

Iowa Flood Mitigation Program (FMP) Flood Mitigation Project Application

A. Applicant/Community Name	B. Address	City, State, Zip Code
City of Dubuque	50 West 13th Street	Dubuque, IA 52001-4805

C. Point of Contact (POC) Name for Project	POC Title	POC Agency	POC Email
Deron Muehring	Civil Engineer	City of Dubuque	dmuehrin@cityofdubuque.org

POC PO Box and Zip Code	POC Street Address	POC City, State, Zip Code	POC Phone
52001-4805	50 West 13th St	Dubuque, IA 52001-4805	563-589-4276

Alternate POC Name or Authorized Representative	Alt POC Title	Alt POC Agency	Alternate POC Email
Teri Goodmann	Asst City Manager	City of Dubuque	tgoodman@cityofdubuque.org

Alt POC PO Box and Zip Code	Alt POC Street Address	Alt POC City, State, Zip Code	Alt POC Phone
52001-4805	50 West 13th St	Dubuque, IA 52001-4805	563-690-6060

D. Federal Tax ID # / FEIN	E. County Name	F. US Congressional District(s)	State Legislative Districts	
			Senate	House
	Dubuque	1	50	99

G. Is the Applicant/Community participating in the National Flood Insurance Program (NFIP)?	Community's CID Number
YES	195180

A. Identify the requested funding source:

Sales Tax Increment

B. Project Budget Summary

Engineering/Contractual Services	\$ 17,817,601
Property Acquisition & Easement	\$ 19,301,143
Construction	\$ 130,593,792
Contingency	\$ 11,337,000
Financing Interest	\$ 17,430,000
Financing Reserve	\$ 4,450,000
Total Project Budget Summary	\$ 200,929,536

A. Provide a brief description of the project. Identify separately each component of construction or reconstruction included in the project. This is a summary of Tab B - Project Plan. Code of Iowa section 418.4, subsection 2

The Bee Branch Watershed Flood Mitigation Project is a multi-phased approach to address the severe and frequent flash flooding experienced in the Bee Branch Watershed in the City of Dubuque. As outlined in the Drainage Basin Master Plan, the engineering report by HDR Engineering (Omaha, NE), the improvements associated with the Bee Branch Watershed Flood Mitigation Project will mitigate the flooding experienced over the past twelve years in four ways: reduce the volume of floodwaters, reduce the flow of floodwaters, increase floodwater conveyance capacity through watershed, and providing barriers between critical facilities and floodwaters. This multi-faceted, holistic approach includes the following phases:

Phase	Description
1	Carter Road Detention Basin
2	West 32nd Street Detention Basin
3	Historic Millwork District
4	Lower Bee Branch Creek Restoration
5	Flood Mitigation Gate Replacement
6	Impervious Surface Reduction
7	Upper Bee Branch Creek Restoration
8	22nd Street Storm Sewer Improvements
9	Flood Mitigation Maintenance Facility
10	North End Storm Sewer Improvements
11	Water Plant Flood Protection
12	17th Street Storm Sewer Improvements

See the Bee Branch Watershed Flood Mitigation Project Plan, Section B for a detailed description of each phase.

B. How will the project mitigate future flooding of property that has sustained significant flood damage and is likely to sustain significant flood damage in the future? Code of Iowa, section 418.9, subsection 10, 2a Explain:

Dubuque County has received 6 flood-related Presidential Disaster Declarations since 1999 that directly impacted the Bee Branch Watershed. Flood events today impact 1,301 residential households occupied by 3,190 residents and 72 businesses including their 1,669 employees. These flood events cause flooded basements necessitating the replacement of furnaces, water heaters, electrical equipment, wall and floor coverings. The wastewater utility is lost for varying periods of time. Street closures occur. Families suffer mental anguish with every storm event, regardless of the severity. Residents miss work in larger storm events. Businesses experience property damages similar to residences. Business disruptions result in lost revenues as a result of closures due to flooding; be it streets, property damages, lack of employees, and fear of customers to go into the flooded area for days following a storm event. In total, the estimated damages incurred due to the six disasters since 1999 total an estimated \$69.8 million. The Bee Branch Watershed Flood Mitigation Project will prevent an estimated \$582 million in damages over its design life. See the Bee Branch Watershed Flood Mitigation Project Plan, Section E.

C. How does the project address the impact of flooding both upstream and downstream from the project area? Code of Iowa, section 418.9, subsection 10, 2b Explain:

The project improvements are based on a watershed approach with improvements throughout the watershed that will provide benefits to properties upstream and downstream of the flood-prone area. The benefit of reduced floodwater flow provided by upstream detention will be realized by the properties within the flood prone area as well as all of the properties along the Bee Branch Creek between the flood prone area and the detention basins. The pervious pavement systems will benefit downstream properties by reducing the floodwater volume that will flow to the Mississippi River. The increased conveyance through the flood prone area realized as a result of the Bee Branch Creek Restoration has a positive impact on downstream properties. The restored natural creek and floodplain area will result in reduced runoff volumes and slow the discharge of floodwaters downstream in contrast to a concrete lined channel or the existing underground storm sewer that are designed to rapidly convey floodwaters downstream as quickly as possible. While the Bee Branch Watershed Flood Mitigation Project involves improvements to the floodwall/levee system gate through which floodwaters from the Bee Branch Watershed will flow into the Mississippi River, the size of the culverts and the pumps will not change. As a result of this project, the peak flow of floodwaters from the Bee Branch Watershed into the Mississippi River will not increase and the volume of floodwaters will actually be decreased. The project will also benefit downstream properties through the reduction of sediment loads, fertilizer, road surface chemicals, etc. See the Bee Branch Watershed Flood Mitigation Project Plan, Section F.

D. Describe how the project conforms to any applicable floodplain ordinance and identify the ordinance. Code of Iowa, section 418.9, subsection 10, 2b

Ordinance 27-13 was adopted by the Dubuque City Council on May 20, 2013 and is the current Dubuque Floodplain Ordinance. The previous phases of the Bee Branch Creek Watershed Flood Mitigation Project that have been completed or are currently under development have been done in conformance with the City's Floodplain Management Ordinance that was in effect at the time of the improvements. In addition, Floodplain Development Permits were also obtained from the Iowa Department of Natural Resources when applicable. See the Bee Branch Watershed Flood Mitigation Project Plan, Section G.

E. Describe how the project is sufficiently valuable to the economic viability of the state or is of sufficient historic value. Code of Iowa, section 418.9, subsection 10, 2c

Economic Viability

Based on information from ReferenceUSA®, a leading provider of business and consumer research, there are 72 businesses located within the proposed flood plain limits that combined employ over 1,400 people with annual sales over \$500 million. As can be expected, the repeated flood losses have impacted businesses and depressed property values. From 2004 to 2009 the assessed value of all residential property in the City grew by 21%. During that same period, the assessed value of the residential property in the flood prone area grew by only 14%. During the same time period, the assessed value of all commercial property in the City grew by 39% while the assessed value of the commercial property in the flood prone area actually decreased by 6%. The efforts to address the flash flooding has already spurred private investment and reinvestment. Because of the public support for the Bee Branch Watershed Flood Mitigation Project, the stated commitment of the City of Dubuque City Council to implement the various phases of the project, and because the City has already started implementing the improvements, non-public investment has already eclipsed \$139 million since 2008 with an additional \$215 million expected to follow in the next five years for a combined total of \$354 million in non-public investment. See the Bee Branch Watershed Project Plan, Section D.

Historic Value

The Bee Branch Watershed Flood Mitigation Project will help retain two of the oldest historic neighborhoods in the State. Dubuque is the oldest incorporated City in Iowa, founded in 1833. The housing and businesses in the Bee Branch Watershed flood prone area include the Old Town Residential Historic District comprised of 316 buildings and the Washington and East 22nd Street Historic District comprised of 31 buildings. These oldest documented buildings date back to the early 1830s. Based on information from the City Assessor's Office, eighty-five percent (85%) of the impacted properties have buildings that are potentially eligible for listing on the National Register of Historic Places, the official list of the Nation's historic places worthy of preservation. The Bee Branch Creek flowed through this area. See the Bee Branch Watershed Flood Mitigation Project Plan, Section H.

F. How is this project essential to meet the necessary expenses or serious needs of the governmental entity related to the flood mitigation? Code of Iowa, section 418.9, subsection 10, 2h Explain:

Of the more than thirty (30) stormwater utilities across Iowa, Dubuque residents and businesses currently pay the second highest rate in the state. Dubuque's rate is sixty three percent (63%) higher than the average community in Iowa. The annual Stormwater Utility Fee payment would need to increase by 248% to construct the Bee Branch Watershed Flood Mitigation Project without State Flood Mitigation Funding which would result in significant and detrimental impacts to citizens, businesses and economic development. See the Bee Branch Watershed Flood Mitigation Project Plan, Sections D, F and H for more detail.

G. Provide the extent of nonfinancial support committed to the project from public and nonpublic sources. Code of Iowa, section 418.9, subsection 10, 2e

Dubuque residents as well as the City of Dubuque and the consultants have worked hard to come up with solutions throughout the Bee Branch Watershed to address the flooding problems and to make the project acceptable to the community and in particular those impacted by the restoration of the Bee Branch Creek to its daylight status. The plan has been developed with input from citizens and private organizations every step of the way. A 26-member Citizen Advisory Committee helped establish the City's stormwater utility which is being utilized to provide local financial support for the project. The Stormwater Utility fee was established in 2003. Another citizen advisory committee, the Bee Branch Citizen Advisory Committee worked with the City's consulting engineer to establish the location, look, and functionality of improvements. The committee also helped with the exchange of information about the improvements with other citizens and the City Council. In 2004 the Bee Branch Creek Alignment Study was completed. Public workshops were held to gather additional citizen input on the final design of the Bee Branch Creek Restoration. The public was asked to identify their hopes and fears and provide input on various potential landscape features, bridges, and secondary uses. Based on that input, conceptual drawings were presented to the public. The project has proceeded with wide public support. The City worked hard to serve the people displaced by the project. Paying strict adherence to the Federal Uniform Relocation Act, the City has been able to acquire over 100 properties for the Bee Branch Watershed Flood Mitigation Project without ever completing condemnation.

Local nonfinancial support is demonstrated for the Bee Branch Watershed Flood Mitigation Project through the letters of support from local civic organizations.

See the Bee Branch Watershed Flood Mitigation Project Plan, Section I for more detail on nonfinancial support of the project.

H. Describe the coordination with other watershed management measures as applicable. Code of Iowa, section 418.9, subsection 10, 2f

The improvements associated with the Bee Branch Watershed Flood Mitigation Project are consistent with the improvements outlined in the Drainage Basin Master Plan which was developed to ensure that efforts to solve flooding problems within the watershed are efficient, cost-effective and address the flooding in a manner that does not create flooding issues elsewhere in the watershed. Even though the Bee Branch Watershed is completely contained within the jurisdictional boundary (Corporate Limits) of the City of Dubuque, the City of Dubuque has collaborated and fostered partnerships with Dubuque County, state agencies (Iowa Department of Natural Resource and Iowa Department of Agriculture and Land Stewardship), and federal agencies (U.S. Environmental Protection Agency, U.S. Economic Development Administration, and U.S. Department of Transportation). The City has also partnered with fifty seven (57) other communities up and down the Mississippi River as part of the Mississippi River Cities & Towns Initiative. The City of Dubuque is also represented on the Steering Committee of the America's Watershed Initiative. This initiative is a collaboration that seeks solutions for meeting the multiple demands placed on the vast and complex Mississippi watershed system by integrating issues, partners and ideas at the full watershed scale and supports the effective resolution of issues that span multiple regions—issues including energy, transportation, water quality and floodplain management. See the Bee Branch Watershed Flood Mitigation Project Plan, Section J.

I. Describe how this project is consistent with applicable comprehensive, countywide emergency operations plan in effect and other applicable local hazard mitigation plans. Code of Iowa, section 418.9, subsection 10, 2g

The Dubuque County Multi-Jurisdictional Hazard Mitigation (MJHM) Plan, which includes Dubuque County and all of its incorporated cities, was approved by FEMA on May 7, 2013. The MJHM Plan is incorporated into the Dubuque Countywide Emergency Operations Plan. The Dubuque Countywide Emergency Operations Plan was adopted by the Dubuque County Emergency Management Commission and approved by the Iowa Homeland Security and Emergency Management in July 2013. The MJHM Plan mitigates the impacts of various disasters that could adversely affect the health, safety and/or general welfare of its citizens. The improvements associated with the Bee Branch Watershed Flood Mitigation Project are in conformance with the MJHM Plan as outlined below:

1. The MJHM Plan identifies flash flooding as the highest ranked hazard for the City of Dubuque. See page #52 of the MJHM Plan.
2. The MJHM Plan discusses improvements associated with the Bee Branch Watershed Flood Mitigation Project stating that “localized street flooding and basement flooding experienced in the North End of Dubuque . . . is the focus of drainage basin improvements like the Bee Branch Creek (Watershed) Restoration Project. This multi-year project replaces an underground storm sewer with an open waterway and other public amenities, reducing the risk of flood damage to 1,150 properties . . . in some of Dubuque’s oldest neighborhoods. See page #26 of the MJHM Plan.
3. The MJHM Plan identifies the “(restoration) of the Bee Branch Creek with open channel from the 24th St. neighborhood to East 16th Street retention basin, including the acquisition of approximately 70 homes and businesses” as a top ranked mitigation action. See page #125 of the MJHM Plan.
4. The MJHM Plan identifies the “(implementation) of the storm water management and flood control improvements outlined in the Drainage Basin Master Plan” as a top ranked mitigation action. See page #126 of the MJHM Plan.

Please see the Bee Branch Watershed Flood Mitigation Project Plan, Section L and Appendix B.

J. Description of Project Location (i.e. Latitude and Longitude (minimum 6 digits after the decimal), Neighborhood, Subdivision, Geographic Boundaries, Driving Directions, etc.)

The project improvements are located throughout the Bee Branch Watershed as detailed in Bee Branch Flood Mitigation Project Plan, Section B. See Bee Branch Flood Mitigation Project Plan, Appendix C - Project Area Map for latitude and longitude coordinates of each phase of the project.

K. Number of people and properties protected as a result of the completion of the entire proposed project:

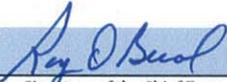
# of People	3,190
# of Residential Properties	1,301
# of Commercial Properties	72
# of Public Properties	5
# of Critical Facilities	9
Total # of Properties:	1,387

A. List the major milestones for this project.

Task	Months/Years from Award		Responsible Party
	Start *	Complete *	
Receive Grant Agreement from HSEMD	0	2	HSEMD, City
Carter Road Detention Basin	0	0	City, Consulting Engineer, Construction Contractor
W. 32nd Street Detention Basin	0	0	City, Consulting Engineer, Construction Contractor
Historic Millwork District	0	0	City, Consulting Engineer, Construction Contractor
Lower Bee Branch Creek Restoration	0	18	City, Consulting Engineer, Construction Contractor
Flood Mitigation Gate Replacement	6	18	City, Consulting Engineer, Construction Contractor
Impervious Surface Reduction	0	240	City, Consulting Engineer, Construction Contractor
Upper Bee Branch Creek Restoration	0	36	City, Consulting Engineer, Construction Contractor
22nd St. Storm Sewer Impr.	66	78	City, Consulting Engineer, Construction Contractor
Flood Mitigation Maint. Facility	42	78	City, Consulting Engineer, Construction Contractor
North End Storm Sewer Impr.	18	48	City, Consulting Engineer, Construction Contractor
Water Plant Flood Control	66	78	City, Consulting Engineer, Construction Contractor
17th St. Storm Sewer Impr.	66	84	City, Consulting Engineer, Construction Contractor
Project Closeout Activites	240	246	City, HSEMD
Total Project Duration:	246 months		

* - The dates provided above are estimated major milestones associated with this project. The milestone dates may be adjusted forward or backward if necessary due to changes in financing costs, sales tax increment funds available, construction timelines and costs and other factors. The City will report changes, if applicable, to the Flood Mitigation Board in its annual reporting.

To the best of my knowledge and belief, I certify that all data in this application packet is complete, true and correct. The governing body of the applicant has duly authorized this document and hereby applies for assistance as documented in this application. The applicant understands that the project shall not proceed until Flood Mitigation Board approval is granted.


Signature of the Chief Executive Officer
Roy D. Buol
Name of the Chief Executive Officer
Mayor
Title
City of Dubuque
Organization
11.7.13
Date
563-589-4110
Phone Number


Signature of the Authorized Representative
Michael C. Van Milligen
Name of Authorized Representative
City Manager
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City of Dubuque
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