



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 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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Bee Branch Watershed FLOOD MITIGATION PROJECT

December 2021



On Oct. 21, City staff gathered with project partners and community members to celebrate the completion of the Bee Branch Creek Railroad Culverts which protects the area from up to a 500-year rain event.

CITY CELEBRATES 500-YEAR FLOOD PROTECTION

On Thursday, Oct. 21, the City hosted an event to celebrate an important project milestone for the Bee Branch Creek Railroad Culverts Project. The six new stormwater pipes installed in 2020 are now active and conveying water. The improvements have significantly increased the flood mitigation system's capacity for stormwater. The area is now protected from up to a 500-year rain event.

The program included remarks by City staff, elected officials, and project funding partners including representatives from the Iowa Department of Homeland Security and Emergency Management, Iowa Department of Natural Resources, and U.S. Environmental Protection Agency. Al and Suzanne Blum, who donated \$400,000 to the Bee Branch Watershed Flood Mitigation Project in 2020, were also recognized at the event.

Located under the Canadian Pacific rail yard between Garfield Ave. and the Lower Bee Branch Creek, the culverts project involved micro-tunneling six 8-foot diameter pipes

under the railroad tracks and the construction of upstream and downstream underground transition structures, a pumping station, and a water level control system.

The micro-tunneling operation began in July 2020 and was finished in late October 2020. The tunneling for each pipe began on the east side of the railroad tracks and progressed approximately 40 feet per day toward the receiving pit located on the west (Garfield Ave.) side of the project. As the micro-tunneling machine inched its way through the soil, 20-foot-long sections of pipe were inserted behind it. On average, it took approximately one week to install each 200-foot-long pipe.

Each pipe required considerable prep work including cutting the holes through the sheet pile walls to allow the micro-tunneling machine to pass. In addition, the contractor was required to stop tunneling when trains passed overhead. After the pipes were installed, work shifted to construction of the upstream and downstream connections.

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These connections included a large concrete transition structure south of Garfield Ave. where water from the Bee Branch Creek and the 22nd St./Kaufmann Ave. storm sewer system comes together before entering the newly installed pipes. Downstream, a structure was built to transition water from the pipes into the creek as well as a pumping station and flow control gate system. The two gate sections weigh 54,000 lbs. each and can be lowered and raised to prevent the Upper Bee Branch from flooding when the downstream water level is high.

The Bee Branch Creek Restoration involved replacing almost one-mile of storm sewer with a creek and floodplain that resembles the one that traversed the area over 100 years ago. This "daylighting" of the buried Bee Branch Creek allows stormwater from flash floods to safely move through the area without flooding adjacent properties.

The creek restoration started with construction of the Lower Bee Branch and 16th St. Detention Basin in 2010. Construction of the Upper Bee Branch began in 2015 and was completed in 2017. The Railroad Culverts Project is the final piece of the three-phased Bee Branch Creek Restoration Project.

Future phases of the overall Bee Branch Watershed Flood Mitigation Project include a flood mitigation maintenance facility, a gate and pump replacement project, storm sewer improvements, additional green alleys, and more.

For more information, see the project schedule on page 4 or visit www.cityofdubuque.org/beebranch.



Deron Muehring, Engineer & Project Manager, speaking at the Railraod Culverts event.

WATCH EVENT HIGHLIGHTS!

Scan this code with your phone camera to watch highlights from the Railroad Culverts event or visit <https://youtu.be/yT7J-mkXUY0>.



AL & SUZANNE BLUM DONATE \$400,000 TO THE AMERICA'S RIVER III CAMPAIGN



Left: Al and Suzanne Blum, pictured with America's River III Honorary Co-Chair Gary Dolphin, receive a Legacy Donor Award for their \$400,000 gift to the Bee Branch Watershed Flood Mitigation Project at the Railroad Culverts event on Oct. 21, 2021.

In December 2015, the City of Dubuque purchased the Blum Co. property as part of the Bee Branch Watershed Flood Mitigation Project. In order to maintain the mile-long Bee Branch Creek Greenway and ensure it functions as designed, a maintenance facility is planned at 16th and Elm streets where the Blum Co. served for two generations.

In 2020, Al and Suzanne donated \$400,000 to the America's River III campaign in support of the Bee Branch Watershed Project. They've witnessed the transformation of the area into a beautiful linear park and support the vision of a vibrant community space for residents and visitors — a gateway into Dubuque.

ABOUT THE BLUM CO.

Al's father, Max Blum, came to the U.S. from Ukraine in the early 1920s when he was 17 years old. In 1926, he started his own operation recapping tires in a small shop located between Sycamore and Cedar streets and eventually expanded into scrap metal, hides and furs, and ginseng.

In 1942, Blum purchased the old casket company property at 15th and Elm streets due to its proximity to the railroad. Straddling both sides of the tracks, it was an ideal location for loading and shipping materials.

When the Blum Co. hauled scrap metal into Chicago, they would bring a variety of items back to Dubuque — a benefit of having a large property with plenty of storage. As a result, they sold a diverse assortment of products and materials including windows, aluminum siding, livestock feed and fence wire, cattle guards, structural steel and pipe, and more. In addition, when World War II put a heavy burden on U.S. supplies, the Blum Co. began handling paper, inner tubes, and rags so they could be recycled.

Al started working for his dad around the age of 15. He graduated from Senior High School and attended the University of Wisconsin before coming back to Dubuque to be part of the family business. He started playing a more active role in the company when his dad started going to Florida for the winters and eventually took over the operation when his father passed away.

Married in 1965, Al's wife Suzanne worked by his side throughout the years learning the scrap business and managing payroll. The Blum Co. pioneered recycling in Dubuque and played a significant role in the history of the North End operating in the neighborhood for close to 90 years.

Thank you, Al and Suzanne. Your generous gift will have a lasting legacy on our community. To learn more about the America's River III campaign and donation opportunities including pavers, trees, benches, bike rest stations and more, visit www.cityofdubuque.org/ar3 or call 563.690.6068.



The entrance and exit to the new pedestrian tunnels under the Canadian Pacific railroad tracks on the east (Lower Bee Branch) side of the project.



The tunnel ceilings and walls have been smoothed and painted.

PEDESTRIAN TUNNELS / TRAIL UNDER THE RAILROAD TRACKS



Built around 1927, the old Bee Branch storm sewers under the Canadian Pacific railroad tracks served the area for nearly 100 years. They are currently being converted into two paved pedestrian tunnels as part of the Bee Branch trail system. The tunnels will 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.

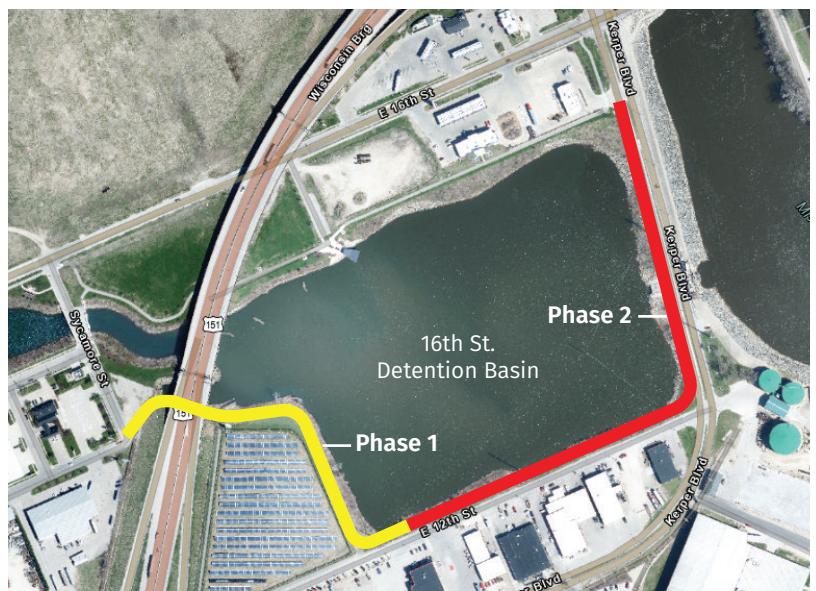
The tunnels have started to take shape with the ceilings and walls smoothed and painted. Remaining work includes paving the floors to create a smooth rideable surface, installing lighting and cameras, and finishing the paved trail on the Garfield Ave. side of the project. The City was awarded a \$175,000 Land and Water Conservation Fund Grant for the project. The tunnels are expected to open in Spring 2022.

LOWER BEE BRANCH CREEK TRAIL PROJECT

The City is expanding the trail along the Lower Bee Branch Creek and detention basin. The trail will be constructed in two phases. Phase 1, scheduled for construction in the spring of 2022, will extend south from the existing trail across the Sycamore St. bridge, then southeast under U.S. HWY 61/151 along the shoreline of the 16th St. Detention Basin, then south to 12th St. adjacent to the Alliant Energy solar array, then east towards Kerper Blvd.

Phase 2, scheduled for construction in 2023, will begin where Phase 1 ends along 12th St. Phase 2 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 0.38-mile trail project will be built in compliance with ADA standards as a 10-foot-wide paved trail for pedestrians and bicyclists.

The 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.



The Lower Bee Branch Creek trail will be extended from the Sycamore St. bridge around the 16th St. Detention Basin and along Kerper Blvd.

CITY RECEIVES EXCELLENCE ON THE WATERFRONT AWARD

The City of Dubuque recently received a 2021 Excellence on the Waterfront Honor Award from The Waterfront Center for the Bee Branch Creek Restoration Project. Dubuque was one of eight award winners from across the world including projects in Canada, The United Kingdom, China, India, and U.S. cities including Juneau, Seattle, and Lewis County, Washington. An interdisciplinary jury of professional planners, designers, city officials, and community, business, and development representatives determined the awards using criteria such as sensitivity of the design to water, quality and harmony of design, civic contribution, environmental values, overall cultural richness of the community, and degree of difficulty.

In 1987 the Waterfront Center began the “Excellence on the Waterfront Awards Program,” initiated with grants from the National Endowment for the Arts Design Arts Program and the National Marine Manufacturers Association, to recognize top-quality planning, design, and development work from around the world.

SCAN & WATCH

Scan this code with your phone camera to watch a video about the creek restoration project or visit https://youtu.be/lKI3iH6_xqs.



FLOOD MITIGATION PROJECT SCHEDULE

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	Completed in 2020
Bee Branch Healthy Homes Resiliency Program	Completed in 2021
17th St./W. Locust St. Storm Sewer Capacity Improvements	Completed in 2021
Bee Branch Creek Railroad Culverts	Complete in 2022
Flood Mitigation Gate & Pump Station Replacement	Estimated completion year is 2023
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	Estimated completion year is 2038

Bee Branch Project

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