

SUNDAY FORUM

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FIRST
 IN PRINT

Spanning 37 political jurisdictions, the Mill Creek waterway has become Cincinnati's dumping ground. Without a course of action, it might stay that way.

MILL CREEK: WHAT'S THE PLAN?



The Enquirer/Amie Dworecki
 Eighth-grader Daisha Johnson (right) carries a net with lake management technician Tracy Sparks to collect debris from Mill Creek at Covered Bridge Road. As an educational program for students, Mill Creek Restoration gathered seventh- and eighth-graders from Quebec Heights Elementary to do water collection and tests.

Millions spent, but collective solution needed

BY JESSICA BROWN ■ jlbrown@enquirer.com

The Mill Creek helped build Cincinnati. And the city nearly killed it. After fostering Cincinnati's industry, the meandering waterway became the city's dumping ground and remains unfit for people to swim in or for most fish to live in.

But advocates see a much greener, brighter future for this often forgotten creek.

"Will it ever be fixed? Of course it will one day be fixed," said Warren High, an environmental scientist and project manager for a company which has built several restoration projects along the creek. "It will be a gem in the center of our city and backyards along it will be front yards. It will revitalize the heart of the city."

Sections of a new bike trail are now open. Wetlands are being restored. But progress has been slow, despite the efforts of nearly half a dozen organizations, years and years of reports, and millions of dollars spent.

Some groups are focused on flood control, some on environmental cleanup – and sometimes the two conflict. Flood control has often meant channelizing – lining the creek with ugly concrete walls. Others picture a more natural creek, lined with bike trails.

One key problem, The Enquirer found: There is no one person or group in charge of the Mill Creek. There's no master plan to repair the troubled watershed south of the Butler County line.

'Animals are living here'

The Mill Creek watershed cov-

ers 166 square miles and 37 communities. It is home to nearly half a million people.

The creek itself and its two main forks has been many things to many people – a hunting path for Native Americans, a power supply for pioneers' mills, a canal route for industries and an escape route for fleeing slaves.

But people also used it as a dumping ground for industrial waste, sewage and even blood from slaughterhouses. Stripped of trees, prone to floods and full of pollution, the creek soon became a liability.

"So goes the Mill Creek, so goes the future of Cincinnati," said Michael Miller, an emeritus University of Cincinnati biologist who has spent decades restoring the creek. "We aren't going to develop much faster than our worst site."

Dozens of projects are planned.

In Sharonville, for example, several governments and organizations created a flood control plan at the confluence of the main stem and the East Branch of the

A Creek's Rebirth

The Mill Creek was once designated one of the country's most endangered waterways. Today, dozens of projects are under way or have been completed to clean the water, prevent flooding and improve the creek's corridor. Here are some of them.



Confluence Stream Restoration Project

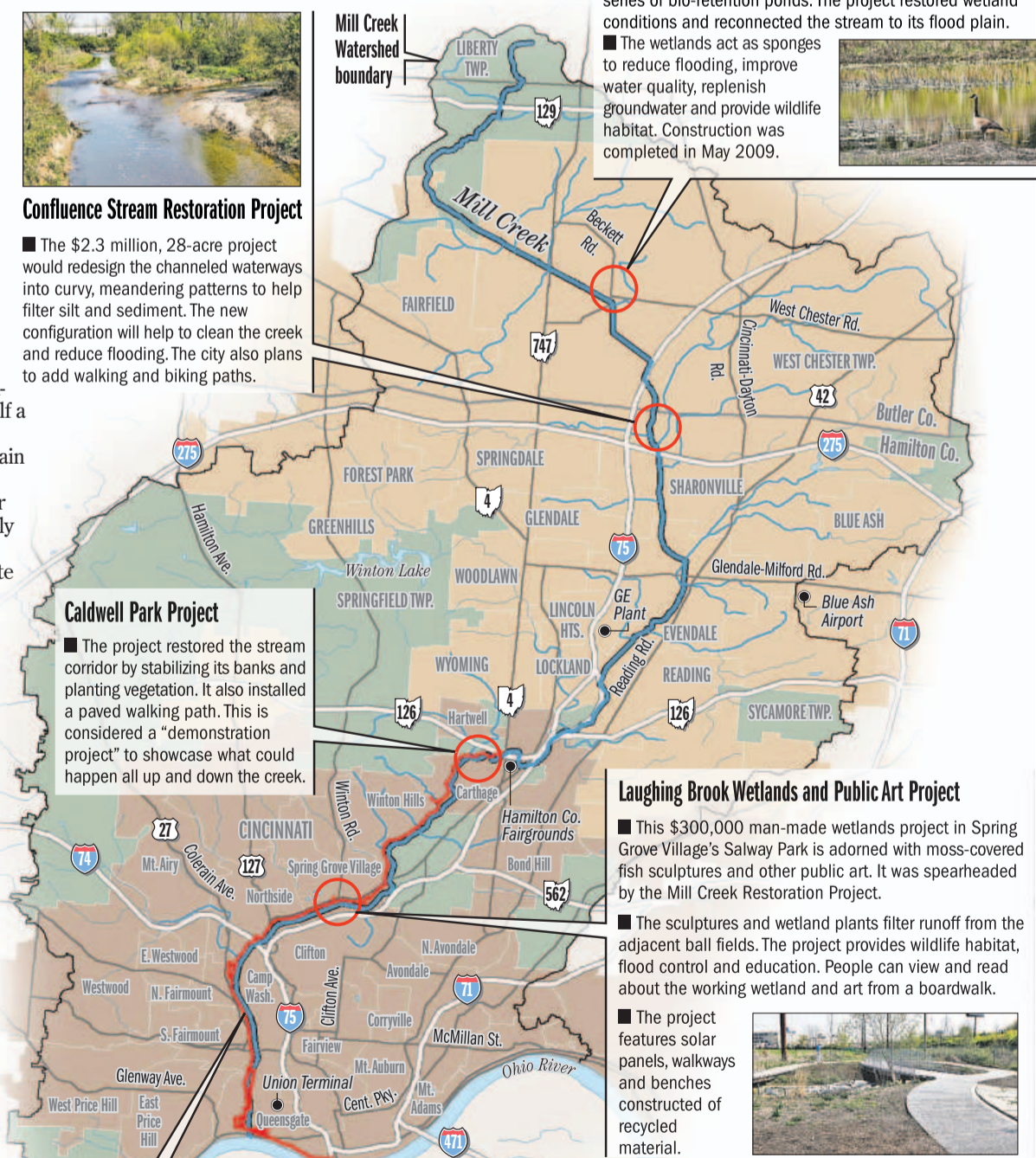
The \$2.3 million, 28-acre project would redesign the channeled waterways into curvy, meandering patterns to help filter silt and sediment. The new configuration will help to clean the creek and reduce flooding. The city also plans to add walking and biking paths.

Caldwell Park Project

The project restored the stream corridor by stabilizing its banks and planting vegetation. It also installed a paved walking path. This is considered a "demonstration project" to showcase what could happen all up and down the creek.

Headwaters Project

Two traditional storm-water basins were converted into a series of bio-retention ponds. The project restored wetland conditions and reconnected the stream to its flood plain. The wetlands act as sponges to reduce flooding, improve water quality, replenish groundwater and provide wildlife habitat. Construction was completed in May 2009.



Cincinnati Mill Creek Greenway Trail (proposed)

This proposed \$13 million (estimated), 13.5 mile trail would stretch along the Mill Creek from Carthage to the Ohio River connecting almost a dozen cities and neighborhoods. Planners envision the trail as a route for recreation and commuting. A total of 3.5 miles of the trail is built or is under construction. A University of Cincinnati study found that the trail would create 445 jobs and pour \$54 million into the economy.

Laughing Brook Wetlands and Public Art Project

This \$300,000 man-made wetlands project in Spring Grove Village's Salway Park is adorned with moss-covered fish sculptures and other public art. It was spearheaded by the Mill Creek Restoration Project. The sculptures and wetland plants filter runoff from the adjacent ball fields. The project provides wildlife habitat, flood control and education. People can view and read about the working wetland and art from a boardwalk. The project features solar panels, walkways and benches constructed of recycled material.



Text by Jessica Brown, photos by Amie Dworecki and graphics by Mike Nyerges/The Enquirer

INSIDE, ONLINE

A timeline of Mill Creek from the 1800s and a list of groups working to preserve the waterway. **Page F5**
 Photos, quiz at **Cincinnati.Com**. Search: **Mill Creek**

MILL CREEK TIMELINE

- **1800s:** The Mill Creek Valley is settled. Settlers bring industry. Decline of the creek begins.
- **Jan. 24, 1937:** The Mill Creek turns into a raging river during the Flood of 1937. Gasoline spills from toppled tanks and catches fire. The burning creek claims many homes and businesses.
- **1959:** Floods cause millions of



Enquirer file

■ **1957:** Mill Creek curve at Mitchell Avenue is straightened and moved northwest. Crib walls are built and the channel floor is paved to protect the bank.

damage to businesses along the Mill Creek.

- **1962:** Mill Creek Conservancy District is formed to act as the local liaison for Army Corps of Engineers' flood-control projects.
- **1981:** After much planning, the Corps of Engineers begins work on Mill Creek flood control project that calls for channelizing roughly 17 miles of the creek.
- **1991:** Corps of Engineers abandons the project because of spiraling costs and lack of money.
- **1992:** Ohio EPA study finds pollution and recommends no public contact with the stream.
- **1993:** Hamilton County Environmental Commission declares Mill Creek the worst environmental problem in Greater Cincinnati
- **1994:** Mill Creek Restoration Project, an advocacy group, forms.
- **1996:** Mill Creek communities form a watershed council – a multi-jurisdictional approach to watershed management. This group crafts a master watershed plan for Upper Mill Creek in Butler County.
- **1997:** The creek is designated the "most endangered urban river in North America" by the conservation group American Rivers.
- **1998:** Mill Creek floods again. People rescued from the tops of their cars.



The Enquirer/Glenn Hartong, file

■ **1998:** Bob Krebs, a driver with a trucking company on Mosteller Road in Sharonville, wades through debris and high water from the flooded Mill Creek.

- **Aug. 1998:** The Army Corps launches a \$2.5 million study to figure out how to complete its abandoned flood-control project.
- **April 2000:** Workers on the Upper Mill Creek Wastewater Treatment facility in Butler County uncover a woolly mammoth leg bone and tooth.
- **July 17, 2001:** Floods again rip through region, killing three and causing millions in damage. GE plant has \$40 million in damage to equipment and inventory.
- **January-July 2001:** Homes are torn down along the West Fork of the Mill Creek flood plain in Colerain Township. The Federal Emergency Management Agency provides money to buy the houses.
- **August 2001:** Corps of Engineers considers a "deep tunnel," a 16-mile long, 30-foot diameter tunnel underneath the river to contain floodwater. The project is too expensive and is rejected.
- **2005:** Corps of Engineers recommends a \$606 million creek-widening project stretching from Sharonville to Arlington Heights to protect 1,900 homes and businesses from floodwaters of the Lower Mill Creek. The project calls for more channelizing. The project would be completed by 2014 but never gets off the ground because the local communities can't come up with their share.
- **July 14, 2005:** West Chester Township gets Clean Ohio grant for \$618,000 to buy and preserve 300 acres along the Upper Mill Creek Conservation Corridor. The corridor runs from Gilmore Ponds in Hamilton to behind the Rave Motion Pictures at the Streets of West Chester.
- **April 19, 2006:** Cincinnati City Council passes a resolution to acquire permanent conservation easements on property owned by the Mill Creek Valley Conservancy district. This act is taken on Earth Day and reaffirms the city's commitment to its Mill Creek Greenway Program.



The Enquirer/Amie Dworecki

Mill Creek, shown here near Caldwell Park, was declared the country's most endangered urban waterway in 1997. This section is considered its most pristine, thanks to a nearly \$5 million, 2-mile restoration. A unified plan has yet to coordinate the creek's many projects.

Mill Creek: Watershed needs plan

From Page F1

Mill Creek, just north of Interstate 275. When finished, it will keep water from rising up into the basements of Mosteller Road businesses.

The project will put curves in the creek, turning straight waterways into meandering streams to control floods and create habitat for wildlife. The city also hopes to build walking trails along the creek.

As far as pollution goes, the Metropolitan Sewer District is the creek's biggest offender. Because of the way its sewers were built, the district annually spills millions of gallons of untreated sewage into the Lower Mill Creek and its tributaries when it rains. Therefore the district – and its ratepayers – will also be the biggest contributor to cleaning the creek.

The district is under court order to upgrade its system and plans \$3.5 billion in improvements to sewers, much of that in the Lower Mill Creek Watershed, which stretches from the Ronald Reagan Highway to the Ohio River. It plans to include environmentally friendly ideas such as green roofs, parks and porous pavement – things that will make the creek an asset and draw for redevelopment.

Cincinnati's Revive I-75 plan, which would revamp the Interstate 75 corridor, calls for a greenway with trees, biking and walking paths along the interstate's corridor. The plan calls for Mill Creek to be restored to its former natural, clean state.

One project is already finished: a nearly \$5 million, 2-mile stretch of restored creek and bike paths in Carthage's Caldwell Park.

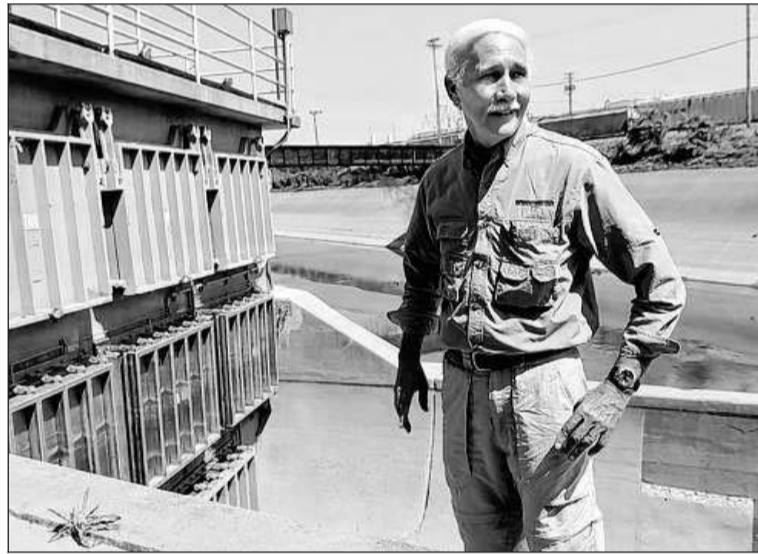
"This is the best chunk of restored river," said UC's Miller. He's been involved in Mill Creek projects for decades and gains hope from projects like this. This is the cleanest section of the Mill Creek. The water tumbles serenely along its pebble-lined path. On nearby roads, signs with pictures of smiling blue fish inform motorists they are in the Mill Creek Watershed, so they should "keep it clean." Education, advocates say, is as important as construction for the waterway. The Mill Creek Watershed Council installed 130 such creek crossings in 19 communities in Hamilton County. The nonprofit Mill Creek Restoration Project brings thousands of school groups to the creek every year for environmental lessons.

A huge field in West Chester has been transformed into a flood-reducing wetland complete with deer, beaver, birds and even coyotes.

"Listen," Miller said. Birds sang. "That's how you can tell this is working," he said. "Animals are living here."

'A renaissance of the river'

Farther south, Cincinnati's government is helping with the restoration efforts. City Council adopted the Restoration Project's Mill Creek Greenway plan, which seeks to build 13.5 miles of bike paths along the creek. The group's goal is to create a greenway – a strip of trees and



The Enquirer/Amie Dworecki

Michael Miller, professor emeritus of biological sciences at UC, shows some of the city's worst combined sewer overflow at Mill Creek. The Metropolitan Sewer District annually discharges millions of gallons of overflow raw sewage and storm water into the waterway. The sewer district will play a large part in the river's recovery.

EARTH DAY APRIL 22, 2010

walking trails – along the creek and its tributaries to help restore those corridors.

A University of Cincinnati study found that the greenways plan could generate millions in economic impact for some of the struggling neighborhoods along the creek.

Advocates envision one day people being able to swim and fish in Mill Creek and commute alongside it. They see it as a way to improve property values and bring back some of the animals, plants and pristine splendor that drew settlers to the Mill Creek Valley hundreds of years ago.

"Our vision is for a renaissance of the river," said Robin Corathers, head of the Mill Creek Restoration Project. "It's doing better. It still has a long way to go."

Right now Mill Creek, in many places, is anything but splendid. During its 28-mile course from its headwaters – a storm-sewer drain between two houses in a quiet Liberty Township subdivision – to the Ohio River, the creek flows through a patchwork of concrete channels along the Interstate 75 corridor. It passes blighted buildings, ugly factories, old slaughterhouses and some of the region's poorest neighborhoods.

Unless they live along it or have suffered its floods, many people don't even know the creek is there.

In 1997, the creek was designated as the "most endangered urban river in North America" by the conservation group American Rivers because of the pollution and physical damage from years of development and harsh flood control projects.

The EPA advises against swimming or fishing in the creek because of the potential for illness. Instead of being an asset for Greater Cincinnati, the Mill Creek is a liability.

Slowly the tide is turning. An environmental oasis sprouted in the southern section, which is home to

the largest rookery of black crowned night herons in Ohio.

The Mill Creek Watershed Council created a master plan for the Upper Mill Creek watershed – the portion in Butler County – that addresses both flooding and water quality problems.

Governments there, especially in West Chester Township, are working on dozens of projects to stabilize stream banks, create wetlands and reserve the creek corridor for conservation.

But the Watershed Council hasn't crafted a plan for the Lower Mill Creek, which troubles some.

But "once (the creek) gets into Hamilton County there is no plan," High said. "One of the biggest impediments (to fixing the creek) is that there's no plan."

A plan costs money that the Watershed Council doesn't have.

It also requires political cooperation. A total of 37 political jurisdictions lie within the Mill Creek watershed, all of which have their own governments and all of whom have specific expectations and limited funds for projects in their community.

"How can you tell 37 jurisdictions how they can zone or how they can determine their flood plains?" said High.

Other communities, such as Indianapolis and Louisville, have gotten massive river restoration projects done quickly and efficiently. That's because unlike Hamilton County, they have metropolitan governments that can better handle such massive and sweeping plans.

Some advocates here are frustrated at the lack of progress. A watershed plan could help groups win millions in state and federal grants, they say.

Others, like the Metropolitan Sewer District, agree cooperation is key to cleaning up the creek and protecting its neighborhoods. "We don't just need a watershed plan," said Biju George, deputy director for the Metropolitan Sewer District. "We need a common platform. It doesn't exist."

From Maketewa to Superfund site

Xavier professor and author Stanley Heeden's book, "The Mill Creek, An Unnatural History of an Urban Stream," paints a picture of a pristine stream that fell victim to progress.

In the 1700s Ohio's Native Americans formed villages and forged hunting trails along the serene, heavily-forested creek, which they named the Maketewa. As Ohio's early settlers took over the land, they renamed the waterway the Mill Creek in hopes of marketing it as a good spot for mills and other industry.

Settlers streamed in to build their own towns next to the creek. Its water powered the mills and canals that helped industrialize Cincinnati. Lockland alone (which got its name from the many canal locks there) became home to four paper mills, two wool and flour mills, and factories that made things from baking powder to wagons.

The creek was also a transportation route. Slaves used the creek as an escape route. Man-made canals along it brought visitors and more industry. The canals would eventually be replaced by rail lines – such as the ones that helped Procter & Gamble prosper – and, later, by Interstate 75.

With industrialization, however, came deforestation and pollution. Buildings replaced trees. Businesses dumped industrial and animal waste into the creek. When it rained hard, raw sewage overflowed into the waterway from the city's sewer system.

Two Ohio EPA Superfund sites – toxic waste dumps – are located in the Mill Creek basin.

The pollution and physical changes chased away all but the most pollution-tolerant species of fish and made the waterway prone to devastating floods.

The 1959 flood did \$2 million in damage to the Ford plant in Sharonville. Floods in 1998 and 2001 ripped through Mill Creek communities. One covered much of Sharonville with water.

"This is why (flood control is) a priority," said Christine Thompson, Sharonville's deputy safety service director. Thompson is also president of the Mill Creek Watershed Council.

The U.S. Army Corps of Engineers arrived in the late 1960s to embark on a major flood-control project to widen and deepen 17.4 miles of the Mill Creek. It poured about \$90 million into a plan that rerouted the creek into straight concrete troughs to keep it in its banks.

The corps abandoned the half-finished project in 1991 because of skyrocketing costs. Flooding continued, and in 1998 the Army Corps launched a \$2.5 million study to figure out how to finish its job.

That plan, revealed in January 2005, called for a \$606 million project that would stretch from Sharonville to Arlington Heights and protect around 1,900 homes and businesses from the floodwaters of the Lower Mill Creek.

The project, which would have been completed by 2014, never got off the ground because the local communities couldn't come up with the money.

HELPING PRESERVE THE MILL CREEK

■ **Mill Creek Valley Conservancy District**
Description: a quasi-governmental agency created to serve as local liaison for the Army Corps of Engineers' flood control project starting in the 1960s. The group's job was to acquire and manage the land and rights of way for the project. The group was also charged with raising funds to help pay for it.
When organized: 1962
Contact: 513-563-1144; www.millcreekvcd.org

■ **Mill Creek Restoration Project**
Description: Nonprofit advocacy group focusing on environmental restoration, education and recreation. The group runs programs for students and created the Mill Creek Watershed Greenway Master Plan, which calls for 13.5 miles of bike paths along the creek. The group's goals are to restore the waterway's water quality and create a greenbelt along it.
When organized: 1994
How funded: Variety of private and public funding. Group is mostly volunteer.

■ **Recent accomplishments:** Created Laughing Brook, an educational wetland. Its Greenways Master Plan of bike trails is also under construction.
Contact: www.millcreekrestoration.org
 ■ **Mill Creek Watershed Council of Communities**
Description: Nonprofit group representing the communities in the Mill Creek watershed. Gets grants. Coordinates and manages projects for flood prevention, storm water management, watershed and water quality management and recreation

in those communities.
When organized: 1996
How funded: Members must pay to belong.
Recent accomplishments: The group created a watershed master plan for the Upper Mill Creek. Many of those projects are finished or under way. It also partnered with other organizations to assist with Sharonville's flood control project and other such efforts.
Contact: 513-563-8800; www.millcreekwatershed.org.