



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

**Requests for Proposals for
Planning and Engineering Services for the
San Bruno Creek Resilience Project**

RFP Number FSLRRD-2025-07-23
Release Date: July 23, 2025

**Deadline to Respond:
August 25, 2025 at 3:00 PM**

Pre-Proposal Workshop:
August 5, 2025 at 10:00 AM

Deadline for Questions:
August 12, 2025 at 6:00 PM

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1 INTRODUCTION

1.1 Project Overview

The San Mateo County Flood and Sea Level Rise Resiliency District (also known as OneShoreline) is seeking proposals from qualified consulting teams to provide integrated planning and engineering services for the San Bruno Creek Resilience Project. This effort will produce a technically sound, community-informed, multi-benefit flood resilience plan and advance a priority “first project” to 30% design, environmental review, and achieve grant readiness. The project is funded by a FEMA Flood Mitigation Assistance (FMA) grant, with local matching funds from OneShoreline’s San Bruno Flood Control Zone. A summary of the FEMA grant narrative and required deliverables is provided in Appendix A.

The selected consultant team will support data collection and technical analysis; develop a resilience plan that substantially meets the requirements and guidelines of the Bay Conservation and Development Commission (BCDC) Regional Shoreline Adaptation Plan (RSAP); develop conceptual and 30% designs for a near-term project; and prepare a draft Environmental Impact Report (EIR). The team will also develop a FEMA-compliant Benefit-Cost Analysis (BCA) and application materials to support future funding.

This work will occur in close coordination with OneShoreline, a Technical Advisory Committee (TAC) to advise OneShoreline on this effort comprising local and regional agencies, and a separately contracted outreach consultant. This project will build upon recent analyses of flood protection infrastructure and the hydrology of the San Bruno Creek system. The project area includes complex, multi-jurisdictional flood infrastructure and is home to communities that are vulnerable to flooding, sensitive habitats, and critical infrastructure. Proposers should demonstrate deep experience in flood risk reduction, nature-based design, environmental compliance, and multi-benefit adaptation planning in the San Francisco Bay Area and beyond.

This effort builds on previous studies and public input to advance near-term flood mitigation actions while setting the foundation for a long-term resilience strategy.

1.2 About OneShoreline

Given the extreme vulnerability to the water-related impacts of climate change in San Mateo County, State legislation established OneShoreline in 2020 as the first independent government agency to address the challenges of sea level rise, extreme storms, drought, coastal erosion, and other issues across jurisdictional boundaries. OneShoreline works with a wide range of stakeholders to build aligned resilience for developed and natural areas, and to plan land use and infrastructure for immediate and future climate-driven conditions. Resilience to this transformative challenge requires a holistic approach to:

- **Geography:** OneShoreline is a 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
- **Objectives:** OneShoreline reduces these threats and incorporates natural infrastructure, recreation, and public and private land into its efforts

2 PROPOSAL PROCESS AND REQUIREMENTS

2.1 RFP Schedule

Advertisement of RFP	7/23/2025
Pre-Proposal Workshop.....	8/5/2025 at 10:00 AM
Deadline for Proposers to Submit Questions	8/12/2025 at 6:00 PM
OneShoreline Posts Responses to Questions	8/15/2025 at 5:00 PM
Deadline for Proposers to Submit Proposals	8/25/2025 at 3:00 PM
Interviews	9/10/2025
Notification of Selection	9/17/2025
Deadline for Negotiation of Agreement	10/17/2025
OneShoreline Board Authorization to Execute Agreement	10/27/2025

2.2 Pre-Proposal Workshop

OneShoreline encourages prospective consultants to attend a virtual pre-proposal workshop to learn more about the project scope, site conditions, and proposal requirements. During the session, staff will address questions and provide clarifications related to this RFP.

- **Date/Time:** August 5, 2025 at 10:00 AM
- **Register here:**
<https://oneshoreline-org.zoom.us/meeting/register/sTO9OgNOS1SuURZUjAn82Q>
- Proposers are encouraged to independently visit the publicly accessible tide gate and other publicly accessible visible infrastructure to inform their proposals; proposers are not authorized to visit the Walnut Pump Station site, which is private property.

While oral responses may be provided during the workshop, only written addenda issued by OneShoreline shall be considered binding.

2.3 Submission of Questions

Questions regarding this RFP must be submitted via email to:

Projects@OneShoreline.org

Subject line: *San Bruno Creek RFP*

Responses to all questions will be posted at: <https://oneshoreline.org/document-library/>

2.4 Submission of Proposals

Proposers must submit an electronic copy by the proposal deadline to:

Summer Bundy, Director of Project Management

Projects@OneShoreline.org

Proposals must be valid for a period of 120 days from the date of submission. Late or incomplete proposals will not be considered.

2.5 Interviews

OneShoreline may invite multiple consultants to be interviewed for in-person interviews at OneShoreline's offices, located at **1700 S. El Camino Real, San Mateo, CA.**

Key staff should reserve availability for September 10, 2025; OneShoreline may not have flexibility to reschedule this date. Interviews will focus on team qualifications, approach, and ability to effectively collaborate with OneShoreline and project partners.

2.6 Proposal Requirements

All proposals must adhere to the following formatting and content requirements. Proposals that do not comply with these instructions may be deemed non-responsive and disqualified from further consideration.

Format and Length

- **Maximum Length:** 40 pages total, including all supporting materials except as noted below.
- **Font:** Minimum 11-point for body text; 10-point minimum for graphics and tables.
- **Page Numbering:** Number all pages clearly and sequentially. Do not number cover pages or section dividers
- **Paper Size:** Proposals may include up to four 11x17 pages, each counted as one page. Additional 11x17s will count as two pages each and should be numbered as such.

Exclusions from the 40-page Limit

- Cover (front and back)
- Section dividers
- Fee proposal
- Up to fifteen (15) key staff resumes (maximum two pages each)
- Required legal and contractual disclosures

Required Content

Proposals must include the following sections, organized in the order listed below:

1. Cover Materials

- Proposal cover including RFP title and number, prime firm name, and submission date
- Signed cover letter from an individual authorized to contractually bind the proposer
- Primary point of contact (name, title, phone number, and email address)

2. Executive Summary

- Brief overview of team qualifications, understanding of the project and its significance, and any qualifications or approaches

3. Team and Organization

- Description of prime firm and subconsultants, with roles and responsibilities
- Organizational chart of the full proposed team
- Bios for key personnel, including roles, qualifications, office locations, and percent availability by quarter through mid-2026

4. Relevant Firm Experience

- At least three (3) directly comparable projects completed by the prime firm within the last eight (8) years
- Include client name, project scope, schedule, cost, key technical highlights, relevance, and project team members
- Identify experience with adaptation pathway planning and coastal flood risk planning
- Include one agency reference per example: name, title, phone, and email

5. Project Understanding

- Summary of San Bruno Creek watershed flood risks, infrastructure context, and resilience opportunities
- Understanding of community, environmental, and jurisdictional considerations

6. Technical Approach and Scope

- Narrative describing overall vision, phasing approach, and proposed task structure
- Detailed scope of work that clearly defines tasks, subtasks, and deliverables, aligned with the RFP and FEMA grant requirements
- Description of how team will address tasks in the RFP, including assumptions and methodology
- Visual work plan showing tasks, deliverables, schedule milestones, and dependencies
- Tools and frameworks to support adaptation pathways and decision-making
- Multidisciplinary integration strategy, including coordination with TAC, stakeholders, and the outreach consultant
- QA/QC protocols for technical deliverables
- Identification of major risks and mitigation strategies
- Alignment with FEMA grant deliverables and documentation needs

7. Project Schedule

- Timeline showing duration and sequence of tasks
- Identification of key deliverables, milestones, workshops, and critical path activities
- Schedule flexibility to accommodate review cycles, regulatory coordination, and engagement

8. Fee Proposal

- Itemized fee by task and subtask
- Labor hours by job classification, including subconsultants

- Subconsultant markups are not to exceed 2%

9. Resumes

- Up to 15 key personnel resumes (two pages each maximum)

10. Legal and Contractual Disclosures

- Disclosure of any active or recent litigation (last 3 years)
- Any exceptions to this RFP or OneShoreline's standard contract
- Confirmation of acceptance of:
 - [OneShoreline's Standard Agreement and Insurance Requirements](#)
 - [Non-Collusion and Conflict of Interest Statement](#)

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.

3 PROJECT BACKGROUND

3.1 Project Governance

The project will be managed by OneShoreline, which has convened a Technical Advisory Committee (TAC) comprising representatives from OneShoreline, the City of San Bruno, San Francisco International Airport (SFO), and City of South San Francisco. The TAC will provide input on key decisions, respond to information requests, and help guide the planning process. SamTrans, C/CAG, Caltrans, BART, Caltrain, and PG&E will be strategically engaged as needed. Additional agency stakeholders, such as the City of Millbrae, may be involved if technical coordination items arise. OneShoreline and partner agencies will provide regular updates to the OneShoreline Board, city councils, and other relevant bodies.

3.2 Watershed Context, Infrastructure, and Flood Risks

The San Bruno Creek watershed is a highly urbanized, low-lying area shaped by extensive land use changes and complex, multi-jurisdictional infrastructure. This section provides an overview of the watershed's physical setting, hydrologic modifications, and key flood vulnerabilities that inform the need for coordinated resilience planning.

Overview and Governance

Upon establishment on January 1, 2020, OneShoreline assumed the assets and liabilities of the former San Mateo County Flood Control District, including the San Bruno Creek Flood Zone. This Flood Zone, formed in 1967, matches the 4½ square mile San Bruno Creek watershed that includes areas of the cities of San Bruno and South San Francisco ("SSF") and unincorporated San Mateo County (Figure 1). In addition to OneShoreline, this area's stormwater and coastal infrastructure is managed by multiple agencies, including those listed above, plus San Francisco International Airport (SFO), Caltrans, BART, Caltrain, and, near the mouth of the creek, SamTrans.



Figure 1. San Bruno Creek Watershed

Indigenous Stewardship and Historical Landscape

Prior to colonization and development, the San Bruno Creek watershed was part of the ancestral territory of the Ramaytush Ohlone, the original stewards of the San Mateo County coastline. One of their villages, *Urebe*, was located along San Bruno Creek, where the freshwater and tidal ecosystems supported food systems, water sources, and cultural practices. The Ramaytush Ohlone lived in deep relationship with these lands and waters for thousands of years, sustaining complex social, spiritual, and ecological systems. While no known descendants of the *Urebure* community survive today, acknowledging this history is essential to supporting inclusive and respectful resilience planning.

Urbanization and Watershed Transformation

Historic Spanish/Mexican land grant maps from the 1860s (Figure 2) indicate that much of the lower San Bruno Creek watershed was once tidal marshland. Over the last century, these landscapes have been significantly altered by urbanization and infrastructure development. Key transformations include:

- Bay fill for the construction of Mills Field (now SFO) in 1927 (Figure 3)
- Installation of rail lines and U.S. Highway 101
- Construction of the San Bruno Creek tide gate near the creek mouth in 1948
- Construction of flood control channels and pump stations by the San Mateo County Flood Control District starting in 1967
- Development of Interstate 380 and related stormwater management infrastructure
- Construction BART's SFO extension, which flattened the west-to-east flow gradient and rerouted stormwater pipelines.

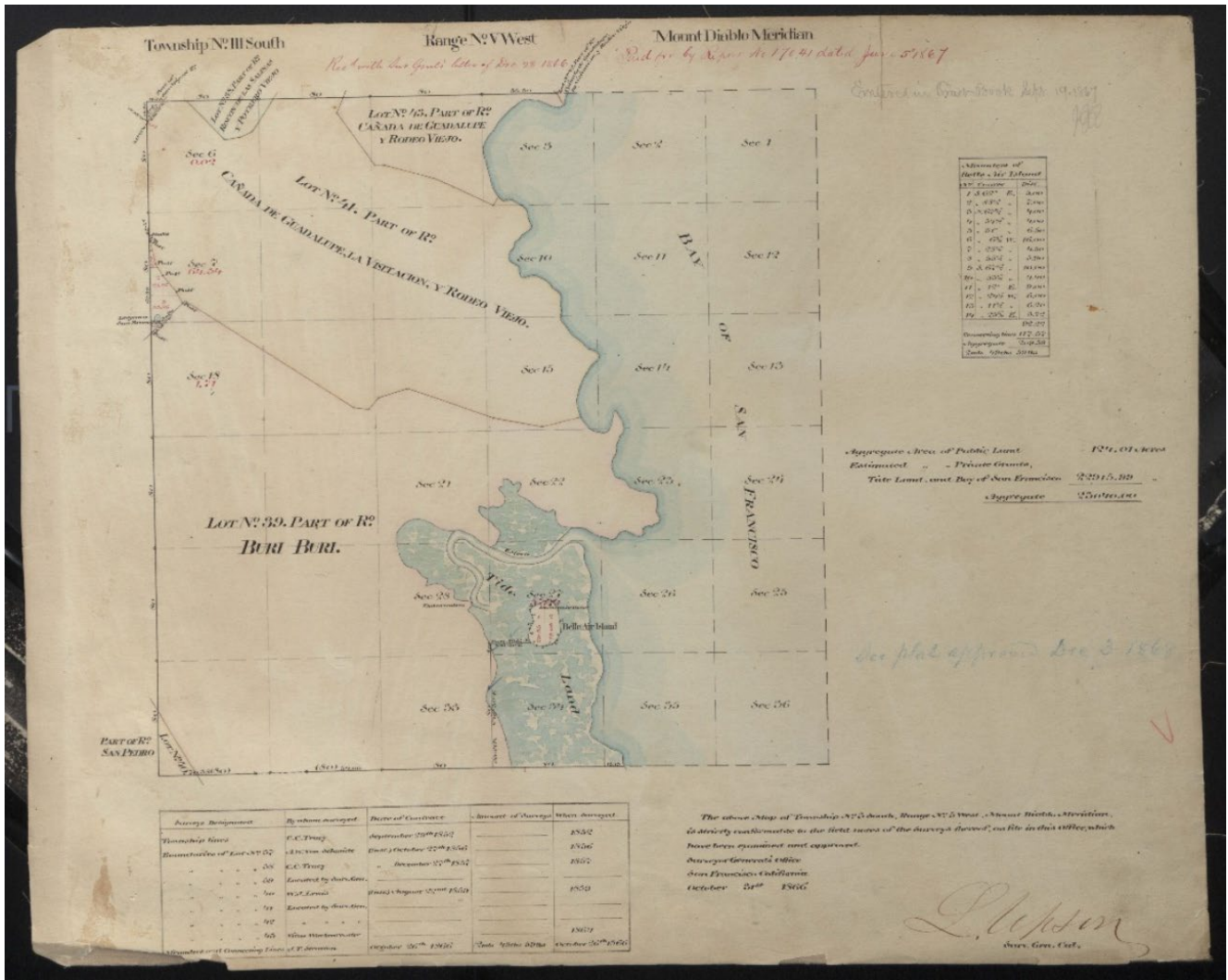


Figure 2. Buri Buri Spanish Land Grant Map, 1866 (Bureau of Land Management)



Figure 3. Aerial View over Mills Field, 1927 (source San Francisco Airport Museum)

Flood Management Infrastructure

San Bruno Creek, also known as San Bruno Channel in its lower reaches, serves as a primary drainage conduit for the City of San Bruno and neighboring jurisdictions, conveying urban watershed runoff to San Francisco Bay. The creek includes two major open, earthen channel segments: Cupid Row Canal, which extends from the Caltrain tracks to San Bruno Avenue, and the North Channel, which continues downstream through culverts beneath U.S. Highway 101 to a tide gate structure at the Bay. The tide gate structure, constructed by the airport in 1948 and now owned by OneShoreline, consists of four 5-foot-diameter pipes with flap gates that regulate tidal inflow and stormwater outflow. Two pump stations, Walnut and Angus, constructed by the former Flood Control District and now owned and operated by OneShoreline, provide critical drainage by lifting stormwater from low-lying areas into the North Channel and Cupid Row Canal, respectively. Figure 4 highlights the primary infrastructure.

The Cupid's Row segment of the creek and the adjacent SFO properties support habitat for endangered San Francisco Garter Snake and California Red-legged Frog. The constraints, sea level rise vulnerabilities, and opportunities associated with the recovery objectives of these species must be considered in any multi-benefit flood risk reduction efforts.

Detailed information regarding the system, stormwater assets, flood vulnerabilities, and community insights is available in the prior studies listed in Section 3.6.

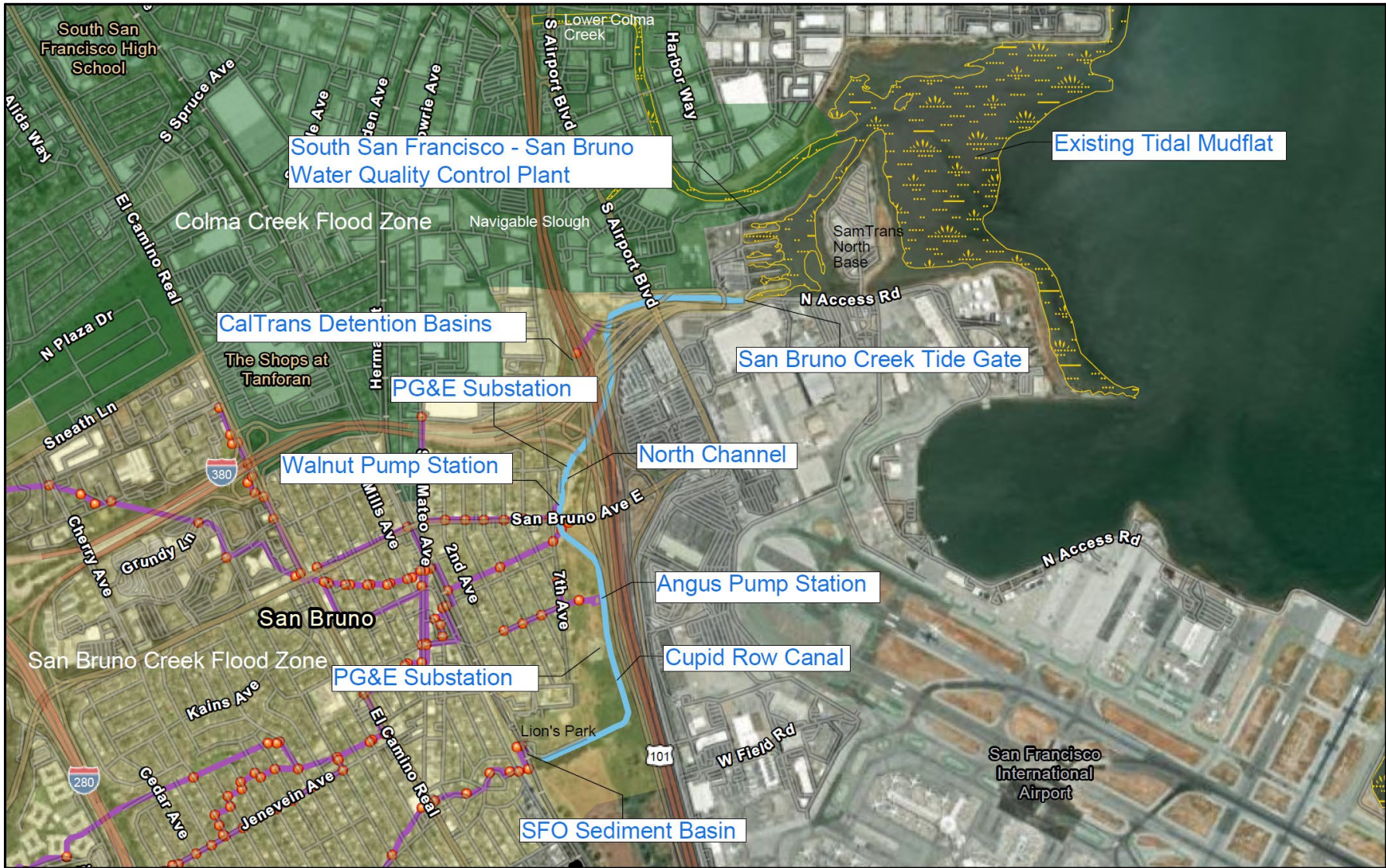


Figure 4. Infrastructure and Agency Stakeholders

Flood Vulnerabilities

The San Bruno Creek / Colma Creek Resiliency Study (Moffat and Nichol & AGS, 2015) provides a robust analysis of flood vulnerabilities in the hydraulically connected San Bruno-Colma Creek. Pertinent to this RFP, the San Bruno Creek lower watershed, especially the Belle Air neighborhood, faces chronic flood vulnerabilities. Today, much of eastern San Bruno falls within FEMA's 100-year floodplain (Zone AE) or 500-year floodplain (Zone D). Within this area, 375 homes in the Belle Air neighborhood, bounded by the Caltrain tracks, U.S. Highway 101, and Interstate 380, are within Zone AE.

The neighborhood faces flood vulnerability from multiple sources due to its low-lying elevations, location near the Bay, sea level rise, storm surge, more extreme and frequent precipitation, and reliance on aged stormwater infrastructure constructed for design conditions of the past. Belle Air is particularly susceptible to overbank flooding during high-intensity storm events. One contributor is limited channel capacity and low top-of-bank elevations along Cupid Row Canal, especially upstream of the San Bruno Avenue culvert. During heavy rainfall, flows can exceed channel capacity and spill into surrounding areas, with Belle Air situated directly in the path of this overflow.

Compounding the issue are the backwater effects from the tide gate structure at the channel's outlet to the Bay. During high tides, especially when coinciding with atmospheric river and other extreme storms events, the tide gates restrict outflow from the San Bruno Channel system, causing water to back up through the North Channel, into the Caltrans detention basin and Cupid Row Canal. Additionally, low spots along Navigable Slough and Shaw Road, just north of the neighborhood, are projected to create a secondary overland flow path that will convey floodwaters south into Belle Air. Together, these factors (i.e., limited conveyance, backwater from tide gates, and topographic pathways from adjacent watersheds) contribute to current flood vulnerabilities in the Belle Air area.

Previously Identified Concepts

Previous studies have identified a range of flood mitigation infrastructure concepts for San Bruno Creek, including upgrading the San Bruno Creek tide gate structure to increase its flow capacity, potentially replacing existing culverts with larger ones to manage 100-year storm events at high tides; adding a pump station at the tide gate; constructing levees or floodwalls; adding offline surface detention and storage in areas such as SFO-owned areas along Cupid Row or Lomita Canal; replacing the pump stations; low impact development; upper watershed detention projections; and broader, long-lead strategies such as regional tidal barriers.



Flood event example: 7th Avenue at San Bruno Avenue, December 31, 2022

Community Insights and Ongoing Engagement

Between January 2024 and January 2025, OneShoreline, in partnership with climate grief consultant Ari Simon, the community-based organizations Climate Resilient Communities and Rise South City, and Stanford University researchers, conducted 60+ conversations during door-to-door outreach and facilitated two community workshops to learn about residents' experiences with flooding in Belle Air. Residents are intimately familiar with the flood risks they face, with many reporting property damage, financial strain, and psychological distress due to regular flooding. Residents of Belle Air are deeply knowledgeable about strategies to protect themselves and their property during flood events. Many residents take action to reduce the harm of floods, including laying sandbags, sharing information, moving vehicles to higher ground, installing sump pumps, back yard grading and drainage, and elevating appliances. However, some community members lack financial and technical resources to implement household-scale flood preparedness actions. Findings from this engagement are included in the Community Insights Report, published in January 2025. Community engagement is ongoing, including continued door-to-door outreach, participation in the Resilient San Bruno community meetings and City of San Bruno events, and exploration of programs that could increase household-scale flood preparedness actions.

3.3 Project Goals and Anticipated Outcomes

Project Goals

Based on public input, OneShoreline has developed the draft public-facing Project goals:

- **Reduce San Bruno's Flood Risks:** Address chronic and worsening flooding in San Bruno—particularly in Belle Air—by upgrading outdated infrastructure, improving stormwater management, and enhancing protection from sea level rise.
- **Strengthen Regional Climate Resilience:** Develop long-term, multi-jurisdictional solutions that protect critical infrastructure from the increasing impacts of climate change.
- **Restore and Reconnect Natural and Public Spaces:** Create a safer, healthier, and more connected watershed by restoring natural habitats and improving access to open space.

Anticipated Outcomes

Addressing the significant and complex flood vulnerabilities in the low-lying flood zoning of San Bruno Creek, which are exacerbated climate hazards and existing infrastructure limitations, precludes a single, definitive solution. Instead, a comprehensive, multi-faceted, and phased implementation of various mitigation projects will be essential over time, requiring a coordinated approach across multiple jurisdictions.

OneShoreline envisions that the San Bruno Creek Resilience Plan will therefore set forth a phased strategy to address existing flood risks and future climate scenarios through technically sound and forward-looking approaches; define a first project suitable for advancement into pre-design, environmental review, and grant funding; and establish clear adaptation pathways and priority projects to guide phased implementation over time. The plan will integrate with the City of San Bruno's Storm

Drain Master Plan update, consider and integrate with SFO's Sea Level Rise Protection Program, reflect community priorities to contribute to equitable and locally informed outcomes, and account for implementation complexity, including land rights, long-lead studies, permitting, and multi-jurisdictional coordination. It will align substantially with BCDC's Regional Shoreline Adaptation Plan (RSAP) to inform future subregional planning for the Colma–San Bruno Operational Landscape Unit and will identify viable funding strategies and implementation timelines to support both near- and long-term project delivery. Through this project, OneShoreline intends to develop a clear, actionable roadmap for flood resilience.

OneShoreline anticipates the following outcomes:

- **FEMA Grant Deliverables:** Successful completion of all deliverables required under the FEMA grant. To meet FEMA grant requirements, the project must aim to protect 242 NFIP-insured structures (111 in San Bruno and 131 in South San Francisco), while conforming to accepted engineering practices and the most current editions of relevant codes, specifications, and standards.
- **A Robust Multi-Jurisdictional Governance and Collaboration Structure:** The planning process should foster the establishment of a formalized, sustainable multi-jurisdictional governance structure and collaboration strategy.
- **A Resilience Plan Advancing RSAP Integration and OneShoreline Capital Planning:** The planning process will produce a Resilience Plan that serves as a foundation for future integration into a multi-jurisdictional, subregional shoreline adaptation plan for the Colma–San Bruno Operational Landscape Unit. The plan will apply RSAP minimum standards and substantially address RSAP Elements A, B, C, and G. It will also establish priorities and cost estimates to inform OneShoreline's capital improvement planning needs for the San Bruno Creek Flood Zone.
- **First Project 30% Design:** 30% design plans for the preferred "first project," including conceptual layouts and sufficient details to inform constructability, environmental review, permitting, and cost estimation. This task will incorporate stakeholder input to support multi-benefit outcomes and implementation planning.
- **Draft EIR:** A draft EIR that analyzes for the preferred "first project" and long-term plan elements, evaluating environmental impacts under both baseline and future sea level rise conditions in full compliance with CEQA. Ideally, this CEQA document would provide Programmatic coverage for other elements identified in the Resilience Plan.

3.4 Considerations for OneShoreline-Owned Infrastructure

In parallel with this Project, OneShoreline will continue to operate, maintain, rehabilitate, and plan for the replacement of aging infrastructure, specifically:

- **Angus Pump Station:** Routine maintenance is ongoing. Due to vulnerabilities associated with aging propane-driven engines, as part of this Project, OneShoreline seeks an alternatives analysis to compare full near-term replacement with conversion to electric pumps as identified in the 2012 Brown and Caldwell study. OneShoreline envisions that a full pump station

replacement is needed, with timing based on funding availability and the additional useful life provided by viable retrofit and rehabilitation options.

- **Walnut Pump Station:** Routine maintenance is ongoing. Three of four pumps have been rehabilitated since 2020, with the remaining pump (#3) scheduled for rehabilitation in summer/fall 2025. OneShoreline has leased an external emergency generator during recent rainy seasons and intends to continue doing so until the station is fully replaced. OneShoreline envisions that a full pump station replacement is needed. OneShoreline does not currently hold fee title to the Walnut site and requires a comprehensive analysis to understand feasible pump station replacement strategies and multi-benefit solutions.
- **Limited sediment removal at Walnut Pump Station:** OneShoreline is currently acquiring permits for routine maintenance dredging and vegetation removal of the “sediment bar” immediately downstream of the Walnut Pump Station outfalls, with plans to complete this construction activity during the 2025 work window, and ongoing as allowed by the sedimentation rates and permit constraints.

3.5 Related Projects

Given the wide range of partner agencies with flood vulnerabilities in this area, several ongoing efforts are underway to understand and plan for localized and regional flood adaptation, including:

- **City of San Bruno Storm Drain Master Plan Update:** Scheduled to commence by early 2026, this update will identify capacity constraints and inform capital planning for stormwater infrastructure.
- **City of San Bruno Safety Element Update and Climate Action Plan Update:** Scheduled for completion by the end of 2025, the City is updating its City’s Safety Element and Climate Action Plan to meet new State requirements and support the City’s long-term planning.
<https://www.sanbruno.ca.gov/956/Safety-Element-Update>
<https://www.sanbruno.ca.gov/1177/Climate-Action-Plan>
- **SFO Shoreline Protection Program:** SFO’s project aims to construct shoreline protection systems along the airport’s perimeter, enhancing resilience against sea level rise.
- **Lower Colma Continuing Authorities Program Section 103 Project:** In partnership with the U.S. Army Corps of Engineers, this project involves the final design and construction of flood walls at the South San Francisco-San Bruno Water Quality Control Plant and Pump Station #4.
<https://www.spn.usace.army.mil/Missions/Projects-and-Programs/Current-Projects/Lower-Colma-Creek-Section-103-CAP/>
- **SamTrans North Base Sea Level Rise Protection Project:** Ongoing analyses to plan for adaptive action to reduce coastal flooding and erosion vulnerabilities at the North Base Maintenance Facility. (See June 4, 2025 SamTrans Board staff report.)
- **C/CAG One Watershed Framework and San Bruno Pilot Study:** Ongoing partnership to develop a multi-hazard climate vulnerability assessment focused on water-related infrastructure, including a San Bruno pilot study that integrates a community vulnerability assessment to inform

the prioritization of multi-benefit resilience projects. OneShoreline is an active participant in this project and leads flood-related messaging and engagement. The pilot study will conclude before the notice to proceed for this project and will provide community insights into local priorities.

<https://flowstobay.org/onewatershed/>

3.6 Relevant Documents

Documents relevant to this project include, but are not limited to:

- [Flooding in San Bruno, California: Community Insights from 2024](#)
- [San Bruno Walnut and Angus Pump Station Evaluation Report \(2012\)](#)
- [San Bruno Creek / Colma Creek Resiliency Study \(2015\)](#)
- [San Bruno Tide Gate Certification Feasibility Study \(2016\)](#)
- [San Mateo County Sea Level Rise Vulnerability Assessment \(2018\)](#)
- [Navigable Slough Flood Management Study \(2019\)](#)
- [City of San Bruno Storm Drain Master Plan \(2014\)](#)
- [San Francisco Garter Snake Recovery Action Plan 2019–2029 West-Of-Bayshore Property, San Francisco International Airport, San Mateo County, California \(2019\)](#)
- [Bay Area Conservation Commission \(BCDC\) Regional Shoreline Adaptation Plan \(RSAP\) \(2024\)](#)
- [Regional Water Quality Control Board Basin Plan Amendment on Climate Change and Aquatic Habitat Protection, Management, and Restoration](#)
- [San Francisco Bay Area Precipitation in a Warmer World, Volumes 1 and 2 \(Mak et al, 2023\)](#)
- Analysis of Caltrans Stormwater Detention Basin (2024) (will be provided upon email request)
- H&H Model Creation (2024) (will be provided upon email request)
- [San Francisco Bay Shoreline Adaptation Atlas \(2019\)](#)
- [San Francisco Baylands Resilience Metrics Mapbook \(2025\)](#)

4 SCOPE OF WORK, SCHEDULE, AND BUDGET

4.1 Scope of Work

The consultant team will support the development of a phased, climate-resilient adaptation plan and the advancement of a priority “first project” to approximately 30% design and CEQA review. The scope of work must fulfill the FEMA grant deliverables outlined in Appendix A and integrate regional planning standards such as the Bay Conservation and Development Commission (BCDC) Regional Shoreline Adaptation Plan (RSAP). OneShoreline reserves the option to amend the contract to include final design and engineering services during construction for the selected project, subject to satisfactory performance and availability of funding.

The major tasks, aligned to the FEMA work breakdown structure and nomenclature, include the following:

TASK 1 – (RESERVED, DO NOT INCLUDE)

TASK 2 – PROJECT MANAGEMENT

Project management, coordination, and reporting will be required throughout the project timeline, including preparation of materials for quarterly Technical Advisory Committee (TAC) and Project Management Team (PMT) meetings. Responsibilities include:

- Coordinate with OneShoreline through regular meetings, clear communication, and timely submittal of quarterly project and financial reports.
- Manage the overall project schedule, budget, and deliverables.
- Milestone meetings with the TAC and routine progress meetings with the PMT.
- Submit quarterly invoices with associated progress reports.
- Facilitate internal project team coordination and decision-making, including support for Go/No-Go milestones.
- Establish and maintain a SharePoint site with comprehensive project documentation.
- Support preparation of required documentation for grant closeout.

Deliverables: Project Management Plan (draft and final); agendas, materials, meeting notes, and action items for progress and TAC meetings; quarterly progress reports and invoices; project decision log

TASK 3 – (RESERVED, DO NOT INCLUDE)

TASK 4 – DATA COLLECTION AND ANALYSIS

To support engineering design, environmental clearance, and eventual construction, several key data gaps must be addressed. Data collection efforts will include:

- **Elevation Survey:** Conduct necessary elevation surveys of the project area, including channel banks, infrastructure, and surrounding topography, to supplement existing LiDAR data and ensure current, accurate topographic information for modeling and design.
- **Land Survey:** Perform detailed boundary and topographic surveys as required to support conceptual design and identify property ownership and easement constraints.
- **Existing Conditions and Vulnerability Assessment:** Develop existing conditions “chapter” based on RSAP Adaptation Strategy Standards Elements B and C. Data for completion of these chapters will be based upon previously completed analyses; required technical updates reflective of RSAP minimum standards and required model updates; community input gained through the One Watershed San Bruno Pilot Study; city General Plans (including Safety and Environmental Justice Elements); and TAC input. Technical analyses that may be required by

FEMA will be developed as appendices.

- **FEMA Coordination for Accreditation:** Engage with FEMA to determine requirements for potential certification and accreditation of the San Bruno Creek tide gate (or any replacement) as a coastal flood protection structure. This may include reviewing criteria for miscellaneous coastal structures and defining data needs for a future Letter of Map Revision (LOMR).
- **Environmental and Historic Preservation (EHP) Data Collection:** Compile existing data on sensitive habitats, threatened and endangered species (e.g., San Francisco garter snake habitat in the Cupid Row Canal lowlands), historic properties, and other environmental resources within the project area. This information will support the alternatives analysis and preparation of the Environmental Impact Report (EIR) and would ideally be developed to support future permit applications for routine maintenance.

Deliverables:

- **Elevation Survey Report** including field data, topographic maps, and integration with existing LiDAR for use in modeling and design.
- **Boundary and Topographic Survey Report** with property lines, easements, CAD/GIS files, and identification of right-of-way constraints.
- **Existing Conditions and Vulnerability Assessment Existing Conditions and Vulnerability Assessment** to fulfill RSAP elements B and C, with FEMA required appendices.
- **FEMA Accreditation Coordination Summary** including meeting notes, requirements for LOMR application, and recommended next steps for tide gate certification/accreditation.
- **Environmental and Historic Preservation Resources Memo** compiling known environmental and cultural resources, mapped constraints, and a data gap assessment to support CEQA/NEPA compliance.
- **Geospatial and Design Data Package** with all GIS shapefiles, geodatabases, CAD files, and any developed terrain or surface models to support subsequent phases.

TASK 5 – STAKEHOLDER AND COMMUNITY OUTREACH (RESERVED, DO NOT INCLUDE)

TASK 6 – ALTERNATIVES ANALYSIS AND DRAFT EIR

6.1 – Alternatives Analysis, Public Engagement Support, and Adaptation Plan

The consultant will support the development of a technically sound, community-facing San Bruno Creek Resilience Plan that prioritizes near- to long-term flood vulnerabilities, defines viable adaptation strategies, and positions the project for phased implementation and future funding. Through this process, OneShoreline will select the first project to advance into 30% and CEQA analysis. This scope includes technical analysis, stakeholder coordination, concept development, outreach support, and delivery of key planning and design products aligned with the RSAP and OneShoreline’s broader resilience goals. The following scope is included within this subtask:

- **Flood Vulnerability Prioritization:** Evaluate and prioritize fluvial and coastal flood

vulnerabilities identified under Task 3, consistent with RSAP Element C and relevant Basin Plan metrics. This assessment will inform the identification of adaptation pathways and project phasing.

- **Adaptation Strategy and Pathway Development:** Identify and evaluate multi-benefit adaptation strategies and pathways that reduce flood risk, restore ecosystem function, and support long-term resilience, consistent with RSAP Element D and relevant elements of the Basin Plan.
- **Conceptual Design Development:** Prepare 2% concept-level drawings for the most promising adaptation strategies, including improvements to the tide gate, Walnut Pump Station area, and detention basin configurations.
- **Decision-Support Tools and Visual Communication:** Develop maps, graphics, and comparative visuals to communicate trade-offs and support decision-making with agency partners, elected officials, and community members.
- **Engagement Planning:** Work with OneShoreline and the outreach consultant to co-create a “living” engagement plan that aligns technical milestones with TAC, community, and stakeholder engagement activities.
- **Outreach and Engagement Support:** Coordinate with OneShoreline’s outreach consultant to align messaging and materials. Attend public and stakeholder meetings and develop of visuals and technical content for engagement.
- **Integrate Community and Stakeholder Input into Planning Process:** Develop a project planning process that provides meaningful opportunities for community and agency stakeholder input into decisions.
- **First Project Selection and Preliminary Design:** Provide technical support to OneShoreline in evaluating alternatives and incorporating input from stakeholders to inform selection of the preferred near-term “first project.” Once selected by OneShoreline, advance the project to 10% design, including draft layouts, preliminary cost estimates, and an implementation schedule.
- **San Bruno Creek Resilience Plan:** Prepare a public-facing San Bruno Creek Resilience Plan (two administrative drafts, one public draft, and one final). The Plan should clearly define adaptation pathways, phasing, project prioritization, implementation roles, and funding strategies. The structure should align with RSAP standards to enable future subregional planning.

Proposers are encouraged to provide additional subtasks and deliverables to facilitate effective management of this project phase.

Deliverables:

- TAC presentation materials and meeting notes
- 2% concept drawings of all alternatives
- 10% concept drawings and cost estimate for the preferred project
- Engagement visuals and technical content
- San Bruno Creek Resilience Plan (administrative drafts, public draft, final)

6.2 – Environmental Strategy and Regulatory Support

The preferred project alternative will likely require review and approvals from multiple regulatory agencies, including the U.S. Army Corps of Engineers, National Marine Fisheries Service, U.S. Fish and Wildlife Service, California Department of Fish and Wildlife, San Francisco Bay Regional Water Quality Control Board, and the San Francisco Bay Conservation and Development Commission.

The consultant team will engage these agencies early in the planning process to identify key regulatory considerations related to species protection, water quality, and habitat impacts. Environmental and permitting expertise will be integrated into the development and evaluation of adaptation strategies to:

- Shape mitigation-by-design concepts during the adaptation planning process and during 10% and 30% design of the first project.
- Incorporate expertise relevant to Federal Aviation Administration (FAA) and SFO limitation on net increases in wildlife hazard attractants.
- Clarify permitting requirements, timelines, and potential constraints.
- Assess the complexity of potential implementation pathways to inform decision-making.
- Identify recommended studies or technical documentation needed to support future permitting and phased implementation.

Deliverables: Regulatory engagement strategy, materials to support effective meetings with regulatory agencies, meeting notes (and other deliverables as identified by the consultant to achieve the intended outcomes of this Task 6)

6.2 – CEQA Draft Environmental Impact Report (EIR)

The consultant will prepare a Draft Programmatic Environmental Impact Report (PEIR) for long-term plan elements including project-level analysis for the identified "first project", in full compliance with the California Environmental Quality Act (CEQA). Where feasible, the PEIR should support streamlined environmental review for future phases through tiering or addenda, reducing permitting complexity and accelerating implementation. The PEIR will evaluate potential environmental impacts of the proposed projects and alternatives, including effects on environmental and historic preservation (EHP) resources, and will incorporate both baseline and future conditions with sea level rise.

Given the potential for federal involvement or funding, the project team will also evaluate the opportunity for a combined CEQA/NEPA review process. Early scoping under this task will identify the steps needed to align CEQA documentation with National Environmental Policy Act (NEPA) requirements.

Scope includes:

- Prepare a detailed Project Description, including project background, objectives, and component-level descriptions with sufficient detail to assess the nature, scale, construction footprint, and geographic extent of potential environmental impacts.
- Identify and describe a range of project alternatives for environmental analysis.

- Analyze environmental baseline conditions and evaluate future conditions under a range of sea level rise scenarios.
- Coordinate with OneShoreline and regulatory partners to determine appropriate CEQA/NEPA pathways and confirm lead and cooperating agencies, as applicable.
- Begin drafting the Draft PEIR, consistent with CEQA Guidelines and inclusive of all required environmental topic areas (e.g., biological resources, hydrology and water quality, land use, cultural resources, noise, traffic, etc.).
- Completion of studies required to complete the Draft PEIR.
- Support with public noticing, review and synthesis of public comments.

Deliverables: Notice of Preparation; Annotated outline of the Draft PEIR; Draft Project Description; CEQA/NEPA coordination summary memo; Administrative Draft PEIR; Public Review Draft PEIR; Comment response logs/synthesis

TASK 7 – 30% DESIGN

The consultant will develop conceptual (approximately 30%) design plans for the preferred “first project”. The conceptual design will define key project components, features, and alignments to a level of detail sufficient to support environmental review, permitting strategy development, and initial cost estimation. Scope includes:

- Basis of Design Memorandum summarizing key assumptions, design criteria, technical constraints, alternatives considered, regulatory context, and rationale for selected design approach. This document should support CEQA documentation, permitting strategy, and future phases of design.
- Develop conceptual layouts and preliminary engineering drawings that illustrate project extents, key dimensions, and functional components (e.g., pump stations, tide gates, levees, detention basins, habitat areas, public access features).
- Coordinate with OneShoreline and its outreach consultants to support workshop presenting 30% design concepts, including preparation of maps and drawings and workshop attendance.
- Evaluate and refine potential project alignments and configurations based on technical feasibility, constructability, right-of-way constraints, and consistency with adaptation goals.
- Coordinate with OneShoreline and relevant stakeholders to incorporate input on design elements and multi-benefit opportunities (e.g., habitat restoration, public access, operations and maintenance considerations).
- Support development of planning-level construction cost estimates and implementation schedules.

Deliverables: Basis of Design Memorandum, 30% design plans (PDF and CAD), planning-level construction cost estimate, draft implementation schedule, stakeholder coordination summary, geospatial and engineering files (GIS and CAD).

TASK 8 – COST ESTIMATE, BCA DEVELOPMENT, AND SUBAPPLICATION

The consultant will support grant readiness efforts for the preferred "first project" by preparing materials commonly required for federal and state funding applications, including FEMA's Flood Mitigation Assistance (FMA) Program and Hazard Mitigation Grant Program (HMGP). This work will align with concurrent CEQA and design tasks to ensure consistency across documentation. Scope includes:

- Prepare components needed for potential grant applications, including project narratives, conceptual designs, schedules, and risk reduction summaries tailored to FMA, HMGP, or similar funding programs.
- Coordinate closely with Task 6 to ensure documentation developed under the Draft EIR is formatted and cross-referenced to support NEPA compliance where applicable.
- Develop planning-level cost estimates for the preferred project, including both capital construction costs and projected long-term operation and maintenance (O&M) costs.
- Conduct a Benefit-Cost Analysis (BCA) using FEMA-approved tools and methods, quantifying expected flood risk reduction and other benefits in relation to project costs.

Compile relevant documentation to support potential compliance with the National Environmental Policy Act (NEPA), in coordination with CEQA environmental review.

- Develop a detailed work schedule including Go/No-Go milestones to inform phased implementation and grant compliance

Deliverables: Benefit-cost analysis (BCA), Work schedule with Go/No-Go milestones, Information needed to comply with CEQA and NEPA

TASK 9 – PREPARE FINAL EIR (OPTIONAL TASK)

As an optional task, the consultant will complete the necessary scope to finalize the EIR in response to comments and support OneShoreline's Board adoption of the EIR. Consultant proposals should provide scope and deliverables for this task.

4.2 Project Schedule

The project is anticipated to begin following contract execution on or around November 1, 2025. The FEMA Flood Mitigation Assistance (FMA) Grant's performance period ends on August 20, 2027. To ensure sufficient time for final reporting, documentation, and grant closeout, all technical work and required deliverables must be completed by May 20, 2027, leaving approximately 18 months for project execution and 3 months for closeout. While OneShoreline may pursue a schedule extension with FEMA if needed, extensions are not guaranteed and must be justified by clear progress.

Proposers must develop a schedule that demonstrates a feasible path to completing all required tasks and deliverables within this 18-month work window. The schedule should reflect dependencies between tasks, opportunities for parallel progress, and the need for strategic coordination among planning, environmental review, design, and engagement activities.

Proposers are encouraged to identify critical path items, anticipated risks to schedule, and strategies for maintaining momentum under this condensed timeline. Internal float and flexibility to accommodate agency input, regulatory coordination, and community engagement should be clearly described.

4.3 Project Budget

The San Bruno Creek Resilience Project is supported by a combination of federal and local funding. The not-to-exceed amount for the FEMA grant tasks (i.e., tasks 2, 4, 6, 7, and 8) is \$1,335,000. Because FEMA places strict limits on budget variances between tasks, Table 1 is provided to guide the development of proposed scopes of work, levels of effort, and task-specific budgets. Task 9, which is an optional task, will be funded outside of the FEMA grant. The proposed project budget must include tasks 2, 4, 6, 7, 8, and 9.

Table 1. FEMA Grant Task Level Budgets

Task	Task Limit
2.0 – Project Management	\$120,000
4.0 – Data Collection	\$175,000
6.0 – Alternatives Analysis and Draft EIR	\$525,000
7.0 – 30% Design	\$475,000
8.0 – Cost Estimate, BCA Development, and Sub-application	\$40,000
Maximum Not-to-Exceed Amount for Tasks 2, 4, 6, 7, 8	\$1,335,000

Proposals must present a scope of work that is feasible within the available budget and clearly identify how the proposed work aligns with the FEMA grant deliverables listed in Appendix A and further defined in Section 4. Proposed budgets should be detailed and transparent, including subtasks, labor hours, cost efficiencies, and assumptions. Proposers are encouraged to reserve task-level budget contingencies. Note that allowable subconsultant markup is limited to 2%.

5 CONSULTANT RESPONSIBILITIES AND QUALIFICATIONS

The selected consultant team will be responsible for delivering high-quality technical, planning, and design services in compliance with all applicable federal, state, and local requirements. Given the complexity and multi-jurisdictional nature of the San Bruno Creek Resilience Project, the consultant must demonstrate a strong track record in managing similar efforts, coordinating across diverse stakeholders, and integrating climate resilience, environmental permitting, and infrastructure planning. This section outlines the expectations for consultant responsibilities, quality management, firm experience, and key staff qualifications necessary to successfully perform the work.

5.1 Consultant Responsibilities

- 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.

- Consultant is responsible for performing this scope in compliance with all applicable federal, state, and local laws, regulations, standards, and guidelines
- Consultant will submit deliverables including all materials developed through Project in electronic format unless otherwise directed by OneShoreline
- Consultant will provide Quality Assurance/Quality Control (“QA/QC”) on all services performed by the Consultant
- Throughout the Project, Consultant will coordinate with OneShoreline on all aspects of the work

5.2 Quality Management

The standard of care applicable to the Engineer’s work under the Agreement will be the degree of skill and diligence ordinarily employed by engineers performing the same or similar services, under the same or similar circumstances, in the State of California. The Consultant will provide Quality Assurance/Quality Control (“QA/QC”) on all services performed by the Consultant.

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 is made available to the appropriate Project team members in a timely manner.

The administrative draft and 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 will serve as the basis for the final version of the document. For draft report, assessment, and plan deliverables, OneShoreline and TAC review periods will be 3-4 weeks. For technical memoranda and other deliverables, OneShoreline and TAC review periods will be 2-3 weeks.

5.3 Firm Qualifications

Consultant teams must demonstrate proven experience and capacity to successfully deliver complex, multidisciplinary projects similar in scope to the San Bruno Creek Resilience Project. Qualifications shall include:

- Expertise in flood resilience planning, climate adaptation, and the design of multi-benefit flood and tidal infrastructure, including pump stations, tide gates, and levees.
- Experience with stormwater management systems (gray, nature-based, and hybrid), creek and Bay shoreline restoration, and resilient landscape design.
- Proficiency in California climate science, land use policy, and environmental permitting, including CEQA, NEPA, and coordination with regulatory agencies (e.g., BCDC, RWQCB, CDFW, USFWS).
- Experience navigating permitting and regulatory requirements and ecosystem restoration for sensitive species, particularly the California red-legged frog and the San Francisco garter snake.
- Demonstrated ability to design habitat restoration and nature-based solutions in coordination

with wildlife hazard management protocols near airports, particularly in compliance with FAA regulations and SFO policies.

- Demonstrated success in securing FEMA certification, preparing Benefit-Cost Analyses, and supporting state and federal grant applications.
- Strong capabilities in stakeholder engagement, multi-agency coordination, and integration of community and equity considerations into technical planning.
- A track record of translating complex hydrologic, hydraulic, and policy data into actionable, technically defensible recommendations.

Teams must include all relevant disciplines needed to perform the full scope of work and show an ability to deliver within schedule and budget constraints.

5.4 Key Staff Minimum Qualifications

Proposed project teams shall demonstrate key staff meeting the minimum qualifications specified in Table 2. Proposals should also detail additional staff required for the successful completion of the multi-disciplinary project.

Table 2. Key Staff Minimum Qualifications

Key Staff Role	Minimum Qualifications
Project Manager / Resilience Planner	Proven experience leading complex, multi-agency infrastructure and climate resilience projects involving flood risk reduction, sea level rise, and nature-based solutions. Skilled in integrating technical, environmental, and community considerations. Strong coordination and facilitation abilities.
Restoration Lead	Expertise in tidal wetland and riparian restoration, multi-benefit project integration, and Bay Area habitat design. Experience coordinating with regulatory agencies and incorporating habitat goals into infrastructure and climate adaptation efforts.
Environmental Compliance Lead	Deep knowledge of CEQA, NEPA, and federal/state permitting (ESA, CWA, CESA, BCDC, RWQCB). Successful track record in preparing environmental documentation for complex infrastructure and restoration projects in California.
Hydrology and Hydraulics Lead	Licensed PE with expertise in coastal and fluvial systems. Experienced in flood modeling (e.g., HEC-HMS, HEC-RAS, XPSWMM) and communicating technical findings to diverse stakeholders.
Resilience Engineer	Licensed PE with experience designing flood infrastructure (e.g., pump stations, tide gates, levees). Knowledge of constructability, operations and maintenance, and integration with multi-benefit design.

6 PROPOSAL EVALUATION

All proposals submitted in response to this RFP will be evaluated through a multi-stage review process led by OneShoreline. The evaluation will consider technical quality, team qualifications, project understanding, cost reasonableness, and compliance with RFP requirements. OneShoreline will ultimately contract with a single consultant who may manage a consultant team. The selection process should be finished within 60 days of the submission of responses.

6.1 Initial Review

Upon receipt, each proposal will be reviewed for compliance with basic submission requirements. This includes, but is not limited to:

- Timely submission by the proposal deadline.
- Adherence to page limits and formatting requirements.
- Inclusion of all required proposal components.
- Confirmation that key staff meet minimum qualifications.
- Acceptance of OneShoreline’s standard contract terms or disclosure of exceptions.

Proposals that do not pass the initial review will be deemed non-responsive and will not proceed to the evaluation stage. OneShoreline may request clarifications solely for the purpose of verifying eligibility or correcting non-substantive administrative errors.

6.2 Evaluation

A selection panel comprised of OneShoreline staff and other stakeholder agencies will evaluate the proposals provided in response to this RFP based on the following criteria:

Criterion	Evaluation
1. Minimum Qualifications	All key staff must meet or exceed the minimum qualifications specified in Section 5.4.
2. Firm Experience	Demonstrated firm experience as compared to the criteria listed in Section 5.3.
3. Key Team Member Experience and Capacity	Qualifications and availability of proposed team members, particularly those in leadership and technical roles.
4. Project Understanding and Approach	Depth of understanding of the San Bruno Creek context and quality of proposed approach to adaptation planning, design, CEQA, and stakeholder coordination.
5. Proposal Quality	Clarity, organization, responsiveness to the RFP, and quality of written communication.
6. Project Cost	Reasonableness of proposed cost in relation to the scope of work and OneShoreline’s available budget.
7. References	Strength and relevance of references provided for recent similar projects.
8. Record of compliance	Demonstrated record of compliance with applicable laws, regulations, and contract provisions on past projects.

6.3 Interviews

At its discretion, OneShoreline may invite consultant teams who rank highly based on the evaluation criteria to participate in interviews. Interviews will be held in person at OneShoreline’s offices in San Mateo on the date listed in Section 2. Final consultant selection will be based on a combination of written proposal evaluations and interview performance.

6.4 Selection and Contract Award

Following the evaluation process, OneShoreline will notify the highest-ranked consultant and initiate contract negotiations. If negotiations are unsuccessful, OneShoreline reserves the right to enter into negotiations with the next highest-ranked proposer.

Appendix A – FEMA Budget Narrative and Deliverables Table

Project Management: Costs for consultant-led project management activities. Deliverables completed under this task include coordination activities, meetings, progress reporting, and material development for quarterly technical advisory committee and project management team meetings

Data Collection and Conceptual Design: Costs for data collection and conceptual design required to enable a future phase of the project (engineering design and environmental clearance). This task includes the most work in the proposed scope and therefore has the highest budget allocation. Deliverables completed under this task include elevation surveys, land surveys, hydrologic and hydraulic studies, geotechnical data collection, listed species data collection and a condition assessment of the Highline Canal Tide Gate

Alternatives Analysis and Draft EIR: Key activities include:

Alternatives Analysis: The project team will leverage the improved body of information collected in Task 4 and the early input from outreach conducted in Task 5 to develop and analyze alternatives, ultimately selecting a preferred, cost-effective alternative that incorporates recreational amenities and nature-based solutions where possible.

Early Consultation with Permitting Agencies: The preferred project alternative could be subject to review and approvals by several federal and state agencies, including the U.S. Army Corps of Engineers, National Marine Fisheries Services, U.S. Fish and Wildlife Services, California Department of Fish and Wildlife, San Francisco Bay Regional Water Quality Control Board, and the San Francisco Bay Conservation and Development Commission. The project team will directly engage with these agencies to identify issues related to species and water quality early in the project planning process.

CEQA Draft Environmental Impact Report (EIR): The project team will complete a draft EIR document for CEQA, including a project description, discussion of alternatives, and an analysis of environmental resource topics determined to be potentially significant as related to the preferred alternative.

30% Design

The design team will complete 30% design of the preferred alternative identified in the alternatives analysis.

Sub-application and BCA Development: Deliverables completed under this task include a benefit-cost analysis (BCA), a work schedule with Go/No-Go milestones, information needed to comply with the National Environmental Policy Act (NEPA), property acquisition documentation, and any other required sub-application materials.

FEMA DELIVERABLES TABLE

Task title	Consultant Deliverable
Project Management	Progress reports
	Materials for TAC and PMT meetings
Data Collection	Elevation survey
	Land survey
	Hydrologic and hydraulic / coastal hazard studies
	Coordination with FEMA to establish accreditation requirements
	Data on EHP resources
Alternatives Analysis and Draft EIR	Alternatives analysis
	Early consultation with permitting agencies
	Draft EIR
30% Design	30% design documents
Cost Estimate, BCA Development, and Sub-application	Benefit-cost analysis (BCA)
	Work schedule with Go/No-Go milestones
	Information needed to comply with CEQA and NEPA