STATE OF IOWA

FLOOD MITIGATION PROGRAM

PROGRESS REPORT

PERIOD COVERED BY THIS REPORT	11/1/2019	to	4/30/2020	
LOCAL CONTACT NAME:	Teri Goodmann			
GOVERNMENTAL ENTITY:	City of Dubuque			
ADDRESS:	50 West 13th Street			
	Dubuque, IA 52001			
TELEPHONE NUMBER:	563-589-4110			
PROJECT TITLE:	Bee Branch Watershed Flood Mitigation Project			
AGREEMENT NUMBER:	2013-0			
ACTIVITY COMPLETION TIMEFRAME:	12/4/2013	to	12/31/2033	

	FEDERAL	LOCAL	STATE	TOTAL
TOTAL FUNDS APPROVED:	$ 34,756,556	$ 76,678,802	$ 98,494,178	$ 209,929,536
TOTAL FUNDS EXPENDED TO DATE:	$ 31,903,644	$ 52,903,308	$ 62,797,231	$ 147,604,182
PROJECT OVERRUN/ (UNDERRUN):	**$ 2,852,912**	**$ 23,775,494**	**$ 35,696,947**	**$ 62,325,354**

The percentage of actual work that has been completed at the end of the reporting period (not a % of funds expended)	**66%**
The estimated cost of the project at completion (which may even exceed the awarded amount)	**$ 248,242,053**

Type of Expense & Funding Source	Budget (from Application)	Federal Local or State	Total Expended to Date	Remaining Balance
Engineering/Contractual Services:	$ 17,817,601			
Carter Road Detention Basin - General Obligation Bonds		Local/State	**$ 560,230**	
West 32nd Street Detention Basin - U.S. EPA State Revolving Funds		Federal	**$ 115,164**	
West 32nd Street Detention Basin - Stormwater Utility Fees		Local/State	**$ 36,242**	
West 32nd Street Detention Basin - General Obligation Bonds		Local/State	**$ 844,275**	
Historic Millwork District - General Obligation Bonds		Local/State	**$ 225,430**	
Historic Millwork District - Stormwater Utility		Local/State	**$ 502,809**	
Lower Bee Branch Legal Services - U.S. EPA State Revolving Funds		Federal	**$ 849,637**	
Lower Bee Branch Engineering - U.S. EPA State Revolving Funds		Federal	**$ 338,003**	
Lower Bee Branch Engineering - Stormwater Utility		Local/State	**$ 1,592,959**	
Upper Bee Branch Creek Engineering - State Sales Tax Increment Bond		Local/State	**$ 4,760,461**	
Upper Bee Branch Creek Legal Services- State Sales Tax Increment Bond		Local/State	**$ 167,288**	
Upper Bee Branch Creek Engineering - Stormwater Utility Fees		Local/State	**$ 2,376,951**	
Upper Bee Branch Creek Engineering - General Obligation Bond		Local/State	**$ 1,173,197**	
Upper Bee Branch Creek Engineering - U.S. EPA State Revolving Funds		Federal	**$ 6,342,564**	
Flood Mitigation Maintenance Facility Design - State Sales Tax Increment Bond		Local/State	**$ 332,312**	
Flood Mitigation Gate Replacement - State Sales Tax Increment Bond		Local/State	**$ 1,245**	
Flood Mitigation Gate Replacement - Stormwater Utility Fees		Local/State	**$ 396,409**	
17th Street/West Locust Storm Sewer Engineering - Sales Tax Increment Bond 1X0002		Local/State	**$ -**	
Impervious Surface Reduction - U.S. EPA State Revolving Funds		Federal	**$ 1,695,679**	
22nd Street Storm Sewer Construction - Sales Tax Increment Bond 1X0003		Local/State	**$ -**	
Bee Branch Creek Railroad Culverts - U.S. EPA State Revolving Fund (SRF) - Legal - 1X0010		Federal	**$ 15,125**	
Bee Branch Creek Railroad Culverts - State Sales Tax Increment Bond - Engineering 1X0010		Local/State	**$ -**	
TOTAL			$ 22,325,980	$ (4,508,379)
Property Acquisition & Easement:	$ 19,301,143			
Carter Road Detention Basin - Purchase/Deconstruction - Stormwater Utility Fees		Local/State	**$ 140,833**	
West 32nd Street Detention Basin - Purchase/Deconstruction - General Obligation Bonds		Local/State	**$ 2,144,713**	
Lower Bee Branch Creek -Purchase/ Deconstruction/ Maintenance of Housing - Storm Water Utility Fees		Local/State	**$ 1,157,577**	
Lower and Upper Bee Branch Creek -Purchase/ Deconstruction/ Maintenance of Housing - General Obligation Bonds		Local/State	**$ 13,676,887**	
Upper Bee Branch Creek -Purchase/ Deconstruction/ Maintenance of Housing - State Sales Tax Increment Bond		Local/State	**$ 2,373,206**	
17th Street/West Locust Storm Sewer Property Acquisition/Easements - Sales Tax Increment Bond		Local/State	**$ -**	
Flood Mitigation Maintenance Facility - Purchase/ Deconstruction/ Maintenance of Housing - State Sales Tax Increment Bond		Local/State	**$ 690,120**	
22nd Street Storm Sewer Property Acquisition & Easement: - Sales Tax Increment Bond		Local/State	**$ -**	
TOTAL			$ 20,183,336	$ (882,193)
Construction:	$ 139,593,792			

Carter Road Detention Basin - General Obligation Bonds		Local/State	**$ 749,062**	
West 32nd Street Detention Basin - U.S. EPA State Revolving Funds		Federal	**$ 1,711,836**	
Historic Millwork District - General Obligation Bonds		Local/State	**$ 1,649,072**	
Historic Millwork District - TIGER Grant		Local/State	**$ 5,600,000**	
Lower Bee Branch - State Sales Tax increment		Local/State	**$ 31,435**	
Lower Bee Branch - U.S. EPA State Revolving Funds		Federal	**$ 6,843,436**	
Lower Bee Branch - I-Jobs II Grant		Local/State	**$ 3,695,500**	
Lower Bee Branch - RECAT Grant		Local/State	**$ 189,142**	
Lower Bee Branch - Storm Water Utility		Local/State	**$ 1,020,966**	
Lower Bee Branch - Repair lightning damage - State Sales Tax Increment Bond		Local/State	**$ 658**	
Construction Trailer - State Sales Tax Increment Bond		Local/State	**$ 17,670**	
Upper Bee Branch Creek Construction - State Sales Tax Increment Bond		Local/State	**$ 18,158,936**	
Upper Bee Branch Creek Construction - U.S. EPA State Revolving Funds		Federal	**$ 22,951,178**	
Upper Bee Branch Creek Construction - DMATS		Local/State	**$ 940,000**	
Upper Bee Branch Creek Construction - RECAT		Local/State	**$ 2,060,858**	
Upper Bee Branch Creek Construction - EDA		Federal	**$ 1,227,138**	
Upper Bee Branch Creek Construction - NSB		Local/State	**$ 1,000,000**	
Upper Bee Branch Creek Construction - SRT		Local/State	**$ 100,000**	
17th Street/West Locust Storm Sewer Construction - Sales Tax Increment Bond		Local/State	**$ 1,956,388**	
Impervious Surface Reduction - U.S. EPA State Revolving Funds		Federal	**$ 7,704,321**	
Impervious Surface Reduction - State Sales Tax Increment		Local/State	**$ 1,383,448**	
22nd Street Storm Sewer Construction - Sales Tax Increment Bond		Local/State	**$ 1,526,168**	
Bee Branch Creek Railroad Culverts - U.S. EPA State Revolving Fund (SRF) - 1X0010		Federal	**$ 6,601,197**	
	TOTAL		$ 87,118,409	$ 52,475,383
Contingency:	$ 11,337,000			
			$ -	
	TOTAL		$ -	$ 11,337,000
Financing Interest:	$ 17,430,000			
Carter Road Detention Basin GO Bond			$ 866,878	
W. 32nd Street Detention Basin SRF Loan			$ 562,262	
Lower Bee Branch Creek SRF Loan			$ 1,982,041	
Lower Bee Branch GO Debt			$ 4,773,530	
Green Alley SRF Debt			$ 1,138,690	
Historic Millwork District - General Obligation Bonds			$ 1,746,795	
Sales Tax Increment Bond Series 2014A			$ 1,763,588	
Sales Tax Increment Bond Series 2015A			$ 3,402,466	
Upper Bee Branch Creek SRF loan			$ 1,740,208	
	TOTAL		$ 17,976,458	$ (546,458)
Financing Reserve:	$ 4,450,000			
			$ -	
	TOTAL		$ -	$ 4,450,000
Total Project Budget Summary	**$ 209,929,536**		**$ 147,604,182**	**$ 62,325,354**

FUNDING SOURCE:	FEDERAL (from Application)	LOCAL (from Application)	STATE (from Application)	Total Expended to Date
U.S. EPA Clean Water SRF	$ 49,021,052			**$ 55,168,140**
U.S. EDA Disaster Relief Grant	$ 1,227,138			**$ 1,227,138**
U.S. DOT TIGER Grant		$ 5,600,000		**$ 5,600,000**
I-Jobs II Grant		$ 3,965,500		**$ 3,695,500**
RECAT Grant		$ 2,250,000		**$ 2,250,000**
U.S. DOT National Scenic Byways Grant		$ 1,000,000		**$ 1,000,000**
State Recreational Trail Grant		$ 100,000		**$ 100,000**
DMATS		$ 940,000		**$ 940,000**
General Obligation Bonds		$ 48,227,604		**$ 21,022,866**
Private Donations		$ 165,244		**$ 207,875**
Sale of Assets and Land		$ 336,358		**$ 585,802**
Stormwater Utility Fees		$ 14,394,096		**$ 17,501,265**
Sanitary Sewer Fees				**$ -**
U.S. EPA Clean Water SRF (repayment)	$ (24,491,634)		$ 24,491,634	$ -
Sales Tax Increment			$ 74,002,544	**$ 38,305,597**
Total Project Funding Source	**$ 25,756,556**	**$ 76,978,802**	**$ 98,494,178**	**$ 147,604,182**

Indebtedness Incurred (Bonds, etc.)	Rate of Interest	Length of Term (start & end)	Costs of Issuance	Net Proceeds
Sales Tax Increment Revenue Bond (Series 2014A)	3.23%	**6/16/14-6/1/29**	$ 40,398	$ 8,120,912
Sales Tax Increment Revenue Bond (Series 2015A)	3.78%	**6/15/15-6/1/31**	$ 110,950	$ 20,637,011

NON-PUBLIC INVESTMENT - Entity	Total to Date
Gronen Restoration & Tennant Modifications - Caradco Building - Millwork District	$ 33,000,000
Novelty Ironworks - 333 E. 10th Street - Ryan Derks	$ 20,760,000
Residential Improvements/Additions - *(Various see Attachment B)*	$ 20,608,296
Rainbo Oil - 1260 E. 16th Street	$ 5,000,000
Morrison Brothers - East 7th Street	$ 4,300,000
Graybill Custom Builders - New Residential Development - Ashley Lane/Danlin Ct	$ 4,025,000
Dubuque Stamp - 3190 Jackson Street	$ 3,000,000
Mark GudenKauf - New Residential Development - Peach Tree Lane	$ 2,126,000
Engine House - 1805 Central	$ 1,910,000
Bethany Home - 1005 Lincoln Ave - Addition	$ 1,886,000
Commercial Improvements - *(Various see Attachment B)*	$ 1,819,147
Walgreens - 345 E 20th St	$ 1,004,390
Gronen Restoration - Betty Building - 151 E. 9th Street	$ 1,000,000
M & M Schultz Properties LLC - 3422 Asbury Road	$ 575,600
Salvia House LTD - 196 Kaufmann	$ 523,000
Gronen Restoration - St. Mary's Campus - 15th & White Street	$ 400,000
Weaver Castle - 324 - 326 W Locust Street	$ 400,000
Weaver Castle - 407-409 Loras Blvd	$ 400,000
Emmaus Bible School - 2570 Asbury Road	$ 290,000
Davis Place Apartments - 601 Garfield	$ 232,440
Dubuque Furniture & Flooring	$ 100,000
Rusk Building - 1104 White Street	$ 16,500
Nottingham Properties - 485 Locust Street	$ 12,500
Richards or High Building - Central	$ 6,800
Total Non-Public Investment	**$ 103,395,673**

Project Status- entire project (Check One)			Description of significant activities this **semi-annual term.** Include comparison of actual accomplishments to the objectives identified in your application. Attach pictures and a narrative. Status changes or delays, please explain reason.
		On Schedule	Please see the attached project update.
	X	Delayed	
		Canceled	
		Completed	
		Suspended	

Application Work Schedule (Milestones)			**Milestone Status**
#	Description:	Submitted Completion Date:	Actual Completion Date:
1	Receive Grant Agreement from FMP	2/4/2014	12/4/2013
2	Carter Road Detention Basin	12/4/2013	12/4/2013
3	W. 32nd Street Detention Basin	12/4/2013	12/4/2013
4	Historic Millwork District	12/4/2013	12/4/2013
5	Lower Bee Branch Creek Restoration	6/4/2015	Now Functional
6	Flood Mitigation Gate Replacement	6/4/2015	
7	Impervious Surface Reduction	12/4/2033	
8	Upper Bee Branch Creek Restoration	12/4/2016	8/28/2017
9	Upper Bee Branch Creek Restoration (Lower Bee Branch to Garfield - Railroad Culverts)	12/4/2016	
10	22nd St Storm Sewer Impr. (Elm to White)	6/4/2020	11/15/2018
11	22nd St Storm Sewer Impr. (White to Francis)	6/4/2020	
12	22nd St Storm Sewer Impr. (Francis to N. Main)	6/4/2020	
13	Flood Mitigation Maint. Facility	6/4/2020	
14	North End Storm Sewer Impr.	12/4/2017	
15	Water Plant Flood Control	6/4/2020	
16	17th St Storm Sewer Impr. (Pine to Elm)	12/4/2020	12/21/2017
17	17th St Storm Sewer Impr. (Elm to Heeb)	12/4/2020	
18	Project Closeout Activities	12/31/2033	

Person Completing this Report:	Jennifer Larson, Director of Budget & Finance
Date:	5/15/2020

I, the undersigned, hereby certify that the above information is accurate and true, and in accordance with the approved project plan and state and federal regulations and policies governing this award.

Signature on File

Signature of Authorized Representative or Governmental Entity

Teri Goodmann - Assistance City Manager

Name of Authorized Representative or Governmental Entity

City of Dubuque Bee Branch Watershed Flood Mitigation Project
Progress Report Narrative
(4-30-20)

PROJECT STATUS

While steady progress is being made on multiple phases of the Bee Branch Watershed Flood Mitigation Project, completion of a few of the phases were delayed beyond the milestone dates outlined in the original project application. When the bid for a contract associated with Phase 7 came in $9 million over budget, the shift in funding necessary to proceed affected the timeline of other phases.

Phase 1 – Carter Road Detention Basin [Complete]

Mowing and debris removal performed as planned.

Phase 2 – W.32nd Street Detention Basin [Complete]

Mowing and debris removal performed as planned. A controlled burn was performed in April of 2017. Sediment removal is planned for the summer of 2020.

Phase 3 – Historic Millwork District [Complete]

Pervious pavements are inspected and cleaned per adopted schedule.

Phase 4 – Lower Bee Branch Creek Restoration [Milestone Completion Date: June of 2015]

In 2017, two of the more significant elements of Phase 4 have been completed: the Lower Bee Branch Creek Basin Overlook and the Lower Bee Branch Floating Islands. The only remaining component is related to the security system network which is currently under contract and scheduled to be complete in the summer of 2020.

The Leisure Services Department continues mowing and trash/debris removal as needed.

Phase 5 – Flood Mitigation Gate Replacement [Milestone Completion Date: June of 2015]

In April of 2017, a series of possible enhancements were proposed by the design engineer that improved access to the facility; an updated, more reliable electrical service; and provided space for the use of additional, temporary pumps to augment the existing, permanent pumps. The estimated cost for the improvements exceeded $3.3 million, considerably more than the budget. Due to the record rainfalls in 2010 and 2011 that have impacted the Bee Branch Watershed, it was prudent to consider if even the modest improvements were sufficient. Per

the Bee Branch Stormwater Pumping Station Preliminary Engineering Report, five alternative options were evaluated. The preferred alternative includes the:

- Replacement of the existing flood gates;
- Installation of an additional flood gate;
- Replacement of the existing flood pumps and installation of additional pumps;
- Replacement and updating of the electrical service to current standards;
- Installation on an additional back-up generator for the additional pumps to address the needed resiliency being demanded by the storms of recent years, including the July 2017 storm event.

This alternative was chosen because it best addresses the flooding that has been occurring since 1999. It also provides for additional resiliency options as rainstorms increase in both depth and intensity. For example, it provides for additional space for a third culvert from the basin to the Mississippi River. This represents an expanded scope over what was originally proposed in the City's State Flood Mitigation Program application which considered just the replacement of the gates at an estimated cost of $4,512,464.00.

The City of Dubuque's consulting engineer, IIW PC, has been working to develop and refine the project design for the 16th St. Detention Basin Food Gates project. With the development of the 60% design plans, the cost estimate for the project has increased significantly. The current cost estimate is $17.1 million. Thus, the project is now estimated at $15 million over the original budget reflected in the City's application. Therefore, the City sought additional grant funding to offset the cost associated with the expanded scope.

The City was notified by the U. S. Economic Development Administration (EDA) that the City was awarded $2,500,000.00 in grant funding for the 16th Street Detention Basin Flood Gates Project – the Flood Mitigation Gate & Pump Replacement. With the EDA grant funding, the City costs is $14.6 million. The current schedule for the improvements is as follows:

Event/Milestone	Date of Completion
Design improvements for USACE Review/Approval	December 2019
Submission of Final Plans and Specifications, Construction and Floodplain Permits	April 2020
Approval of Final Plans/Construction Permitting from USACE	September 2020
Initiate Bidding	October 2020
Award of Construction Contract	November 2020
Construction Start	December 2020
Construction Completed	February 2022
Start-up and Commissioning	March 2022

Phase 6 – Impervious Surface Reduction [Milestone Completion Date: December of 2033]

To date 80 of 240 impervious alleys have been converted into green alley, pervious pavement systems. The $9.4 million in SRF sponsorship funding has been exhausted as anticipated. The construction of green alley pervious pavement systems will resume in 2020.

The Public Works Department continues to inspect the pervious pavement systems on a semi-annual basis, vacuum sweeping them annually and more frequently on an as-needed basis.

Phase 7 – Upper Bee Branch Creek Restoration [Milestone Completion Date: December of 2016]

The improvements were to be bid and constructed under multiple contracts. One contract came in $9 million over the City budget. Therefore, it looked as if the $9 million shortfall would delay the bidding and construction of the final Phase 7 improvements involving the installation of culverts through railroad property in order to pass floodwaters from the Phase 7 improvements to the Phase 4, Lower Bee Branch Creek, improvements. But in early 2016, it was announced that the City would receive $9 million through the HUD National Disaster Resiliency Competition (HUD NDRC) to cover the shortfall associated with Phase 7 of the Bee Branch Watershed Flood Mitigation Project. In order to remain eligible for the $9 million in HUD funding for the improvements through the railroad property, the City had to wait until a grant agreement between HUD and the State and an agreement between the State and the City was in place. This was accomplished in October of 2016. In March of 2017, in accordance with HUD requirements, the City executed a new contract with the City's consulting engineers to provide engineering design services for the improvements through the railroad property. And in June of 2017, the City Council authorized the hiring of Ahlers & Cooney law firm to provide legal services pertaining to the negotiations with the owner of the railroad, Canadian Pacific (CP) and other property acquisitions necessary for the improvements. Since then, the engineering work required to produce the final design plans was initiated. In July of 2017, the City and CP executed the Amended and Substituted Service Agreement reflecting the current approach to install the tunneled culvert system and establishing a new expiration date of December 31, 2018.

In February of 2019, the City awarded the construction contract for the Upper Bee Branch Creek Railroad Culverts Project in the amount of $25,900,000.00, which was 1.24% over the engineer's estimate. The Upper Bee Branch Creek Railroad Culverts Project (Project) represents the final contract associated with the Bee Branch Creek Restoration Project (Phase 4 & 7 of the Bee Branch Watershed Flood Mitigation Project). The improvements will allow for the efficient flow of floodwaters from the recently completed upper Bee Branch Creek improvements, through the railroad yard on Garfield Avenue, to the lower Bee Branch Creek. Project elements

include the installation of six, 8-foot diameter culverts under the railroad tracks using tunneling methods. This allows for the railroad operation to continue unimpeded during the construction project. In addition to the culverts under the railroad tracks, the Project includes the extension of the box culverts installed under Garfield Avenue as part of the upper Bee Branch Creek improvements to a new buried junction chamber, or transition structure where the flow from the upper Bee Branch Creek will join with flow from the Bee Branch storm sewer from Pine Street. The combined flow will then flow under the railroad tracks through the tunneled pipes mentioned previously into the lower Bee Branch Creek. An outfall structure will be constructed where the water will flow into the lower Bee Branch Creek. This will include a headwall for the culverts, a flood gate with pump station to control the depth of water in the upper Bee Branch Creek, topped by a concrete pad that will allow access to the culverts and gate from above while also providing a plaza area for citizens to overlook the lower Bee Branch Creek. The Project also incorporates the existing box culverts underneath the railroad tracks into the flood control system. With construction underway, it is scheduled to be complete by July 1, 2021.

Phase 8 – 22nd St/Kaufmann Ave Storm Sewer Impr. [Milestone Completion Date: December of 2016]

Engineering consultants are under contract designing the improvements for the entire stretch of the project limits. The construction contract for the first segment of the improvements, from Elm Street to White Street, was awarded in April of 2018 in the amount of $2,548,366.71. It is now complete. The construction contract for the final segment, from White Street to Francis Street, was awarded in March of 2019 in the amount of $2,349,054.47. Construction of the underground improvements is complete. Final paving and landscaping will be complete in the spring of 2020.

Phase 9 – Flood Mitigation Maintenance Facility [Milestone Completion Date: June 2020]

The City has purchased the two properties required for the facility. Site clearing activities are under way, first addressing the environmental issues with the property. The City has been working with the US EPA to develop the scope of the cleanup activities for the brownfield site. The site has also been enrolled in the Iowa Department of Natural Resources voluntary Land Recycling Program. Cleanup of the easterly property is now complete. Cleanup activity of the westerly property will begin in 2020 and is expected to be complete by October of 2021. Design of the maintenance facility will follow completion of the cleanup activity.

Phase 10 – North End Storm Sewer Improvements [Milestone Completion Date: December 2017]

This phase of the project has been delayed in conjunction with the delays associated with Phase 4 and Phase 7 as they must be completed first.

Phase 11 – Water Plant Flood Control [Milestone Completion Date: June 2020]

The USACE created a sophisticated computer model that can predict the depth of inundation, time to inundation, and inundation paths at critical infrastructure for hypothetical levee breach scenarios. The USACE levee breach analysis was not initiated because of any known imminent risk of failure to the levee protecting Dubuque, but instead as an effort to improve emergency planning and communication of the potential risks associated with the levee. The main goal of their work was to further advance the USACE's new computer software tool [HEC-RAS 5.0]. It also helped to further their mission to ensure that the public understands the risks of "living behind a levee." In 2015, the City hired engineering consultant HDR to advance the 2-D modeling work started by the USACE. HDR refined the model by adding break lines to better match the existing terrain, spatially varied flow path characteristics, and incorporated the existence of buildings within the model. The City will be able to utilize the model when designing the flood control/prevention system to protect the City's sole potable water treatment plant from flooding. The modeling and study is complete and will aid in the design of the water plant flood protection system.

Phase 12 – 17th St/W. Locust Storm Sewer Impr. [Milestone Completion Date: December 2020]

The first segment, between Pine Street and Elm Street, was completed in late 2017 for $1,155,286.32. The second and final segment, between Elm Street and Heeb Street is also now complete at a construction contract cost of $3,720,555.75.