



# Bee Branch Watershed

## FLOOD MITIGATION PROJECT

Completed Phases & Project Updates / January 2023

The Bee Branch Watershed Flood Mitigation Project is a multi-faceted approach to address the severe and frequent flash flooding experienced in the Bee Branch Watershed.

Flood disasters have repeatedly impacted residents and employees of businesses within the watershed. Between 1999 and 2011, six Presidential Disaster Declarations were issued with total public and private property damage estimates of almost \$70 million.

The project consists of several infrastructure improvements that will reduce the volume of stormwater, slow the rate of stormwater through the upper watershed, and increase the safe conveyance of stormwater through the flood-prone area.

The City has received \$162.6 million in the form of grants, forgivable loans, and other financial savings to help fund the \$250 million project.

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*On June 24, 2022, City staff gathered with project partners and community members to celebrate the completion of the Bee Branch Creek Pedestrian Tunnels under the Canadian Pacific railroad tracks.*

## BEE BRANCH PEDESTRIAN TUNNELS NOW OPEN

**On June 24, 2022,** City staff and project partners celebrated the completion of the Bee Branch Creek pedestrian tunnels. Following a short ceremony, Mayor Cavanagh led a bike ride on the new trail connection through the tunnels to E. 22nd St. where Green Iowa AmeriCorps was hosting its annual Sustainability Fair.

Built around 1927, the old Bee Branch railroad culverts served the area for nearly 100 years. The City assumed ownership, and with vision and a plan, the culverts were reimagined and repurposed into pedestrian tunnels that will be enjoyed for years to come by many walkers and bikers.

Conversion of the old culverts into pedestrian tunnels included pouring the concrete trail, installing lighting and security cameras, repairing and staining the culvert walls, trail pavement markings, signage, and landscaping.

The tunnels connect the upstream and downstream Bee Branch trail systems resulting in a continuous off-street trail from the Heritage Trail in Dyersville to the Mississippi

River here in Dubuque. They also provide a safe crossing for trail users, eliminating the need to use the at-grade track crossing at E. 16th St. which sees an average of seven to nine trains daily.

In addition, a floodgate installed on the Garfield Ave. side of the tunnels can be opened to allow stormwater to pass through the tunnels providing additional flood protection when needed. The dual purpose of the culverts as a multi-use trail and additional flood control supports healthy living and active lifestyles.

The City was awarded a \$175,000 Land and Water Conservation Fund Grant for the trail improvements project.

### WATCH EVENT HIGHLIGHTS!

Scan this code with your phone camera to watch highlights from Bee Branch Creek pedestrian tunnels grand opening or visit <https://youtu.be/85b1BXt9Wol>.





## BEE BRANCH HEALTHY HOMES RESILIENCE PROGRAM: 300 HOUSING UNITS MORE RESILIENT

**Before the Bee Branch Project**, many residents in the Bee Branch Watershed experienced repeated flash flooding from stormwater during heavy rain events, including six Presidential Disaster Declarations since 1999. As a result, some were living with residual structural issues, electrical hazards, and chronic mold and mildew problems.

In January 2016, the U.S. Department of Housing and Urban Development (HUD) awarded the City of Dubuque \$31.5 million in disaster resiliency funds for watershed improvements including storm sewer infrastructure projects and \$8.4 million for the Bee Branch Healthy Homes Resiliency Program (BBHH).

The BBHH Program granted funds in the form of forgivable loans to properties where low- to moderate-income residents resided to make repairs and implement onsite stormwater management principles to decrease environmental health and safety issues from flooding.

### HOME REPAIRS & IMPROVEMENTS

From October 2016 - June 2022, over 300 housing units in the Bee Branch Watershed were made more resilient through the BBHH Program including 114 single-family units, 23 duplexes, four quadplexes, three six-unit complexes, three seven-unit complexes, two twelve-unit complexes, two nineteen-unit complexes, and one thirty-unit complex. The most common improvements included:

- Gutters, windows, and lead paint remediation - \$982,000
- Tuck-pointing and waterproofing - \$742,000
- Exterior concrete work - \$713,000
- Interior drains and sump pumps - \$695,000
- Ventilation, floors, and walls - \$657,000
- Roofing repairs - \$623,000
- Furnaces and water heaters - \$576,000
- Electrical, sewer, and plumbing - \$296,000
- Radon, mold, and safety improvements - \$136,000



### HOME ADVOCACY SUPPORT

In addition to home repairs and improvements, participants had the opportunity to receive home advocacy support. This included a comprehensive assessment to identify health, economic, education, social, and built environment needs and assistance creating a household resiliency plan. Home advocates then connected participants with community resources to meet their needs and goals. A total of 307 families received some level of advocacy support through the BBHH Program.

Examples of positive home advocacy outcomes include connecting a participant with a higher education institution to complete a massage therapy certificate, helping a participant create a payment plan with a local utility company to get caught up on energy bills which also allowed for extra monthly income to be used for other family needs, assisting a participant who frequently traveled to and from Iowa City for medical treatment successfully apply for mileage reimbursement, and providing formula and cleaning supplies to a mother of four.

Grant funds were exhausted and the BBHH Program concluded in 2022. To learn more, visit [www.cityofdubuque.org/bbhh](http://www.cityofdubuque.org/bbhh).

## LOWER BEE BRANCH CREEK TRAIL PROJECT UPDATE



**The Lower Bee Branch Creek Trail Project** is expected to move forward this summer. Phase 1 includes construction of a 10-foot wide paved trail that extends south from Sycamore St. under the U.S. HWY 61/151 overpass along the shoreline of the 16th St. Detention Basin to 12th St. and east approximately 600 ft. toward Kerper Blvd. The contractor will have 50 working days to complete the project.

Phase 2 of the trail will circle the 16th St. Detention Basin along its southern shoreline parallel to 12th St. and along its eastern shoreline parallel to Kerper Blvd. The construction schedule for Phase 2 has not yet been determined.

The Lower Bee Branch Creek Trail project is part of the Dubuque Metropolitan Area Study (DMATS) 2045 Long Range Transportation Plan and supports the transportation and mobility recommendations in the City's Imagine Dubuque Comprehensive Plan.



## LOCAL TEENS DESIGN AND PAINT TWO NEW STORM DRAIN MURALS



Artist Emily Cotton Cram guides teens from the Multicultural Family Center STEP Program as they paint a storm drain mural located at the corner of Iowa St. and W. 12th St.

In July 2022, the City of Dubuque partnered with local artist Emily Cotton Cram and the Multicultural Family Center (MFC) Summer Teen Empowerment Program (STEP) to design and paint two new storm drain murals.

Over 40 teens participated in the four-day program. The first day was spent learning about fresh water as a critical natural resource, the importance of water conservation, and how to prevent stormwater pollution.

Day two was a design workshop led by Cram. The teens worked in small groups to brainstorm and sketch mural concepts that would raise awareness of storm drains as a direct connection to our local creeks, the Mississippi River, and ultimately, the ocean. After selecting their favorite concepts, everyone worked together to finalize the mural designs.

Over the next two days, they transformed gray concrete into colorful works of art! The process included prepping the project site, drawing the designs on the sidewalk with chalk, color mixing, and finally, putting their paint brushes to the ground!

The new murals are located on Iowa St. at the corners of W. 12th St. and W. 13th St. One mural portrays a polluted river with the message, "Your wrappers are impactors. Rivers aren't trash cans." The other features a large eye surrounded by aquatic life and encourages people to "see the better things in life."

The MFC STEP Program is a six-week service-based learning program focused on developing life skills, workforce readiness, and social and emotional learning. In addition to being a lesson in watershed stewardship, the four-day storm drain mural project was designed to help the teens grow their teamwork skills while also realizing their individual ability to positively impact the community.

### WATCH STORM DRAIN MURAL VIDEO

Scan this code with your phone camera to watch a short video about the MFC STEP Storm Drain Mural Project or visit <https://youtu.be/Q8kkRRQJXmg>.



## BEE BRANCH STORMWATER PUMPING STATION PROJECT UPDATE



The pumping station is located on Kerper Blvd. just south of 16th St.

The Bee Branch Creek and 16th St. Detention Basin drain into the Mississippi River through a flood gate and pumping station located on Kerper Blvd. just south of 16th St. The two flood pumps at the facility pre-date the construction of the floodwall/levee system completed in 1974.

Bids for updating the aging pumping station were received in spring 2022. The lowest was 56% over the engineer's estimate of \$18.9 million. The City Council voted to reject the bids so that other design options could be considered to reduce costs.

City staff and the engineering design team are currently working on an alternative approach. The new anticipated project milestones are as follows:

- **Complete Redesign:** November 2023
- **Start Construction:** June 2024
- **Complete Construction:** December 2025
- **Project Completed:** April 2026

In 2018, the City was awarded a \$2.5 million grant from the U.S. Economic Development Administration (EDA) for the Bee Branch Stormwater Pumping Station Project. Per the grant agreement, the project was to be complete by April 2024. The City is currently seeking an amendment to the grant agreement to ensure the City's use of the \$2.5 million in funding for the project. Additional funding options are also being explored.

Project updates will be posted on the City's website as they become available at [www.cityofdubuque.org/1817/Stormwater-Pumping-Station-Project](http://www.cityofdubuque.org/1817/Stormwater-Pumping-Station-Project).

### WHAT YOU CAN DO FOR THE WATERSHED!

Everyday activities often cover impervious surfaces with various harmful materials. Pesticides, fertilizers, oil, grease, and trash are common stormwater pollutants. There are simple ways to prevent stormwater pollution around your home including proper disposal of trash, yard waste, paint, and household chemicals; picking up pet waste; and proper construction and automotive maintenance practices. Scan the QR code to learn more!





## BEE BRANCH PROJECT SCHEDULE

INFRASTRUCTURE IMPROVEMENT	STATUS
Carter Road Detention Basin	Completed in 2003
West 32nd Street Detention Basin	Completed in 2009
Lower Bee Branch Creek Restoration	Completed in 2011
Historic Millwork District Complete Streets	Completed in 2012
Upper Bee Branch Creek Restoration	Completed in 2017
22nd St./Kaufmann Ave. Storm Sewer Capacity Improvements	Construction complete to N. Main St. Design complete to Kane St. Future construction phases will be scheduled when funding becomes available.
17th St./W. Locust St. Storm Sewer Capacity Improvements	Construction complete to Heeb St. Design is complete to Angela St., 60% design completed to Kirkwood St., and 30% design to Rosedale. Future construction phases will be scheduled when funding becomes available.
Bee Branch Healthy Homes Resiliency Program	Completed in 2022
Bee Branch Creek Railroad Culverts	Completed in 2022
Bee Branch Stormwater Pumping Station Improvements	Bids for the project were rejected in June 2022 with the low bid 56.1% over the engineer's estimate. The City is currently exploring an alternative design and funding options. Estimated completion year is 2026.
Flood Mitigation Maintenance Facility	Estimated completion year is 2028
North End Storm Sewer Capacity Improvements	Estimated completion year is 2028
Water Plant Flood Protection	Estimated completion year is 2030
Green Alley Reconstruction	Over 80 of the 240 alleys have been reconstructed as pervious alleys. Several are currently under design. Estimated completion year is 2038.

For more information on the Bee Branch Watershed Flood Mitigation Project, visit [www.cityofdubuque.org/beebranch](http://www.cityofdubuque.org/beebranch).