The Fairfield-Suisun Sewer District Community Treatment Wetland and Climate Resiliency Project will create a nature-based solution that integrates a freshwater treatment wetland and horizontal levee within an approximately 100-acre area, located in Central Solano County, California. The project goals are to:

1. Collaborate with adjacent landowners and stakeholders to develop a project that equitably engages and **benefits a disadvantaged community**;
2. Fund, design, build, and maintain a **nature-based solution** to reduce nitrogen discharge from a community of 150,000 residents, enhance native habitat in the Suisun Marsh, and address future conditions that models a scalable solution for the City, County, and Bay Area; and
3. Benefit thousands of residents and businesses in Solano County by integrating public access with **walking trails and educational opportunities.**

The project site is located about 40 miles northeast of San Francisco within the Fairfield-Suisun Sewer District treatment plant property (Figure 1). The Fairfield-Suisun Sewer District is a wastewater special district serving approximately 150,000 customers in the Cities of Fairfield and Suisun City, including the Travis Air Force Base and portions of unincorporated Solano County. The District safeguards public health and helps protect the Suisun Marsh, the nation's largest brackish water marsh and the largest remaining contiguous wetland on the Pacific Coast of North America.

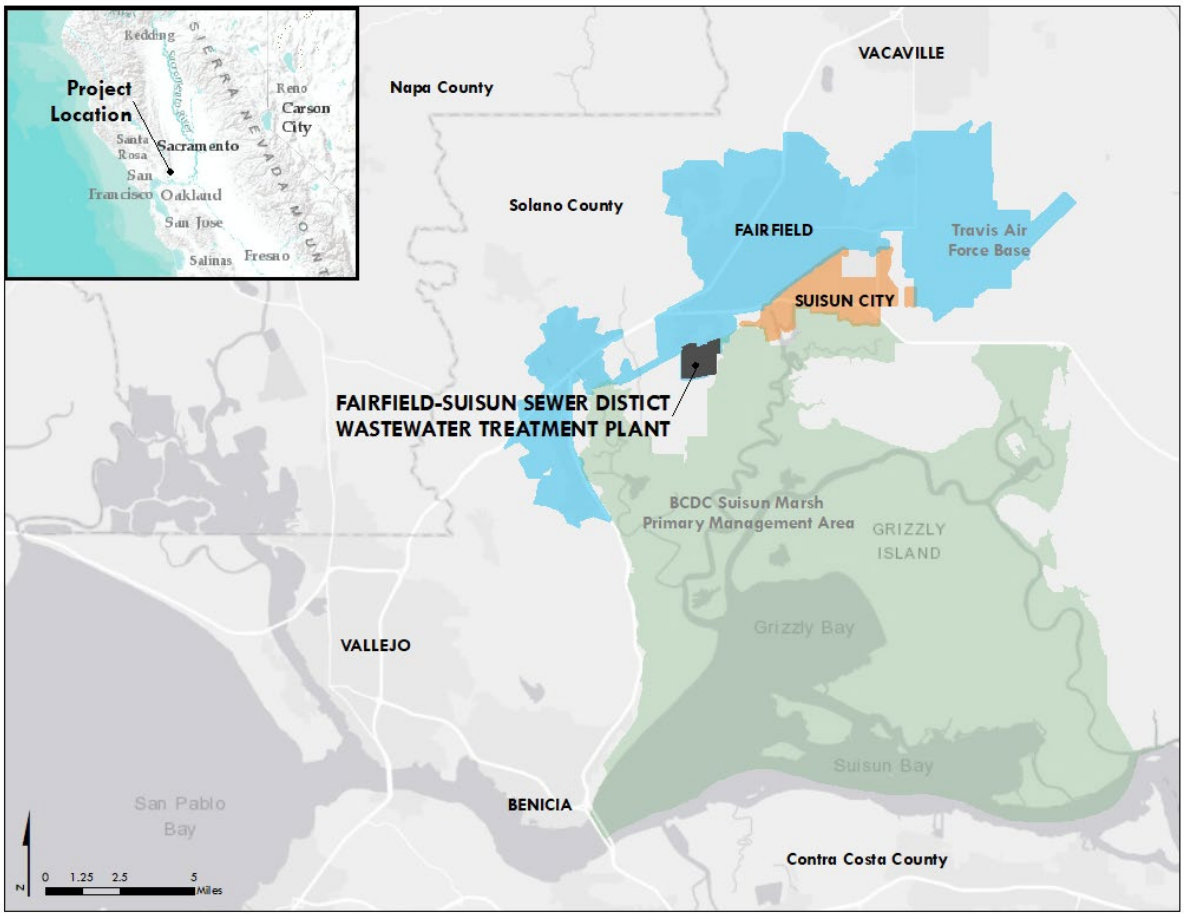

Figure 1. The Community Treatment Wetland and Climate Resiliency project, located within the Fairfield-Suisun Sewer District wastewater treatment plant property, would work to manage nutrients from wastewater flows and predicted future flooding as a result of sea level rise.

Anticipated benefits from the project include:

- Recreation & education opportunities for the 5,549 residents living within the SB 535 Disadvantaged Community where the FSSD treatment facility is located[1];
- Demonstrate within Solano County the multi-benefit function of nature-based solutions to:
    - Enhance habitat quality and quantity by creating a 100-acre fresh-to-brackish water marsh;
    - Manage nutrients from wastewater flows by removing approximately 70% of daily nitrogen loads during the dry season;
    - Enable sea-level rise adaptation and resilience for the wastewater treatment plant and surrounding properties;
- Incorporating public access with approximately 5 kilometers of new walking and running trails that also provide educational opportunities about, for example, the history and culture of the County, nature-based solutions and climate resiliency, indigenous peoples, and natural treatment systems.

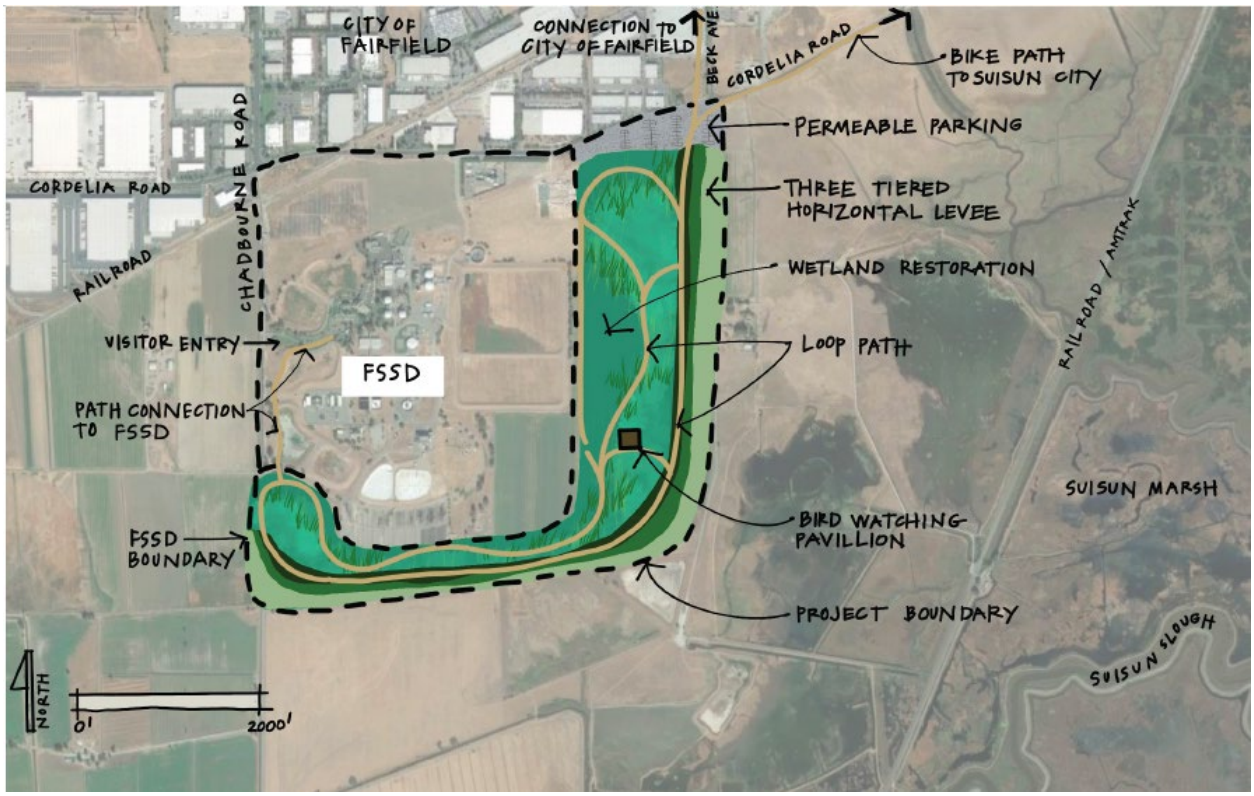

Figure 2. Conceptual sketch of the proposed Community Treatment Wetland and Climate Resiliency project improvements, located within the Fairfield-Suisun Sewer District wastewater treatment plant property.

[1] https://experience.arcgis.com/experience/1c21c53da8de48f1b946f3402fbae55c/page/SB-535-Disadvantaged-Communities/

The following tasks are proposed to initiate the community co-design process and engineering analysis for the project:

Task 1. Identify, Gather, and Review Existing Information. Project team to identify, gather, and review any relevant background information for the Project and Project site.

Task 2. Alternative Concept Designs. Develop three (3) alternative concept designs that meet the project objectives

Task 3. Community Engagement. Provide honorariums for community leaders to participate in the project process, including through one (10 survey, one (1) community design charette, and one (1) community design workshop.

Task 4. Data Collection. Identify gaps in data, complete two specific data collection efforts (wetland delineation and topographic survey), and partner with local research institutions to design a research strategy to evaluate the project's long-term carbon sequestration and nutrient management potential.

Task 5. 30% Design Development (DD) Package. Including 30% Engineering Design Plans, Outline Specifications, preliminary construction Cost Estimates, and a Basis of Design (BOD) letter with schedule.

Task 6. Meetings and Project Coordination. Participation in project design, day-to-day correspondence, including preparation of meeting agendas, minutes, contract documents, invoicing, financial management, and project data management.

The cost estimate for the community co-design phase of the project, based on the proposed tasks, is approximately $300,000 USD, and summarized by task in Table 1.

Table 1. Summary of tasks, costs, deliverables, and schedule for Community Co-Design Phase

Task	Consultant Cost Estimate	Consultant Deliverable	Schedule
Task 1. Identify, Gather, and Review Existing Information	$ 15,000	Digital folder with an organized file structure of all background information identified. All existing information identified, gathered, and reviewed by the consultant will be provided to the District, including but not limited to, photos, reports, maps, and GIS shapefiles.	March 2023 - May 2023
Task 2. Alternative Concept Designs	$ 60,000	Three (3) concept design fact sheets with annotated engineering sketches (plan and profile) with rough dimensions and materials, and a brief description of the designs (including both green and gray infrastructure elements). The 2-page 11x17 fact sheets will also include essential construction considerations (if any), important notes on needed maintenance and monitoring, and potential advantages and drawbacks of each alternative (including cost, as available information allows). These deliverables will be shared by the District, with support from the selected consultant, with community stakeholders during a community design charrette and workshop (Task 3). Draft concept design fact sheets will be a basis of discussion for the community design charette and the final concept design fact sheets will be a basis of discussion for the partner design workshop.	Draft Fact Sheets: May 2023 Final Fact Sheets: August 2023

Task 3. Community Engagement	$ 50,000	The District will lead facilitation of a charette and workshop, including identifying attendees and distributing invitations. The consultant will draft agendas, create and present meeting materials, moderate breakout groups, collect feedback from participants, and summarize meeting minutes. This task includes an online community survey and honorariums for community leaders.	Charette: June 2023 Workshop: September 2023
Task 4. Data Collection	$ 60,000	A technical memorandum with a (1) field investigation plan to address data requirements for future project phases (e.g., hydrologic & hydraulic study, geotechnical data, biological assessment report, cultural resources survey report), (2) field work outcomes including the wetland delineation and topographic survey, and (3) a research plan to evaluate long-term carbon sequestration potential.	May 2023 - November 2023
Task 5. 30% Design Development (DD) Package	$ 75,000	Draft and Final 30% Engineering Design Package in electronic format, with a Basis of Design letter summarizing permitting and approval descriptions and processes; assumptions or communications that were made to inform the permit strategy; and application, permit, and related fee cost estimates.	January 2024
Task 6. Meetings and Project Coordination	$ 40,000	Monthly invoices and meeting minutes for project kickoff and progress meetings.	February 2024
Total Cost Estimate	**$ 300,000**		

FSSD Match. The District has identified $300,000 of match to the requested $300,000. The match sources include through District staff time ($125,000), costs associated with a Resilient & Green Master Plan in development for the treatment plant site ($100,000) and planning for the Suisun Force Main Retrofit which links to design of the wetland influent and community access ($75,000).

Table 2. FSSD *Community Wetland and Climate Resiliency Project*: Environmental Outputs and Outcomes

Outputs	**Outcomes (Environmental Results)**	
(Activity, effort, and/or work product during project period)	Short-Term (1-5 Years)	Long-Term (5-20+ years)
Engage and collaborate with local communities and tribes to co-design a nature-based solution for nutrient management at the Fairfield-Suisun Sewer District wastewater treatment facility in Fairfield, California	Recreation & education opportunities for the 5,549 residents living within the SB 535 Disadvantaged Community where the FSSD treatment facility is located, including 5 kilometers of new walking and running trails.	
Site evaluation (e.g., biological, wetland, and topographic surveys)	Enhance habitat quality and quantity by creating a 100-acre fresh-to-brackish water marsh	

Alternative concept design development	Demonstrate an innovative and novel nature-based solution for nutrient management from wastewater flows with potential to remove 70% of daily TIN load (or 740 kg/d).	Nitrogen removal estimate over 20 years
30% engineering design of selected alternative	Sea-level rise adaptation and resilience for the wastewater treatment plant and surrounding properties.	
Research plan to monitor and measure project climate mitigation potential via carbon sequestration	Research to inform the long-term carbon sequestration potential of wastewater treatment wetlands in the San Francisco Bay Area	

Project partners include community members and adjacent residents, the City of Suisun City, City of Fairfield, Solano Center of California Conservation Corps, Sustainable Solano, Fairfield Suisun Unified School District, Solano Resource Conservation District, Suisun Resource Conservation District, and the Solano Transportation Authority.

FSSD Letter of Support – From FSSD, signed by Board President **by September 9**.

First draft of FSSD letter for review, here

Community Letter of Support - for partners who are not being funded but support the grant, also **by September 9**.

First draft of Community letter for review, here

Confirmed:

- Sustainable Solano
- Solano RCD

Ideas to approach for Community Letter of Support:

- Suisun and Fairfield Mayors
- Assembly Member Lori Wilson
- Solano Committee of Land and People (Solano Land Trust)
- UCDavis Center for Community and Citizen Science (Peggy Harte)
- City of Fairfield Youth Commission& City of Suisun Youth Commission
- Suisun City Climate & Environmental Committee
- Suisun RCD
- Ducks Unlimited
- Pacific Flyway

Include organizational letterhead if possible

DATE

Attn: FY 2022 San Francisco Bay Water Quality Improvement Fund Review Committee

Subject: Support from ORGANIZATION NAME for the San Francisco Estuary Partnership's 2022 San Francisco Bay WQIF Proposal

Dear San Francisco Bay Water Quality Improvement Fund Proposal Reviewer,

ORGANIZATION NAME strongly supports the San Francisco Estuary Partnership's proposal to the EPA's request for applications for the San Francisco Bay Water Quality Improvement Fund, FY2022.

As part of scoping this proposal, staff from the Fairfield-Suisun Sewer District (FSSD) reached out to a diverse range of stakeholders. ORGANIZATION NAME was given the opportunity to collaborate with FSSD and provide input on the nature-based solution approach proposed at the treatment plant site. This proposal is aligned with our organization's mission, [Describe the benefit of this project proposal to your organization].

EPA Region 9's approval of this project will enable the FSSD and Partnership to pilot new multi-benefit solutions for water quality, public access, and climate adaptation. The project will implement the first of its kind innovative horizontal levee – a vision championed by EPA and local, state and federal partners for years. The project will also create and implement a robust community engagement strategy, with a focus on empowering vulnerable communities to learn about and participate in nature-based resiliency solutions.

By supporting this multi-benefit, nature-based solution led by the San Francisco Estuary Partnership and its coalition of partners, EPA funding will help restore habitat, provide flood protection, and reduce pollutants and excess nutrients from entering the Bay. The proposal demonstrates a broad number of environmental outcomes – and these will only be amplified through direct community engagement and involvement in nature-based climate adaptation. It will also enhance the capacity of community-based organizations and local government agencies to approach climate resiliency in a holistic manner, implement future high value nature-based projects, reduce risks from sea level rise and flooding, and provide ecosystem benefits to communities. **We urge EPA Region 9 to fund this important project.**

Sincerely,

NAME | TITLE/POSITION

EMAIL