

	A	B	C	D	E	F	G	H	I	
1	STATE OF IOWA									
2	FLOOD MITIGATION PROGRAM									
3	PROGRESS REPORT									
4										
5	PERIOD COVERED BY THIS REPORT		11/1/2021		to		4/30/2022			
6	LOCAL CONTACT NAME:		Teri Goodmann							
7	GOVERNMENTAL ENTITY:		City of Dubuque							
8	ADDRESS:		50 West 13th Street							
9			Dubuque, IA 52001							
10	TELEPHONE NUMBER:		563-589-4110							
11	PROJECT TITLE:		Bee Branch Watershed Flood Mitigation Project							
12	AGREEMENT NUMBER:		2013-0							
13	ACTIVITY COMPLETION TIMEFRAME:		12/4/2013		to		12/31/2033			
15			FEDERAL		LOCAL		STATE		TOTAL	
16	TOTAL FUNDS APPROVED:		\$	34,756,556	\$	76,678,802	\$	98,494,178	\$ 209,929,536	
17	TOTAL FUNDS EXPENDED TO DATE:		\$	25,287,322	\$	70,112,649	\$	67,167,932	\$ 162,567,903	
18	PROJECT OVERRUN/ (UNDERRUN):		\$	9,469,234	\$	6,566,153	\$	31,326,246	\$ 47,361,633	
19	The percentage of actual work that has been completed at the end of the reporting period (not a % of funds expended)							74.00%		
20	The estimated cost of the project at completion (which may even exceed the awarded amount)							\$ 248,242,053		
22	Type of Expense		Budget		Federal		Total Expended		Remaining	
23	& Funding Source		(from Application)		Local or State		to Date		Balance	
24	Engineering/Contractual Services:		\$ 17,817,601							
25	Carter Road Detention Basin - General Obligation Bonds				Local/State		\$ 560,230			
26	West 32nd Street Detention Basin - U.S. EPA State Revolving Funds				Federal		\$ 115,164			
27	West 32nd Street Detention Basin - Stormwater Utility Fees				Local/State		\$ 36,242			
28	West 32nd Street Detention Basin - General Obligation Bonds				Local/State		\$ 844,275			
29	Historic Millwork District - General Obligation Bonds				Local/State		\$ 225,430			
30	Historic Millwork District - Stormwater Utility				Local/State		\$ 502,809			
31	Lower Bee Branch Legal Services - U.S. EPA State Revolving Funds				Federal		\$ 849,637			
32	Lower Bee Branch Engineering - U.S. EPA State Revolving Funds				Federal		\$ 338,003			
33	Lower Bee Branch Engineering - Stormwater Utility				Local/State		\$ 1,592,959			
34	Upper Bee Branch Creek Engineering - State Sales Tax Increment Bond				Local/State		\$ 4,899,930			
35	Upper Bee Branch Creek Legal Services- State Sales Tax Increment Bond				Local/State		\$ 167,288			
36	Upper Bee Branch Creek Engineering - Stormwater Utility Fees				Local/State		\$ 2,376,951			
37	Upper Bee Branch Creek Engineering - General Obligation Bond				Local/State		\$ 1,173,197			
38	Upper Bee Branch Creek Engineering - U.S. EPA State Revolving Funds				Federal		\$ 6,342,564			
39	Flood Mitigation Maintenance Facility Design - State Sales Tax Increment Bond				Local/State		\$ 441,958			
40	Flood Mitigation Gate Replacement - State Sales Tax Increment Bond				Local/State		\$ 1,245			
41	Flood Mitigation Gate Replacement - Stormwater Utility Fees				Local/State		\$ 1,026,223			
42	17th Street/West Locust Storm Sewer Engineering - Sales Tax Increment Bond 1X0002				Local/State		\$ 287,071			
43	Impervious Surface Reduction - U.S. EPA State Revolving Funds				Federal		\$ 1,695,679			
44	22nd Street Storm Sewer Construction - Sales Tax Increment Bond 1X0003				Local/State		\$ -			
45	Bee Branch Creek Railroad Culverts - State Revolving Fund (SRF) - Legal - 1X0010 - Local				Local/State		\$ 15,125			
46	Bee Branch Creek Railroad Culverts - State Revolving Fund (SRF) - Engineering 1X0010 - Local				Local/State		\$ -			
47	TOTAL						\$ 23,491,979		\$ (5,674,378)	

	A	B	C	D	E	F	G	H	I
48	Property Acquisition & Easement:				\$ 19,301,143				
49	Carter Road Detention Basin - Purchase/Deconstruction - Stormwater Utility Fees						Local/State	\$ 140,833	
50	West 32nd Street Detention Basin - Purchase/Deconstruction - General Obligation Bonds						Local/State	\$ 2,144,713	
51	Lower Bee Branch Creek -Purchase/ Deconstruction/ Maintenance of Housing - Storm Water Utility Fees						Local/State	\$ 1,157,577	
52	Lower and Upper Bee Branch Creek -Purchase/ Deconstruction/ Maintenance of Housing - General Obligation Bonds						Local/State	\$ 13,676,887	
53	Upper Bee Branch Creek -Purchase/ Deconstruction/ Maintenance of Housing - State Sales Tax Increment Bond						Local/State	\$ 2,373,206	
54	17th Street/West Locust Storm Sewer Property Acquisition/Easements - Sales Tax Increment Bond						Local/State	\$ -	
55	Flood Mitigation Maintenance Facility - Purchase/ Deconstruction/ Maintenance of Housing - State Sales Tax Increment Bond						Local/State	\$ 693,853	
56	22nd Street Storm Sewer Property Acquisition & Easement: - Sales Tax Increment Bond						Local/State	\$ -	
57	TOTAL							\$ 20,187,069	\$ (885,926)
58	Construction:				\$ 139,593,792				
59	Carter Road Detention Basin - General Obligation Bonds						Local/State	\$ 749,062	
60	West 32nd Street Detention Basin - U.S. EPA State Revolving Funds						Federal	\$ 1,711,836	
61	Historic Millwork District - General Obligation Bonds						Local/State	\$ 1,649,072	
62	Historic Millwork District - TIGER Grant						Local/State	\$ 5,600,000	
63	Lower Bee Branch - State Sales Tax increment						Local/State	\$ 31,435	
64	Lower Bee Branch - U.S. EPA State Revolving Funds						Federal	\$ 6,843,436	
65	Lower Bee Branch - I-Jobs II Grant						Local/State	\$ 3,695,500	
66	Lower Bee Branch - RECAT Grant						Local/State	\$ 189,142	
67	Lower Bee Branch - Storm Water Utility						Local/State	\$ 1,020,966	
68	Lower Bee Branch - Repair lightning damage - State Sales Tax Increment Bond						Local/State	\$ 658	
69	Construction Trailer - State Sales Tax Increment Bond						Local/State	\$ 17,670	
70	Upper Bee Branch Creek Construction - State Sales Tax Increment Bond						Local/State	\$ 18,625,317	
71	Upper Bee Branch Creek Construction - U.S. EPA State Revolving Funds						Federal	\$ 22,951,178	
72	Upper Bee Branch Creek Construction - DMATS						Local/State	\$ 940,000	
73	Upper Bee Branch Creek Construction - RECAT						Local/State	\$ 2,060,858	
74	Upper Bee Branch Creek Construction - EDA						Federal	\$ 1,227,138	
75	Upper Bee Branch Creek Construction - NSB						Local/State	\$ 1,000,000	
76	Upper Bee Branch Creek Construction - SRT						Local/State	\$ 100,000	
77	17th Street/West Locust Storm Sewer Construction - Sales Tax Increment Bond						Local/State	\$ 1,967,671	
78	Impervious Surface Reduction - U.S. EPA State Revolving Funds						Federal	\$ 7,704,321	
79	Impervious Surface Reduction - State Sales Tax Increment						Local/State	\$ 1,383,448	
80	22nd Street Storm Sewer Construction - Sales Tax Increment Bond						Local/State	\$ 1,691,756	
81	Bee Branch Creek Railroad Culverts - State Revolving Fund (SRF) - 1X0010 - Local -						Local/State	\$ 15,432,957	
82	TOTAL							\$ 96,593,422	\$ 43,000,370
83	Contingency:				\$ 11,337,000				
84								\$ -	
85	TOTAL							\$ -	\$ 11,337,000

	A	B	C	D	E	F	G	H	I				
86	Financing Interest:					\$	17,430,000						
87	Carter Road Detention Basin GO Bond							\$	887,442				
88	W. 32nd Street Detention Basin SRF Loan							\$	601,895				
89	Lower Bee Branch Creek SRF Loan							\$	2,319,862				
90	Lower Bee Branch GO Debt							\$	5,202,255				
91	Green Alley SRF Debt							\$	1,100,163				
92	Historic Millwork District - General Obligation Bonds							\$	2,090,024				
93	Sales Tax Increment Bond Series 2014A							\$	2,409,788				
94	Sales Tax Increment Bond Series 2015A							\$	4,927,766				
95	Upper Bee Branch Creek 2015 SRF loan (SRF 2021)							\$	2,390,637				
96	Upper Bee Branch Creek 2019 SRF loan							\$	365,601				
97	TOTAL							\$	22,295,433	\$ (4,865,433)			
98	Financing Reserve:					\$	4,450,000						
99								\$	-				
100	TOTAL							\$	-	\$ 4,450,000			
101	Total Project Budget Summary					\$	209,929,536		\$	162,567,903	\$	47,361,633	
103	FUNDING SOURCE:					FEDERAL	(from Application)	LOCAL	(from Application)	STATE	(from Application)	Total Expended to Date	
104	U.S. EPA Clean Water SRF					\$	49,021,052				\$	48,551,818	
105	U.S. EDA Disaster Relief Grant					\$	1,227,138				\$	1,227,138	
106	U.S. DOT TIGER Grant							\$	5,600,000		\$	5,600,000	
107	I-Jobs II Grant							\$	3,965,500		\$	3,695,500	
108	RECAT Grant							\$	2,250,000		\$	2,250,000	
109	U.S. DOT National Scenic Byways Grant							\$	1,000,000		\$	1,000,000	
110	State Recreational Trail Grant							\$	100,000		\$	100,000	
111	DMATS							\$	940,000		\$	940,000	
112	General Obligation Bonds							\$	48,227,604		\$	36,470,948	
113	Private Donations							\$	165,244		\$	207,875	
114	Sale of Assets and Land							\$	336,358		\$	585,802	
115	Stormwater Utility Fees							\$	14,394,096		\$	19,262,524	
116	Sanitary Sewer Fees										\$	-	
117	U.S. EPA Clean Water SRF (repayment)					\$	(24,491,634)			\$	24,491,634	\$	-
118	Sales Tax Increment									\$	74,002,544	\$	42,676,298
119	Total Project Funding Source					\$	25,756,556	\$	76,978,802	\$	98,494,178	\$	162,567,903
121	Indebtedness Incurred (Bonds, etc.)					Rate of Interest		Length of Term (start & end)		Costs of Issuance		Net Proceeds	
122	Sales Tax Increment Revenue Bond (Series 2014A)					3.23%		6/16/14-6/1/29		\$ 40,398		\$ 8,120,912	
123	Sales Tax Increment Revenue Bond (Series 2015A)					3.78%		6/15/15-6/1/31		\$ 110,950		\$ 20,637,011	
124	Upper Bee Branch SRF 2015					1.18%		6/15/15-6/1/31		\$ 785,524		\$ 30,941,000	
125	Upper Bee Branch SRF 2019					1.75%		6/1/19-6/1/40		\$ 81,910		\$ 16,382,000	
127	NON-PUBLIC INVESTMENT - Entity										Total to Date		
128	Gronen Restoration & Tennant Modifications - Caradco Building - Millwork District										\$ 33,000,000		
129	Novelty Ironworks - 333 E. 10th Street - Ryan Derks										\$ 20,760,000		
130	Residential Improvements/Additions - (Various see Attachment B)										\$ 20,608,296		
131	Rainbo Oil - 1260 E. 16th Street										\$ 5,000,000		
132	Morrison Brothers - East 7th Street										\$ 4,300,000		
133	Graybill Custom Builders - New Residential Development - Ashley Lane/Danlin Ct										\$ 4,025,000		
134	Dubuque Stamp - 3190 Jackson Street										\$ 3,000,000		
135	Mark GudenKauf - New Residential Development - Peach Tree Lane										\$ 2,126,000		
136	Engine House - 1805 Central										\$ 1,910,000		
137	Bethany Home - 1005 Lincoln Ave - Addition										\$ 1,886,000		
138	Commercial Improvements - (Various see Attachment B)										\$ 1,819,147		
139	Walgreens - 345 E 20th St										\$ 1,004,390		

	A	B	C	D	E	F	G	H	I
140	Gronen Restoration - Betty Building - 151 E. 9th Street								\$ 1,000,000
141	M & M Schultz Properties LLC - 3422 Asbury Road								\$ 575,600
142	Salvia House LTD - 196 Kaufmann								\$ 523,000
143	Gronen Restoration - St. Mary's Campus - 15th & White Street								\$ 400,000
144	Weaver Castle - 324 - 326 W Locust Street								\$ 400,000
145	Weaver Castle - 407-409 Loras Blvd								\$ 400,000
146	Emmaus Bible School - 2570 Asbury Road								\$ 290,000
147	Davis Place Apartments - 601 Garfield								\$ 232,440
148	Dubuque Furniture & Flooring								\$ 100,000
149	Rusk Building - 1104 White Street								\$ 16,500
150	Nottingham Properties - 485 Locust Street								\$ 12,500
151	Richards or High Building - Central								\$ 6,800
152	Total Non-Public Investment								\$ 103,395,673

154	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.							
155	<input checked="" type="checkbox"/> On Schedule	Please see the attached project update.							
156	<input type="checkbox"/> Delayed								
157	<input type="checkbox"/> Canceled								
158	<input type="checkbox"/> Completed								
159	<input type="checkbox"/> Suspended								

161 Application Work Schedule (Milestones)				Milestone Status
162 #	Description:	Submitted Completion Date:	Actual Completion Date:	
163 1	Receive Grant Agreement from FMP	2/4/2014	12/4/2013	
164 2	Carter Road Detention Basin	12/4/2013	12/4/2013	
165 3	W. 32nd Street Detention Basin	12/4/2013	12/4/2013	
166 4	Historic Millwork District	12/4/2013	12/4/2013	
167 5	Lower Bee Branch Creek Restoration	6/4/2015	Functional	
168 6	Flood Mitigation Gate Replacement	6/4/2015		
169 7	Impervious Surface Reduction	12/4/2033		
170 8	Upper Bee Branch Creek Restoration	12/4/2016	8/28/2017	
171 9	Upper Bee Branch Creek Restoration (Lower Bee Branch to Garfield - Railroad Culverts)	12/4/2016		
172 10	22nd St Storm Sewer Impr. (Elm to White)	6/4/2020	11/15/2018	
173 11	22nd St Storm Sewer Impr. (White to Francis)	6/4/2020		
174 12	22nd St Storm Sewer Impr. (Francis to N. Main)	6/4/2020		
175 13	Flood Mitigation Maint. Facility	6/4/2020		
176 14	North End Storm Sewer Impr.	12/4/2017		
177 15	Water Plant Flood Control	6/4/2020		
178 16	17th St Storm Sewer Impr. (Pine to Elm)	12/4/2020	12/21/2017	
179 17	17th St Storm Sewer Impr. (Elm to Heeb)	12/4/2020		
180 18	Project Closeout Activities	12/31/2033		

182	Person Completing this Report:	Deron Muehring, Civil Engineer		
183	Date:	5/15/2022		
184	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.			
185	Signature on file			
186				
187				
188	Jennifer Larson, Director of Budget & Finance			
189	Name of Authorized Representative or Governmental Entity			
190				

City of Dubuque Bee Branch Watershed Flood Mitigation Project Progress Report Narrative (4-30-22)

PROJECT STATUS

The City continues to make progress on multiple phases of the Bee Branch Watershed Flood Mitigation Project.

NOTE: When the bid for a contract associated with the Upper Bee Branch Creek Restoration Project, Phase 7 of the multi-phase Bee Branch Watershed Flood Mitigation Project (Project), was \$9 million over budget, the shift in funding necessary to proceed affected the timeline of other Project 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 the April of 2017 and in the spring of 2022. Sediment removal was completed in May of 2021.

Phase 3 – Historic Millwork District [Complete]

Pervious pavements were inspected and cleaned per established schedule.

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

With work substantially complete, progress continues on the Lower Bee Branch Creek Restoration. The improvements associated with the dual-purpose maintenance/pedestrian trail around the southeastern edge of the Bee Branch ponding area was bid in early 2022. Bids were rejected due to higher-than-expected costs. Pending value engineering, the work will be rebid in the coming months.

The Leisure Services Department continues mowing and trash/debris removal as needed. A controlled burn of the prairie grass along the creek and around the ponding area was completed to eliminate invasive, non-native plant species.

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

Due to the record rainfalls in 2010 (a 100-year rain event) and 2011 (a 500-year rain event) that impacted the Bee Branch Watershed, the design parameters were studied and ultimately adjusted such that the facility could accommodate something larger than a 10-year flood event

as originally designed. The City’s consulting engineer evaluated five alternatives. The preferred alternative included 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.

Based on the engineering analysis performed in conjunction with the City of Dubuque, Iowa Planning Assistance to States Report (United States Army Corps of Engineers, September 2020), the preferred option would accommodate the 500-year rain event.

Phase 5 of the Project has been amended to reflect the preferred alternative as 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. This represents an expanded scope over what was originally proposed in the City’s State Flood Mitigation Program application (Application) which considered just the replacement of the gates at an estimated cost of \$4,085,704.00.

The City of Dubuque’s consulting engineer, Origin Design (formerly IIW), has been working to develop and refine the project design. With the development of the final construction documents, the cost estimate for the project is now is \$17.5 million. Thus, the project is now estimated at \$13.5 million over the original budget reflected in the Bee Branch Watershed Flood Mitigation Project submitted with the City’s Application.

The City sought additional grant funding to offset the cost associated with the expanded scope and was successful in securing a \$2.5 million grant through the U. S. Economic Development Administration (EDA). With the EDA grant funding, the City costs is \$15 million. The project is currently out for bids. The current schedule for the improvements is as follows:

Event/Milestone	Date of Completion
Initiate Bidding	April 2022
Award of Construction Contract	June 2022
Construction Start	July 2022
Construction Completed	April 2024

Because of the scope and associated cost increase, construction of the Bee Branch Flood Mitigation Gate & Pump Replacement project will delay other phases of the 12-phase Bee Branch Watershed Flood Mitigation Project.

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 spent as anticipated. Two alleys are under design and scheduled for construction in 2022.

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 bid and constructed under multiple contracts. The first four contracts involved improvements from Garfield Avenue to E. 24th Street. They were complete in the summer of 2015.

The total cost for the first four contracts was \$9 million over the Engineer's opinion of probable cost, and \$9 million more than what was budgeted for the improvements. To proceed, bidding and construction of the final contracts, the installation of culverts through railroad property on Garfield Avenue owned and operated by Canadian Pacific Railway. 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 the first four contracts. In October of 2016 the funding agreement was executed.

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).

Project elements include the installation of six, 8-foot diameter culverts under the railroad tracks using tunneling methods; this work was completed in late October of 2020. And with construction nearing completion on the final two contracts, a ribbon cutting was held on November 21, 2021, to commemorate achieving the milestone of the improvements being able to handle the 500-year rainstorm.

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.

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

The construction contract for the first segment of the improvements, from Elm Street to White Street, was awarded in April of 2018 and is now complete. The construction contract for the second segment, from White Street to Francis Street, was awarded in March of 2019 and is also complete. Construction of the third and final segment, from Francis to North Main Street was also completed in late 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 complete. Cleanup activity of the westerly property, which has been delayed due to the COVID-19 pandemic. It is expected to be complete in 2022. 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 study is now complete. It will aid in the planned 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. The second segment, between Elm Street and Heeb Street is also complete. The third, and final segment, between Heeb Street and Iowa Street, was completed in the spring of 2021.