

# HAZARD MITIGATION GRANT PROGRAM PLANNING SUBAPPLICATION

**DISASTER NUMBER:**

DR - 4569

**JURISDICTION NAME:**

Humboldt Bay Municipal Water District

**PLAN TITLE:**

Humboldt Bay Municipal Water District  
Matthews Dam Advance Assistance

**CONTROL NUMBER:**

00000538

THE CONTROL NUMBER IS RECEIVED AT TIME OF SUCCESSFUL NOI SUBMITTAL



# Cal OES

**GOVERNOR'S OFFICE  
OF EMERGENCY SERVICES**

3650 SCHRIEVER AVENUE | MATHER, CA 95655  
RECOVERY SECTION | HAZARD MITIGATION ASSISTANCE BRANCH  
PHONE: (916) 845-8200 | FAX: (916) 845-8387



## 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 establishes priorities to accept subapplications from subapplicants state-wide including state agencies, federally recognized tribes, local governments, and Private Non-Profits (PNPs), consistent with Title 44, Chapter I, Part 206, Subpart H, §206.221.

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

### 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 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, and Sections 15000–15387) and any other state/local permits or requirements.

### FEMA Guidance

FEMA requires that all plans adhere to the [Local Mitigation Planning Handbook 2013](#) and [Hazard Mitigation Assistance Unified Guidance 2015](#).

### Time Extensions

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

### Questions

Submit all HMGP subapplication questions to the following mailbox: [HMA@caloes.ca.gov](mailto:HMA@caloes.ca.gov)

## HMGP ELIGIBILITY CHECKLIST

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

- Cost Share:** Cal OES will not accept subapplications with a requested federal share that exceeds \$150,000 for a single jurisdiction mitigation plan or \$250,000 for a multi-jurisdictional mitigation plan. Other approved planning-related activities are approved on a case by case basis for up to \$150,000. Funds are provided on a 75/25 cost share basis: 75% federal and 25% non-federal cost share. Local funding match of 25% of the total planning 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 (POP):** Cal OES will not accept subapplications with performance periods exceeding 36 months.
- Approved Notice of Interest:** Subapplicants 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.
- Time Extensions:** Unless a time extension has been approved before the deadline, subapplications must be postmarked by the applicable deadline to be considered for funding.
- Hazard Mitigation Planning Laws, Regulations and Policies Guidance:** Subapplicants must use applicable State, Tribal, or local mitigation planning guidance to determine the specific requirements for new plans and plan updates regarding the planning process; hazard identification and risk assessment; mitigation strategy; plan review, evaluation, and implementation; and plan adoption. For State, tribal, or local mitigation planning guidance, read the FEMA Mitigation Planning [webpage](#).
- Subapplicant Eligibility:** Subapplicants must be an eligible State Agency, Local Government (City, County, and Special Districts) or Federally Recognized Tribes.
- Duplication of Programs:** HMGP funding cannot be used as a substitute or replacement to fund activities or programs that are available under other federal authorities, known as Duplication of Programs (DOP).
- FOR MULTI-JURISDICTIONAL PLANS ONLY - Letters of Commitment (LOC):** A Letter of Commitment must be included for each participating jurisdiction.



**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. 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 packages consist of the following:**

- TWO** identical CD-RWs with functional electronic versions of all subapplication documents and attachments:
  - Must be in one of the following formats: Microsoft Word version 2007 (or newer), Microsoft Excel or Adobe PDF
  - Must be clearly titled

### **ORGANIZATION OF THE SECTIONS MUST BE TABBED IN THE FOLLOWING FORMAT:**

0. Table of Contents
1. Subapplication
2. Letters of Commitment **for Multi-Jurisdictional Local Hazard Mitigation Plans only** ([Letter of Commitment Template](#))
3. Authorization Form ([Subrecipient Grants Management Assessment Form](#))
4. Supporting Docs (Any extra supporting documentation)

### **MAIL OR DELIVER COMPLETED SUBAPPLICATIONS TO:**

California Governor's Office of Emergency Services  
Hazard Mitigation Assistance Branch  
Attention: Hazard Mitigation Grant Program  
3650 Schriever Avenue  
Mather, CA 95655



## LOCAL HAZARD MITIGATION PLAN INFORMATION

### 8. PLAN TYPE:

#### A. ACTIVITY TYPE:

Planning activity types are classified as one of the choices listed below. Pick **one** of the following choices that best describes the type of plan this subapplication will deliver:

1.	<input type="checkbox"/> <b>New Single Jurisdiction Local Hazard Mitigation Plan</b> Select for single jurisdictions that have no existing hazard mitigation plan.	
2.	<input type="checkbox"/> <b>Update to Single Jurisdiction Local Hazard Mitigation Plan</b> Select for single jurisdiction that have a FEMA approved plan in place.	FEMA APPROVAL DATE
3.	<input type="checkbox"/> <b>New Multi-Jurisdictional Local Hazard Mitigation Plan</b> Select if there is no existing plan and multiple jurisdictions will be included.	
4.	<input type="checkbox"/> <b>Update to Multi-Jurisdictional Local Hazard Mitigation Plan</b> Select for multi-jurisdictions that have a FEMA approved plan in place.	FEMA APPROVAL DATE
5.	<input type="checkbox"/> <b>New Tribal Mitigation Plan</b> (in accordance with 44 CFR Section 201.7) Select for tribal federally recognized tribes that have no existing hazard mitigation plan.	
6.	<input type="checkbox"/> <b>Update to Tribal Mitigation Plan</b> (in accordance with 44 CFR Section 201.7) Select for federally recognized tribes that have a FEMA approved plan in place.	FEMA APPROVAL DATE
7.	<input checked="" type="checkbox"/> <b>Other Planning-Related Activities</b> Describe planning activities: <div style="border: 1px solid black; padding: 10px; margin-top: 5px;">                     This Advance Assistance project will reduce the risk of dam and spillway failure at R.W. Matthews Dam resulting from a seismic event by performing a seismic stability analysis based on the controlling seismic ground motion for the area and developing the designs for seismic retrofits that result from the analysis. This project will include feasibility studies and engineering designs that will be used to characterize conditions at the dam and spillway at R.W. Matthews Dam and determine appropriate actions to make the dam and spillway more resilient to natural disasters and mitigate the risk of spillway failure that would subsequently lead to failure of R.W. Matthews dam in its entirety. This will mitigate the risk of 10,152 people and 3,057 buildings (including 48 critical facilities) from being exposed to the inundation flooding caused by the failure of the dam and mitigate the risk of an estimated loss of \$513,920,907 in damages resulting from dam failure in the event of a large earthquake. A 2016 study found that the controlling ground motion for the dam is a M9.2 event on the Cascadia Subduction Zone, resulting in an 84th percentile peak ground acceleration (PGA) of 0.70g. The stability of the dam in response to this seismic event has not been analyzed. This project will include all work required to perform a seismic stability analysis for the dam and spillway. This will include performing a geological/geotechnical assessment of the area that will include coring the spillway floor, other geotechnical borings around the dam, and preparation of a geotechnical report. The project will also include conducting a LiDAR survey and a supplemental                 </div>	

ground topographic survey. The geotechnical and survey data and analysis will be used to perform a seismic stability analysis of the dam and spillway in response to the controlling seismic ground motion for the area. The seismic stability analysis will be used to develop designs for proposed retrofits that result from this investigation. Overall, the dam is in good condition. The proposed project is a seismic retrofit, not a repair. The proposed projects will be designed to meet current dam safety and seismic standards, and any proposed retrofit designs would be closely reviewed by the State of California Division of Safety of Dams (DSOD) and the Federal Energy Regulatory Commission (FERC). Environmental considerations will be incorporated early into program decisions.



**COMPLETE SECTION E IF YOU SELECTED 8.A.3. OR 8.A.4. ABOVE:**

**E. MULTI-JURISDICTIONAL LOCAL HAZARD MITIGATION PLAN INFORMATION:**



If your plan type is multi-jurisdictional, a Letter of Commitment (LOC) from each participating jurisdiction is required. Use the template [here](#). A separate LOC must be executed by each participating jurisdiction and submitted to the lead agency and Cal OES jointly. The subapplication must include a LOC for each identified jurisdiction clearly stating commitment to participate in the development of the plan. Being recognized as a member of an approved multi-jurisdictional plan verifies a local agency's eligibility for hazard mitigation grant funds if they meet the participation criteria set forth in the letter.

- Enter the names of all the jurisdictions that will be included in your plan.
- Enter the County name included in the plan.
- Enter all the congressional district(s) within plan jurisdictions from <https://www.census.gov/mycd/>.
- Enter the exact title of the Letter of Commitment (LOC) electronic file that will be included on the required CD-RW Discs and place hard copies of each LOC in the LOC tabbed section.
- Identify the population of the jurisdiction applying for the planning grant using current census data.

#	JURISDICTION	COUNTY	CONGRESSIONAL DISTRICT #	TITLE OF ATTACHED LOC	POPULATION
1.	N/A	N/A	N/A	N/A	N/A
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
14.					
15.					



If more than 15 jurisdictions will be participating in your multi-jurisdictional plan; attach all information on a separate sheet and type the name of the attachment in box 1.



**Complete section F if you previously selected 8.A.2. OR 8.A.4. OR 8.A.6.:**

**F. PLAN UPDATES:**

Describe why the update to your plan is needed and describe how the update will build on your existing approved mitigation plan.

N/A

**PLANNING INFORMATION**

**9. PLANNING INFORMATION:**

**A. PLAN TITLE:** Humboldt Bay Municipal Water District Matthews Dam Advance Assistance

Use the same plan title used in your approved planning NOI.

**SCOPE OF WORK INFORMATION**

**10. Introductory Statement:**

Provide a brief statement that describes the proposed activity and what will be accomplished by the end of the Period of Performance (POP).

The goal of this Advance Assistance (AA) project is to reduce the risk of dam and spillway failure at R.W. Matthews Dam resulting from a seismic event. This will be accomplished by performing a seismic stability analysis based on the controlling seismic ground motion for the area and developing the designs for seismic retrofit(s) that result from the analysis. The AA project will include feasibility studies and engineering designs that will be used to characterize conditions at the dam and spillway at R.W. Matthews Dam and determine appropriate actions to make the dam and spillway more resilient to natural disasters and mitigate the risk of spillway failure that would subsequently lead to failure of R.W. Matthews dam in its entirety. This will mitigate the risk of 10,152 people and 3,057 buildings (including 48 critical facilities) from being exposed to the inundation flooding resulting from the failure of the dam and mitigate the risk of an estimated loss of \$513,920,907 in damages resulting from dam failure in the event of a large earthquake. A 2016 study found that the controlling ground motion for the dam is a M9.2 event on the Cascadia Subduction Zone, resulting in an 84th percentile peak ground acceleration (PGA) of 0.70g. The stability of the dam in response to this seismic event has not been analyzed. The AA project will include all work required to perform a seismic stability analysis for the dam and spillway. This will include performing a geotechnical assessment of the area that will include coring the spillway floor, other geotechnical borings around the dam, and preparation of a geotechnical report. The project will also include conducting a LiDAR survey, a supplemental ground topographic survey, and environmental special studies. All of the geotechnical and survey data and analysis will be used to perform a seismic stability analysis of the dam and spillway in response to the controlling seismic ground motion for the area. The seismic stability analysis will be used to develop 65% designs for proposed retrofits that result from this investigation. The proposed project will be designed to meet current dam safety and seismic standards, and any proposed retrofit designs would be closely reviewed by the State of California Division of Safety of Dams (DSOD) and the Federal Energy Regulatory Commission (FERC). Environmental considerations will be incorporated



early into program decisions. This Advance Assistance project will be used to develop the scope of work for a future Hazard Mitigation Assistance project subapplication.

## SCOPE OF WORK - ACTIVITIES DESCRIPTION

### 11. Provide clear and concise descriptions of the following activities:

- A. Planning Area:** Provide a narrative describing the planning area, including any non-contiguous land holding or assets, and demographics. Include the proposed number and names of all participating governments, PNPs, or other partners.

R.W. Matthews Dam is located on the Mad River in Trinity County approximately 50 miles southeast of Eureka, (see the attached Project Location Map in Figure 1, Tab 6). [HBMWD owns and is responsible for the Operations and Maintenance of Matthews Dam](#). The inundation flooding would affect the entire Mad River reach downstream of the dam in the event of dam failure. The Mad River flows through rural territory, adjacent to multiple small rural communities that would be significantly impacted if the dam were to fail. Closer to the Pacific coast, the river reaches the City of Blue Lake and continues to flow adjacent to other, more populated areas. Significant portions of the populated areas including Blue Lake, Glendale, and Arcata are in the dam failure inundation zone.

The Humboldt County Operational Area Hazard Mitigation Plan notes that there are numerous critical facilities that would be impacted if R.W. Matthews Dam were to fail, and that failure is likely to cause loss of human life. R.W. Matthews Dam is rated as a High Hazard dam.

- B. Planning Process:** Provide a narrative that includes a description of the proposed planning process to engage stakeholders and the public. This description should explain the proposed role of the planning team (steering committee). This description should also provide the anticipated number of meetings for the planning team, identify stakeholders, and explain public outreach.

The District has reached out to partners and stakeholders to advance mitigation measures for this project and will continue to do so into the future. The District has also participated in the community planning process in the form of including this project in the local multi-jurisdictional hazard mitigation plan (Humboldt County Hazard Mitigation Plan).

The District has leveraged their partnership with public entities (DSOD, FERC) and private consulting experts (GEI, GHD, and Cardno Engineers) to continually take action to enhance the safety of the dam and spillway and mitigate the risk of failure through actions such as Potential Failure Mode Analyses (PFMAs). GEI and GHD assist the District with many matters concerning R.W. Matthews Dam and spillway, including reviewing the annual Dam Safety Surveillance and Monitoring Report (DSSMR), correspondence with DSOD and FERC, performing engineering services associated with repairs and enhancements at the dam and spillway, and other many other items. Cardno prepared the Matthews Dam PFMA Report that was completed in 2016, and GEI prepared the

Focused Spillway PFMA Report Addendum No. 3 that was completed in 2018. This 2018 analysis was in response to the 2017 Oroville spillway near failure and FERC and DSOD requirements. The District will continue to leverage the expertise of consultants to keep the dam safe and in good condition.

The District has also collaborated with many other local jurisdictions that participate in the development of the multi-jurisdictional Humboldt County and Trinity County Local Hazard Mitigation Plans. The District has worked together with these other local and state agencies to identify the risks associated with failure of R.W. Matthews Dam and develop a plan to mitigate these risks. The District also holds annual emergency action plan (EAP) dam break exercises with attendance from many local agencies that represent the public including public works officials, building officials, emergency response officials, engineers, communications agencies, and others, during which feedback is gathered. These processes with public agencies will continue into the future.

When this AA project is funded and a future implementation project occurs, actions to move forward will be included on District Board public meeting agendas. Additionally, the District will be required to participate in the environmental review process through California's Environmental Quality Act (CEQA). These will be some of the avenues that the District uses for public outreach and to gather feedback from members of the affected communities. The District will keep their municipal customers, who represent the communities that are served by the District, informed of project progress and gather feedback from these stakeholders. The District will also continue to collaborate and solicit feedback from other stakeholders, including FERC and DSOD, as the project progresses. With their expertise on the subject matter and intimate knowledge of R.W. Matthews Dam and the proposed project, even if not selected to perform the project work through the competitive RFQ process, the expertise of GHD as the District Engineer and GEI as the Qualified Dam Safety Consultant will continue to be leveraged by the District in this and future projects associated with the dam.

The District will also continue to engage FERC and DSOD as the project progresses so that their insight is gathered and incorporated, and so that the project is developed in a manner that they will approve.

**c. Previous Mitigation Planning:** Provide a narrative that includes a description of previous mitigation planning efforts, including an evaluation of the past plan as a basis to identify priorities for plan updates.

The District has leveraged their partnership with public entities (DSOD, FERC) and private consulting experts (GEI, GHD, and Cardno Engineers) to continually take action to enhance the safety of the dam and spillway and mitigate the risk of failure through actions such as Potential Failure Mode Analyses (PFMAs). GEI and GHD assist the District with many matters concerning R.W. Matthews Dam and spillway, including reviewing the annual Dam Safety Surveillance and Monitoring Report (DSSMR), correspondence with DSOD and FERC, performing engineering services associated with repairs and enhancements at the dam and spillway, and other many other items. Cardno prepared

the Matthews Dam PFMA Report that was completed in 2016, and GEI prepared the Focused Spillway PFMA Report Addendum No. 3 that was completed in 2018. This 2018 analysis was in response to the 2017 Oroville spillway near failure and FERC and DSOD requirements.

A 2016 study found that the controlling ground motion for the dam is a M9.2 event on the Cascadia Subduction Zone, resulting in an 84th percentile peak ground acceleration (PGA) of 0.70g. The stability of the dam in response to this seismic event has not been analyzed. This project will include all work required to perform a seismic stability analysis for the dam and spillway. When the dam was designed, plate tectonics had not been firmly developed, and seismic activity in the region was believed to be from less active local faults. While the dam is in good condition, the District needs to update the dam and spillway to meet current, more stringent, modern seismic loads.

The District has also previously prepared a Dam Safety Surveillance and Monitoring Plan (DSSMP) and annually completes the DSSMR to evaluate the performance and condition of the dam and appurtenances.

- D. Available Data and Risk Assessment Process:** Provide a narrative that identifies the process the team will use to research, collect, analyze, and summarize hazard and risk data. If a specific risk assessment methodology or software (e.g., Hazus) will be used, the narrative must describe how this will influence the level of effort, timeframe, and planning costs. It is advised to make use of existing data and risk assessments when developing a new mitigation plan or updating a mitigation plan; the narrative should describe any known data sources to be used in the risk assessment. Similarly, if it is intended to develop new risk data, the proposed process and sources must be described as well.

RW Matthews Dam is classified as a High Hazard Potential dam, meaning its failure or mis-operation would cause loss of human life and significant property destruction. The District has performed inundation mapping for the dam ("RW Matthews Dam Failure Downstream Inundation Mapping", Winzler & Kelly, January 2001), modeling the release of water if the dam failed. The Humboldt Operational Area Hazard Mitigation Plan (HOAHMP), modeled the impact of a dam failure from Matthews Dam using HAZUS. The HOAHMP states that in the event of the failure of Matthews Dam, 10,152 people would be affected and 3,057 buildings with a value of \$513,920,907 would be exposed. In addition, 90 critical facilities would be impacted, and the estimated total loss would be \$513,920,907. Failure of the dam is also likely to cause loss of human life.

The failure of the dam would also damage the District's water production facilities. 88,000 people receive their potable water directly or indirectly from the District. These water services would likely be non-operational for months or years. This project would allow the District to investigate and mitigate potential failure modes of the dam as a result of seismic events, thereby reducing the risk of failure.

A 2016 study found that the controlling ground motion for the dam is a M9.2 Cascadia event, resulting in a PGA of 0.70g. This event would be used to analyze the spillway and

dam under seismic loading.

This Advance Assistance project will assess the dam as described in the response to Activity 11B so that the risk of spillway/dam failure in the event of a large earthquake is mitigated. The investigations that will be performed and actions that will result from the investigations will make the dam and spillway more resilient to large earthquake events, thereby limiting risk to life and property and providing continuity of lifeline water supply to the communities served.

The Advance Assistant project would be designed to meet current dam safety and seismic standards and any proposed retrofits would be submitted to DSOD and FERC for approval.

**E. Development of Mitigation Strategy:** Provide a narrative that describes the proposed process to develop a mitigation strategy for each participating jurisdiction based on the risk assessment completed for the plan.

As discussed in the responses to previous questions, a seismic analysis investigating the response of Matthews Dam and spillway to the controlling seismic motion at the dam has not been performed. There is data that needs to be gathered and analyses that need to be performed prior to implementing a seismic retrofit project for the dam and spillway. It is suspected that relatively large deformations to the dam would result from a M9.2 seismic event on the Cascadia Subduction Zone. The level of deformation that could reasonably be expected from an event like this is uncertain due to the lack of available data, which means that the magnitude of potential retrofit solutions that are required are also uncertain. Potential deformation ranges vary widely depending on the material properties assumed in the analysis. Additional studies/analyses would provide information about material properties that is needed to reduce the band of uncertainty that goes into this analysis and development of alternative design solutions. The alternative design solutions may include retrofit designs such as increasing the height of the dam (thereby increasing freeboard); buttressing the upstream slope of the dam, buttressing the downstream slope of the dam, and/or buttressing the left spillway wall; and/or foundation improvements such as deep soil mixing. The potential need for raising the dam crest elevation, whether buttresses are required, how large of buttresses are required, the strength of material for the buttresses, the extent to which buttresses need to be keyed into the foundation, whether foundation improvements such as deep soil mixing are required, and other solution uncertainties would be answered by performing the analyses as proposed for this Advance Assistance project.

This AA project will be used to gather the required data and perform the required analyses so that an appropriate retrofit design can be developed. Once the required information is determined and developed, 65% design will be performed under the AA project. The District will then apply for HMA funds under a future disaster for final design and construction of the project.

**F. Plan Adoption:** Provide a narrative that describes the plan drafting process, including State and FEMA reviews (i.e., approval pending adoption), adoption by participating jurisdictions, and final approval by FEMA.

N/A

**SCOPE OF WORK - DELIVERABLES & TASKS**

- 12. Deliverables:** Provide a narrative to describe the deliverables of the proposed activity.
- A new or updated FEMA-approved mitigation plan consistent with mitigation planning regulations for State (44 CFR Sections 201.4 or 201.5), tribal (44 CFR Sections 201.7 or 201.5), or local governments (44 CFR Section 201.6), as well as the applicable mitigation planning guidance.
  - A mitigation planning–related activity eligible under HMGP only that enhance an existing mitigation plan consistent with mitigation planning regulations for State (44 CFR Sections 201.4 or 201.5), tribal (44 CFR Sections 201.7 or 201.5), or local governments (44 CFR Section 201.6), as well as the applicable mitigation guidance.

See attached Scope of Work (Tab 5) and 11 Tasks and corresponding deliverables.

- 13. Tasks:** Provide a narrative that describes the tasks, including the proposed planning process, as well as procurement.
- If yes, include the following information in the box below or attach copies:
- Request for Proposals (RFP’s) and bid process
  - Description of responsibilities
  - Clarify at what point the consultant responsibilities will be fulfilled.

See attached Scope of Work (Task 5) and response to #14 below.

- 14. Consultant:** Will a consultant assist with the planning development process?  
 Yes  No

If yes, include the following information in the box below or attach copies:

- Request for Proposals (RFP’s) and bid process
- Description of responsibilities
- Clarify at what point the consultant responsibilities will be fulfilled.

The project will be managed by the General Manager of the Humboldt Bay Municipal Water District. The District Business Manager will perform grant management and reporting duties. District staff will support the work for this project as much possible. However, some of the tasks for this project require expertise in specific fields for which the District will need to hire third party consultants. Consultant work includes, but is not limited to the following: geological/geotechnical assessment activities; surveying; seismic stability analysis; design for providing solutions to issues identified in the analyses; environmental studies; project grant subapplication and final BCA. The District will adhere to Federal procurement requirements and grant requirements when soliciting proposals and/or statements of qualifications from third party professional services consultants that perform any work for this project. A formal request for qualifications (RFQ) competitive process will be completed for all of the services that will be provided by a consultant(s).

**WORK SCHEDULE INFORMATION**

- 15. PLANNING WORK SCHEDULE:**

WORK SCHEDULE EXAMPLE		
#	DESCRIPTION	TIMEFRAME

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

- Describe the major milestones and the duration of time to complete each one.
- Show activity duration in months.
- The work schedule must include six months for Cal OES/FEMA review/revisions/approval, appropriate time for local adoption and 90 days for grant closeout.
- **Cannot exceed 36 months**

1.	Procure consultant	3 months
2.	Develop planning team	2 months
3.	Stakeholder outreach	3 months
4.	Hazard identification	3 months
5.	Risk assessment	3 months
6.	Mitigation strategy	2 months
7.	Maintenance plan	1 month
8.	Plan draft	3 months
9.	Cal OES/FEMA Review/Revisions	6 months
10.	Local Plan Adoption	2 months
11.	Grant Closeout	3 months
<b>TOTAL MONTHS:</b>		<b>31 months</b>

#	DESCRIPTION	TIMEFRAME
1.	See attached Gantt chart in Tab 8	
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
11.	Standard Value Grant Close-out	3 months
<b>TOTAL MONTHS:</b>		<b>36</b>

### Cost Estimate Information

16. HMGP Cost-Estimate Spreadsheet:

A. Cost-Estimate Instructions:

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

- Documentation to support the cost estimate is necessary.
- Eligible costs must be included in both the cost estimate spreadsheet and the scope of work to be reimbursed.

COST-ESTIMATE SPREADSHEET EXAMPLE				
ITEM NAME	UNIT QTY	UNIT	UNIT COST	COST EST TOTAL
PLAN INITIATION	80	HR	\$120	\$9,600
PUBLIC ENGAGEMENT	40	HR	\$60	\$2,400
REVIEW OF PLANS	140	HR	\$80	\$11,200
HAZARD/RISK ASSESSMENT	100	HR	\$150	\$15,000
LOCAL PLAN UPDATES	200	HR	\$67	\$13,400
COMPILE DRAFT	120	HR	\$120	\$14,400
REVIEW OF DRAFT	67	HR	\$120	\$8,040
APPROVAL/ADOPTION	50	HR	\$150	\$7,500
PLANNING CLOSE-OUT	80	HR	\$150	\$12,000
<b>TOTAL COST ESTIMATE:</b>				<b>\$93,540</b>

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 subapplication may be funded.

- Preparation of subapplication
- Workshops or meetings related to development



**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 each projected expenditure in detail. The cost estimate narrative must mirror the cost estimate spreadsheet and should include a detailed narrative explaining and supporting each cost listed in the Cost Estimate Spreadsheet. If your cost estimate includes City, County, or State employees' time, include personnel titles and salary/hourly wages plus benefits for a total hourly cost. Detailed, functional timesheets must be retained.

- Title the document "Cost-Estimate Narrative" and attach to this subapplication form.





**i** A jurisdiction may contribute an amount greater than the 25% non-federal share.

**B. Total Planning Cost Estimate:**  
 Enter total cost formulated on the  
[HMGP Cost Estimate Spreadsheet](#)

\$2,043,950
-------------

ENTER \$ IN BOX ABOVE



**Verify all amounts  
 entered are  
 accurate.**

**Incorrect amounts  
 Will delay  
 processing of your  
 subapplication.**

<b>FEDERAL SHARE (75% MAXIMUM)</b>	REQUESTED AMOUNT:	\$1,532,962.50
		ENTER \$ IN BOX ABOVE
	PERCENTAGE AMOUNT:	75%
		ENTER % IN BOX ABOVE
<b>NON-FEDERAL SHARE (25% MINIMUM)</b>	REQUESTED AMOUNT:	\$510,987.50
		ENTER \$ IN BOX ABOVE
	PERCENTAGE AMOUNT:	25%
		ENTER % IN BOX ABOVE

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

Complete the Match Commitment Letter using the template on the next page.

- Match Commitment Letter should be submitted in an organizations letter head and it must be signed by an Authorized Agent.
- The non-federal source of matching funds must be identified by name and type.
- If “other” is selected for funding type, provide a description.
- Exact date of availability for all matching funds must be provided.
- 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 line listed in the cost estimate spreadsheet.
- Requirements for donated contributions can be found in 2 CFR 200.306.

**Local Match Fund Commitment Letter**

See attached Match Commitment letter in Tab 2.

**PRINT THIS PAGE – ORIGINAL SIGNATURE IS REQUIRED**

**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:** John Friedenbach

**Title:** General Manager

**Organization:** Humboldt Bay Municipal Water District

**Signature:** *John Friedenbach, General Manager*

**Date:** *August 5, 2021*