever Wild is administered by the State Lands Division of the Alabama Department of Conservation and Natural Resources (ADCNR) and guided by the 15-member Forever Wild Advisory Board comprised of the commissioner of ADCNR, the state forester, three university-based biologists appointed by the Alabama Commission on Higher Education, the executive director of the Marine Environmental Science Consortium, and nine members representing all regions of the state and appointed by the governor from a list of nominees provided by various conservation, environmental, business, recreational, and sportsmen organizations. The advisory board reviews nominated tracts and submits recommendations to the governor, lieutenant governor, and speaker of the house for final decisions.

The daily tasks of tract evaluation, title and abstract review, stewardship planning, report preparation, etc. are performed by the Natural Heritage Section of ADCNR's State Lands Division. The Natural Heritage Section, created in 1989 was strengthened by provisions in the Forever Wild legislation to enable ongoing operations necessary for its supportive role with the Forever Wild program. Since 1992, Forever Wild has secured 183,603 acres of public hunting lands that are part of the Alabama Wildlife Management Area (WMA) system. These lands are distributed within 13 WMA's in 12 counties.

Role in local Greenway Implementation Group
Partner in purchase of undeveloped land in northwest Jefferson County for public hunting lands.

Contact
Alabama Department of Conservation and Natural Resources
64 N. Union Street, Suite 468
Montgomery, AL 36130

<table>
<thead>
<tr>
<th>Name of Tract</th>
<th>County Location</th>
<th>Acreage</th>
<th>Year Acquired</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cahaba River WMA – 79% owned by Forever Wild</td>
<td>Shelby, Bibb Counties</td>
<td>27,892</td>
<td>2009</td>
</tr>
<tr>
<td>Mulberry Fork WMA – 100% owned by Forever Wild</td>
<td>Walker, Tuscaloosa</td>
<td>33,280</td>
<td>2009</td>
</tr>
<tr>
<td>Turkey Creek Tract-Nature Preserve</td>
<td>Pinson, Jefferson</td>
<td>462</td>
<td>2009</td>
</tr>
<tr>
<td>Turkey Creek-Thomas Tract</td>
<td>Pinson, Jefferson</td>
<td>48</td>
<td>2005</td>
</tr>
<tr>
<td>Ruffner Mountain Addition Tract</td>
<td>Birmingham, Jefferson</td>
<td>227</td>
<td>2000</td>
</tr>
</tbody>
</table>
FRESHWATER LAND TRUST, Birmingham, Alabama

Profile
The Freshwater Land Trust, a 501(c)(3) nonprofit organization, has five full-time employees and is governed by a 15 member board of directors. The Freshwater Land Trust acquires, conserves, and connects open spaces that are critical for the protection of rivers and streams and provide recreational opportunities for the community. The Freshwater Land Trust’s mission is the acquisition and stewardship of lands that enhance water quality and preserve open space.

Role in local Greenway Implementation Group
Partner in land acquisition. The Freshwater Land Trust is working to create a network of connected spaces throughout Jefferson County and beyond.

Contact
Wendy Jackson, Executive Director
Freshwater Land Trust
2308 First Avenue North
Birmingham, AL 35203
Phone: 205.417 2777
Fax: 877.571 9810
Web: http://www.freshwaterlandtrust.org/

TABLE 2: Local Examples of Freshwater Land Tracts

<table>
<thead>
<tr>
<th>Name of Tract</th>
<th>County Location</th>
<th>Acreage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Red Mountain Park</td>
<td>Jefferson</td>
<td>1108</td>
</tr>
<tr>
<td>Jefferson County Land Trust</td>
<td>Jefferson</td>
<td>1225</td>
</tr>
<tr>
<td>EPA consent decree</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Turkey Creek</td>
<td>Jefferson</td>
<td>700</td>
</tr>
</tbody>
</table>
THE NATURE CONSERVANCY OF ALABAMA

Profile
The Nature Conservancy (TNC) has helped to protect more than 120,000 acres of environmentally significant areas in Alabama since the state chapter opened in 1989. TNC is a worldwide nonprofit organization that specializes in acquiring wild lands that have significant natural or geological features or that support important wildlife or plant populations. TNC’s mission is to preserve the plants, animals, and natural communities that represent the diversity of life on earth by protecting the habitats they need to survive. To achieve this goal, TNC has developed a strategic, science-based planning process called Conservation by Design to identify the highest-priority places.

Role in local Greenway Implementation Group
In many cases, TNC provides funds, which are received from donors and members, for the initial acquisition of the land and then turns the land over to the state or federal government, either through an outright property transfer or through a subsequent sale. Cahaba River National Wildlife Refuge was originally acquired by The Nature Conservancy.

Areas within Central Alabama may be identified as ecosystems of interest to The Nature Conservancy. Within Jefferson County, stream habitat for endangered darters fall within the Greenway Foundation area. Other unique areas have been identified by The Nature Conservancy and Freshwater Land Trust.

Contact
Steve Northcutt, Director of Protection
The Nature Conservancy of Alabama
2100 1st Avenue North, Suite 500
Birmingham, AL 35203
Phone: (205) 251-1155
Fax: (205) 251-4444
Web: http://www.nature.org/ourinitiatives/regions/northamerica/unitedstates/alabama/index.htm

<table>
<thead>
<tr>
<th>Name of Tract</th>
<th>County Location</th>
<th>Acreage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cahaba River Watershed</td>
<td>Bibb</td>
<td>3800</td>
</tr>
<tr>
<td>Bibb County Glades Preserve, Cahaba River</td>
<td>Bibb</td>
<td>480</td>
</tr>
<tr>
<td>Pratt’s Ferry Preserve, Cahaba River</td>
<td>Bibb</td>
<td>12</td>
</tr>
</tbody>
</table>
AMERICAN ASSOCIATION OF RETIRED PERSONS (AARP), Alabama

Profile
AARP’s mission is to enhance the quality of life for all as we age, leading positive social change, and delivering value to members through information, advocacy, and service.

Role in local Greenway Implementation Group
AARP is working to make two of Alabama’s most beautiful tourist destinations healthier and safer places to visit and live. The communities of Orange Beach and Gulf Shores were recently selected for an active living workshop and pilot project designed to build healthy communities by applying the principles of active transportation, Smart Growth and Complete Streets.

The implementation of greenway plans should include the needs of seniors for trail location and amenities. A strong component of economic development of greenways is the development of senior housing and services in association with the greenway parks and trails.

Contact
Community Outreach
AARP Alabama
301 Monroe Street,
Suite 1880
Montgomery, AL 36104
Web: http://www.aarp.org/states/al

TABLE 4: AARP Greenway Projects in Alabama

<table>
<thead>
<tr>
<th>Name of Project</th>
<th>Location</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Active Living Workshop</td>
<td>Orange Beach, Gulf Shores, Alabama</td>
<td>November 2010</td>
</tr>
<tr>
<td>Smart Coast: Healthy Coastal Connections – Smart walks to School, Complete Streets, Physicians Champions</td>
<td>Smart Coast, Fairhope, Alabama</td>
<td>Ongoing programs Since 2002</td>
</tr>
<tr>
<td>Active Living Workshop</td>
<td>Birmingham, Alabama</td>
<td>June 2011</td>
</tr>
</tbody>
</table>
CAWACO RESOURCE CONSERVATION AND DEVELOPMENT COUNCIL INC., Central Alabama

Profile
The Cawaco RC&D Council’s name originates from the principal natural assets of the area, the Cahaba, Warrior and Coosa Rivers. This Council serves five counties: Blount, Chilton, Jefferson, Shelby and Walker. Their mission is to lead Central Alabama in the wise use of natural and human resources. They are co-located with the Regional Planning Commission of Greater Birmingham and assist with implementation of comprehensive plans.

Role in Greenway Implementation Group
Cawaco RC&D Council Inc. is the lead group in the Five Mile Creek Greenway Partnership. The Partnership was formed in 2003 as a regional task force to plan and implement a system of parks and trails in northwest Jefferson County. The group provided a project coordinator and numerous grant opportunities to build the greenway system. They are also a source for small grants for project development and educational projects.

Contact
Kelly Johnston, Operations Director
Cawaco RC&D Council Inc.
1731 1st Avenue North Suite 200
Birmingham, Al 35203
204-264-8461
Web: www.cawaco.org

<table>
<thead>
<tr>
<th>Project</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Five Mile Creek Greenway Partnership</td>
<td>Northwest Jefferson County, Alabama</td>
</tr>
<tr>
<td>Trail location studies, map production, cultural and historic support, stream restoration and community education</td>
<td></td>
</tr>
<tr>
<td>Shades Creek Stream Restoration</td>
<td>Vestavia, Alabama</td>
</tr>
<tr>
<td>Town Creek Stream Restoration</td>
<td>Jasper, Alabama</td>
</tr>
</tbody>
</table>
Models for Greenway Implementation Groups

The need for a local or regional organization to implement the greenway plan, including identification resources, development of master plan, plan implementation, and management of the greenway can be met through a number of models.12 Five models are outlined in this section. Local and regional examples of each are given to illustrate the pros and cons of the models. Factors affecting the best model(s) for a project are determined by the best fit for leadership, funding, and management capacity. The models are patterned after the June 2002 report from Greenways Incorporated for the Miami River Commission. These models were found to be most frequently associated with greenway efforts.

Single Agency Model
The single agency model is developed around leadership of a local, regional, or state governmental agency (one-to-many). Often this agency is a recreation and parks or planning department whose interests align with the goals for the greenway.
Local Example: Shades Creek Greenway, City of Homewood, Alabama
Regional Example: Richard Martin Trail and Elk River Canoe Trail, Limestone County Parks and Recreation, Athens, Alabama

Multi-Agency Model
The multi-agency model is the same organizational foundation (one-to-many) as the single agency, except two or more agencies have decided to pool resources and divide responsibilities in order to resolve complex issues for greenway implementation.
Regional example: Shelby Farms Greenline and Wolf River Greenway, managed by Memphis Greenline, Memphis, Tennessee

Public-Private
Local government partners support the bulk of greenway implementation. Private sector supports through fundraising, promotion and programming.
Local examples: Red Mountain Park, Red Mountain Park Commission, Birmingham Alabama
Railroad Park, Railroad Park Commission, Birmingham, Alabama
Regional examples: Tennessee Riverpark and Chattanooga Greenways Program, Trust for Public Lands, Chattanooga, Tennessee

Private-Public
Private sector does most of the planning, design, implementation and management of greenways. Public sector supports the greenway through in management, promotion and programming.
Regional Examples: Florida Greenways and Trails, Florida Greenways and Trails Foundation (private), Florida Department of Environmental Protection Office of Greenways and Trails (public), State of Florida; and Murphreesboro Greenway System, Murphreesboro, Tennessee

12 Governing Greenways: An overview of organizations that operate and manage regional and riverfront greenways, June 2002, Greenways Incorporated.
Private Sector
Establish and operate a greenway program entirely through private sector.

Local example: Ruffner Mountain Nature Preserve, Ruffner Park Nature Coalition 501(c)(3), Birmingham, Alabama; and Alabama Scenic River Trail, Alabama (statewide)
Regional example: PATH Foundation 501(c)(3), Atlanta, Georgia

The next table lists the specifics of each type of Greenway Implementation Group model, including identifying the lead and secondary agency, the advisory group who will guide the process, the group that will work with regulatory issues and park design, the group who will manage the events and programming, and the group who will take the role of fiscal management. This table can be used to match the Greenway Implementation Group strengths and weakness with the appropriate organization model.

Once the model is identified that best fits the lead agency, advisors, management agency and fiscal agents, the pros and cons of the model should be reviewed. Table 7 shows which models will require tax support, the ease of management, speed of implementation, funding sources, and stability of leadership.

<table>
<thead>
<tr>
<th>Issues</th>
<th>Single</th>
<th>Multi-Agency</th>
<th>Public-Private</th>
<th>Private-Public</th>
<th>Private Sector</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lead Agency</td>
<td>Elected body (city or county)</td>
<td>Elected body from several agencies (city/county)</td>
<td>State agency, municipality, county government, private business, nonprofit</td>
<td>Nonprofit 501(c)(3)</td>
<td>Nonprofit 501(c)(3)</td>
</tr>
<tr>
<td>Second Tier Agency(ies)</td>
<td>Public Department (Parks and Recreation)</td>
<td>Parks and Recreation/Planning Departments</td>
<td>Greenway Commission</td>
<td>User groups, municipality, county government, private business, nonprofit</td>
<td></td>
</tr>
<tr>
<td>Advisors</td>
<td>Parks and Recreation Commission</td>
<td>Elected Body</td>
<td></td>
<td>Board of Directors</td>
<td></td>
</tr>
<tr>
<td>Regulatory Issues/Facility Design</td>
<td>Parks and Recreation Department</td>
<td>Planning Staff</td>
<td>Public</td>
<td>Non-profit</td>
<td>Non-profit</td>
</tr>
<tr>
<td>Facility Management/Event Programming/Public Relations</td>
<td>Parks and Recreation Department</td>
<td>Park Staff</td>
<td>Public</td>
<td>Public</td>
<td>Non-profit</td>
</tr>
<tr>
<td>Fiscal Management</td>
<td>Parks and Recreation Department</td>
<td>Park Staff</td>
<td>Private</td>
<td>Non-profit</td>
<td>Non-profit</td>
</tr>
</tbody>
</table>
TABLE 7: Pros and Cons of Management Models

<table>
<thead>
<tr>
<th>Issue</th>
<th>Single</th>
<th>Multi-Agency</th>
<th>Public-Private</th>
<th>Private-Public</th>
<th>Private</th>
</tr>
</thead>
<tbody>
<tr>
<td>Taxpayer Burden</td>
<td>Yes</td>
<td>Yes</td>
<td>Some</td>
<td>Some</td>
<td>No Tax Burden</td>
</tr>
<tr>
<td>Ease of Management</td>
<td>Established Style</td>
<td>Cross-Agency Cooperation Needed</td>
<td></td>
<td></td>
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<tr>
<td>Speed of Implementation</td>
<td>Slow</td>
<td>Slow</td>
<td>Moderate</td>
<td>Moderate</td>
<td>Efficient</td>
</tr>
<tr>
<td>Funding</td>
<td>Limited Sources</td>
<td>Diverse Funding</td>
<td>Diverse Funding</td>
<td>Diverse Funding</td>
<td>Depends on Private Funding</td>
</tr>
<tr>
<td>Leadership</td>
<td>Election Turnover</td>
<td>Election Turnover, Budget Cycles</td>
<td>Some Turnover</td>
<td>From Private Sector: Stable</td>
<td>Stable</td>
</tr>
</tbody>
</table>
Single Agency Model

**SHADES CREEK GREENWAY, Homewood, Alabama**

**Project**
Homewood Shades Creek greenway is a six mile long multi-use trail for pedestrian and cycling activities in the Birmingham metropolitan area. The complete design connects Jemison Park in the east, runs west along Shades Creek passing under Brookwood Boulevard, Highway 31, Columbiana Road, and Interstate 65, past Wildwood Shopping Center connecting with West Homewood Park via a flyover and crossing Lakeshore Drive.

**Funding**
The Greenway was financed by Congestion Mitigation Air Quality (CMAQ) money ($3.4 million dollars), in partnership between the City of Homewood and Jefferson County.

**Lead Agency**: City of Homewood  
**Advisors**: Homewood City Council  
**Regulatory Issues/Facility Design**: Ross Kelly Design, Mackally Land Design  
**Facility Management/Event Programming/PR**: City of Homewood  
**Fiscal Management**: City of Homewood  
**Web**: [www.homewoodchamber.com](http://www.homewoodchamber.com)
Single Agency Model

LIMESTONE COUNTY PARKS AND RECREATION, Athens, Alabama

Projects
- Richard Martin National Recreation Trail, 12-mile rail trail for bicycle, equestrian and pedestrian
- Cowford Landing at Round Island Recreational area on the Tennessee River
- Round Island Recreational area is part of the North Alabama Birding Trail
- 22-mile canoe and kayak trail on the Elk River from Elkmont to Elk River Mills
- 89-mile bicycle trail

History
In 1989, Richard Martin first presented his vision of what is now known as The Richard Martin Rails to Trails. The Limestone County Parks and Recreation Board marked the completion of the $1.1 million, 20-year project that began with the purchase of 11 miles of abandoned CSX railway from Hays Mill to Veto at the Tennessee state line on March 21, 2009.

Lead Agency: Limestone County Parks and Recreation Department
Advisors: Limestone County Park Board, Greater Limestone Chamber of Commerce
Regulatory Issues/Facility Design: Limestone County
Facility Management/Event Programming/PR: Limestone County
Fiscal Management: Limestone County
Web: www.limestonecounty.net and www.limestoneparks.com
Multi-Agency Model

**MEMPHIS GREENLINE, Memphis, Tennessee**

Projects
- CSX Transportation has a 100-foot-wide strip of land extending from just north of Shelby Farms westward to near the Poplar and Union viaduct. The purchase would take in the western half of a 13.34-mile CSX rail corridor that extends east almost to Houston Levee Road.

- Shelby Farms Greenline is a 6.5-mile paved multi-use rail trail midtown Memphis to Shelby Farms Park in east Memphis. The trail connects with other paved walking/cycling trails in the park for 25 paved miles round trip without riding on a street.

- Memphis Wolf River Greenway. The 30-mile Wolf River Greenway connects the Mississippi River, neighborhoods and parks in Shelby County, and the cities of Memphis, Germantown and Collierville.

Lead Agencies
The Memphis Greenline project is implemented through the participation of various nonprofit agencies — Greater Memphis Greenline, Memphis Community Connector, Wolf River Conservancy and Shelby Farms Park Conservancy.

**Greater Memphis Greenline (GMG), a 501(c)(3) nonprofit**
The mission of Greater Memphis Greenline, Inc. (GMGI) is to promote the development of a world-class user-friendly network of integrated hiking-biking trails, parks, and greenways throughout Memphis and Shelby County. Volunteers for promotion of greenways; has board of directors and board of advisors.
Web: www.greatermemphisgreenline.org

**Memphis Community Connector, a nonprofit**
The Connector is an acquisition group for rail negotiating for Shelby County with good financial backing. They negotiated interim trail use/rail banking agreement as Interim Trail Use Proponent (NITU) with CSX Transportation. The rail line title was deeded directly to the county.

**Wolf River Conservancy, a 501(c)(3) nonprofit**
The Conservancy’s mission is to conserve and enhance the Wolf River corridor and watershed as a sustainable natural resource, including developing the 30-mile Wolf River Greenway that interconnects the Mississippi River, neighborhoods and parks in Shelby County, and the cities of Memphis, Germantown and Collierville.

These agencies have partnered with the City of Memphis Division of Park Services and the Hyde Family Foundation in the Memphis Greenway Partnership, collaborating to help plan and implement a greenway and conservation corridor along the Wolf River. In November 2009, the Memphis City Council awarded a bid for construction of the first paved section, a 1.3-mile, $1.4 million greenway segment between Humphreys Boulevard and the river from Walnut Grove to Shady Grove, with a spur linking it to Shelby Farms via a new pedestrian bridge.
Shelby Farms Park Conservancy, a 501(c)(3) nonprofit

The Conservancy was established in 2007 to manage Shelby Farms Park and Shelby Farms Greenline. Benefits of the conservancy are community-based leadership and the ability to attract important financial contributions from local and national businesses and foundations.

Their agreement with Shelby County, Tennessee gives the Conservancy authority over 2,900 acres, ensures that county funding remains at its current level, gives the Conservancy the authority to set fees and operate all concessions, and requires annual financial reports to the board of commissioners.

The Shelby Farms Park Conservancy oversees operations and maintenance of Shelby Farms Park, acts as steward for the public of the land and its uses, and leads development of a master plan. The Conservancy is managing a master plan that defines the public’s new vision for the Park, including hiring a well-known national planner, overseeing the planning development, ensuring proactive public involvement, and implementing final recommendations. They have a 34-member board including two county commissioners.

When comparing the revenue for 2009 and 2013 (anticipated), the numbers show the variability of funding sources as the Park grows and contributions change over time. Information from the Park’s business plan shows how revenue from Park events will increase in 2013, while contributions from county government and fundraising decrease. In 2009, Shelby County government contributed 30% of the revenue, but their expected contribution for 2013 is 16%. Likewise, rental and concessions was 7% in 2009 and 18% in 2013; events were 17% and 40%; contributions - 6% and 11%; fundraising - 38% and 12%; and membership – 1% and 4%.

The Shelby Farms Park Conservancy raised $4.77 million in private funds for the purchase of 13 miles of CSX Transportation rail corridor. The Conservancy administered a $1.5 million Transportation Enhancement grant for construction of 7 miles with $375,000 match from the city of Memphis.

Web:  www.shelbyfarmspark.org
Public-Private

**RED MOUNTAIN PARK, Birmingham, Alabama**

**Projects**
A 1108-acre park for recreational use, appreciation of nature, and understanding of Birmingham’s iron ore mining history. Proposed four-level trail system interconnected via a series of loop trails to accommodate walkers, hikers, runners, and cyclists.

**Lead Agencies**

The park is owned and administered by Red Mountain Greenway and Recreational Area Commission. Each of the 15 commissioners is selected by one of eight appointing bodies which are: the Governor of Alabama, the Mayor of Birmingham, the Jefferson County Commission, the Jefferson County Mayors Association, USS Real Estate, and the Freshwater Land Trust. The Jefferson County legislative delegation selects one member from the Jefferson County’s Alabama House delegation and one from the Alabama Senate.

**History**
In 2007, the Alabama Legislature declared the Red Mountain Greenway and Recreational Area Commission a state agency. Exclusive control over the park is provided by a 15-member commission. The commission is responsible for contributing and providing oversight to every aspect of the park planning process.

**Funding**
USS Real Estate, Jefferson County Commission, Community Foundation of Greater Birmingham, Hugh Kaul Foundation, $2.5 million in federal appropriations, and Alabama Power (Economic Impact Study).

**Regulatory Issues/Facility Design:** Red Mountain Greenway and Recreational Area Commission

**Facility Management/Event Programming/PR:** Red Mountain Park Executive Director and park staff

**Fiscal Management:** Red Mountain Greenway and Recreational Area Commission

**Web:** [www.redmountainpark.org](http://www.redmountainpark.org) and [www.friendsofredmountainpark.org](http://www.friendsofredmountainpark.org)
Public-Private

RAILROAD PARK, Birmingham, Alabama

Project
19-acre urban park, ¼-mile loop trail, pavilion, public restrooms, playgrounds, outdoor gym, and amphitheater

Lead Agencies
Public-private partnership between the Railroad Park Foundation and the City of Birmingham, which committed $12.5 million in federal, city and private dollars to the project by 2006. Railroad Park Foundation; owned by the City of Birmingham.

Railroad Park Foundation, a 501(c)(3) nonprofit
The mission of the Railroad Park Foundation is to oversee all aspects of park management and to acquire adequate funding to sustain and promote the Park.

History
Railroad Park is a 19-acre greenspace in downtown Birmingham that celebrates the industrial and artistic heritage of the city. Situated along 1st Avenue South, between 14th and 18th Streets, the park is a joint effort between the City of Birmingham and the Railroad Park Foundation.

Funding

Regulatory Issues/Facility Design
The City of Birmingham granted an operating agreement and a renewable five-year lease of the park to the Railroad Park Foundation. The Foundation led the construction process based on the 2005 master plan park design of Tom Leader Studio.

Facility Management/Event Programming/PR: Railroad Park Foundation
Fiscal Management: Railroad Park Foundation
Web: www.railroadpark.org
Public-Private

TENNESSEE RIVER PARK and CHATTANOOGA GREENWAYS PROGRAM, Chattanooga, TN

Projects
The Chattanooga Greenway Master Plan calls for creating greenway trails along tributaries of the Tennessee River and connecting them to the Tennessee Riverwalk. Tennessee Riverwalk, a 10-mile riverside path, parallels the Tennessee River from the Chickamauga Dam to Ross's Landing Park in Downtown Chattanooga near the Tennessee Aquarium. Part of the Tennessee River Park system features the Tennessee River Park, Coolidge Park, Renaissance Park, Ross's Landing, and the Walnut Street Bridge.

Lead Agencies
Greenways Advisory Board, established by the Chattanooga City Council
City of Chattanooga, Tennessee, City
Hamilton County, Tennessee, County
Trust for Public Lands, Chattanooga, Tennessee, Non-profit

History
In 1990, Greenways Advisory Board (now Greenways Task Force) was formed. Their mission is to involve individual citizens in the planning, acquisition, management and development of the Chattanooga Greenway System and to place priority on acquisition and development of greenways and long range development of the greenways program. In 1994 the city of Chattanooga contracted with the Trust for Public Land to assist the community in establishing a unified greenway system and management entity. Trust for Public Lands-Chattanooga has been working with several partners to create a network of greenways and trails, connecting some of the area's most cherished natural and cultural resources. The Advisory Board had one member for each district, plus members from 14 established organizations (associations and friends groups).

Funding
State of Tennessee, City of Chattanooga, Hamilton County, the RiverCity Company, Greenway Advisory Board.

Regulatory Issues/Facility Design: Greenways Task Force
Facility Management/Event Programming/PR: Greenways Task Force appointed Outdoor Chattanooga
Fiscal Management: Greenways Task Force
Private-Public

FLORIDA GREENWAYS AND TRAILS FOUNDATION

Projects
More than 11 greenways across Florida, including Nature Coast State Trail, Blackwater Heritage State Trail, and the Marjorie Harris Carr Cross Florida Greenway.

Lead Agencies
Florida Greenways and Trails Foundation, a 501(c)(3) nonprofit
Florida Department of Environmental Protection Office of Greenways and Trails, a state agency

History
The Florida Greenways and Trails Foundation, Inc. exists to support the mission and programs of the Florida Department of Environmental Protection's Office of Greenways and Trails (OGT) as they work toward establishing a statewide system of greenways and trails for recreation, conservation and alternative transportation.

1979: Conservation and Recreation Lands Program (CARL). CARL Trust Fund received funds from an excise tax on mineral extraction. Florida legislature established the Recreational Trails System.

1991: 1000 Friends of Florida and the Conservation Fund began the visionary work of creating a connected Florida.

1993: Florida Greenways Commission founded

1995: Florida Greenways Coordinating Council was created to continue the pioneering work of the Greenways Commission.

Mission
The Office of Greenways & Trails is working to establish a statewide system of greenways and trails for recreation, conservation, and alternative transportation.

Funding
Donations to the foundation are managed by the Florida Greenways and Trails Land Acquisition Fund. The OGT Land Acquisition Program is a component of Florida Forever. Florida Forever provided $300 million annually through 2010 to protect and improve environmental lands, water resources and urban greenspace. The Land Acquisition Program receives 1.5 percent ($4.5 million) of the Florida Forever annual distribution.

Web
Florida Greenways and Trails Foundation: www.FloridaGreenwaysAndTrails.com
Office of Greenways and Trails: www.dep.state.fl.us/ogt
Private

RUFFNER MOUNTAIN NATURE CENTER, Birmingham, Alabama

History and Background
Ruffner Mountain Nature Coalition, Inc., a 501(c)(3) nonprofit organization founded in 1977, operates as the Ruffner Mountain Nature Center. From the 28 original acres, the center now owns and/or manages over 1,000 acres of an undeveloped portion of Birmingham, Alabama’s unique Red Mountain ridge.

The new nature center within the metropolitan urban area presents nature programs and summer camps. Interpretative trails are used for observing biologically diverse native plants and wildlife, remnants of Birmingham’s mining history, and hiking.

Mission
The mission of Ruffner Mountain Nature Center is to protect and manage Ruffner Mountain’s land as a sanctuary for native species of plants and animals, and through its educational and passive recreational programs foster within the community an appreciation for the value of the natural world and an understanding of the interdependence of all living things.

Funding
In 2008, received $2 million from the Three Parks Initiative for new nature center.
City of Birmingham, grants, program fees and membership dues.
Private

**ALABAMA SCENIC RIVER TRAIL**

**Projects**
The organization has packaged over 2,000 miles of waterways in Alabama for water trails. They specialize in creating physical access to the rivers and directions through guides, maps and books. The trail passes through these counties: Cherokee, Etowah, Calhoun, St. Clair, Talladega, Shelby, Coosa, Chilton, Elmore, Autauga, Montgomery, Lowndes, Dallas, Wilcox, Monroe, Conecuh, Clarke, Baldwin and Mobile

**History**
ASRT began in 2006 through Fred Couch, a jeweler in Anniston, Alabama.

**Mission**
- Create tourism travel in Alabama for all boaters, both human and motor powered
- Strengthen communities’ tourism economies through travel on nearby waterways
- Extend recreational opportunities with promotion of the waterway cooperating with public and private entities, volunteer organizations, municipalities and counties
- Highlight the historic significance of these waterways from Indian trade to the present
- Establish and fund a non-profit association to maintain the trail and coordinate community, private and public partnerships and riverside events

**Funding**
Alabama Scenic River Trail receives funding from memberships, grants from ADECA RTP, Mountains, Rivers and Valleys RC&D Council, Google Grants, Lowe’s, traveling events on the waterways, and selling of river guides and maps.

**Relationship with Public Sector**
The support of Alabama Power Company, which operates the six Coosa River dams and lakes above Montgomery, and the United States Army Corps of Engineers, which operates the three river lakes and dams south of Montgomery, has made the realization of the Alabama River Trail possible.

**Web:** [www.alabamascenicrivertrail.com](http://www.alabamascenicrivertrail.com)
Private

PATH FOUNDATION

Projects
50-mile Silver Comet Rail Trail, connects Atlanta, Georgia to the Alabama Chief Ladiga Rail Trail.
22-mile Atlanta BeltLine Trail, in progress

History
PATH Foundation spent three years planning for a nonprofit 501(c)(3), including looking at success and failures of other systems and creating a master plan for Atlanta.

1995: PATH Foundation began a Capital Campaign for $2.5 million private funds to match $3.2 million in public funds. The $5.7 million built three trails and established a $850,000 maintenance fund.

1998: PATH established a partnership between the State, three counties, four cities and several interest groups for the purpose of building a trail between Atlanta and the Alabama state line on the abandoned Seaboard Coastline railroad owned by the Georgia Department of Transportation. PATH established a steering committee for this trail that introduced the name “Silver Comet Trail” and established the logo.

1998: The PATH Board raised $3.65 million to match over $5 million from public sources. By the end of this campaign, 35 miles of the Comet were built and open to the public.

2002: The Board launched a third capital campaign to extend and improve the Silver Comet, build the first phase of the Arabia Mountain Trail, and expand Atlanta’s trail system near Peachtree Battle and Piedmont Park. This campaign netted $5.7 million to match $15 million from public sources to build over 30 miles of new trails.

2006: PATH launched a Capital Campaign seeking $9 million dollars in private donations to match almost 34 million from public sources to build 50 additional miles of trails. PATH will design and build the BeltLine project, a 22-mile loop around the city, as part of the 2006-2008 trail building effort.

Logistics
The success of the PATH Foundation comes from organization logistics, strong leadership of director Ed McBrayer, and a highly involved board of directors. PATH forms partnerships with several local governments to build greenway trails. PATH provides a knowledgeable staff to plan, design, build and maintain trail projects. In some cases, PATH will provide matching funds to finance the development of trails.

A strong, dedicated board of directors guide the activities of the organization. Cox Enterprises (WSB-TV) provides free office space for the staff and has made PATH one of the best investments for donated money. Over 88% of the funds raised from donations are spent building trails. The funding ratio is 75% of public dollars to 25% private. Local private supporters include the Robert Woodruff Foundation, Cox Communications, Arthur Blank of Atlanta Falcons and ING.
The staff consists of five staff members; four are paid by grant administration fees. They are highly organized and hire consultants for specific projects. Permanent staff positions are grant administration; office management and oversee maintenance; oversee design and construction; part-time bookkeeper; part-time consultant for permitting; and liaison with ALDOT. PATH charges consultant time directly to the job.

**Operation**

The first action taken by PATH was to develop a master plan. Once projects were identified, they applied for Transportation Enhancement funds or state funds, and matched the grants with development fees or bond money. Before the project is bid, staff meets with neighborhoods, and ground truth the trail location with home owners. Through a master agreement with each jurisdiction, PATH has special contractor status and their services are not bid out. PATH does not ask the local governments for funding; rather, the match is provided through private fundraising. After they bid the project, they hire an engineer and build.

Local governments provide access to state and federal funding, rights-of-way for trails, as well as in-kind services during trail development. PATH and local governments develop linking trail projects to give everyone access to the trail system. One money-saving practice is using county staff and equipment at no charge in January and February, when county projects are slow. There is no need for allocation of actual dollars.

**Design and Maintenance**

Simple, consistent design standards are also a way to save on design and construction costs. Path trails are always built with concrete, 10-12 feet wide, 5 inches thick, and can withstand 3000 psi. Concrete requires no patching and can use grass and mulch on trail edges. Asphalt needs a gravel bed on the shoulder. PATH uses recycled plastic amenities. Scope of work for maintenance is a ½-inch thick manual. Maintenance contractor must send detailed reports. Endowment is $2 million, 5% for maintenance. A percent of all project funding goes into the Maintenance Endowment Fund. Maintenance fees are paid off of the interest. Cost estimate is $10,000 per mile. If the City of Atlanta did the same work, it would cost $80,000 per mile. PATH bids out maintenance once a year.

**Web:**  [www.pathfoundation.org](http://www.pathfoundation.org)
CHAPTER 3: GREENWAY FUNDING

Citizens with a passion for active transportation – walking, biking, horseback riding – need factual information to support the need for building and expanding trails, parks and linear parks or greenways. When seeking support from local government or granting agencies, the project description will need support data demonstrating project needs. How many miles of trails are used now? How many more are needed? Have the citizens in the area or region been engaged in the planning process? Do the citizens want to support more planning, more trails?

Every five years the State of Alabama is required to prepare a plan called the Statewide Comprehensive Outdoor Recreation Plan (SCORP) in order to receive continued funding for the Recreational Trails Program and the Land and Water Conservation Fund from the Federal Highway Administration. The SCORP includes a survey of citizen need and support for specific types of recreation. A recent study, The Jefferson County Alabama Recreation and Open Space Needs Assessment, contracted through the Jefferson County Greenways Commission, shows citizen support for paying and building greenways for transportation, recreation and good health. Another study, for the Five Mile Creek study area, was completed by a University of Alabama at Birmingham graduate student. The results from these studies, as they apply to central Alabama and greenway projects, are presented in this chapter.

In addition to citizen needs for recreation are the economic benefits of developing greenways. The Trust for Public Lands has an excellent report showing the effects of greenways on local and regional economy, such as their economic triumph of the Chattanooga Riverwalk. This publication, Conservation: An Investment that Pays, The Economic Benefits of Parks and Open Space, is an excellent reference tool on the economic validity of greenways.

Finally, the environmental benefit of combining greenway construction and water quality improvement projects has great potential as an additional positive outcome for building greenway systems. An explanation of the opportunities for combining these benefits is described in the final section of this chapter addressing the facts needed to win support for greenways.

State Recreation Needs: ADECA Survey

Every five years the State of Alabama is required to prepare a Statewide Comprehensive Outdoor Recreation Plan (SCORP) in order to be eligible for Land and Water Conservation Fund assistance through the Department of Interior, National Park Service. The 2008-2012 SCORP was based on analysis of numerous public meetings and telephone surveys. The report serves as a guide for local, state and federal agencies in the development and future outdoor recreation and natural resource development in Alabama. Results were divided into 12 regions based on the regional planning councils. Region 3 is the six-county area that includes Blount, Chilton, Jefferson, Shelby, St. Clair and Walker, and is serviced by the Regional Planning Commission of Greater Birmingham.

15 www.adeca.alabama.gov/c14/outdoorRecreationPlanning
Table 8 shows the survey’s top ten activities in Alabama as a percentage compared to the results from Region 3. A comparison of participation rates in the selected recreation activities shows that walking for pleasure has the most participants statewide, including Region 3. Other activities that have participation rates that place in them in the top ten include freshwater beach, swimming pools, football, historic sites, saltwater beach, fishing freshwater bank, outdoor basketball, camping in developed sites and soccer.

The Region 3 survey response shows greater participation with walking for pleasure, football and visiting historic sites and slightly less participation interest in freshwater bank fishing compared to the rest of the State.16

Table 8: SCORP Results for Participation in Recreational Activities in Alabama 2008-201217

<table>
<thead>
<tr>
<th>Top Ten Activities in the State</th>
<th>Entire State of Alabama (% of population)</th>
<th>Region 3 (% of population)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Walking for pleasure</td>
<td>65</td>
<td>72</td>
</tr>
<tr>
<td>Freshwater beach</td>
<td>55</td>
<td>56</td>
</tr>
<tr>
<td>Swimming pool</td>
<td>52</td>
<td>49</td>
</tr>
<tr>
<td>Football</td>
<td>44</td>
<td>49</td>
</tr>
<tr>
<td>Visit historic sites</td>
<td>42</td>
<td>51</td>
</tr>
<tr>
<td>Saltwater beach</td>
<td>38</td>
<td>39</td>
</tr>
<tr>
<td>Fishing freshwater bank</td>
<td>32</td>
<td>21</td>
</tr>
<tr>
<td>Outdoor basketball</td>
<td>21</td>
<td>23</td>
</tr>
<tr>
<td>Camping developed sites</td>
<td>20</td>
<td>20</td>
</tr>
<tr>
<td>Soccer</td>
<td>18</td>
<td>18</td>
</tr>
</tbody>
</table>

When planning for outdoor recreation, the regional participation and frequency rates become very important in gauging outdoor recreation demands and needs that are appropriate for a particular locality. Outdoor recreation needs for each of the 12 regions within the State of Alabama are based on results of a telephone survey conducted by Troy University’s Center for Business and Economic Services. The outdoor recreation needs vary significantly from one region to another, and many times are quite different from the statewide results. The regional differences dictate that each region be looked at as a separate entity and that the recreation needs of each region be considered individually. An outdoor recreation needs analysis is provided for each region. Table 9 provides these data for Region 3.18

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16 Page 68 of 2008-2012 SCORP
17 ADECA SCORP 2008-2012, Figure 30
18 Page 96 of 2008-2012 SCORP
The Overall
of
While
by
44
A
Jefferson
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responses
consisted
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quality,
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of
A
Blueprint
for
Greenways
in
the
Heart
of
Alabama

Table 9: Region 3 Greatest Outdoor Recreation Needs 2008-2012 SCORP

<table>
<thead>
<tr>
<th>Need Cited</th>
<th>Number of Adults</th>
<th>Percent of Adults</th>
<th>Rank of Greatest Need</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parks</td>
<td>118,268</td>
<td>14.3</td>
<td>1</td>
</tr>
<tr>
<td>Walking / jogging trails</td>
<td>72,288</td>
<td>8.7</td>
<td>2</td>
</tr>
<tr>
<td>Playgrounds</td>
<td>55,495</td>
<td>6.7</td>
<td>3</td>
</tr>
<tr>
<td>Swimming pools</td>
<td>47,707</td>
<td>5.8</td>
<td>4</td>
</tr>
<tr>
<td>Hiking trails</td>
<td>39,926</td>
<td>4.8</td>
<td>5</td>
</tr>
<tr>
<td>Baseball fields</td>
<td>25,043</td>
<td>3.0</td>
<td>6</td>
</tr>
<tr>
<td>Softball fields</td>
<td>20,719</td>
<td>2.5</td>
<td>7</td>
</tr>
<tr>
<td>Bike trails</td>
<td>20,701</td>
<td>2.5</td>
<td>8</td>
</tr>
<tr>
<td>Nature trails &amp; preserves</td>
<td>18,780</td>
<td>2.3</td>
<td>9</td>
</tr>
</tbody>
</table>

Jefferson County Needs Assessment

A survey conducted by the Jefferson County Greenway Commission, *The Jefferson County Alabama Recreation and Open Space Needs Assessment*,¹⁹ was completed in December 2008. The Jefferson County Greenways Commission hired the Trust for Public Lands to survey the general public in Jefferson County to ask their opinions about supporting local greenways and trails.

The survey was conducted of 401 registered voters by telephone on November 10 and 11, 2008. The study consisted of a 46-question live telephone interview. The study was designed to sample a wide range of age and income groups.

The response was overwhelmingly in favor of preservation and expansion of outdoor trails, parks and greenways. Over 60% of the participants visited parks more than five times in the previous year. The report found a direct correlation between visiting parks and a willingness to provide financial support for the parks. For example, 82% of survey respondents agreed that providing new hiking, walking and biking trails was a good use of public funding. In addition, 96% thought the county should protect drinking water sources as well as water quality in streams, rivers and lakes. Preservation of historic sites was valued by 92% of those surveyed. Other results indicated a growing support for increasing opportunities for recreation and open space. Many of the responses were well above the national averages.

Overall results of the survey showed that the voters of Jefferson County support the idea of government being involved in recreation and open space conservation as a matter of public policy. Stalwart support was evidenced by the strength of voter responses. The biggest issue unresolved in this survey was voter willingness to support additional recreation and open space services through their individual pocketbooks.

While the goal of the survey was to measure support for public land conservation programs through land acquisition and public park development, there are a variety of other tools available to local governments to conserve land. These include local comprehensive planning, zoning, and land development regulations, including

¹⁹Trust for Public Lands, 2008.
subdivision ordinances and special zoning overlay zones. In addition to outright acquisition of land for conservation, some local governments also use less-than-fee land protection techniques, including land registry programs, lease and lease-back agreements, management agreements, conservation easements, purchase of development rights, and transfer of development rights. Some of these techniques are addressed in Chapter 2 of this document.

The survey presented a good starting point for the county to begin the greenway planning effort and gauge public support for recreation and open space. There are numerous next steps suggested by the report that could take place, depending on the interests of Jefferson County. Some of the recommendations include:

- Continue next steps of data collection, which should include developing a park equity study and a countywide green-print. (The 2010-2011 Jefferson County Greenway Master Plan from the Our One Mile Project will address this.)
- Conduct a feasibility study to closely examine financial options as per state law, election timing, and ballot measure requirements that relate back to recreation and open space needs.
- Conduct a public opinion poll specifically targeted toward a potential ballot measure for recreation and open space.
- Develop a specific implementation plan in concordance with regional partners.
- Begin implementing the plan.

**Five Mile Creek Park and Recreation Facility Utilization**

In the fall of 2008, Lynda Murphy, a University of Alabama at Birmingham (UAB) graduate student in business and public health, conducted a survey within the Five Mile Creek Watershed to determine park and recreational facility utilization. Ms. Murphy conducted research to examine park utilization in Alabama’s Brookside and Fultondale communities with the hope that the pilot study will eventually expand statewide. The survey results have the potential to serve as a guide to decision-making, and impact public policy related to greenspace preservation and improvements.

The following objectives were set for this project:

- Determine current utilization of parks and recreational facilities (Brookside or Fultondale)
- Determine how the community would like to see greenspace used
- Determine potential impact (health and economic) of enhanced parks and recreational facilities

Brookside is a small rural community of 1,300 people. The parks in Brookside along Five Mile Creek are accessible on foot and by car. The Brookside community survey showed that 96% have visited Brookside’s park at least once in the last 12 months and 59% have visited at least 20 times. Both community leaders and residents of Brookside believe there is a need to preserve and improve parks and recreational facilities within their communities. When asked if they would vote for a $15 increase in their annual sales tax to support preservation of parks and recreational facilities, 94% approved. Other mechanisms such as bond issues received a 30-40% rating.

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20 Park and Recreational Facility Utilization: An Internship with the Five Mile Creek Partnership, Lynda Murphy, Fall 2008.
Results were similar in Fultondale, a metropolitan area of around 7,000 located in the center of the Five Mile Creek Greenway project area. Almost 90% of the citizens surveyed had visited a Fultondale park at least one time within the last 12 months, and 38% have visited local parks at least 20 times in the last year. The idea of a $15 increase in annual sales tax met with 82% approval. Bond Issues and other sales tax mechanisms received a 30-35% approval rating.

The study concluded that both community leaders and residents of Brookside and Fultondale believe there is a need to preserve and improve parks and recreational facilities in their communities. Both communities’ residents utilize the current parks and recreational facilities. If enhancements are made that suit the communities’ needs, it is likely that utilization will increase.

Both desire for economic growth and improved personal health are underlying themes that were seen repeatedly during the course of the UAB research. The data obtained show that both Brookside and Fultondale believe that improvements to parks and recreational facilities will attract new residents, increase business activities, improve residential socialization, increase residents’ physical activity, and improve the overall quality of life of community members.

Given that both community leaders and residents of Brookside and Fultondale support parks and recreational facility enhancements, the UAB report recommend that the Five Mile Creek Greenway Partnership should

- Continue to research the correlation between parks, recreational facilities and increased physical activity
- Consider residents’ preference when deciding what improvements to make
- Consider residents’ perspective on funding mechanisms when developing policies to fund park improvements
- Treat each community uniquely when making decisions (remembering different communities have different preferences).
- Continue to make efforts to preserve and improve parks and recreational facilities.

**Survey Summary**

Surveys, such as the statewide SCorp, countywide Jefferson County Alabama Recreation and Open Space Needs Assessment, and local Five Mile Creek Park and Recreation Facility Utilization, point out that local surveys help to gage local needs and desires. These reports are important for planning and getting support for local segments of greenways. Public survey documents are necessary for providing information to public and private funding opportunities.
An Investment in Economic Opportunity

One of the best presentations of the benefits of open space, including greenways, trails, and parks, is a publication by The Trust for Public Land (2009) — Conservation: An Investment that Pays, The Economic Benefits of Parks and Open Space. The Trust for Public Lands conserves land for people to enjoy as parks, community gardens, historic sites, rural lands, and other natural places. They were instrumental in the renaissance of Chattanooga and Atlanta, two southern cities now known for their outdoor recreation assets.

Below is a listing of their findings for the economic strength of investing in parks and open space.

- Parks Boost Land Values and Property Taxes – both residential and commercial values increase.
- Parks Boost Local Economies by Attracting Businesses and Residents – businesses select areas with a high quality of life. Retirees look for areas with recreation and health benefits.
- Good Parks Encourage Economic Development - the impact of tourist dollars is well documented.
- Conservation as a Money-Saving Alternative to Some Development – long term benefits to open space infrastructure offers more than low quality boom development. Development of floodplains into interconnected trails keeps homes and industry from costly flood damage.
- Preserving the Value of Ecosystem Services - providing drinkable water, breathable air, and a stable climate. Often trail projects are integrated with stormwater quality enhancement.
- Parks Reduce Health Care Costs

Alabama is well documented as being a high risk region for diabetes, obesity (30% rate), strokes (50% higher than the national average) and heart disease (18% higher than the national average). In March 2010, the Jefferson County Department of Health received a grant totaling $13.3 million to reduce tobacco use and fight obesity. The Robert Wood Johnson Foundation’s Healthy Kids, Healthy Communities program awarded Jefferson County, Alabama, $360,000 to combat childhood obesity. Connections between schools, parks and recreational needs increase the options for wellness. Conservation communities tied to greenways and trails are ideal for an active lifestyle and lower health care costs.

A local example of the economic benefits of open space is the effect of the 2010 opening of Railroad Park in Downtown Birmingham, Alabama. The Birmingham News has reported a plan from Operation New Birmingham showing the 10 blocks bordering the park have become hot spots for economic investment. The park project has energized the downtown area and a public dialogue on parks and open space has enhanced the regional perception of open space value.

FIGURE 2: Murphreesboro, TN Greenway
An amenity to nearby apartment buildings

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21 Conservation: An Investment That Pays, The Economic Benefits of Parks and Open Space
Along with the benefits of wellness and quality of life, greenways bring wildlife-related recreation uses, such as bird watching, that boost local economies. The National Survey of Fishing, Hunting, and Wildlife-Associated Recreation has been conducted since 1955 and is one of the oldest and most comprehensive continuing recreation surveys. The Survey collects information on the number of anglers, hunters, and wildlife watchers; how often they participate; and how much they spend on their activities in the United States.

According to information from the 2006 Survey, 87.5 million Americans spent more than $122 billion in on wildlife-related recreation. Also, this spending supports hundreds of thousands of jobs in industries and businesses. Alabama is one of the most ecologically unique and diverse states in the US. The geologic setting and rich water resources support hunting, fishing, bird watching and wildlife-related activities. The value of a diverse ecosystem cannot be underestimated, and Alabama is just beginning to capitalize on that resource.

The 2006 Survey found that 1.7 million Alabama residents and nonresidents 16 years old and older fished, hunted, or watched wildlife in Alabama and spent $2.2 billion on wildlife recreation in Alabama. Of that total, trip-related expenditures were $808 million and equipment purchases totaled $1.1 billion. The remaining $231 million was spent on licenses, contributions, landownership and leasing, and other items.

The Tourism and Travel report, found in the Alabama Statewide Comprehensive Outdoor Recreation Plan 2008-2012, provides a list of 28 counties that experienced an increase in state lodging tax revenues from 2006 equal to or larger than the State rate of 10 percent. The report also provided information from counties with an annual increase or monthly increase in lodging tax revenues regarding events or conditions that were thought to have triggered the increase. Ten of the 28 counties attributed some portion of the increase to an outdoor recreational attraction or event, with the top activities being fishing tournaments and ball tournaments. Another four counties attributed outdoor recreational activities as a factor in a monthly increase in lodging tax revenues during 2006-2007.

An example of positive economic impact of a rail trail in a rural southern setting is a study on trail use on the Virginia Creeper Trail in southwest Virginia. The study by the US Department of Agriculture and University of Georgia showed a significant benefit from trail-related spending in two rural counties in southwest Virginia. The Virginia Creeper Trail is a 34-mile rail trail in Washington and Grayson Counties. During the sampling period, the study found that local use brought $120,000 to $160,000 to the two counties and non-local use brought $2.5 million annually. Over 27 new full-time jobs were created for trail support.  

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A study of a heritage trail in Charlotte, North Carolina indicated very positive economic results from trail use. The Carolina Thread Trail covers over 500 miles through 15 counties in North and South Carolina. A 2007 Regional Economic Study showed positive impacts on property tax revenues, recreational value, and tourism activity, and concluded that each $1 spent on trail development will produce $10 in economic impact.\(^{25}\)

The Silver Comet Trail in west Georgia has brought new life to the municipalities along its path. In the small town of Rockmart, Georgia, Mayor Curtis Lewis was quoted in the May 6, 2002 edition of the Atlanta Journal-Constitution as saying: “In the last 12 months, we’ve had more tourists than in the last 30 years. Before, there wasn’t anything to bring them here.” Residential developers are recognizing the value of the Silver Comet Trail as an attraction for prospective homeowners. For example, a community of 322 homes is being constructed adjacent to the trail in Dallas, Georgia. The developer also plans to construct a community trail that will connect to the Silver Comet Trail.

Investments in greenways and open space have long term rewards from the influx of visitors. Increased revenue from tourists and creation of new job opportunities are measurable economic benefits. Less tangible benefits are reduced health care costs and preservation of valuable ecosystems. Integration of trail building, flood protection and stormwater quality enhancement add long term environmental health benefits.

**Statistics for Project Support**

When putting together a greenway project, the following sources can be used for securing support from public officials and the media, and as data for grant applications.

**Center for Disease Control – Chronic Disease Prevention and Health Promotion**

Four modifiable health risk behaviors – lack of physical activity, poor nutrition, tobacco use, and excessive alcohol consumption – are responsible for much of the illness, suffering and early death related to chronic diseases. [www.cdc.gov/chronicdisease](http://www.cdc.gov/chronicdisease)

**Trust for Public Lands – Economic Impacts of Greenway and Trails**

Communities often believe that they cannot afford to “grow smart” by conserving open space. But accumulating evidence indicates that open space conservation and the creation of city parks are investments that produce significant economic benefits. The Trust for Public Land conducts studies and produces reports that help advocates make the case for conservation. [www.tpl.org](http://www.tpl.org)

**US Fish and Wildlife Service – National Survey of Fishing, Hunting & Wildlife-Associated Recreation**

One of the oldest and most comprehensive continuing recreation surveys. The survey connects information on the number of anglers, hunters, and wildlife watchers; how often they participate; and how much they spend on their activities in the United States. [http://library.fws.gov/pubs/nat_survey2006_final.pdf](http://library.fws.gov/pubs/nat_survey2006_final.pdf)

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Water Quality Benefits: Trails Combine with Good Environmental Practices

When greenway advocates are looking for additional benefits to building trails and associated amenities, water quality improvement can be a strong ally. Trail projects might also be eligible for funding for wetland restoration, flood remediation, water quality improvement, or mitigation for other water quality impacts.

Properties that lie in the 50 and 100-year floodplain may not be suitable for residential or commercial construction, but may be included in the greenway as a conservation easement for the benefit of property owners, greenway users and wildlife. For example, in areas where stream banks have been compromised through changes in the watershed, repair work could be included in trail construction. Since the location of many proposed parks and trails lie within floodplains, there is an opportunity to improve greenway design to improve water quality. The location of walkways and parks in the flood-plain should be planned to absorb flood waters without significant damage to amenities or adjacent property.

Mechanisms that could be used in greenway planning for water quality improvement are: natural channel design, reconnection of floodplain acreage to stream channel, creation of stormwater detention for water quality improvement and flood abatement. The illustration below shows the location of trails on either side of a stream channel. Stormwater that overflows the banks can be captured in constructed floodplain wetlands. Park amenities on the trail include boardwalks and seating for passive recreation.

FIGURE 4: Schematic Combining Water Quality Benefits and Trail Design

Funding

There are many ways to fund local and regional greenways/trails. The first step is to prioritize the projects. If a master plan has been completed, the plan should identify general trail location, costs for design and construction, and prioritization for each project. If a plan does not exist or is out of date, stakeholder meetings should be held to identify local needs and viability of the project. For complex long term projects, mechanisms such as tax increment districts, park authorities, and capital improvement districts may be a way to approach funding structure.
One of the most successful regional trail builds, PATH Inc. in Atlanta, Georgia, has a goal of bringing 70% of the public money needed to private funders before asking for their support. The public money for projects in Alabama can come through federal transportation programs such as Transportation Enhancement (TE), Congestion Mitigation Air Quality (CMAQ), or Safe Routes to School (SRTS); Alabama state allocations, earmarks, or bond referendums; or local city or county budgets.

According to PATH Foundation records for trail construction, the set up time for construction is 2.5 years using federal money and nine months with private money. Cost is $10,000 per mile private, $80,000 per mile public.

Federal
The key to using federal funding is choosing the right project. Federal funding is costly and lengthy. Application for federal funding must have excellent data on the cost analysis and photos of the project area. Professionally written grant applications can save time later in the project. Working with federal funds can be a challenge, but a straightforward project with simple project construction specifications can be worthwhile.

Transportation is more than automobiles. Active Transportation (people-powered) is a nationwide priority, according to the Federal Highway Administration (FHWA). The definitions and priorities of FHWA are key to applying for greenway funding either through Alabama Department of Transportation or Alabama Department of Economic and Community Affairs.

Priorities of the FHWA are listed on their web site as safety, congestion mitigation and environmental stewardship and streamlining. Ray LaHood, current US Secretary of Transportation, states that “FHWA is committed to protecting and preserving the environment through stewardship and timely reviews. In recent years, FHWA and our partners have made substantial contributions to the environment and to communities, through planning and programs that support wetland banking, habitat restoration, historic preservation, air quality improve-
ments, bicycle and pedestrian facilities, context-sensitive solutions, wildlife crossings, public and tribal government involvement, and more.\textsuperscript{26}

In FHWA guidance for bicycle and pedestrian transportation accessibility, use and safety, “fully integrated transportation networks” means well-connected walking and bicycling for livable communities, to promote physical activity and health and reduce vehicle emissions and fuel use.

Non-motorized networks must relate to surface transportation according to FHWA. Encouragement from the USDOT to promote and fund healthy, safe options for walking, biking and other non-motorized transportation, including horseback riding, indicates a national value for greenway networks such as the Five Mile Creek Greenway and other regional bicycle and pedestrian projects. The Five Mile Creek Greenway is well-connected to existing and developing parks and other greenspace. Developing options for recreation and transportation ultimately reduces auto congestion and air pollution.

There are numerous programs offered by FHWA that provide guidance, identify requirements and processes, and provide funding for bicycle and pedestrian projects and programs.

**Bicycle and Pedestrian Program**
Promotes bicycle and pedestrian transportation use, safety and accessibility. It provides guidance relative to legislation and resources for non-motorized transportation planning and design. Program management at the national level is in the Office of Planning, Environment and Realty of the FHWA on the federal level and by Alabama Department of Transportation.

**Transportation, Community and System Preservation (TCSP)**
Provides funding for a comprehensive initiative including planning grants, implementation grants and research to investigate and address the relationships between transportation, community and system preservation and to identify private sector-based initiatives. Bicycle and pedestrian projects and programs are eligible activities. It is managed by the Office of Planning, Environment and Realty of the FHWA on the federal level and by ALDOT Modal Programs on the state level.

**Transportation Enhancements (TE)**
Offers funding opportunities to help expand transportation choices and enhance the transportation experience through activities related to surface transportation including pedestrian and bicycle infrastructure and safety programs. It is managed by the Office of Planning, Environment and Realty of the FHWA on the federal level and by ALDOT Modal Programs on the state level.

**Congestion, Mitigation and Air Quality (CMAQ)**
Provides funding for surface transportation and other related projects that contribute to air quality improvements and reduce congestion. Pedestrian and bicycle programs are eligible for this funding. It is managed by the Office of Planning, Environment and Realty of the FHWA on the federal level and by ALDOT Modal Programs on the state level. Active transportation projects include constructing bicycle and pedestrian facilities (paths, bike racks, support facilities, etc.) that are not exclusively for recreational, and reduce vehicle trips. The local

\textsuperscript{26} Policy Statement on Bicycle and Pedestrian Accommodation, Regulation, and Recommendation, USDOT, March 2010.
Metropolitan Planning Organization is the gateway for the Federal funding from programs such as CMAQ to local projects.

**Recreational Trails Program (RTP)**

Provides funds to develop and maintain recreational trails and trail-related facilities. It is managed by the Office of Safety of the FHWA on the federal level and by the Alabama Department of Economic and Community Affairs (ADECA) on the state level.

**Safe Routes to School (SRTS)**

SRTS provides funding for projects and programs that facilitate walking and bicycling to school. The purpose of this program is to enable and encourage children, including those with disabilities, to walk and bicycle to school, to make walking and bicycling to school safe and more appealing, and to facilitate the planning, development and implementation of projects that will improve safety and reduce traffic, fuel consumption, and air pollution in the vicinity of schools. It is managed by the Office of Safety of the FHWA on the federal level and by the ALDOT Modal Programs on the state level. Federal Aid Highway Program for Pedestrian and Bicycle Facilities and programs for Alabama totaled $10,375,606 in 2009 and $22,927,676 in 2010. The majority of this money was spent through the Safe Routes to School program.

**Land and Water Conservation Fund (LWCF)**

This 50/50 matching grant program is administered by state agencies in cooperation with the National Park Service. Program funds are intended for the acquisition and development of outdoor recreation areas; trails are one priority of this program. Grant types include planning grants to states to develop the Statewide Comprehensive Outdoor Recreation Plan, acquisition grants for the acquisition of lands or interests in land, development or redevelopment grants to enhance projects with new or rebuilt recreation facilities, or a combination, which includes both acquisition and site development.

Within the Five Mile Creek watershed, LWCF has been used to acquire Black Creek Park, Fultondale (1975); develop Graysville Heights Park (1979); develop Tarrant Athletic Complex (1984-1987 and Phase 2 in 1991); acquire Fultondale Municipal Park (1986-1987); and Tarrant Park on Five Mile Creek (2002-2005).
National Environmental Policy Act
Any project using federal funding needs to comply with the National Environmental Policy Act (NEPA). Depending on the environmental impact of the project, compliance requirements can vary. Minimal impact projects, such as trails, may only need to complete a Categorical Exclusion checklist. Projects with major impact, such as new highways, often need to complete an Environmental Impact Statement.

Categorical Exclusion
When receiving federal transportation funding, FHWA must concur with the Categorical Exclusion Checklist. The Categorical Exclusion Checklist includes the impact categories of land use, socioeconomic impacts, ecological impacts, natural features/resource impacts, cultural resources/4f findings, and hazmat assessment. FHWA concurrence on the checklist will allow the project to proceed without an Environmental Assessment, Environmental Impact Statement or further public involvement. Categorical Exclusions are issued for actions that do not individually or cumulatively have a significant effect on the environment.

Categorical Exclusions (CEs) are actions which meet the definition contained in 40 CFR 1508.4 and, based on past experience with similar actions, do not involve significant environmental impacts. They are actions which: do not induce significant impacts to planned growth or land use for the area; do not require the relocation of significant numbers of people; do not have a significant impact on any natural, cultural, recreational, historic or other resource; do not involve significant air, noise, or water quality impacts; do not have significant impacts on travel patterns; and do not otherwise, either individually or cumulatively, have any significant environmental impacts. 23 CFR 771.117(a)

Section 4f
The Department of Transportation Act of 1966 (DOT Act) included a special provision - Section 4(f) - which stipulated that the FHWA and other DOT agencies cannot approve the use of land from publicly owned parks, recreational areas, wildlife and waterfowl refuges, or public and private historical sites, unless the following conditions apply: (1) There is no feasible and prudent alternative to the use of land; or (2) The action includes all possible planning to minimize harm to the property resulting from use.

Section 4f applies to public land. The intent of the law was to protect public land from conversion to highway projects without consideration. For example, if a park is developed using funding from the Land and Water Conservation Fund, the land cannot be taken for highway development with a few exceptions. A “national policy that special effort should be made to preserve the natural beauty of the countryside and public park and recreation lands, wildlife and waterfowl refuges, and historic sites.” 23 U.S.C. 138

Any plans to build walkways/bikeways on or adjacent to publically owned land must be evaluated under 4f. For example, a walkway constructed through a city park next to an existing highway.

Federal Funding: Compliance with Uniform Act
If federal funding will be used for development of a trail system, the Uniform Act must be complied with. The Uniform Act ensures the fair and equitable treatment of persons whose real property is acquired or who are
displaced as a result of a federal or federally-assisted project. Government-wide regulations provide procedural and other requirements (appraisals, payment of fair market value, notice to owners, etc.) in the acquisition of real property, and provides for relocation payments and advisory assistance in the relocation of persons and businesses.

To be eligible for credit, 23 U.S.C. 323 requires that the acquired land contributed by the state or its nominee, was lawfully obtained. If the property was acquired or is being acquired for a transportation project under the threat of eminent domain, the requirements of the Uniform Act apply. Failure to follow the Uniform Act in such cases would not only preclude the fair market value of the property from being utilized as a credit, it may preclude federal-aid funding for the project. However, if the property was acquired earlier by other means (e.g., local government acquisition via tax delinquency, dedication, or exaction), the fair market value may be eligible for a credit, if it was otherwise legally acquired in accordance with the laws of the jurisdiction in which the property is located.

**TABLE 10: Process for Success with Federal Funds**

<table>
<thead>
<tr>
<th>Action</th>
<th>Consideration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Complete Master plan for the greenway system</td>
<td>Consider: existing open space, property in the floodplain, property ownership – municipal, corporate, private, preliminary evaluation of environmental red flags</td>
</tr>
<tr>
<td>Apply for Transportation Enhancement Grant or state funding</td>
<td>Depending on funding available and timing</td>
</tr>
<tr>
<td>Talk to neighborhood</td>
<td>Hold public meetings for trail location comments and support</td>
</tr>
<tr>
<td>Grant approved: hire engineer</td>
<td>City Engineer of consulting engineer with knowledge of floodplain ordinances, environmental documents and FHWA Procedures.</td>
</tr>
<tr>
<td>Secure land through conservation easements, donations and other mechanisms</td>
<td>Consult with engineer on land owners, contact municipal lawyer</td>
</tr>
<tr>
<td>Once the plan is approved: Bid the project</td>
<td>Make sure the bid includes expertise in BMP’s in floodplain areas and knowledge of design standards.</td>
</tr>
<tr>
<td>Build the project</td>
<td>Frequent inspections of project area are recommended</td>
</tr>
</tbody>
</table>

**Environmental Document Checklist**

Federal funding sources include funding from the Federal Highway Administration through the Alabama Department of Transportation including Transportation, Community and System Preservation (TCSP), Transportation Enhancement (TE), and Congestion, Mitigation and Air Quality (CMAQ). The table below lists documents needed for completion of the environmental document. The list is not meant to be all inclusive. Professional consultants and federal offices should be contacted for the most current project requirements.
### TABLE 11: Environmental Documents Needed for Federal Projects

<table>
<thead>
<tr>
<th>Environmental Authorities</th>
<th>Procedure</th>
<th>Responsible Agency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clean Air Act, Pub. L. 84 159</td>
<td>Coordinate to assure project conforms with state</td>
<td>State Air Program</td>
</tr>
<tr>
<td>Coastal Barrier Resources Act, Pub. L. 97-348</td>
<td>Obtain review if project is located on a coastal barrier island</td>
<td>State Coastal Zone Management Agency</td>
</tr>
<tr>
<td>Coastal Zone Management Act, Pub. L. 92-583</td>
<td>Obtain review if project is located in coastal zone</td>
<td>State Coastal Zone Management Agency</td>
</tr>
<tr>
<td>Endangered Species Act, Pub. L. 93-205</td>
<td>Obtain review by USFWS for all projects</td>
<td>U.S. Fish and Wildlife Service (USFWS)</td>
</tr>
<tr>
<td>Environmental Justice, Executive Order (EO) 12898</td>
<td>Contact EPA project officer</td>
<td>USEPA</td>
</tr>
<tr>
<td>Floodplain Management, Executive Order 11988</td>
<td>Obtain review if project is located in or affects 100-year flood plain</td>
<td>Federal Emergency Management Agency</td>
</tr>
<tr>
<td>Protection of Wetlands, Executive Order 11990</td>
<td>Obtain review if project area contains wetlands</td>
<td>US Army Corps of Engineers</td>
</tr>
<tr>
<td>Farmland Protection Policy Act, Pub. L 97-98</td>
<td>Obtain review if project area contains prime farmland</td>
<td>Natural Resources Conservation Service – State Conservationist</td>
</tr>
<tr>
<td>Fish and Wildlife Coordination Act, PL 85-624</td>
<td>Obtain review for all projects</td>
<td>USFWS</td>
</tr>
<tr>
<td>National Historic Preservation Act of 1966, PL 89-665</td>
<td>Obtain review for all projects</td>
<td>State Historic Preservation Office</td>
</tr>
<tr>
<td>Safe Drinking Water Act, Pub. L 93-523, as amended</td>
<td>Obtain review if project could affect sole source aquifer</td>
<td>EPA, Region 4 - Project Officer</td>
</tr>
<tr>
<td>Wild and Scenic Rivers Act, Pub. L. 90-542, as amended</td>
<td>Obtain review if project located in area with Wild and Scenic Rivers</td>
<td>National Park Service</td>
</tr>
</tbody>
</table>

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**State Appropriation**

Appropriations can be a source for regional funding of a greenway project. This section will take a brief historical look at the role appropriations have played in Alabama from 2008-2010 for land acquisition, development and improvements of public greenway projects. *(Note: This is a partial listing used as an example for sources of funding.)*

The history of appropriations in Alabama for support of greenways, parks and trails indicates that many projects are supported through Economic Development Initiatives. In Jefferson County, recent appropriations for Birmingham Railroad Park land acquisition originated from the Housing and Urban Development Economic Development Initiatives. The other major local greenway project, Red Mountain Park, was supported through the Federal Highway Administration’s (FHWA) Transportation, Community, and System Preservation program.

Other local projects supported from Economic Development Initiatives include Alabama Historic Ironworks Commission, Gardendale Miracle League, Cosby Lake in Clay, two streetscape projects in the City of Tarrant, and Reed Harvey Park Boardwalk in Center Point.

If the project is located on federal land, funding can be used from the National Park Service program called Save America’s Treasures. Examples of parks in Alabama receiving support through Save America’s Treasures are Little River Canyon Preserve, Historic Blakely Park Spanish Fort, Kymulga Grist Mill, and Old Cahawba Center. The Cahaba River National Wildlife Reserve has received funding from the U.S. Fish and Wildlife Service for plan and design and from the FHWA Public Lands Highways program for a parking lot, as was Cheaha State Park-Talladega Forest for tourist access. Alabama National Forest Land Acquisition funding also comes from the U.S. Forest Service, Land Acquisition grants.

Amenities such as equestrian facilities for Montgomery Area Nontraditional Equestrians have been supported by the U.S. Department of Health and Human Services, Health Resources and Services Administration.

Very unique ecosystems, such as the Chattahoochee Fall Line Study, may receive support funds from U.S. Army Corps of Engineers, Water Resources Development Act.

The table below shows the project, amount funded, year of funding, and the Alabama sponsors of the appropriation.
### TABLE 12: Alabama Congressional Appropriations related to Outdoor Recreation 2008-2010

<table>
<thead>
<tr>
<th>Project</th>
<th>Amount (in thousands)</th>
<th>Year</th>
<th>Shelby US Senate (R)</th>
<th>Sessions US Senate (R)</th>
<th>Bachus Alabama 6th District (R)</th>
<th>Davis Alabama 7th District (D)</th>
<th>Rogers Alabama 3rd District (R)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Transportation-HUD</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Birmingham Railroad Park</td>
<td>245</td>
<td>2008</td>
<td>X</td>
<td></td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Red Mountain Park</td>
<td>980</td>
<td>2008</td>
<td>X</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Alabama Historic Ironworks Commission</td>
<td>142</td>
<td>2009</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gardendale Miracle League</td>
<td>100</td>
<td>2010</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lake Cosby – City of Clay</td>
<td>118</td>
<td>2009</td>
<td></td>
<td>X</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Tarrant - Watershed Trail Streetscape</td>
<td>150</td>
<td>2010</td>
<td></td>
<td>X</td>
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Regional and Local Money
After examining the complexity of receiving and implementing greenway projects with federal funds, regional and local funding may be a quicker and less expensive way to pay for greenways. Long term projects may be able to work through the application and approval process of federal grants. In general, funding through local partnerships and various tax mechanisms may serve the local greenway needs better and for a longer period of time. Federal transportation funds are always subject to rescission.

Tax Mechanisms
Several tax mechanisms are a good match for local and regional projects such as greenways. Some of the options that have been used successfully in Central Alabama include: Special Improvement Districts, Capital Cooperative Districts, Business Improvement Districts and Tax Increment Districts. See the Code of Alabama, Sections 11-99, 11-99A, and 11-99B for more details.

Tax Increment District
Example: Tarrant, Alabama Downtown Redevelopment
A tax increment district is a method of raising funds to pay for redevelopment from the increase in the assessed property value caused by redevelopment. Tax Increment Financing (TIF) captures the increase in property tax attributable to the new assessed value of the property as redeveloped to pay for the infrastructure in the project or in the area. The property taxes will increase; however, any increase will be used to finance district projects. The increase of taxes will not be included in the local government revenue stream. Local government invests the increases back into the district. TIFs are advantageous in Alabama; however, due to its low property tax rates, TIFs require either huge project costs or very large districts. The larger the area covered by the district, the more disadvantageous the loss of the tax revenues are to the local government. In adopting a large TIF, local governments must consider the impact on existing and future credit ratings.

Bond Referendums/Capital Improvements
- Bond Referendums for Bicycle and Pedestrian Facilities – Communities across the nation have successfully placed on local ballots propositions to support rails-to-trails projects and other types of bicycle-pedestrian facilities.

- Capital Improvements Program – One measure of local government commitment to bicycle and pedestrian projects is a yearly appropriation for facility development in the capital improvements program.

Piggyback With Other Transportation Projects
The piggyback approach allows the master plan to leverage other public works projects in the area. Federal and state transportation projects should be monitored for a possible connection to a planned trail system. For example, a bridge replacement can allow for the addition of an adjacent pedestrian bridge if the culverts and grading on the right-of-way are extended to the designated trail. The master plan document must be adopted locally and available to public works departments for this kind of leverage to occur.
In a policy statement in March 2010, Ray LaHood, US Secretary of Transportation, stated: DOT encourages bicycle and pedestrian accommodation on bridge projects including facilities on limited-access bridges with connections to streets or paths. Also, because of the benefits that walking and bicycling provide, transportation agencies should give the same priority to walking and bicycling as is given to other transportation modes.

Private Funding
Private partners are needed to bring in the financial match required for many federal and state grants. The match can be 20-50% of project cost. That amount does not include the pre-engineering, bid documents, cost of acquiring land, establishing conservation easements, surveying, or preparation of environmental documents. If the model chosen for the implementation of the master plan is a private/public model, the private partner can take the lead for planning, acquisition, public funding and, in general, act as the agent for the public partner.

Local industries and private businesses and residents may agree to provide support for trail development through cash donations, donations of services such as equipment and labor, and reductions in the cost of materials purchased for the facilities. Also, landowners can donate portions of property, such as previously acquired railroad corridors, for the development of bicycle and pedestrian facilities.

*Three Parks Initiative*, Birmingham Alabama
**Model:** Public-private; lead agency Region 2020
**Project:** Three master plans for three parks. Three Parks Initiative
A portion of the capital funding came from the Three Parks Initiative, a combined campaign that was jointly managed by the Community Foundation of Greater Birmingham and Region 2020 to raise money for Railroad Park, Red Mountain Park and Ruffner Mountain Nature Center, and to support the vision of Birmingham as a national leader in greenspace.

The Community Foundation committed $1 million in 2006 to the three-park project. Over the next 15 months, in partnership with Region 2020, the Community Foundation led the Three Parks Initiative, a campaign to raise money from area philanthropic foundations and businesses for Railroad Park, Red Mountain Park, and Ruffner Mountain Nature Center. When this part of the campaign ended in January 2008, businesses and foundations had committed more than $15 million to fund the first phase of all three parks. These donations, combined with federal, county and city dollars, and additional fundraising by the individual parks, helped create Railroad Park and Red Mountain Park, and to expand Ruffner Mountain, including a new education center and wetlands area.
APPENDIX
The Five Mile Creek Greenway Plan

December 2011
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Unless otherwise noted, all photographs are courtesy of
Francesca Gross, Cawaco RC&D Council
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The Five Mile Creek Greenway Plan

CHAPTER 1
SETTING FOR THE FIVE MILE CREEK PROJECT

Geographic Setting

Five Mile Creek and its tributaries are completely within Jefferson County, Alabama. The creek flows east to west toward the Locust Fork of the Black Warrior River. The Five Mile Creek headwaters originate at the western base of Red Mountain in Center Point, and flow west to the Locust Fork near Flat Top mines. Five Mile Creek runs through a break in a mountain ridge called Boyles Gap, west of the City of Tarrant. After the creek crosses the break, it bends sharply around Lassiter Mountain near the Five Mile Creek Wastewater Treatment Plant. Cane Creek and Turkey Creek lie to the north of Five Mile Creek, with Village Creek to the south.

The Five Mile Creek watershed drains 91 square miles within the boundaries of Jefferson County. This sub-watershed drains 1.2% of the Black Warrior River watershed, which has a total of 6,392 square miles.\(^1\) Five Mile Creek’s longest tributaries are Newfound Creek and Black Creek. The creek and its tributaries run through several municipalities including Center Point, Birmingham, Tarrant, Fultondale, Gardendale, Cardiff, Brookside, and Graysville. Unincorporated communities in the watershed include Alden, Blossburg, Coalburg, Crocker Junction, Daisey City, Fieldstown, Ketona, Mt. Olive, Mineral Springs, Pickney City, Republic, and Watson.

Newfound Creek is listed on the Alabama Department of Environmental Management 303(d) as impaired. The creek flows from the impoundment located on the former DuPont property near Watson to the confluence of Five Mile Creek in Brookside. Sediment and siltation are causes for the impairment. The probable cause is listed as urban runoff and storm sewers. The creek’s designated use is fishing and propagation of fish and wildlife. The impaired section is 2.7 miles long. Section 303(d) of the Clean Water Act requires that each state identify waters that do not support designated uses, and to establish a priority ranking of those waters by taking into account the severity of the pollution and the designated uses. This designation is likely tied to the long history of industrial use of the creek as a source of water for coal and chemical industries.

Black Creek begins in unincorporated Jefferson County northeast of Fultondale. The creek meanders through Black Creek Park and Fultondale Children’s Park. Children’s Park was built in the floodplain of the creek where several homes were destroyed in the 2003 floods. After passing under Interstate 65, the creek enters the Lewisburg coalfield. Near Walker Chapel Road a major discharge from the abandoned Lewisburg coal mine flows into Black Creek. Cawaco Resource Conservation and Development (RC&D) Council has studied the chemistry of the mine drainage and found high levels of minerals entering Black Creek. Siltation and orange coloring of the water persists until the creek flows into Five Mile Creek at the Coalburg Road bridge.

\(^1\) United States Environmental Protection Agency and Alabama Department of Environmental Management, 2002.
Other minor tributaries of Five Mile Creek include Barton Branch, Dry Creek, Halfway Branch, Tarrant Springs Branch, Sectionline Creek of Newfound Creek, and Wolf Branch. Other named bodies of water within the watershed include Edwards Lake, Spring Lake near the city of Center Point, North Lake and the Ketona Lakes in the City of Tarrant.

**Geologic Setting**

Most of Jefferson County is underlain with sedimentary bedrock, except for floodplains and valley terraces. After an era of faulting and folding, the sedimentary bedrock of the Valley and Ridge provinces were tilted and exposed to erosion; parallel valleys and ridges formed, oriented from the northeast to the southwest. The watershed’s flood plains and valleys are underlain with Quaternary alluvium bedrock, which is less resistant to erosion.²

Five Mile Creek can be divided into two major geological sections - eastern and western. The eastern portion of Five Mile Creek is located in the Valley and Ridge region of Central Alabama, a part of the Appalachian Mountains that varies between level valleys and steep slopes. Most of the soils in the uplands developed from limestone, with a gravelly texture mixed into both silt loam topsoil and loam and clay subsoils.³ The chemical composition of the soils and bedrock define the flora and fauna of the area including slightly basic surface water pH. In the Five Mile Creek watershed, Center Point and Tarrant lie between Red Mountain (where much of the iron ore was mined) and Sand Mountain. The limestone in this area provided stone for making of coke. The cracks in the worn limestone also allow perennial springs to emerge, forming the headwaters of Five Mile Creek.

The western part of the watershed is located in the Cumberland Plateau. The topography of this area is generally level plateaus with steep slopes, with elevations ranging from 300 to 700 feet. Many of the soils in this region are derived from sandstone or shale, with loamy or clay subsoil and silt loam topsoil. The hills are capped with massive beds of sandstone. This is the area of the Lewisburg coal mine, and farther west, the Warrior coalfield. Fultondale and numerous small communities west of Boyles Gap mined the coal on the west side of the mountain, iron ore from Red Mountain, and limestone from the eastern side of the gap, which gave central Alabama the raw materials to make pig iron and steel.

**Local History**

According to the Jefferson County Soil Survey of 1982, many of the original settlers of Jefferson County emigrated from Tennessee in 1813, settling in the agricultural land of the Jones Valley. During most of the 1800’s, the county, like much of the rest of the South, was agricultural, with cotton as the primary cash crop. The Five Mile Creek watershed communities were poor and uneducated. They settled in the agriculturally productive lands and were unaware of their coal and mineral resources.⁴

During the late 1800’s, coal and iron mining led to the establishment and rapid growth of the City of Birmingham. As coal mining became important throughout the entire area, the western majority of the creek was utilized for surface and underground mining, with coal mining towns developing around these mines. By the early 1900’s, most of the agricultural land in the Jones Valley vicinity had been

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transformed into industrial and residential uses. During the mid-1900’s, surface mining was the major land use for much of the watershed.

Railroads were developed to move raw and processed minerals throughout the area. Major rail lines in Central Alabama included Birmingham Mineral Railroad and Louisville and Nashville (L&N) Railroad.

In the current post-mining era, much of the land within the watershed is utilized as urban land or forested land. As the coal sources were depleted, many of the small towns created by the mining boom disappeared. However, a portion of Five Mile Creek runs through established communities born as mining towns, such as Birmingham, Brookside, and Coalburg.

Each city or town in the Five Mile Creek drainage basin had some involvement with coal mining. The existence of limestone quarries in Tarrant and the coke ovens and mines of the Lewisburg coalfield in Fultondale joined the cities in industry. The former powder plant, on the border of Gardendale and Brookside, manufactured explosives for the mines. Graysville was home to the Alden community and mines. The bulk of the history of the area has been recorded for Brookside, where techniques that revolutionized mining were first used.

The Brookside mine was opened in 1886 by the Coalburg Coal and Coke Company. It was purchased one year later by the Sloss Iron and Steel Company as a source of fuel for their blast furnaces in Birmingham. Following the practice of the time, the mined coal was processed into coke in rows of beehive ovens banked into the hillside below the mine opening. A beehive oven is used to turn coal ore into coke. In 1897, a Robinson-Ramsey Coal Washer was installed, increasing the efficiency of coke burning and the overall efficiency of the mine. Other advanced equipment was also installed at Brookside, placing it at the forefront of mining technology in Birmingham at the turn of the century.

Brookside served as the headquarters for four Sloss-owned mines in the immediate area: Cardiff, Coalburg, Brazil and Brookside. Because the capacity of Brookside’s processing equipment exceeded the mine output, some of the slack from the Brazil mine was brought to Brookside for washing and coking.

Sloss, like other employers in the booming industrial expansion of the early 20th century, had difficulty recruiting skilled labor. Recruitment efforts extended internationally and Brookside became the home of many Czechoslovakian immigrants and their families who made their way to the mines. As Brookside became a destination for Eastern European miners in the area, the culture of the town reflected their ethnic traditions. St. Nicholas Russian Orthodox Church was founded, which strengthened community ties. Unlike other mines where skilled whites and unskilled blacks could be played against each other by the owners, the Brookside miners were tightly organized and carried out a successful (albeit violent) strike in 1906.

Between 1910 and 1920, mining operations jumped around to several seams and the number of miners fluctuated between a low of 54 in 1910 and a high of over 600 in 1914. In 1913 the mechanical coal cutters supplanted hand picks. A new church building for St. Nicholas was completed in 1916. A United Mine Workers of America-led general strike in 1920 combined with a global depreciation in the coal market, led to a shutdown of the mine. When the strike was settled in 1921, Brookside mine was never
re-opened. Sloss removed all of the surface works and held on to the mine property. In 1952 Sloss merged with the U. S. Pipe and Foundry Company, a subsidiary of Jim Walter Industries since 1969.

Cane Creek Branch
The Cane Creek Branch of the Birmingham Mineral Railroad was opened in 1903. The L&N Railroad constructed the Cane Creek Branch to service the developing coal mines in West Jefferson and East Walker counties. A branch was soon extended to the Sayre mine. Later that year the Banner Branch was opened to serve the Banner mines, just south of Littleton. The Banner Branch joined the Cane Creek at Granlin, just east of Linn’s Crossing.

The Cane Creek Branch was extended to Pratt Consolidated (Praco) mine and on to the Labuco mine. The railroad also probably serviced Bibby Brickyard, Wegra mine, and other mines. The line was later extended to the Maxine mine. A 1908 soil survey map shows the following mines along the Cane Creek Branch: Cliff, Kosmo, Goode, Durant, Jet, Banner, and Sayre.

On the Banner Branch, records seem to indicate that the L&N’s Cane Creek branch became the Mary Lee Railroad on the west side of Five Mile Creek. The Mary Lee serviced the Flat Top mine and the Bessie mine. In later years, the Cane Creek branch serviced the Nebo, Chetopa, and Maxine mines.

There are at least three notable structures on this line. The line crossed Newfound Creek on a long timber trestle (Trestle # 10) (Figure 2). It was one of the highest railroad trestles in the Southeast at about 115 feet tall and about 650 feet long, and was originally built between 1901 and 1903. The trestle was destroyed by fire in 2006. At Linn’s Crossing, the line crosses over the Norfolk Southern Railroad. This is a picturesque timber and steel plate girder trestle with cut stone piers that date back to the original construction (Figure 3).

The third structure crosses at Five Mile Creek before it joins the Locust Fork of the Warrior River. This long, curved trestle is made of timber, steel and two tall concrete piers. The trestle is 50 to 60 feet high. Just beyond the Five Mile creek crossing, the line becomes the Jefferson Warrior Railroad, which was the former Mary Lee Railroad. About 250 feet west of the Five Mile Creek trestle there is a tunnel several hundred feet in length that was bored through solid stone. At Flat Top there are several structures that date back to the original Flat Top mine.

The Banner mine was the site of Alabama’s worst mine disaster. On the morning of April 8, 1911, an explosion rocked the mine. Of the 129 killed, 123 were convicts. The Banner mine was also the first all-electric mine in the state. At the time of its opening it was said to be the most modern and safest mine in the country.

In May 2003, a series of supercell thunderstorms moved from Mississippi across the northern half of Alabama bringing several tornadoes, wind damage, hail, and incredible amounts of rain. The torrential rains resulted in the highest stage, 19.14 feet gage datum, since records began in 1953. These
floodwaters inundated local roads, including Highway 79 in Tarrant. Flooding was especially intense and devastating in Brookside. Businesses, including the town hall, fire station, post office, and Boys and Girls Club, were completely destroyed. Fifty-one homes were ultimately removed due to storm damage. Despite this devastation, Brookside remains a small town with a distinct Eastern European flavor. The onion-domed St. Michael’s Russian Orthodox Church, re-faced with brick in 1965, still holds services for approximately 50 congregants. An annual Russian Food Festival brings visitors from neighboring communities.5

The proposed Five Mile Creek Rail Trail is located less than a mile north of Brookside. The 2008 corridor study has identified two potential connecting routes between the rail trail and Brookside, including a hiking trail and on-road biking trail. The town of Brookside owns and runs Five Mile Creek Canoe & Company, a canoe and kayak outfitter and campground. Connection with the rail trail will enhance the town’s recreational assets.

Three other incorporated municipalities are within a mile of the path of the proposed Five Mile Creek Rail Trail. Graysville, Cardiff and Gardendale are key cities in the Rail Trail vicinity. Cardiff is directly adjacent to Brookside and shared in the devastating floods of 2003. The city maintains a historic town hall, several small churches and historic homes. Gardendale has expanded its boundaries over the past 10 years to include property adjacent to Brookside town limits on the west and Fultondale city limits on the east. Portions of Gardendale cross the CSX Cane Creek Branch line within a few miles of the premier Clemons Recreational Complex.

Graysville boundaries include a portion of the western side of Five Mile Creek and reach north to the CSX Cane Creek Branch line. The city has established a canoe launch and Boy Scout Camp on Five Mile Creek, leased through Drummond Company. Bicycle and pedestrian connections from the Rail Trail to the canoe launch on an abandon section of Old Highway 78 provide an excellent connection. Within the city there are also remnants of coke ovens and the Alden mining operations, which are a possible location for tourism development. The town of Alden was built in 1928 as a model village.

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Figure 5: Five Mile Creek Rail Trail
Water Quality

Five Mile Creek and its tributaries are considered to be one of the most polluted stream segments in Alabama. Water quality was impacted early, due to heavy mining of coal and iron resources prior to 1977. A large portion of the Five Mile Creek watershed lies within the Warrior coalfield, one of the four Alabama coalfields that are part of the great Appalachian coal basin. In the Five Mile Creek watershed, there are currently no active coal mines, but it was heavily mined prior to 1977.

In 2003, the Alabama Department of Environmental Regulation signed a consent order against Sloss Industries for violation of their National Pollution Discharge Elimination System (NPDES) permit for cyanide. As part of the Supplemental Environmental Project (SEP) for reparations, Sloss/Walter Industries was financing the Five Mile Creek Greenway Master Plan for 8.5 miles of the Five Mile Creek Greenway system. Other components to the SEP were a donation of 360 acres of property along Five Mile Creek and planting of 25,000 trees in the Five Mile Creek Watershed.

After experiencing more than 100 years of industrially and economically taxing use of the creek, the Five Mile Creek watershed underwent significant categorical improvements in the last quarter of the 20th century. The decline of the streams was due to the high amount of industrial activity in the watershed and unfavorable low flow characteristics.

In 1997, the designated use of the creek was reclassified to Fish and Wildlife (F&W), after an upgrade of the Five Mile Creek Wastewater Treatment Plant using Alabama State Revolving Funds. Three facilities were potentially affected by the reclassification — ABC Coke, Five Mile Creek Waste Water Treatment Plant and Sloss Industries.6

In 2006, an EPA Region 4 Brownfield Assessment Grant to the Freshwater Land Trust allowed evaluation of areas affected by coal mining along the creek to be released for public recreation development. Sites included Tarrant Park (16 acres), Brookside Bensko Park (18 acres), Lewisburg Coke Ovens Park (18 acres), Walkers Chapel mine (32 acres), and the Sloss property at the Coalburg mine site (301 acres).

Purchase of Land for Water Quality Protection

In 1996, Jefferson County, Alabama was found in violation of the Clean Water Act as cited by the Environmental Protection Agency for sewer overflows and back-ups into the Cahaba River. Jefferson County negotiated a 12-year plan to correct the problems. The plan included unification of the system, and upgrading and repair of existing sewers. The Black Warrior-Cahaba Land Trust was formed by Jefferson County to purchase and manage land for the 1996 Clean Water Act violation consent decree. During the 10 years of the project the land trust purchased property and other stream side parcels for water quality protection. The $30 million penalty in the form of a Supplemental Environmental Project (SEP) ended in 2008. The result was over 1225 acres purchased and held under conservation easement for water quality enhancement in the Black Warrior and Cahaba River watersheds.

One of the largest pieces of property purchased under this program was the Birmingham Water Works Board (BWWB) land along upper Five Mile Creek. The BWWB owned the land since 1886, when plans

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were made to use the Five Mile Creek headwaters as a water supply for Birmingham. The rapid pace of development, however, soon outstripped the creek’s ability to provide enough water, and in 1891 Birmingham began using the Cahaba River as a water source. As such, much of the Birmingham Water Works land along Five Mile Creek has never been developed. In 2002, the 558-acre property was purchased by Jefferson County as part of a consent decree against Jefferson County for water quality violations. This BWWB tract includes a portion of the Tarrant Springs Branch, which joins Five Mile Creek and protects approximately five miles of streamside corridor along the two creeks, as well as several miles of wet-weather streams.

Other properties were purchased through the Federal Emergency Management Agency (FEMA) program, and residents were relocated. The floodplain area in this program cannot be used for a permanent structure under FEMA guidelines, but park construction is permitted. Several cities have taken FEMA land and turned it into parks. Much of Five Mile Creek has been prone to flooding during spring rains. The City of Tarrant was a leader in conversion of floodplains to recreational use. In 2000, a site on Highway 79 was the subject of a FEMA buyout, due to the devastation of a mobile home park. The land was declared a disaster area and 77 families were relocated. The city converted the 16-acre mobile home park into Hewitt Park. Other cities on the creek followed suit. The City of Birmingham purchased five lots in the Roebuck Park neighborhood in an area of chronic flooding; Fultondale has converted three lots to a Children’s Park; and Brookside upgraded 33 acres of flooded home sites into a community greenway.
Table 1: Land Purchased for Water Quality Protection in the Five Mile Creek Watershed (Purchased land is listed east to west across the watershed)

<table>
<thead>
<tr>
<th>Location</th>
<th>Jurisdiction</th>
<th>Acres</th>
<th>Mechanism</th>
</tr>
</thead>
<tbody>
<tr>
<td>Old Springville Road</td>
<td>Center Point</td>
<td>12.0</td>
<td>JeffCo SEP</td>
</tr>
<tr>
<td>Angora Drive</td>
<td>Center Point</td>
<td>16.5</td>
<td>JeffCo SEP</td>
</tr>
<tr>
<td>Roebuck Gardens Park – 5 lots</td>
<td>Birmingham</td>
<td>3.0</td>
<td>FEMA Buyout</td>
</tr>
<tr>
<td>East View Drive, on Five Mile Creek</td>
<td>Unincorporated</td>
<td>6.4</td>
<td>JeffCo SEP</td>
</tr>
<tr>
<td>near Grayson Park</td>
<td>JeffCo</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lawson Road/Highway 79</td>
<td>Birmingham</td>
<td>588.0</td>
<td>JeffCo SEP</td>
</tr>
<tr>
<td>Valley Crest Drive</td>
<td>Birmingham</td>
<td>70.0</td>
<td>JeffCo SEP</td>
</tr>
<tr>
<td>Killough Springs Rd</td>
<td>Birmingham</td>
<td>10.0</td>
<td>JeffCo SEP</td>
</tr>
<tr>
<td>Moonglow Lane</td>
<td>Birmingham</td>
<td>27.0</td>
<td>JeffCo SEP</td>
</tr>
<tr>
<td>Lower Valley Crest Road</td>
<td>Birmingham</td>
<td>9.0</td>
<td>JeffCo SEP</td>
</tr>
<tr>
<td></td>
<td></td>
<td>113.0</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>101.0</td>
<td></td>
</tr>
<tr>
<td>Polaris Circle</td>
<td>Birmingham</td>
<td>16.0</td>
<td>JeffCo SEP</td>
</tr>
<tr>
<td>Pinson Valley Parkway</td>
<td>Birmingham</td>
<td>28.0</td>
<td>JeffCo SEP</td>
</tr>
<tr>
<td>Lawson Road</td>
<td>Birmingham</td>
<td>23.0</td>
<td>JeffCo SEP</td>
</tr>
<tr>
<td></td>
<td></td>
<td>115.0</td>
<td></td>
</tr>
<tr>
<td>El Camino Road</td>
<td>Birmingham</td>
<td>43.0</td>
<td>JeffCo SEP</td>
</tr>
<tr>
<td>Tally Avenue</td>
<td>Birmingham</td>
<td>28.0</td>
<td>JeffCo SEP</td>
</tr>
<tr>
<td>Red Mill Road</td>
<td>Birmingham</td>
<td>12.7</td>
<td>JeffCo SEP</td>
</tr>
<tr>
<td>Highway 79 – Hewitt Park</td>
<td>Tarrant</td>
<td>16.0</td>
<td>FEMA Buyout</td>
</tr>
<tr>
<td>Decatur Highway</td>
<td>Fultondale</td>
<td>4.4</td>
<td>JeffCo SEP</td>
</tr>
<tr>
<td>Ellard Road</td>
<td>Fultondale</td>
<td>2.0</td>
<td>JeffCo SEP</td>
</tr>
<tr>
<td>Fulton Springs - Children’s Park – 3</td>
<td>Fultondale on</td>
<td>1.0</td>
<td>FEMA Buyout</td>
</tr>
<tr>
<td>lots</td>
<td>Black Creek</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Old Coalburg Road</td>
<td>Birmingham</td>
<td>360.0</td>
<td>Sloss SEP</td>
</tr>
<tr>
<td>Brookside Bensko Park</td>
<td>Brookside</td>
<td>33.0</td>
<td>FEMA Buyout</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td><strong>1638.0</strong></td>
<td></td>
</tr>
</tbody>
</table>

JeffCo SEP = Jefferson County Supplemental Environmental Project
Sloss SEP = Sloss Industries (now Walter Energy) Supplemental Environmental Project

Rails to Trails Development in Alabama

In 1983, concerned by the rapid contraction of America's rail network, the U.S. Congress amended the National Trails System Act to create the railbanking program. Railbanking is a method by which lines proposed for abandonment can be preserved through interim conversion to trail use. Requests for railbanking are filed with the Surface Transportation Board (STB), formerly the Interstate Commerce Commission.7

Some railroad rights-of-way contain easements that revert back to adjacent landowners when an abandonment is consummated. However, if a line is railbanked, the corridor is treated as if it had not been abandoned. As a result, the integrity of the corridor is maintained and any reversions that could break it up into small pieces are prevented.

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7 Rails to Trails Conservancy, [www.railstotrails.com](http://www.railstotrails.com).

Figure 7: Railroad Bridge Over Five Mile Creek
A railbanked line is subject to possible future restoration of rail service. Any railroad can apply to the STB to resume rail service on a railbanked corridor. However, if the STB restores rail service, the trail agency is entitled to fair market value for the corridor. The terms and conditions of a transfer back to rail service would be determined by the STB.

In 2003, the 16.47 mile section of the Cane Creek Branch of CSX transportation filed for railbanking. In September 2003, Jefferson County was named as the Interim Trail Use Proponent. Since that time the City of Fultondale has taken the role as proponent. Ongoing negotiations for the purchase of the rail line are being performed by the Freshwater Land Trust and the Trust for Public Lands.

Several rail trail conversions have been successfully implemented in Alabama. The longest and most prominent is the Chief Ladiga Trail from Anniston to the Georgia state line. Small rail trail conversions have added to trail systems in Limestone County, Walker County in Dora, and Eufaula Rail Trail.

Flooding Results in Greenway Agreement

In 2003, a 16.5 section of the Cane Creek Railroad was railbanked for a regional greenway system, including the floodplain parks. As a result of flooding issues, positive results from SEP and FEMA mechanisms, and the potential railbanking of a 16.5 section of rail in the watershed, 10 partners formed an informal group to protect and promote the developing greenway systems in the watershed. In July of 2002, an intergovernmental agreement establishing the Five Mile Creek Greenway Partnership was signed. This agreement is supported by the cities of Center Point, Birmingham, Tarrant, Fultondale, Brookside, Graysville, and the Jefferson County Commission, the Freshwater Land Trust (then the Black Warrior-Cahaba River Land Trust) and Cawaco RC&D Council. This agreement is unique in Alabama, promoting collaboration between neighboring municipalities, county, state, and federal organizations. The partnership also has local corporate support through the Alabama Power Service Organization and other contributing businesses.

The Cane Creek Branch rail corridor has tremendous opportunity for open space preservation, quality of life, public health, transportation, and economic development. The corridor’s existing infrastructure would be instrumentally beneficial for trail development, because the existing ballast (gravel), ties, and trestles are in place. The existing conditions make for a structurally sound trail scenario. The grade would likely be 3% or less, because the corridor was developed to accommodate rail traffic, which mandates such minimum grade requirements. For these and other reasons related to the physical conditions of the rail corridor, trail development along with public utility rights-of-way are easily accommodated and provide the basis for the general feasibility of rail-trails. Another asset of the rail line worth noting is the width of the corridor, which provides open space opportunities for other community-oriented development such as restroom facilities, parks, and gardens.

Although the eastern portion of this rail line traverses suburban areas of Fultondale, the corridor does not appear to abut homes or other inhabited private property. The western section of the corridor is mostly rural and traverses many scenic areas with vistas of ridge and valley topography. Some of these rural areas include forested slopes, riparian corridors, reclaimed and possibly some active mining operations. The rural western section of the corridor might be conducive to horseback riding trails. The corridor has high potential for tourism and economic development, given the recent construction of Corridor X (I-22) and the Northern Beltline (I-459 extension) in western Jefferson County.8

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8 2003 CSX Funding Proposal, Regional Planning Commission of Greater Birmingham.
In 2006, $450,000 was set aside for greenway corridor studies in the Five Mile Creek watershed in the Transportation Improvement Program (TIP). In this program the following reports were completed:

- Reed-Harvey Community Greenway – Center Point, Alabama
- Brookside Bike-Hike Trail – Brookside, Alabama
- Fultondale Five Mile Creek Corridor Study – Fultondale, Alabama
- CSX Abandonment Rails-to-Trails

Lehe Planning, a private consulting group, provided guidance to the cities through the Federal Emergency Management Act (FEMA) process to give aid to citizens and remove damaged homes. Lehe Planning first proposed its initial concept at a meeting of community leaders - to connect open space areas acquired through FEMA flood plain acquisition projects within Brookside, Fultondale, and Tarrant.

With funds secured by Lehe through the FEMA Hazard Mitigation Grant Program, the City of Tarrant acquired $2.5 million in properties damaged by flooding along Five Mile Creek in 2000 and 2003. These projects included seven homes damaged by the 2003 floods, ten homes flooded by the 2000 flood, and a 16-acre mobile home park with 77 homes damaged by the 2000 floods.

Lehe Planning helped Brookside package over $3.5 million in funds to build a new complex to include a city hall, community center, fire station, community storm shelter, and maintenance facility. Brookside generated over $500,000 from FEMA grants to demolish their City Hall and Community Center, which were destroyed by flooding in 2003. Other funding sources included the Jefferson County Commission, HUD Community Development Block Grant Program, and the USDA Rural Development loan program. FEMA Hazard Mitigation Grant Program funds allowed Brookside to acquire 36 properties valued at nearly $2.8 million, which were damaged by the 2000 and 2003 floods. Lehe Planning prepared the grant applications and managed the projects.
Freshwater Land Trust (formerly the Black Warrior and Cahaba River Land Trust) directed funds from a Jefferson County consent decree to purchase land along Five Mile Creek to be used as part of the trail and recreation network. In 2006, an EPA Region 4 Brownfield Assessment grant, administered by the Land Trust, provided analysis of potential greenway properties.

Cawaco RC&D Council provided the lead for partnership meetings and events, as well as marketing and public relations support through web sites and newsletters. They housed two partnership coordinators over the first 10 years of the project. Grants were obtained for individual projects, such as the National Endowment for the Arts for public art creation, Alabama Humanities Foundation public programming series on the Brookside mining community, supervision of numerous college interns and research projects along Five Mile Creek to record biological descriptions and water quality, and the organization of public relations events for the entire partnership area.

When the CSX rail line was railbanked, the Jefferson County Commission, under the leadership of Commissioner Mary Buckelew, began negotiations with CSX Transportation as the Interim Trail Use Proponent. They began the process of appraisal and negotiation to purchase the 16.5-mile Cane Creek Branch rail that connects Fultondale, Jefferson County, Gardendale, Brookside, and Graysville.

In June 2005, the partnership provided a public involvement charrette for input on potential connections with and amenities for the greenway. As a result of those meetings, the four trail location studies were written and the Five Mile Creek Canoe & Company was founded. Since that time, the partnership coordinator has worked with each city or town to define their assets.

The greenway outlined herein provides the spine for an incredible greenway trail system that will define Jefferson County as a great local and regional recreational destination and provide tourism dollars to a struggling area. The theme of the trail is local mining and manufacturing history, with highlights on coke ovens, railroad and mining culture.

In March 2010, the Five Mile Creek Greenway Capital Improvement District was formed to acquire and manage the Cane Creek Rail Trail. The members included the original Partnership members of Center Point, Tarrant, Fultondale, Birmingham, Brookside, Graysville and Jefferson County, with the addition of Gardendale. The City of Fultondale and the Freshwater Land Trust supported the formation of the group with legal advice. The District adopted by-laws and elected officials in the spring of 2010.

The results of the Five Mile Creek Greenway Partnership are the development of trail location studies. The studies focused on connecting each municipality with other educational, recreational and transportation features. The following tables show the miles of trails planned for each Greenway Partner, and the connection of these trails to schools and existing park areas. The trails have been added to the regional transportation planning document.
Table 2: Miles of Potential Trails in Five Mile Creek Watershed

<table>
<thead>
<tr>
<th>Jurisdiction</th>
<th>Trail Miles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Center Point – Reed-Harvey Community Parkway</td>
<td>3.8</td>
</tr>
<tr>
<td>Birmingham – Five Mile Creek</td>
<td>4.9</td>
</tr>
<tr>
<td>Tarrant – Hewitt Park, downtown redevelopment</td>
<td>3.3</td>
</tr>
<tr>
<td>Fultondale – Mary Lee Rail Trail</td>
<td>10.3</td>
</tr>
<tr>
<td>Gardendale – Connector from Celebration Park</td>
<td>0.8</td>
</tr>
<tr>
<td>Brookside – Bike/Hike Trail</td>
<td>21.7</td>
</tr>
<tr>
<td>Graysville – Old 78 Highway,</td>
<td>5.0</td>
</tr>
<tr>
<td>Five Mile Creek Rail Trail</td>
<td>16.5</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>66.3</strong></td>
</tr>
</tbody>
</table>

Table 3: Schools Within One Mile of Five Mile Creek Greenway

<table>
<thead>
<tr>
<th>Municipality</th>
<th>School</th>
<th>School System</th>
</tr>
</thead>
<tbody>
<tr>
<td>Center Point</td>
<td>Chalkville Elementary</td>
<td>Jefferson County</td>
</tr>
<tr>
<td>Birmingham</td>
<td>TR Wright Elementary, Huffman High School,</td>
<td>City of Birmingham</td>
</tr>
<tr>
<td></td>
<td>Smith Middle School</td>
<td></td>
</tr>
<tr>
<td>Birmingham</td>
<td>Parkway Christian Academy, Lourdes Catholic</td>
<td>Private</td>
</tr>
<tr>
<td></td>
<td>School</td>
<td></td>
</tr>
<tr>
<td>Tarrant</td>
<td>Tarrant Elementary, Tarrant Middle, Tarrant</td>
<td>City of Tarrant</td>
</tr>
<tr>
<td></td>
<td>High School</td>
<td></td>
</tr>
<tr>
<td>Fultondale</td>
<td>Fultondale Elementary</td>
<td>Jefferson County</td>
</tr>
</tbody>
</table>

Table 4: Existing Parks with Planned Connections to Greenway

<table>
<thead>
<tr>
<th>Municipality</th>
<th>Park</th>
<th>Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chalkville</td>
<td>Bryant Park</td>
<td>Walk</td>
</tr>
<tr>
<td>Center Point</td>
<td>Reed-Harvey Park, Civitan Park</td>
<td>Walk</td>
</tr>
<tr>
<td>Birmingham</td>
<td>Grayson Park</td>
<td>Walk, swimming pool</td>
</tr>
<tr>
<td>Tarrant</td>
<td>Hewitt Park</td>
<td>Walk, bike</td>
</tr>
<tr>
<td>Fultondale</td>
<td>Black Creek Park, Children’s Park</td>
<td>Walk, bike</td>
</tr>
<tr>
<td>Gardendale</td>
<td>Clemons Park</td>
<td>Walk, bike</td>
</tr>
<tr>
<td>Graysville</td>
<td>Graysville Canoe Launch</td>
<td>Walk, bike, camp, canoe</td>
</tr>
<tr>
<td>Brookside</td>
<td>Bensko Park</td>
<td>Walk, bike, camp, canoe</td>
</tr>
</tbody>
</table>

Priorities

In a cooperative effort, the municipalities in the Five Mile Creek Greenway Partnership have defined their priorities for greenway location and trail amenities. Both the 2004 Sloss Industries Plan and the 2007 Regional Planning Commission Five Mile Creek Trail Location Study show connections between each section of the 28-mile greenway. The Five Mile Creek Rail Trail (Cane Creek Branch Railroad) will be the backbone of the trail system. For that reason, the first priority of the Partnership has been to acquire and develop the rail trail. Several partners have had great success in building trails and amenities in their area in anticipation of the completion of the entire trail.
The second priority is to connect the Five Mile Creek Rail Trail through Fultondale towards Tarrant. The City of Fultondale has received a Transportation Enhancement grant to pave the Mary Lee Rail Trail parallel to Highway 31. The City has also made improvements to Black Creek Park and Children’s Park.

Both Center Point and Brookside have completed feasibility studies. The next step is pre-engineering, land acquisition and funding for both the Center Point Reed-Harvey Community Greenway and Brookside Bike-Hike trail.

Three sections of the trail in the Birmingham jurisdiction have been identified. The preliminary trail location uses existing sidewalks, utility right-of-way and flood mitigation land to connect Center Point Reed-Harvey Greenway with Hewitt Park and the Tarrant Aqueduct Trail. The next steps would be a feasibility study, pre-engineering, and funding for these connections.

Four projects are not phased. The Five Mile Canoe Trail is complete and has two established canoe launches. The connection between the Birmingham Roebuck area through the Birmingham Water Works Board’s 588-acre property to Hewitt Park in Tarrant is yet undefined. The connection from Tarrant and Fultondale through the Boyles Gap area is also currently undefined. The following table shows a list of the projects in four phases of construction. The agency in charge of the implementation is listed along with a brief summary of the progress to date.

All of the projects proposed in this document are included in the Jefferson County Greenway Plan – Our One Mile study. This document will serve as a Master Plan for the county. Pre-engineering, design and funding will need to be secured for these projects to be completed.
Table 5: Priorities and Timing for Individual Projects

<table>
<thead>
<tr>
<th>Timing</th>
<th>Agency</th>
<th>Project</th>
<th>2011 Status</th>
<th>Priority</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phase 1</td>
<td>FMC Greenway District</td>
<td>Acquire and secure 16.5 mile Rail Trail</td>
<td>In negotiation with CSX Transportation</td>
<td>1&lt;sup&gt;st&lt;/sup&gt;</td>
</tr>
<tr>
<td>Phase 2</td>
<td>Fultondale</td>
<td>Transportation Enhancement 2009 - Mary Lee Rail Trail</td>
<td>Planned Designed Funded</td>
<td>1&lt;sup&gt;st&lt;/sup&gt;</td>
</tr>
<tr>
<td></td>
<td>Fultondale</td>
<td>Coke Ovens Park</td>
<td>Preliminary design complete</td>
<td>2&lt;sup&gt;nd&lt;/sup&gt;</td>
</tr>
<tr>
<td></td>
<td>Fultondale</td>
<td>Children’s Park</td>
<td>Playground complete</td>
<td>3&lt;sup&gt;rd&lt;/sup&gt;</td>
</tr>
<tr>
<td>Phase 3</td>
<td>Center Point</td>
<td>Implementation of MPO plan- Reed-Harvey Community Greenway</td>
<td>Planned No design No funding</td>
<td>1&lt;sup&gt;st&lt;/sup&gt;</td>
</tr>
<tr>
<td></td>
<td>Brookside</td>
<td>Implementation of MPO plan – Brookside Bike/Hike Trail</td>
<td>Planned No design No funding</td>
<td>2&lt;sup&gt;nd&lt;/sup&gt;</td>
</tr>
<tr>
<td>Phase 4</td>
<td>Huffman Neighborhood, Birmingham</td>
<td>Connector from Center Point to Highway 75 in Huffman</td>
<td>No plan No design No funding</td>
<td>1&lt;sup&gt;st&lt;/sup&gt;</td>
</tr>
<tr>
<td></td>
<td>Roebuck Neighborhood, Birmingham</td>
<td>Connector from Highway 75 to Five Mile Road in Roebuck</td>
<td>No plan No design No funding</td>
<td>2&lt;sup&gt;nd&lt;/sup&gt;</td>
</tr>
<tr>
<td></td>
<td>Birmingham</td>
<td>Five Mile Road to Hewitt Park</td>
<td>No plan No design No funding</td>
<td>3&lt;sup&gt;rd&lt;/sup&gt;</td>
</tr>
<tr>
<td>Not Phased</td>
<td>Five Mile Creek Greenway District</td>
<td>Five Mile Creek Water Trail</td>
<td>Completed</td>
<td>1&lt;sup&gt;st&lt;/sup&gt;</td>
</tr>
<tr>
<td></td>
<td>Jefferson County/Fultondale</td>
<td>Tarrant-Fultondale connector</td>
<td>No plan No funding</td>
<td>2&lt;sup&gt;nd&lt;/sup&gt;</td>
</tr>
<tr>
<td></td>
<td>Numerous jurisdictions</td>
<td>Connection to county Master Greenway Plan</td>
<td>Master Greenway Plan 2012, no funding</td>
<td>3&lt;sup&gt;rd&lt;/sup&gt;</td>
</tr>
</tbody>
</table>

**Vision for Trail Connections**

Since its beginning, the Five Mile Creek Greenway Partnership has collectively reviewed opportunities for trails and trail connections throughout the watershed. Four trail location studies were completed in the watershed, which helped to further define the network. The conceptual studies from Center Point, Fultondale, Brookside and Five Mile Creek Rail Trail were added to the 2015 Regional Planning Commission of Greater Birmingham (RPCGB) Bicycle - Pedestrian Plan, used to identify projects for future Federal Transportation Program funding.

When determining the location of proposed trails and trail connections, consideration is given to schools, attractions, neighborhoods, waterways, existing parks, recreation areas, and trails. Proposed trails, as designated by the 2015 RPC Bike and Pedestrian Plan, were considered for various uses including bicycles, walking, horseback riding, and other non-motorized activity. The trail location planning began with maps of existing facilities, including rights-of-way and easements for utilities and transportation. Utility lines, such as gas, sewer and power, can provide connections, since maintenance...
roads are required for each utility. The overlay of existing routes can increase the commuting network as well as the recreational network.

Goals for locating the trails and greenways include:

- Enhance connections to schools, libraries, parks, and cultural sites.
- Improved air quality by providing travel options and preserving tree cover.
- Respond to natural and topographic features of north Jefferson County
- Identify trail heads for each neighborhood
- Identify trail crossing of roads and waterways.
- Identify historical and cultural points of interest to include in future trail development.

Figure 9: Example of Kiosk
CHAPTER 2
PROJECT FACTS

Center Point

Through strong leadership in the Center Point city government, a master plan for the Reed Harvey Community Greenway from the headwaters of Five Mile Creek in Center Point to Birmingham city limits was completed. Trail connections north to the City of Clay have been considered. Connections to the south through Birmingham are outlined in later chapters of this report.

The greenway plan for Center Point, *City of Center Point: Reed-Harvey Community Greenway, a Corridor Feasibility Study*, was funded through the Birmingham Metropolitan Planning Organization. Segment labels in this section respond to the designated trail sections in that feasibility study.

The City of Center Point is responsible for all implementation of the Reed-Harvey Community Greenway.

Figure 10: Reed-Harvey Park Spring House

Figure 11: Boardwalk at Reed-Harvey Park
Figure 12: Trail Map of Reed-Harvey Community Greenway
Project Alignment
The Reed-Harvey Community Greenway Plan for Center Point proposed four trail segments with several alternative routes. Ten or eleven road crossings were identified along the 3.8 miles of trail. There are two branches of the trail: the eastern branch that parallels Springville Road and a western branch that leads to Reed-Harvey Park. Table 6 shows the four trail segments including the length, number of pedestrian crossings and property jurisdictions. Table 7 shows the length and location of proposed bridges on the trail.

Table 6: Trail Segments for Reed-Harvey Greenway

<table>
<thead>
<tr>
<th>Segment</th>
<th>Length</th>
<th>Pedestrian Crossings</th>
<th>Jurisdiction</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 – Civitan Park to Polly Reed Road (western branch)</td>
<td>5,749 feet 1.1 miles</td>
<td>22 Ave NE 21 Ave NE 20 Ave NE</td>
<td>Center Point</td>
</tr>
<tr>
<td>1A – Alternative Route Civitan Park to Polly Reed Road</td>
<td>??</td>
<td>22 Ave NE 21 Ave NE 20 Ave NE</td>
<td>Center Point</td>
</tr>
<tr>
<td>2 – Polly Reed Road to Reed-Harvey Park</td>
<td>1862 feet 0.4 miles</td>
<td>Polly Reed Road Lake Drive</td>
<td>Center Point</td>
</tr>
<tr>
<td>3 – Reed-Harvey Park to Five Mile Creek (three alternative routes)</td>
<td>1458 feet 0.3 miles</td>
<td>Polly Reed Road (2-3 street crossings)</td>
<td>Center Point / Jefferson County</td>
</tr>
<tr>
<td>4- Center Point Ball Field south to Birmingham (eastern branch)</td>
<td>10,874 feet 2.1 miles</td>
<td>Polly Reed Road Mary Vann Lane Chalkville Rd</td>
<td>Center Point / Jefferson County</td>
</tr>
<tr>
<td>TOTAL</td>
<td>19,943 feet 3.8 miles</td>
<td>10 to 11 Street Crossings</td>
<td></td>
</tr>
</tbody>
</table>

Table 7: Bridge Crossings for the Reed Harvey Greenway

<table>
<thead>
<tr>
<th>Segment</th>
<th>Length (feet)</th>
<th>Bridge Location</th>
<th>Current Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 – Polly Reed Road to Reed-Harvey Park</td>
<td>58</td>
<td>Culvert crossing by Lake Drive</td>
<td>No pedestrian bridge</td>
</tr>
<tr>
<td>3B-02 Lake by Polly Reed Road</td>
<td>248 boardwalk</td>
<td>Levee on west side of lake on Polly Reed Road</td>
<td>No pedestrian access</td>
</tr>
<tr>
<td>3C-01 Polly Reed at Barrington Road</td>
<td>149</td>
<td>Creek crossing at Barrington Lane NE</td>
<td>No pedestrian bridge</td>
</tr>
<tr>
<td>3C-02 Lake on Polly Reed Road</td>
<td>722 boardwalk</td>
<td>Levee on south side of lake on Polly Reed Road</td>
<td>No pedestrian access</td>
</tr>
</tbody>
</table>

Connections
The Greenway Plan connects public and private facilities through Center Point, including Civitan Park, Center Point Fire Station No. 1, City Hall, Center Point Elementary School K-2, Center Point Head Start Center, Reed-Harvey Park, Center Point Senior Center, Historic Center Point Spring House, two Freshwater Land Trust proposed passive parks, Chalkville Elementary and Center Point Ball Park. Numerous businesses are located within one block of Segment #1 of the greenway on Center Point Parkway (Highway 75), including retail and office facilities. Private facilities along the greenway include three churches – New Jerusalem AOH Church of God (Segment #1), First Baptist Church of Center Point (Segment #1), and Center Point Free Will Baptist Church (Segment #4). The greenway passes by single family homes and apartment complexes on Polly Reed Road and Trafalgar Square.
Major Environmental Considerations
Formal evaluation of the proposed trail routes for environmental consideration has not been performed. However, there are some known environmental conditions that need to be taken into consideration in the planning process. The geology of the area creates the perennial spring flow of Five Mile Creek in Reed-Harvey Park. There are numerous man-made ponds throughout the area, including two ponds within Reed-Harvey Park. An aging sewer system could cause water quality problems in water bodies adjacent to the greenway trails.

The area is rich in historical structures dating back to the first settlers in 1816. Numerous structures are faced with native chert stone including the spring house in Reed-Harvey Park, the building that houses the Chamber of Commerce and the former elementary school where City Hall is located.

Type of Surface
Due to the location of the trail through built-out, populated neighborhoods, surfaces should be durable for bicycles, strollers, and pedestrians. Stormwater overflow is a concern, due to the proposed location of many trails within the floodplain. Some trails are planned to be built in the same location as existing drainage ditches. Surfaces under consideration for these areas are permeable concrete, permeable asphalt, crushed aggregate stone and an elevated boardwalk. Currently, the walking paths in Reed-Harvey Park are built of crushed aggregate and offer a soft surface, having minimum maintenance and low cost.

Amenities
Four trailheads are proposed for the Reed-Harvey Community Greenway, three of which already have restroom facilities – Civitan Park, Reed-Harvey Park, and Center Point Ball Park. The Freshwater Land Trust property at the southwestern end of the gateway path does not have any amenities at this time, but may be designated as a trailhead for connection to the Huffman community to the south.

Table 8: Reed-Harvey Greenway Amenities

<table>
<thead>
<tr>
<th>Segment</th>
<th>Restroom</th>
<th>Parking</th>
<th>Trailhead</th>
</tr>
</thead>
<tbody>
<tr>
<td>Civitan Park – Segment #1-A</td>
<td>Yes</td>
<td>Yes</td>
<td>Proposed</td>
</tr>
<tr>
<td>Reed-Harvey Park – Segment #2</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Center Point Ball Park – Segment #4</td>
<td>Yes</td>
<td>Yes</td>
<td>Proposed</td>
</tr>
<tr>
<td>Gateway to Huffman – Segment #4</td>
<td>No</td>
<td>Proposed</td>
<td>Proposed</td>
</tr>
</tbody>
</table>

Potential Funding Sources
Due to the urban nature of the trail segments, funding from the Congestion Mitigation Air Quality (CMAQ) may be appropriate. Funding from Safe Routes to School may be available for Center Point Elementary on Segment 1 and Chalkville Elementary near Segment 4. Due to the demographics of the area, Community Development Block Grants may fit the criteria for improved mobility for elderly or low income citizens.

Since the completion of the Trail Feasibility Study, the project has been added to the Birmingham Metropolitan Planning Organization (MPO) Transportation Improvement Program (TIP) funding schedule.
Obstacles
Up to 11 street crossings and three bridges are identified in the feasibility study. Most residential streets in Center Point are narrow without sidewalks. The right-of-way is very narrow, sometimes allowing only 20 feet from the road surface. Jefferson County maintains the streets and has control of any changes to the streetscape or right-of-way. County engineers will need to be consulted on their policy for road crossings and maintenance or improvement rights-of-way, such as soft surface trail connections. Some trails may need boardwalk construction to avoid interfering with existing stormwater conveyances.

Part of the proposed route is located on private property, including two churches. The City should secure a maintenance easement on these properties for future maintenance of the trail system.

Birmingham Section #1 - Huffman Neighborhood
The connection from the southern end of the Reed-Harvey Community Greenway through the Huffman Neighborhood has not been mapped for a master plan. The property is within the jurisdiction of the City of Birmingham. The stream buffer is very narrow through this area and there are neighborhood concerns about flooding from Five Mile Creek.

Figure 13: Unique Geology Behind Huffman High School
Figure 14: Huffman Pedestrian Bridge
Figure 15: Center Point to Birmingham Connection
Project Alignment

The Huffman Neighborhood trail section is approximately one mile long. The recommended connection between Center Point and Birmingham was derived from Jefferson County tax parcel maps, Google Earth maps, and site visits. The property owned by the Freshwater Land Trust in Center Point connects to the city of Birmingham near Earline Street, a residential street off of Springville Road. Several parcels east of the Five Mile Creek channel near the Spring Lake community are undeveloped along the proposed trail route. Most of these areas are within the 100-year floodplain and, therefore, not suited for residential development.

In the past, two stream crossings were built to connect the Spring Lake neighborhood to T.R. Wright Elementary School. Both bridges over the creek have been removed. The remaining concrete paths from the school to the neighborhood are in poor repair. These trails could be revitalized as a walking trail connection. A safe on-street connection is available from T.R. Wright Elementary to the Cheyenne Boulevard sidewalk on the northwest side of Five Mile Creek. An existing aging pedestrian bridge that crosses Five Mile Creek between Cheyenne Blvd and Huffman High School Athletic fields could be improved (See Figure 12).

The proposed route of the Five Mile Creek Greenway passes by the old Home Quarters building site downstream from the pedestrian bridge. The stream bank is regularly cleared of vegetation, presumably to allow stormwater to pass quickly under Highway 75. This section would benefit from a water quality improvement plan to control downstream flooding and improve water quality. The construction of a trial is an opportunity to incorporate improved stormwater management. Gravel and debris deposit in the stream bed between Highway 75 and Huffman Road cause an ongoing maintenance problem which could be addressed in a stream restoration plan.

Huffman High School on Springville Road will be replaced by a new school in 2012, adjacent to the old Home Quarters site. Pedestrian connection from the bridge over Five Mile Creek and Highway 75 will be allowed through a new sidewalk system around the school. An outdoor classroom and stormwater wetland adjacent to Five Mile Creek, constructed in 2006 by Natural Resource Conservation System and US Fish and Wildlife Service, could be a trail amenity. City of Birmingham El Dorado Park is located across Springville Road from the proposed greenway and could be connected to the greenway system in the future.

Students from Huffman High School, Parkway Christian School and Our Lady of Lourdes Catholic School can access the Roebuck Park trail by crossing Highway 75 at the Springville Road traffic light. A potential connection to the Roebuck Park section is through the existing El Paso Gas line right-of-way. The right-of-way connects from Highway 75 under Five Mile Creek Greenway and runs adjacent to Smith Middle School.

Using mapping resources including parcel maps and Google Earth, a route can be proposed to connect the Center Point greenway through the Huffman area. According to the 2007 parcel map, a line of six undeveloped properties connect Center Point to Highway 79 along the proposed trail. Three of the parcels are in unincorporated Jefferson County and three are in the City of Birmingham. The trail link is approximately one mile long and would require one new pedestrian bridge near Wright Elementary, along with an upgrade of the Huffman High School foot bridge over Five Mile Creek. In the past, a foot bridge connected the Spring Lake community to Wright Elementary via a paved foot path and bridge.
Flooding has destroyed the bridge and the neighbors have closed the paved foot path because of vandalism concerns.

### Table 9: Huffman Neighborhood Connections

<table>
<thead>
<tr>
<th>Section</th>
<th>Length (feet)</th>
<th>Pedestrian Crossings</th>
<th>Jurisdiction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spring Lake to Huffman High School and Hwy 75</td>
<td>5280 (1.0 mile)</td>
<td>TR Wright Elementary School to Cheyenne Blvd. sidewalk</td>
<td>Birmingham</td>
</tr>
<tr>
<td>High School to Highway 75 crossing</td>
<td>5280 (1 mile)</td>
<td>Existing traffic light at Springville Road and Highway 75</td>
<td>Birmingham</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>2 miles</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Table 10: Bridge Crossings for Birmingham

<table>
<thead>
<tr>
<th>Section</th>
<th>Length (feet)</th>
<th>Bridge Location</th>
<th>Current Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Huffman Neighborhood</td>
<td>200</td>
<td>Spring Lake over Five Mile Creek to TR Wright Elementary School</td>
<td>Removed</td>
</tr>
<tr>
<td>Huffman Neighborhood</td>
<td>100</td>
<td>Cheyenne Blvd to Huffman High School</td>
<td>Deteriorating</td>
</tr>
</tbody>
</table>

**Connections**

This proposed route connects the Reed-Harvey Community Greenway with Wright Elementary and Huffman High School, both in the Birmingham City School System. Huffman High School is moving from its current location on Springville Road to a shopping area on Highway 75. The community on the west side of the creek near Cheyenne Boulevard is primarily single family homes. The east side of the creek in the Spring Lake area is a mix of single family, garden homes and apartments. There is access to retail and office buildings mainly on Highway 75.

**Right-of-Way and Ownership**

The private landowners have not been approached about the proposed route. The route through the new Huffman High School is owned by the Birmingham City School Board. The route along Cheyenne Blvd is a public sidewalk.

**Major Environmental Considerations**

Springs feed the main channel of Five Mile Creek through housing developments on the east side of the creek including Spring Lake. The underlying limestone provides water chemistry similar to surrounding waterways that support endangered fish species, such as the vermillion and the watercress darter, in nearby Roebuck Springs. Although these species have not been found in the area, the habitat may be suitable for the fish.

Flooding has been a problem for the neighborhoods in the past. The greenway construction should provide opportunities for stormwater treatment and management in the design, including the location of the trail and the type of surface chosen for construction. Some areas may benefit from the use of boardwalks and bridges.
A historic house on Spring Lake at 866 Twin Lakes Drive is likely the namesake for Five Mile Creek. According to research by Dr. Ken Kirby of Samford University, the name refers to the distance from a pioneer-era creek crossing in Center Point to the old Ruhama Academy boarding school, in what is now South East Lake. The log cabin school, closed during the Civil War, was built on Second Avenue South and 80th Street in Birmingham. Five miles was the distance pioneers had to drive their wagons from a watering hole, a spring at Spring Lake, to the boarding school.

Type of Surface
Surface possibilities include permeable concrete or asphalt. Bridges should be sized for high flood conditions and preferably span the creek bed. Elevated walkways are also a design possibility in flood plain areas.

Amenities
The trailhead or kiosk at the north end of the trail may be located on the Freshwater Land Trust property. Another trailhead could be located on Highway 75 for visibility. Lighting is in place along the creek near Highway 75. Additional lighting would need to be installed along the remainder of the path for safety. Generally, the greenway trails and parks are recommended to close between dusk and dawn. There are no restroom facilities planned for this section of the greenway. The nearest facilities would be in Reed-Harvey Park.

<table>
<thead>
<tr>
<th>Table 11: Huffman Neighborhood Amenities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Segment</td>
</tr>
<tr>
<td>-----------------------------</td>
</tr>
<tr>
<td>Center Point Gateway</td>
</tr>
<tr>
<td>Highway 75</td>
</tr>
</tbody>
</table>

Potential Funding Sources
Initial conversations with the Birmingham Neighborhood Association in Spring Lake indicate that some funding may be available from the Association for the replacement of bridges over Five Mile Creek.

Obstacles
The latest Huffman High School construction plan does not connect the creek to neighborhoods or commerce. This may be difficult to establish once the school has been built.

Two bridges over Five Mile Creek need to be restored with stormwater conditions taken into consideration for future safety and maintenance of the bridges.

Birmingham Section #2 Roebuck Park Neighborhood
The crossing of Highway 75 for pedestrians and bicyclists is very dangerous in its current configuration. The intersection of Huffman Road and Center Point Parkway is very congested. Five Mile Creek is often dredged at the intersection to relieve flooding of adjacent businesses. Downstream, the residents on Camilla Road in Roebuck Park have a long history of flood damage to their homes, and some have received flood buyout assistance from the City of Birmingham. The City has already purchased some properties in the floodplain on the south bank of Five Mile Creek.
No formal design procedure has occurred in this area of the greenway. Residents of the Killough Springs and Roebuck Neighborhood Associations have been informed of the possibility of a walkway along the creek and support the construction of a trail and park on Five Mile Creek.

Project Alignment
This section of the Birmingham Five Mile Creek Greenway begins after the Huffman trail crosses Highway 75 at Springville Road. The trail follows Highway 75 to the El Paso Gas right-of-way next to the Huffman Branch of Alabama Power. The gas pipeline right-of-way connects to the cul-de-sac of Park Place. Five homes have been removed in the floodplain of Five Mile Creek and purchased by the City of Birmingham. Several lots have also been purchased on the north side of the street. The trail from Highway 75 to Grayson Park is approximately one mile.

There are two alternatives for crossing Five Mile Road onto the next section of the greenway. A pedestrian bridge could be built over Five Mile Creek from the south bank to Grayson Park. The trail would cross Five Mile Road at the gas line right-of-way behind Smith Middle School track.

The other alternative would take the trail from the south side of the creek and cross Five Mile Road directly. The route would eliminate the need for a pedestrian bridge, but also remove Smith Middle School and Grayson Park from a direct connection to the greenway.

An alternative route from Highway 75 along Five Mile Creek near Public Storage properties on Parkway East is very steep, narrow and not conducive to construction of a safe walking trail.

---

9 City of Birmingham Data Book Chapter 4: Natural and Cultural Resources, 2011.
Table 12: Roebuck Park Connections

<table>
<thead>
<tr>
<th>Section</th>
<th>Length (feet)</th>
<th>Pedestrian Crossings</th>
<th>Jurisdiction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Highway 75 to Roebuck Park</td>
<td>2640</td>
<td>None</td>
<td>City of Birmingham</td>
</tr>
<tr>
<td>Roebuck Park to Grayson Park</td>
<td>2640</td>
<td>None</td>
<td>City of Birmingham</td>
</tr>
<tr>
<td>Alt A: Road crossing south side</td>
<td></td>
<td>Five Mile Road</td>
<td>Jefferson County</td>
</tr>
<tr>
<td>Alt B: Road crossing north side to gas line right-of-way</td>
<td></td>
<td>Five Mile Road</td>
<td>Jefferson County</td>
</tr>
<tr>
<td>TOTAL</td>
<td>1 mile</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 13: Bridge Crossing for Roebuck Park

<table>
<thead>
<tr>
<th>Section</th>
<th>Length (feet)</th>
<th>Bridge Location</th>
<th>Current Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Roebuck Park-Grayson</td>
<td>50</td>
<td>Drainage ditch from Catherine Street</td>
<td>None</td>
</tr>
<tr>
<td>Alt B: Bank to Bank Creek Crossing</td>
<td>100</td>
<td>Parallel to Five Mile Creek Road</td>
<td>None</td>
</tr>
</tbody>
</table>

Connections
The path will connect the Roebuck neighborhood to Grayson Park and Smith Middle School of the Birmingham City School system. A future on-street connection to other greenways could be made from this area through Roebuck Golf Course, Roebuck Springs, Don Hawkins Park, East Lake Park and the Village Creek Ecoscape at the Eastern Health Center on West Boulevard.

Right-of-Way and Ownership
Five house lots have been purchased by the City of Birmingham. Additional right-of-way may be negotiated with El Paso Gas for access along the gas line to connect the FEMA properties with Grayson Park.

Major Environmental Considerations
The proposed trail location is in the 100-year floodway. Residents on the north side of Five Mile Creek have a long history of flood damage from stormwater. Increased stormwater runoff will further contribute to flash flooding in the area.

The karst limestone base of this area is conducive to water chemistry similar to surrounding waterways that support endangered fish species such as the vermillion and watercress darter in nearby Roebuck Springs.

Type of Surface
Surface possibilities include permeable concrete, permeable asphalt or crushed stone aggregate. Bridges should be sized for high flood conditions and preferably span the creek bed. Elevated walkways are also a design possibility.

Amenities
Grayson Park on the greenway is operated by the City of Birmingham Parks and Recreation. Amenities include restrooms, a parking lot, swimming pool and playground. The park has been flooded in the past.

---

10 City of Birmingham Data Book Chapter 4: Natural and Cultural Resources, 2011.
**Table 14: Roebuck-Grayson Amenities**

<table>
<thead>
<tr>
<th>Segment</th>
<th>Restroom</th>
<th>Parking</th>
<th>Trailhead</th>
</tr>
</thead>
<tbody>
<tr>
<td>Roebuck Park</td>
<td>No</td>
<td>Proposed at Alabama Power offices</td>
<td>Proposed Kiosk</td>
</tr>
<tr>
<td>Grayson Park</td>
<td>Yes</td>
<td>Yes</td>
<td>Proposed Kiosk</td>
</tr>
</tbody>
</table>

**Potential Funding Sources**

Initial conversations with Birmingham Neighborhood Association in Spring Lake indicate that some funding may be available from the Association for the bridges over Five Mile Creek.

Since Huffman High School and Smith Middle school are in the greenway area, Safe Routes to School funds may be available to connect the students safely across Highway 75.

**Obstacles**

Pedestrian safety must be assured at the intersection of Highway 75 and Springville Road. Pedestrian crossing of Five Mile Creek to Grayson Park must also be established and flooding issues addressed. Both route alternatives require crossing of Five Mile Road, which is a narrow, two-lane, high traffic, neighborhood street.

**Birmingham Section #3 - Freshwater Land Trust Property**

The section from Grayson Park to the Tarrant city limits contains many parcels purchased by the Freshwater Land Trust, including a 588-acre parcel that has been preserved for stormwater protection. The property includes both Five Mile Creek and Tarrant Springs Branch.

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**Figure 18:**
Stream Bed Near the Cloverdale Neighborhood

**Figure 19:**
Power Cut on Water Works Property
Figure 20: Map of Grayson Park to Tarrant Boundary
Project Alignment
A feasibility study has not been conducted for this section of the greenway. The length of this section is approximately five miles from Five Mile Road to the boundary of Tarrant, west of Lawson Road. A trail could also be located along Tarrant Springs Branch to join with Five Mile Creek via a new pedestrian bridge. Jurisdictions along this trail section include the City of Birmingham, Tarrant and unincorporated Jefferson County.

The proposed trail location was derived using topographic maps and sewer and gas line easements.

There are two options for joining the Roebuck Park greenway with the former Birmingham Water Works Board property. A gas line easement crosses Five Mile Road at Grayson Park and runs behind Smith Middle School. El Paso Gas could be a partner with the trail developers to allow limited non-motorized access along the right-of-way. Once the trail leaves the gas right-of-way, the path would be located on the south side of Five Mile Creek to the Red Mill Road Bridge. This option would require a pedestrian bridge parallel to Five Mile Road to Grayson Park, a new safe street crossing over Five Mile Road, and pedestrian bridge over Five Mile Creek near the Freshwater Land Trust Altamont property. The 6.4-acre property on the south side of the creek could be added to the greenway as a passive creek-side park.

The second trail option is to cross Five Mile Road on the south side of the creek without constructing pedestrian bridges. Since the existing traffic bridge over the creek is not safe for pedestrians, this design would limit access to Grayson Park and Smith Middle School.

The neighborhood of Cloverdale near the Red Mill Bridge has approached the Five Mile Creek Greenway Partnership to add a small trailhead near the Red Mill Road Bridge. This may be added as a pocket park for walking access to the greenway.

The area from the Red Mill Bridge to the city limits of Tarrant lies within the 588 acres purchased from the Birmingham Water Works Board by the Freshwater Land Trust. The city of Tarrant, Freshwater Land Trust and local businesses have received a grant from FEMA to build a flood protection structure in this basin. A greenway trail can easily be incorporated into the earthen structures with the addition of two or more pedestrian bridges. Although no complete study of trail feasibility has been performed, a tentative design for the entire area was submitted with the FEMA proposal. That design was taken into consideration for the proposed trail location.

A trailhead could also be located at Valley Crest Road on Tarrant Springs Branch. The trail would converge with the Five Mile Creek trail and cross Lawson Road toward Tarrant.

Table 15: Freshwater Land Trust Property

<table>
<thead>
<tr>
<th>Section</th>
<th>Length (feet)</th>
<th>Pedestrian Crossings</th>
<th>Jurisdiction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Five Mile Road to Red Mill Road</td>
<td>8330</td>
<td>Under Red Mill Road bridge</td>
<td>City of Birmingham/Unincorporated Jefferson County</td>
</tr>
<tr>
<td>Tarrant Springs Branch at Valley</td>
<td>6670</td>
<td>None</td>
<td>City of Birmingham</td>
</tr>
<tr>
<td>Red Mill Road to Lawson Road</td>
<td>9323</td>
<td>Lawson Road</td>
<td>City of Birmingham</td>
</tr>
<tr>
<td>Lawson Road to Tarrant</td>
<td>1371</td>
<td>None</td>
<td>City of Birmingham/ City of Tarrant</td>
</tr>
<tr>
<td>TOTAL</td>
<td>4.9 miles</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 16: Bridge Crossing for Freshwater Land Trust Property

<table>
<thead>
<tr>
<th>Section</th>
<th>Length (feet)</th>
<th>Bridge Location</th>
<th>Current Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Five Mile Road</td>
<td>100+</td>
<td>Gas line to Altamont Property</td>
<td>No bridge</td>
</tr>
<tr>
<td>Red Mill Road</td>
<td>50+</td>
<td>Under Red Mill Road bridge</td>
<td>No bridge</td>
</tr>
<tr>
<td>Red Mill Road to Lawson Road</td>
<td>50+</td>
<td>Cross Five Mile Creek southeast of proposed water control structure</td>
<td>No bridge</td>
</tr>
<tr>
<td>Tarrant Springs Branch Trail</td>
<td>100+</td>
<td>Confluence of Tarrant Springs Branch and Five Mile Creek</td>
<td>No bridge</td>
</tr>
<tr>
<td>Red Mill Road to Lawson Road</td>
<td>100+</td>
<td>Cross Five Mile Creek northeast of Lawson Road</td>
<td>No bridge</td>
</tr>
</tbody>
</table>

Connections
Most public facilities, including schools, parks and libraries, fall outside this trail segment. The strength of this area is the connection between Birmingham and Tarrant through open greenspace, away from highways and retail areas. The Red Mill Road bridge connecting the Cloverdale neighborhood to Maple Grove is a good on-street connection between residential areas. Recently, a cluster of Habitat of Humanity houses were built near the bridge site.

A trailhead could be developed at Lawson Road with restroom, parking and kiosk. Hewitt Park in Tarrant, on the city limit border, has restrooms, a playground and passive recreation areas.

Right-of-Way and Ownership
Most of the property on this segment is owned by the Freshwater Land Trust, a partner of the Five Mile Creek Greenway Partnership.

Major Environmental Considerations
The 588-acre property is not likely to have any environmental hazards, in that it has not been used for industrial purposes. A review of historical and archeological resources will need to be performed if federal money is used for trail construction. Most of the area was evaluated by the Freshwater Land Trust before final inventory of Supplemental Environmental Project (SEP) properties was performed. A complete record of the field evaluations performed by Drs. Larry Davenport, Mike Howell and Kevin Morse are public record.

Type of Surface
Due to the rough terrain of this section, the trail connections may be best constructed as cleared dirt paths or with crushed aggregate stone. This section of the trail will be similar to outdoor hiking trails of local State Parks, like Oak Mountain, used for hiking. Additional paths may be proposed for mountain bike trails on the hill contours.

Amenities
Three trailheads are proposed for this area - Red Mill Road, Valley Crest Road, and Lawson Road.
Table 171: Freshwater Land Trust Property Amenities

<table>
<thead>
<tr>
<th>Segment</th>
<th>Restroom</th>
<th>Parking</th>
<th>Trailhead</th>
</tr>
</thead>
<tbody>
<tr>
<td>Five Mile Creek Road to Red Mill Road</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Tarrant Springs Branch at Valley Crest Drive</td>
<td>None</td>
<td>Proposed</td>
<td>Proposed Kiosk</td>
</tr>
<tr>
<td>Red Mill Road to Lawson Road</td>
<td>None</td>
<td>None</td>
<td>Kiosk proposed on Red Mill Road Bridge</td>
</tr>
<tr>
<td>Lawson Road to Tarrant</td>
<td>Proposed at Lawson Road Trailhead</td>
<td>Proposed at Lawson Road Crossing</td>
<td>Proposed at Lawson Road Crossing</td>
</tr>
</tbody>
</table>

**Potential Funding Sources**

This section might be best served by non-federal funding, due to the unusual terrain. The area should be staked by a professional trail builder, then surveyed and entered into a maintenance agreement with a responsible party. Hopefully, the Five Mile Creek Capital Improvement Cooperative District will manage these properties.

**Obstacles**

If the configuration of the FEMA flood protection structures changes, the trail location could be affected. The construction of two or more bridges over the creek could be expensive, due to the remoteness of the area and cost of transporting bridge materials to the sites.

At this time, the City of Birmingham does not have a park master plan, so these trails are not in the City’s comprehensive plan or future budget. A feasibility plan should be completed in partnership with the City and added to the comprehensive planning process. Funding may be found in the Building Communities program or other local programs.
Tarrant

The City of Tarrant has strong internal support for greenways, including walking trails, bicycle trials, open park space, urban streetscape and pocket parks. They have diverse greenway components and have sought a diversity of funding methods to accomplish their goals. A creative team of elected officials and staff have created a vision for this industrial town. Major industries, such as Thompson Tractor and ABC Coke, provide much of the income for the town.

In January 2005, the Comprehensive Plan for the City of Tarrant 2025 was completed. Using funding from Federal Emergency Management Agency (FEMA), Community Block Grants (CBG), Transportation, Community and System Preservation Grants (TCSP), Transportation Enhancement (TE), and appropriations, Hewitt Park was completed and the streetscapes and pocket park projects are underway. The addition of a culinary school in the downtown area will bring more character and interest to the downtown area.
Figure 23: Tarrant Trail System
Project Alignment
All of the proposed greenway projects are within Tarrant city limits. The multi-use path from Hewitt Park to the Fultondale connection is divided into three phases with one additional spur (Barge Waggoner Sumner & Canon Inc.). Phases 1, 2 and 3 lay entirely within the city limits of Tarrant. The trail alignment has been located along existing street right-of-way and Birmingham Water Works Board aqueduct right-of-way.

Phase 1 connects from the Bethel-Pinson Intersection through downtown to Thomason Avenue and includes the future Jefferson State Community College Culinary School and Ford Avenue Redevelopment Area. In 2010, the area was designated Tarrant City Downtown Historic District and includes parts of East Lake Boulevard, Ford Avenue, Jackson Boulevard, Pinson Street, and Wharton Avenue, a total of 500 acres and 42 buildings. Tarrant Middle School is located along this section of the trail. Most of the route is on existing sidewalks with the addition of an off-street walkway that follows the abandoned Birmingham Water Works aqueduct route.

Phase 2 connects Thomason Avenue to Cedar Street along Jefferson Boulevard. The area includes Tarrant Elementary School and ball fields, old Tarrant High School and Tarrant Recreation Center.

Phase 3 will connect Downtown Tarrant to Hewitt Park, approximately one mile. The trail will follow the tract of the historic aqueduct that supplied water to Birmingham in the 1800’s. It will provide safe pedestrian and bicycle transportation adjacent to the heavily traveled Highway 79 and connect the city with recreational facilities at the park and ultimately to the 588-acre property owned by the Freshwater Land Trust near Lawson Road.

<table>
<thead>
<tr>
<th>Segment</th>
<th>Length (feet)</th>
<th>Pedestrian Crossing</th>
<th>Jurisdiction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hewitt Park to Pinson-Bethel corner (Phase 3)</td>
<td>8448</td>
<td>Bethel Road</td>
<td>Tarrant</td>
</tr>
<tr>
<td>Pinson-Bethel Corner to Ford Avenue on Aqueduct to Thomason Avenue</td>
<td>3696</td>
<td>Existing pedestrian street crossings</td>
<td>Tarrant</td>
</tr>
<tr>
<td>Thomason Avenue to Cedar Street (Phase 2)</td>
<td>5280</td>
<td>Highway 79</td>
<td>Tarrant</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>3.3 miles</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 19: Tarrant Trail Proposed Additional Segments

<table>
<thead>
<tr>
<th>Segment</th>
<th>Length (feet)</th>
<th>Pedestrian Crossing</th>
<th>Jurisdiction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cedar Street to Boyles Gap via Erwin Dairy Road and abandon rail line</td>
<td>5380</td>
<td>Cedar Street</td>
<td>Unincorporated Jefferson County</td>
</tr>
<tr>
<td>Brummitt Spur – North Lake Park in Brummitt Heights via Lakeview Avenue</td>
<td>4224</td>
<td>Old Pinson Parkway Valley View Drive Roseland Drive Weatherly Avenue</td>
<td>Tarrant</td>
</tr>
<tr>
<td>EnviroPlex Spur – loop to Highway 79</td>
<td>3168</td>
<td>Elizabeth Avenue, Hwy 79</td>
<td>Tarrant</td>
</tr>
<tr>
<td>Sand Mountain right-of-way loop</td>
<td>23,760</td>
<td>Clow Road Springdale Road N. Pine Hill Road</td>
<td>Tarrant</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>6.9 miles</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 20: Tarrant Bridge Crossings

<table>
<thead>
<tr>
<th>Section</th>
<th>Length (feet)</th>
<th>Bridge Location</th>
<th>Current Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hewitt Park to Pinson-Bethel corner (Phase 3)</td>
<td>Unknown</td>
<td>Five Mile Creek south of Hewitt Park</td>
<td>None</td>
</tr>
</tbody>
</table>

Connections

The Tarrant Greenway Plan connects most all of the public amenities in the town including schools, parks, library and city hall. The trail along the Highway 79 corridor connects Hewitt Park to the Aqueduct Trail past Tarrant Middle School, Tarrant Library, Tarrant Elementary, Tarrant Recreation Center, Tarrant Vocational School and old Tarrant High School.

Connection West, one of the proposed connections from Tarrant to Fultondale, is a route under the railroad bridge on Cedar Street turning north on Erwin Dairy Road. The route would connect with the Fultondale section of the Five Mile Creek Greenway on the old Mary Lee railroad easement.

Brummitt Spur, an additional spur off of Highway 79, could be made to connect the main trail to the hidden, beautiful North Lake in the Brummitt Heights neighborhood. The connection on Lakeview Avenue is about 0.8 miles. For decades, North Lake has been used by neighborhood residents for fishing, swimming and recreation. The plant community around the lake has been studied by Samford University scientists and been found to be unique to Jefferson County and Alabama. Careful stewardship of this resource is important to the region.

Sand Mountain right-of-way loop, another possible spur off the main trail, is an off-road bicycle route along the EL Paso Gas line and Alabama Power right-of-way. The loop trail follows the northeast-southwest topography of Sand Mountain and Opossum Valley. The loop would connect Tarrant Athletic Complex and historic Sheritt Cemetery to the Phase 3 trail from Hewitt Park across Highway 79. Historic Rushing Springs Baptist Church is also located in this loop. The proposed trail runs close to the new Tarrant High School off Pine Hill Road.
EnviroPlex Spur, a smaller spur off of the gas line right-of-way, connects the Sand Mountain right-of-way loop with the site of the proposed EnviroPlex Park near Highway 79 at Springdale Road. The proposed EnviroPlex Park, in the floodplain of Five Mile Creek, is an environmental education complex proposed in September 2004 to teach water quality improvement techniques such as bioretention, rain gardens, bioswales, and green roofs.

**Right-of-Way and Ownership**
The city of Tarrant owns or has the right-of-way for Phase 1, 2 and 3. The spur is located on roadways or utility rights-of-way for gas, power or sewer lines.

**Major Environmental Considerations**
Environmental considerations have been addressed in grant applications from the TCSP Grant (2004) and Land and Water Conservation Fund (2002).

Flooding continues to be a problem along Five Mile Creek in Tarrant. The bridge over Five Mile Creek at Highway 79 often floods during spring storms, sometimes topping the bank of the creek. Sediment deposited under the bridge raises the water level and is an ongoing problem.

**Type of Surface**
Tarrant Aqueduct trail, funded with federal transportation grants, is designed as an 8-foot wide asphalt surface. Brummitt spur route is located on existing roads; the Sand Mountain right-of-way loop is off-road; and the EnviroPlex spur is located on existing paved streets. The Sand Mountain Loop could be maintained as an off-road bicycle trail using crushed stone.

**Amenities**
There is an existing trailhead at Hewitt Park. Additional trailheads may be located at the Tarrant Recreation Center, North Lake Park in Brummitt Heights, and on the Sand Mountain Spur trail on Pine Hill Road near the new Tarrant High School site.

**Table 21: Tarrant Existing and Proposed Amenities**

<table>
<thead>
<tr>
<th>Segment – North to South</th>
<th>Restroom</th>
<th>Parking</th>
<th>Trailhead</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hewitt Park to Pinson-Bethel corner, Phase 3</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Pinson-Bethel Corner to Ford Avenue on Aqueduct to Thomason Avenue, Phase 2</td>
<td>No</td>
<td>On-street</td>
<td>No</td>
</tr>
<tr>
<td>Thomason Avenue to Cedar Street, Phase 1</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Tarrant Recreation Center</td>
<td>Yes</td>
<td>Yes</td>
<td>Proposed</td>
</tr>
<tr>
<td>Cedar Street to Boyles Gap</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Brummitt Heights Park – North Lake</td>
<td>Yes</td>
<td>Yes</td>
<td>Proposed</td>
</tr>
<tr>
<td>Sand Mountain ROW Loop</td>
<td>No</td>
<td>No</td>
<td>Proposed</td>
</tr>
<tr>
<td>EnviroPlex on Five Mile Creek</td>
<td>Proposed</td>
<td>Proposed</td>
<td>Proposed</td>
</tr>
</tbody>
</table>

**Obstacles**
The Cedar Street route connecting Tarrant to Fultondale under the Boyles Yard railroad is very narrow with heavy truck traffic. The other option is the crossing under Boyles Yard in the box culvert. Heavy traffic is not a problem for the culvert option, but flooding from the creek could close the trail during spring floods.
Due to the limited revenue in Tarrant, matching funds for federal grant funding has been difficult to obtain. A regional initiative, such as the Five Mile Creek Capital Improvement District, could aid Greenway partners with design and construction as an alternative to using federal money that requires at least 20% match.

Figure 25: Example of Trail Through Train Tunnel
(Heritage Rail Trail County Park by Carl R. Knoch, York County Rail Trail Authority)

Figure 26: Box Culverts Under Boyles Yard
Fultondale Greenway Corridor Study

Fultondale took the lead as the Interim Trail Use Proponent for the purchase of the CSX Cane Creek Trail in 2007, which will be the future Five Mile Creek Rail Trail. The process to evaluate the 16.5 rail trail and negotiate the purchase is lengthy, but will yield great benefits to Fultondale. The eastern trailhead for the 16.5 miles will be located near Fultondale’s Black Creek Park on Yarborough Road. The City has planned a connection between Five Mile Creek and the Five Mile Creek Rail Trail trailhead through the Fultondale Five Mile Creek Greenway Feasibility Study funded by TCSP funds. The contractor, TRC International, located the connecting trail on the abandon Mary Lee rail bed, which runs parallel to Highway 31.

Figure 27: Remaining Bank of Lewisburg Coke Ovens

Figure 28: Artist Drawing of Future Coke Ovens Park
Figure 29: Fultondale Greenway Trail System
Five Mile Creek Greenway Plan

Figure 30: Fultondale Greenway on Creek
Connections
The Fultondale section of the trail connects with one of two routes from Tarrant. Boyles Gap is the natural break where Five Mile Creek flows through the geologic break in Sand Mountain. Four box culverts were placed in the gap to accommodate the water under Boyles Railroad Yard. Three of the culverts carry creek water and the fourth is used for occasional railroad truck traffic. This culvert could be designated for a bicycle and walking connection under the gap. Another possible connection is an existing culvert under the railroad on to Cedar Street. Cedar Street is very narrow as it passes under the rail line and is not safe for pedestrians. The culvert is an option, but needs upgrading and renovation for safe travel.

An old railroad grade north of the Lewisburg Gardens neighborhood connects Boyles Gap to the Fultondale section of the greenway. The pilings for three trestles over the creek still remain and could be reused as supports for pedestrian walkways. The abandoned railroad grade, historically called the Mary Lee Rail, parallels Highway 31 and connects to the future Five Mile Creek Rail Trail. On the southern bank of Five Mile Creek along this route, the remaining Lewisburg coke ovens have been uncovered. The ovens are located on private property owned by Walter Energy. The City hopes to purchase the ovens and preserve the area as part of the historic element of the greenway.

A hiking path along Five Mile Creek from Highway 31 to below the Chapel Hills housing development may be possible following the old mining and logging roads along the bank of the creek. The Freshwater Land Trust owns a narrow parcel along Five Mile Creek on this route. The Chapel Hills neighborhood has an informal walking trail that connects to the creek along a utility road north of the development.

The proposed Mary Lee Rail Trail connects the creek and the future Five Mile Creek Rail Trail. The Mary Lee Rail Trail will connect with Fultondale Elementary, school sports fields, proposed retail development and the residential community of Black Creek Station. The connections are ideal for the best benefit of regional greenways. The developers of Black Creek Station have made special accommodations to connect the community to the trail by incorporating the property under the power lines as a path to the Mary Lee Rail Trail.

The future Five Mile Creek Rail Trail connects Black Creek Park, Fultondale Senior Center and Fultondale Children’s Park.

Major Environmental Considerations
The Lewisburg Coke Oven site has been evaluated using funding from an EPA Brownfield Assessment grant for contaminants. The area was found to be safe for park development with minimal upgrades. The “average concentrations meet preliminary goals proposed by EPA Region 9” for redevelopment use such as parks and green space.11

Table 22: Fultondale Trail Sections

<table>
<thead>
<tr>
<th>Location</th>
<th>Length (feet)</th>
<th>Pedestrian Crossings</th>
<th>Jurisdiction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boyles Gap to Mary Lee Rail Trail</td>
<td>4224</td>
<td>None</td>
<td>Unincorporated Jefferson County, Fultondale</td>
</tr>
<tr>
<td>Mary Lee Rail Trail to CSX Rail Trail</td>
<td>10560</td>
<td>Whaley Road, Central Avenue,</td>
<td>Fultondale</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Black Creek Rd</td>
<td></td>
</tr>
<tr>
<td>CSX Rail Trail to Shady Grove Road</td>
<td>15840</td>
<td>Stouts Road</td>
<td>Fultondale, Unincorporated Jefferson County</td>
</tr>
<tr>
<td>Hiking path on Five Mile Creek bank</td>
<td>23750</td>
<td>None</td>
<td>Fultondale, Birmingham, Unincorporated Jefferson County</td>
</tr>
<tr>
<td>Canoe trail Fultondale to Coalburg Road</td>
<td>4.0 miles water</td>
<td>None</td>
<td>Fultondale</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>10.3 miles ground</strong></td>
<td><strong>4.0 miles water</strong></td>
<td></td>
</tr>
</tbody>
</table>

Table 23: Fultondale Bridge Crossings

<table>
<thead>
<tr>
<th>Section</th>
<th>Length (feet)</th>
<th>Bridge Location</th>
<th>Current Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boyles Gap to Mary Lee Rail Trail</td>
<td>Unknown</td>
<td>3 bridges on existing bridge pilings, needed over Five Mile Creek</td>
<td>Pilings from train trestle, no bridge truss</td>
</tr>
<tr>
<td>CSX Rail Trail to Shady Grove Road</td>
<td>Unknown</td>
<td>Existing bridge over New Castle Road</td>
<td>Existing</td>
</tr>
<tr>
<td>Hiking path on Five Mile Creek</td>
<td>Unknown</td>
<td>2-4 pedestrian bridges needed over Five Mile Creek</td>
<td>None</td>
</tr>
</tbody>
</table>

Type of Surface
The trail surfaces in this section will vary with the terrain and intended use. Connections to parks, schools and retail may be heavily traveled and designed for multiple uses. Conventional concrete and asphalt, as well as permeable hard surfaces, would be appropriate. The proposed hiking trail along Five Mile Creek may be packed dirt or crushed stone aggregate. The rough terrain is not suitable for multi-use hard surfaces. There is a possibility of connecting the soft surface hiking trail to Coalburg Road for a connection to the water trail.

Amenities
Proposed amenities for this area are trailhead parking and a kiosk on Hwy 31 near the proposed Lewisburg Coke Ovens Park. Existing bathrooms and parking are located at Black Creek Park and Children’s Park and maintained by the Fultondale Public Works Department.
Table 24: Fultondale Existing and Proposed Amenities

<table>
<thead>
<tr>
<th>Segment</th>
<th>Restroom</th>
<th>Parking</th>
<th>Trailhead</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coke Ovens Park</td>
<td>Proposed</td>
<td>Proposed</td>
<td>Proposed</td>
</tr>
<tr>
<td>Black Creek Park</td>
<td>Existing</td>
<td>Existing</td>
<td>Proposed</td>
</tr>
<tr>
<td>Children’s Park</td>
<td>Existing</td>
<td>Existing</td>
<td>Proposed</td>
</tr>
<tr>
<td>Ellard Road Canoe Launch</td>
<td>Proposed</td>
<td>Drop off only</td>
<td>Proposed</td>
</tr>
<tr>
<td>Coalburg Canoe Launch</td>
<td>Existing</td>
<td>Drop off only</td>
<td>None</td>
</tr>
<tr>
<td>Coalburg Camp Ground</td>
<td>Proposed</td>
<td>Proposed</td>
<td>Proposed</td>
</tr>
</tbody>
</table>

Numerous points of interest along this trail highlight the human history of the Warrior Coalfield and the people that worked in the industry since the mid-1800’s. Industrial archeology sites include the Lewisburg Coal Ovens, coal washing relic, Fulton Springs Church, and a connection to historic Stouts Road at the Fultondale Children’s Park. Other hidden relics in and around the hills of the former Lewisburg mining operation may be added to the historic element of the Five Mile Creek Greenway.

Table 25: Fultondale Greenway Cultural Assets

<table>
<thead>
<tr>
<th>Segment</th>
<th>Asset</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mary Lee Rail Trail</td>
<td>Lewisburg Coke Ovens</td>
<td>1906</td>
</tr>
<tr>
<td>Mary Lee Rail Trail</td>
<td>Coal Washing Ruins</td>
<td>1900's</td>
</tr>
<tr>
<td>Five Mile Creek Rail Trail</td>
<td>Fulton Springs Church</td>
<td>1870's</td>
</tr>
<tr>
<td>Five Mile Creek Rail Trail</td>
<td>Stouts Stagecoach Road</td>
<td>1870's</td>
</tr>
<tr>
<td>Mary Lee Rail Trail</td>
<td>Sloss Furnace NEA Sculpture</td>
<td>2008</td>
</tr>
</tbody>
</table>

Potential Funding Sources
Funding from federal transportation sources could be used for the pedestrian bridge construction over Five Mile Creek. Safe Routes to School funding may be available to connect Fultondale Elementary school to the greenway along several routes. When comparing the time and resources to effectively build trail within a reasonable time table, inclusion into the city comprehensive plan followed by annual commitment to the trail system would be ideal. Fultondale is part of the Five Mile Creek Capital Improvement District that can be a source for effective trail implementation and future maintenance.
Gardendale

Gardendale has a strong connection to the trail network through Kenneth Clemmons Recreational Complex on Fieldstown Road. Open in 2007, the park has soccer fields, a splash park, playground and restrooms. The edge of the park is less than ½ mile from the proposed Five Mile Creek Rail Trail. The park can connect with the rail trail along Fieldstown Road to the south and Jew Hollow Road to the west. The connections are multi-jurisdictional including Gardendale, Unincorporated Jefferson County, and Brookside.

Figure 31: Falls at Baines Lake in Gardendale on Newfound Creek
Table 26: Gardendale Trail Connections

<table>
<thead>
<tr>
<th>Location</th>
<th>Length (feet)</th>
<th>Crossings</th>
<th>Jurisdiction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fieldstown Road</td>
<td>2112</td>
<td>Hodges</td>
<td>Gardendale, Unincorporated Jefferson County</td>
</tr>
<tr>
<td>Jew Hollow Road</td>
<td>2112</td>
<td>None</td>
<td>Unincorporated Jefferson County, Brookside</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>0.8 Miles</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 27: Gardendale Trail Bridges

<table>
<thead>
<tr>
<th>Section</th>
<th>Length</th>
<th>Bridge Location</th>
<th>Current Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clemons Park Connection to Five Mile Creek Rail Trail</td>
<td>Unknown</td>
<td>Tributary stream west of Fieldstown Road</td>
<td>None</td>
</tr>
</tbody>
</table>

Table 28: Gardendale Amenities

<table>
<thead>
<tr>
<th>Location</th>
<th>Restroom</th>
<th>Parking</th>
<th>Trailhead</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clemons Park</td>
<td>Yes</td>
<td>Yes</td>
<td>Proposed</td>
</tr>
</tbody>
</table>

Table 29: Gardendale Cultural Assets

<table>
<thead>
<tr>
<th>Location</th>
<th>Element</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Watson</td>
<td>Hodges Cemetery</td>
<td>&lt;1880</td>
</tr>
<tr>
<td>Watson</td>
<td>Watson Post Office</td>
<td>Unknown</td>
</tr>
<tr>
<td>Watson</td>
<td>Watson Town and Country Store</td>
<td>Unknown</td>
</tr>
<tr>
<td>Longwood Housing Development, Gardendale</td>
<td>Banes Dam and Lake</td>
<td>1920’s</td>
</tr>
</tbody>
</table>

The family-owned Hodges Cemetery began sometime before 1880, with the burial of Permelia Hodges. Local legend indicates she was a full-blooded Cherokee Indian who married Leroy Hodges while on the Trail of Tears.

The Five Mile Creek Rail Trail, after crossing Fieldstown Road, turns north along Power Mill Road in Watson. The wide right-of-way between the rail bed and Powder Mill Road creates a good location for a depot-like trailhead for cyclists, walkers and horseback riders. The rail trail connects to the former DuPont Watson Works. DuPont operated a 1,284-acre site for explosives manufacturing from the mid-1920s to 1976. From 1992 to 1997, the area was leased for coal strip mining. In 2007, the property was designated as “no unacceptable risk to human health or environment.” The land is currently owned by Cornerstone Ranch, a local 501(c)(3) nonprofit.
Brookside Bike/Hike Trail Corridor Study

Main source of existing information is the Brookside Bike/Hike Corridor Feasibility Study funded through TCSP funds and performed by TRC International (March 2008). The entire report is available with detailed information on recommended alignment, connections, cost and funding.

In 2008, Jim Lehe Planning completed an Alabama Department of Economic and Community Affairs (ADECA) grant for the construction of a trail along Five Mile Creek connecting the Five Mile Canoe & Company with the historic Fields Cemetery.

Figure 33: Five Mile Creek Canoe & Company in Brookside

Figure 34: Brookside Trail
Figure 35: Brookside Hike and Bike Map
Project Alignment

Table 30: Trail Segments for Brookside Greenway

<table>
<thead>
<tr>
<th>Segment</th>
<th>Length (feet)</th>
<th>Pedestrian Crossings</th>
<th>Jurisdiction</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADECA Walking Loop trail</td>
<td>5808</td>
<td>None</td>
<td>Brookside</td>
</tr>
<tr>
<td>Bensko Park to Valley Road</td>
<td>10,560</td>
<td>Park Avenue</td>
<td>Brookside</td>
</tr>
<tr>
<td>Cardiff to Negron Woods Walking Trail</td>
<td>21,120</td>
<td>Cardiff Street</td>
<td>Brookside</td>
</tr>
<tr>
<td>Cardiff to Negron Woods Walking Trail</td>
<td></td>
<td>Trimble Hill Rd</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Cardiff-Linn’s Crossing Rd</td>
<td></td>
</tr>
<tr>
<td>On-road Bike Trail – Brookside-Mt Olive Road</td>
<td>14,256</td>
<td>Brookside-Mt Olive Road</td>
<td>Brookside</td>
</tr>
<tr>
<td>Newfound Creek Hiking Trail</td>
<td>10,560</td>
<td>Bivens-Brookside Road</td>
<td>Brookside</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>21.7 miles</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 31: Bridge Crossings for Brookside Greenway

<table>
<thead>
<tr>
<th>Segment</th>
<th>Length (feet)</th>
<th>Bridge Location</th>
<th>Current Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADECA Loop trail</td>
<td>50</td>
<td>Tributary crossing</td>
<td>New</td>
</tr>
<tr>
<td>Bensko Park to Valley</td>
<td>100</td>
<td>Over Five Mile Creek at ball park</td>
<td>Wide bridge built 2005</td>
</tr>
<tr>
<td>Bensko Park to Valley</td>
<td>100</td>
<td>Over Five Mile Creek</td>
<td>Old Arch stone bridge, good for pedestrians</td>
</tr>
<tr>
<td>Cardiff to Negron Woods Trail</td>
<td>50</td>
<td>Tributary crossing</td>
<td>None</td>
</tr>
<tr>
<td>Newfound Creek Hiking Trail</td>
<td>150</td>
<td>Truss Bridge over Five Mile Creek</td>
<td>Deteriorating, no longer used</td>
</tr>
</tbody>
</table>

Most of the Newfound Creek Hiking Trail is located in the AE flood zone.

Connections

The Brookside area has a rich cultural heritage. Though there are no public schools or libraries that remain, the Brookside Municipal Complex was completed in 2009, replacing the fire station, post office, town hall, Community Center and history museum that were lost in the 2003 flood. At this time there are only a few businesses operating in Brookside. The existing and proposed trails will connect with the small town population. Due to the small population of the area, the success of the Brookside Greenway may depend on bringing outdoor recreation and history enthusiasts to the town for special events.

Proposed projects to highlight the cultural history are the Brookside Coke Ovens Park, restoration of the truss bridge, and designation of a Brookside Historic District. Historic cemeteries in the vicinity include the Fields Cemetery, Cardiff Cemetery, Bivens Cemetery, Russian Orthodox Cemetery, St. Michael’s Catholic Cemetery and several hidden graveyards. Documented dates from the cemeteries begin in the mid-1800s. The St. Nicholas Orthodox Russian Church has been an icon of the multicultural roots of Brookside since its establishment in 1916.
Major Environmental Considerations
In September of 2010, the Alabama Department of Environmental Management completed Brownfield Assessments of two sites in Brookside. Through a Phase I and II Assessment, the Brookside Gas Station on Price Street was evaluated and found to be minimum risk for exposure. The 20-acre Brookside Coke Ovens property was also assessed in Phase I and II and found to be of minimum risk.

Type of Surface
The corridor feasibility report suggests adding a 4-foot asphalt shoulder to the Brookside-Mt. Olive road for the 2.7 mile bicycle route. The ADECA multi-use trail surface of local red rock crushed aggregate has held up well in local conditions. The Newfound Creek trail could be constructed of aggregate or packed dirt using conservation trail techniques to preserve the natural beauty of the wooded walk.

Amenities
There is an existing trailhead with restrooms at Bensko Park. Planned park improvements include a campground on Five Mile Creek for tent and RV camping, and restroom improvements with showers for camping, canoeing and other park activities.

Table 32: Brookside Amenities

<table>
<thead>
<tr>
<th>Segment</th>
<th>Restroom</th>
<th>Parking</th>
<th>Trailhead</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bensko Park</td>
<td>Yes</td>
<td>Yes</td>
<td>Proposed</td>
</tr>
<tr>
<td>Five Mile Creek Canoe &amp; Company</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Brookside Camp Ground</td>
<td>Proposed</td>
<td>Yes</td>
<td>Proposed</td>
</tr>
</tbody>
</table>

Table 33: Brookside Greenway Cultural Assets

<table>
<thead>
<tr>
<th>Element</th>
<th>Location</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bracket Loop Grocery</td>
<td>Republic</td>
<td></td>
</tr>
<tr>
<td>Brookside Coke Ovens</td>
<td>North of CR 112</td>
<td></td>
</tr>
<tr>
<td>Truss Bridge</td>
<td>Over Five Mile Creek at CR112</td>
<td></td>
</tr>
<tr>
<td>Historic District</td>
<td>Town Center and Coke Ovens</td>
<td>In process</td>
</tr>
<tr>
<td>Fields Cemetery</td>
<td>Cardiff Street, near CR 71</td>
<td>1860's</td>
</tr>
<tr>
<td>Old Brookside School site</td>
<td>Next to Fields Cemetery</td>
<td></td>
</tr>
<tr>
<td>Cardiff Cemetery</td>
<td>North of Cardiff, CR 109</td>
<td></td>
</tr>
<tr>
<td>Cardiff Town Hall</td>
<td>Main Street, Cardiff</td>
<td></td>
</tr>
<tr>
<td>Bivens Chapel Cemetery</td>
<td>Cherry Avenue and Bivens Chapel Road</td>
<td></td>
</tr>
<tr>
<td>Negron Grocery</td>
<td>Cherry Avenue near Forestdale Bend</td>
<td></td>
</tr>
<tr>
<td>Russian Orthodox Cemetery</td>
<td>East side Tiger Hill Road, Brookside</td>
<td></td>
</tr>
<tr>
<td>St Michaels Catholic Cemetery</td>
<td>CR 112 near Tiger Hill Road Brookside</td>
<td></td>
</tr>
<tr>
<td>St. Nicholas Russian Orthodox Church</td>
<td>Corner of Church Street and Park Avenue</td>
<td>1916</td>
</tr>
<tr>
<td>Burrell-Country House and Museum</td>
<td>Municipal Drive, Brookside</td>
<td></td>
</tr>
<tr>
<td>Jefferson Tunnel</td>
<td>Negron Family Property</td>
<td></td>
</tr>
<tr>
<td>Mine Entrance in Cardiff</td>
<td>Cardiff woods</td>
<td></td>
</tr>
</tbody>
</table>

---

| Blossburg Mining Town | CR 112, Linn Road | Most structures removed |

**Figure 36: Historic Photo of Russian Orthodox Church in Brookside**  
(Library of Congress, 1937)

| Rosenwald-style Schoolhouse | Main Street, Brookside | 1920? |

**Potential Funding Sources**
Matching funds for federal grants are a challenge for Brookside, as for many of the small towns. Help from the Five Mile Creek Greenway Capital Improvement Cooperative District fundraising will be the backbone of their support.
Graysville

Graysville, a community of over 2000, is located at the crossroads of Corridor X (I-22) and Highway 78. This positions the City for an increased volume of visitors and residents. Once called “Gin Town” for either cotton gins or alcohol, the city was incorporated in 1899. In the 1890’s the Alden model village was built within what is now Graysville city limits.

Figure 37: Fly Fishing in Five Mile Creek Near Old Highway 78 Bridge

Figure 38: Eagle Scout Project at Graysville Boy Scout Camp
Project Alignment

Table 34: Trail Segments for Graysville Greenway

<table>
<thead>
<tr>
<th>Segment</th>
<th>Length</th>
<th>Pedestrian Crossings</th>
<th>Jurisdiction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lindale Road Bike Route</td>
<td>3.5 miles</td>
<td>Under I-22</td>
<td>Graysville</td>
</tr>
<tr>
<td>Old 78 Hike/Bike</td>
<td>1.45 miles</td>
<td>Jasper Road</td>
<td>Private Land</td>
</tr>
<tr>
<td>Canoe Trail to Locust Fork</td>
<td>6.1 miles</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>4.95 trail miles</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>6.1 water miles</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 35: Bridge Crossings for Graysville Greenway

<table>
<thead>
<tr>
<th>Segment</th>
<th>Length (feet)</th>
<th>Bridge Location</th>
<th>Current Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lindale Road Bike Route</td>
<td>600 feet</td>
<td>Over I-22</td>
<td>New Road Bridge</td>
</tr>
<tr>
<td>Old 78 Hike/Bike</td>
<td>150 feet</td>
<td>Over Five Mile Creek</td>
<td>Existing Old 78 Bridge</td>
</tr>
</tbody>
</table>

Connections
An on-road bike trail connects downtown Graysville to the proposed Five Mile Creek Rail Trail along Lindale Road. North of the I-22 interchange, the City has built a canoe landing and primitive campground under the abandoned Highway 78 bridge, with the help of the local Boy Scouts. The abandoned Highway 78 road may also be a route for hiking and biking from the rail trail to the creek.

Right-of-Way and Ownership
The canoe launch and primitive campground are currently leased from Drummond Company for non-construction use only. The banks of the creek in this area are very steep and rocky and not suitable for mining or residential construction. If the area remains natural, this will be a beautiful addition to the Graysville area.

Alden Village and Coke Oven property is also privately owned. A heavy machinery repair business was on the property. The buildings remaining from 1928 include a company store, machine shop, quenching building, post office and bath house. Some of the stones from the coke ovens were used in home construction for Alden model village in 1928. The area around this site is owned by Drummond Company Inc. and Alawest LLC.

Major Environmental Considerations
No formal studies have been done on the environmental considerations of the proposed routes and parks. If the Alden Village and Coke Ovens site were to be developed as a park or motel area, environmental testing would need to be performed.

Type of Surface
The proposed routes on Lindale Road and Old Highway 78 are already surfaced with asphalt. Old Highway 78 may need to be resurfaced at some time to maintain a safe surface for bicyclists and pedestrians. Lindale Road was straightened and resurfaced in 2011.
Amenities
Currently Graysville Community Center has parking and restrooms that could be made available to greenway visitors. Additional restroom facilities should be included in the camping area design on Five Mile Creek. Local Boy Scouts have built a primitive campground using Leave No Trace methods in the bend of Five Mile Creek. The canoe takeout at the Old Highway 78 bridge has been improved for foot traffic through a grant from Cawaco RC&D Council. Eventually, restroom and shower facilities may need to be added to the canoe launch site for sanitation. Additional trailheads with information kiosks could be located at Linn’s Crossing and at the downtown parking area.

<table>
<thead>
<tr>
<th>Segment</th>
<th>Restroom</th>
<th>Parking</th>
<th>Trailhead</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lindale Road Bike Route</td>
<td>At Graysville</td>
<td>At Community Center</td>
<td>Proposed North end at Linn’s Crossing, South end at Community Center</td>
</tr>
<tr>
<td></td>
<td>Community Center</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Old 78 hike/bike</td>
<td>Proposed at</td>
<td>Under power line</td>
<td>South entrance to Old 78</td>
</tr>
<tr>
<td></td>
<td>primitive camp</td>
<td>right-of-way</td>
<td></td>
</tr>
<tr>
<td>Canoe Trail to Locust Fork</td>
<td>None</td>
<td>Under power line</td>
<td>None</td>
</tr>
<tr>
<td></td>
<td></td>
<td>right-of-way</td>
<td></td>
</tr>
</tbody>
</table>

Other points of interest to greenway visitors are the Mountain View Golf Course, Alden Village and Coke Ovens, Brookwood Elementary, Linn Cemetery, and Antioch Church Cemetery.

<table>
<thead>
<tr>
<th>Element</th>
<th>Location</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mountain View Golf Course</td>
<td>Graysville</td>
<td>1990’s</td>
</tr>
<tr>
<td>Alden Village and Coke Ovens</td>
<td>Graysville</td>
<td>1928</td>
</tr>
<tr>
<td>Linn’s Crossing Cemetery</td>
<td>Cardiff-Linn’s Crossing Road</td>
<td>&lt;1900</td>
</tr>
<tr>
<td>Antioch Baptist Church</td>
<td>Cardiff-Linn’s Crossing Road</td>
<td>Established 1866</td>
</tr>
</tbody>
</table>
A photo of Henry Sharp Higginbotham, also known as “‘Shorpy,’” became an icon for child labor in the coal mines around 1910. The photo of Shorpy at the Bessie Mine near Dora shows a 10-year-old covered in grease. He was photographed by Lewis Hines for a report to the National Child Labor Committee on labor conditions in Alabama. He is buried in Linn’s Crossing Cemetery. The web site www.shorpy.com is named for Higginbotham.

Figure 41: “Shorpy’ Higginbotham, 1910
CSX Transportation Cane Creek Corridor

Figure 42: View from Rail Trail

Figure 43: CSX Rail, Jefferson Tunnel
Figure 44: Five Mile Creek Rail Trail
CSX Rail to Trail

The proposed Five Mile Creek Rail Trail travels through Fultondale, unincorporated Jefferson County, Gardendale, Brookside and Graysville. The route is entirely within Jefferson County. Most of the trail is in the Five Mile Creek watershed, but crosses into the adjacent Cane Creek watershed for which it was named. The original L&N Cane Creek Branch of the Birmingham Mineral Railroad was put into service in 1903. The line was used to transport coal and coke across west Jefferson County between the Lewisburg Coke Ovens and the Black Warrior River. Surface mining began in 1912, but did not produce a significant portion of the total state production until the 1940s.

The 16.47-mile section of the CSX Railroad begins at Milepost ONC384 at Black Creek in Fultondale to Milepost ONJ400.47 at West Jefferson. The right-of-way along this section averages 100 feet. Occasional locations on the route widen to 300 feet to accommodate slopes of fill areas or former depot locations. From the eastern end of the rail line at Black Creek Junction to Interstate 65, slightly less than two miles, the adjacent land use is primarily residential with some light industry. The remaining 15 miles on the west side of I-65 traverses rural coal mining country to the end of the rail line at Banner Spur. This section passes through or near several rural communities such as Shady Grove, Upper Coalburg, Mineral Springs, Watson, Crocker Junction, Cardiff, Jet, Linn’s Crossing, Chetopa, Banner and Flat Top. Two appraisals have been conducted for this rail trail project. The reports by Norman Pless and Clayton, Roper & Marshall show detailed information on land use adjacent to the rail line.

Table 38 shows the location of at grade crossings, bridges and trestles along the 16.47-mile route. The first trestle crosses Newfound Road within 900 feet of the beginning of the route. The most impressive of these crossings is the 643-foot long and 120-foot tall timber trestle over Newfound Creek. The trestle was completely destroyed by arson in 2007, leaving a critical gap in the future rail trail.

The 215-foot long Linn’s Crossing Bridge was built in 1952 by the L&N Railroad at milepost 398. The bridge crosses Old Jasper Highway and the active Norfolk Southern Railroad at Linn’s Crossing. The bridge has three spans. The two end spans are timber trestles and the middle span is a deck plate girder.

The CSX line also travels under elevated highway bridges for Old Highway 31 and US Highway 31 in Fultondale. The route has tunnels under Interstate 65 and US Highway 78. The route crosses the following roads at grade: Yarbrough Road, Stouts Road, Leora Road, Shady Grove Road, Cliff Road, Fieldstone Road, Jew Hollow Road, Power Mill Road, Brookside-Mt. Olive Road, Joe Nail Road, Linn’s Crossing, and Old Highway 78.

The rail line crosses four municipal jurisdictions. Most of the route falls within unincorporated Jefferson County. The rest of the line travels through Fultondale, Brookside and Graysville.

<table>
<thead>
<tr>
<th>Jurisdiction</th>
<th>Feet</th>
<th>Miles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fultondale</td>
<td>20,185</td>
<td>3.8</td>
</tr>
<tr>
<td>Unincorporated Jefferson County</td>
<td>50,697</td>
<td>9.6</td>
</tr>
<tr>
<td>Brookside</td>
<td>13,310</td>
<td>2.5</td>
</tr>
<tr>
<td>Graysville</td>
<td>3,260</td>
<td>0.6</td>
</tr>
<tr>
<td>Milepost</td>
<td>Section Width (feet)</td>
<td>Section Length (feet)</td>
</tr>
<tr>
<td>----------</td>
<td>----------------------</td>
<td>-----------------------</td>
</tr>
<tr>
<td>384</td>
<td>100</td>
<td>990</td>
</tr>
<tr>
<td>384</td>
<td>545</td>
<td>3480</td>
</tr>
<tr>
<td>384.83</td>
<td>100</td>
<td>3480</td>
</tr>
<tr>
<td>385</td>
<td>100</td>
<td>4750</td>
</tr>
<tr>
<td>385</td>
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</tr>
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<td>385.18</td>
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<td>386</td>
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<td>5455</td>
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<td>387</td>
<td>100</td>
<td>4250</td>
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<tr>
<td>387.3</td>
<td>200</td>
<td>500</td>
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<tr>
<td>388-390+</td>
<td>100</td>
<td>13,365</td>
</tr>
<tr>
<td>388.2</td>
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<td>389</td>
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<tr>
<td>389.3</td>
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<td>390</td>
<td>230</td>
<td>550</td>
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<tr>
<td>390.2</td>
<td>170</td>
<td>300</td>
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<td>390.4</td>
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<td>390.7</td>
<td>100</td>
<td>9730</td>
</tr>
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<td>392</td>
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<td>392.5</td>
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<tr>
<td>394.1</td>
<td>150</td>
<td>900</td>
</tr>
<tr>
<td>394.2</td>
<td>320</td>
<td>418</td>
</tr>
<tr>
<td></td>
<td>150</td>
<td>300</td>
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</table>
Table 39: Rail Trail Segments and Crossings (continued)

<table>
<thead>
<tr>
<th>Milepost</th>
<th>Section Width (feet)</th>
<th>Section Length (feet)</th>
<th>Road Crossing</th>
<th>Name of Over/Under</th>
<th>Municipal Jurisdiction</th>
</tr>
</thead>
<tbody>
<tr>
<td>395-395.5</td>
<td>100</td>
<td>875</td>
<td></td>
<td></td>
<td>Brookside</td>
</tr>
<tr>
<td>395.3</td>
<td>220</td>
<td>425</td>
<td>Wide ROW</td>
<td>Near Jet</td>
<td>Brookside</td>
</tr>
<tr>
<td>395.5-397</td>
<td>100</td>
<td>15,047</td>
<td></td>
<td></td>
<td>Unincorporated Jefferson County</td>
</tr>
<tr>
<td>397-397.5</td>
<td>100</td>
<td>2,050</td>
<td></td>
<td></td>
<td>Graysville</td>
</tr>
<tr>
<td>397.2</td>
<td>100</td>
<td>310</td>
<td>Small Bridge Near Cane Creek</td>
<td></td>
<td>Graysville</td>
</tr>
<tr>
<td></td>
<td>100</td>
<td>3,200</td>
<td></td>
<td></td>
<td>Unincorporated Jefferson County</td>
</tr>
<tr>
<td>397.5</td>
<td></td>
<td></td>
<td>Linn’s Crossing</td>
<td></td>
<td>Unincorporated Jefferson County</td>
</tr>
<tr>
<td>397.6</td>
<td></td>
<td></td>
<td>Linn’s Crossing</td>
<td></td>
<td>Unincorporated Jefferson County</td>
</tr>
<tr>
<td>398</td>
<td>100</td>
<td>2,342</td>
<td>Becky Linn</td>
<td>Trestle Over Becky Linn/Norfolk Southern RR</td>
<td>Unincorporated Jefferson County</td>
</tr>
<tr>
<td>398.3</td>
<td></td>
<td></td>
<td>Highway 78</td>
<td>Tunnel Under Highway 78</td>
<td>Unincorporated Jefferson County</td>
</tr>
<tr>
<td>398-398.5</td>
<td>100</td>
<td>900</td>
<td></td>
<td></td>
<td>Graysville</td>
</tr>
<tr>
<td>398.5-400</td>
<td>100</td>
<td>11,000</td>
<td></td>
<td></td>
<td>Unincorporated Jefferson County</td>
</tr>
<tr>
<td>398.5</td>
<td></td>
<td></td>
<td>Old Highway 78</td>
<td>At Grade</td>
<td>Unincorporated Jefferson County</td>
</tr>
<tr>
<td>399</td>
<td>300</td>
<td>380</td>
<td>Bridge Over Tributary</td>
<td></td>
<td>Unincorporated Jefferson County</td>
</tr>
<tr>
<td>400</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>End</td>
</tr>
<tr>
<td>*401.25</td>
<td></td>
<td></td>
<td>Trestle Over Five Mile Creek</td>
<td></td>
<td>Unincorporated Jefferson County</td>
</tr>
<tr>
<td>*401.5</td>
<td></td>
<td></td>
<td>Banner Mine Tunnel</td>
<td></td>
<td>Unincorporated Jefferson County</td>
</tr>
</tbody>
</table>

* Feature not in Rail Trail property jurisdiction.

Connections
In 2005, a series of trail location studies were conducted along the CSX rail line to further define connections to the future rail trail from rural municipalities. Fultondale and Brookside participated in the feasibility studies.
### Table 40: Connections to Rail Trail

<table>
<thead>
<tr>
<th>Jurisdiction</th>
<th>Connection</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fultondale</td>
<td>Children’s Park</td>
</tr>
<tr>
<td>Fultondale</td>
<td>Black Creek Park</td>
</tr>
<tr>
<td>Fultondale</td>
<td>Mary Lee Rail Trail</td>
</tr>
<tr>
<td>Fultondale</td>
<td>Black Creek Spur to Five Mile Creek</td>
</tr>
<tr>
<td>Brookside</td>
<td>Cornerstone Ranch (Private)</td>
</tr>
<tr>
<td>Brookside</td>
<td>Brookside Hike/Bike Trail</td>
</tr>
<tr>
<td>Graysville</td>
<td>Lindale Road Bike Trail</td>
</tr>
<tr>
<td>Graysville</td>
<td>Old Highway 78 Hike/Bike Trail</td>
</tr>
<tr>
<td>Gardendale</td>
<td>Clemons Park at Fieldstone Road</td>
</tr>
</tbody>
</table>

### Right-of-Way and Ownership

About 10% of the rail line is owned fee simple by CSX Transportation and 90% right-of-way easements. The total right-of-way is 228.14 acres. CSX Transportation retains ownership of the property. In 2003, the property was railbanked under Section 8(d) of the National Trails Systems Act to preserve established railroad corridors for interim trail and future transportation uses. The current interim trail use proponent is the City of Fultondale, Alabama.

### Major Environmental Considerations

In 2002, when CSX filed to close the Cane Creek Branch rail line, an environmental assessment was performed before the track and ties were removed. The results concluded that “the quality of the human environment will not be affected significantly as a result of the abandonment or any post-abandonment activities, including salvage and disposition of the ROW.” CSX also submitted the results of the historic investigation. “SHPO (State Historic Preservation Office) has submitted comments stating that no historic properties listed in or eligible for inclusion in the National Register of Historic Places would be affected by the proposed abandonment.”

Although an environmental document is not needed to complete the purchase of the property from CSX Transportation, an environmental document will be required if any federal funds are used toward the purchase of the rail trail. In July 2005, Gresham Smith and Partners completed a Phase I Environmental Site Assessment (ESA) of the 16.47-mile Cane Creek Branch Railroad.

The Freshwater Land Trust was awarded a Brownfield Assessment Grant in 2007 to further complete required environmental documents. In 2010, most of the rail line was evaluated for contaminants with a Phase I and Phase II Environmental Assessment.

### Type of Surface

The advice the Rail to Trails Conservancy gives on the type of surface for rail beds considers the intended use and costs. Hard surfaces, such as asphalt and concrete, are more expensive but accommodate more types of trail use. Hard surface trails also require less maintenance, but replacement costs should also be considered. The asphalt on the Chief Ladiga Trail in Northwest Alabama required replacement after 15 years of use. Concrete trails can last up to 25 years. Trail users on wheels – street bicycles, skates, wheelchairs – prefer hard surfaces with low grade.
Soft surfaces are less expensive, but do not hold up as well under heavy use and weather conditions. Many trail hikers prefer compacted soft surface for ease on bones and joints. If the trail or part of the trail is used for equestrians, crushed stone is better than hard concrete on horse hooves. Other soft surface options include soil cement, resin-based stabilized material, boardwalks and recycled rubber. Boardwalks are the most expensive per mile to build, followed by concrete and asphalt.

**Table 41: Cost Estimate for Trail Surfaces (per mile)**

<table>
<thead>
<tr>
<th>Material</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asphalt</td>
<td>$200K - $300K</td>
</tr>
<tr>
<td>Concrete</td>
<td>$300K - $500K</td>
</tr>
<tr>
<td>Crushed/Granular Stone</td>
<td>$80K - $120K</td>
</tr>
<tr>
<td>Soil Cement</td>
<td>$60K - $100K</td>
</tr>
<tr>
<td>Resin-Based Stabilized Material</td>
<td>Varies</td>
</tr>
<tr>
<td>Boardwalk</td>
<td>$1.5 million – $2 million</td>
</tr>
</tbody>
</table>

**Amenities**

To best access the proposed Rail Trail and the trial connections, various locations have been suggested for future development of rest areas. These areas may include parking for trail visitors, kiosks for trail information, restrooms for trail users, shelter for gathering, small rail museum, bike shop, or snack shop. Other rail trails have developed these amenities to accommodate user needs and increase the economic contribution of the trail to the local economy. Several photos show the possibilities for amenities along the rail trail.

**Table 42: Amenities on Rail Trail**

<table>
<thead>
<tr>
<th>Segment</th>
<th>Mile ONC</th>
<th>Restroom</th>
<th>Parking</th>
<th>Trailhead</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fultondale Black Creek Park</td>
<td>384.83</td>
<td>Existing</td>
<td>Existing</td>
<td>Proposed Kiosk</td>
</tr>
<tr>
<td>Fieldstown Road</td>
<td>389.3</td>
<td>None</td>
<td>Proposed</td>
<td>Proposed</td>
</tr>
<tr>
<td>Watson Depot</td>
<td>390</td>
<td>Proposed</td>
<td>Proposed</td>
<td></td>
</tr>
<tr>
<td>Newfound Trestle</td>
<td>392.5</td>
<td>Proposed</td>
<td>Proposed</td>
<td></td>
</tr>
<tr>
<td>Linn’s Road Crossing</td>
<td>397.5</td>
<td>Proposed</td>
<td>Proposed</td>
<td></td>
</tr>
<tr>
<td>Old Jasper Hwy at Old Highway 78</td>
<td>398.5</td>
<td>Proposed</td>
<td>Proposed</td>
<td></td>
</tr>
<tr>
<td>Flat Top Mine Road</td>
<td>402+</td>
<td>Proposed</td>
<td>Proposed</td>
<td></td>
</tr>
</tbody>
</table>
Potential Funding Sources
Development funding for this rail trail might best be found through support from the Capital Improvement District or private donations. The use of federal funds would likely set the project on a 5-10 year completion schedule. Due the remoteness of the trail and existing problems with off-road vehicle traffic and vandalism, the rail trail should be secured and patrolled as soon as possible after it has been purchased.

Identify Established Greenway Implementations Models
Other rail trails in the southeast have been successfully used without asphalt or concrete paving. Rail trail implementation models are strongest in Limestone County, Alabama and the Chief Ladiga Trail in Calhoun and Cleburne counties. The rail trail development, management and maintenance involve a multi-faceted group of regional planning agencies and city governments.
Five Mile Creek Water Trail

One of the amazing features of the Five Mile Greenway is the access to a 26-mile canoe trail within 20 minutes of downtown Birmingham. The Five Mile Creek Canoe & Company began in 2007 as a private business serving canoers, kayakers, and fisherman, with boat rental and shuttle service. The drought during the summer of 2007 prompted the sale of the business to the Town of Brookside. This unique small town amenity has put Brookside on the map for family adventure. Visitors from as far away as Russia, upstate New York, and California have experienced Five Mile Creek. In the future, the town hopes to join the statewide network of the Alabama Scenic River Trail.

Figure 48: Canoe Trail Under Railroad Trestle

Figure 49: Spring Kayak Trip
Five Mile Creek Canoe Launches

Figure 50: Five Mile Creek Canoe Trail
Table 43: Five Mile Creek Water Trail Segments

<table>
<thead>
<tr>
<th>Stream Mile</th>
<th>Segment</th>
<th>Location</th>
<th>Nearest Street</th>
<th>Ownership</th>
<th>Jurisdiction</th>
</tr>
</thead>
<tbody>
<tr>
<td>31.4</td>
<td>1</td>
<td>Lewisburg at Hwy 31</td>
<td>Ellard Road</td>
<td>Fultondale</td>
<td></td>
</tr>
<tr>
<td>26</td>
<td>2</td>
<td>Coalburg Bridge</td>
<td>Coalburg Road</td>
<td>County ROW</td>
<td>Unincorporated Jefferson County</td>
</tr>
<tr>
<td>3</td>
<td>3</td>
<td>Republic Road Bridge</td>
<td>Republic Road</td>
<td>County ROW</td>
<td>Unincorporated Jefferson County</td>
</tr>
<tr>
<td>4</td>
<td>4</td>
<td>Underwater Bridge</td>
<td>Bracket Loop Road</td>
<td>Private Road</td>
<td>Unincorporated Jefferson County</td>
</tr>
<tr>
<td>16.2</td>
<td>5</td>
<td>Valley Canoe Launch</td>
<td>Valley Drive</td>
<td>Developed Launch</td>
<td>Brookside</td>
</tr>
<tr>
<td>15.6</td>
<td>6</td>
<td>Main Street Bridge</td>
<td>Brookside-Mt Olive Rd (Main St.)</td>
<td>Town of Brookside</td>
<td>Brookside</td>
</tr>
<tr>
<td>15.2</td>
<td>7</td>
<td>Brookside Canoe &amp; Company</td>
<td>Park Avenue</td>
<td>Town of Brookside</td>
<td>Brookside</td>
</tr>
<tr>
<td>12.7</td>
<td>8</td>
<td>Prudes Creek</td>
<td>Water Trail Road</td>
<td>Jefferson County</td>
<td>Unincorporated Jefferson County</td>
</tr>
<tr>
<td>6.1</td>
<td>9</td>
<td>Graysville Canoe Park</td>
<td>Old Highway 78 (abandoned)</td>
<td>Lease to City of Graysville</td>
<td>Graysville</td>
</tr>
<tr>
<td>0</td>
<td>10</td>
<td>Locust Fork</td>
<td>None</td>
<td>Private</td>
<td>Unincorporated Jefferson County</td>
</tr>
<tr>
<td>2.9+</td>
<td>11</td>
<td>Flat Top</td>
<td>Flat Top Road</td>
<td>Private</td>
<td>Unincorporated Jefferson County</td>
</tr>
<tr>
<td>6.1+</td>
<td>12</td>
<td>Miller Steam Plant</td>
<td>Porter Road</td>
<td>Private</td>
<td>Unincorporated Jefferson County</td>
</tr>
</tbody>
</table>

Connections
Developed canoe launches in Brookside and Graysville offer connections to local amenities. The Five Mile Creek Canoe & Company provides boats and shuttle service for the creek from Brookside Park. The park is developing a campground with water and electricity for overnight camping.

Right-of-Way and Ownership
Canoe launches located on land managed by municipalities are located at Valley Drive in Brookside, Main Street Bridge in Brookside, Bensko Park in Brookside, and Graysville Canoe Launch on Old Highway 78. Other connections require permission of the owner, which may be obtained through the Five Mile Creek Canoe & Company or the Town of Brookside.

Major Environmental Considerations
Water quality of Five Mile Creek has been monitored by Jefferson County Environmental Services. Water chemistry testing, fish sampling and benthic sampling have been performed upstream and downstream of the Five Mile Creek and Prudes Creek Wastewater Treatment Plants. Five Mile Creek has been used for discharge in industrial materials related to the coal industry since the first mining and processing of coal in the late 1800’s. The water quality was so poor that the creek was nick named “creosote creek” because of the contamination. Since environmental regulations in the 1970’s, the water quality has improved. Current water quality challenges include stormwater runoff and abandoned mine drainage into the creek.
Amenities

Table 44: Amenities on Five Mile Creek Water Trail

<table>
<thead>
<tr>
<th>Segment</th>
<th>Restroom</th>
<th>Parking</th>
<th>Camping</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valley Creek</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Five Mile Creek Canoe Company</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Graysville Canoe Launch</td>
<td>Proposed</td>
<td>Yes</td>
<td>Proposed</td>
</tr>
<tr>
<td>Miller Steam Plant</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
</tbody>
</table>

Potential Funding Sources
Support of the Five Mile Creek Canoe & Company, and development of campgrounds and amenities depends on revenue from the canoe rental and the annual Brookside Greenway Festival. Brookside has fewer than 1,400 residents, so continued support from the Five Mile Creek Greenway Partnership and the Five Mile Creek Greenway Capital Improvement District will help maintain this business as an integral part of the Five Mile Creek Greenway system. In the future, the town may need to hire a manager for the canoe company and campgrounds.