

## Subgrant Planning Application

**Application Title:** Flood Diversion and Storage Optimization in Merced County (PDMC 18-0091)

**Subgrant Applicant:** City of Merced

**Application Number:** CA-2019-056

**Application Year:** 2019

**Grant Type:** Planning Application

**Address:** 678 W 18th Street, Merced, CA 95340-0000

### Subapplicant Information

Name of Subapplicant	City of Merced
State	CA
Type of Subapplicant	Local Government
Legal status, function, and facilities owned:	
State Tax Number:	80-038177
Federal Tax Number:	94-6000371
Other type name:	
Federal Employer Identification (EIN)	94-6000371
What is your DUNS Number?	169211554 -
Is Subapplication subject to review by Executive Order 12372 Process?	Yes. From 09-24-2018
Is the Subapplicant delinquent on any Federal debt?	No
Explanation:	

## Contact

## Authorized Subgrant Agent

Title	Mr.
First Name	Steve
Middle Initial	
Last Name	Carrigan
Title	City Manager
Agency/Organization	City fo Merced
Address 1	678 W 18th Street
Address 2	
City	Merced
State	CA
ZIP	95340
Phone	209-385-6834 Ext.
Fax	209-388-8846
Email	carrigans@cityofmerced.org

## Point of Contact

Title	Mr.
First Name	Ken
Middle Initial	
Last Name	Elwin
Title	Public Works Director
Agency/Organization	City of Merced
Address 1	1776 Grogan Ave
Address 2	
City	Merced
State	CA
ZIP	95340
Phone	209-385-6803 Ext.
Fax	209-388-8760
Email	ElwinK@cityofmerced.org

## Community Information

Please provide the name of each community that will benefit from this mitigation activity by clicking on the Find Community button. You shall modify Congressional District for each community by directly editing the textbox(es) provided. You should also notify your state NFIP coordinator so that it can be updated in the Community Information System database. When you are finished, click the *Save and Continue* button below.

State	County Code	Community Name	CID Number	CRS Community	CRS Rating	State Legislative District	US Congressional District
CA	060191_QBM0Z0HMM	<a href="#">MERCED, CITY OF</a>	060191	N		060191	15
CA	060188_QBM0Z0HMK	<a href="#">MERCED COUNTY *</a>	060188	N		060188	15
CA	060188_QBM0Z0HMK	<a href="#">MERCED COUNTY *</a>	060188	N		060188	2
CA	060191_QBM0Z0HMM	<a href="#">MERCED, CITY OF</a>	060191	N		060191	2

## Comments

The proposed planning activity will benefit Merced County and communities along the San Joaquin River levee downstream of the City of Merced.

## Attachments

State	CA	
Community Name	MERCED, CITY OF	
County Name	CALIFORNIA	
County Code	MERCED COUNTY	
City Code	060191	
<a href="#">FIPS Code</a>	047	<a href="#">Help</a>
<a href="#">CID Number</a>	060191	<a href="#">Help</a>
<a href="#">CRS Community</a>	N	
<a href="#">CRS Rating</a>		
State Legislative District	060191	
US Congressional District	15	
<a href="#">FIRM</a> or <a href="#">FHBM</a> available?	Yes	
<a href="#">Community Status</a>	PARTICIPATING	<a href="#">Help</a>
Community participates in <a href="#">NFIP</a> ?	Yes	
Date entered in NFIP	04-25-1975	
Date of most recent <a href="#">Community Assistance Visit (CAV)</a> ?	12-31-2020	<a href="#">Help</a>
State	CA	

Community Name	MERCED COUNTY *	
County Name	CALIFORNIA	
County Code	MERCED COUNTY	
City Code	060188	
<a href="#">FIPS Code</a>	047	<a href="#">Help</a>
<a href="#">CID Number</a>	060188	<a href="#">Help</a>
<a href="#">CRS Community</a>	N	
<a href="#">CRS Rating</a>		
State Legislative District	060188	
US Congressional District	15	
<a href="#">FIRM</a> or <a href="#">FHBM</a> available?	Yes	
<a href="#">Community Status</a>	PARTICIPATING	<a href="#">Help</a>
Community participates in <a href="#">NFIP</a> ?	Yes	
Date entered in NFIP	08-23-1974	
Date of most recent <a href="#">Community Assistance Visit (CAV)</a> ?	07-20-2012	<a href="#">Help</a>
State	CA	
Community Name	MERCED COUNTY *	
County Name	CALIFORNIA	
County Code	MERCED COUNTY	
City Code	060188	
<a href="#">FIPS Code</a>	047	<a href="#">Help</a>
<a href="#">CID Number</a>	060188	<a href="#">Help</a>
<a href="#">CRS Community</a>	N	
<a href="#">CRS Rating</a>		
State Legislative District	060188	
US Congressional District	2	
<a href="#">FIRM</a> or <a href="#">FHBM</a> available?	Yes	
<a href="#">Community Status</a>	PARTICIPATING	<a href="#">Help</a>
Community participates in <a href="#">NFIP</a> ?	Yes	
Date entered in NFIP	08-23-1974	
Date of most recent <a href="#">Community Assistance Visit (CAV)</a> ?	07-20-2012	<a href="#">Help</a>
State	CA	
Community Name	MERCED, CITY OF	
County Name	CALIFORNIA	
County Code	MERCED COUNTY	
City Code	060191	

<a href="#">FIPS Code</a>	047	<a href="#">Help</a>
<a href="#">CID Number</a>	060191	<a href="#">Help</a>
<a href="#">CRS Community</a>	N	
<a href="#">CRS Rating</a>		
State Legislative District	060191	
US Congressional District	2	
<a href="#">FIRM</a> or <a href="#">FHBM</a> available?	Yes	
<a href="#">Community Status</a>	PARTICIPATING	<a href="#">Help</a>
Community participates in <a href="#">NFIP</a> ?	Yes	
Date entered in NFIP	04-25-1975	
Date of most recent <a href="#">Community Assistance Visit (CAV)</a> ?	12-31-2020	<a href="#">Help</a>

## Mitigation Plan

Is the entity that will benefit from the proposed activity covered by a current FEMA-approved multi-hazard mitigation plan in compliance with 44 CFR Part 201? Yes

If Yes, please answer the following:

What is the name of the plan?	City of Merced Local Hazard Mitigation Plan
What is the type of plan?	Local Multihazard Mitigation Plan
When was the current multihazard mitigation plan approved by FEMA?	03-19-2015
Describe how the proposed activity relates to or is consistent with the FEMA-approved mitigation plan.	Consistent with Action Item #2 of the City's LHMP this planning activity will explore alternatives to develop and enhance storm-water drainage improvements to reduce frequent flooding.

If No or Not Known, please answer the following:

Does the entity have any other mitigation plans adopted? Not Known

If Yes, please provide the following information.

Plan Name	Plan Type	Date Adopted	Attachment
-----------	-----------	--------------	------------

Please identify all previous FEMA planning grants received:

Type of Grant	Performance Period		Deliverable Activity	Amount
	Beginning Date	Ending Date		
			Total	\$0.00

Does the State/Tribe in which the entity is located have a current FEMA-approved mitigation plan in compliance with 44 CFR Part 201? Yes

If Yes, please answer the following:

What is the name of the plan?	2013 California State Enhanced Plan
What is the type of plan?	Enhanced State Multi-hazard Mitigation Plan
When was the current multihazard mitigation plan approved by FEMA?	01-21-2014
Describe how the proposed activity relates to or is consistent with the State/Tribe's FEMA-approved mitigation plan.	Consistent with the State Hazard Mitigation Plan, this planning activity will analyze alternatives to reduce and mitigate flooding in the SFHA.

If you would like to make any comments, please enter them below.

To attach documents, click the *Attachments* button below.

[City of Merced Hazard Mitigation Plan 3.19.2015.pdf](#)

## Scope of Work (Page 1 of 2)

Title of your proposed activity (should include the type of activity and location):

Flood Diversion and Storage Optimization in Merced County (PDMC 18-0091)

Proposed types of Mitigation Activity(ies):

Activity Code	Activity Name
904.2	Advance Assistance (FMA and PDMC)

If Other or Miscellaneous selected above, please specify:

Describe the geographic area(s) to be covered by the planning activity:

This planning study involves investigating the feasibility of diverting flood discharges from Fahrens Creek upstream of the City of Merced into the Main Canal during the winter wet season when flows in the canal and storage within Lake Yosemite are minimal. The diverted flows will be temporarily stored within Lake Yosemite. Once floods have receded, the stored water will be released slowly into LeGrand Canal and diverted into Black Rascal Creek through a new side gate structure on the south embankment. Fahrens Creek runs through the City of Merced and experiences severe flooding due to overflows. While structural alternatives occur upstream of the City of Merced on the Main Canal, Lake Yosemite and LeGrand Canal, the potential project benefits include over 400 residential structures within the City of Merced and Merced County.

Source(s) of hazards specific to the geographic area to be addressed by the planning activity:

Flood

## Scope of Work (Page 2 of 2)

Option that describes the intent of this planning application:

Develop

If a plan update, describe the evaluation process of the existing plan for its strengths, weaknesses and utility:

Describe the process for implementing this planning activity, including the following plan development requirements: 1) participation of agencies, stakeholders and the public; 2) hazard identification and risk/vulnerability assessment; 3) mitigation strategy; 4) plan adoption; and 5) plan maintenance:

The purpose of this multiple-benefits planning study will be to investigate a combination of project alternatives along a section of Fahrens Creek from Buena Vista Drive to a point approximately 2 miles upstream of Snelling Highway that will result in reduced flood elevations and frequencies for the over 400 residential structures located within the Special Flood Hazard Area. This has been illustrated in the attached annotated map. The City of Merced in coordination with Merced Irrigation District and Merced County will implement this planning activity. Additional stakeholders including the public will be given an opportunity to review and provide input for the plan. Regulatory agencies will be engaged to determine the required permits needed to implement the selected project alternative. An array of project alternative designs will be investigated to identify the most effective and potentially feasible approaches to improve flood conveyance and reduce flood frequency and elevations within this study area. This will include a hydrologic, hydraulic and economics assessment of both flood risk and concept level project implementation cost. A key goal will be to improve conveyance at the downstream end of the Fahrens Creek side channel/existing detention basin to divert increased flood discharges from the undersized natural channel of Fahrens Creek into the detention basin. These project alternatives will aim to reduce flood risk for the approximately 200 residential structures within the Special Flood Hazard Area adjacent to and upstream of West Yosemite Avenue. A project feasibility study performed through Advanced Assistance is expected to demonstrate significant flood risk reductions that will determine the potential level of protection for proposed versus existing conditions. Following successful

planning activities, the selected project alternative will be presented to the City of Merced County and Merced Irrigation District Board for formal approval. Once adopted the plan will be revisited and revised every 5 years until which time the proposed project alternative is constructed.

What are the primary sources of information and data and how it will be incorporated into existing planning mechanisms?

Primary sources of data used for this study will include existing FEMA hydraulic models recently updated and modified by the City of Merced. Additionally existing LiDAR data will be used to refine the model. Existing tax assessor information and GIS data will be used to support the economic assessment of flood risk and project benefits.

What staff and resources will be used to implement this planning activity?

The city of Merced and Merced Irrigation District will collaboratively manage the study to be performed qualified contractors.

If you would like to make any comments, please enter them below:

Attachments:

[FloodDiversionProjectMap.pdf](#)



## Schedule

---

### Enter Work Schedule

Description Of Task	Starting Point	Unit Of Time	Duration	Unit Of Time	Work Complete By
Identify Project Alternatives	2	MONTHS	2	MONTHS	Contractor
Perform hydrologic and hydraulic analysis of alternatives	2	MONTHS	4	MONTHS	Contractor
Assess project benefits	6	MONTHS	3	MONTHS	Contractor
Develop Plan	8	MONTHS	2	MONTHS	Contractor
Estimate Concept Project Cost	10	MONTHS	2	MONTHS	Contractor
Develop Benefit Cost Ratio and Finalize and Adopt Plan	11	MONTHS	1	MONTHS	Contractor
Review permitting and other requirements	8	MONTHS	2	MONTHS	Contractor
Engage Contraction	1	MONTHS	1	MONTHS	Contractor
Estimate the total duration of the proposed activity:			12	MONTHS	

## 904.2 - Advance Assistance (FMA and PDMC)

Federal Share: \$ 199,999.50

Item Name	Subgrant Budget Class	Unit Quantity	Unit of Measure	Unit Cost (\$)	Cost Estimate (\$)
Identify Project Alternatives	Other (1)	1.00	Unknown	\$ 20,000.00	\$ 20,000.00
Assess project benefits	Other (Task cost estimate)	1.00	Unknown	\$ 50,000.00	\$ 50,000.00
Develop plan	Other (Task cost estimate)	1.00	Unknown	\$ 20,000.00	\$ 20,000.00
Estimate concept proejct cost	Other (Task cost estimate)	1.00	Unknown	\$ 23,000.00	\$ 23,000.00
Develop BCR, finalize and adopt plan	Other (Task cost estimate)	1.00	Unknown	\$ 26,666.00	\$ 26,666.00
Perform hydrologic and hydraulic alternatives	Other (Task cost estimate)	1.00	Unknown	\$ 120,000.00	\$ 120,000.00
Review permitting and other requirements	Other (Task cost estimate)	1.00	Unknown	\$ 7,000.00	\$ 7,000.00
				Total Cost	\$ 266,666.00

**Total Plan Cost Estimate: \$ 266,666.00**

## Cost Share

Activity Cost Estimate	\$ 266,666.00	
Federal Share Percentage	75%	
Non-Federal Share Percentage	25%	
	Dollars	Percentage
Proposed Federal Share	\$ 199,999.50	75%
Proposed Non-Federal Share	\$ 66,666.50	25%

## Non-Federal Funds

Source Agency	Name of Source Agency	Funding Type	Amount (\$)	Action
Local Agency Funding	Merced Irrigation District	Consulting Fees	\$ 66,666.50	<a href="#">View Details</a>
<b>Grand Total</b>			<b>\$ 66,666.50</b>	

If you would like to make any comments, please enter them below.

## Attachments

Funding Source	Local Agency Funding
Name of Funding Source	Merced Irrigation District
Funding Type	Consulting Fees
Amount	\$ 66,666.50
Date of availability	01-01-2019
Funds commitment letter date	12-07-2018
Attachment (funds commitment letter)	<a href="#">Funding Commitment.pdf</a>



## Evaluation (Page 1 of 2)

Is the recipient participating in the [Community Rating System \(CRS\)](#)? No

If yes, what is their [CRS rating](#)?

Is the recipient a [Cooperating Technical Partner \(CTP\)](#)? No

Is the recipient a [Firewise Community](#)? No

If yes, please provide their [Firewise Community](#) number.

Has the recipient adopted building codes consistent with the [International Codes](#)? Yes

Has the recipient adopted the [National Fire Protection Association \(NFPA\) 5000 Code](#)? No

Have the recipient's building codes been assessed on the [Building Code Effectiveness Grading Schedule \(BCEGS\)](#)? No

If yes, what is their [BCEGS](#) rating?

## Evaluation (Page 2 of 2)

How will this mitigation activity leverage involvement of partners to enhance its outcome?

The City of Merced in coordination with Merced Irrigation District and Merced County will implement this planning activity to reduce/mitigate flooding.

Describe how this planning activity will benefit your community and how the plan/data will be used to promote resiliency?

A project feasibility study performed through Advanced Assistance is expected to demonstrate significant flood risk reductions that will determine the potential level of protection for proposed versus existing conditions. Construction of the preferred alternative will reduce flood risk and promote resiliency.

Comments:

Attachments:

Name

Date Attached

## Assurances and Certifications

Please click the link in the status column to view forms.

Forms

Status

Part I: Assurances **Non-Construction** Programs.

[Complete](#)

Part II: Certifications Regarding Lobbying; Debarment, Suspension and Other Responsibilities Matters; and Drug-Free Workplace Requirements.

[Complete](#)

Part III: SF-LLL, Disclosure of Lobbying Activities (**Complete only if applying for a grant of more than \$100,000 and have lobbying activities using Non-Federal funds. See the Certifications Regarding Lobbying; Debarment, Suspension and Other Responsibilities Matters; and Drug-Free Workplace Requirements form for lobbying activities definition.**)

Not Applicable

Attachments

[Standard Form 424B.pdf](#)



Certifications Regarding Lobbying; Debarment, Suspension and Other Responsibility Matters; and Drug-Free Workplace Requirements.

#### Attachments

[Cert Re Lobbying.pdf](#)

Section 17.630 of the regulations provide that a grantee that is a State may elect to make one certification in each Federal fiscal year. A copy of which should be included with each application for FEMA funding. States and State agencies may elect to use a Statewide certification.

Comments and Attachments			
Name of Section	Comment	Attachment	Date Attached
Community	The proposed planning activity will benefit Merced County and communities along the San Joaquin River levee downstream of the City of Merced.		
Mitigation Plan		<a href="#">City of Merced Hazard Mitigation Plan 3.19.2015.pdf</a>	12-07-2018
Scope of Work		<a href="#">FloodDiversionProjectMap.pdf</a>	12-09-2018
Cost Share		<a href="#">Funding Commitment.pdf</a>	12-09-2018

## ***FEMA Grants Application***

---

### Attachments

[Standard Form 424B.pdf](#)

