



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, increase the safe conveyance of stormwater through the flood-prone area, and provide floodwater protection to the City's water treatment plant on Hawthorne Street.

For more information, visit www.cityofdubuque.org/beebranch.



Bee Branch Watershed

Flood Mitigation Project News

Vol. 2 Issue 1 >> March 2016

Bee Branch Construction Update



Limestone blocks line the creek channel.



Construction of the E. 24th St. Outfall Structure

Over the past six months, construction crews have continued to make excellent progress on the Upper Bee Branch Creek Restoration Project. The area between Garfield Ave. and Lincoln Ave. is starting to take shape. The Garfield Ave. culverts are complete, limestone blocks line the creek channel, and retaining walls are being installed.

Rhomberg Ave. between Kniest St. and Johnson St. and E. 22nd St. between Elm St. and Prince St. are currently closed for bridge construction. Rhomberg Ave. is expected to open in July 2016, and E. 22nd St. is expected to open in the fall of 2016. During this time, residents traveling to Rhomberg Ave. or E. 22nd St. from the 5-points intersection are asked to follow the posted detour route which is Garfield Ave. to Windsor Ave. Both Rhomberg Ave. and E. 22nd St. are accessible from Windsor Ave.

At the north end of the project area, the walls of the E. 24th St. outfall structure have been installed. After passing under E. 24th St., this structure is where the creek will transition from inside the Bee Branch storm sewer into the open waterway. It will also serve as a pedestrian overlook with a southerly view of the creek channel.

E. 24th St. between Washington St. and Elm St. is scheduled to close in May 2016 for construction of a new box culvert. The street is expected to be closed until the winter of 2016. Before E. 24th St. closes, the contractor will be required to open an on-site detour at E. 22nd St. The on-site detour will remain in place until Rhomberg Ave. reopens to traffic.

Currently under construction at the Lower Bee Branch is the 16th St. Detention Basin Overlook. The project began in mid-February and is expected to take approximately six months to complete. The improvements associated with the overlook include a plaza, an open air pavilion, drinking fountains, bike racks, benches, and lighting. Due to construction, a section of the multi-use trail along E. 16th St. between Sycamore St. and Kerper Blvd. is closed.



Rendering of the 16th St. Detention Basin Overlook

Throughout the creek restoration project, residents can expect short-term road closures for utility work. These closures are expected to last from one to three weeks. All closures are announced via the Bee Branch Notify Me email and text notification system, as well as on Facebook (www.facebook.com/beebranchdbq) and Twitter (@beebranchdbq).

To receive project related alerts, subscribe to the Bee Branch Notify Me at www.cityofdubuque.org/notifyme. For questions or for more information, please (563) 690-6068.

Dubuque Awarded \$31.5 Million in Disaster Resiliency Funds



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 the Bee Branch Healthy Homes Resiliency Program and stormwater infrastructure improvements including the Bee Branch Creek Railroad Culverts and West Locust Street and Kaufmann Avenue storm sewer projects. The City of Dubuque partnered with the State of Iowa to apply for the federal funds through the National Disaster Resilience Competition (NDRC), which invited communities that experienced natural disasters in 2011, 2012, or 2013 to compete for funds to help them rebuild and increase their resilience to future disasters.

Bee Branch Healthy Homes Resiliency Program

Many residents in the Bee Branch Watershed have experienced repeated flash flooding from stormwater during heavy rain events. As a result, they are living with residual structural issues, electrical hazards, and chronic mold and mildew problems.

The Bee Branch Healthy Homes Resiliency Program includes \$8.4 million to assist 320 income eligible owner occupied homes, single-unit rentals, and small, multi-family residential units make repairs and implement on-site stormwater management principles to decrease environmental health and safety issues from flooding. A variety of repairs and renovations will improve housing conditions and make homes more resilient to future flooding. Examples include:

- Foundation repairs
- Foundation raising or shifting to accommodate water levels
- Water and sewage services
- Furnace replacement

- Water heater replacement
- Basement windows
- Mold and mildew remediation
- Lead remediation
- Soil modification
- Lateral connection repairs
- Asbestos
- Sidewalk and curb cuts
- Sump pumps
- Downspouts

The City intends to implement the plans over the next several years. Additional information will be available as City staff develop plans for community outreach related to the Bee Branch Healthy Homes Resiliency Program to identify eligible properties.

Bee Branch Creek Railroad Culverts

The City received \$9 million to install six 8-foot diameter culverts through the Canadian Pacific railroad right-of-way. These culverts will convey stormwater from the Upper Bee Branch Creek (currently under construction) to the Lower Bee Branch Creek. The total cost for this component

of the Bee Branch Project is estimated at \$18 million, with the remaining funds already in the City budget.

Kaufmann Avenue Storm Sewer

These improvements total \$11.5 million and will increase the capacity of the stormwater management system from Central Avenue to Kane Street by constructing a 10-foot by 6-foot reinforced concrete box culvert with 80 stormwater drains. Estimated project completion is 2019.

West Locust Street Storm Sewer

These improvements total \$2.6 million and will increase the capacity of the West Locust Street corridor stormwater management system by constructing a new storm sewer from 17th Street toward Kirkwood Street. Estimated project completion is 2021.

The Kaufmann Avenue and West Locust Street storm sewer improvements are in addition to the already scheduled Bee Branch Watershed Flood Mitigation Project storm sewer improvements.



Basement flooding in 2011.



Infrastructure damages from 2011 flash flooding.

The Bee Branch Healthy Homes Resiliency Program includes **\$8.4 million** to assist homeowners make repairs and implement on-site stormwater management principles .

22 Green Alleys

Scheduled for Reconstruction in 2016

Green alley reconstruction focuses on reducing the volume of stormwater in the Bee Branch Watershed. Traditional concrete, asphalt and packed gravel surfaces used to construct driveways, alleys and sidewalks are impervious. An impervious surface does not allow stormwater to soak into the ground. Instead, these types of surfaces create run-off that can exceed the capacity of the storm sewer system contributing to flooding during major rain events.

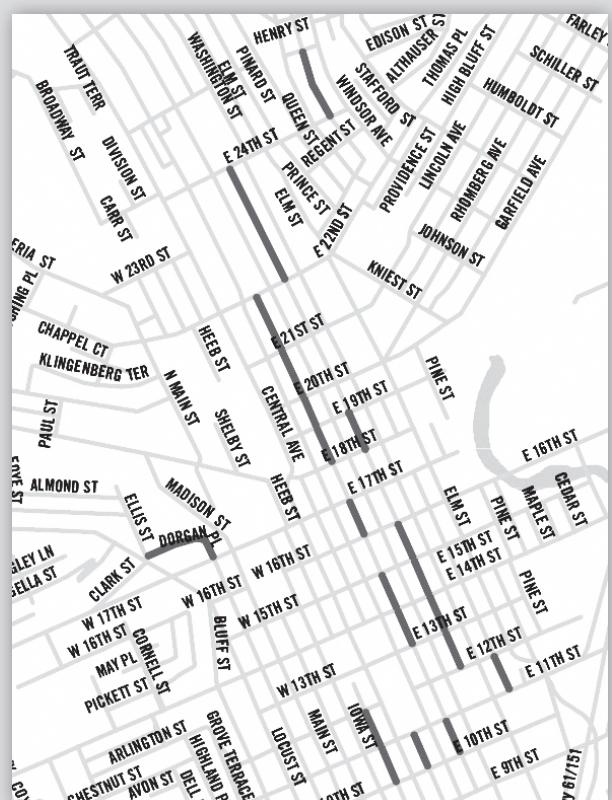
To reduce the amount of impervious surfaces, approximately 240 alleys in the watershed will be converted to green alleys. Twenty-three alleys were completed in 2014, 28 alleys were completed in 2015, and 22 alleys are planned for reconstruction in 2016. The remaining alleys are expected to be reconstructed between the years 2024 and 2038.



2016 Green Alley Schedule

1. Asbury Rd. to Avoca St. between Rosedale Ave. and Green St.
2. Rosedale Ave. south to end of alley between Saint Ambrose St. and Avoca St.
3. E. 10th St. to E. 11th St. between Central Ave. and White St.
4. E. 10th St. to E. 11th St. between White St. and Jackson St.
5. E. 12th St. to E. 13th St. between Jackson St. and Washington St.
6. E. 12th St. to E. 11th St. between Washington St. and Elm St.
7. E. 13th St. to E. 14th St. between White St. and Jackson St.
8. E. 13th St. to E. 14th St. between Jackson St. and Washington St.
9. E. 15th St. to E. 14th St. between White St. and Jackson St.
10. E. 15th St. to E. 14th St. between Jackson St. and Washington St.
11. E. 16th St. to E. 17th St. between White St. and Jackson St.
12. E. 16th St. to E. 15th St. between Jackson St. and Washington St.
13. E. 19th St. to E. 18th St. between Jackson St. and Washington St.
14. E. 19th St. to E. 18th St. between White St. and Jackson St.
15. E. 20th St. to E. 19th St. between White St. and Jackson St.
16. E. 21st St to E. 20th St. between White St. and Jackson St.
17. E. 22nd St. to E. 21st St. between White St. and Jackson St.
18. Ellis St. and W 17th St. between Ellis St. and Madison St. (Dorgan Pl.)
19. W. 11th St. to W. 10th St. between Iowa St. and Central Ave.
20. W. 12th St. to W. 11th St. between Iowa St. and Central Ave.
21. Edwards St. to E. 24th St. between Queen St. and Windsor Ave.*
22. E. 24th St. to E. 22nd St. between Jackson St. and Washington St.*

* Green alley will be reconstructed in 2016 if funding is available.



A detailed, full-color map is available online at www.cityofdubuque.org/greenalleys.

Green alley reconstruction typically takes six to eight weeks to complete.

During this time, the alley is closed.

The City makes every effort to notify residents when an alley project is starting. A letter with the anticipated construction start date and a tentative construction schedule is mailed to both property owners and current residents, informational cards are hung on the door of every property, and, if necessary, we notify residents by phone. For questions or for more information, call (563) 690-6068.



Stormwater Pollution Prevention

After it rains, the streets look cleaner -- and that's a problem. Stormwater rushing over our roofs, lawns, driveways, streets, and sidewalks picks up pollutants such as oil, pesticides, fertilizers, sediment, and animal waste. These pollutants wash untreated, either directly or via a storm sewer, into our local creeks, streams, and rivers.

When waste is placed in a catch basin, street, or in a waterway it is the same as dumping it right into the Mississippi River as that is where the City's storm sewers discharge. Placing waste in the river can have harmful consequences to the health of the river. Even yard clippings and leaves can lead to the loss of river habitat and fish kills.

At times, monitoring has indicated high concentrations of nitrogen, phosphorous, and E. coli. in the Bee Branch Creek. That is why we need your help to improve and protect the health of our waterways.

There are several simple things you can do to prevent stormwater pollution:

- Use fertilizers and lawn chemicals sparingly. Sweep up extra fertilizer that falls on your driveway or sidewalk.
- Pick up pet waste.
- Take your vehicle to the car wash or wash it on the lawn to prevent soapy water from leaving your property.
- Fix oil and antifreeze leaks from your car. Promptly clean up spills to prevent them from washing into the street and storm drain.
- Clean paint brushes in a sink, not outdoors, and properly dispose of excess paints through a hazardous waste collection program.
- Recycle or compost when possible.
- Don't mow grass clippings or rake leaves into the street.
- Don't throw trash on the ground or in catch basins—including cigarette butts.

Illicit Discharge Ordinance

The City of Dubuque has an illicit discharge ordinance that was passed in 2004 prohibiting the discharge of illicit (illegal) substances into storm drains and other storm water collection systems within the City of Dubuque. Violating the City's illicit discharge ordinance could potentially carry a penalty of up to \$1,000 per day per violation found. Examples of illicit discharges could include motor oil, transmission fluid, cooking grease, yard waste, pet waste, dirt or gravel, trash, and fertilizers.

Stormwater Hotline: Call (563) 690-6200

The City's stormwater hotline is available for anyone who wishes to make a report of a potential stormwater pollution or concern. Help to prosecute violators by taking a picture of the illicit activity taking place. If necessary, please leave a message and someone will return your call as soon as possible. In case of a stormwater emergency, call dispatch at (563) 589-4415.