



Five Mile Creek Greenway

BIRMINGHAM, AL
2007 REGION 4 WINNER

Key Project Lesson: Multi-community cooperation can overcome liability concerns and lead to mutual benefits from collaborative greenspace efforts.

Overview

The Five Mile Creek Greenway project applied an innovative approach to brownfield redevelopment by converting multiple brownfield sites along the creek into usable greenspace, establishing a powerful framework for a 28-mile greenway system through Jefferson County, Alabama. The greenway protects water quality and restores the creek as an asset to the five cities through which it flows—Tarrant, Fultondale, Birmingham, Brookside, and Graysville. Restoration of the Five Mile Creek watershed by these cities required a combination of innovative thinking and partnerships as well as pooling their collective talents.

The cities along Five Mile Creek share a history of mining and foundry work. The industrialization of Five Mile Creek led to years of neglect and pollution of large segments of the watershed, earning it the nickname of “Creosote Creek.” The cities have struggled to survive economically, in large part due to the negative reputation of the creek. As a result, it was imperative to generate a new public image for the stream by improving recreational opportunities and taking steps to protect the aquatic life sustained by the watershed. A significant component of this effort involves assessing and remediating several properties on the banks of Five Mile Creek to mitigate the continued discharge of contaminants into the watershed. Successful management of the select sites will provide a roadmap for future cleanup activities benefiting multiple communities.

Participants

- Freshwater Land Trust
- Five Mile Creek Partnership

Primary Reason for Redevelopment

This area was selected for redevelopment by local leaders who were willing to work together to turn a polluted stream into an asset and amenity. When the redevelopment project was initiated, residents from all of the communities along Five Mile Creek participated in public meetings. They identified the major environmental concerns in each city and then selected priority sites that were of greatest local concern.

Approach

Working through the Jefferson County Commission, a meeting was arranged to bring the five cities together with other interested stakeholders to discuss improving Five Mile Creek’s health. The result was the historic signing of an official memorandum of agreement (MOA) between the cities, the Jefferson County Commission, the Birmingham Regional Planning Commission, the Freshwater Land Trust, and the Cawaco Resource Conservation and Development Council, a local non-profit working on water quality issues. The MOA stated that the partners would work together to clean up the creek by creating a series of parks and greenways along its 28-mile corridor.

The MOA proved to be a catalyst for momentum. Local leaders worked with their Congressional delegation to secure \$1.2 million in transportation funding for the first leg of the greenway. Federal partners, including the U.S. Geological Survey (USGS), matched private funds raised by the Freshwater Land Trust for water quality and flood studies. The Alabama Power Service Organization (an employee association) adopted the Five Mile Creek Greenway as a volunteer project and began conducting regularly scheduled workdays along the creek. In addition, private landowners began giving land or offering it for sale to the partnership for the park and greenway system.

Through the Freshwater Land Trust, the Five Mile Creek partners applied for and received a \$200,000 assessment grant from EPA's brownfield program. The land trust organized a series of public meetings in each community along the creek, which allowed hundreds of residents to identify on maps the locations of abandoned mines, former coke oven sites, dry cleaners, and other brownfield sites. The information was compiled, and the partners worked with USGS experts to select the top-priority sites for environmental site assessment in each community. Assessments were completed on six brownfield sites along the stream.

Innovative Techniques

The Five Mile Creek Greenways Partnership used land conservation as a strategy to encourage stream cleanup while promoting community revitalization and economic growth. Because the financial resources of the cities were limited, the partnership joined stakeholders to create one voice. This partnership raised public awareness and began to garner favorable attention from the media, elected officials, grant makers, and federal, state, and local agencies. The partners have tapped a variety of economic and environmental programs to accomplish their goals, including land and water conservation funding; EPA brownfield grants, Five Star grants, and Smart Growth Initiative tools; interns donated from the federal Office of Surface Mining; Rails to Trails; transportation enhancement grants; and others. Private land donations and private foundation gifts also have been used to develop the greenway. Recognizing the importance of the stream to their mutual welfare, partners in the MOA agreed that all development conducted as part of the greenway would incorporate the highest design standards to protect water quality.

Challenges

The greatest obstacle to redevelopment was erasing the image of the Five Mile Creek as a contaminated stream and devising an approach to address contamination. As environmental controls became more effective, discharges into the stream were minimized, and aquatic populations began to recover. But the long history of contamination has left its mark. Many people had problems trying to save a stream that they equated with acid mine drainage and creosote contamination. Convincing them that this distressed stream could have a healthy and productive future as a recreational and food source was difficult.

Benefits

The recovering stream and the growing greenway network are attracting new visitors to the area to canoe, camp, hike, and cycle. Increasingly, residents are taking advantage of the new recreational amenities as well, which is stimulating other new activity in the region. Brookside is building a new city hall. In addition, a new business in town is providing services to visiting canoeing enthusiasts. Tarrant is in active discussions with business representatives looking to develop the Vulcan Rivet and Bolt property near the new Billy Hewitt Park, which was built by 200 volunteers in a single day as part of the greenway development. Fultondale and Graysville have new park and housing developments underway. Greenway events are generating new tax revenue, and property values have stabilized. Perhaps even more importantly, residents are now looking to stay. It will be years before the full economic impact of the greenway is realized, but all partners in the Five Mile Creek project agree that the greenway has brought new development, a new image, and new economic life to the area.

Before



After



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Names of Participants: Freshwater Land Trust, Five Mile Creek Partnership

Number of Acres: The Five Mile Creek watershed encompasses over 47,000 acres. The acreages of the sites that have undergone assessments are listed below.

Assessment Sites	Acres
1. Vulcan Rivet & Bolt	7.5
2. Tarrant Park	16
3. Brookside Park	18
4. Lewisburg Coke Oven Park	18
5. Walkers Chapel Mine	32
6. Sloss at Coalburg Mine	301
Total Assessed	391

Former Uses

- 1. Vulcan Rivet & Bolt:** tool and die manufacturing facility
- 2. Tarrant Park:** mobile home community
- 3. Brookside Park:** farm operation proximate to the former Brookside Mine and Coke battery operation.
- 4. Lewisburg Coke Oven Park:** beehive coke oven/coke production facility
- 5. Walkers Chapel Mine:** coal mine
- 6. Sloss at Coalburg Mine:** coal mine

Former number/Types of jobs: varies by site

New number/Types of jobs: varies by site

Type of Site: industrial, primarily mines and foundries

List of Major Contaminants: varies by site

Major Contaminants

- 1. Vulcan Rivet & Bolt:** lead, arsenic, iron, zinc, manganese, petroleum, and possible solvent contamination, primarily in soil and sediment
- 2. Tarrant Park:** none
- 3. Brookside Park:** arsenic
- 4. Lewisburg Coke Oven:** arsenic, copper, chromium, iron, manganese, selenium and polycyclic aromatic hydrocarbons (PAHs) in soil
- 5. Walkers Chapel Mine:** acid mine drainage with arsenic, copper, nickel, zinc, and PAHs
- 6. Sloss at Coalburg Mine:** arsenic, copper, iron, manganese, zinc, and lead in soil

Magnitude of Contaminants

- 1. Vulcan Rivet & Bolt:** lead in soil exceeding Alabama Department of Environmental Management (ADEM) preliminary screening value (PSV) of 400 ppm, arsenic in soil above ADEM PSV of 0.4 ppm
- 2. Tarrant Park:** none
- 3. Brookside Park:** arsenic in one soil sample exceeding ADEM PSV of 0.4 ppm
- 4. Lewisburg Coke Oven:** arsenic exceeding ADEM PSV of 0.4 ppm, chromium exceeding ADEM PSV of 30 ppm, PAH's 23,000 ppb in stream sediment.
- 5. Walkers Chapel Mine:** inconclusive: additional testing in process
- 6. Sloss at Coalburg Mine:** arsenic, iron, manganese, and lead exceeding the ADEM PSVs

Greatest Challenge: stigma of contamination

Length of Time to Remediate Site: 1 - 3 years, depending on the site

Primary Reason for Redevelopment: revitalize communities by revitalizing watershed

Redevelopment

- 1. Vulcan Rivet & Bolt:** potential uses include warehousing, commercial, retail/mixed-use, and incorporation of greenspace
- 2. Tarrant Park:** park with walking trails, picnic pavilions and other amenities
- 3. Brookside Park:** 18-acre park with walking and biking trails, canoe launches, camping, fishing, and other outdoor recreational activities
- 4. Lewisburg Coke Oven Site:** design concepts developed for conversion into a historical park and connection to adjacent trail and greenway systems is under development.
- 5. Walkers Chapel Mine:** planned recreational
- 6. Sloss at Coalburg Mine:** large-scale reforestation and stabilization of the most sensitive areas of site

Years Abandoned or Challenged: 3 - 40 years, depending on the site

Cleaned up under Consent Decree: no

List of Financial Assistance: revolving loan fund monies

Community Outreach Activities: public meetings, creative use of public as site assessment "eyes and ears"

Innovative Economic Development: incorporation and promotion of nature-based tourism as a to provide stimulus for residential and retail development in rural and otherwise economically challenged communities, driving a new sustainability model for those communities along the Greenway

Land Conservation: multi-jurisdictional greenway

Federal Partners: EPA, U.S. Geological Survey, Federal Emergency Management Agency