



**San Mateo County
Flood and Sea Level Rise
Resiliency District**

Requests Proposals to Develop

**Flood Emergency Action Plans for
Watersheds in San Mateo County**

RFP Number FSLRRD-2024-04-01

Release Date: April 1, 2024

**Deadline to Respond:
April 29, 2024 at 5:00 PM**

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Introduction

San Mateo County has already been, and will increasingly be, affected by the water-related impacts of climate change, including extreme storms, drought, coastal erosion, and shallow groundwater rise. Sea level rise threatens more people and property here than in any other county in California. These facts led to State legislation that established the San Mateo County Flood and Sea Level Rise Resiliency District (OneShoreline) in January 2020. OneShoreline is the first independent countywide government agency in California to work across jurisdictional boundaries with a wide range of stakeholders to plan for, and build resilience to, climate change. Resilience to this transformative challenge requires a holistic approach to:

- **Geography**: OneShoreline is the vehicle through which San Mateo County and its cities can align efforts across jurisdictions;
- **Threats**: OneShoreline focuses on climate change's multiple water-related impacts; and
- **Objectives**: OneShoreline reduces these threats and incorporates natural infrastructure, recreation, and public and private land into its efforts.

As our name suggests, OneShoreline's philosophy is that we are all in this together. By working at a regional scale, OneShoreline facilitates the sharing of expertise, advances communication and aligned and equitable benefits across communities, and provides a unified voice to secure state, federal, and private funds.

Over the past three winters, San Mateo County ("SMC" or "the County") has experienced record-level precipitation and creek flows resulting in several deaths, significant property damage, creek bank erosion, and has overwhelmed emergency response capacity. OneShoreline is engaged on several fronts to improve flood water management, provide flood early warning to emergency responders and the general public, and invest in measures to improve community resilience to future flooding. The development of a multi-jurisdictional watershed-wide Flood Emergency Action Plan ("EAP") is a critical component of these efforts.

Thus, with support from the state's Department of Water Resources, OneShoreline seeks proposals from qualified consultants with demonstrated expertise in emergency management to complete an EAP focused on the Belmont Creek watershed (with an optional task focused on the development of a second EAP for the Atherton Channel & Bayfront Canal combined watershed). An EAP is a written (though "living" and dynamic) document that identifies emergency conditions within a watershed and specifies coordinated communications and pre-meditated actions to minimize loss of life, property damage, and impacts to infrastructure during flood events. The Consultant will be responsible for all activities necessary for the development of these EAPs.

Submittal Process

Please submit electronic copy of the proposal by:

April 29, 2024, 5:00 PM local time, to:

Johnathan Perisho, Project Manager
San Mateo County Flood and Sea Level Rise Resiliency District
Projects@OneShoreline.org

Proposals must be in font size 11 pt and not exceed 30 pages, including any supporting materials.

We encourage prospective consultants to participate in a pre-proposal workshop on April 15, 2024 at 10:00 AM Pacific Time via Zoom. [Registration can be completed here.](#)

Additionally, questions submitted by email to Projects@OneShoreline.org with the subject line "Flood EAP RFP" by April 17 at 5:00 PM will be answered in a FAQ document posted at OneShoreline.org/document-library by April 19 at 5:00 PM, along with any RFP addenda. Proposals shall be valid for one hundred twenty (120) days.

Interviews of prospective consultants may be expected to occur May 21, 22, and 23 in person at OneShoreline's offices at 1700 South El Camino Real, San Mateo, CA.

Project Budget

All tasks described within the enclosed Scope of Work shall be included within a proposal's fee schedule and itemized according to required and optional tasks.

Project Schedule

The Flood Emergency Action Plan Project (the Project) will begin with contract execution on approximately May 31, 2024 and work must be completed by May 31, 2025 for a project duration not to exceed 12 months. A timeline should be included with the response to this RFP. All tasks described within the enclosed Scope of Work shall be included within a proposal's schedule, detailing the date of commencement, interim milestone dates, the time required for completion of each portion of work, and the date of substantial completion.

Proposal Requirements

Responses to this Request for Proposals (RFP) should include the following:

1. Cover letter identifying the materials submitted and the name/title of the person to contact regarding the proposal, signed by an individual authorized to execute legal documents for the proposer.
2. Title page and table of contents. Number all pages of the proposal.
3. Exceptions to the RFP requirements or to the final revised RFP, if any.
4. Organizational chart of the Project team, including team leads and key staff who will be actively working on the Project. If a person must be added to the team, a resume shall be submitted and the new individual must be approved by OneShoreline.
5. Technical Proposal, including:
 - Overview diagram of Project workplan;
 - High-level discussion of the Project vision and approach to the Project, including any suggested modifications to the Project tasks;
 - A detailed Scope of Services addressing each task outlined in this RFP in the order presented, including a summary of key deliverables listed at the end of each task, how these deliverables will be developed, and any assumptions.
6. Project schedule, with milestones, deliverables, dates, and a management plan.
7. Itemized fee schedule, by task
 - Include a Labor Hours and Cost Table that provides the estimated labor hours and cost by job classification for each resource per task and subtask
 - Subconsultant team staff should be listed separately to clearly show percent markup sub-totals
8. List of team members who will be assigned to the Project, their role on the Project, and experience relevant to their role. Substitutions will need to be submitted to OneShoreline for approval before charging to the Project. This includes:

- Biographies or resumes of key technical staff;
 - List of any subconsultants, their roles, and personnel assigned to the Project;
 - All applicable licenses and license numbers relevant to the Project, the names of the holders of those licenses, and the names of the agencies issuing the licenses.
9. Description of previously completed projects of similar scope and services to those proposed in this RFP, and two references regarding each of those experiences.
10. Description of any pending litigation or litigation against the firm, or any of its proposed subconsultants that is active or has been settled in the past three (3) years.
11. Acceptance of:
- OneShoreline’s Standard Agreement and Insurance Requirements
 - OneShoreline’s Non-Collusion and Conflict of Interest Statement
 - Both templates are available for review at OneShoreline.org/document-library. Potential applicants should be confident in their ability to comply with the provisions contained within these documents prior to submitting a proposal.

OneShoreline reserves the right to modify the RFP’s scope of work, make corrections, and reject any or all proposals. OneShoreline may also correct errors in the RFP and contact the proposers with any clarifications. Consultant shall ensure full compliance with Federal, State and local laws, directives, and executive orders regarding California Public Contract Code and other provisions of laws applicable to this Project.

OneShoreline staff and others will evaluate the proposals provided in response to this RFP based on the following criteria:

- Experience and expertise in hazard mitigation, flood management, response, recovery and resilience planning;
- Quality and completeness of proposal;
- Quality of the proposed solution, products, and/or services to be provided;
- Experience of the firm(s) and the staff to be assigned to the Project, including experience with projects of similar scope and complexity;
- Experience in developing strong public participation campaigns with diverse audiences;
- Project cost;
- Ability to perform the work within the time specified and in a professional, thorough manner;
- Proposer’s record of compliance with applicable laws, regulations, policies, guidelines, and orders governing prior or existing contracts performed by the Consultant.

OneShoreline may invite multiple consultants to be interviewed. Final decisions regarding consultant selection will be based on interviews and Evaluation Criteria. OneShoreline will ideally contract with a single consultant who may manage a consultant team, however multiple consultants may be identified by OneShoreline for separate contracting to help achieve the complex scope. The selection process should be finished within 45 days of the submission of responses.

Background

San Mateo County is a largely urbanized county in the San Francisco Bay (“Bay”) Area with substantial and repeated vulnerabilities to flooding. A concentrated amount of critical infrastructure and natural resources of local and regional importance are located within the County, and are at significant risk due to flooding, including: major highways; the San Francisco International Airport; light and heavy railways; water, wastewater, and stormwater management facilities; endangered species habitats; important recreational assets such as the shorelines along the San Francisco Bay and the Pacific Coast, and the Bay Trail; dams and reservoirs; financial institutions; commercial properties; and energy facilities. San Mateo County is also home to part of Silicon Valley, a major driving force in the economy, with tech and biotech companies and corporate campuses.

This vulnerability to flooding, combined with an anticipated increase in the frequency of intense storm events in the future, is expected to significantly increase the number of people and assets at risk. As a result, there is a need for a comprehensive, coordinated, and equitable response that crosses jurisdictional bounds in order to protect and build the resilience of the communities, economies, and environmental resources.

In order to better prepare for these risks, OneShoreline is leading the coordinated development and implementation of this Flood Emergency Action Plan Project, which will result in flood emergency action plans for highly vulnerable creeks, enhance agency responsiveness, plan and implement coordinated flood mitigation and adaptation measures, and create effective response frameworks. These actions will improve local flood emergency preparedness and response, and ensure that vulnerable households, communities, and entities can improve their resilience, response, and recovery to flood events. The Project will take equity into account with consultation, planning, and communications, as well as with the development and implementation of resilience, response, and recovery measures.

Flood Emergency Action Plans

OneShoreline will be the lead agency of the Project that is the subject of this RFP. Other partners on this Project will include the relevant city and county staff (especially the County Department of Emergency Management), community members (including representatives from unincorporated areas), and emergency response personnel. The development of these EAPs will necessarily include inter-agency coordination (to be modeled on the San Francisquito Creek Multi-Agency Coordination Operational Plan), and will define clear roles to ensure unity of effort so that should a flood incident come to pass, consequences can be minimized and harm can be reduced.

The development of site-specific EAPs will better define flood emergency action plans and management responsibilities before, during, and after flood events in cross-jurisdictional areas that experience frequent flooding. The EAPs will contain procedures and information that describe event detection; condition level determination; notification and communication; actions and responsibilities; and termination and follow-up.

The EAPs will identify key partners and decision-making processes for issuing early warning and notification messages to emergency management authorities. Additionally, the process of developing the EAPs will aid local, state, and federal agencies with activities to ensure effective and well-coordinated flood incident emergency response procedures and planning.

To increase community resilience, each EAP will identify pre- and post-disaster mitigation measures during the preparedness and response phases that can be implemented in each watershed to reduce the risk of loss of life and property, adapt to changing conditions, and seek to avoid major disruptions to critical infrastructure from flooding associated with storm intensification and sea level rise due to climate change. The EAPs will also identify measures that could support affected communities’ short-and long-term recovery from, and resilience to, a flood disaster, including but not limited to emergency shelters, resilience hubs, and

evacuation assistance.

The EAPs will use standard language recognized by the National Weather Service, and be consistent with the California OES Standardized Emergency Management System (“SEMS”) and utilize the data provided by OneShoreline’s Flood Early Warning System, found at <https://oneshorelineearlywarning.onerain.com/map>. Each EAP will include as deliverables maps of the Project Area, including the floodplain, safety and monitoring systems, inundation zones, and available resources. The inundation map(s) will demarcate critical areas for evacuation-related actions. These deliverables will be open-access and publicly accessible, including via OneShoreline’s website.

Each EAP should identify potential flood emergency conditions in each watershed and specify pre-planned actions to help minimize loss of life, property damage, and impacts on infrastructure should those conditions occur. The EAPs will contain procedures and information that identify incident response roles, including emergency notification flowcharts for flood threat condition levels, contact information, and a description of the responsibilities of each agency. The EAPs will outline the levels of the response process and establish clear systems for issuing early warning and notification messages to emergency management authorities. The EAPs should identify flood and climate change mitigation measures, as well as preparedness, adaptation and resilience activities that can be taken in advance of an emergency and/or as part of the recovery and any reconstruction.

The EAPs will also define operational flood condition and flood severity threshold levels for waterway capacity warnings, and characterize the flood hazard by intensity, speed, duration, and impact on the local community. The EAPs will create systems for monitoring potential weather-related events and thresholds by which to activate a flood emergency response facility. OneShoreline’s Flood Early Warning thresholds, linked in Appendix 2, may serve as a basis for threshold levels, and there is a strong preference for establishing precipitation-based thresholds as appropriate.

The EAP process will facilitate the development of a system for providing timely, clear, and effective notification to the public of what they can do to prepare for and avoid hazards, and during an event, provide public alerts and warning systems for evacuation or other safety measures. The Project will also include creating a tiered emergency response system, with coordinating agencies with clear lines of communication and responsibilities already established across jurisdictions.

Scope of Work

In coordination with OneShoreline staff, the selected Consultant shall provide the full range of services for the development of a watershed-wide EAP, with an optional task for a second EAP, including, but not limited to:

- Identify the key partners and the decision-making process for issuing early warning and notification messages to emergency management authorities.
- Identify pre- and post-disaster mitigation measures during the preparedness and response phases that can be implemented in the watersheds
- Identify measures that could support affected communities’ short-and long-term recovery from, and resilience to, a flood disaster, including but not limited to emergency shelters, resilience hubs, and evacuation assistance.
- Develop maps of the Project Area, including the floodplain, safety and monitoring systems, inundation zones. The inundation map(s) will demarcate critical areas for evacuation-related actions, critical infrastructure, and other resources available to residents.

- Define operational flood condition and flood severity threshold levels for waterway capacity warnings, and characterize the flood hazard by intensity, speed, duration, and impact on the local community.
- Create a tiered emergency response system, with coordinating agencies with clear lines of communication and responsibilities already established across jurisdictions.
- The EAPs will contain procedures and information that describe event detection; condition level determination; notification and communication; actions and responsibilities; and termination and follow-up.
- Research, develop, seek stakeholder input on, and publish written plans and procedures that can be effectively and efficiently implemented in a severe storm or flooding event that threatens public health and safety;
- Coordination of multiple agencies across jurisdictional boundaries to ensure a streamlined and cooperative process in the development of the EAP;
- Include a plan for regular strategic planning and coordination and training, to include workshops, seminars, or tabletop exercises, including using specific scenarios that could trigger the use of the EAP; development and integration of public accessibility to Project materials and assistance structuring the web interface and functionality into OneShoreline's website.

Quality Management

OneShoreline shall be responsible for ensuring that all deliverables are met. Close coordination between Consultant, OneShoreline, and other OneShoreline-designated Project partners throughout the course of the Project is required. This will ensure that critical information will be made available to the appropriate Project team members in a timely manner.

The draft version of each deliverable will be submitted to OneShoreline for review and comment. OneShoreline will provide the consolidated comments of all Project partners to Consultant, and these consolidated comments shall serve as the basis for the final version of the document. For technical memoranda and other deliverables, OneShoreline review period will be 2-3 weeks. For larger deliverables, OneShoreline review period will be 4-5 weeks.

Consultant Qualifications

Qualified consultants should have significant experience and demonstrated success in:

- The development of flood emergency action plans, policies, procedures, resiliency, recovery planning, and/or other hazard mitigation;
- Flood mitigation and adaptation measures;
- Detailed project documentation and reporting;
- Ability to solicit meaningful input from stakeholders including the general public, and manage coordination with multiple municipal agencies and other stakeholders;
- Experience conducting outreach and coordinating community-based participatory research, or similar techniques, including with historically under-represented or hard-to-reach communities;
- Experience with emergency response and recovery;

Consultant Responsibilities

- Consultant is responsible for performing this scope in compliance with all applicable

federal, state, and local laws, regulations, standards, and guidelines;

- Consultant will submit draft deliverables in electronic format and final deliverables in both electronic and hardcopy format unless otherwise directed by OneShoreline;
- Consultant will provide Quality Assurance/Quality Control (“QA/QC”) on all services performed by the Consultant. The Consultant is expected to work closely with OneShoreline throughout the Project to ensure critical information used for design and environmental analysis is available in a timely manner;
- All documents produced by the Consultant will be well-written in standard, proper English. The Consultant will ensure the technical level of writing be understandable by both technical and non-technical personnel at various agencies, and will either clearly explain or define terms specific to various fields in the text. Should the Consultant submit a draft or final product or products with extensive errors or which is substantially incomplete, the product or products may be returned to the Consultant without complete reviews for the Consultant to make corrections and revisions and resubmit the product or products, at no additional cost to OneShoreline.

Tasks

Once selected, the Consultant will perform the following major tasks as part of the Scope of Work.

Task 1.0 — Project Management, Organization, and Coordination

Task 2.0 — Establish Cooperation Framework for EAP with Critical Agency Partners

Task 3.0 — Community Outreach and Engagement

Task 4.0 — Preparation and Development Services

Task 5.0 — Risk Assessment Analysis

Task 6.0 — Mitigation, Adaptation, and Resilience Actions and Strategy

Task 7.0 — Planning Documents Preparation and Development

Task 8.0 — Website Functionality Development

Task 9.0 — Supplemental Services

Task 10.0 — Optional EAP for the Atherton Channel & Bayfront Canal combined watershed

Task 1.0: Project Management, Organization, and Coordination

The Consultant will provide project management services during the term of the Agreement. The Consultant’s project manager will be responsible for providing any needed subconsultants, managing of the Consultant team, monitoring the Project budgets and schedules, providing status updates to relevant steering groups, and maintaining an efficient and effective document tracking system. Key Project staff should be available for telephone consultation and team meetings (including virtual, in-person, and/or field review meetings) throughout the duration of the Project on any significant issues (or potential deviations) related to the Project schedule, work plan, or fees.

OneShoreline will be the administrative agency for the Project and staff shall be responsible for contract administration and ensuring that all deliverables are met. Close coordination between Consultant, OneShoreline, and other OneShoreline-designated Project partners throughout the course of the Project is required. This will ensure that critical information will be made available to the appropriate Project team members in a timely manner.

1.1 Prepare Schedule and Work Plan

Consultant will prepare a draft and final Project work plan, including QA/QC, developed using widely accessible scheduling software. Consultant will refine the work plan and schedule based on OneShoreline comments. Consultant will meet with the OneShoreline Project Manager to finalize the scope of services, budget and baseline for the Project schedule.

This work plan process will include developing a list of partners and identification of key personnel that will be involved in the development of each EAP. OneShoreline will support the Consultant in convening regular meetings of the participating agency staff.

Consultant will update the Project schedule monthly and e-mail the update to the OneShoreline Project Manager. Throughout the Project, Consultant will coordinate with OneShoreline on all aspects of the work.

Consultant will develop a master list of Project deliverables, in collaboration with the OneShoreline Project Manager. This list will map out the timing of each deliverable, including submittal, review, and finalization, as well as identifying critical paths.

Deliverables

1. Detailed Project Work Plan, Schedule, and Scope in an electronic format approved by OneShoreline.
2. Master List of Deliverables

1.2 Prepare Invoices, Progress Reports, and Scheduling Revisions

Consultant will submit monthly invoices with activities and milestones, progress reports, and Project schedule reports. These documents and their content will be prepared in an agreed-upon format between Consultant and OneShoreline.

Deliverables

1. Monthly invoices, status reports, and Project schedule updates.

1.3 Attend Project Management Meetings

Consultant will attend monthly Project management meetings with OneShoreline. Consultant will prepare the meeting agendas and action items in consultation with the OneShoreline Project Manager. These meetings will be conducted remotely or in-person at OneShoreline's offices.

Deliverables

1. Meeting preparation materials
2. Meeting agendas
3. Summary of meeting action items

1.4 Support on Presentations for Key Meetings and Public Education

Consultant will support OneShoreline and the involved agencies on preparing materials for any presentations at City Council meetings, partner planning meetings, public workshops, and/or meetings with key property owners. Basic planning documents to prepare for early engagement meetings and deliverables will include:

- Overall Project Map
- Floodplain Map
- Flooding Elevations and History
- Inundation Map
- Map of levee system, or showing dams in watershed, if relevant

- Description of Flood Monitoring Systems and agreed terminology regarding public warnings or evacuations
- Support for any deliverables required for submission to Cal OES, FEMA, or DWR.

Task 2: Establish Cooperation Framework for EAP with Critical Agency Partners

Essential agency partners will be involved and engaged throughout the EAP planning and development process, including city managers, public works directors, public safety agencies (including County DEM, law and fire for each jurisdiction in the EAP watershed), utility providers, and representatives from the Cities, the County, and local jurisdictions. Other relevant agencies include California Department of Water Resources Flood Operations Center, and the National Weather Service. Inundation areas from San Mateo County dams, together with associated dam emergency planning documentation, must be incorporated into the EAP planning process.

This cooperation and engagement increases the effectiveness of the EAP in times of emergencies or other flood incidents. Critical roles and responsibilities for responding to an incident and implementing the plan must be clearly documented in the EAP. Responsibilities should be broken down by role for staff where applicable. Responsibilities include, but are not limited to:

- Verifying and assessing emergency conditions
- Notifying emergency management agencies
- Taking corrective action
- Declaring termination of the emergency
- Updating the EAP on an annual basis

Notification flowcharts will include contacts for timely notification of local emergency management and public safety agencies for all emergency levels, for example: Preparedness (Green), Monitoring (Yellow), Watch (Orange), Warning (Red), and also for flood severity levels (e.g., Action, Minor Flooding, Moderate Flooding, Major Flooding).

These partners will convene at regular intervals during the EAP development process to be involved in the planning for incident response and actions that can be taken to protect the watershed and minimize impacts to life, property, infrastructure, and the environment. Consultant will attend these meetings and will prepare the meeting agendas and action items in consultation with the OneShoreline Project Manager. These meetings will be conducted remotely or in-person, depending on public health considerations.

Deliverables

1. Project Partner Meeting preparation materials
2. Project Partner Meeting agendas
3. Meeting Summary Notes
4. Notification Flowcharts
5. Emergency 24-hour Contact Information for all partners, to be updated annually.

Task 3: Community Outreach and Engagement

The objective of this task is to implement a community outreach strategy that informs the public in the development of the EAP. The Consultant will:

- Inform the public and provide the opportunity for feedback, anticipating hosting three public meetings within each watershed EAP.
- In coordination with OneShoreline, develop a community outreach strategy to be included in the EAP.

- Clearly describe monitoring and/or early warning systems in the watershed (e.g., instrumentation systems, observations by staff or the general public, etc.), which will be included in public outreach and on the OneShoreline website.
- Assist in OneShoreline’s community outreach by: addressing flood risks, flood monitoring and warning systems, and mitigation and adaptation opportunities; responding to questions; and addressing and sharing with OneShoreline any concerns that may arise.
- Provide information about the needs, requirements, resources, process, and schedule of the Project, and any other relevant information, to the community as requested by OneShoreline or partnering representatives.
- Assist in OneShoreline’s engagement with local government and regulatory agencies to keep them informed of the progress of the development and implementation of the EAPs. Meet with these government representatives as required.
- Document, evaluate, and incorporate input received from public outreach efforts.

Deliverables

1. Community Outreach Strategy
2. Draft outreach meeting schedules with tentative objectives/agendas, expected minimum two public meetings for each watershed EAP.
3. Outreach and display materials, maps as described above, information, and documentation for community information, including sign-in sheets to capture contact information of interested parties for ongoing or future engagement.
4. Meeting agendas, public information materials provided, meeting minutes and summaries of public input, and action item lists.

Task 4: Preparation and Development Services

The objectives of this task are to obtain and summarize the necessary data and information required for the preparation, development, and completion of the Flood EAP Project. The Consultant will:

- Review the following existing documents and information for context and relevant requirements of the Project:
 - *San Mateo County Statewide Emergency Response Grant Request, 2018*
 - *County Emergency Operations Plan, 2015*
 - SFCJPA MAC
 - OneShoreline website
 - Emergency Operations Plan Flood Annex Checklist for Initial Response
 - Countywide Flood Early Warning System, FEMA guidance documents and flood resources, and Cal OES EAP guidelines
 - OneShoreline Flood Early Warning monitoring and thresholds, linked in Appendix 2, along with additional resources for reference by the Consultant
- Conduct professional data review and analysis from local, state, and federal sources, as needed.
- Incorporate and/or develop the Project Map, Floodplain Map, Inundation Map(s), Maps of Levee Systems, and maps of Monitoring Systems, as described above.
- Identify and document operational assumptions, resource demands, and efforts and opportunities within San Mateo County to mitigate and adapt to severe storm and flood hazards and/or reduce vulnerability, and/or support anticipated short-term and long-term recovery needs, to include currently available infrastructure, programs, equipment, staffing, funding, and other resources.
- Prioritize planning efforts to support the successful and efficient implementation of the Flood Emergency Action Plan protocols for any storm or flooding threat.

- Develop a Purpose Statement for each EAP that addresses monitoring/detection, notification, mitigating and adaptive actions, responsibilities, and life/property safety.

Deliverables

1. Data analysis report
2. Report of operational assumptions, resource demands, and storm hazards mitigation efforts
3. EAP Purpose Statement

Task 5: Risk Assessment Analysis

The objective of this task is to identify and prioritize potential flood hazards and risks to the people, and economy, as well as both built and natural environments of the EAP watersheds. The Consultant will identify and prioritize potential severe storm and flooding risks to the communities specifically in the

- Belmont Creek watershed area
- With optional task focused on the Atherton Channel and Bayfront Canal combined watershed area;

The flooding risks in these watersheds include the vulnerabilities to these hazards of the local communities, the local and regional economy including transportation networks and other major infrastructure, and habitats and the natural environment.

As part of this task, the Consultant will:

- In coordination with staff from the participating agencies, and with input from members of the public, use local, state, and federal planning documents, studies, reports, plans, appropriate CAL OES resources; FEMA hazard software and planning support resources; and other resources to compile an updated list of vulnerabilities of life safety and public and private assets due to severe storm and flooding hazards, along with their estimated loss potential and impact on the community.
- Expand and augment OneShoreline Early Warning thresholds, developing recommendations to establish consistent dynamic thresholds including flow volume, rain accumulation, and tidal influence for each EAP. Make recommendations on additional monitoring stations and equipment to address gaps, if any, as appropriate.
- Identify addresses of NFIP-insured structures that have been repetitively damaged by floods, if any.
- Review studies, reports and plans related to historical disasters, and document disaster declaration history.
- Utilize FEMA's Hazus, RiskMAP products (and/or other appropriate software) to generate level 2 vulnerability assessments for flood hazards.
- Develop a parcel-level inventory of vulnerable or risky structures.
- Ensure that emergency response coordination includes planning to address the needs of medically vulnerable or elderly community members and include specific plans to address their vulnerabilities in the event of a flood incident that puts them at risk, including through loss of power.
- Identify the existence of any Mutual Aid Agreements between the EAP Project partners, and/or identify the need for potential mutual aid agreements.

Deliverables

1. Updated risk assessment
2. List of vulnerabilities to severe storm and flooding hazards

Task 6: Develop Mitigation, Adaptation, and Resilience Actions & Strategy

The objective of this task is to review the existing mitigation and adaptation strategies and

develop updated mitigation, adaptation, and resilience actions to support flood emergency preparedness of each EAP watershed. This will address each of the identified hazard levels to proactively reduce and avoid short-and long-term vulnerabilities to the identified hazards, and to facilitate recovery after a disaster.

The EAP Project Partners, including OneShoreline, will identify and prioritize mitigation, adaptation, and resilience measures to include in the strategy. Under this task, the Consultant will, as necessary:

- Identify specific mitigation, adaptation, and resilience actions, projects, activities, policies & processes, or programs that can reduce or eliminate the impacts of the flood emergency hazards identified in the EAPs, including:
 - Identify emergency shelters and support the establishment of resilience hubs to support impacted communities in the event of a flood event (or other disasters).
- Identify how each mitigation, adaptation, and resilience action will be implemented, including who is responsible for various actions, funding mechanisms, timeframe for implementation, and implementation priority.
- Identify those mitigation, adaptation, and resilience actions for which there is no current or planned funding mechanism.

Task 7.0: Planning Documents Preparation and Development

The objective of this task is to compile the information and data gathered throughout the EAP development process and incorporate that into written multi-jurisdictional Flood Emergency Action Plans for the contracted watersheds. The Project will also include ensuring an update to the County SEMS Emergency Operations Plan that incorporates new features, operations, and regular maintenance; and update the Emergency Operations Plan Flood Annex Checklist for Initial Response, ensuring that each and all of the component criteria and specifications for such plans are met, in accordance with FEMA requirements. A proposed list of elements to cover in an EAP is included as Appendix 1, drawn from the Cal OES EAP guidance for owners of dams. These elements should be reviewed and incorporated into the EAPs.

Under this task, the Consultant will:

- Draft EAPs for each of the contracted watersheds.
- Using the *San Francisquito Creek Multi-Agency Coordination* (“SFC MAC”) *Operational Plan for Severe Storm and Flood Response*, rev. 2019, as a model, include the various interagency cooperation components as enumerated in the SFC MAC.
- The EAP is also to include a comprehensive range of specific pre-disaster mitigation, adaptation, and resilience-building actions and projects to reduce hazards, with emphasis on life safety, protection for homes and other existing buildings, and protecting or adapting infrastructure.
- The EAPs must also list steps to take to determine when a flood incident is over and to terminate the EAP response plan, including notifying all flowchart entities of the termination.
- Establish a process for updating the plan annually.

Deliverables

1. Draft and Final multi-jurisdictional Flood Emergency Action Plans for the contracted watersheds
2. Draft and Final updated County SEMS Emergency Operations Plan
3. Draft and Final updated Emergency Operations Plan Flood Annex Checklist for Initial Response

4. Documented process for integration with other planning mechanisms
5. Strategic Training Plan and scheduled workshops
6. EAP maintenance and updating procedures

Task 8: Website Functionality and Development

This task addresses the development of a user-friendly web interface and functionality, specifically the integration of the existing Countywide Flood Early Warning System into OneShoreline's website. When possible, plans will be developed in a web-based platform that is both open-sourced and non-proprietary. The Consultant (or subconsultant as appropriate and approved by OneShoreline) will specifically be required to assist OneShoreline to:

- Work with OneShoreline staff to identify and make improvements for site navigation;
- Add additional functionality for inputting narrative text and graphics for context and interpretation;
- Update dashboard interface and data inputs as appropriate in alignment with plan content and established Early Warning thresholds; and
- Recommend priority information hierarchy and plan and report highlights.

Deliverables

1. Updated OneShoreline Flood Early Warning System website
2. Website functionality and integration of the Flood Early Warning System into OneShoreline.org

Task 9: Supplemental Services

OneShoreline may require, and the Consultant shall perform, Supplemental Services on an as-needed basis. Prior to performing any Supplemental Service, the Consultant must obtain written authorization in the form of a Task Order approved by OneShoreline's Chief Executive Officer. Written authorization will state the agreed upon scope of the services requested, the classifications of staff performing the Supplemental Services, associated not-to-exceed fees, and schedule. Under no circumstances shall Consultant start work on Supplemental Services without a signed Task order and specific Notice-to-Proceed from the Project Manager.

Task 10: Optional EAP for the Atherton Channel & Bayfront Canal combined watershed

Optional task to complete Tasks 1 through 9 for the development of a second EAP for the Atherton Channel & Bayfront Canal combined watershed. Activation of this optional task must be approved by OneShoreline before initiating.

Appendix 1: Flood EAP Elements

Elements to include in a Flood EAP under this Project: (largely based on the Cal OES Emergency Action Plan Checklist, Nov 2020)

Section 1: Introduction

- 1.1 EAP Purpose
- 1.2 Planning Team

Section 2: Summary of EAP Responsibilities

- 2.1 Participating Jurisdiction's Responsibilities
- 2.2 Impacted Jurisdictions'/Public Safety Agencies' Responsibilities

Section 3: Notification Flowcharts

Section 4: Project Description

Section 5: EAP Response Process

- 5.1 Step 1: Incident Detection, Evaluation, and Emergency Level Determination
- 5.2 Step 2: Notification and Communication
- 5.3 Step 3: Emergency Actions
- 5.4 Step 4: Termination and Follow-up

Section 6: General Responsibilities

- 6.1 Participant Responsibilities
- 6.2 Notification and Communication Responsibilities
- 6.3 Evacuation Responsibilities
- 6.4 Monitoring, Security, Termination, and Follow-up Responsibilities
- 6.5 Assessment of Recovery Needs and Planning for Recovery
- 6.6 EAP Coordinator Responsibilities

Section 7: Preparedness

- 7.1 Surveillance and Monitoring, and Data Analysis
- 7.2 Evaluation of Detection and Response Timing
- 7.3 Access within the Sites
- 7.4 Response during Periods of Darkness
- 7.5 Response during Weekends and Holidays
- 7.6 Response during Adverse Weather
- 7.7 Alternative Sources of Power
- 7.8 Emergency Supplies and Information
- 7.9 Stockpiling Materials and Equipment for Response and Recovery
- 7.10 Coordination of Information
- 7.11 Training and Exercise
- 7.12 Alternative Systems of Communication
- 7.13 Public Awareness and Communication

Section 8: Plan Maintenance

- 8.1 Plan Review
- 8.2 Distribution
- 8.3 Annual Contact Confirmation
- 8.4 Updates

Appendix 2: References and Helpful Sources

Adapting to Rising Tides: Bay Shoreline Flood Explorer

<https://explorer.adaptingtorisingtides.org/home>

APEN, SEIU, and BGA Report: Resilience Before Disaster

open4ej.org/wp-content/uploads/2020/10/Resilience-Before-Disaster-FINAL-UPDATED.pdf

California Senate Bill 160 (2019), requiring counties to integrate cultural competency and diverse representation in emergency planning. (“It is the intent of the Legislature in enacting this act that emergency disaster planning incorporate mechanisms and processes that account for the state population’s diversity in a meaningful and inclusive manner to ensure all communities are disaster resilient for the safety and well-being of all residents in future disasters.”)

FEMA National Preparedness Plan

<https://www.fema.gov/emergency-managers/national-preparedness/plan>

FEMA Pre-Disaster Recovery Planning Guide

<https://www.fema.gov/sites/default/files/2020-07/pre-disaster-recovery-planning-guide-local-governments.pdf>

FEMA Report: Improving Public Messaging for Evacuation and Shelter-In-Place

https://www.fema.gov/sites/default/files/documents/fema_improving-public-messaging-for-evacuation-and-shelter-in-place_literature-review-report.pdf

FEMA Resilience Analysis and Planning Tool

www.fema.gov/emergency-managers/practitioners/resilience-analysis-and-planning-tool

OneShoreline Flood Early Warning Monitoring and Thresholds

<https://OneShorelineEarlyWarning.onerain.com/map/>

San Mateo County Dam Failure Inundation Areas

<https://www.smcgov.org/planning/san-mateo-county-hazards-dam-failure-inundation-areas>

Up a Creek? Tidal Creek Flood Control Vulnerability Assessment Guidelines, Adapting to Rising Tides Project (2015)

www.adaptingtorisingtides.org/wp-content/uploads/2016/01/Tidal-Creek-Flood-Control-Vulnerability-Assessment-Guidance-16SEPT15_FINAL-COMplete_Revised2016.pdf

USACE Silver Jackets

<https://www.iwr.usace.army.mil/Silver-Jackets/Resources/>