

HAZARD MITIGATION GRANT PROGRAM PROJECT SUBAPPLICATION

DISASTER NUMBER:

DR-4434

JURISDICTION NAME:

City of Fortuna

PROJECT TITLE:

Fortuna Stormwater Infrastructure Hazard
Identification

PROJECT NUMBER:

0029

PROJECT NUMBER IS THE CONTROL NUMBER RECEIVED AT TIME OF SUCCESSFUL NOI SUBMITTAL



Cal OES

**GOVERNOR'S OFFICE
OF EMERGENCY SERVICES**

HAZARD MITIGATION GRANT PROGRAM (HMGP) INTRODUCTION

INTRODUCTION

As a result of a major disaster declaration by the President of the United States, the State of California is eligible for HMGP funding. The State has established priorities to accept project subapplications from subapplicants state-wide including, state agencies, Federally Recognized Tribes, local governments, and Private Non-Profits consistent with Title 44 of the Code of Federal Regulations (44CFR), Part 206.2.

Eligible hazard mitigation activities are intended to reduce or eliminate damages to life and improved property. Activities include cost effective hazard mitigation projects, and hazard mitigation planning activities approvable by the Federal Emergency Management Agency(FEMA).

PUBLIC ASSISTANCE

HMGP does not fund repairs for damages that result after a disaster. If your project proposes repairing a damaged facility resulting from a disaster, contact the Public Assistance (PA) Program at disasterrecovery@caloes.ca.gov.

TIME EXTENSIONS

Time extensions may be requested, and will be evaluated on a case-by-case basis. To request additional time to submit a subapplication, send an email to the HMA@caloes.ca.gov mailbox. The subject line must include: "Subapplication Time Extension Request (include Disaster Number and Project Control Number)". The body of the message must include justification and specific details supporting why more time is needed and how much additional time is requested.

QUESTIONS

Submit all HMGP subapplication questions to the following mailbox: HMA@caloes.ca.gov

HAZARD MITIGATION GRANT PROGRAM REGULATIONS

REGULATIONS

Federal funding is provided under the authority of the [Robert T. Stafford Emergency Assistance and Disaster Relief Act \(Stafford Act\)](#) through FEMA and the California Governor's Office of Emergency Services (Cal OES). Cal OES is responsible for identifying program priorities, reviewing subapplications and forwarding recommendations for funding to FEMA. FEMA has final approval for activity eligibility and funding.

The federal regulations governing HMGP are found in Title 44 of the Code of Federal Regulations (44CFR), Part 201 (Planning) and Part 206 (Projects) and in Title 2 of the Code of Federal Regulations (2CFR), Part 200 (Uniform Administrative Requirements).

The Council on Environmental Quality (CEQ) has developed regulations to implement the National Environmental Policy Act (NEPA). These regulations, as set forth in Title 40, Code of the Federal Regulations (CFR) Parts 1500-1508, require an investigation of the potential environmental impacts of a proposed federal action, and an evaluation of alternatives as part of the environmental assessment process. The FEMA regulations that establish the agency-specific process for implementing NEPA are set forth in 44 CFR Part 10. FEMA will undertake the NEPA clearance process.

The subapplicant is responsible for complying with the regulations set forth in the California Environmental Quality Act (CEQA) (California Code of Regulations, Title 14, Division 6, Chapter 3, Sections 15000–15387) and any other state/local permits or requirements.

FEMA GUIDANCE

FEMA requires that all projects adhere to the [Hazard Mitigation Assistance Unified Guidance 2015](#).

HAZARD MITIGATION GRANT PROGRAM

ELIGIBILITY CHECKLIST

Before completing the subapplication, review the following HMGP eligibility checklist to ensure project meets the requirements for HMGP funding.

- Construction/Ground Breaking:** No construction or ground breaking activities are allowed prior to FEMA approval. HMGP does not fund projects that are in progress or projects that have already been completed.
- Approved Notice of Interest:** Subapplicant must have an approved Notice of Interest (NOI) to submit a subapplication for HMGP funding. Only activities approved through the NOI process can be submitted for HMGP funding consideration. The approved NOI must be consistent with the subapplication submitted.
- Scope of Work:** The project scope of work (SOW) must be consistent with the SOW provided in the approved Notice of Interest (NOI).
- Benefit Cost Analysis:** Benefit Cost Analysis (BCA) Toolkit Version 5.3.0 must be used to conduct the BCA. FEMA will only consider subapplications that use a FEMA-approved BCA methodology. Documentation to support BCA must be included in subapplication. Projects with a benefit cost ratio (BCR) of less than 1.0 will not be considered. BCA will be verified by FEMA and Cal OES upon subapplication submittal. 5% Initiative Projects do not need a BCA.
- Subapplicant Eligibility:** Subapplicant must be an eligible State Agency, Local Government (City, County, Special Districts), Federally Recognized Tribe or Private Nonprofit (PNP) Organization. PNP is defined as private nonprofit educational, utility, emergency, medical, or custodial care facility, facilities providing essential governmental services to the general public and such facilities on Indian reservations (see 44 CFR Sections 206.221(e) and 206.434(a)(2)).
- LHMP/MJHMP:** Subapplicant must have a FEMA approved and adopted Local Hazard Mitigation Plan (LHMP), or be participating in a Multi-Jurisdictional LHMP, to be eligible for HMGP funding. If a jurisdiction has its own governing body, jurisdiction must be covered under its own plan. LHMP/Multi-Jurisdictional LHMP's expire five years after FEMA approval. Failure to update plan before expiration date may cause project deobligation.
- Cost Share:** Local funding match of 25% of the total project cost is required by the subapplicant. HMGP matching funds must be from a non-federal source. State does not contribute to local funding match.
- Period of Performance:** Projects must be completed (including close-out) within the 36 month Period of Performance (POP). POP begins upon FEMA approval of the subapplication.

**HAZARD MITIGATION GRANT PROGRAM
ELIGIBILITY CHECKLIST
(continued)**

- Complete Subapplication:** Failure to include all required documentation will delay the processing of your subapplication and may result in denial of project. The SOW, cost estimate, cost estimate narrative, work schedule and BCA must accurately mirror each other to be considered for funding. The budget narrative must include a detailed description of every cost estimate line-item, including the methodology used to estimate each cost.

- Regulations:** Subapplications that are inconsistent with state and federal HMGP regulations, or do not meet eligibility criteria will not be considered.



SUBAPPLICANT MUST BE ABLE TO CHECK EVERY BOX TO QUALIFY FOR HMGP FUNDING.

SUBAPPLICATION FORMAT INSTRUCTIONS

Cal OES requires the following format to be used for all HMGP subapplications. Two complete subapplications must be submitted to Cal OES. Each subapplication must be in separate binders. The first copy is logged and retained for Cal OES records. The second copy will be forwarded to FEMA for review and final determination.

COMPLETE SUBAPPLICATION PACKAGE CONSISTS OF THE FOLLOWING:

- TWO** identical printed subapplications must be provided in 3-ring binders
 - Each binder section must be tabbed in the format outlined below
 - Each binder must be large enough to hold all of the contents
 - The use of additional binders is permitted as needed
 - All printed attachments must be clearly titled

- TWO** identical CD-RWs must include functional electronic versions of all documents/attachments
 - Attachments must be in one of the following formats: Microsoft Word Version 2007 (or newer), Microsoft Excel or Adobe PDF
 - Benefit Cost Analysis (BCA) 5.3.0 must be included in a .zip file format
 - All electronic attachments must be clearly titled

ORGANIZATION OF THE BINDER SECTIONS MUST BE TABBED IN THE FOLLOWING FORMAT:

0. Table of Contents
1. Subapplication
2. Scope of Work
3. Designs
4. Studies
5. Maps
6. Photos
7. Schedule (Additional documentation work schedule components, Gantt chart, etc.)
8. Cost Estimate ([HMGP Cost Estimate Spreadsheet](#) and cost estimate narrative)
9. Match ([Local Match Commitment Letter Template](#))
10. BCA Report ([BCA Version 5.3.0](#) report and BCA supporting documentation)
11. Maintenance ([Project Maintenance Letter Template](#))
12. Environmental ([FEMA's Site Information, Environmental Review and Checklist](#) and all other environmental documentation)
13. Authorization ([Agent Resolution Form](#))
14. Supporting Docs (Any additional supporting documentation)

MAIL OR DELIVER COMPLETED SUBAPPLICATIONS TO:

California Governor's Office of Emergency Services
Hazard Mitigation Grants Program Unit
Attention: HMGP
3650 Schriever Avenue
Mather, CA 95655

LOCAL HAZARD MITIGATION PLAN INFORMATION

9. LOCAL HAZARD MITIGATION PLAN (LHMP) REQUIREMENT:

i A FEMA approved and locally adopted LHMP is required to receive federal funding for all project subapplication activities. Subapplicants for HMGP funding must have a FEMA-approved Mitigation Plan in place at the time of sub-award. Subapplication will be reviewed to ensure that the proposed activity is in conformance with subapplicant’s plan.

A. NAME/TITLE OF YOUR LHMP: Humboldt County Operational Area Hazard Mitigation Plan 2019

<p>B. LOCAL SINGLE JURISDICTIONAL MULTHAZARD MITIGATION PLAN:</p> <p>DATE SUBMITTED TO CAL OES: <input style="width: 80px; height: 20px;" type="text"/></p> <p>DATE APPROVED BY FEMA: <input style="width: 80px; height: 20px;" type="text"/></p> <p>DATE ADOPTED BY LOCAL AGENCY: <input style="width: 80px; height: 20px;" type="text"/></p>	OR	<p>LOCAL MULTI JURISDICTIONAL MULTHAZARD MITIGATION PLAN:</p> <table border="0" style="width: 100%;"> <tr> <td style="width: 80%;">DATE SUBMITTED TO CAL OES:</td> <td style="width: 20%; border: 1px solid black; text-align: center;">10/24/19</td> </tr> <tr> <td>DATE APPROVED BY FEMA:</td> <td style="border: 1px solid black; text-align: center;">01/02/20</td> </tr> <tr> <td>DATE ADOPTED BY LOCAL AGENCY:</td> <td style="border: 1px solid black; text-align: center;">02/18/20</td> </tr> </table> <p>LEAD AGENCY: Humboldt County Office of Emergency Services</p>	DATE SUBMITTED TO CAL OES:	10/24/19	DATE APPROVED BY FEMA:	01/02/20	DATE ADOPTED BY LOCAL AGENCY:	02/18/20
DATE SUBMITTED TO CAL OES:	10/24/19							
DATE APPROVED BY FEMA:	01/02/20							
DATE ADOPTED BY LOCAL AGENCY:	02/18/20							

C. IF YOUR PROJECT IS REFERENCED IN YOUR LHMP, INDICATE WHERE THE PROPOSED PROJECT CAN BE FOUND; USE N/A FOR NOT APPLICABLE BOXES:

CHAPTER	PART	SECTION	PAGE
N/A	N/A	N/A	N/A

DO NOT INCLUDE A COPY OF YOUR PLAN WITH SUBAPPLICATION.

D. PROVIDE A SHORT NARRATIVE DETAILING HOW YOUR PROJECT ALIGNS WITH THE RISK AND HAZARD ASSESSMENTS, STRATEGIES, GOALS AND/OR OBJECTIVES OF YOUR PLAN:

Chapter 6 Part 8 Section 2 (Other Noted Vulnerabilities) states that the City of Fortuna has corrosive soil that has compromised the corrugated metal pipes that make up many of the City's culverts. This is stated as resulting in potential roadway failures and hazardous conditions for motorists. Our proposal directly studies these corrugated culverts in an attempt to better plan for their replacement prior to emergency failure situations. This will help assess and eliminate this vulnerability before it can become a future hazard situation for residents.

COMMUNITY INFORMATION

10. COMMUNITY PARTICIPATION:

A. CHECK BOX(ES) IF YOUR COMMUNITY PARTICIPATES IN ANY OF THE FACTORS BELOW:
 Select a column appropriate to your type of project. Acronyms include: Community Wildfire Protection Plan (CWPP), California Environmental Quality Act (CEQA), Community Rating System (CRS) Plan and Unreinforced Masonry (URM) Participation.

FIRE	FLOOD	EARTHQUAKE
<input type="checkbox"/> CWPP, FIRE WIRE, FIRE SAFE	<input type="checkbox"/> CRS PLAN	<input checked="" type="checkbox"/> SHAKEOUT DRILL PARTICIPATION

CURRENT CEQA ACTIVITY
 DEFENSIBLE SPACE

CURRENT CEQA ACTIVITY
 HYDROLOGY STUDY

CURRENT CEQA ACTIVITY
 URM PARTICIPATION

B. PROVIDE A NARRATIVE DESCRIPTION OF ALL OF FACTORS SELECTED FROM LIST ABOVE:

The City of Fortuna participates annually in the Great California ShakeOut. Materials are distributed City-wide to employees about the drills and safety precautions that can be taken in the event of an earthquake. At a designated time, the entire staff of the City of Fortuna is invited to stop what they are doing and participate in the Great California ShakeOut drill to practice the skills they have learned as if an earthquake is occurring. Afterwards, departments meet and confer about what worked or didn't work and what changes may need to be made to improve earthquake preparedness for the officespaces.

C. IS YOUR JURISDICTION REQUIRED TO PROVIDE PUBLIC NOTICE OF THIS PROJECT?

Yes No If yes, provide details:

PROJECT INFORMATION

11. PROJECT TITLE:

MUST USE THE SAME PROJECT TITLE ORIGINALLY USED IN THE APPROVED NOTICE OF INTEREST (NOI). IF YOU NEED TO CHANGE YOUR PROJECT TITLE, CONTACT CAL OES AT HMA@CALOES.CA.GOV

12. PROJECT LOCATION:

A. IDENTIFY THE COUNTY/COUNTIES WHERE THE ACTIVITY WILL OCCUR:

B. LATITUDE/LONGITUDE COORDINATES:

FEMA requires that all projects be geo-coded using latitude and longitude (lat/long) using NAD-83 or WGS-84 datum. The lat/long coordinates must be expressed in degrees including five or more decimal places (e.g., latitude 36.999221, longitude -109.044883).

LATITUDE
40.5982

LONGITUDE
124.1573



IF THERE ARE MORE THAN ONE SET OF LAT/LONG COORDINATES, PROVIDE ON SEPARATE DOCUMENT AND ADD TO MAP SECTION OF BINDER.

C. STRUCTURE COORDINATES:

- For projects that protect buildings or other facilities, provide coordinates for each structure at either the front door of the structure or the intersection of the public road and driveway that is used to access the property.
- For large activity areas, such as detention basins or vegetation management projects, the location must be described by three or more coordinates that identify the boundaries of the project.
- The polygon created by connecting the coordinates must encompass the entire project area.

D. STAGING AREA:

Describe the project staging area. This is the area where the project equipment, materials and/or debris will be staged. Include a vicinity map with the proposed staging area(s) in the map section of the binder.

The project will not have a formal staging area. Any staging done during the fieldwork will occur in the City ROW near the facility being inspected.



AERIAL MAP(S) OF STAGING AREA(S) MUST BE INCLUDED IN SUBAPPLICATION.

E. SEA LEVEL RISE (SLR):

1. Is the risk to the project increased by SLR due to project location and project activity type? Yes No
2. Was SLR considered and included in the mitigation measures implemented in this project? Yes No

F. SITE PHOTOS:

- A minimum of three ground photos per project site are required. Include in photo section of the binder.

G. MAPPING REQUIREMENTS:

Provide the following mapping elements in the map section of the binder:

- If project area has been mapped using GIS software, include the completed Shapefiles on CD-RW.
- Include a vicinity map of the general area showing major roads. Aerial photographs may be used as vicinity maps.
- Prominently mark the project location on the vicinity map.
- Provide a detailed project map that clearly identifies the project boundaries.
- Project map must show all lat/long coordinates provided in the project description.
- Vicinity map and the project map must both have a north arrow and scale.



DO NOT SEND ROLLED MAPS – MAPS MUST BE FOLDED UNTIL 8.5" x 11" IN SIZE.

H. PUBLIC ASSISTANCE (PA) PROGRAM FUNDING:

List any Public Assistance Disaster Survey Reports (DSR) or Project Worksheets (PWs) that were completed at the project location from previous disasters. List all current engagement with PA for this current disaster and include date(s) if known:

I. DEED RESTRICTIONS THAT LIMIT FEDERAL FUNDING:

Is there a deed restriction or permanent conservation easement on the property at the project site that would prohibit federal disaster funding (e.g., a previously FEMA funded acquisition of a structure on this property)? If yes, describe in detail.

13. PROJECT DESCRIPTION:

A. APPLICATION TYPE:

- Project 5% Activity

5% activities are defined as mitigation actions that are consistent with your local hazard mitigation plan and meet all HMGP requirements, but may be difficult to conduct a standard BCA to prove cost-effectiveness. Examples: early earthquake warning system, back-up generators for critical facilities, public awareness campaign, mitigation specific community outreach activities.

B. PROJECT TYPE:

Select at least one project type; select as many as needed to accurately describe project.

<input type="checkbox"/> EARTHQUAKE	<input type="checkbox"/> FIRE	<input checked="" type="checkbox"/> FLOOD	<input type="checkbox"/> OTHER
<input type="checkbox"/> CODE ENFORCEMENT	<input type="checkbox"/> DEFENSIBLE SPACE	<input type="checkbox"/> ACQUISITION	<input type="checkbox"/> CRITICAL FACILITY GENERATOR(S)
<input type="checkbox"/> NON-STRUCTURAL	<input type="checkbox"/> FIRE RESISTANT BUILDING MATERIALS	<input type="checkbox"/> DRY FLOOD PROOFING	<input type="checkbox"/> DROUGHT <input type="checkbox"/> TSUNAMI
<input type="checkbox"/> STRUCTURAL	<input type="checkbox"/> FIRE VEGETATION MANAGEMENT	<input checked="" type="checkbox"/> FLOOD CONTROL	<input type="checkbox"/> WIND
<input type="checkbox"/> NON-STRUCTURAL & STRUCTURAL	<input type="checkbox"/> SOIL STABILIZATION	<input type="checkbox"/> ELEVATION	
<input type="checkbox"/> CLIMATE RESILIENCY MITIGATION ACTION (CRMA): Projects that mitigate risk through restoration of the natural environment			

C. DESCRIBE PROBLEM/HAZARDS/RISKS:

Describe the problem this project is attempting to solve and the expected outcome. Describe the hazards and risks to life, safety and any improvements to property in the project area for at least the last 25 years. Describe in detail how the project reduces hazard effects and risks.

The City of Fortuna has a large drainage network composed of creeks, culverts, pipes and some bridges. Many of the stormdrain pipes in the City were installed at a time when corrugated metal was highly used, and as such the City has experienced a number of culvert failures in recent years which have resulted in road damage, and in one case the near loss of the embankment on a main thoroughfare. The failure rate of corrugated metal pipes is exacerbated in the City, given that local soils reports have routinely demonstrated the City lies on acidic soils, in conjunction with the fact that our watersheds regularly load the stormdrain system with silt and gravel, making flow through storm drain pipes especially abrasive. The City has been dealing with these failures, typically which result in sinkholes in the road, on an emergency as-needed basis. Unfortunatley, this approach continues to result in higher project costs given they occur at a time of failure. Additionally, staff have had a difficult time finding resources to remain ahead of the failures given how much attention is paid to the current problem at hand.

With this in mind, the City is interested in developing a Stormwater Infrastructure Hazard Identification. The project would be to conduct a hazard identification assessment of stormwater infrasturcture to identify problem areas and establish the risk of flooding in order to develop and prioritize projects for future applications under HMGP. The goal of this plan will be to inventory the existing stormdrain network, identify problem areas, map these areas in GIS, rank the problem sites based on vulnerability and risk/cost of failure, develop design improvements to mitigate the risk, and package the information into a report that can be used as a planning tool to impliment these projects moving forward. In addition, a collective conditions assessment of the stormdrain system will also give City staff a clear idea of what areas need to be monitored annually to help mitigate against the risk of random, unexpected failures.

According to the Department of Water Resources, the project is located in an area identified as a Disadvantaged Community. The proposed project would protect areas of Fortuna that are largely residential and commercial.

Portions of the project area are within the 100-year floodplain for the Eel River, Rohner Creek and Strongs Creek.

D. DESCRIBE RECENT EVENTS THAT INFLUENCED THE SELECTION OF THIS PROJECT:

Describe recent events (e.g. changes in the watershed, discovery of a new hazard, zoning requirements, inter-agency agreements, etc.) that influenced the selection of this project.

The City has experienced many culvert failures in recent years that have impacted roadways and have posed a risk of high water or flood damage as a result. The City continually addresses these failures, many of them without prior understanding that the infrastructure was in its current state of failure.

E. SCOPE OF WORK (SOW):

STATE EXACT SOW DOCUMENT TITLE: Project Scope and Deliverable Narrative

1. Describe the entire SOW of the project in clear, concise, ample detail.
2. Must provide a thorough description of **all tasks and activities** to be undertaken.
3. Must be written in sequential order from start to finish of the project.
4. Describe any land acquisition activities, and/or right-of-way or access easements that need to be obtained.
5. If structural, discuss how the structure/building/facility will be constructed or retrofitted.
6. Include building or structure dimensions, material types, depth and width of excavations, volume of materials excavated, type of equipment to be used, staging and parking areas, and any phasing of the project.
7. If any tunneling is proposed, describe the method and any temporary trenches or pits.
8. Describe any demolition activities that need to occur prior to construction or retrofitting.



INSERT THIS DOCUMENT IN THE SOW SECTION OF THE BINDER.

F. HAS YOUR JURISDICTION PREVIOUSLY RECEIVED HMGP FUNDING?

Yes No Unknown | If yes, provide disaster number(s): 4301-0023,4353-0093

G. HAS YOUR JURISDICTION RECEIVED ANY OTHER FUNDING?

Describe all other funding received for this project and all other recent projects. Identify the funding source (i.e., Federal, State, Private, etc.).

no

H. RELATED PROJECTS:

Describe any other projects or project components (whether or not funded by FEMA), which may be related to the proposed project, or are in (or near) the proposed project area. FEMA must look at all projects to determine a cumulative effect. FEMA reviews all interrelated projects under NEPA regulations.

none

I. HAZARD ANALYSIS TYPE:

Select the hazard(s) below that this project will protect against. Select as many as needed.

- | | | | |
|-------------------------------------|-------------------------------------|-------------------------------------------|------------------------------------|
| <input type="checkbox"/> BIOLOGICAL | <input type="checkbox"/> EARTHQUAKE | <input type="checkbox"/> LAND SUBSISTENCE | <input type="checkbox"/> TERRORIST |
| <input type="checkbox"/> CHEMICAL | <input type="checkbox"/> FIRE | <input type="checkbox"/> MUD/LANDSLIDE | <input type="checkbox"/> TORNADO |

- | | | | |
|------------------------------------------|-------------------------------------------|-------------------------------------------|-------------------------------------------|
| <input type="checkbox"/> CIVIL UNREST | <input type="checkbox"/> FISHING LOSSES | <input type="checkbox"/> NUCLEAR | <input type="checkbox"/> TOXIC SUBSTANCES |
| <input type="checkbox"/> COASTAL STORM | <input checked="" type="checkbox"/> FLOOD | <input type="checkbox"/> SEA LEVEL RISE | <input type="checkbox"/> TSUNAMI |
| <input type="checkbox"/> CROP LOSSES | <input type="checkbox"/> FREEZE | <input type="checkbox"/> SEVERE ICE STORM | <input type="checkbox"/> WINDSTORM |
| <input type="checkbox"/> DAM/LEVEE BREAK | <input type="checkbox"/> HUMAN CAUSE | <input type="checkbox"/> SEVERE STORM(S) | |
| <input type="checkbox"/> DROUGHT | <input type="checkbox"/> HURRICANE | <input type="checkbox"/> SNOW | |

J. DESIGN PLANS:

If your project requires design plans, plans should be prepared to supplement the SOW and attached in the design section of the binder. If the project involves ground disturbance, (e.g. enlarging ditches or culverts, diversion ditches, detention basins, storm water improvements, etc.) include the following:

1. **Scale:** Plans should be drawn to scale (e.g. 1" to 100' or 1" to 200') depicting the entire land parcel, showing buildings, improvements, underground utilities, other physical features, dimensions and cross sections.
 2. **Identification:** Indicate agency name, land owner, civil engineer, soil engineer, geologist, map preparer, and date of map preparation. Also, indicate the name of the project.
 3. **Legend/Orientation:** Include a legend explaining all lines and symbols. Identify property acreage and indicate direction with a north arrow (pointing to top or right hand side of the plan).
 4. **Dimensions:** Show property lines and dimensions. Also, show boundary lines of project and their dimensions if only a portion of the property is being utilized for the project.
 5. **Structures:** Identify all existing and proposed buildings and structures including storm drains, driveways, sidewalks and paved areas.
 6. **Utilities:** Indicate names and location of utilities on property (water, sewage, gas, electric, telephone, cable).
 7. **Roads/Easements:** Indicate location, names, and centerline of streets and recorded roads. Identify any utility, drainage or right-of-way easements on the property.
 8. **Drainage:** Show the location, width and direction of flow of all drainage courses on site.
 9. **Grading/Topographic Information:** Show existing surface contours on-site and bordering the property.
 10. **Parking:** Show all construction parking and staging areas and provide dimensions.
 11. **Cross Sections:** Provide cross sections of proposed buildings, structures or other improvements, and any trenches, temporary pits or catchment basins.
- If applicable, provide studies and engineering documentation, including any Hydrology and Hydraulics (H&H) data.
- If applicable, provide drawings or blueprints that show the footprint and elevations.



DO NOT SEND PRINTED COPIES OF DESIGN PLANS, DRAWINGS OR BLUE PRINTS LARGER THAN 8.5' x 11" SIZE. DO NOT SEND ROLLED COPIES (FOLD TO OBTAIN 8.5" x 11" SIZE).

K. PROJECT ALTERNATIVES:

Identify three project alternatives:

1. ALTERNATIVE #1 – NO ACTION:

Describe the No Action alternative below. The No Action alternative evaluates the consequences of taking no action and leaving conditions as they currently exist.

If no action is taken on the project, then stormwater infrastructure will continue to fail without warning and result in flooding or road loss impacts. If this occurs, then the cost to repair or mitigate each location gets significantly more expensive. The City would also not be set up to apply for HMGP funds going this approach.

2. ALTERNATIVE #2 – PROPOSED ACTION:

Describe the Proposed Action alternative below. The Proposed Action alternative is the proposed project to solve the problem. Explain why the proposed action is the preferred alternative. Identify how the preferred alternative will solve the problem, why the preferred alternative is the best

solution for the community, why and how the alternative is environmentally preferred and why the project is the economically preferred alternative.

The proposed planning project is the preferred alternative for the City. Doing this project will be economically advantageous for the community as it will be done with majority Grant funds and not require excessive local funding, which the City does not currently have. Also, pre-identifying potential hazards, and fixing them using HMGP grants, will result in a more cost effective solution than fixing infrastructure after it has failed. Performing this project is also an environmentally better alternative, as pre-identifying and fixing troubled infrastructure before a failure mitigates the potential impact of failure (ie erosion, loss of habitat, etc.)

3. ALTERNATIVE #3 – SECOND ACTION ALTERNATIVE:

Describe the Second Action alternative below. The Second Action alternative described must also solve the described problem. State why this alternative wasn't chosen. It must be a viable project that could be substituted in the event the proposed action is not chosen.

The City of Fortuna does not have the capital or resources to lead an effort that would identify and perform preliminary design for all of the potential hazards we face in our stormwater infrastructure network. Our secondary alternative would be to try to identify other grant sources that would allow us to do the project as described, or, do as much identification as we can on a local level and try to identify solutions. If we took the latter route, it would likely take many years before the City could realistically survey the entire system. The City would also not be set up to apply for HMGP funds going this approach.

WORK SCHEDULE INFORMATION

14. PROJECT WORK SCHEDULE:

The intent of the work schedule is to provide a realistic appraisal of the time and components required to complete the project.

- Describe each of the major work elements and milestones in the description section below.
- Project subapplication examples are: construction, architectural, design, engineering, inspection, testing, permits, project management, mobilization and de-mobilization.
- State the total timeframe anticipated for each of the work elements.
- State the total timeframe anticipated to complete the project.
- Work schedule must mirror SOW, budget and BCA.OPTIONAL:
- Provide the work schedule in GANTT chart form as supplemental documentation in the work schedule section of the binder Include this information as an example.

WORK SCHEDULE EXAMPLE		
#	DESCRIPTION	TIMEFRAME
1.	Kick-off, 90% design meetings	3 months
2.	Final contract drawing development	5 months
3.	Open bids and award contract	4 months
4.	Construction – Mobilization	5 months
5.	Construction – Demolition	4 months
6.	Construction – Concrete and conduit work	2 months
7.	Construction – Trenching	2 weeks
8.	Construction – Utility relocation	4 months
9.	Construction – Electrical Installation	1 month
10.	Construction – Site Restoration	1 week
11.	Construction – Complete punch list	2 months
12.	Construction – Demobilization	1 week
13.	Project Close-out and record drawings	2 months
14.	Grant Close out	3 months
TOTAL MONTHS:		36 months



TOTAL PROJECT DURATION (INCLUDING CLOSE-OUT) MUST NOT EXCEED A 36 MONTH PERIOD OF PERFORMANCE (POP).

#	DESCRIPTION	TIMEFRAME
1.	See attached PDF	
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		
11.		
12.		
13.		
14.		
15.		
16.		
17.		
18.	Project Close-out	
19.	STANDARD VALUE (DO NOT CHANGE) Grant Close-out	3 months
TOTAL MONTHS:		

If more lines are needed than provided, indicate the title of document in box 1 and attach a separate work schedule in the schedule section of binder.

COST ESTIMATE INFORMATION

15. HMGP COST ESTIMATE SPREADSHEET:

A. COST ESTIMATE INSTRUCTIONS:

Using the [HMGP Cost Estimate Spreadsheet](#), provide a detailed cost estimate breakdown.

- Cost estimate describes the anticipated costs associated with the SOW for the proposed mitigation activity. Cost estimates must include detailed estimates of cost item categories.
- Only include costs that are directly related to performing the mitigation activity. If additional work, such as remodeling, additions, or improvements are being done concurrently with the mitigation work, do not include these costs in the submitted budget.
- Documentation that supports the budget must be attached to the subapplication in the budget section of the binder.
- Total costs must be consistent with the requested federal share plus the matching funds and must be consistent with the project cost in the Benefit Cost Analysis (BCA), SOW and work schedule.

HMGP COST ESTIMATE SPREADSHEET EXAMPLE					
#	ITEM NAME	Unit Qty	UNIT	UNIT COST	COST EST TOTAL
1.	Pre-Award Costs: Develop BCA	4	HR	\$150	\$600
2.	Temp. Inlet Filter Rolls	4	EA	\$250	\$1000
3.	Temp. Fiber Roll	1850	LF	\$3	\$5550
4.	Hydraulic Mulch	1000	SQYD	\$2	\$2000
5.	Plane Asphalt Concrete Pavement	650	SQYD	\$22	\$14300
6.	Street Sweeping for 30 days	30	EA	\$350	\$10500
7.	Roadway Excavation	70	CY	\$40	\$2800
8.	Aggregate Base, Class 2	210	CY	\$75	\$15750
9.	Remove Concrete Pavement	650	SQYD	\$340	\$10540
10.	Asphalt Concrete, Type B	180	TON	\$150	\$27000
11.	Asphalt Concrete, Leveling	10	TON	\$300	\$3000
12.	Asphalt Concrete Dike, Type A	235	LF	\$15	\$3525
13.	Asphalt Concrete Dike, Type F	125	LF	\$8	\$120
14.	Place Asphalt Concrete	15	SQFT	\$8	\$120
15.	18" Corrugated Steel Pipe Riser	5	LF	\$125	\$625
16.	24" Reinforced Concrete Pipe	275	LF	\$170	\$46750
17.	84" Reinforced Concrete Pipe Install	572	LF	\$400	\$228800
18.	Precast Triple Concrete Box Culvert	44	LF	\$1500	\$66000
19.	Curb Inlet - Type B-1 (L=9')	1	EA	\$6000	\$6000
20.	Curb Inlet - Type B-1 (L=13')	1	EA	\$6300	\$6300
21.	Curb Inlet - Type B-1 (L=15')	1	EA	\$6800	\$6800
22.	Storm Drain Cleanout - Type A-8	3	EA	\$7500	\$22500
23.	8" PVC Sewer	89	LF	\$100	\$8900
24.	Cellular Block (Precast)	4100	SQFT	\$20	\$82000
25.	Project Identification Sign	2	EA	\$1000	\$2000
Total Project Cost Estimate:					\$573480

B. INELIGIBLE COSTS:

The following are ineligible line items:

- Lump Sums
- Contingency Costs
- Miscellaneous Costs
- "Other" Costs
- Cents (must use whole dollar amounts, round unit prices up to whole dollars)

C. PRE-AWARD COSTS:

Eligible pre-award costs are costs incurred after the disaster date of declaration, but prior to grant award. Pre-award costs directly related to developing the application may be funded.

- Developing a BCA
- Submission of subapplication
- Workshops or meetings related to development
- Preparing design specifications
- Gathering environmental and historic data



Subapplicants who are not awarded funds will not receive reimbursement for pre-award costs.

D. COST ESTIMATE NARRATIVE:

FEMA requires a cost estimate narrative that explains all projected expenditures in detail. The cost-estimate narrative is intended to mirror the cost estimate spreadsheet and should include a full detailed narrative to support the cost estimates listed in the HMGP Project Cost Estimate Spreadsheet. If your cost estimate includes City, County, or State employees' time (your agency), include personnel titles and salary/hourly wages plus benefits for a total hourly cost. Detailed timesheets must be retained.

Title the document "Cost Estimate Narrative" and include in the budget section of the binder.

16. FEDERAL/NON-FEDERAL SHARE INFORMATION:

A. FUNDING RESTRICTIONS:

There is no restriction or cap on the federal share that may be requested for each project subapplication. FEMA will contribute no more than 75 percent of the total project cost. A minimum of 25 percent of the total eligible costs must be provided from a non-federal source. State does not contribute to local cost share.

For example: for a \$10,000,000 total project cost, the federal requested share (75 percent) would be \$7,500,000. The non-federal match share (25 percent) provided would be \$2,500,000.

*The sum of the federal and non-federal shares must equal the total project cost.

*The federal share **MUST NOT** exceed 75 percent.

B. TOTAL PROJECT COST ESTIMATE:

\$150,000

Enter total cost formulated on the [HMGP Cost Estimate Spreadsheet](#)

ENTER \$ IN BOX ABOVE



VERIFY ALL AMOUNTS ENTERED ARE ACCURATE.

INCORRECT AMOUNTS WILL DELAY PROCESSING OF YOUR SUBAPPLICATION.

FEDERAL SHARE (75% MAXIMUM)	REQUESTED AMOUNT:	\$112,500
		ENTER \$ IN BOX ABOVE
NON-FEDERAL SHARE (25% MINIMUM)	PERCENTAGE AMOUNT:	75%
		ENTER % IN BOX ABOVE

C. NON-FEDERAL MATCH SOURCE: MATCH COMMITMENT LETTER:

Use the Local Match Commitment Letter Template to complete this section and add completed letter to the match section of the binder.

- A signed Match Commitment Letter must be provided on agency letterhead.
- The non-federal source of matching funds must be identified by name and type.
- If "other" is selected for funding type, provide a description.
- Provide the date of availability for all matching funds.
- Provide the date of the Funding Match Commitment Letter.
- The funds must be available at the time of submission unless prior approval has been received from Cal OES.
- If there is more than one non-federal funding source, provide the same information for each source on an attached document.
- Match funds must be in support of cost items listed in the cost estimate spreadsheet.
- Requirements for donated contributions can be found in 2 CFR 200.306.

BENEFIT/COST EFFECTIVENESS INFORMATION

17. BENEFIT/COST EFFECTIVENESS INFORMATION

A. BCA INSTRUCTIONS:

FEMA will only consider subapplications from subapplicants that use a FEMA-approved methodology to conduct the Benefit Cost Analysis (BCA). BCA must be legible, complete and well-documented.

- Project BCAs must demonstrate cost-effectiveness through a Benefit Cost Ratio (BCR) of 1.0 or greater.
- Projects with a BCR of less than 1.0 will not be considered for funding.
- Total project cost must be used in the BCA.
- Maintenance of a completed HMGP project is not an eligible reimbursement activity, but must be included in the BCA.

BCA Version 5.3.0 is the only software that is allowed to conduct a BCA. Some project types may qualify for pre-calculated benefits. Additional information on the BCA Toolkit is available at: <https://www.fema.gov/benefit-cost-analysis>.

i The FEMA BCA Technical Assistance Helpline is available to provide assistance with FEMA’s BCA software by calling 1-855-540-6744 or via email at BCHelpLine@FEMA.dhs.gov. The FEMA helpline is only to be utilized for technical assistance questions. The FEMA helpline will not verify the accuracy of your BCA.

B. BCA INFORMATION:

Once the BCA is completed, enter information requested below.

1. NET PRESENT VALUE OF PROJECT BENEFITS:

2. TOTAL PROJECT COST ESTIMATE:

3. BENEFIT COST RATIO:

C. ANALYSIS TYPE:

- | | | | |
|------------------------------------------------------------|-----------------------------------|-----------------------------------------------|-------------------------------------|
| <input type="checkbox"/> FLOOD | <input type="checkbox"/> WILDFIRE | <input type="checkbox"/> EXEMPT (5% PROJECTS) | <input type="checkbox"/> EARTHQUAKE |
| <input type="checkbox"/> HURRICANE WIND | <input type="checkbox"/> DROUGHT | <input type="checkbox"/> PRE-CALCULATED | <input type="checkbox"/> LANDSLIDE |
| <input type="checkbox"/> DAMAGE FREQUENCY ASSESSMENT (DFA) | | | |

D. ANALYSIS DATE (date BCA was conducted):

E. PROVIDE BCA HARD AND SOFT COPIES IN FORMAT DESCRIBED BELOW:

- Copy the exported BCA in a .zip file format and add to the CD-RW.
- Provide a hard copy of the report in the BCA section of the binder.

MAINTENANCE ASSURANCE INFORMATION

18. PROJECT MAINTENANCE INFORMATION:

A. MAINTENANCE ASSURANCE LETTER:

- Using the [Project Maintenance Letter Template](#), identify all maintenance activities required to preserve the long-term mitigation effectiveness of the project.
- Examples of maintenance include: inspection of the project, cleaning and grubbing, trash removal, replacement of worn out parts, etc.
 - Attach a maintenance schedule, estimated annual costs, and a signed maintenance commitment letter for the useful life of the project.

NATIONAL FLOOD INSURANCE PROGRAM (NFIP)

19. NFIP INFORMATION:

i CONTACT YOUR COUNTY OR LOCAL FLOODPLAIN ADMINISTRATOR FOR NFIP INFORMATION.

A. NFIP PARTICIPATION:

1. Is the jurisdiction where the project is located participating in the NFIP? YES NO
- a. If yes, are they in good standing? YES NO
- b. If no, explain:

B. PROJECT LOCATION:

1. Is this project located in a floodplain or floodway designated on a FEMA Flood Insurance Rate Map (FIRM)? YES NO
- a. Mark the project location on the FIRM and attach to subapplication in the maps section of the binder.
2. Provide the following information for the location of the project:
- a. FIRM panel number:
- b. FIRM zone designations:
- c. NFIP community ID number:

- C. LAST [COMMUNITY ASSISTANCE VISIT \(CAV\)](#) DATE:

ENVIRONMENTAL INFORMATION

20. ENVIRONMENTAL INFORMATION:

A. FEMA ENVIRONMENTAL CHECKLIST:

- Complete the [FEMA Site Information, Environmental Review, and Checklist](#) and attach to the environmental section of the binder. Provide a detailed response to each question. Attach supporting documentation in compliance with [FEMA's frontloading requirements](#).

PRINT THIS PAGE – ORIGINAL SIGNATURE IS REQUIRED

PROJECT CONDITIONS

Indicate by checking each box below that you will adhere to these listed project conditions.

- If during implementation of the project, ground-disturbing activities occur and artifacts or human remains are uncovered, all work will cease and FEMA, Cal OES, and the State Historic Preservation Officer (SHPO) will be notified.
- If deviations from the approved scope of work result in design changes, the need for additional ground disturbance, additional removal of vegetation, or will result in any other unanticipated changes to the physical environment, FEMA will be contacted and a re-evaluation under NEPA and other applicable environmental laws will be conducted.
- If wetlands or waters of the U.S. are encountered during implementation of the project, not previously identified during project review, all work will cease and FEMA will be notified.
- Due to the Federally mandated Environmental and Historic Preservation (EHP) review; no construction will occur for this project prior to FEMA and Cal OES approval.

AUTHORIZATION

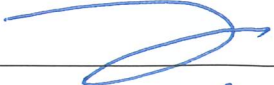
The undersigned does hereby submit this subapplication for financial assistance in accordance with the Federal Emergency Management Agency's (FEMA) Hazard Mitigation Grant Program (HMGP) and the State Hazard Mitigation Administrative Plan and certifies that the subapplicant (e.g., organization, city, or county) will fulfill all requirements of the program as contained in the program guidelines and that all information contained herein is true and correct to the best of our knowledge.

Subapplicant Authorized Agent:

NAME: Merritt Perry

TITLE: City Manager

ORGANIZATION: City of Fortuna

SIGNATURE: 

DATE: 6/18/2020