SAN FRANCISQUITO CREEK
JOINT POWERS AUTHORITY

Notice of Regular Meeting of the Board of Directors

Thursday, September 23, 2021

3:30 P.M.

Due to the risk of COVID-19 transmission, this meeting will be held remotely. Members of the public may observe and offer comment at this meeting by using the chat function and typing your question or comment, by selecting the raise your hand function or if you are joining by phone unmuting yourself and letting Clerk of the Board or Board Chair know you wish to speak. If you require an accommodation pursuant to the Americans with Disability Act, please contact the Clerk of the Board at the phone number or email listed at the bottom of this Agenda by 10:00 am on the day of the meeting.

Join Zoom Meeting

https://us02web.zoom.us/j/89891337035?pwd=NXhpWXc2VUlRcHdpSVlQTXlva3dvZz09

Meeting ID: 898 9133 7035 Passcode: 297753

(669) 900-6833,,89891337035#,,,,*297753#

Agenda

1. CALL TO ORDER AND ROLL CALL
2. APPROVAL OF AGENDA: Changes or additions to the agenda.
3. APPROVAL OF MEETING MINUTES: July 22, 2021 Regular Meeting
4. PUBLIC COMMENT: *Individuals may speak on a non-agendized topic for up to three minutes.*

REGULAR BUSINESS

Members of the Public may speak on any agenda item for up to three minutes

5. STUDY SESSION - Shoreline projects, SFCJPA and partner organization roles and responsibilities
6. INFORMATION ITEMS
   A. Executive Director's Report
7. CONSENT AGENDA

A. Consider approval of the CALPERS SSI Section 218 Resolution

8. ACTION ITEMS

   A. Consider Resolution Approving Consultant Services Agreement for Mitigation Monitoring and Reporting with HT Harvey and Associates and Authorizing Executive Director to Execute and Deliver the Agreement

   B. Consider Resolution to Accept Comprehensive Plan 2021 Update

9. BOARD MEMBER COMMENTS, INFORMATION ITEMS, REQUESTS and ANNOUNCEMENTS (Information only)

10. ADJOURNMENT

PLEASE NOTE: Board meeting Agenda and supporting documents related to items on the Agenda can be viewed online by 3:30 p.m. by Monday July 19, 2021 at sfcjpa.org -- click on the “Meetings” tab near the top.

7. CONSENT AGENDA
    A. CALPERS SSI Resolution
8. ACTION ITEMS
    A. Monitoring, Maintenance & Reporting contract
    B. Approval of 2021 Comprehensive Plan
9. BOARD MEMBER COMMENTS, INFORMATION ITEMS, REQUESTS and ANNOUNCEMENTS (Information only)
10. ADJOURNMENT

PLEASE NOTE: Board meeting Agenda and supporting documents related to items on the Agenda can be viewed online by 3:30 p.m. by Monday July 19, 2021 at sfcjpa.org -- click on the “Meetings” tab near the top.

San Francisquito Creek Joint Powers Authority
September 23, 2021, Regular Meeting of the Board
Agenda Item 3
July 22, 2021, Board Meeting Minutes
DRAFT

Director Abrica called the meeting to order at 3:32 p.m. via streaming video and teleconference call. Public input was solicited on each item and all public comments received are noted herein.

DRAFT

1) **ROLL CALL**

Members Present:	Director Abrica, City of East Palo Alto Director Drew Combs, City of Menlo Park Director Gary Kremen, Santa Clara Valley Water District (Valley Water) Director Dave Pine, San Mateo County Flood & Sea Level Rise Resiliency District
Members Absent:	Director Pat Burt, City of Palo Alto
Alternates Present:	Director Alison Cormack, City of Palo Alto
JPA Staff Present:	Margaret Bruce, Executive Director Kevin Murray, Staff Tess Byler, Staff Miyko Harris-Parker, Staff
Legal Present:	Trisha Ortiz

2) **APPROVAL OF AGENDA**
ACTION: Motion and second (Combs/Cormack) to approve the agenda passed unanimously 5-0.

Roll call vote:
Director Abrica Aye
Director Combs Aye
Director Cormack Aye
Director Kremen Aye
Director Pine Aye

Director Burt Not present

3) **APPROVAL June 24, 2021, REGULAR BOARD MEETING MINUTES**
ACTION: Motion and second (Combs/Pine) to approve the June 24, 2021, Regular Board meeting minutes passed unanimously 5-0.

Roll call vote:
Director Abrica Aye
Director Combs Aye
Director Cormack Aye
Director Kremen Aye
Director Pine Aye

Director Burt Not present

4) **PUBLIC COMMENT**
None.

San Francisquito Creek Joint Powers Authority
September 23, 2021, Regular Meeting of the Board
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DRAFT

5) INFORMATION ITEMS

Executive Director's Report

Ms. Bruce presented the Executive Director's report to provide the Board and public information on the results of the Reach 1 Request for Proposals for long term monitoring and reporting, Reach 2 project design status and outreach, Reach 3 detention basin evaluation and SAFER Bay project updates. Ms. Bruce also provided organizational/administrative updates and announced that comments are being sought on the SFCJPA Comprehensive plan update through August 31, 2021. Ms. Bruce also acknowledged the retirement of Menlo Park Fire Protection District Chief Harold Schapellhouman.

Director Cormack gave her appreciation and thanks to staff for the presenting the table detailing the status of the Reach 2 project elements.

Director Pine asked for the total budget for the SAFER project. Director Combs asked what percentage of the project costs will be covered by the BRITT grant and what is the percentage of costs being covered by other agencies.

Ms. Bruce stated that staff has been working on the costs for the SAFER project and will have more information for the Board at the next meeting of the Board. Ms. Byler stated that project costs are estimated to be over one hundred thirty million dollars through reach nine, and with the Dumbarton Corridor added the total project costs are estimated to be over one billion dollars based on the June 2020 Dumbarton Bridge West Approach + Adjacent Communities Resilience Study. Ms. Bruce stated that PG&E is contributing ten million dollars and Facebook is contributing over seven million dollars.

6) BOARD MEMBER COMMENTS, INFORMATION ITEMS, REQUESTS AND ANNOUNCEMENTS (INFORMATION ONLY)

None.

7) CLOSED SESSION

Public Comment

None.

Public Employee Performance Evaluation Title: Executive Director

Adjourn to closed session at 4:02 pm.

Report from Closed Session

Readjourned to regular session at 4:18 pm. Director Abrica stated that there was no reportable action from the closed session.

8) ADJOURNMENT

Adjourned at 4:18 pm.

Minutes drafted by Clerk of the Board: Miyko Harris-Parker.

Agenda Item 5 – Study Session Shoreline Projects Background Brief – *Project Status, Roles and Responsibilities*

Status

The SFCJPA has been involved in shoreline tidal flooding risk evaluation, planning, and mitigation for more than ten years. This role evolved from the Corps of Engineers' need to include consideration of "residual risks" when planning a flood control project for a river or creek, and the realization that even when the Reach 1 "Downstream" project was complete, residents of East Palo Alto would still be vulnerable to flooding due to tidal flooding and sea level rise.

The current status of the SAFER Bay Project is preliminary engineering design and environmental permitting phase. The SFCJPA plans to issue a Notice of Preparation for an Environmental Impact Report this fall, soliciting public input on the project. The SAFER Bay project is being permitted via the Bay Area Regulatory Integration Team (BRRIT), with the most recent pre-application meeting on September 1, 2021. The BRRIT views the project as self-mitigating.

Responsible Parties and Roles

Valley Water is a leader for South San Francisco Bay Shoreline Project. The project is a joint effort between Valley Water, California Coastal Conservancy, and the Army Corps of Engineers. Work has begun at the southern end of the bay in Alviso with levee enhancements. Additional work is being planned in the Cities of Palo Alto, Mountain View, Sunnyvale, and Santa Clara, and additional funding is being sought.

The recently formed San Mateo County Flooding and Sea Level Rise Resiliency District (aka "OneShoreline") has purview over coastal flood protection in San Mateo County. CEO Len Materman has indicated that at this time, there are limited funds and staff capacity for the SAFER Bay Project. Long term funding is being contemplated as a ballot measure for 2022 which, if placed on the ballot and if passed, would ensure that OneShoreline has a dedicated revenue stream. There is naturally some uncertainty at this time about that potential revenue, as well as how funds would be apportioned.

It is reasonable to infer that at some point in the future, OneShoreline will be able to assume leadership role in the SAFER Bay project in Menlo Park and East Palo Alto. When and how the SFCJPA may divest itself of its role could be predicated on agreed-upon criteria or conditions. *This would best position organizations and the SAFER Bay project for success. We ask the Board to discuss what those criteria or conditions should and to provide direction.*

The Cities of Menlo Park, East Palo Alto and Palo Alto have each taken an active role in the shoreline projects in their jurisdictions.

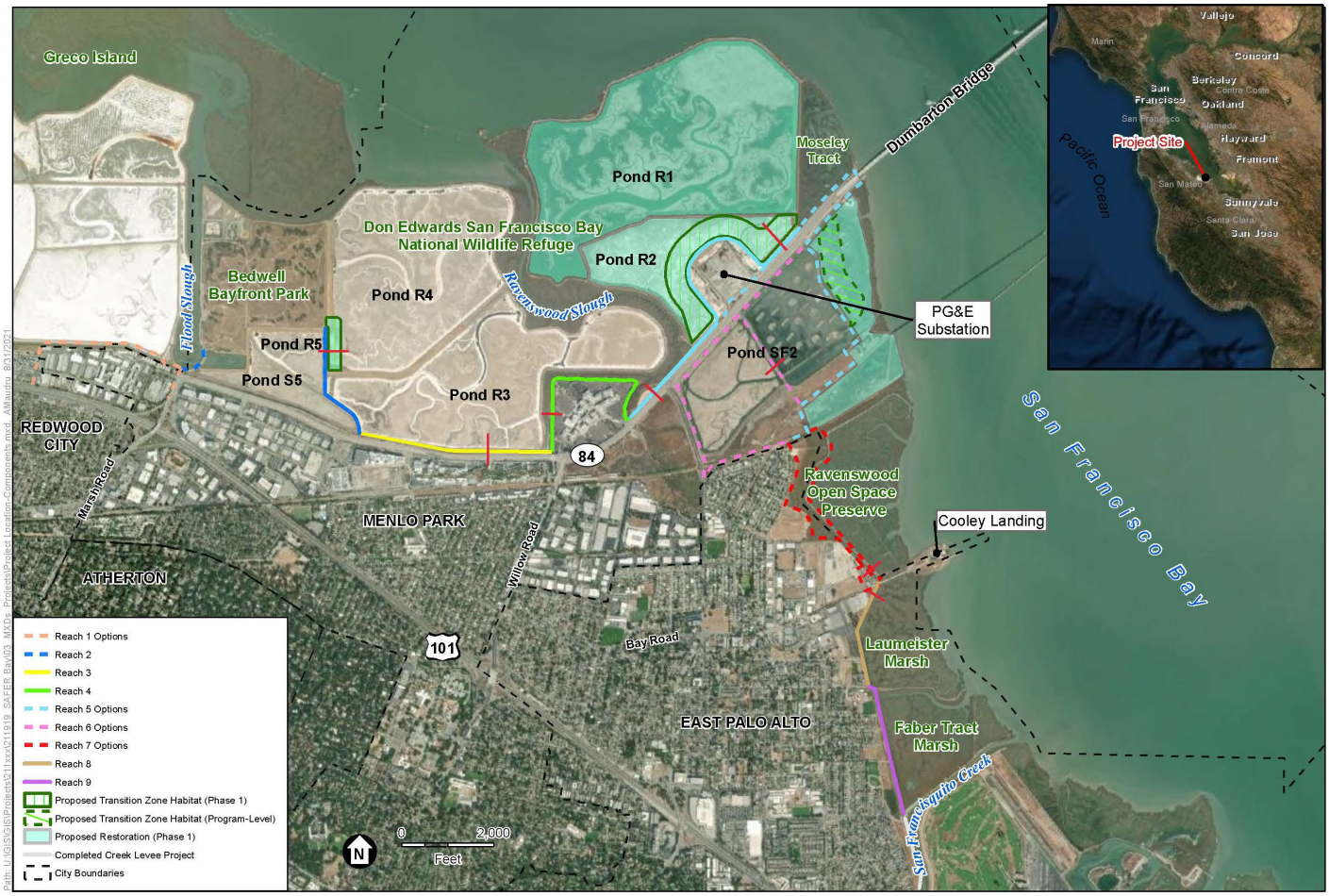
Menlo Park has been the lead applicant for the recent FEMA BRIC grant, funding a substantial portion of the SAFER Bay project in Menlo Park. Menlo Park is also studying if it may be possible to incorporate sea level rise into the planned beautification project at the entrance to Bedwell Bayfront Park. The City has adopted a Climate Action Plan that includes goals to protect the community from sea level rise and flooding.

East Palo Alto has been the lead applicant for funding from CalOES under the Hazard Mitigation Grant Program, dedicating $5.5M for local match for the grant, forming a top priority for the City, as evidenced by the adoption of their Climate Action Plan in 2011. There is grassroots support for the project from the community.

The SFCJPA is the technical lead for both the FEMA BRIC and HMGP grants.

The City of Palo Alto funded the 2019 SAFER Bay Feasibility Study and has also moved forward with their Sustainability & Climate Action Plan. Sea level rise adaptation actions are being moved forward as part of the South San Francisco Bay Shoreline Project in Santa Clara County, between San Francisquito Creek and Alviso Slough, along with the cities of Mountain View, Sunnyvale, and Santa Clara.

A map of the SAFER Bay Project is provided below:



COSTS: The SAFER Bay project is currently estimated to cost about $130M, ***not*** *including the Dumbarton Corridor portions.* Of this, Menlo Park elements are estimated to cost $83M and the FEMA BRIC grant of $67M will cover about 80% of the costs.

Funding status by Project Reach

Reach (blue=Menlo Park, yellow =East Palo Alto)	Location	Funding status (pink= not currently funded, green = partial funding or significant funding	Notes
1	North Menlo Park		Plans pending outcome of Cargill ponds deposition.
2	Bedwell Park West		Entrance road improvements being considered by the City of Menlo Park in conjunction with SLR protection.
2	Bedwell Park East		Funded through FEMA BRIC grant**
3	West Bayshore/ Belle Haven		Funded through FEMA BRIC grant**
4	Facebook Classic Campus		Funded through FEMA BRIC grant**
5	PG&E Substation/Hwy 84		Funded through FEMA BRIC grant and CalOES HMGP grant for different actions
5/6	Dumbarton Corridor		Reach 6 alignment is conceptual. There are many constraints in this area, as well as opportunities to help address traffic concerns of East Palo Alto.
7	Ravenswood Preserve		Partially funded through CalOES HMGP grant to Tara St.**
8	Laumeister Marsh		Funded through CalOES HMGP grant**
9	Faber Marsh		Funded through HMGP grant**

**Cost escalation may erode some funding capacity as projects move through FEMA EHP review. The Phased FEMA funding may allow for some adjustment if Benefit Cost Ratios continue to be >1.

Project Partners and Stakeholders:

This complex multijurisdictional project has many stakeholders and partners. Some key stakeholders are listed below:

1. City of East Palo Alto - SFCJPA member agency, project funder ($5.5M), sub-applicant FEMA HMGP grant
2. City of Palo Alto Project - SFCJPA member agency, funder of completed 2019 Feasibility Study, landowner
3. City of Menlo Park - SFCJPA member agency, funder of completed 2016 Feasibility Study; sub-applicant for FEMA BRIC 2020 grant identified for funding ($50M)
4. San Mateo Flood and Sea Level Rise Resiliency District SFCJPA member agency,
5. Santa Clara Valley Water District - SFCJPA member agency, coordination with South Bay Shoreline Project
6. Pacific Gas and Electric Company – project funding partner ($10M)
7. Facebook project supporter and funding partner ($7.8M)
8. Climate Resilient Communities (Acterra) - community outreach
9. Nuestra Casa - community outreach
10. Grassroots Ecology- project partner for community and educational components
11. Department of Water Resources - funding via Grant Agreement No. 4600009954 for $1,045,625.
12. Ravenswood Shores Business District - project partners for land easements/ access coordination
13. City of Redwood City - project supporter and coordination
14. U.S. Army Corps - San Francisco District (USACE) - Coordination with federal authorization of South Bay Shoreline Study and potential future Redwood City study
15. U.S. Fish and Wildlife Service - Land owner and project supporter
16. Don Edwards National Wildlife Refuge (Refuge) - land owner and project supporter
17. California Department of Fish and Wildlife – Technical consultation
18. South Bay Salt Ponds Restoration Project (SBSPRP) - project supporter and coordination with restoration of former salt ponds R1 and R2 along with the Refuge
19. California Department of Transportation (Caltrans) - project supporter and project partner for Reach 5 action
20. San Francisco Public Utilities Commission (SFPUC) landowner
21. Mid-Peninsula Regional Open Space District- project supporter and landowner
22. California Coastal Conservancy – project supporter and guidance
23. Bay Area Restoration Regulatory Integration Team- permitting

Executive Director's Report, September 23, 2021

Project Updates

Reach 2 Project -

Channel Widening -

Outreach has continued to property owners from whom we may or will need additional construction easements to install the currently proposed widening elements. We have contacted and are in communication with most of the property owners from whom we will need easements. Valley Water will take the lead on easement acquisition from homeowners in Palo Alto. The SFCJPA will continue informal communications with the property owners, while Valley Water will conduct surveying and property appraisals. Easement needs in East Palo Alto and Menlo Park are limited to public lands and private properties with existing flood control easements. Agreements with San Mateo County and the SMC Flood and Sea Level Rise Resiliency District will be developed to enable construction on the existing easements.

USACE CAP 205 Project/Coordination -

We have begun our work with the USACE. Kick-off meetings have been completed with the project delivery team. The UCACE team will be begin their hydraulic modeling and required NEPA evaluations for flood risk reduction along Reach 2. Part of that work includes a NEPA scoping meeting which is tentatively scheduled for Monday, October 25.

Summary of Reach 2 Project Elements and Status

Reach 2 Elements	Design	Permitting	Rights of Way	Utility Relocations	Construction Funding
Status	50% - 90%	Work is underway on potential optimization of widening sites to minimize impacts to trees, creek channel and property owners	Coordination ongoing between SFCJPA and Valley Water re. rights of way process, roles and responsibilities.	Utility mapping underway.	Construction funding gaps table is current.

Reach 2 Elements	Design	Permitting	Rights of Way	Utility Relocations	Construction Funding
This Month's Update	The SFCJPA evaluated several new alternatives to determine if it is possible to further reduce impacts to creek channel and trees as part of LEDPA analysis. The results indicate that the proposed project is the LEDPA. The Army Corps of Engineers will evaluate options for creating creek capacity.	Impacts calculations to be completed by end of September. Draft 401 materials to be submitted November 2021. Site 5 may not be constructed as part of the Reach 2 project but will be included in permit applications in case it is needed for FEMA considerations.	Outreach and communication with Reach 2 project neighbors from whom easements may be needed continues. We hope to conclude our portion of the outreach in September. Monthly working group with technical staff from each JPA member agency continue. Notice of Determination to appraise property owned by San Mateo County for Reach 2 easement to be brought to Board in October.	Staff contacted PG&E in March 2021 and PG&E has assigned a project manager. The SFCJPA will schedule an onsite meeting to begin discussion of electric transmission lines at Pope Chaucer Bridge.	An updated Benefit Cost Analysis (BCA) to enable additional FEMA funding for Pope-Chaucer Bridge construction is being developed and will be submitted to CalOES/ FEMA.
For Next Month (October)			Outreach to all Reach 2 property owners will have concluded to the point we can hand off the process to our colleagues at Valley Water.	Initiate coordination of utility relocation for overall project with PGE, not just Pope Chaucer Bridge. Develop cost estimates	

Reach 2 Elements	Design	Permitting	Rights of Way	Utility Relocations	Construction Funding
			JPA staff and legal will begin drafting documents for San Mateo County. VW will initiate easement acquisition legal process for Santa Clara County.	with utility companies	
Potential Issues	SCVWD is backlogged for updating CAD for several projects – could cause delay or require change of Engineer of Record.	Addition of fish migration elements could increase project footprint and costs	Negotiating with private property owners.	Overhead power lines – or other utilities - could impact construction methods and costs.	Not all funding sources have been secured through agreements and others have timelines that must be met

Reach 2 Milestones

Milestone	By Sept '21	By Jan '22)	By July '22)	By Jan '23)	2023/2024 Construction/ Completion
Determination of Site 5 action					
USACE FSCA and Feasibility Study					
Acquire land easements					
Utility relocation to accommodate construction					
Permits acquired					
Funding agreement					
O&M agreement					
Final Design					
Bid and Award					
Construction of Newell Bridge					2023

Milestone	By Sept '21	By Jan '22)	By July '22)	By Jan '23)	2023/2024 Construction/ Completion
Construction of Widening Sites					2023
Construction of Pope Chaucer Bridge					2024

Pope-Chaucer Bridge Update -

SCVWD and their consultant NV5 are updating the estimated construction cost estimate to support a new Benefit Cost Analysis to support our planned request from FEMA and CalOES for an additional $3M in construction funding. NV5 has been modifying the design to the extent possible to respond to our and regulatory requests to reduce impacts to the creek channel and trees.

Reach 2 Project Permitting –

The SFCJPA and Stanford are considering convening a joint regulatory review session, similar to the multi-agency meeting that we hosted on June 29 and attended by representatives from the Regional Water Quality Control Board, California Department of Fish and Wildlife, U.S. Fish and Wildlife Service, and National Marine Fisheries Service. The purpose of the meeting joint meeting will be to discuss the SFCJPA and Stanford projects from a wholistic view, considering the watershed approach we and Stanford have been collaborating on.

We are on schedule to submit draft materials later this summer to continue our pace for receiving construction permits in November 2022.

Upstream Detention Evaluation -

Staff and our consultants have completed the initial round of evaluation and have developed an information gaps technical memo which lays out the additional information needed to complete assessment of the feasibility of off-line detention on Stanford property. On September 15 we had an informal consultation with the National Marine Fisheries Service (NMFS) to solicit input on the conceptual design of the diversion weir and detention basin for fish health and well-being. Our consultant has recommended collection of infiltration and geotechnical data to confirm concepts, as well as environmental screening data. To stay in step with our access agreement with Stanford, we will further develop the conceptual plan to a point that we believe it is technically feasible from an engineering standpoint. We will then work with Stanford to coordinate access for geotechnical and environmental field investigations in a manner respectful of property leaseholders and current land use.

There are still significant feasibility and logistical challenges for potential detention basins. These include not only the need for significant excavation and material off-hauling, limited access for construction equipment, protected species, and cultural resources, but also the likely need for involvement by the California Division of Safety of Dams (DOSD) for above ground embankments.

SAFER Bay – *subject of study session this month*

Funding –

We continue to work with the City of Menlo Park and the BRIC team members in anticipation of creating a Memorandum of Understanding between the parties. A Menlo Park City Council study session was planned for late August but has been rescheduled for late October 2021.

We will be applying for a Measure AA grant to support CEQA and select hydrologic and habitat studies. Applications are due October 7, 2021.

Project Status –

A meeting with the San Francisco Bay Restoration Regulatory Integration Team (BRRIT) occurred on September 1. We received positive feedback on our concepts and approaches, regulators provided input as to their preferred permitting processes, we came away with some ideas for improving how the project is described, and we will meet again in about six months.

Notice of Preparation (NOP) Issuance –

We plan to release the NOP for a Programmatic EIR this fall.

Reach 1 Project -

We released a Request for Proposals on July 1 for a consultant to provide mitigation monitoring and reporting, as well as recommendations for periodic maintenance activities, for the project's mitigation sites for years 4 through 10 (2022 through 2028). We have selected the responsive proposal and are seeking board authorization for the Executive Director to enter into a Master Services Agreement with the selected consultant at the September board meeting. Funding for the first year of services under the agreement is provided by the approved 2021/22 Operational Budget.

Interpretive signs - We are reviewing draft panels; fabrication and installation of the of interpretive panels on the Friendship Bridge were to be included in an installation contract held by the City of Palo Alto for similar signs within the Palo Alto Baylands. Installation of Palo Alto's signs have been postponed to September 2022 due to a delay in grant funding. We are considering our options to move forward with installation of our signs and a commemorative plaque and bench honoring community member Tommy Roberts before the end of the year.

Comprehensive Plan Update

This is action item 8B in your Board package. The draft updated plan was circulated for comments June 24 through August 31.

Organization/Administration Updates -

We have just completed the annual creek maintenance walk. We were joined by our member agency colleagues. Fifteen corrective action items were identified. These will be completed by October 15.

We have completed the SSI/CalPERS balloting process. This clarifies with CalPERS that employees contribute to both systems and are eligible for benefits from both systems.

FEMA Risk 2.0 Webinar - With special help from Valley Water, and outreach support from our member agencies and our community partners we hosted a one-hour webinar featuring speakers from FEMA on the new FEMA Risk 2.0, risk rating and flood insurance program. The webinar was attended by over 150 people. Webinar materials are posted on the SFCJPA website. We are coordinating with FEMA for slides and informational materials in other languages, which will be posted as soon as they are available.

Website and Newsletter – In the last month we've had 340 unique visitors to the SFCJPA website. Our newsletter distribution list is now greater than 400 recipients.

Forward View of Board Agendas -

Please review and provide your input on items that you would like to see on future agendas. This forward view is updated for each Board Meeting.

Regular Board meeting	Envisioned Agenda Items
October	Study Session on Reach 2 funding framework Mid-year budget check-in and look-ahead to next year Personnel committee's template and process for Executive Director review. Notice of Determination to appraise property owned by San Mateo County for Reach 2 easement Board Handbook
November	Members Agreement (tentative) Winter preparation
December	Three-year rolling workplan review and update
January	Election of new board member positions
February	
March	
April	
May	

Consent Agenda Item 7A – CALPERS SSI Resolution

Background

San Francisquito Creek Joint Powers Authority does not have an active Section 218 Agreement to provide Social Security and Medicare coverage to employees who are members of a retirement system. The SSSA office recommends that the agency resolve this issue to prevent erroneous Social Security and Medicare withholding and reporting that could result in penalties and interest from the IRS. This error could also result in the loss of future Social Security benefits to employees.

Discussion

The SFCJPA has been contributing to SSI and Medicare coverage to employees who are members of the CALPERS retirement system since February 12, 2004. In the past few years CALPERS and SSI have been doing audits of accounts to ensure that agencies that have employees who contribute to SSI and to a retirement system have a Section 218 agreement in place.

A Section 218 Agreement is a voluntary agreement under Section 218 of the Social Security Act between a state and the Social Security Administration (SSA) to provide Social Security and Medicare coverage to state and local government employees.

In its role as California's designated SSSA, CalPERS is primarily responsible for administering Section 218 Agreements for all California public agencies. CalPERS's other responsibilities in that role include processing agreement modifications, educating employers about Social Security and Medicare coverage, and collecting and reporting coverage information to the SSA through the annual information request (AIR).

In February 2021 the Board approved a CALPERS resolution to begin the Section 218 process. Presented to the Board today is a CALPERS resolution to finalize the Section 218 process.

Recommendation

Unless a change is requested, this item is agendized as a consent item for the board’s approval and acceptance of the CALPERS SSI Section 218 Resolution. Adoption of this resolution authorizes the execution of the application and agreement for Social Security coverage for employees of the San Francisquito Creek Joint Powers Authority. Resolution language is from CALPERS SSI and cannot be modified. Recommended action: Accept the CALPERS SSI section 218 Resolution.

Official State Social Security Administrator
California Public Employees' Retirement System

P.O. Box 720720, Sacramento, CA 94229-0720 |Phone: (916) 795-0810 | Fax: (916) 795-3005
888 CalPERS (or **888**-225-7377) | TTY: (877) 249-7442 | **www.calpers.ca.gov/sssa**

September 15, 2021 CalPERS ID No.: 7815455776

Miyko Ann Harris-Parker
Finance & Administration Manager/Clerk Of The Board
San Francisquito Creek Joint Powers Authority
2100 Geng Rd Suite 210, Office Number 208
Palo Alto, CA 94303

Dear Miyko Ann Harris-Parker,

Thank you for submitting the Social Security division election ballots and certification.

The next step is the adoption of the Resolution authorizing execution of the Application and Agreement for Social Security coverage for employees of the San Francisquito Creek Joint Powers Authority who are members of the California Public Employees' Retirement System. We have enclosed two partially completed Resolution and Application and Agreements, to be used. The forms contain the terms of coverage indicated in the Resolution adopted by the San Francisquito Creek Joint Powers Authority Board. Margaret Bruce, as Authorized Agent, should sign all copies of the enclosed Application and Agreement. Two originals of the adopted certified Resolution and two originals of the signed Application and Agreement should be returned to this office.

Upon receipt of the above, we will request the Federal Government to include the San Francisquito Creek Joint Powers Authority in the Social Security program.

These documents should not be modified in any way, as only the content included in the documents provided by this office will be accepted.

If you have any questions regarding the enclosed information, please contact this office at (916) 795-0810.

Sincerely,

Veronica Silva-Gil
State Social Security Administrator Program

Enclosures

RESOLUTION NO. _____

(To Accompany Application and Agreement)

WHEREAS, a division of the California Public Employees' Retirement System with respect to eligible employees of the San Francisquito Creek Joint Powers Authority, hereinafter referred to as "Public Agency", who are members of and in positions covered by said retirement system, has been conducted in accordance with Federal and State Laws and State regulations for the purposes of coverage under the insurance system established by the Federal Social Security Act and a deemed retirement system, hereinafter referred to as Group B of the California Public Employees' Retirement System has been established thereby as provided in Section 218(d)(6) of the Federal Social Security Act, composed of positions of members of such retirement system who desire coverage under the said insurance system; and

WHEREAS, the Public Agency desires to file an application with the State and to enter into an agreement with the State to extend coverage under the said insurance system on behalf of the Public Agency to services performed by individuals as employees of the Public Agency as members of a coverage group, as defined in Section 218(d)(4) of the Federal Social Security Act, of the said Group B of the California Public Employees' Retirement System and

WHEREAS, official form "Application and Agreement" containing the terms and conditions under which the State will affect such inclusion has been examined by this body;

NOW, THEREFORE, BE IT RESOLVED, that said Application and Agreement on said official form be executed on behalf of the Public Agency and submitted to the State to provide coverage under the California State Social Security Agreement of March 9, 1951, of all services performed by individuals as employees of the Public Agency as members of a coverage group (as defined in Section 218(d)(4) of the Social Security Act) of said Group B California Public Employees' Retirement System, except the following:

1. All services excluded from coverage under the agreement by Section 218 of the Social Security Act; and

2. Services excluded by option of the Applicant as indicated in Resolution No. _____ adopted at a meeting of the San Francisquito Creek Joint Powers Authority Board on February 25, 2021:

<u>Part-time positions (less than 20 hours per week)</u>

Effective date of coverage of services under said agreement to be February 12, 2004; and

BE IT FURTHER RESOLVED, that Margaret Bruce, Executive Director, 2100 Geng Rd Suite 210, Office Number 208, Palo Alto, CA 94303, is hereby authorized and directed to execute said Application and Agreement on behalf of and as Authorized Agent of the Public Agency and to forward same to the State for acceptance and further action; and

BE IT FURTHER RESOLVED, that authority hereafter to act as Authorized Agent, and so to conduct all negotiations, conclude all arrangements, submit all reports, and sign all agreements and instruments which may be necessary to carry out the letter and intent of the aforesaid application and agreement, in conformity with all applicable Federal and State laws, rules and regulations, is vested in the position of Executive Director.

San Francisquito Creek Joint Powers Authority

_____
Presiding Officer

_____
Executive Director

_____
Date

CERTIFICATION

I, Margaret Bruce, Executive Director of the San Francisquito Creek Joint Powers Authority, State of California, do hereby certify the foregoing to be a full, true, and correct copy of Resolution No. _____ adopted by the San Francisquito Creek Joint Powers Authority Board of the San Francisquito Creek Joint Powers Authority at the regular/special meeting held on the 23rd day of September, 2021, as the same appears of record in my office.

_____
Signature

_____
Title

_____
Date

APPLICATION AND AGREEMENT

For the purposes of this application and agreement, any reference made herein to any State or Federal statute or statutes, or regulations, or part thereof, applies to all amendments thereto now or hereafter made.

For the purposes of this application and agreement, "Federal System" means Old-Age, Survivors, and Disability and Health Insurance system established by the Federal Social Security Act, "Federal agency" means the Commissioner of Social Security, or successor in function to such officer, "Board" means the Board of Administration of the Public Employees' Retirement System, acting on behalf of the State of California.

The San Francisquito Creek Joint Powers Authority, a public agency as defined in Section 22009 of the Government Code* hereinafter called Applicant, hereby makes application to the Board to execute a modification to the California State Social Security Agreement extending thereunder the Federal System to all services performed by individuals as employees of the Applicant in a coverage group (as defined in Section 218(d)(4) of the Social Security Act*) of the Group B of the California Public Employees' Retirement System, a deemed retirement system established by division of a retirement system pursuant to Section 218(d)(6) of the Social Security Act, composed of positions of members desiring coverage under said insurance system, except the following:

1. Those services mandatorily excluded from said agreement by Section 218 of the Social Security Act. *

2. The following services excluded by option of the Applicant pursuant to Resolution No. _____, adopted on February 25, 2021:

Part-time positions (less than 20 hours per week)

*See Attachment

In order to carry into effect the common governmental duties under such statutes and in consideration of the mutual promises hereinafter made, the Applicant and the Board agree as follows:

1. The Board will execute a modification to the California State Social Security Agreement to extend thereunder the Federal System to the services of employees of Applicant as hereinbefore applied for.
2. Applicant will comply promptly and completely, throughout the term of this application and agreement, with the letter and intent of all statutes of the State of California, and Section 218 of the Federal Social Security Act, and applicable Federal and State regulations adopted pursuant thereto.
3. Applicant shall pay to the Federal Government amounts equivalent to the sum of taxes (employer-employee contributions) imposed under the Federal Insurance Contributions Act if the services of employees covered by the application and agreement constituted employment as defined in such Act. Applicant shall keep or cause to be kept accurate records of all remuneration for such services, said records to be maintained as required by Federal or State regulations, and said records shall be available for inspection or audit by the Board or its designated representative.
4. Applicant will prepare and submit such wage reports as may be required.

5. Applicant shall pay and reimburse the State at such times as may be determined by the State:

(a) Any sums of money that the State may be obligated to pay or forfeit to the Federal Government by reason of any failure of the Applicant, for any cause or reason, to pay the contributions, penalties, or interest required by the agreement between the Federal agency and the State at such time or in such amounts as required by the said agreement and any State or Federal regulations adopted pursuant thereto.

(b) In such amounts as may be determined by the State, its proportionate share of any and all costs incurred by the State in the administration of the Federal System as it affects the Applicant and its employees.

(c) In such amounts as may be determined by the State, the cost of any and all work and services relating to any division for the purposes of coverage under the Federal System held with respect to the coverage group for which coverage under the Federal System is requested herein.

(d) In such amounts as may be determined by the State, the costs of any audits of the books and records of the Applicant made by the State or its designated representatives pursuant to Section 22559 of the Government Code.

6. The coverage herein provided for shall be effective February 12, 2004.

7. That, subject to the aforesaid provisions and applicable law, this application and agreement may be amended by the mutual consent of the parties in writing.

8. After the filing of this application and agreement, its acceptance and execution by the State shall constitute it a binding agreement between the Applicant and the State of California with respect to the matters herein set forth.

San Francisquito Creek Joint Powers Authority

Signed by:

_____
Authorized Agent

And by:

_____
Witness

_____
Title

_____
Date

ACCEPTED: _____
STATE OF CALIFORNIA

BOARD OF ADMINISTRATION
CALIFORNIA PUBLIC EMPLOYEES' RETIREMENT SYSTEM

BY _____
Veronica Silva-Gil
State Social Security Administrator
State Social Security Administrator Program

ATTACHMENT

Section 22009, Government Code:

"Public Agency" means the State, any city, county, city and county, district, municipal or public corporation or any instrumentality thereof, or boards and committees established under Chapter 10 of Division 6 of the Agricultural Code, Chapter 754 of Statutes of 1933, as amended, or Chapter 307 of the Statutes of 1935, as amended, the employees of which constitute one or more coverage groups or retirement system coverage groups.

Section 218(d)(4):

For the purposes of subsection (c) of this section, the following employees shall be deemed to be a separate coverage group:

(A) all employees in positions which were covered by the same retirement system on the date the agreement was made applicable to such system (other than employees to whose services the agreement already applied on such date);

(B) all employees in positions which became covered by such system at any time after such date; and

(C) all employees in positions which were covered by such system at any time before such date and to whose services the insurance system established by this title has not been extended before such date because the positions were covered by such retirement system - including employees to whose services the agreement was not applicable on such date because such services were excluded pursuant to subsection (c)(3)(B).

The following services are mandatorily excluded:

(a) service performed in a policeman's or fireman's position, covered by a retirement system at the time coverage is extended to the Public Agency;

(b) service performed by an individual who is employed to relieve him from unemployment;

(c) service performed in a hospital, home, or other institution by a patient or inmate thereof;

(d) covered transportation service (as defined in Section 210(k) of the Social Security Act, as amended);

(e) service (other than agricultural labor or service performed by a student) which is excluded from employment by any provision of Section 210(a) of the Social Security Act, other than paragraph 7 of such section, or service the remuneration for which is excluded from wages by paragraph (2) of Section 209(h);

(f) service performed by an individual as an employee on a temporary basis in case of fire, storm, snow, earthquake, or similar emergency;

(g) services performed by election officials or election workers for each calendar year in which the remuneration paid for such service is less than the threshold amount mandated by law.

Agenda Item 8.A. Contract with HT Harvey for Mitigation Monitoring and Reporting

Background:

Upon completion of the marsh and riparian restoration that the SFCJPA was required to perform to mitigate the construction impacts of the Reach 1 flood protection project, the clock began on a 10-year monitoring and reporting period on the development and success of the restoration sites. This monitoring and reporting is a requirement of the project's regulatory permits and is done on an annual basis. The cost of the first 3 years of monitoring and reporting were covered in the construction funding agreement for the project. Under that construction funding agreement, the SFCJPA is responsible for completing years 4 – 10 as required by the permitting agencies. A line item to cover this cost for the upcoming year was included and approved in the SFCJPA FY21/22 Operational Budget. Future SFCJPA Operational Budgets will include the same line item.

Discussion:

We released a Request for Proposals on July 1 of this year for a consultant to provide the required mitigation monitoring and reporting, and recommendations for periodic maintenance activities, for the project's mitigation sites for years 4 through 10 (2022 through 2028). SFCJPA and member agency staff participated in a review panel that has selected the responsive proposal.

The contract is in the form of a Master Service Agreement, which spans the 7-year period of the contract. Work under the contract will be authorized on an annual basis through the issuance of annual Task Orders. The Board will be informed of the anticipated cost of each annual Task Order during our Operational Budget deliberations. The anticipated cost will be placed as a line item for that year only, with subsequent annual costs to be approved with each annual Operational Budget. No work will be done by the consultant in any year until the Operational Budget is approved and a Task Order is issued. The total cost of the entire contract over the 7-year period shall not exceed $470,000.00 unless the not-to-exceed amount is increased by an action of the Board.

The entire MSA and Scope of Services are provided below.

Recommended Action:

Authorize the Executive Director to execute the contract with HT Harvey and Associates for mitigation monitoring and reporting

MASTER SERVICE AGREEMENT
FOR THE
San Francisquito Creek Flood Protection, Habitat Restoration and Recreation Project, Reach 1

MITIGATION MONITORING AND REPORTING &
RECOMMENDATIONS FOR HABITAT MAINTENANCE

This MASTER SERVICE AGREEMENT (MSA) is made as of September 23, 2021, by and between the San Francisquito Creek Joint Powers Authority, a body corporate and politic ("Authority"), and Triple HS, Inc. d/b/a H. T. Harvey and Associates, a California Corporation ("Consultant").

R E C I T A L S

A. Authority desires to retains Consultant to perform monitoring and reporting for the restoration sites that serve to mitigate construction impacts of the San Francisquito Creek Flood Protection, Ecosystem Restoration and Recreation Project, Reach 1 (the "Project") as well as provide periodic recommendations for mitigation maintenance and enhancement to meet the success criteria of the Project.

B. Consultant represents that it is fully qualified to perform such services by virtue of its experience and the training, education and expertise of its principals and employees.

NOW, THEREFORE, in consideration of performance by the parties of the promises, covenants, and conditions herein contained, the parties hereto agree as follows:

1. Consultant's Services.

A. Scope of Services. The services to be performed by Consultant are set forth in Exhibit A (the "Services"), attached to this MSA; provided, however, that Consultant shall not provide any Services until such time that the Authority provides a written authorization for such work (such written authorization being a "Task Order"). The Executive Director is authorized to issue Task Orders on behalf of the Authority. On or before February 30 of each year, Consultant shall submit a draft Task Order to the Executive Director identifying the Services to be performed and the estimated cost of such Services for the upcoming fiscal year.

B. Time of Performance. Consultant shall provide the Services in accordance with the schedule of performance set forth in each Task Order issued by Authority.

C. Standard of Care. As a material inducement to Authority to enter into this Agreement, Consultant hereby represents that it has the qualifications and experience necessary to undertake the services to be provided pursuant to this MSA, and will perform the services to a standard of reasonable professional care, for similar services on similar projects of like size and nature performed.

D. Compliance with Law. All services rendered hereunder by Consultant shall be provided in accordance with all ordinances, resolutions, statutes, rules, and regulations of Authority and any federal, state or local governmental agency having jurisdiction in effect at the time service is rendered.

2. Term of Agreement. This Agreement is effective on the date set forth in the initial paragraph of this Agreement and shall remain in effect until the Services are completed, unless earlier terminated pursuant to Section 13.

3. Compensation. The Authority agrees to compensate Consultant for Services according to the fee schedule set forth in each Task Order. In no event shall the total cost of the Services exceed $470,000.00.

4. Representatives.

A. Project Manager. Gavin Archbald has been designated as the representative of Consultant authorized to act in its behalf with respect to the services specified herein. It is expressly understood that the experience, knowledge, capability and reputation of the foregoing Project Manager were a substantial inducement for Authority to enter into this MSA. Therefore, the foregoing Project Manager shall be responsible during the term of this MSA for directing all activities of Consultant and devoting sufficient time to personally supervise the services hereunder. The Project Manager may not be changed by Consultant without the express written approval of Authority; such approval shall not be unreasonably withheld.

B. Contract Administrator. The Contract Administrator and Authority's representative shall be Kevin Murray, or in his absence, an individual designated in writing by the Executive Director of Authority. If no Contract Administrator is so designated, the Executive Director shall be the Contract Administrator. It shall be Consultant's responsibility to keep the Contract Administrator informed of the progress of the performance of the services, and Consultant shall refer any decisions which must be made by Authority to the Contract Administrator. Unless otherwise specified herein, any approval of Authority required hereunder shall mean the approval of the Contract Administrator.

5. Standard of Performance. Consultant shall perform all work to the recognized professional standards relating to habitat maintenance, monitoring and reporting and pursuant to the above stated Standard of Care. Consultant hereby covenants that it shall follow the professional standards used by a competent practitioner in performing all services required hereunder.

6. Ownership of Work Product. All reports, documents or other written material developed by Consultant in the performance of this MSA shall upon payment of all amounts rightfully owed by the Authority to the Consultant herein be and remain the property of Authority without restriction or limitation upon its use or dissemination by Authority. Any reuse or modification of such Documents for purposes other than those intended by the Consultant herein shall be at the Authority's sole risk and without liability to the Consultant.

7. Status as Independent Contractor. Consultant is, and shall at all times remain as to Authority, a wholly independent contractor. Consultant shall have no power to incur any debt, obligation, or liability on behalf of Authority or otherwise act on behalf of Authority as an agent. Neither Authority nor any of its agents shall have control over the conduct of Consultant or any of Consultant's employees, except as set forth in this Agreement. Consultant shall not, at any time, or in any manner, represent that it or any of its agents or employees are in any manner employees of Authority. Consultant agrees to pay all required taxes on amounts paid to Consultant under this Agreement, and to indemnify and hold Authority harmless from any and all taxes, assessments, penalties, and interest asserted against Authority by reason of the independent contractor relationship created by this Agreement. Consultant shall fully comply with

the workers' compensation law regarding Consultant and Consultant's employees. Consultant further agrees to indemnify and hold Authority harmless from any failure of Consultant to comply with applicable worker's compensation laws. Authority shall have the right to offset against the amount of any fees due to Consultant under this Agreement any amount due to Authority from Consultant as a result of Consultant's failure to promptly pay to Authority any reimbursement or indemnification arising under this Section.

8. Confidentiality. Consultant, in the course of its duties, may have access to financial, accounting, statistical, and personal data of private individuals and employees of Authority. Consultant covenants that all data, documents, discussion, or other information developed or received by Consultant or provided for performance of this Agreement shall not be disclosed by Consultant without written authorization by Authority. Authority shall grant such authorization if disclosure is required by law. Upon request, all Authority data shall be returned to Authority upon the termination of this Agreement. Consultant's covenant under this section shall survive the termination of this Agreement. It is hereby agreed that the following information is not considered to be confidential under this Agreement:

a) Information already in the public domain;
b) Information disclosed to Consultant by a third party who is not under a confidentiality obligation;
c) Information developed by or in the custody of Consultant before entering into this Agreement;
d) Information developed by Consultant through its work with other clients; and
e) Information required to be disclosed by law or regulation, including, but not limited to, subpoena, court order or administrative order, or the California Public Records Act.

9. Conflict of Interest. Consultant covenants that it presently has no interest and shall not acquire any interest, direct or indirect, which may be affected by the services to be performed by Consultant under this Agreement, or which would conflict in any manner with the performance of its services hereunder. Consultant further covenants that, in performance of this Agreement, no person having any such interest shall be employed by it. Furthermore, Consultant shall avoid the appearance of having any interest which would conflict in any manner with the performance of its services pursuant to this Agreement. Consultant agrees not to accept any employment or representation during the term of this Agreement which is or may likely make Consultant "financially interested" (as provided in California Government Code Sections 1090 and 87100) in any decision made by Authority on any matter in connection with which Consultant has been retained pursuant to this Agreement. Nothing in this section shall, however, preclude Consultant from accepting other engagements with Authority.

10. Indemnification.

A. Consultant shall defend, hold harmless and indemnify the Authority, its Board members, officers, employees, and agents, its constituent local public entities, and its constituent members' respective officers, employees, and agents (collectively, "Indemnitees"), from any and all costs, expenses, losses, claims, damages and liabilities directly or indirectly arising out of or in connection with the activities of the Consultant.

B. Authority does not, and shall not, waive any rights that they may possess against Consultant because of the acceptance by Authority, or the deposit with Authority, of any insurance

policy or certificate required pursuant to this Agreement. This hold harmless and indemnification provision shall apply regardless of whether or not any insurance policies are determined to be applicable to the claim, demand, damage, liability, loss, cost or expense. Consultant agrees that Consultant's obligations under this section 10 shall survive the termination of this Agreement.

11. Insurance.

A. Liability Insurance. Consultant shall procure and maintain for the duration of this Agreement insurance against claims for injuries to persons or damages to property which may arise from or in connection with the performance of the work hereunder by Consultant, its employees, agents, representatives, or subcontractors.

B. Minimum Scope of Insurance. Coverage shall be at least as broad as:

(1) Insurance Services Office Commercial General Liability coverage (occurrence form CG 0001) or the equivalent.

(2) Insurance Services Office form number CA 0001 (Ed. 1/87) covering Automobile Liability, code 1 (any auto) or the equivalent.

(3) Worker's Compensation insurance as required by the State of California and Employer's Liability Insurance.

C. Minimum Limits of Insurance. Consultant shall maintain limits no less than:

(1) General Liability: $1,000,000 per occurrence for bodily injury, personal injury and property damage. Any general aggregate limit shall apply separately to this Agreement or the general limit shall be twice the required occurrence limit.

(2) Automobile Liability: $1,000,000 per accident for bodily injury and property damage.

(3) Employer's Liability: $1,000,000 per accident for bodily injury or disease.

D. Deductibles and Self-Insured Retentions. Any deductibles or self-insured retentions must be declared to and approved by Authority. At the option of Authority's Executive Director, either the insurer shall reduce or eliminate such deductibles or self-insured retentions as respects to Authority, its officers, officials, employees and agents; or Consultant shall procure a bond guaranteeing payment of losses and related investigations, claim administration and defense expenses.

E. Other Insurance Provisions. The general liability and automobile liability policies are to contain, or be endorsed to contain, the following provisions:

(4) Indemnitees are to be covered as additional insureds under such policies. The coverage shall contain no special limitations on the scope of protection afforded to Authority, its officers, employees and agents.

(5) For any claims related to this Agreement, Consultant's insurance coverage shall be primary insurance as respects Authority. Any insurance or self-insurance maintained by Authority shall be excess of Consultant's insurance and shall not contribute with it.

(6) Any failure to comply with reporting or other provisions of the policies, including breaches of warranties shall not affect coverage provided to Authority, their officers, employees, and agents.

(7) Consultant's insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the insurer's liability.

(8) Each insurance policy required by this clause shall be endorsed to state that coverage shall not be suspended, voided, or cancelled by either party, except after 30 days prior written notice by certified mail, return receipt requested, has been given to Authority.

F. Acceptability of Insurers. Insurance is to be placed with insurers with a current A.M. Best's rating of no less than A:VII unless waived by Authority's Executive Director.

G. Verification of Coverage. Consultant shall furnish Authority with original endorsements effecting coverage required by this section. The endorsements are to be signed by a person authorized by that insurer to bind coverage on its behalf. The endorsements are to be on forms provided by Authority. All endorsements are to be received and approved by Authority before work commences. As an alternative to Authority forms, Consultant may elect to have its insurer provide complete, certified copies of all required insurance policies, including endorsements effecting the coverage required by these insurance specifications.

H. Subcontractors. Consultant shall include all subcontractors as insureds under its policies or shall furnish separate certificates and endorsements for each subcontractor. All coverages for subcontractors shall be subject to all of the requirements stated herein.

12. Cooperation. In the event any claim or action is brought against Authority relating to Consultant's performance or services rendered under this Agreement, Consultant shall render any reasonable assistance and cooperation which Authority might require.

13. Termination. Authority shall have the right to terminate the services of Consultant at any time, without cause, on 5 calendar days written notice to Consultant. In the event this Agreement is terminated by Authority, Consultant shall be paid for any services properly performed to the last working day the Agreement is in effect, and Consultant shall have no other claim against Authority by reason of such termination, including, but not limited to, any claim for compensation.

14. Suspension. Authority may, in writing, order Consultant to suspend all or any part of the Services at the sole and absolute discretion of the Executive Director of the Authority.

Subject to the provisions of this Agreement relating to termination, a suspension of the work does not void this Agreement. In the event that work is suspended for a period exceeding 120 days, the schedule and cost for completion of the work will be adjusted by mutual consent of the parties.

15. Notices. Any notice, request, demand or other communication under this MSA shall be given by first class mail or personal delivery to the party entitled to such notice at its address set forth below. Notice shall be effective (a) if personally served or delivered, upon delivery, (b) if given by electronic communication, whether by telecopier or other forms, upon the sender's receipt of an appropriate answer back or other written acknowledgment or confirmation of receipt of the entire notice, approval, demand, report or other communication, (c) if given by first class, registered or certified mail, return receipt requested, deposited with the United States mail postage prepaid, 72 hours after such notice is deposited with the United States mail, (d) if given by overnight courier, with courier charges prepaid, 24 hours after delivery to said overnight courier, or (e) if by other means of personal delivery, upon receipt by the intended recipient of the notice. Each entity below may, by written notice to the other party, from time to time modify the address or number to which communications are to be given under this Indenture:.

Authority:

SFCJPA
2100 Geng Road, Ste 210
Palo Alto, CA 94303
Attention: Kevin Murray

Consultant:

Triple HS, Inc. d/b/a H. T. Harvey and Associates
983 University Avenue, Bldg. D
Los Gatos, CA 95032
Attention: Gavin Archbald

16. Non-Discrimination and Equal Employment Opportunity. In the performance of this Agreement, Consultant shall not discriminate against any employee, subcontractor, or applicant for employment because of race, color, creed, religion, sex, marital status, national origin, ancestry, age, physical or mental handicap, medical condition, or sexual orientation. Consultant will take affirmative action to ensure that employees are treated without regard to their race, color, creed, religion, sex, marital status, national origin, ancestry, age, physical or mental handicap, medical condition, or sexual orientation.

17. Assignability; Subcontracting. Neither party shall assign, transfer, or subcontract any interest in this Agreement or the performance of any obligation hereunder, without the prior written consent of the other party, and any attempt by a party to so assign, transfer, or subcontract any rights, duties, or obligations arising hereunder shall be void and of no effect.

18. Compliance with Laws. Consultant shall comply with all applicable laws, ordinances, codes and regulations of the federal, state, and local governments.

19. Non-Waiver of Terms, Rights and Remedies. Waiver by either party of any one or more of the conditions of performance under this Agreement shall not be a waiver of any other

condition of performance under this Agreement. In no event shall the making by Authority of any payment to Consultant constitute or be construed as a waiver by Authority of any breach of this Agreement, or any default which may then exist on the part of Consultant, and the making of any such payment by Authority shall in no way impair or prejudice any right or remedy available to Authority with regard to such breach or default.

20. Attorney's Fees. In the event that either party to this Agreement shall commence any legal action or proceeding to enforce or interpret the provisions of this Agreement, the prevailing party in such action or proceeding shall be entitled to recover its costs of suit, including reasonable attorney's fees. The venue for any litigation shall be San Mateo County or Santa Clara County.

21. Exhibits; Precedence. All documents referenced as exhibits in this Agreement are hereby incorporated in this Agreement.

22. Entire Agreement. This Agreement, and any other documents incorporated herein by specific reference, represent the entire and integrated agreement between Authority and Consultant. This Agreement supersedes all prior oral or written negotiations, representations or agreements. This Agreement may not be amended, nor any provision or breach hereof waived, except in a writing signed by the parties to this Agreement.

[*remainder of page intentionally left blank*]

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date first written above.

"Authority"	"Consultant"
San Francisquito Creek Joint Powers Authority	HT Harvey and Associates
By:_____	By:_____
Margaret Bruce, Executive Director	Max Busnardo, Principal

SAN FRANCISQUITO CREEK
JOINT POWERS AUTHORITY

RESOLUTION NUMBER 21-09-23 A

RESOLUTION OF THE BOARD OF DIRECTORS OF THE SAN FRANCISQUITO CREEK JOINT POWERS AUTHORITY APPROVING CONSULTANT SERVICES AGREEMENT FOR MITIGATION MONITORING AND REPORTING WITH HT HARVEY AND ASSOCIATES AND AUTHORIZING EXECUTIVE DIRECTOR TO EXECUTE AND DELIVER THE AGREEMENT

BE IT RESOLVED by the Board of Directors of the San Francisquito Creek Joint Powers Authority that the Board of Directors hereby approves a consultant services agreement with HT Harvey and Associates for Reach 1 Mitigation Monitoring and Reporting, for a seven-year period and for a total amount not to exceed $470,000.00 and authorizes the Executive Director to execute and deliver the agreement.

Approved and adopted on September 23, 2021, the undersigned hereby certify that the foregoing Resolution was duly adopted by the Board of Directors of the San Francisquito Creek Joint Powers Authority.

INTRODUCED AND PASSED:
AYES:
NOES:
ABSENT:
ABSTAIN:
ATTEST: APPROVED:

_____ Date: 09/23/2021
Vice Chairperson

_____ Date: 09/23/2021
Chairperson

APPROVED AS TO FORM:

_____ Date: 09/23/2021

Legal Counsel

Exhibit A

Workplan for Each Task

The request for proposal identifies six main tasks. The detailed work plan for each task is described below. The budget for this workplan itemized by the JPA's fiscal year (July 1-June 30). Project "Years" below are defined as: Year 4 is from July 1, 2021-June 30 2022; Year 5 is from July 1, 2022-June 30, 2023, etc. A 20% contingency has been included in Task 7 to cover unanticipated costs that may arise over the 7 year monitoring period which are not covered under Tasks 1-6.

Task 1. Coordination with Valley Water for Annual Ridgway's Rail Surveys

The project's Section 7 Biological Opinion and Mitigation and Monitoring Plan (MMP) requires annual California Ridgway's rail (*Rallus obsoletus obsoletus*) surveys in tidally influenced areas of SF Creek and along the Faber Marsh levee to evaluate the effectiveness of the mitigation measures to support the Ridgway's rail population. Surveys are required annually between February and April for the duration of mitigation monitoring, which is 10 years. The survey plans require annual approval by the U. S. Fish and Wildlife Service (USFWS). We understand that Valley Water staff have the required 10a1A permits and will lead the protocol surveys. Therefore, H. T. Harvey's budget assumes that the survey plan will be prepared by Valley Water. A senior wildlife ecologist (Steve Rottenborn) will provide comments on the survey plan prior to Valley Water's submittal to USFWS. Steve Rottenborn is approved by USFWS to perform protocol level surveys.

H. T. Harvey wildlife ecologists will assist Valley Water's biologist during protocol surveys. Because Valley Water's permitted biologists will lead the survey, the wildlife ecologists assisting Valley Water will not need to be approved by USFWS to perform protocol surveys. They will, however, be experienced identifying Ridgway's rail by sight and sound and will be fully prepared to assist Valley Water in the field during the protocol surveys.

H. T. Harvey will provide 2 wildlife ecologists per protocol survey event in Years 4-9 to assist Valley Water. No surveys are needed in fiscal Year 10 because surveys for the final year of monitoring fall in fiscal Year 9. We assume the following for budgetary purposes:

- Two protocol survey events (active or passive) per year.
- Each protocol survey event will consist of 4 morning field visits.
- The spring 2021 survey event (for inclusion in the Year 4 monitoring report) have been completed, since the MMP calls for surveys in February-April.

Based on these assumptions, the total cost per survey event is $5,317 and the cost per year is $10,634 in fiscal Year 4 (fiscal Year 4 survey results to be included in the Year 5 monitoring report). The cost has been integrated for Years 4-9 in the Fee Schedule. Note that fiscal Year 9 surveys will be included in the Year 10 annual report.

Task 2. Mitigation Site Monitoring

Task 2.1. Tidal Wetland Vegetation Monitoring

The MMP calls for qualitative (i.e., reconnaissance level) and quantitative monitoring in the project's constructed tidal marsh along SF Creek and in a reference marsh. The following bullets summarize the work plan. Monitoring will be performed by two H. T. Harvey restoration ecologists during September-October.

- Qualitative marsh vegetation monitoring is required in Years 4-10. The monitoring consists of reconnaissance-level field observations and photo-documentation during a low tide. Our ecologists will

walk the extent of the restored tidal marsh and make observations of abiotic conditions relevant to plant species composition, coverage, general plant health, conditions by planting zone, invasive plants, and issues affecting vegetation establishment. We will collect photo documentation from all locations established by Valley Water in Years 1-3 showing planting zones and overall marsh habitat condition.

- Quantitative marsh monitoring is required in Years 4, 5 and 10. The monitoring consists of sampling vegetation cover and health by species using the quadrat method for comparison to the success criteria. The number of quadrat samples will be based on variability in cumulative cover, as described in the MMP. Valley Water will collect this data in Year 4. In subsequent years, H. T. Harvey will initially collect data in 26 quadrats in the lower marsh and 10 quadrats in the upper marsh, following the methods performed by Valley Water in Years 1-4.
- In Years 5 and 10, vegetation cover and health and vigor will be assessed in the reference marsh established for the project: Crittenden Marsh in Mountain View. We will initially sample 20 quadrats at Crittenden marsh and additional quadrats as needed based on the resulting variability in cumulative average percent cover. The average cover of wetland indicator species in the reference marsh and restored marsh will be compared per the MMP methods to determine if marsh plain success criteria are met in Years 5 and 10.
- The MMP requires a wetland delineation in Year 5 to determine whether at least 16.86 ac of U. S. Army Corps of Engineers (USACE) jurisdictional habitats are restored in the project footprint and whether at least 6.9 ac of that area qualifies as essential fish habitat (EFH). EFH is defined in the MMP as all USACE jurisdictional tidal marsh and tidal channel habitats occurring at or below Mean Higher High Water (7.1 ft NAVD88). H. T. Harvey's restoration ecologists trained in USACE delineation methods will complete the Year 5 wetland delineation. Our wetland delineation will follow the USACE's 1987 Corps of Engineers Wetlands Delineation Manual and the *2008 Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0)*. We will map the jurisdictional wetland extent with a Trimble GPS unit and determine the extent of EFH within the wetland area using Lidar collected in the study area in 2020 and field observations. One reconnaissance vegetation survey of areas above the regular reach of tides will be provided in spring of 2022. The main effort for the delineation will be carried out in the fall of 2022 after the rail breeding season. The resulting delineation will be attached to the Year 5 monitoring report.

Task 2.2. Monitoring of High-tide Refugia Islands

The MMP calls for a combination of qualitative and quantitative monitoring of the five high tide refuge islands constructed in Outer Faber Marsh. Monitoring will be performed by two H. T. Harvey restoration ecologists during September and October. Specifically:

- Reconnaissance level field observations will be collected in Years 4-10 documenting the ecological condition of the islands. Observations will consist of vegetation cover and observation of any conditions that could affect the intended function of the islands. Photo documentation will be collected.
- Top of island elevations will be measured using a laser level in Years 5 and 10 relative to the elevation control stake installed at each island. The heights of all gumplant plants will be recorded and the cover of vegetation by species on islands will be estimated for comparison to the success criteria.

Task 2.3. Monitoring of Faber Marsh Levee Enhancements

Faber Marsh levee enhancements consist of a 7.7 acre berm enhancement planting area. The target habitat in the berm enhancement area is a mixture of herbaceous vegetation and shrub patches to provide habitat for the salt marsh harvest mouse (*Reithrodontomys raviventris*) and Ridgway's rail, respectively. The MMP calls for quantitative monitoring in Years 4, 5 and 10 and reconnaissance level qualitative monitoring in Years 6-9. H. T. Harvey completed quantitative monitoring in Year 4 in July 2021. The following monitoring of the levee enhancements will be performed by two H. T. Harvey restoration ecologists:

- Quantitative monitoring of shrub patches and herbaceous cover (three days per event) in Years 5 and 10.
- Qualitative monitoring of shrub patches and herbaceous cover (half day per event) in Years 6-9.

Qualitative monitoring will include observations of vegetation cover, issues that could affect habitat establishment, and photo documentation. Quantitative monitoring will include:

- Percent cover of shrub patches using the line intersect method along permanent transects.
- Estimated percent cover in shrub patches without transects.
- Measurements of the length, width, distance of transect shrub patches.
- Quadrat sampling of herbaceous cover outside of patches and photo documentation

Task 2.4. Monitoring of Riparian Tree Mitigation

To mitigate riparian impacts, the project was required to protect trees along SF Creek adjacent to construction and to replace 108 oaks and 166 other native trees offsite. To meet the replacement goal, 280 trees and willow cuttings were planted along SF Creek between Guinda Street and Chaucer Street (the SF Creek planting area) and 50 existing trees were protected from deer browse with cages at the Arastradero Preserve (330 total trees). The final success criteria among the two sites is 108 oak trees and 166 non-oak trees alive in Year 10 and 50% cover of native woody and herbaceous species (at the SF Creek planting area) in Year 10.

The following monitoring will be performed by two H. T. Harvey restoration ecologists:

- The survival of protected trees on site at SF Creek adjacent to construction will be assessed in Year 4 and 5. Monitoring methods are not included in the MMP. Monitoring will be conducted using the methods in the project's Year 3 annual monitoring report: "analyzing aerial imagery and inspecting the areas for any dead trees in the field."
- The percent survival and health and vigor of the 330 planted and caged trees will be visually assessed in the field in Years 5 and 10 for comparison to the success criteria in Year 10.
- Percent cover of the planted vegetation at the SF Creek planting area will be assessed using the line intercept method along fixed length permanent transects (installed in Year 3). Percent cover will not be assessed for caged saplings at the Arastradero Preserve (per the MMP).

Task 2.5. Velocity Refuge Features and Geomorphic Stability

The MMP requires monitoring of geomorphic stability for by a qualified geomorphologist and monitoring of fish passage elements, vegetation, and channel performance "as it relates to fish passage conditions" by a fisheries biologist. A geomorphologist from Balance will provide the geomorphic stability monitoring and sediment deposition monitoring. H. T. Harvey staff will evaluate the fish passage elements as described below.

- **Geomorphic Monitoring.** Balance will visit the six velocity refuge structures and the constructed marsh plain annually in Years 4 through 10 to conduct geomorphic monitoring following the methodology in the MMP. During each annual visit a qualitative assessment of channel dimensions, geomorphic stability, and fish passage at the six velocity refuge features will be conducted concurrently with sediment deposition monitoring (bullet below). At the velocity refuge features, a geomorphologist will conduct a qualitative, visual field assessment of apparent scour around the structures and/or any other potential indicators of instability. Field sketches will be prepared to document key geomorphic features at each location and, when possible, photos will be taken of the structures for comparative interpretation from year to year.
- **Sediment Deposition Monitoring.** The Year-3 report recommended monitoring sediment accretion on the constructed marsh plain twice per year during 2020 and 2021 (Valley Water and H. T. Harvey 2019). We assume that the first monitoring visit during 2021 (following the wet season) has already occurred, and thus our scope assumes only one visit during Year-4 of the monitoring program and one annual visit for subsequent years (Year-5 through Year-10). The length of the marsh plain immediately downstream of the outfall channel (at HWY 101) will be traversed on foot during low tide to visually assess the longitudinal extent of sediment deposition, as depicted in the Year 3 report. Additionally, sediment depth will be measured along two transects established by Valley Water in prior years located between HWY 101 and the maintenance ramp downstream of HWY 101. Sediment on top of the constructed marsh plain will be measured by Valley Water along each transect at three to five evenly-spaced locations measurements using a graduated rod during Year 4. In Year 4, the H. T. Harvey team will collect elevational cross sections along each of Valley Water's sediment measurement transects with a laser level to characterize the elevation of the marsh plain and channels. These cross sections will be able to be re-measured in Years 5-10 to characterize sediment deposition in this area and the data will be provided to the JPA for operations and maintenance
- **Fisheries Habitat.** An H. T. Harvey fisheries ecologist will review the relevant site observations and geomorphology monitoring results and develop a professional opinion regarding whether the creek, restored marsh plain, and the velocity refuge structures are providing adequate fish passage and habitat conditions, as required in the MMP. This opinion will be conveyed in the annual reports (Task 3).4

Task 3. Regulatory Reporting

The H. T. Harvey team will prepare annual monitoring reports in Years 4-10 that meet the requirements in the MMP. The reports will utilize applicable text, tables, figures and structure of the project's Year 3 monitoring report for efficiency. Each annual report will be sent to the JPA for review by November 15. H. T. Harvey will revise each annual report based upon JPA comments and generate final annual reports by December 20 of each monitoring year for submission to the regulatory agencies. If requested by the JPA, H. T. Harvey will submit each report to the agencies by December 31 of each monitoring year. The following assumptions are included:

- The Year 4 report will utilize data collected and analyzed by H. T. Harvey for berm enhancements areas at Faber Marsh in July 2021 and data collected by Valley Water on sediment deposition in Year 4.
- A report of Ridgway's rail protocol surveys will be included as an attachment to each annual monitoring report. We assume that Valley Water will prepare these reports, as in prior years.'
- Success criteria will be met and JPA will not need assistance with regulatory agency communications.
- Qualitative (reconnaissance survey) results will be presented as narrative paragraphs.
- Quantitative results will be presented in tables, graphs, or narrative paragraphs, as needed.

- The Year 5 wetland delineation methods and results will be included in the Year 5 monitoring report.
- Annual reports will include a pesticide use report, as required by USFWS and described in Task 4.

Task 4. Mitigation Maintenance Recommendations

We understand that the JPA will retain contractor(s) to provide maintenance at the project's mitigation sites, including weed control and replacement planting. H. T. Harvey restoration ecologists will assist the JPA by conducting periodic site visits (in addition to annual monitoring) to assess vegetation maintenance needs and will prepare memoranda with maintenance recommendations. An H. T. Harvey restoration ecologist will:

- Provide 1 site visit per year to the riparian mitigation area in Years 4 and 6-9. No annual riparian mitigation monitoring is required in these years, therefore, these visits will enable H. T. Harvey to visit these sites annually to identify maintenance issues.
- No site visits to assess maintenance needs will be provided in the berm enhancement area or SF Creek marsh restoration area in Year 4 because such needs will be assessed in a timely way during Year 4 annual monitoring.
- Provide 2 site visits per year during the growing season in Year 5 in the berm enhancement areas, and the SF Creek tidal marsh restoration area, reduce to 1 site visit per year in Years 6-10. The site visits will be focused on assessing the adequacy of site specific maintenance (e.g., irrigation in the berm enhancement area, need for weed control in mitigation areas).
- Following each site visit in Years 4-10, an H. T. Harvey ecologist will generate a list of maintenance recommendations. The recommendations will be provided the JPA as a maintenance memoranda that describe the type and location of recommended maintenance work.
- In Years 4-10, up to 2 times per year, an H. T. Harvey ecologist will meet the JPA's contractor at the start of work to review maintenance activities to be performed. We assume that maintenance activities may occur in different places at different times and by different contractors. Therefore, an ecologist will not meet the contractor at the start of all maintenance events – the 2 specific meetings provided to review maintenance activities will be selected to maximize the value of H. T. Harvey's input.
- We assume pesticide use will be necessary to control invasive plants within the Don Edwards National Wildlife Refuge (Refuge). Therefore, an H. T. Harvey ecologist will work with the JPA's contractor to prepare up to 3 Pesticide Use Proposals for approval by USFWS. For any years in which pesticides are used within the Refuge, H. T. Harvey will prepare a Pesticide Use Report for inclusion in the annual monitoring report (Task 3). We assume up to 6 pesticide use reports will be necessary.
- The JPA will establish nursery contracts for replacement plant. H. T. Harvey will assist with nursery coordination for up to 8 hours per year in Years 4-7 and up to 6 hours per year in Years 7-9.

Task 5. Biological Monitoring During Maintenance Activities

One H. T. Harvey wildlife ecologist will provide pre-work surveys for Ridgway's rail and salt marsh harvest mouse at the start of each day's maintenance activities in the restored marsh along SF Creek, the refuge islands, or the berm enhancement area at Faber Marsh. Pre-work wildlife surveys are required to comply with the projects USFWS and CDFW permits prior to weeding or planting in the restored marsh, refuge islands, or the berm enhancement area. No mechanical weed control is anticipated as part of ongoing maintenance, therefore no on-site biological monitoring is anticipated. Our fee assumes the following quantity of pre-work surveys:

- Year 4-6: Up to 15 pre-work surveys per year.
- Year 7-10: Up to 10 pre-work surveys per year.

Task 6. Project Management

This task includes time for an H. T. Harvey project manager to coordinate the above tasks with Valley Water, Balance, and the JPA. This also includes time to prepare annual fiscal year scopes of work.

Task 7. Contingency

The contingency budget provides a source of funding for additional tasks which may arise during the monitoring period that are related to achieving the project's mitigation monitoring goals. Use of the contingency budget by the H. T. Harvey team would require written authorization from the JPA.

References

Valley Water and H. T. Harvey & Associates. 2019. San Francisquito Creek Flood Reduction, Ecosystem Restoration, and Recreation Project - San Francisco Bay to Highway 101, Year 2 (2019) Mitigation Monitoring Report. Santa Clara Valley Water District, San Jose, California and H. T. Harvey & Associates, Los Gatos, California.

Santa Clara Valley Water District. 2016. San Francisquito Creek Flood Reduction, Ecosystem Restoration, and Recreation Project - San Francisco Bay to Highway 101, Mitigation and Monitoring Plan, San Jose, California.

H. T. HARVEY & ASSOCIATES
Ecological Consultants

50 years of field notes, exploration, and excellence

Project Name: San Francisquito Creek Reach 1 Mitigation Monitoring and Reporting

Proposal Number: 10742

Date: September 16, 2021

Staff Time Estimates

	Personnel Hours by Task														
Task	**Max Busnardo** Principal, Restoration Ecology $ 270	**Steve Rottenborn** Principal, Wildlife Ecology $ 281	**Gavin Archbald** Senior Restoration Ecologist $ 205	**Zachery Gizicki** Restoration Ecologist $ 141	**Andi Greene** Restoration Biologist $ 123	**Craig Fosdick** Wildlife Ecologist $ 160	**Jane Lien** Wildlife Ecologist $ 160	**Robin Carle** Associate Wildlife Ecologist $ 226	**Steve Carpenter** Wildlife Ecologist $ 141	**Sharon Kramer** Principal, Fish Ecology $ 270	GIS Analyst $ 129	Technical Support $ 98	**HTH Cost by Task**	**Annual Labor Escalation (3%)**	**HTH Direct Expenses (incl. 10% mark-up)**	**Subcontractor (Balance Hydrologics)**	**Total Project Cost**
Year 4 (2021-22) Monitoring and Reporting	12	1	50	106	69	32	32	3	53	3	16	8	$ 59,253	$ 59,253	$ 1,334	6,731	$ 67,991
Year 5 (2022-23) Monitoring and Reporting	14	1	43	104	166	32	32	3	53	3	16	8	$ 70,007	$ 72,107	$ 1,688	5,857	$ 80,238
Year 6 (2023-24) Monitoring and Reporting	6	1	20	16	63	32	32	3	53	3	4	4	$ 36,115	$ 38,314	$ 980	6,091	$ 45,995
Year 7 (2024-25) Monitoring and Reporting	6	1	20	12	63	32	32	2	35	3	4	4	$ 32,787	$ 35,827	$ 857	6,334	$ 43,652
Year 8 (2025-26) Monitoring and Reporting	6	1	17	12	61	32	32	2	35	3	4	4	$ 31,926	$ 35,933	$ 832	6,588	$ 44,012
Year 9 (2026-27) Monitoring and Reporting	6	1	17	36	85	32	32	2	35	3	4	4	$ 38,262	$ 44,356	$ 832	6,851	$ 52,725
Year 10 (2027) Monitoring and Reporting	9	0	25	78	81	0	0	2	35	3	8	4	$ 36,137	$ 43,149	$ 778	7,125	$ 51,765
Total Labor Hours	**59**	**6**	**192**	**364**	**588**	**192**	**192**	**17**	**299**	**21**	**56**	**36**	Total Costs		**$7,303**	**$45,577**	Total Cost
TOTAL COST	**$ 15,930**	**$ 1,686**	**$ 39,360**	**$ 51,324**	**$ 72,324**	**$ 30,720**	**$ 30,720**	**$ 3,842**	**$ 42,159**	**$ 5,670**	**$ 7,224**	**$ 3,528**	$304,487	$328,940	$7,303	$50,135	**$386,378**
Contingency (20% of total cost)																	**$77,276**
Not To Exceed Limit																	**$463,653**

Billing rates are subject to annual increases and will be adjusted at the beginning of each calendar year.

SAN FRANCISQUITO CREEK
JOINT POWERS AUTHORITY

RESOLUTION NUMBER 21-09-23-B

RESOLUTION OF THE BOARD OF DIRECTORS OF THE SAN FRANCISQUITO CREEK JOINT POWERS AUTHORITY ACCEPTING COMPREHENSIVE PLAN 2021 UPDATE

BE IT RESOLVED by the Board of Directors of the San Francisquito Creek Joint Powers Authority that the Board of Directors hereby accepts the 2021 update to the SFCJPA's Comprehensive Plan.

Approved and adopted on September 23, 2021, the undersigned hereby certify that the foregoing Resolution was duly adopted by the Board of Directors of the San Francisquito Creek Joint Powers Authority.

INTRODUCED AND PASSED:
AYES:
NOES:
ABSENT:
ABSTAIN:

ATTEST:

_____ Date: 9/23/2020
Vice Chairperson

APPROVED:

_____ Date: 9/23/2020
Chairperson

APPROVED AS TO FORM:

_____
Legal Counsel Date: 9/23/2020

Agenda Item 7B: SFCJPA Comprehensive Plan 2021 Update

Background

The SFCJPA provided a draft 2021 Comprehensive Plan with preliminary staff edits and updates for Board and Public comments as part of the Board package for the June 24, 2021 Board Meeting. This plan was initially developed in 2020 to communicate our purpose and projects to diverse audiences. The Board approved the Comprehensive Plan in November 2020.

For this update, comments were received from four individuals, and the updated plan in the Board Package incorporates the suggestions made in these comments. In addition, staff reviewed the document for general updates and past comments. The resulting draft is provided for Board approval.

Two versions are provided - one that shows proposed changes in redline/strikeout, and the second is a clean copy with those changes incorporated for Board approval consideration under Resolution 21-09-23-B.

Additional information

The 2021 comments can be summarized as follows:

- Add a section on history of major modifications to the creek;
- Include a reference graphic that shows the approximate locations of widening Sites 1 through 5 for the Reach 2 work.
- Add request to FEMA as a means to potentially reduce flood insurance premiums as Reach 2 project is completed (SFCJPA separately determined that with FEMA Risk 2.0 this may be helpful for Reach 1 Project)
- Community member indicating their support for the Reach 2 project and noting their sense of urgency for the project.

The commentors also suggested several editorial updates that were helpful in creating a readable, clear and consistent document and are sincerely appreciated.

This document will be reviewed and *updated May-August 2022,* tracking progress on projects, and updating relevant changes to organizational or other watershed information. Future updates may include additional maps and graphics and may document any organization changes.

ACTION:

Recommend approval of the 2021 Updated Comprehensive Plan

COMPREHENSIVE PLAN

This Comprehensive Plan is the SFCJPA's description of our vision and action plan for the benefit of our member agencies, residents, and stakeholders. The SFCJPA has always considered a watershed approach for our work, and this document is intended to chronicle our overall plan. This plan is a living document and will be revisited annually during July and August and updated to reflect recent or anticipated activities and events that affect the watershed.

San Francisquito Creek Joint Powers Authority

SAN FRANCISQUITO CREEK
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REVISION HISTORY

Revision #	Revision Date	Revisions Made
0	November 2020	Initial Plan
1	September 2021	Minor updates to project nomenclature, annual updates, and incorporation of 2021 stakeholder comments
2		

ACKNOWLEDGEMENTS

This plan was prepared through a collaboration of stakeholders coordinated by the San Francisquito Creek Joint Powers Authority, the members of which are the Cities of East Palo Alto, Menlo Park and Palo Alto; the Santa Clara Valley Water District and the San Mateo County Flood and Sea Level Rise Resiliency District. We thank our reviewers for their thoughtful comments that have made this a better plan.

SAN FRANCISQUITO CREEK
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Contents

Figure 1. San Francisquito Creek Watershed and Alluvial Fan

Figure 2. FEMA Floodplain Designation for Creek and Bay with approximate parcels in each that will be addressed by SFCJPA Projects

SAN FRANCISQUITO CREEK
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Summary

This Comprehensive Plan describes the SFCJPA's vision, goals, and action plan for the San Francisquito Watershed for the benefit of our member agencies, watershed partners and stakeholders. San Francisquito Creek is an asset unifying the communities it touches, providing ecosystem and recreation services. The San Francisquito Creek Joint Powers Authority (SFCJPA) works with its members and watershed partners to address the interrelated issues of flood protection, ecosystem restoration and creation of recreational opportunities along the creek and in the watershed.

Our overarching goal, working with our member agencies and partners, is to implement a suite of interrelated actions, each with independent utility but together comprising a comprehensive approach with multiple benefits to all inhabitants of the watershed. The SFCJPA's action plan to achieve our vision and overarching goal is to implement the following projects that are components of the SFCJPA's plan to cost effectively provide protection to people and infrastructure, while improving habitat and recreational opportunities:

Reach 1 - San Francisco Bay to Highway 101 "Downstream Project"

This completed project was the necessary first step in our plan. The flood control aspects of the project consisted of widening the creek channel, constructing new setback levees and flood walls, and creating in-channel marsh plain. In total, this project created more than 22 acres of new and improved marsh and added new trails on top of the levees that connect to the San Francisco Bay Trail and West Bayshore Road. This project specifically incorporated protection against three feet of sea level rise. When considering the safety factor of FEMA freeboard, the project as built protects against 100-year creek flows and up to 10 feet of sea level rise compared to today's daily high tide. The Reach 1 Downstream Project flood protection elements were completed December 2018 and the overall project was completed June 2019.

Reach 2 - Highway 101 to El Camino Real "~~Upstream~~ Middle Reach Project"

This project is designed to provide protection for people and property from a flood event similar to the 1998 flood, which is considered a 70-year event. This project will remove artificial constrictions at four or five locations to increase channel capacity, while incorporating improvements to habitat. The lowest flow capacity point is the Pope Chaucer Bridge, and it will be replaced by a new bridge with a more open design that restores natural creek bed. The new bridge has been carefully designed to minimize its footprint and to maintain current street elevations, while ensuring safe pedestrian and bicycle access. Channel widening is anticipated to begin in 2023~~2~~. Bridge construction is anticipated to begin in 2024~~3~~.

Reach 3 – Upstream Detention to complete 100-Year Flood Protection ~~with FEMA Freeboard~~

In order to achieve the 100-year level of protection and associated FEMA freeboard to remove parcels from the FEMA floodplain (and the need to pay for flood insurance), an additional project for upstream detention was evaluated at a programmatic level in our September 2019 Environmental Impact Report.

The topography of the upper watershed does not allow for upstream detention on its own to provide 100-year flood protection; only a combination of the completed Reach 1 and Reach 2 ~~Downstream~~ projects, ~~coupled with~~ supplemented by Reach 3 upstream detention and/or other similar flow reduction features can achieve 100-year protection with FEMA freeboard for San Francisquito Creek. Data collection for a project level evaluation of potential alternatives that can achieve 100-year flood protection with FEMA freeboard has been ~~is planned to be~~ initiated. ~~early 2021~~. Data collection and evaluation will provide an understanding of the potential for upstream detention to supplement Reach 1 and 2 improvements to provide for 100-year flood protection with freeboard.

Tidal flood protection and marsh restoration- Strategy to Advance Flood Protection and Ecosystem Restoration along San Francisco Bay (SAFER Bay Project)

The Strategy to Advance Flood protection, Ecosystem restoration and Recreation Project (SAFER Bay) addresses tidal flood protection by improving or rebuilding flood protection features along San Francisco Bay within SFCJPA jurisdiction. Public Draft Feasibility reports were issued in 2016 for East Palo Alto and Menlo Park, and in 2019 for Palo Alto. The multiple reaches and elements of these projects, when fully constructed, will eliminate the protection gap in the tidally influenced areas, along the bay margin, outside of our completed project from San Francisco Bay to Highway 101 described above.

We are currently moving forward with a portion of this project in East Palo Alto and Menlo Park. - ~~SAFER Bay Phase 1~~. We have initiated early coordination with permitting agencies working on a conceptual design, project description, and stakeholder outreach. The SFCJPA will release a Notice of Preparation in the fall of 2021 and begin the CEQA process. The SFCJPA has partnered with the South Bay Salt Ponds Restoration Project to restore Ponds R1 and R2 as part of this project's utilization of natural flood protection to address sea level rise. This project has similar ~~the same~~ protection criteria as our completed Creek project from San Francisco Bay to Highway 101. The SFCJPA will communicate and coordinate with stakeholders and other regional adaptation projects.

The SFCJPA will implement these plan components to achieve our vision and goals. We intend to work with our member agencies and leverage other planned activities in the watershed using a partnership approach to augment our plan. As stated so eloquently in 2005, by the San Francisquito Creek Watershed Council in **A Stakeholder Vision for San Francisquito Creek**:

> *"This document offers a vision for securing the future of the San Francisquito watershed as a vital community resource. Its authors are a group of stakeholders with a range of perspectives as representatives from neighborhood associations, local cities, environmental groups, Stanford University, and local, state, and federal resource agencies. While they do not always agree on paths of action to a given goal, they put forward this vision as their collective expression of what it means to live in a watershed and keep it healthy and safe for the future."*

The SFCJPA intends to follow this tradition with our member agencies and numerous partners in a transparent and collaborative manner.

SAN FRANCISQUITO CREEK
JOINT POWERS AUTHORITY
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1. Introduction

This document ~~is intended to be a Draft~~ serves as a Comprehensive Plan that details the past efforts and current Capital Improvement Program of the San Francisquito Creek Joint Powers Authority (SFCJPA) for use in documenting our efforts and as a communications tool. Its development and refinement ~~are~~ is also intended to provide opportunities for discussion about the issues related to flood management, ecosystem restoration, and recreational opportunities in the creek corridor and show how stakeholders throughout the watershed can work together to implement the planning goals of the SFCJPA. This document:

- describes the San Francisquito Creek Watershed and the resources within the watershed,
- describes the evolution of the creek and re-engineering efforts since the 1850's
- states accomplishments of the Planning process to date and the role of the SFCJPA,
- outlines the SFCJPA's Comprehensive Capital Improvement Program, describes the roles and relationships of key watershed partners, and broadly outlines potential solutions and future funding needs.

Vison: The San Francisquito Creek is an asset unifying the communities it touches, providing recreation and ecosystem services. The SFCJPA works with its members and watershed partners to address the interrelated issues of flood protection, ecosystem restoration and creation of recreational opportunities along the creek and in the watershed in a fiscally responsible manner.

Overarching Goal: Implement a suite of interrelated actions, each with independent utility but together comprising a comprehensive approach with multiple benefits to all inhabitants of the watershed.

Action Plan: The projects described in Section 4 are components of the SFCJPA's overall plan to provide 100-year flood protection and improve habitat and ecosystems:

This Comprehensive Plan represents our path for implementing the SFCJPA's vision and tracking progress towards our overarching goal with our action plan.

This plan intended to be a living document that will be reviewed annually and updated as necessary. Additional information on the SFCJPA's activities can be found on our website at www.sfcjpa.org.

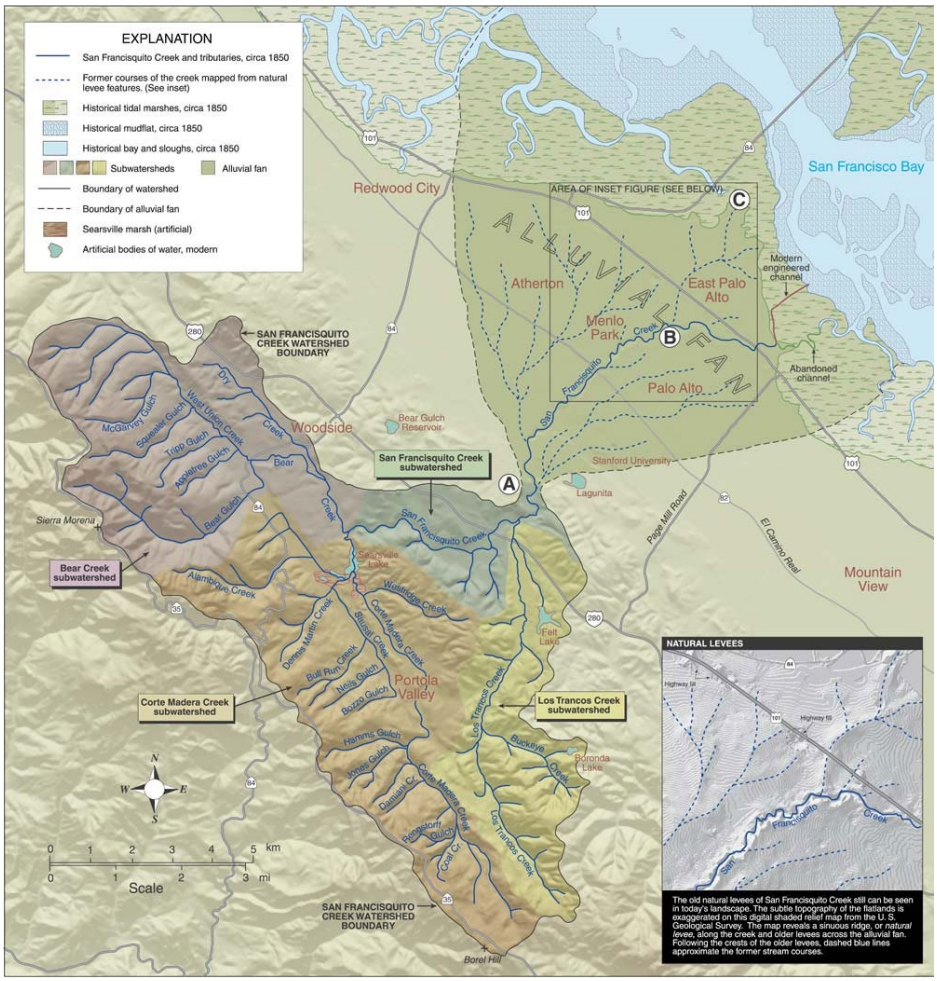
2. Description of the Watershed

The San Francisquito Creek watershed is approximately 45 square miles in extent and includes areas of Santa Clara and San Mateo counties. The mainstem and a portion of its Los Trancos Creek tributary form the boundary between the city of Palo Alto and the cities of Menlo Park and East Palo Alto, and

between Santa Clara and San Mateo counties, reflecting the fact that it originally defined the boundary between the lands of the Spanish Missions in Santa Clara and San Francisco.

San Francisquito Creek begins at the confluence of Corte Madera Creek and Bear Creek below Searsville Dam in the Jasper Ridge Biological Preserve on land purchased by Stanford University in 1892. The creek is joined by Los Trancos Creek just northeast of Interstate 280.

The creek runs approximately 14 miles from southwest to northeast, and after exiting the foothills of the Santa Cruz Mountains near Junipero Serra Boulevard and Alpine Road, flows in an incised channel within a broad historic alluvial fan before emptying into the San Francisco Bay south of the Dumbarton Bridge and north of the Palo Alto Flood Basin.



Source: Janet M. Sowers, 2004. Oakland Museum of California, Creek and Watershed Map of Palo Alto and Vicinity, ISBN 1-882140-25-7

Figure 1. San Francisquito Creek Watershed and Alluvial Fan

Land Use

Of the approximately 27,400 acres of the San Francisquito Creek watershed, approximately 8,798 acres are protected by public agencies, property easements, or private land trusts (32%), providing a natural feel within much of the watershed. The west side of the watershed is largely unpopulated, consisting primarily of forest and grasslands. Headwaters of the watershed are in the east side of Santa Cruz Mountains, and form the Los Trancos Creek, Corte Madera Creek, and Bear Creek sub-watersheds, include forested habitats and drain into the main stem. The lower watershed is highly urbanized and includes expansive areas of residential and commercial development. Although lower watershed development is prevalent when compared to the upper watershed, large, contiguous areas of open space, including forest, rangeland and agricultural areas, are interspersed throughout the urban and suburban land uses, complementing the undeveloped, open nature of much of the watershed.

The watershed is the dominant natural watercourse feature on the Peninsula, with the Santa Cruz Mountains to the west and the Bay to the east. The area east of the Alameda de las Pulgas is considered the "lowlands" with a slope of less than 5%. The densest development in the region is typically located in the lowlands and includes visually similar commercial and industrial buildings as well as multi- and single-family homes. Breaks in this dense development pattern include open areas along the Bayfront, large surface parking lots, setbacks along major arterials, or local and regional parks. Development density generally decreases as elevation increases, providing expansive views of the lower watershed.

The steep banks of the creek in the urban portions of the watercourse have been modified or hardened in many places in response to bank erosion. Even with these modifications, the San Francisquito Creek remains one of the least modified creeks on the Peninsula and the creek retains much of its natural appearance. The creek has created its own natural 'levees'; with higher banks that slope away from the channel. The bank-tops feature many mature oak, bay, and buckeye trees, while willows grow abundantly on the lower portions of the bank and in the creek channel. The heavily wooded creek banks provide a unique natural character to neighborhoods adjacent to the creek. Many residents enjoy walking or bicycling on the creek-side roads.

Several bridges cross the Creek and physically and visually connect the communities of East Palo Alto, Palo Alto, and Menlo Park. Bridges include vehicular crossings at Newell Road, University Avenue, Pope Street/Chaucer Street, and Middlefield Road; there are two bicycle/pedestrian bridges between Middlefield Road and El Camino Real; and one railroad bridge adjacent to El Camino Real.

Demographics

Population in communities within the San Francisquito Creek Watershed is estimated in the table on the following page.

Estimated Population, San Francisquito Creek Watershed (US Census data)		
Area	Population	Year
Woodside	5,510	2018
Stanford	15,668	2018
Palo Alto	66,666	2018
East Palo Alto	29,519	2018
Menlo Park	34,549	2018
Atherton	7.187	2018
Total	**160,345**	

Residents of the San Francisquito Creek Watershed represent a wide range of socio-economic circumstances, from the wealthiest to ~~impoverished~~ economically disadvantaged, as well as culturally and racially diverse communities. In the SFCJPA's jurisdiction, 12,700 people in East Palo Alto and 4,300 people in Menlo Park are considered vulnerable communities, as defined by the Department of Water Resources. Using another measure for disadvantaged community, two entire census tracts within East Palo Alto, with a combined population of over 17,000, are recognized as California Disadvantaged and Severely Disadvantaged Communities by the California Environmental Protection Agency (2017) as defined by State Bill 535. According to the U.S. Census website, the population of the cities of Menlo Park and Palo Alto tend to be both older and whiter than neighboring East Palo Alto, although a sizable percentage of Palo Alto's population is Asian. East Palo Alto's population skews younger, and more racially diverse, with a majority of Hispanic, African-American and Pacific Islander residents.

The SFCJPA has and will continue to tailor~~ed, and will continue to tailor,~~ community outreach to include as many stakeholders as possible. As described in Section 3, we have partnered with Nuestra Casa and Climate Resilient Communities for specific outreach for our work in disadvantaged portions of our communities. Additionally, SFCJPA can draw on the expertise of bi-lingual staff members where Spanish/English translation or interpretation is necessary.

Historic and archeological resources[1]

The area was occupied by indigenous people for millennia prior to the first European visitors to the area in 1769. The aboriginal way of life for the Ohlone was disrupted by contact with European

[1] ***Summarized from the 2011 report Initial Cultural Resources Investigation San Francisquito Creek Flood Damage Reduction and Ecosystem Restoration Project, Santa Clara and San Mateo Counties, California by Far Western Anthropological Research Group, Inc.***

explorers and the establishment of missions by the Spanish in the late eighteenth century. At the time of Spanish contact, the Bay Area and the Coast Range valleys were dotted with native villages.

Gaspar de Portola crossed San Francisquito Creek in November 1769, and Spanish colonial policy throughout the late 1700s and early 1800s was directed toward establishing religious missions, presidios, and secular towns known as pueblos, with all land being held by Spain. Mission San Francisco de Assisi (also called Mission Dolores) was founded on June 29, 1776 and situated about 25 miles to the northwest of the project area. Mission Santa Clara de Asis, located about 12 miles southeast of the project area, was then established on January 12, 1777.

With the transition of the area to the Mexican Government in 1821, the former Spanish mission lands were divided into vast tracts called "ranchos", owned by individuals. The watershed encompasses portions of seven ranchos, two on the north side of San Francisquito Creek (Rancho Las Pulgas and Rancho Cañada de Raymundo) and five on the south side (Rancho Cañada El Corte de Madera, Rancho El Corte de Madera, Rancho San Francisquito, Rancho Rincon de San Francisquito, Rancho Rinconada del Arroyo de San Francisquito). Many of these names have come to define the geography of the watershed and its environs to this day.

After the Mexican-American War (1846-1848), the U.S. military gained control of California. The early American Period was primarily defined by the growth of agriculture in the region, with land grants establishing the towns of Menlo Park and Mayfield, and right of way for railroads. Locally, construction on the San Francisco and San Jose Railroad began in 1861, with passenger and freight service beginning in 1863. The railroad expanded the agricultural life of California and led to more innovative ways to ship and preserve food supplies, such as transporting fruit and meat in refrigerator cars which were invented in 1880. The railroad also facilitated the development of communities in the south Bay, a process greatly hastened by the San Francisco earthquake of 1906 which displaced hundreds of people.

Leland Stanford, Sr. purchased land along San Francisquito Creek in the late nineteenth century and established the Palo Alto Stock Farm. This land formed the basis of Stanford University, which was founded in 1891. During the early twentieth century, population in the region expanded considerably and marsh areas were filled for farming, and San Francisquito Creek was rerouted to accommodate desired growth. Menlo Park and Palo Alto expanded, with the latter incorporating the City of Mayfield by the beginning of World War II. The general area also began to transition from rural to urbanized, with residential and commercial uses wide-spread west of Highway 101 since the 1920s. Today, the area is almost entirely developed, with some areas now being redeveloped.

Creek Evolution and Re-engineering

San Francisquito Creek was first modified by early European settlers who established the large Ranchos in the 1830s. These early ranchers likely constructed irrigation ditches to transport water and ford crossings at creeks. In 1876, former Governor Leland Stanford acquired the 8,800 acres which later became the Stanford University campus.

In 1887, the Manzanita Water Company (later the Crystal Springs Water Company) constructed Searsville Dam on Stanford land. The dam, completed in 1891, was intended to supply water to Stanford University. Due to fine suspended sediment and odor, the water was non-potable and was therefore used for irrigation purposes. Today the reservoir is nearly filled with sediment which has created wetland habitat for waterfowl, bats, and other species.

The section of creek downstream of what is now Highway 101 was first channelized and re-routed in 1931 for planned development. The area previously occupied by the creek mouth and slough is now the Palo Alto Airport and golf course. When the creek was channelized between levees it was moved north to its current alignment, which effectively moved the boundary between San Mateo and Santa Clara counties along this reach.

The Newell Road Bridge, located between Woodland Avenue (East Palo Alto) and Edgewood Drive (Palo Alto), was built in 1911. In East Palo Alto, Newell Road connects to Woodland Avenue, which provides access to University Avenue and US 101. In the City of Palo Alto, Newell Road connects to two main thoroughfares, Channing Avenue and Embarcadero Road, which also provide access to US 101. This bridge has limited hydraulic capacity and will be replaced both for traffic safety and flow conveyance.

The Pope-Chaucer bridge, which connect Pope Street in Menlo Park to Chaucer Street in Palo Alto, was originally a wooden structure built in 1907, and soon thereafter was replaced by a concrete bridge in the same location. In 1948, the bridge deck was expanded to support a right turn lane for vehicles travelling north on Chaucer Street to turn right onto Woodland Avenue after crossing the bridge. To support the expanded bridge deck, the existing culvert, which is a hydraulic constriction, was added under the existing bridge and expanded deck. The right turn land was later abandoned, and in the 1980s oak trees were planted in the soil between the culvert and former road surface. The bridge will be replaced as part of the Reach 2 project.

At least two efforts were initiated in the 1950s and 1960s, partially in response to the 1955 flood, to straighten and channelize the creek from Middlefield Road to SF Bay. The plans were abandoned for several reasons, including the difficulty in acquiring needed land rights and community opposition.

Recreation

The San Francisquito Creek watershed supports a wide range of local and regional parks, trails, and open spaces. The Creek flows into Don Edwards National Wildlife Refuge and Baylands Nature Preserve, a 1,940-acre tract of undisturbed marshland (the largest remaining marshland in the San Francisco Bay) with remaining high-quality marsh habitat. The creek is adjacent to the Palo Alto Municipal Golf Course and Palo Alto's Baylands Athletic Center. The Creek corridor also supports a portion of the regional Bay Trail and connects to Cooley Landing Park and the Ravenswood Open Space Preserve to the north and Baylands Nature Preserve to the south. The San Francisquito Creek Trail is well traveled and is the location of many community events, including Moonlight Run, Great Race for Saving Water and Bay Day.

The urban portion of the Creek between Highway 101 and Interstate 280 is mostly comprised of urban parks and trails such as Hopkins Creekside Park and El Palo Alto Park, transitioning to a wide range of larger parks and open space on Stanford University lands and in the surrounding foothills.

Utilities

As San Francisquito Creek runs through an urban environment, multiple utility corridors run adjacent to or over the creek. The relocation, protection, or avoidance of these utilities have a significant impact on work in or around the creek.

The typical utilities are expected to cross San Francisquito Creek at major road crossings. In addition, there are major known utilities running over or adjacent to the creek. Significant utilities include:

- Pacific Gas & Electric substations and high-tension overhead electric lines and high-pressure gas transmission lines are within an easement adjacent to and across the channel downstream of Highway 101.
- Sanitary sewer, water service, and surface water drainage conduit occur beneath Woodland Avenue, while overhead electric lines occur adjacent to Woodland Avenue.

Critical utilities, including natural gas pipelines, electrical sub-stations, transmission and distribution lines, water supply and wastewater conveyance systems are all located in or near the bay margin. Sea level rise and storm events may adversely impact these utilities.

The SFCJPA will continue to coordinate closely with PG&E, local districts and municipal departments in the planning and implementation of our projects to ensure these critical infrastructure resources are safeguarded.

Fish and Wildlife resources

San Francisquito Creek flows through a mix of protected open space, agricultural, commercial, light industrial, and residential settings before reaching the baylands habitat associated with South San Francisco Bay. At the bottom of the watershed, where the creek meets the San Francisco Bay, is salt marsh habitat. The salt marsh harvest mouse, Ridgway's Rail and black rail, have all been observed in this vicinity. Moving upstream and west through the watershed, as water becomes less tidally influenced and salinity levels decrease, riparian corridors of perennial water, stream-side vegetation such as willows, box alders, and cattails, are present along many of the streams throughout the watershed. These areas provide suitable habitat for the California red-legged frog, California tiger salamander, and western pond turtle, which have all been observed within the watershed.

Additionally, streams within the Bear Creek, San Francisquito Creek and Los Trancos Creek watersheds provide suitable migration and spawning habitat for steelhead. Serpentine soil outcrops have been identified within the San Francisquito, Corte Madera, Bear, and West Union Creek sub- watersheds. This micro-habitat supports special status and common wildlife and plant species, including the Bay checkerspot butterfly, serpentine bunchgrass, and Crystal Springs lessingia.

Climate and Climate Change

The Bay Area has a Mediterranean climate with mild wet winters and warm dry summers. Coastal ocean currents moderate the effects of seasonal changes in temperature. The Santa Cruz Mountains impose a moderate rain-shadow (or orographic) effect to their east in the San Francisquito Creek watershed. This orographic effect contributes to variability in average annual precipitation in the watershed, ranging from about 40 inches at the crest of the mountains to approximately 15 inches in Palo Alto.

In the past century, global mean sea level has increased by 7 to 8 inches with human influence the dominant cause of observed atmospheric and oceanic warming. Given current trends in greenhouse gas emissions and increasing global temperatures, sea level rise is expected to accelerate in the coming decades, with scientists projecting as much as a 66-inch increase in sea level along segments of California's coast by the year 2100. While over the next few decades, the most damaging events are likely to be dominated by large El Niño - driven storm events in combination with high tides and large waves, impacts will generally become more frequent and more severe in the latter half of this century (https://www.coastal.ca.gov/climate/slr/).

The California Coastal Commission states that ~~impacts of~~ sea level rise in California will affect almost every facet of our natural and built environments. Natural flooding, erosion, and storm event patterns are likely to be exacerbated by sea level rise, leading to significant social, environmental, and economic impacts. New projects along the San Francisco Bay shoreline are recommended to incorporate a minimum of 55 inches of sea level rise.

Sea level rise along the bay margin will have an impact on ground water aquifers as saline or brackish water intrudes inland along with rising sea levels. This salt-water intrusion may compromise wells presently used for drinking or irrigation water. Rising ground water tables at the bay margin may also adversely impact the built environment where subsurface excavations or construction encounter groundwater.

Climate change will also impact the San Francisquito Creek watershed. As temperatures increase, this will raise the rate of evapotranspiration in watershed vegetation and soils. This will tend to decrease the amount of water retained in the soil and watershed vegetation, potentially leading to lower creek flows, and lower groundwater tables. Additionally, warmer and dryer conditions are conducive to greater fire risks, and to hotter, faster-burning fires, when they occur. Fires in the heavily vegetated areas of the higher elevations of the San Francisquito watershed could have significant negative impacts on habitat and both water quantity, and water quality in the watershed.

Changing heat and moisture regimes open new ecological niches for plants and animals not formerly associated with the watershed. New species may be benign, or they may disrupt ecosystems, such as

with forest damaging diseases or insects. Species disruptions may also increase the risk of fire, as existing vegetation regimes succumb to disease.

Climate change is already manifesting in longer and hotter dry periods, and more extreme precipitation events. To the extent possible, the SFCJPA will take into consideration these new uncertainties in project design and construction.

The SFCJPA has and will continue to consider foreseeable impacts and changing priorities due to climate change in all of our project planning and implementation. The SFCJPA can not transfer risks from one area to another so will evaluate each project to ensure that the design does not result in unintended consequences locally or regionally.

Geology

San Francisquito Creek flows out of the Santa Cruz Mountains and onto a coalesced alluvial fan or apron near Junipero Serra Boulevard. The creek has deeply incised the alluvial fan sediments along much of its course, leaving steep banks that are often 25 feet high. The channel has had roughly the same alignment on the fan since the end of the nineteenth century. A geological profile along San Francisquito Creek, downstream from Alameda de Las Pulgas Road, shows a layer of coarse channel bed material (gravel, cobbles, and boulders) as far downstream as Middlefield Road. The coarse bed surface present was formed through a winnowing of finer sediment; the underlying subsurface material appears to be considerably finer. The 1892 completion of Searsville Dam on Corte Madera Creek, and subsequent reduction of coarse sediment supply while peak flows were maintained, is thought to be a contributing factor to formation of the bed surface. The coarse sediments overlie a sandy deposit that continues in the streambed to downstream from Highway 101 to the Palo Alto Municipal Golf Course. A thick layer of bay sediments with lenses of alluvium extends at depth beneath the sand upstream to about where the San Francisquito Creek passes the Stanford University Campus, forming a shallow aquifer beneath the fan. These bay sediments are underlain at depth by older, more consolidated alluvium.

Soils

The soils of the flatlands along lower San Francisquito Creek are relatively young. These soils are composed of fine particles (e.g., silt, clay) that were transported as suspended sediment derived from upstream sources and deposited overbank during flood events. The texture and characteristics of these soils affect how quickly water can infiltrate the ground surface. As a result, the soil is important for determining the volume of storm runoff, its timing, and its peak rate of flow.

Groundwater and Land Subsidence

Groundwater and surface water are hydraulically connected in the San Francisquito Creek Watershed (San Mateo County 2018). Groundwater in the area is currently considered to be balanced, meaning that withdrawals approximately equal recharge (San Mateo County 2018). Historical overdraft (defined as long-term pumping that exceeds recharge) that resulted in historical land subsidence and salinity intrusion

led to extensive investigations by the Department of Water Resources and local groundwater management agencies, such as Valley Water. Regional groundwater levels have been trending upward until the most recent drought due to reductions in regional irrigation pumping, and through augmented groundwater recharge programs.

Before the mid-1960s, groundwater production resulted in lowered groundwater elevations in Palo Alto, Menlo Park, and Atherton; movement of saline water inland from San Francisco Bay; and land subsidence in parts of Palo Alto and East Palo Alto. Groundwater levels have recovered since the mid-1960s. Land subsidence has occurred in and around the watershed as a result of past overdraft pumping of the groundwater basin. It is estimated that subsidence began around 1920. The ground level has dropped as much as 2.5 feet in some areas since that time, with the greatest amount of subsidence occurring in the tidal area near the Bay. With the introduction of imported water, groundwater levels have largely rebounded (San Mateo County 2018).

Regulatory Status of Creek and Watershed ~~Water quality and Beneficial Uses~~

The creek is listed by the State Water Board under the 303(d) list as impaired for Diazinon, sedimentation/siltation, and trash. Placement of a water body and its offending pollutant(s) on the 303(d) list, initiates the development of a Total maximum Daily Load (TMDL). TMDLs may establish "daily load" limits of the pollutant, or in some cases require other regulatory measures, with the ultimate goal of reducing the amount of the pollutant entering the water body to meet water quality standards.

As a result of the rugged topography and highly erodible soils in the upper watershed, erosion and sediment loading are the primary water quality concerns in the San Francisquito Creek watershed. Bank erosion is the principal water quality concern in upper San Francisquito Creek, where some sections of the creek have enlarged due to downcutting and bank undercutting, other areas have been narrowed by the placement of armoring in an attempt to control erosion. Despite previous repairs and stabilization efforts, several areas along San Francisquito Creek exhibit slope instability.

The majority of sediment input into San Francisquito Creek is thought to come from the portion of the upper watershed below Searsville Dam, delivered by a number of natural and anthropogenic sources, including landslides, debris flows, bank erosion and failures, and urban development. The remainder of sediment input is presumed to be delivered to the Creek via storm runoff from the urbanized lower watershed. Urbanization has modified the hydrologic characteristics of the watershed. Although sediment removal activities in the watershed have not been a common occurrence for flood control purposes, it is considered to be a primary water quality issue. In the tidally influenced portion of the Creek, water quality may be affected by sediments entering the Creek from South San Francisco Bay.

The San Francisco Bay Basin Plan (San Francisco Bay Regional Water Quality Control Board 2015) describes beneficial uses for the waters in San Francisco Bay. Beneficial uses represent the services and qualities of a water body (i.e., the reasons the water body is considered valuable). Beneficial uses of San Francisquito Creek are listed below:

- Cold Freshwater Habitat (COLD); Fish Migration (MGR)
- Preservation of Rare and Endangered Species (RARE)
- Fish Spawning (SPWN)
- Warm Freshwater Habitat (WARM)
- Wildlife Habitat (WILD)
- Water Contact Recreation (REC-1)
- Noncontact Water Recreation (REC-2)

Other federal, California and local regulatory authorities governing actions that the SFCJPA may take include regulations promulgated by US Fish and Wildlife, National Marine Fisheries Services, National Park Services, California Office of Historic Preservation, Bay Conservation and Development Commission, California Department of Fish and Wildlife as well as local plans and ordinances from our cities and counties. These requirements and others are described in environmental documentation for our projects as well as our Operations and Maintenance Manual for completed work.

The California Department of Water Resources has designated two groundwater Basins on each side of the creek that are also directly hydraulically connected in the watershed. In San Mateo County, it is Groundwater Basin 2-009.03 Santa Clara Valley- San Mateo Plain, and on the Santa Clara County side of the Creek, it is Groundwater Basin 2-009.02 Santa Clara Valley- Santa Clara Sub-basin (Department of Water Resources Bulletin 118, Groundwater Basins, 2021). The USGS designated the San Francisquito Cone Alluvial Aquifer and it is the most productive unit in the San Mateo Plain Groundwater Basin (San Mateo County 2018). The Sustainable Groundwater Management Act has classified the Santa Clara side as very high priority and the San Mateo side as very low priority (DWR Basin Prioritization 2021).

Hydrology

The San Francisquito Creek watershed encompasses an area of approximately 45 square miles on the south-central San Francisco Peninsula. The upper watershed primarily rural and mountainous, whereas the lower watershed (below Interstate 280) is increasingly urbanized and located in low (near sea level) elevations. Tributaries that eventually feed into San Francisquito Creek include Bear Creek, Los Trancos Creek, Alambique Creek, Dennis Martin Creek, Sausal Creek, and Corte Madera Creek. San Francisquito Creek itself begins at the confluence of Bear and Corte Madera creeks in the upper watershed and continues to San Francisco Bay. There are three reservoirs in the San Francisquito Creek watershed, which are used for water conservation and water storage: Searsville Lake, Felt Lake, and Lake Lagunitas. All three of the reservoirs are located in the upper watershed.

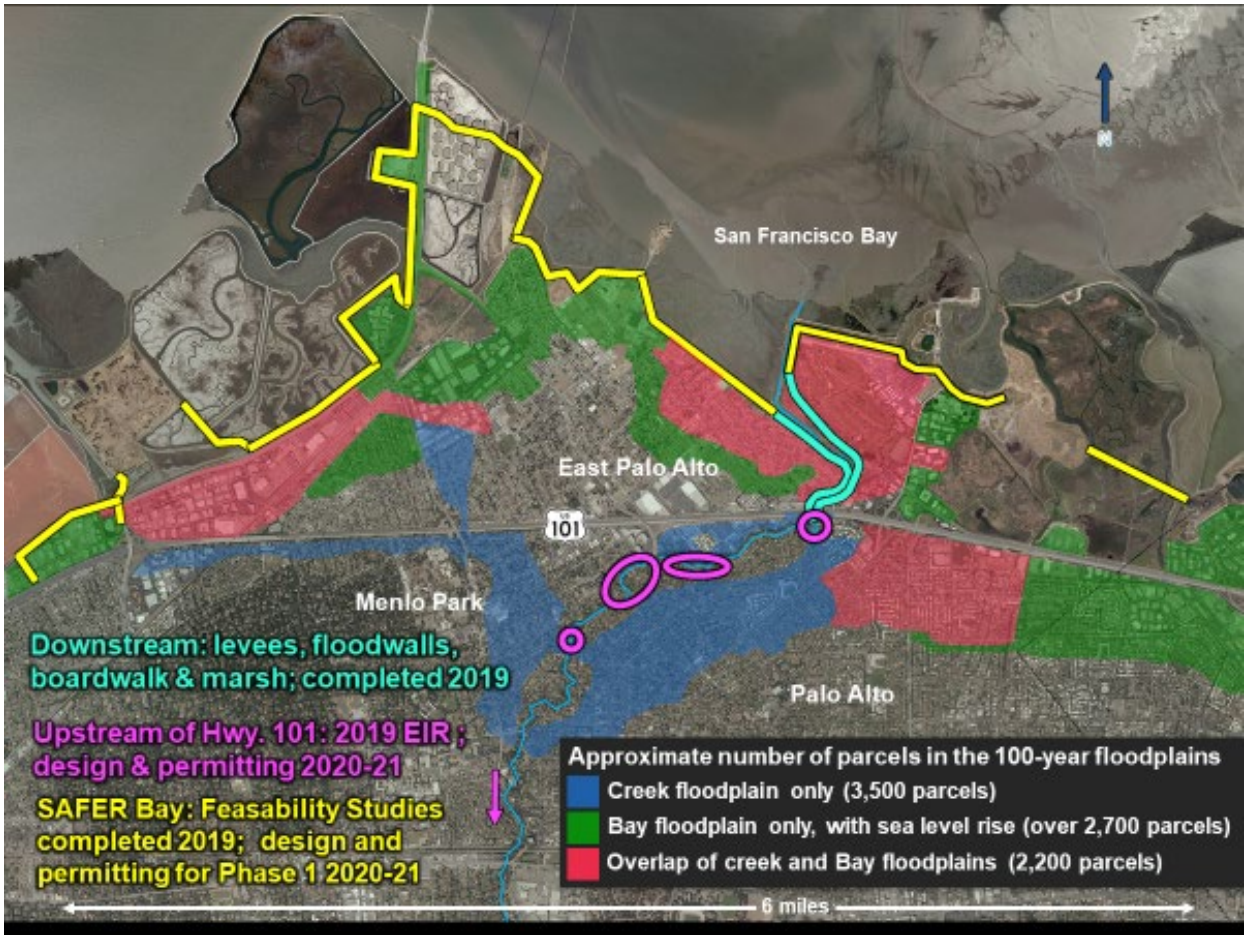
~~The hydrology of San Francisquito Creek began to experience modifications resulting from early settlers who established the large Ranchos in the 1830s. These early ranchers likely constructed irrigation ditches to transport water and ford crossings at creeks. In 1876, former Governor Leland Stanford acquired the 8,800 acres which later became the Stanford University campus. In 1887, the Manzanita Water Company (later the Crystal Springs Water Company) constructed Searsville Dam on~~

~~Stanford land. The dam, completed in 1891, was intended to supply water to Stanford University. Due to fine suspended sediment and odor, the water was non-potable and was therefore used for irrigation purposes. Today the dam is nearly filled with sediment which has created wetland habitat for waterfowl, bats, and other species.~~

Flood History

San Francisquito Creek has a history of recurring floods which have adversely impacted the safety and economic stability of the residents, businesses, and government property within the flood plain. Flooding within the watershed has been documented as far back as 1911, with significant flood events occurring in 1955, 1958, 1982, 1998, 2012, 2014 and 2017. San Francisquito Creek is "flashy", meaning stream flow levels can rise and fall quickly. The creek is characterized by a dry bed during summer and fall, and periodic high flows or even flooding, during ~~as a result of~~ winter rain events.

The maximum instantaneous peak flow recorded on San Francisquito Creek at the Stanford University station occurred February 3, 1998, with a peak of 7,200 cfs. After record rainfalls, San Francisquito Creek overtopped its banks and inundated over 11,000 acres of land in Palo Alto, East Palo Alto, and Menlo Park, affecting approximately 1,700 residential and commercial structures.



Source: FEMA Flood Insurance Rate Maps 2015. Panels 0311E; 001H, 0309E, 0314E

Figure 2. FEMA Floodplain Designation for Creek and Bay with approximate parcels in each that will be addressed by SFCJPA Projects

FEMA does not prepare maps of 70-year floods, but the hydraulic model used by the SFCJPA and our partners for the watershed indicate that the area is similar to a 100-year FEMA floodplain, but that depths of inundation are less than that for a 100-year flood.

3. Integrated Planning with Watershed Partners

The SFCJPA works across jurisdictional boundaries to coordinate and collaborate with a wide range of organizations to develop and implement projects that address a large part of the watershed system that could create or be affected by flood events. The SFCJPA organizational structure has been cited as a model for local governments in planning for climate change impacts in a case study by the Bay Conservation and Development Commission (BCDC), the San Francisco Bay National Estuarine Research

Reserve (NERR) and the National Oceanic and Atmospheric Administration (NOAA) Coastal Services Center. The SFCJPA Board is composed of elected officials from each of our member organizations.

SFCJPA Members

The five SFCJPA members have collaborated on past key documents that affect the watershed, including the following: Bank Stabilization Master Plan, Total Maximum Daily Loads to achieve water quality standards and Stormwater Resource Plans for Green Infrastructure. The SFCJPA also provides advisory role on proposed projects that are constructed along the Creek.

In addition to our collaborative work, each of our member entities has related projects that will ultimately help achieve the SFCJPA overall goal and vision. The list below is not intended to be exhaustive but rather current projects that affect the watershed or projects that are part of our comprehensive plan.

Valley Water

Valley Water has specific funding for San Francisquito Creek as part of the Safe Clean Water and Natural Flood Protection Program, a parcel tax approved by voters in Santa Clara County in 2012. This parcel tax was made permanent in 2020. As the largest contributor of SFCJPA creek project funding, Valley Water not only provided approximately $30,000,000 for the Reach 1 Downstream project construction, but also provided bid, award and construction oversight of the work. Valley water has provided the HEC-RAS stream flow modeling for our project work. Valley Water's Stream Maintenance Program covers San Francisquito Creek on the Santa Clara County side of the creek. In January 2020, Valley Water completed the San Francisquito Creek Emergency Action Plan to provide guidance on how Valley Water makes decisions during storm and flood events. It is consistent with the San Francisquito Creek Multi-Agency Coordination Operational Plan for Severe Flood events.

Valley Water also has several projects that will ~~improve~~ reduce tidal flooding and address sea level rise like the Palo Alto Flood Basin Tide Gates Project which will replace the tide gates that protect homes and businesses in Palo Alto and the San Francisco Bay Shoreline Project.

San Mateo County/ Flood and Sea Level Rise Resiliency District (FSLRD)

The new FSLR effective January 2020 is a key partner for SAFER Bay. In addition, the FSLRD has a mission to address flooding and sea level rise within San Mateo County. We anticipate a continued partnership with San Mateo County as a funding partner for SFCJPA as well as for shared mission area to mitigate flooding, creek maintenance activities and land easements.

East Palo Alto

East Palo Alto was a key partner for the Reach 1 Downstream Project and continues with maintenance of the completed project along with Valley Water. East Palo Alto has taken the lead in

implementation with a portion of the SAFER Bay Project known as Phase 1 and has committed $5.5 million of capital funding for construction and long-term maintenance.

Menlo Park

Menlo Park has provided strategic assistance to SFCJPA, including housing the SFCJPA for many years after formation, and continues to be a key stakeholder for our project work. The Reach 2 Upstream project will protect property and infrastructure in Menlo Park. ~~and is primary reason that Menlo Park is a SFCJPA member.~~ Menlo Park is a key stakeholder in the design and implementation of SAFER Bay Phase 1, and was lead on a $50M FEMA BRIC grant, that was identified for funding July 2021.

Palo Alto

Palo Alto has been a key stakeholder for the Reach 1 Downstream Project, Reach 2 Upstream Project and SAFER Bay. Palo Alto has several projects that are in the watershed, including the Newell Bridge replacement project with Caltrans, and their collaboration with Valley Water on the Flood Basin Tide Gates and the Shoreline Project. The San Francisco Bay Shoreline Project is a regional climate adaptation project extending from Palo Alto to Alviso.

SFCJPA Partners

Our partners have included the US Army Corps of Engineers, Don Edwards National Wildlife Refuge, California Department of Water Resources, San Francisco Estuary Partnership, San Francisco Bay Restoration Authority, Stanford University, PG&E, Facebook, East Palo Alto Sanitary District, CalTrans, US Geological Survey (USGS), South Bay Saltponds Restoration Authority (SBSPRA), San Francisco Estuary Institute (SFEI), Association of Bay Area Governments (ABAG), the San Francisco Regional Water Quality Control Board, and many other consultants, non-profit entities and regulatory agencies.

The work of the SFCJPA relies on collaboration and coordination. We acknowledge our role in the success of others, and their roles in our success. Not all past or present partners are listed among the illustrative examples below.

U S Army Corps of Engineers

The SFCJPA has a long-standing partnership with USACE. This includes collaboration on the initial hydraulic model for San Francisquito Creek (Noble 2009) and reviewing modifications to that model. USACE has been part of a CAP 205 Study in 2003 and a GI Study 2004-2020. We are now working with USACE on a new CAP 205 partnership for ~~restart to identify~~ key project element(s) that may result in a favorable cost benefit ratio to alleviate floods. We recognize that the ACOE CAP 205 has a single mission for flood protection and that is why we are examining project elements, such as channel widening in Reach 2 ~~the Pope Chaucer Bridge replacement~~ that best fit that definition.

California Department of Water Resources (DWR)

The DWR has been a key funding partner for SFCJPA projects, particularly through the Integrated Water Resources Planning Program and Local Levee Repair programs. DWR grant funding totals more than of $17,000,000, with more than $14,000,000 that enabled construction of the Reach 1 Downstream project, SAFER Bay Feasibility Studies and SAFER Bay Phase 1 design permitting. For the Reach 2 Upstream project, DWR has awarded almost $3 million in funding in June 2020 from Integrated Regional Water Management Proposition 1, Round 1 funding that is being managed through the San Francisco Estuary Partnership.

California Office of Emergency Services/FEMA

The Cal OES/FEMA is a funding partner for both the Reach 2 Upstream project and the SAFER Bay Phase 1 in East Palo Alto and Menlo Park. For the Reach 2 Upstream project OES/FEMA has committed~~$8M for construction, including $5M for creek widening areas and~~ $3M for Pope Chaucer Bridge construction and has agreed to consider a request for additional funding.

Stanford University

Stanford University is the largest landowner in the watershed and an important watershed partner with the SFCJPA. We have worked closely with Stanford and used their sediment transport model for the Reach 2 Upstream project simulations. Our 2009 feasibility evaluation of potential upstream detention sites are all on Stanford land and Stanford has agreed to allow SFCJPA to evaluate this option.

The SFCJPA is supportive of Stanford's examination of options for the Searsville reservoir and consideration of the ways in which changes there will have an influence on the downstream portion of the watershed. The SFCJPA looks forward to working with Stanford University as their evaluation of options progresses.

South Bay Salt Ponds Restoration Authority (SBSPRA)

The SBSPRA has been a partner for the past six years on our SAFER Bay Project. We are working with the SBSPRA Project Management Team on restoration of former salt ponds R1 and R2. This includes design options that are currently best suited for this area based on SBSPRA adaptive management plan.

SFEI

The SFCJPA has partnered with SFEI since 2009 to develop historical ecology of the watershed and recommendations to improve flood control as part of Flood Control 2.0. In 2016, SFEI assessed the condition of the Santa Clara side of the watershed using the widely accepted California Rapid Assessment Methodology.

We continue to explore partnerships with SFEI and others for SAFER Bay and rising groundwater.

NGO partners

The SFCJPA has relationships with several local non-profits, among them, the Watershed Council, Grassroots Ecology, Canopy, Nuestra Casa, Acterra, and The Nature Conservancy.

The Watershed Council facilitated the development of the first collaboratively created watershed vision in 2005.

Grassroot Ecology is a restoration and educational partner with regular events that benefit San Francisquito Creek, including monthly water quality citizen science, invasive plant removal, coordination of community creek clean-up events, with many restoration projects in our watershed. Their native plant nursery has supplied phytophthora-free plants for our Reach 1 Downstream project and is located within the watershed in Palo Alto's Foothill Park.

The Nature Conservancy is a partner with the SFCJPA for nature-based flood protection and assessing the economic value of wetlands.

Nuestra Casa and Climate Resilient Communities are ~~is a new~~ partnerships developed in 2019 for public outreach for the SAFER Bay Phase 1 Project to specifically engage economically disadvantaged members of our communities.

Stormwater Resource and Green Infrastructure Plans

The City/County Association of Governments of San Mateo County developed a Stormwater Resource Plan in February 2017 that used a watershed approach to identify and prioritize projects for implementation.

In 2019, the Santa Clara Valley Urban Runoff Pollution Prevention Program and Valley Water developed a SWRP for the Santa Clara county side of San Francisquito Creek.

The SFCJPA reviewed and provided input to each of these plans.

Each of our member cities is or has developed Green Infrastructure Plans that are consistent with the Stormwater Resources Plans. The SFCJPA believes that green infrastructure has an important role in managing stormwater runoff on a local level and encourages implementation where possible.

4. Comprehensive Flood Protection and Ecosystem Restoration Program

This section discuses SFCJPA projects and how they work together to form a suite of interrelated projects each with independent benefits, but together form a cohesive program. The following projects are components of the SFCJPA's overall plan to provide 100-year flood protection and improve habitat and ecosystems**.**

Reach 1 - San Francisco Bay to Highway 101: Downstream Project

This completed Reach 1 "Downstream" project was the necessary first step in our plan. The project included widening the creek channel, constructing new setback levees and flood walls, and creating in-channel marsh plain. In total, this project created more than 22 acres of new and improved marsh plain and added new trails on top of the levees that connect to the San Francisco Bay Trail and West Bayshore Road.

This project specifically incorporated consideration of three feet of sea level rise. When considering the safety factor of FEMA freeboard, the project as built protects against 100-year creek flows- ~~and~~ up to 10 feet of sea level rise compared to today's daily high tide. (Completed June 2019).

The SFCJPA will work with FEMA to determine if the completion of Reach 1 project will allow some properties, particularly those in East Palo Alto, to have lower premiums for flood insurance.

Reach 2 – Highway 101 to Pope Chaucer Bridge : ~~Upstream Project~~

This project is designed to provide protection to people and property from a flood event similar to the 1998 event, which is considered a 70-year flood, while maintaining or improving the natural character of the banks and channel and improving in-channel habitat. The 70-year flood is the largest recorded flood since the US Geological Survey began measurements in the 1930's.

The City of Palo Alto has a parallel project to replace the Newell Street Bridge. Replacement of the Newell Street Bridge is part of the SFCJPA comprehensive plan, but is being led by Caltrans and the City of Palo Alto. The bridge is a hydraulic constriction but is also functionally obsolete and therefore eligible for Caltrans funding to replace it for traffic safety. The new bridge is designed to Caltrans standards for safety and the SFCJPA design flow. Construction of the new bridge will be covered under the SFCJPA's regulatory permits for creek work.

This project will remove constrictions in the creek channel including concrete structures at four or five locations within Reach 2 (Figure 3).

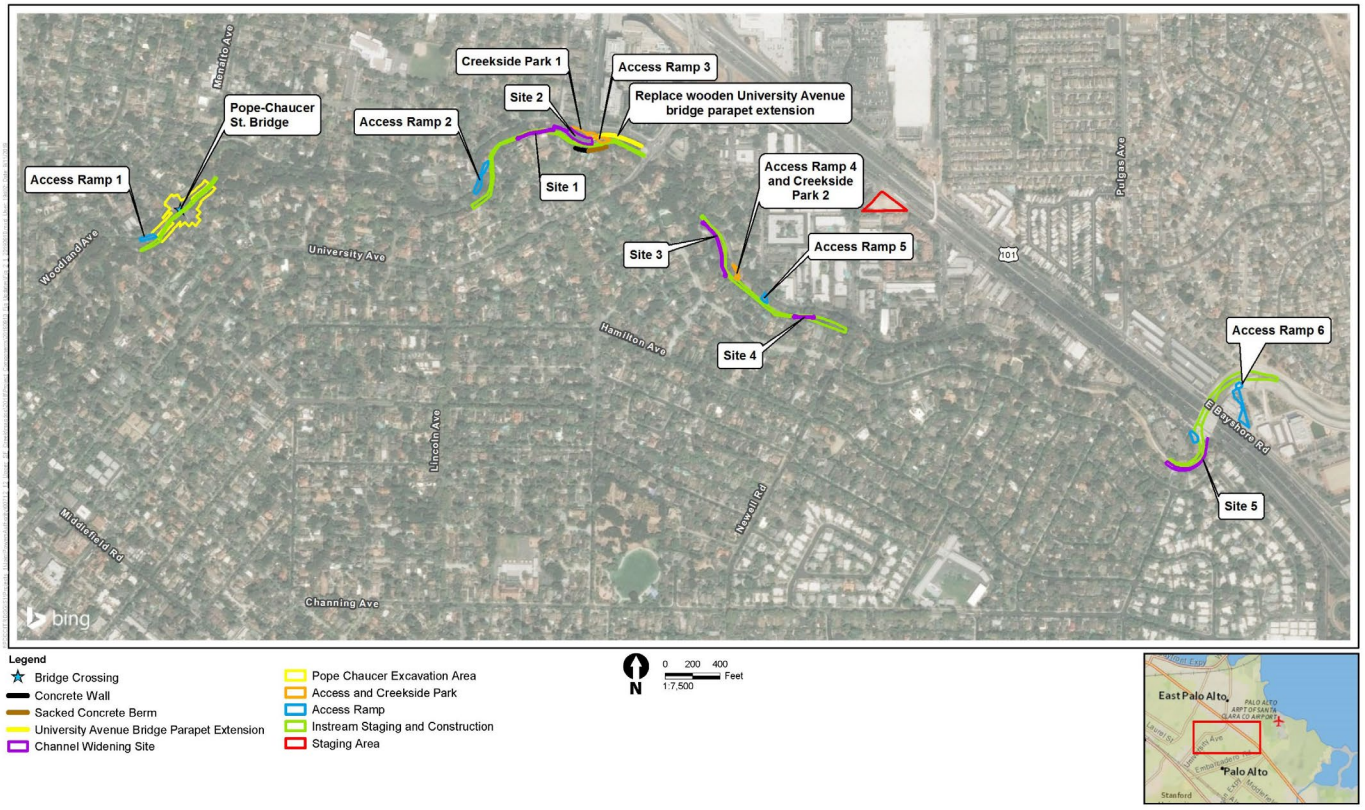


Figure 3. Location of Reach 2 Project Elements

~~Beginning at the upstream face of West Bayshore Road and continuing upstream of University Avenue.~~ The~~is~~ area around these project elements is fully developed, with Woodland Avenue ~~road~~ on the Menlo Park side and residential properties lining the opposite creek bank in Palo Alto. Most of the creek widening areas are constrained by engineering considerations, including shear stress and velocity requirements, and require updated hard armoring, while incorporating improvements to habitat. At one location in East Palo Alto, a large concrete structure will be removed, the creek bank will be regraded to a more natural configuration and planted with native riparian vegetation.

The Pope Chaucer Bridge, which is a concrete culvert, will be replaced with a new bridge and the natural creek bed will be restored. The new bridge will be as open as possible, taking into consideration constraints on the bridge design including existing homes in the area, maintaining street elevations, and ensuring safe pedestrian access. The intersections on both the Palo Alto and Menlo Park sides will be matched to the existing elevation (Construction anticipated 2023~~2~~-2024). The Newell Bridge replacement must be completed before the Pope Chaucer bridge work can begin.

Following project completion, the SFCJPA will explore with FEMA if creek widening and bridge replacements in Reach 2 can allow some properties to be removed from flood insurance requirements and/or pay lower premiums.

. Reach 3 – Upstream Detention for 100-Year Flood Protection

Meeting the Federal Emergency Management Agency (FEMA) requirements for 100-year flood protection, including FEMA freeboard is envisioned as an additive project that was evaluated at a programmatic level in our September 2019 Environmental Impact Report. "Freeboard" is the amount of additional protection needed to modify FEMA floodplain maps and eliminate the need for home and business owners to purchase flood insurance. Just as our Reach 2 project from Highway 101 to Pope-Chaucer Bridge ~~El Camino~~ does not provide 100-year protection with FEMA freeboard by itself, the topography of the upper watershed does not allow for upstream detention at the scale needed to provide 100-year protection with FEMA freeboard on its own. Only a combination of the completed Reach 1 and Reach 2 ~~Downstream and planned Upstream~~ water conveyance and capacity improvements, supplemented by ~~coupled with~~ upstream detention and/or other similar flow reduction or floodproofing features can achieve 100-year protection with FEMA freeboard for San Francisquito Creek.

One ongoing effort that may contribute to reducing flows downstream is Stanford University's planned modifications to Searsville Dam (which Stanford University is leading) that will allow for free flow conditions during normal weather but provide check-dam detention during large flow events. Another alternative could be constructing off-stream detention capacity that would provide similar benefits as the Searsville Dam project.

The SFCJPA Board affirmed their commitment to this project and has dedicated funding to evaluate it. The SFCJPA is working closely with Stanford for access to and information about the area to adequately evaluate potential options on Stanford lands. Data collection for a project level evaluation of potential alternatives that may ~~can~~ achieve 100-year flood protection with FEMA freeboard has been initiated. Results are anticipated in early 2022.~~is planned to be initiated early 2021.~~

Tidal flood protection and marsh restoration- Strategy to Advance Flood Protection and Ecosystem Restoration along San Francisco Bay (SAFER Bay Project)

The Strategy to Advance Flood protection, Ecosystem restoration and Recreation Project (SAFER Bay) addresses tidal flood protection and projected sea level rise by protecting critical infrastructure using natural and manmade ~~improving or rebuilding~~ flood protection features along San Francisco Bay within SFCJPA jurisdiction. Public Draft Feasibility reports were issued in 2016 for East Palo Alto and Menlo Park, and in 2019 for Palo Alto. This project is intended to close the protection gap in the tidally influenced areas outside of our completed Reach 1 project from San Francisco Bay to Highway 101 described above.

We are currently moving forward with a portion of this project in East Palo Alto and Menlo Park for a project known as SAFER Bay Phase 1. We are coordinating with permitting agencies, ~~are~~ working on a conceptual design, project description, and communicating with stakeholders. The SFCJPA plans to release a Notice of Preparation for environmental documentation in the fall of 2021. The SFCJPA is partnering with the South Bay Salt Ponds Restoration Authority to restore Ponds R1 and R2 as part of this project's natural flood protection ~~to achieve a resilient "South Bay Sponge to provide protection against address~~ sea level rise.

Our completed Reach 1 Downstream project provides protection against flooding from San Francisquito Creek, but ~~the SFCJPA cannot request~~ requesting a letter of map revision from FEMA at this time may not be beneficial because much of the area is also in the FEMA tidal floodplain ~~from San Francisco Bay~~. The SFCJPA's ultimate goal is to remove properties from the FEMA floodplain, and the associated requirement for flood insurance. SAFER Bay ~~Phase 1~~will build new levees and other flood control structures along the Bay in East Palo Alto and Menlo Park over the next few years and when these planned improvements are built, the area will be protected from both creek and tidal flood risks, and can then be removed from the FEMA flood maps. The SFCJPA will submit a request for map revision to FEMA after tidal flood risks are mitigated by SAFER Bay Phase 1.

~~We plan to submit a Notice of Preparation for environmental documentation in early 2021.~~ This project incorporates the same protection criteria as the completed Reach 1 Downstream project from San Francisco Bay to Highway 101.

5. Stewardship

This section addresses long term actions, including monitoring and maintenance of implemented work. The SFCJPA facilitates an annual maintenance walk with member agencies, Stanford and Grassroots Ecology. The walk identifies key maintenance actions required prior to the rainy season and assigns responsibilities for action to each member entity. The annual maintenance walk also identifies areas for annual creek cleanup by community volunteers.

All of the SFCJPA's projects provide for watershed stewardship, for both short and long term. In the short term, up to 10 years after project completion, monitoring and assessment is performed for the project's components and overall health of the watershed in the project area as part of the Mitigation and Monitoring Plan. In the long term, the project's Operation and Maintenance manual specifies annual assessments of project performance and five-year plans to evaluate the project's effect on the watershed. These Operation and Maintenance manuals form the basis for long term stewardship in the Watershed.

The SFCJPA has or will delegate maintenance actions to member agencies where a project is located. For example, Valley Water and the City of East Palo Alto are the leads for long term operations and maintenance for our Reach 1 project between S.F. Bay and Highway 101.

6. Stakeholder Engagement

Ensuring the SFCJPA has the community's trust and confidence is essential to maintaining the SFCJPA's ability to execute projects. The SFCJPA's primary responsibility is to implement flood risk mitigation projects. These must also integrate as many co-benefits as possible – such as ecosystem restoration and recreation opportunities - into project design and construction.

The goals of community and stakeholder engagement are to:

- Promote awareness of the SFCJPA, its purpose, roles, responsibilities and priorities, and its multi-benefit creek or bay shoreline flood mitigation projects by informing community members and stakeholders.
- Engage community members and stakeholders for the purposes of understanding community and stakeholder priorities and to refine and improve project design and implementation based on community and stakeholder input.
- Support community members and stakeholder involvement in the public engagement processes.

(Center for Economic and Community Development, Engagement Toolbox, at https://aese.psu.edu/research/centers/cecd/engagement-toolbox/).

Tools and Approaches

Electronic communications will be used to support community and stakeholder engagement. There are various tools and options for the purpose, some are more suitable to the SFCJPA than others.

Website - Our website at www.sfcjpa.org is the SFCJPA's main platform for sharing important information, projects, events and activities of the SFCJPA and its members or regional partners. The website hosts organizational documents, board meeting records, key project documents and schedule of meetings and events. The website also features links to our Flood Early Warning System, and Palo Alto's real-time stream level monitor. This is an important community asset for Emergency Operations personnel and for winter flood response preparedness.

Newsletters – ~~A newsletter, should~~ tThe SFCJPA has implemented a quarterly electronic newsletter. The newsletter provides timely information about SFCJPA projects, community creek or shoreline related issues, upcoming events, and meetings. ~~choose to implement one, can be an effective way to keep community members and stakeholders informed about the SFCJPA's activities. Future newsletters may be published on our website, as well as emailed to those who request.~~ Special announcements, such as

those for community project updates, have also been ~~may also be~~ sent out via email specific distribution lists and by U.S. Post to ensure community members and stakeholders are aware of critical information.

Social Media – Various social media tools can be useful for reaching community members and stakeholders. However, maintaining social media accounts requires regular updates and dedicated staff with time for one-on-one engagement. With our small staff, and other mechanisms for outreach, our presence on these social media platforms is currently a low priority. The SFCJPA may choose to selectively use NextDoor through its member agencies' accounts, as it can be an effective platform for reaching local residents about specific events or issues.

Print and Traditional Media – The SFCJPA will maintain connections with local media outlets and keep them informed through media alerts when appropriate. The SFCJPA responds as appropriate to media inquiries.

SFCJPA Meetings & events - Regular in-Person meetings are an exceptional way to engage community members and stakeholders. However, for as long as the COVID-19 pandemic is a consideration, any in-person meetings must be carefully limited. In the future, in-person meetings may ~~will~~ be utilized for project updates, tours for interested stakeholders, various working groups and committees, and other special events alone, or in combination with web-based meetings.

SFCJPA presentations to City Councils, Boards of Supervisors or their various committees and Commissions - SFCJPA Board members, Executive Director, and staff may make formal or informal presentations to the elected bodies of its member agencies, or their appointed commissions, as part of project approvals, or to provide less formal project or organizational updates.

Informal in-person, "office hours", or other local meetings – SFCJPA Board members, Executive Director and staff ~~and/or the Executive Director~~ may set up informal opportunities for community members to visit and discuss creek or bay margin projects in an unscripted and informal setting. These settings may only reach a few community members at a time, but provide a relaxed setting, convenient to community members

Board meetings – In addition to being the primary vehicle by which the SFCJPA Board conducts business, regular board meetings provide an opportunity to hear from community members and to share information about SFCJPA operations and projects with stakeholders. All Board meetings are recorded and posted on the SFCJPA's website and YouTube channel.

Study sessions – These non-action item board meetings are an opportunity to explore topics of relevance to the SFCJPA. Study sessions often feature both in-house and outside experts presenting information. Study sessions provide community members and stakeholders the opportunity to hear the same information as the board, and to ask questions of the presenters. Study sessions conducted in person are typically hosted in a seminar format, with presentations, question and answer sessions and perhaps break-out groups for discussion and reporting back to all attendees.

Webinars – Webinars or video and audio presentations, with a Q&A component, are ~~can be~~ recorded and archived on the SFCJPA's website for future reference. Brief webinars, focusing on one topic, are ~~can be~~ coordinated, promoted via newsletters, email distributions or social media ~~or NextDoor~~ posts, with moderate staff time and effort. Staff may choose to conduct the presentations themselves or find experts to make presentations. The SFCJPA has found webinars to be an effective communication tool. In the future, webinars will continue to be used to ~~may be helpful for~~ to inform~~ing~~ and engage~~ing~~ community members on a variety of topics~~, including stream stewardship, the natural history of the San Francisquito Creek, or the potential impacts of sea level rise~~.

Project Update Community meetings – Meetings and presentations specific to project updates are an important mechanism for informing community members and stakeholders who have a direct interest in the activities associated with a project, or phase of a project. In situations where project neighbors may be negatively impacted by project activities, informing community members of what to expect, what actions the SFCJPA and its contractors are taking to mitigate or minimize negative impacts, and who to contact with questions or concerns, can go a long way in alleviating community member's concerns or mistrust over project activities. One possible element of Project Update Community meetings may include project walk-arounds and tours of project elements, providing community members and stakeholders an opportunity to see the project in context.

One-on-One calls or meetings – Personal outreach to community members and stakeholders may be time-intensive but is an essential tool for building understanding between SFCJPA staff and community members and stakeholders.

Tours – As part of project updates, or as stand-alone activities, tours for community members and stakeholders provide an opportunity for staff to explain our projects in the context of the natural and human ecology of the San Francisquito Creek and the Bay margin.

Other meetings

CEO & City Manager's Meetings – These regular meetings, held approximately every two months, enable the SFCJPA to brief member agency staff leadership on the status of the SFCJPA's work, including legal issues, project activities, project funding, project regulatory permitting, etc.

San Francisquito Creek Multi-Agency Coordination for Emergency Planning/Public Safety (MAC) – A MAC group and associated operations plan was formed in 2015 to facilitate a common flood and severe weather response for San Francisquito Creek that historically has impacted each member. The SFCJPA supports the MAC, which was composed of the following stakeholders in 2019; but other members may be added as indicated:

- City of East Palo Alto
- City of Menlo Park
- City of Palo Alto
- Menlo Park Fire Protection District
- Valley Water
- SFCJPA

- County of San Mateo
- County of Santa Clara
- Stanford University
- CalFire

The MAC Operations Plan is developed and maintained by the Palo Alto Office of Emergency Services (OES), as the chair of the MAC group. The plan describes coordination between member agency emergency operations staff and typically includes an annual briefing and table-top exercise to test the concepts and mobilization activities, as well as an After-Action Review of the Plan with stakeholders.

Engaging volunteers and building educational partnerships – The SFCJPA has a long history of supporting volunteer activities, including educational, fraternal, community and other outreach activities. We have supported educational research projects related to the Creek, promoted creek advocacy, and support many community events such as Bay Day, Earth Day, and Coastal Cleanup.

Volunteer opportunities have included:

- Tabling events and coordinating or presenting webinars
- Providing content for newsletters, blogs, and photographs or featuring the Creek or Bay margin on the SFCJPA website and/or in newsletters
- Promoting and coordinating community tours of various aspects of the creek and bay margin

The SFCJPA has supported high school and college internships.~~in the past~~. Interns are an option when funding can be secured to support paid, short-term, focused engagements. The SFCJPA has supported educational partnerships with local schools, colleges and universities as requested.

In the future, we may expand our presence in the community through additional coordination of volunteer support, as the Creek provides a rich opportunity for local community members, learners, and educators.

7. Advocacy

As a government agency, there are limitations on advocacy. The agency may advocate for its interests before local, State and federal legislatures, but is limited in its scope to advocate to community members and stakeholders. Education takes the place of advocacy in all communications to community members and stakeholders. There are also targeted educational opportunities including community events described above as part of SFCJPA outreach activities. In addition, the SFCJPA routinely coordinates with staff of local, State, and federal elected representatives to brief them on SFCJPA projects, progress, and issues. Elected representatives can play a key role in the success of SFCJPA projects, so ensuring their staff is well-informed is an important investment of the Executive Director and SFCJPA Board members.

Education – All elements of the community and stakeholder engagement can be described as education. ~~With regard to~~ Regarding building support for the long-term success of the SFCJPA, certain ideas or messages are important to instill, such as: ~~For example: acknowledging the importance of Valley Water's Safe Clean Water and Natural Flood Protection Program that is a large funding mechanism for SFCJPA projects, and the proposed renewal of this parcel tax measure on the November 2020 ballot, highlighting~~ the importance of stream-side property owner stream stewardship, and elevating the importance of long-term funding for urban stream and bay margin flood mitigation and resilience projects.

To convey these messages, and any other timely priorities, SFCJPA Board and Executive Director may engage local elected representatives, regularly brief member City Councils and our County Supervisors (ideally twice a year) and inform local candidates about SFCJPA projects.

Advocacy – The Executive Director and SFCJPA Board may engage in advocacy before local, State, and federal legislative bodies on issues of importance to the SFCJPA.

Advocacy may take the form of support letters, participating in advocacy coalitions, meeting with individual policymakers to make the SFCJPA's case, or providing written or verbal testimony to committees or other bodies of elected or appointed officials.

In the future, the Board, and staff of the SFCJPA might choose to identify a specific set of policy issues and positions to facilitate advocacy engagement.

Access to funding and funding sources will likely be a relevant issue for the life of the SFCJPA. For example, there may be Statewide Climate Resiliency Bond measure issued in the future. This, and similar bond measures that provide flood risk mitigation, environmental restoration and stewardship are issues the SFCJPA should strongly support and be engaged in.

8. Funding

The SFCJPA has two funded components: operations and projects. Operations are funded through annual contributions from its five constituent members. Projects have been funded through a combination of funding from Valley Water's Safe Clean Water and Natural Flood Protection Program assessment revenues, additional contributions from member agencies, grant funding from the Department of Water Resources, State Water Resources Control Board, the Army Corps of Engineers and other sources ~~non-profits~~. The ~~In late 2020, the~~ SFCJPA ~~will be~~ developed ~~ing~~ a funding roadmap for the Reach 2 Upstream project. This roadmap will consider a broad range of funding options, including ~~and will prioritize~~ near and long-term funding strategies, which will include some or all of the options described below.

The Protecting the Bay Working Group has chosen to focus on the SFCJPA's SAFER Bay project for its assessment of the flood risk reduction benefits of salt marshes, and subsequent development of climate finance mechanisms. This working group consists of local stakeholders (San Mateo County Supervisor Dave Pine, Flood and Sea Level Rise Resiliency District, San Francisco Estuary Institute) and others focused on flood risk mitigation and natural infrastructure statewide (California Department of Insurance, California State Coastal Conservancy) and globally (TNC, Swiss RE).

Operations funding – The SFCJPA's operations funding comes from member contributions. Annual budgets are provided to the Board for consideration. Approved budget amounts are divided evenly among the five member agencies. These contributions pay for all shared costs: salaries, benefits, office and operations, etc.

Sponsorships are one possible additional operational funding source. These are gifts given directly to the SFCJPA to support specific operational purposes or activities. Typically, sponsorships are sought from private or corporate donors, who believe the purpose of the donation also helps them in some way. Such donations may be tax deductible charitable contributions for private or corporate donors. Sponsorships might support elements of the SFCJPA's operations, such as paying an internship stipend, covering the costs to host a special event, or for the creation of a publication. Sponsorships might also be sought for ongoing ecosystem stewardship, recreational facilities and their maintenance. These activities are associated with projects but are themselves not capital projects.

Project Funding - The SFCJPA will continue to seek local and state contributions while also evaluating new funding opportunities.

Potential future funding mechanisms for projects include expansions of existing mechanisms, such as state agency grants funded through revenue bonds. Future revenue bonds may include a Statewide Climate Resiliency Bond measure, which may be on the ballot in the next couple of years. This, and similar bond measures that provide flood risk mitigation, environmental restoration and stewardship are issues the SFCJPA should strongly support and be engaged in.

Member contributions – the SFCJPA's members may choose to contribute funding or to provide collateral for low interest rate loans for project construction.

Philanthropy/Capital Campaign – Non-profit organizations such as museums, zoos or charitable organizations sometimes fund large investments in capital facilities through capital campaigns. These are well-organized, targeted fund-raising campaigns, seeking donations to fund large capital projects. While it may be unusual for a local government agency to conduct a capital campaign to fund projects such as creek channel modifications, flood detention basins, or bay margin levees, it is an option to consider.

General Parcel Taxes – This mechanism ~~is what~~ funds the Safe Clean Water and Natural Flood Protection program implemented by Valley Water. This provides a predictable, long-term revenue

stream, which Valley Water apportions based on number of parcels and flood risk mitigation project needs. In November 2020, Santa Clara County voters ~~will have an opportunity to vote on~~ approved a permanent ~~updates to and the~~ extension of the Safe, Clean Water and Natural Flood Protection Program. ~~SCW program~~, ~~or not the outcome of this ballot measure is successful will have a significant impact on funding for the San Franciscquito Creek flood mitigation and restoration projects.~~

Parcel taxes may be assessed by a JPA, including the SFCJPA. According to California law, these parcel tax assessments must be approved by a vote of two thirds.

Community Facility or Benefit Assessment District – Community Facilities Districts, or Benefit Assessment Districts can be established by local governments as a means of obtaining additional public funding to pay for public works and some public services. Assessment Districts are a "property tax" mechanism and are established for a specific geographical area receiving a special benefit from specified public improvements and services. This approach may be an effective mechanism for raising revenues from property owners impacted by creek flooding and sea level rise.

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Glossary

This glossary is intended to assist the reader with words that they may not be familiar with, especially as they relate to San Francisquito Creek.

Alluvial fan- a triangle-shaped deposit of gravel, sand, and smaller pieces of sediment, such as silt. These unconsolidated deposits, or alluvium, are left by flowing streams. Alluvial fans are typically thicker close to streams and thinner at the outer edges.

Groundwater in the alluvial fan formed by San Francisquito Creek forms a productive aquifer known as the San Francisquito Creek Cone (named for the general cone shape).

Anadromous- is the term that describes fish born in freshwater who spend most of their lives in saltwater and return to freshwater to spawn, such as salmon and some species of sturgeon**.**

Beneficial Uses- As defined in the California Water Code, beneficial uses of the waters of the state that may be protected against quality degradation include, but are not limited to, domestic, municipal, agricultural and industrial supply; power generation; recreation; aesthetic enjoyment; navigation; and preservation and enhancement of fish, wildlife, and other aquatic resources or preserves.

The beneficial use category is related the California's water quality protection goals. For water with multiple beneficial uses, the beneficial use with the higher level of protection is used.

cfs - cubic feet per second**,** a measure of flow velocity

Engineered stream bed material- (ESM) this is a mix of boulders, cobbles and pebbles used to stabilize creek bottoms and banks. The mix is site-specific and depends on stream hydraulics and design criteria. The rocks are strategically emplaced to minimize scour, largest to smallest, tamped into place, and then covered with sand to minimize movement within design parameters.

ESM looks and functions much like a natural stream bed and has already been used in San Francisquito Creek in the Bonde Wier removal project that was completed in 2013. The SFCJPA prefers the use of ESM where possible over rock slope protection that uses uniform sized cobbles.

FEMA- Federal Emergency Management Agency, a federal agency that prepares for and responds to disasters. In 2003, FEMA became part of the Department of Homeland Security.

Freeboard-term used by the Federal Emergency Management Agency's National Flood Insurance Program to describe a factor of safety, usually expressed in feet above the 1-percent-annual-chance flood level.

Flashy- Stream that rapidly collects flows from the steep slopes of its catchment (watershed) and produces flood peaks soon after the rain that subside rather quickly after the cessation of rainfall. San Francisquito Creek is considered to be a flashy creek.

Groundwater - Water held underground in the soil or in pores and crevices in rock. that collects or flows beneath the Earth's surface, filling the porous spaces in soil, sediment, and rocks. Groundwater originates from rain and from melting snow and ice and is the source of water for aquifers, springs, and wells.

Overbank- Flows that exceed top of channel margins. Flood flows

Perched Creek- A stream with a bottom that is above that of the groundwater table and thus is separated from underlying groundwater. This condition can vary seasonally and annually depending on the amount of precipitation, as well as in different sections of the same streambed. Another term for this is a losing stream because it can recharge ground water unless there is a confining layer that inhibits percolation. A gaining stream is a stream bottom that is below the top of the groundwater table and is thus directly hydraulically connected with groundwater.

Refugia- A natural or constructed feature that provides a resting area for animals. The San Francisquito Creek constructed five high tide refugia islands for salt marsh harvest mice and California Ridgeway's Rail to adapt to rising tides. We also installed rootwads and rock berms that provide habitat and refuge for fish in the creek. Our Reach 2 U~~u~~pstream project has incorporated similar features and includes pools and riffles for fish.

Riparian- Riparian areas are lands that occur along watercourses and water bodies. Typical examples include flood plains and streambanks. They are distinctly different from surrounding lands because of unique soil and vegetation characteristics that are strongly influenced by the presence of water. A riparian area or zone is illustrated below:

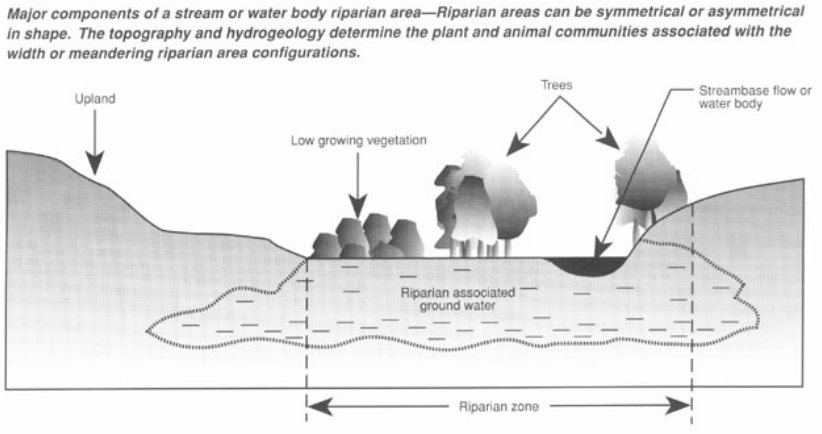

Image source: USDA, NRCS

Scour- Net removal of sediment from stream by action of water flow. Scour may be measured in volume of sediment removed from a channel reach, in average depth of sediment removal from an area, in average change of depth at a cross section, or in change of depth at a point.

Streambed scour is the mobilization/fluctuations in the vertical position of the bed of a stream as material is eroded and degrades. Some degree of streambed fluctuation is natural process; however, urban development and floodplain encroachment have resulted in excessive channel incision or bed lowering during larger flow events in San Francisquito Creek.

Salmonoid spawning success requires that deep scour of the bed does not occur during the time the eggs are incubating in gravel deposits.

Sediment- A collective term for rock and mineral particles that 1) are being transported by a fluid (sediment in transport, suspension, or motion) caused by the fluid motion or 2) have been deposited by the fluid (i.e., sediment deposits).

Sheet Pile- Sheet piles are three dimensional vertical sections, most commonly made of steel, that interlock to form a continuous wall that can hold back soil and/or water. The term sheet piling refers to any retaining wall type that is a) installed into the ground by driving or pushing, rather than pouring or injection.

Stage- The level of the water surface in a stream, river, or reservoir, measured with reference to some datum.

Stream Bank- The sloping margin of a stream or river that confines flow to the natural channel during normal stages.

Toe of Bank- The "toe" lies at the bottom of the creek side slopes or banks and supports the weight of the bank. The toe is the area that is most susceptible to erosion because it is located in between the ordinary water level and the low water level, and it is the area most affected by currents and/or storm flows.

Top of Bank- The point along the bank of a stream where an abrupt change in slope is evident, and where the stream is generally able to overflow the banks and enter the adjacent floodplain during an annual flood event. Determination of the top of bank is site specific and vary along a bank. This determination may require a survey but is important to creek protection policies and buffers.

Total Maximum Daily Load (TMDL): An evaluation of the condition of an impaired surface water on the Section 303(d) List that establishes limitations on the amount of pollution that water can be exposed to without adversely affecting its beneficial uses, and allocating proportions of the total limitation among dischargers to the impaired surface water.

Tidal/Tidal Influence- areas that are subject to the ebb and flow of tides. San Francisquito Creek is tidal in Reach 1 from San Francisco Bay to Highway 101.

Undergrounding- utility lines or piping that is moved from above ground to below ground.

Waters of the State- Defined more broadly than "waters of the United States and includes "any surface water or groundwater, including saline waters, within the boundaries of the state" (Water Code section 13050(e)). The definition is broadly interpreted to include all waters within the state's boundaries, whether private or public, including waters in both natural and artificial channels. California includes riparian area of creeks, from Top of Bank to Top of Bank, rather than mean high water as interpreted federally. This broader application stems from the Porter-Cologne Act that expands the aerial extent of the Water Quality Control Boards' authority as waters of the State. The Porter-Cologne Act also requires the Water Board to address both indirect and direct impacts of activities (including downstream impacts), as well as possible future impacts that can result in the degradation of water quality.

Waters of the United States - Very generally refers to surface waters, as defined by the federal Environmental Protection Agency in 40 C.F.R. § 122.2. In 2020, waters of the U.S. were defined to expressly to include the following:

- Territorial seas, and waters that are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including waters which are subject to the ebb and flow of the tide;
- Tributaries;
- Lakes and ponds, and impoundments of jurisdictional waters; and
- Adjacent wetlands.

The 2020 rule also has specific exclusions from waters of the U.S., including:

- Groundwater
- Ephemeral features, including ephemeral streams, swales, gullies, rills, and pools;
- Diffuse stormwater run-off and directional sheet flow over upland;
- Ditches that are not "waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including waters which are subject to the ebb and flow of the tide;"
- Tributaries; and non-ephemeral wetlands that are adjacent to waters of the United States;
- Prior converted cropland; artificially irrigated areas,
- Artificial lakes and ponds, or water filled depressions from mining or construction
- Stormwater and control features constructed or excavated in upland or in non-jurisdictional waters to convey, treat, infiltrate, or store stormwater runoff;
- Groundwater recharge, water reuse, and wastewater recycling structures, including detention, retention, and infiltration basins and ponds, constructed or excavated in upland or in non-jurisdictional waters; and
- Waste treatment systems.

COMPREHENSIVE PLAN

This Comprehensive Plan is the SFCJPA's description of our vision and action plan for the benefit of our member agencies, residents, and stakeholders. The SFCJPA has always considered a watershed approach for our work, and this document is intended to chronicle our overall plan. This plan is a living document and will be revisited annually during July and August and updated to reflect recent or anticipated activities and events that affect the watershed.

San Francisquito Creek Joint Powers Authority

SAN FRANCISQUITO CREEK
JOINT POWERS AUTHORITY
sfcjpa.org

REVISION HISTORY

Revision #	Revision Date	Revisions Made
0	November 2020	Initial Plan
1	September 2021	Minor updates to project nomenclature, annual updates, and incorporation of 2021 stakeholder comments
2		

ACKNOWLEDGEMENTS

This plan was prepared through a collaboration of stakeholders coordinated by the San Francisquito Creek Joint Powers Authority, the members of which are the Cities of East Palo Alto, Menlo Park and Palo Alto; the Santa Clara Valley Water District and the San Mateo County Flood and Sea Level Rise Resiliency District. We thank our reviewers for their thoughtful comments that have made this a better plan.

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Contents

Figure 1. San Francisquito Creek Watershed and Alluvial Fan

Figure 2. FEMA Floodplain Designation for Creek and Bay with approximate parcels in each that will be addressed by SFCJPA Projects

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Summary

This Comprehensive Plan describes the SFCJPA's vision, goals, and action plan for the San Francisquito Watershed for the benefit of our member agencies, watershed partners and stakeholders. San Francisquito Creek is an asset unifying the communities it touches, providing ecosystem and recreation services. The San Francisquito Creek Joint Powers Authority (SFCJPA) works with its members and watershed partners to address the interrelated issues of flood protection, ecosystem restoration and creation of recreational opportunities along the creek and in the watershed.

Our overarching goal, working with our member agencies and partners, is to implement a suite of interrelated actions, each with independent utility but together comprising a comprehensive approach with multiple benefits to all inhabitants of the watershed. The SFCJPA's action plan to achieve our vision and overarching goal is to implement the following projects that are components of the SFCJPA's plan to cost effectively provide protection to people and infrastructure, while improving habitat and recreational opportunities:

Reach 1 - San Francisco Bay to Highway 101 "Downstream Project"

This completed project was the necessary first step in our plan. The flood control aspects of the project consisted of widening the creek channel, constructing new setback levees and flood walls, and creating in-channel marsh plain. In total, this project created more than 22 acres of new and improved marsh and added new trails on top of the levees that connect to the San Francisco Bay Trail and West Bayshore Road. This project specifically incorporated protection against three feet of sea level rise. When considering the safety factor of FEMA freeboard, the project as built protects against 100-year creek flows and up to 10 feet of sea level rise compared to today's daily high tide. The Reach 1 Downstream Project flood protection elements were completed December 2018 and the overall project was completed June 2019.

Reach 2 - Highway 101 to El Camino Real "Middle Reach Project"

This project is designed to provide protection for people and property from a flood event similar to the 1998 flood, which is considered a 70-year event. This project will remove artificial constrictions at four or five locations to increase channel capacity, while incorporating improvements to habitat. The lowest flow capacity point is the Pope Chaucer Bridge, and it will be replaced by a new bridge with a more open design that restores natural creek bed. The new bridge has been carefully designed to minimize its footprint and to maintain current street elevations, while ensuring safe pedestrian and bicycle access. Channel widening is anticipated to begin in 20233~~2~~. Bridge construction is anticipated to begin in 20243~~3~~.

Reach 3 – Upstream Detention to complete 100-Year Flood Protection

In order to achieve the 100-year level of protection and associated FEMA freeboard to remove parcels from the FEMA floodplain (and the need to pay for flood insurance), an additional project for upstream detention was evaluated at a programmatic level in our September 2019 Environmental Impact Report.

The topography of the upper watershed does not allow for upstream detention on its own to provide 100-year flood protection; only a combination of the completed Reach 1 and Reach 2 projects, supplemented by Reach 3 upstream detention and/or other similar flow reduction features can achieve 100-year protection with FEMA freeboard for San Francisquito Creek. Data collection for a project level evaluation of potential alternatives that can achieve 100-year flood protection with FEMA freeboard has been initiated. Data collection and evaluation will provide an understanding of the potential for upstream detention to supplement Reach 1 and 2 improvements to provide for 100-year flood protection with freeboard.

Tidal flood protection and marsh restoration- Strategy to Advance Flood Protection and Ecosystem Restoration along San Francisco Bay (SAFER Bay Project)

The Strategy to Advance Flood protection, Ecosystem restoration and Recreation Project (SAFER Bay) addresses tidal flood protection by improving or rebuilding flood protection features along San Francisco Bay within SFCJPA jurisdiction. Public Draft Feasibility reports were issued in 2016 for East Palo Alto and Menlo Park, and in 2019 for Palo Alto. The multiple reaches and elements of these projects, when fully constructed, will eliminate the protection gap in the tidally influenced areas, along the bay margin, outside of our completed project from San Francisco Bay to Highway 101 described above.

We are currently moving forward with a portion of this project in East Palo Alto and Menlo Park. We have initiated early coordination with permitting agencies working on a conceptual design, project description, and stakeholder outreach. The SFCJPA will release a Notice of Preparation in the fall of 2021 and begin the CEQA process. The SFCJPA has partnered with the South Bay Salt Ponds Restoration Project to restore Ponds R1 and R2 as part of this project's utilization of natural flood protection to address sea level rise. This project has similar protection criteria as our completed Creek project from San Francisco Bay to Highway 101. The SFCJPA will communicate and coordinate with stakeholders and other regional adaptation projects.

The SFCJPA will implement these plan components to achieve our vision and goals. We intend to work with our member agencies and leverage other planned activities in the watershed using a partnership approach to augment our plan. As stated so eloquently in 2005, by the San Francisquito Creek Watershed Council in **A Stakeholder Vision for San Francisquito Creek**:

> *"This document offers a vision for securing the future of the San Francisquito watershed as a vital community resource. Its authors are a group of stakeholders with a range of perspectives as representatives from neighborhood associations, local cities, environmental groups, Stanford University, and local, state, and federal resource agencies. While they do not always agree on paths of action to a given goal, they put forward this vision as their collective expression of what it means to live in a watershed and keep it healthy and safe for the future."*

The SFCJPA intends to follow this tradition with our member agencies and numerous partners in a transparent and collaborative manner.

1. Introduction

This document serves as a Comprehensive Plan that details the past efforts and current Capital Improvement Program of the San Francisquito Creek Joint Powers Authority (SFCJPA) for use in documenting our efforts and as a communications tool. Its development and refinement ~~are~~ is also intended to provide opportunities for discussion about the issues related to flood management, ecosystem restoration, and recreational opportunities in the creek corridor and show how stakeholders throughout the watershed can work together to implement the planning goals of the SFCJPA. This document:

- describes the San Francisquito Creek Watershed and the resources within the watershed,
- describes the evolution of the creek and re-engineering efforts since the 1850's
- states accomplishments of the Planning process to date and the role of the SFCJPA,
- outlines the SFCJPA's Comprehensive Capital Improvement Program, describes the roles and relationships of key watershed partners, and broadly outlines potential solutions and future funding needs.

Vison: The San Francisquito Creek is an asset unifying the communities it touches, providing recreation and ecosystem services. The SFCJPA works with its members and watershed partners to address the interrelated issues of flood protection, ecosystem restoration and creation of recreational opportunities along the creek and in the watershed in a fiscally responsible manner.

Overarching Goal: Implement a suite of interrelated actions, each with independent utility but together comprising a comprehensive approach with multiple benefits to all inhabitants of the watershed.

Action Plan: The projects described in Section 4 are components of the SFCJPA's overall plan to provide 100-year flood protection and improve habitat and ecosystems:

This Comprehensive Plan represents our path for implementing the SFCJPA's vision and tracking progress towards our overarching goal with our action plan.

This plan intended to be a living document that will be reviewed annually and updated as necessary. Additional information on the SFCJPA's activities can be found on our website at www.sfcjpa.org.

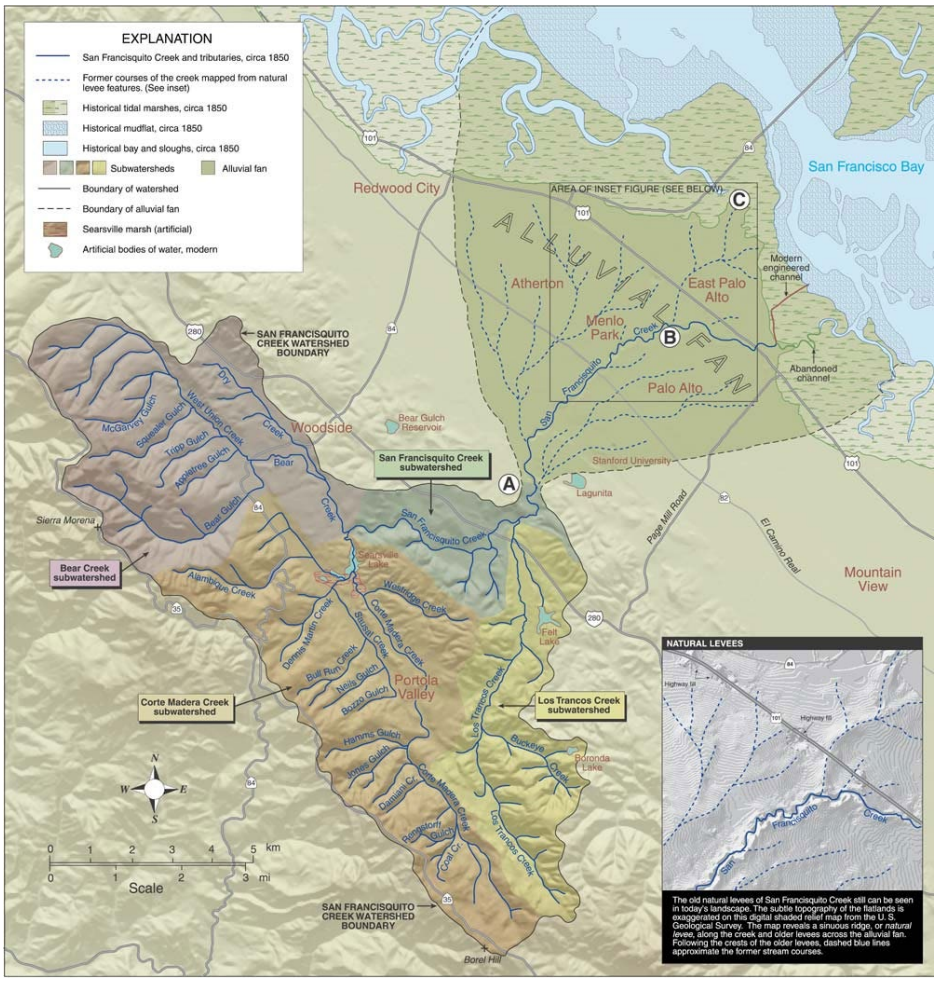
2. Description of the Watershed

The San Francisquito Creek watershed is approximately 45 square miles in extent and includes areas of Santa Clara and San Mateo counties. The mainstem and a portion of its Los Trancos Creek tributary form the boundary between the city of Palo Alto and the cities of Menlo Park and East Palo Alto, and

between Santa Clara and San Mateo counties, reflecting the fact that it originally defined the boundary between the lands of the Spanish Missions in Santa Clara and San Francisco.

San Francisquito Creek begins at the confluence of Corte Madera Creek and Bear Creek below Searsville Dam in the Jasper Ridge Biological Preserve on land purchased by Stanford University in 1892. The creek is joined by Los Trancos Creek just northeast of Interstate 280.

The creek runs approximately 14 miles from southwest to northeast, and after exiting the foothills of the Santa Cruz Mountains near Junipero Serra Boulevard and Alpine Road, flows in an incised channel within a broad historic alluvial fan before emptying into the San Francisco Bay south of the Dumbarton Bridge and north of the Palo Alto Flood Basin.



Source: Janet M. Sowers, 2004. Oakland Museum of California, Creek and Watershed Map of Palo Alto and Vicinity, ISBN 1-882140-25-7

Figure 1. San Francisquito Creek Watershed and Alluvial Fan

Land Use

Of the approximately 27,400 acres of the San Francisquito Creek watershed, approximately 8,798 acres are protected by public agencies, property easements, or private land trusts (32%), providing a natural feel within much of the watershed. The west side of the watershed is largely unpopulated, consisting primarily of forest and grasslands. Headwaters of the watershed are in the east side of Santa Cruz Mountains, and form the Los Trancos Creek, Corte Madera Creek, and Bear Creek sub-watersheds, include forested habitats and drain into the main stem. The lower watershed is highly urbanized and includes expansive areas of residential and commercial development. Although lower watershed development is prevalent when compared to the upper watershed, large, contiguous areas of open space, including forest, rangeland and agricultural areas, are interspersed throughout the urban and suburban land uses, complementing the undeveloped, open nature of much of the watershed.

The watershed is the dominant natural watercourse feature on the Peninsula, with the Santa Cruz Mountains to the west and the Bay to the east. The area east of the Alameda de las Pulgas is considered the "lowlands" with a slope of less than 5%. The densest development in the region is typically located in the lowlands and includes visually similar commercial and industrial buildings as well as multi- and single-family homes. Breaks in this dense development pattern include open areas along the Bayfront, large surface parking lots, setbacks along major arterials, or local and regional parks. Development density generally decreases as elevation increases, providing expansive views of the lower watershed.

The steep banks of the creek in the urban portions of the watercourse have been modified or hardened in many places in response to bank erosion. Even with these modifications, the San Francisquito Creek remains one of the least modified creeks on the Peninsula and the creek retains much of its natural appearance. The creek has created its own natural 'levees'; with higher banks that slope away from the channel. The bank-tops feature many mature oak, bay, and buckeye trees, while willows grow abundantly on the lower portions of the bank and in the creek channel. The heavily wooded creek banks provide a unique natural character to neighborhoods adjacent to the creek. Many residents enjoy walking or bicycling on the creek-side roads.

Several bridges cross the Creek and physically and visually connect the communities of East Palo Alto, Palo Alto, and Menlo Park. Bridges include vehicular crossings at Newell Road, University Avenue, Pope Street/Chaucer Street, and Middlefield Road; there are two bicycle/pedestrian bridges between Middlefield Road and El Camino Real; and one railroad bridge adjacent to El Camino Real.

Demographics

Population in communities within the San Francisquito Creek Watershed is estimated in the table on the following page.

Estimated Population, San Francisquito Creek Watershed (US Census data)		
Area	Population	Year
Woodside	5,510	2018
Stanford	15,668	2018
Palo Alto	66,666	2018
East Palo Alto	29,519	2018
Menlo Park	34,549	2018
Atherton	7.187	2018
Total	**160,345**	

Residents of the San Francisquito Creek Watershed represent a wide range of socio-economic circumstances, from the wealthiest to economically disadvantaged, as well as culturally and racially diverse communities. In the SFCJPA's jurisdiction, 12,700 people in East Palo Alto and 4,300 people in Menlo Park are considered vulnerable communities, as defined by the Department of Water Resources. Using another measure for disadvantaged community, two entire census tracts within East Palo Alto, with a combined population of over 17,000, are recognized as California Disadvantaged and Severely Disadvantaged Communities by the California Environmental Protection Agency (2017) as defined by State Bill 535. According to the U.S. Census website, the population of the cities of Menlo Park and Palo Alto tend to be both older and whiter than neighboring East Palo Alto, although a sizable percentage of Palo Alto's population is Asian. East Palo Alto's population skews younger, and more racially diverse, with a majority of Hispanic, African-American and Pacific Islander residents.

The SFCJPA has and will continue to tailor community outreach to include as many stakeholders as possible. As described in Section 3, we have partnered with Nuestra Casa and Climate Resilient Communities for specific outreach for our work in disadvantaged portions of our communities. Additionally, SFCJPA can draw on the expertise of bi-lingual staff members where Spanish/English translation or interpretation is necessary.

Historic and archeological resources[1]

The area was occupied by indigenous people for millennia prior to the first European visitors to the area in 1769. The aboriginal way of life for the Ohlone was disrupted by contact with European

[1] *Summarized from the 2011 report Initial Cultural Resources Investigation San Francisquito Creek Flood Damage Reduction and Ecosystem Restoration Project, Santa Clara and San Mateo Counties, California by Far Western Anthropological Research Group, Inc.*

explorers and the establishment of missions by the Spanish in the late eighteenth century. At the time of Spanish contact, the Bay Area and the Coast Range valleys were dotted with native villages.

Gaspar de Portola crossed San Francisquito Creek in November 1769, and Spanish colonial policy throughout the late 1700s and early 1800s was directed toward establishing religious missions, presidios, and secular towns known as pueblos, with all land being held by Spain. Mission San Francisco de Assisi (also called Mission Dolores) was founded on June 29, 1776 and situated about 25 miles to the northwest of the project area. Mission Santa Clara de Asis, located about 12 miles southeast of the project area, was then established on January 12, 1777.

With the transition of the area to the Mexican Government in 1821, the former Spanish mission lands were divided into vast tracts called "ranchos", owned by individuals. The watershed encompasses portions of seven ranchos, two on the north side of San Francisquito Creek (Rancho Las Pulgas and Rancho Cañada de Raymundo) and five on the south side (Rancho Cañada El Corte de Madera, Rancho El Corte de Madera, Rancho San Francisquito, Rancho Rincon de San Francisquito, Rancho Rinconada del Arroyo de San Francisquito). Many of these names have come to define the geography of the watershed and its environs to this day.

After the Mexican-American War (1846-1848), the U.S. military gained control of California. The early American Period was primarily defined by the growth of agriculture in the region, with land grants establishing the towns of Menlo Park and Mayfield, and right of way for railroads. Locally, construction on the San Francisco and San Jose Railroad began in 1861, with passenger and freight service beginning in 1863. The railroad expanded the agricultural life of California and led to more innovative ways to ship and preserve food supplies, such as transporting fruit and meat in refrigerator cars which were invented in 1880. The railroad also facilitated the development of communities in the south Bay, a process greatly hastened by the San Francisco earthquake of 1906 which displaced hundreds of people.

Leland Stanford, Sr. purchased land along San Francisquito Creek in the late nineteenth century and established the Palo Alto Stock Farm. This land formed the basis of Stanford University, which was founded in 1891. During the early twentieth century, population in the region expanded considerably and marsh areas were filled for farming, and San Francisquito Creek was rerouted to accommodate desired growth. Menlo Park and Palo Alto expanded, with the latter incorporating the City of Mayfield by the beginning of World War II. The general area also began to transition from rural to urbanized, with residential and commercial uses wide-spread west of Highway 101 since the 1920s. Today, the area is almost entirely developed, with some areas now being redeveloped.

Creek Evolution and Re-engineering

San Francisquito Creek was first modified by early European settlers who established the large Ranchos in the 1830s. These early ranchers likely constructed irrigation ditches to transport water and ford crossings at creeks. In 1876, former Governor Leland Stanford acquired the 8,800 acres which later became the Stanford University campus.

In 1887, the Manzanita Water Company (later the Crystal Springs Water Company) constructed Searsville Dam on Stanford land. The dam, completed in 1891, was intended to supply water to Stanford University. Due to fine suspended sediment and odor, the water was non-potable and was therefore used for irrigation purposes. Today the reservoir is nearly filled with sediment which has created wetland habitat for waterfowl, bats, and other species.

The section of creek downstream of what is now Highway 101 was first channelized and re-routed in 1931 for planned development. The area previously occupied by the creek mouth and slough is now the Palo Alto Airport and golf course. When the creek was channelized between levees it was moved north to its current alignment, which effectively moved the boundary between San Mateo and Santa Clara counties along this reach.

The Newell Road Bridge, located between Woodland Avenue (East Palo Alto) and Edgewood Drive (Palo Alto), was built in 1911. In East Palo Alto, Newell Road connects to Woodland Avenue, which provides access to University Avenue and US 101. In the City of Palo Alto, Newell Road connects to two main thoroughfares, Channing Avenue and Embarcadero Road, which also provide access to US 101. This bridge has limited hydraulic capacity and will be replaced both for traffic safety and flow conveyance.

The Pope-Chaucer bridge, which connect Pope Street in Menlo Park to Chaucer Street in Palo Alto, was originally a wooden structure built in 1907, and soon thereafter was replaced by a concrete bridge in the same location. In 1948, the bridge deck was expanded to support a right turn lane for vehicles travelling north on Chaucer Street to turn right onto Woodland Avenue after crossing the bridge. To support the expanded bridge deck, the existing culvert, which is a hydraulic constriction, was added under the existing bridge and expanded deck. The right turn land was later abandoned, and in the 1980s oak trees were planted in the soil between the culvert and former road surface. The bridge will be replaced as part of the Reach 2 project.

At least two efforts were initiated in the 1950s and 1960s, partially in response to the 1955 flood, to straighten and channelize the creek from Middlefield Road to SF Bay. The plans were abandoned for several reasons, including the difficulty in acquiring needed land rights and community opposition.

Recreation

The San Francisquito Creek watershed supports a wide range of local and regional parks, trails, and open spaces. The Creek flows into Don Edwards National Wildlife Refuge and Baylands Nature Preserve, a 1,940-acre tract of undisturbed marshland (the largest remaining marshland in the San Francisco Bay) with remaining high-quality marsh habitat. The creek is adjacent to the Palo Alto Municipal Golf Course and Palo Alto's Baylands Athletic Center. The Creek corridor also supports a portion of the regional Bay Trail and connects to Cooley Landing Park and the Ravenswood Open Space Preserve to the north and Baylands Nature Preserve to the south. The San Francisquito Creek Trail is well traveled and is the location of many community events, including Moonlight Run, Great Race for Saving Water and Bay Day.

The urban portion of the Creek between Highway 101 and Interstate 280 is mostly comprised of urban parks and trails such as Hopkins Creekside Park and El Palo Alto Park, transitioning to a wide range of larger parks and open space on Stanford University lands and in the surrounding foothills.

Utilities

As San Francisquito Creek runs through an urban environment, multiple utility corridors run adjacent to or over the creek. The relocation, protection, or avoidance of these utilities have a significant impact on work in or around the creek.

The typical utilities are expected to cross San Francisquito Creek at major road crossings. In addition, there are major known utilities running over or adjacent to the creek. Significant utilities include:

- Pacific Gas & Electric substations and high-tension overhead electric lines and high-pressure gas transmission lines are within an easement adjacent to and across the channel downstream of Highway 101.
- Sanitary sewer, water service, and surface water drainage conduit occur beneath Woodland Avenue, while overhead electric lines occur adjacent to Woodland Avenue.

Critical utilities, including natural gas pipelines, electrical sub-stations, transmission and distribution lines, water supply and wastewater conveyance systems are all located in or near the bay margin. Sea level rise and storm events may adversely impact these utilities.

The SFCJPA will continue to coordinate closely with PG&E, local districts and municipal departments in the planning and implementation of our projects to ensure these critical infrastructure resources are safeguarded.

Fish and Wildlife resources

San Francisquito Creek flows through a mix of protected open space, agricultural, commercial, light industrial, and residential settings before reaching the baylands habitat associated with South San Francisco Bay. At the bottom of the watershed, where the creek meets the San Francisco Bay, is salt marsh habitat. The salt marsh harvest mouse, Ridgway's Rail and black rail, have all been observed in this vicinity. Moving upstream and west through the watershed, as water becomes less tidally influenced and salinity levels decrease, riparian corridors of perennial water, stream-side vegetation such as willows, box alders, and cattails, are present along many of the streams throughout the watershed. These areas provide suitable habitat for the California red-legged frog, California tiger salamander, and western pond turtle, which have all been observed within the watershed.

Additionally, streams within the Bear Creek, San Francisquito Creek and Los Trancos Creek watersheds provide suitable migration and spawning habitat for steelhead. Serpentine soil outcrops have been identified within the San Francisquito, Corte Madera, Bear, and West Union Creek sub- watersheds. This micro-habitat supports special status and common wildlife and plant species, including the Bay checkerspot butterfly, serpentine bunchgrass, and Crystal Springs lessingia.

Climate and Climate Change

The Bay Area has a Mediterranean climate with mild wet winters and warm dry summers. Coastal ocean currents moderate the effects of seasonal changes in temperature. The Santa Cruz Mountains impose a moderate rain-shadow (or orographic) effect to their east in the San Francisquito Creek watershed. This orographic effect contributes to variability in average annual precipitation in the watershed, ranging from about 40 inches at the crest of the mountains to approximately 15 inches in Palo Alto.

In the past century, global mean sea level has increased by 7 to 8 inches with human influence the dominant cause of observed atmospheric and oceanic warming. Given current trends in greenhouse gas emissions and increasing global temperatures, sea level rise is expected to accelerate in the coming decades, with scientists projecting as much as a 66-inch increase in sea level along segments of California's coast by the year 2100. While over the next few decades, the most damaging events are likely to be dominated by large El Niño - driven storm events in combination with high tides and large waves, impacts will generally become more frequent and more severe in the latter half of this century (https://www.coastal.ca.gov/climate/slr/).

The California Coastal Commission states that sea level rise in California will affect almost every facet of our natural and built environments. Natural flooding, erosion, and storm event patterns are likely to be exacerbated by sea level rise, leading to significant social, environmental, and economic impacts. New projects along the San Francisco Bay shoreline are recommended to incorporate a minimum of 55 inches of sea level rise.

Sea level rise along the bay margin will have an impact on ground water aquifers as saline or brackish water intrudes inland along with rising sea levels. This salt-water intrusion may compromise wells presently used for drinking or irrigation water. Rising ground water tables at the bay margin may also adversely impact the built environment where subsurface excavations or construction encounter groundwater.

Climate change will also impact the San Francisquito Creek watershed. As temperatures increase, this will raise the rate of evapotranspiration in watershed vegetation and soils. This will tend to decrease the amount of water retained in the soil and watershed vegetation, potentially leading to lower creek flows, and lower groundwater tables. Additionally, warmer and dryer conditions are conducive to greater fire risks, and to hotter, faster-burning fires, when they occur. Fires in the heavily vegetated areas of the higher elevations of the San Francisquito watershed could have significant negative impacts on habitat and both water quantity, and water quality in the watershed.

Changing heat and moisture regimes open new ecological niches for plants and animals not formerly associated with the watershed. New species may be benign, or they may disrupt ecosystems, such as

with forest damaging diseases or insects. Species disruptions may also increase the risk of fire, as existing vegetation regimes succumb to disease.

Climate change is already manifesting in longer and hotter dry periods, and more extreme precipitation events. To the extent possible, the SFCJPA will take into consideration these new uncertainties in project design and construction.

The SFCJPA has and will continue to consider foreseeable impacts and changing priorities due to climate change in all of our project planning and implementation. The SFCJPA can not transfer risks from one area to another so will evaluate each project to ensure that the design does not result in unintended consequences locally or regionally.

Geology

San Francisquito Creek flows out of the Santa Cruz Mountains and onto a coalesced alluvial fan or apron near Junipero Serra Boulevard. The creek has deeply incised the alluvial fan sediments along much of its course, leaving steep banks that are often 25 feet high. The channel has had roughly the same alignment on the fan since the end of the nineteenth century. A geological profile along San Francisquito Creek, downstream from Alameda de Las Pulgas Road, shows a layer of coarse channel bed material (gravel, cobbles, and boulders) as far downstream as Middlefield Road. The coarse bed surface present was formed through a winnowing of finer sediment; the underlying subsurface material appears to be considerably finer. The 1892 completion of Searsville Dam on Corte Madera Creek, and subsequent reduction of coarse sediment supply while peak flows were maintained, is thought to be a contributing factor to formation of the bed surface. The coarse sediments overlie a sandy deposit that continues in the streambed to downstream from Highway 101 to the Palo Alto Municipal Golf Course. A thick layer of bay sediments with lenses of alluvium extends at depth beneath the sand upstream to about where the San Francisquito Creek passes the Stanford University Campus, forming a shallow aquifer beneath the fan. These bay sediments are underlain at depth by older, more consolidated alluvium.

Soils

The soils of the flatlands along lower San Francisquito Creek are relatively young. These soils are composed of fine particles (e.g., silt, clay) that were transported as suspended sediment derived from upstream sources and deposited overbank during flood events. The texture and characteristics of these soils affect how quickly water can infiltrate the ground surface. As a result, the soil is important for determining the volume of storm runoff, its timing, and its peak rate of flow.

Groundwater and Land Subsidence

Groundwater and surface water are hydraulically connected in the San Francisquito Creek Watershed (San Mateo County 2018). Groundwater in the area is currently considered to be balanced, meaning that withdrawals approximately equal recharge (San Mateo County 2018). Historical overdraft (defined as long-term pumping that exceeds recharge) that resulted in historical land subsidence and salinity intrusion

led to extensive investigations by the Department of Water Resources and local groundwater management agencies, such as Valley Water. Regional groundwater levels have been trending upward until the most recent drought due to reductions in regional irrigation pumping, and through augmented groundwater recharge programs.

Before the mid-1960s, groundwater production resulted in lowered groundwater elevations in Palo Alto, Menlo Park, and Atherton; movement of saline water inland from San Francisco Bay; and land subsidence in parts of Palo Alto and East Palo Alto. Groundwater levels have recovered since the mid-1960s. Land subsidence has occurred in and around the watershed as a result of past overdraft pumping of the groundwater basin. It is estimated that subsidence began around 1920. The ground level has dropped as much as 2.5 feet in some areas since that time, with the greatest amount of subsidence occurring in the tidal area near the Bay. With the introduction of imported water, groundwater levels have largely rebounded (San Mateo County 2018).

Regulatory Status of Creek and Watershed

The creek is listed by the State Water Board under the 303(d) list as impaired for Diazinon, sedimentation/siltation, and trash. Placement of a water body and its offending pollutant(s) on the 303(d) list, initiates the development of a Total maximum Daily Load (TMDL). TMDLs may establish "daily load" limits of the pollutant, or in some cases require other regulatory measures, with the ultimate goal of reducing the amount of the pollutant entering the water body to meet water quality standards.

As a result of the rugged topography and highly erodible soils in the upper watershed, erosion and sediment loading are the primary water quality concerns in the San Francisquito Creek watershed. Bank erosion is the principal water quality concern in upper San Francisquito Creek, where some sections of the creek have enlarged due to downcutting and bank undercutting, other areas have been narrowed by the placement of armoring in an attempt to control erosion. Despite previous repairs and stabilization efforts, several areas along San Francisquito Creek exhibit slope instability.

The majority of sediment input into San Francisquito Creek is thought to come from the portion of the upper watershed below Searsville Dam, delivered by a number of natural and anthropogenic sources, including landslides, debris flows, bank erosion and failures, and urban development. The remainder of sediment input is presumed to be delivered to the Creek via storm runoff from the urbanized lower watershed. Urbanization has modified the hydrologic characteristics of the watershed. Although sediment removal activities in the watershed have not been a common occurrence for flood control purposes, it is considered to be a primary water quality issue. In the tidally influenced portion of the Creek, water quality may be affected by sediments entering the Creek from South San Francisco Bay.

The San Francisco Bay Basin Plan (San Francisco Bay Regional Water Quality Control Board 2015) describes beneficial uses for the waters in San Francisco Bay. Beneficial uses represent the services and qualities of a water body (i.e., the reasons the water body is considered valuable). Beneficial uses of San Francisquito Creek are listed below:

- Cold Freshwater Habitat (COLD); Fish Migration (MGR)
- Preservation of Rare and Endangered Species (RARE)
- Fish Spawning (SPWN)
- Warm Freshwater Habitat (WARM)
- Wildlife Habitat (WILD)
- Water Contact Recreation (REC-1)
- Noncontact Water Recreation (REC-2)

Other federal, California and local regulatory authorities governing actions that the SFCJPA may take include regulations promulgated by US Fish and Wildlife, National Marine Fisheries Services, National Park Services, California Office of Historic Preservation, Bay Conservation and Development Commission, California Department of Fish and Wildlife as well as local plans and ordinances from our cities and counties. These requirements and others are described in environmental documentation for our projects as well as our Operations and Maintenance Manual for completed work.

The California Department of Water Resources has designated two groundwater Basins on each side of the creek that are also directly hydraulically connected in the watershed. In San Mateo County, it is Groundwater Basin 2-009.03 Santa Clara Valley- San Mateo Plain, and on the Santa Clara County side of the Creek, it is Groundwater Basin 2-009.02 Santa Clara Valley- Santa Clara Sub-basin (Department of Water Resources Bulletin 118, Groundwater Basins, 2021). The USGS designated the San Francisquito Cone Alluvial Aquifer and it is the most productive unit in the San Mateo Plain Groundwater Basin (San Mateo County 2018). The Sustainable Groundwater Management Act has classified the Santa Clara side as very high priority and the San Mateo side as very low priority (DWR Basin Prioritization 2021).

Hydrology

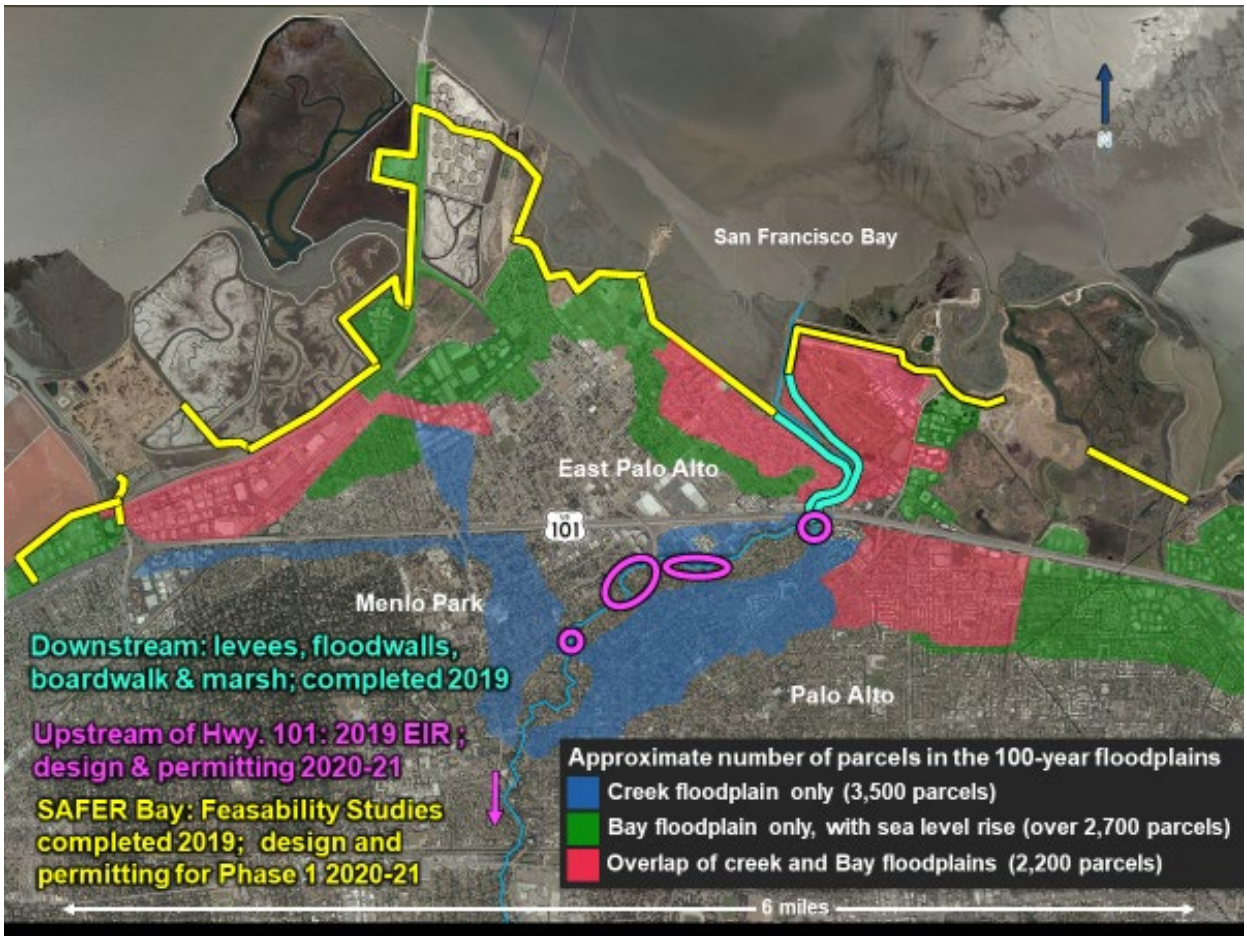
The San Francisquito Creek watershed encompasses an area of approximately 45 square miles on the south-central San Francisco Peninsula. The upper watershed primarily rural and mountainous, whereas the lower watershed (below Interstate 280) is increasingly urbanized and located in low (near sea level) elevations. Tributaries that eventually feed into San Francisquito Creek include Bear Creek, Los Trancos Creek, Alambique Creek, Dennis Martin Creek, Sausal Creek, and Corte Madera Creek. San Francisquito Creek itself begins at the confluence of Bear and Corte Madera creeks in the upper watershed and continues to San Francisco Bay. There are three reservoirs in the San Francisquito Creek watershed, which are used for water conservation and water storage: Searsville Lake, Felt Lake, and Lake Lagunitas. All three of the reservoirs are located in the upper watershed.

Flood History

San Francisquito Creek has a history of recurring floods which have adversely impacted the safety and economic stability of the residents, businesses, and government property within the flood plain. Flooding within the watershed has been documented as far back as 1911, with significant flood events occurring in 1955, 1958, 1982, 1998, 2012, 2014 and 2017. San Francisquito Creek is “flashy”, meaning

stream flow levels can rise and fall quickly. The creek is characterized by a dry bed during summer and fall, and periodic high flows or even flooding, during ~~as a result of~~ winter rain events.

The maximum instantaneous peak flow recorded on San Francisquito Creek at the Stanford University station occurred February 3, 1998, with a peak of 7,200 cfs. After record rainfalls, San Francisquito Creek overtopped its banks and inundated over 11,000 acres of land in Palo Alto, East Palo Alto, and Menlo Park, affecting approximately 1,700 residential and commercial structures.



Source: FEMA Flood Insurance Rate Maps 2015. Panels 0311E; 001H, 0309E, 0314E

Figure 2. FEMA Floodplain Designation for Creek and Bay with approximate parcels in each that will be addressed by SFCJPA Projects

FEMA does not prepare maps of 70-year floods, but the hydraulic model used by the SFCJPA and our partners for the watershed indicate that the area is similar to a 100-year FEMA floodplain, but that depths of inundation are less than that for a 100-year flood.

3. Integrated Planning with Watershed Partners

The SFCJPA works across jurisdictional boundaries to coordinate and collaborate with a wide range of organizations to develop and implement projects that address a large part of the watershed system that could create or be affected by flood events. The SFCJPA organizational structure has been cited as a model for local governments in planning for climate change impacts in a case study by the Bay Conservation and Development Commission (BCDC), the San Francisco Bay National Estuarine Research Reserve (NERR) and the National Oceanic and Atmospheric Administration (NOAA) Coastal Services Center. The SFCJPA Board is composed of elected officials from each of our member organizations.

SFCJPA Members

The five SFCJPA members have collaborated on past key documents that affect the watershed, including the following: Bank Stabilization Master Plan, Total Maximum Daily Loads to achieve water quality standards and Stormwater Resource Plans for Green Infrastructure. The SFCJPA also provides advisory role on proposed projects that are constructed along the Creek.

In addition to our collaborative work, each of our member entities has related projects that will ultimately help achieve the SFCJPA overall goal and vision. The list below is not intended to be exhaustive but rather current projects that affect the watershed or projects that are part of our comprehensive plan.

Valley Water

Valley Water has specific funding for San Francisquito Creek as part of the Safe Clean Water and Natural Flood Protection Program, a parcel tax approved by voters in Santa Clara County in 2012. This parcel tax was made permanent in 2020. As the largest contributor of SFCJPA creek project funding, Valley Water not only provided approximately $30,000,000 for the Reach 1 Downstream project construction, but also provided bid, award and construction oversight of the work. Valley water has provided the HEC-RAS stream flow modeling for our project work. Valley Water's Stream Maintenance Program covers San Francisquito Creek on the Santa Clara County side of the creek. In January 2020, Valley Water completed the San Francisquito Creek Emergency Action Plan to provide guidance on how Valley Water makes decisions during storm and flood events. It is consistent with the San Francisquito Creek Multi-Agency Coordination Operational Plan for Severe Flood events.

Valley Water also has several projects that will reduce tidal flooding and address sea level rise like the Palo Alto Flood Basin Tide Gates Project which will replace the tide gates that protect homes and businesses in Palo Alto and the San Francisco Bay Shoreline Project.

San Mateo County/ Flood and Sea Level Rise Resiliency District (FSLRD)

The new FSLR effective January 2020 is a key partner for SAFER Bay. In addition, the FSLRD has a mission to address flooding and sea level rise within San Mateo County. We anticipate a continued partnership with San Mateo County as a funding partner for SFCJPA as well as for shared mission area to mitigate flooding, creek maintenance activities and land easements.

East Palo Alto

East Palo Alto was a key partner for the Reach 1 Downstream Project and continues with maintenance of the completed project along with Valley Water. East Palo Alto has taken the lead in implementation with a portion of the SAFER Bay Project known as Phase 1 and has committed $5.5 million of capital funding for construction and long-term maintenance.

Menlo Park

Menlo Park has provided strategic assistance to SFCJPA, including housing the SFCJPA for many years after formation, and continues to be a key stakeholder for our project work. The Reach 2 Upstream project will protect property and infrastructure in Menlo Park. Menlo Park is a key stakeholder in the design and implementation of SAFER Bay Phase 1, and was lead on a $50M FEMA BRIC grant that was identified for funding July 2021.

Palo Alto

Palo Alto has been a key stakeholder for the Reach 1 Downstream Project, Reach 2 Upstream Project and SAFER Bay. Palo Alto has several projects that are in the watershed, including the Newell Bridge replacement project with Caltrans, and their collaboration with Valley Water on the Flood Basin Tide Gates and the Shoreline Project. The San Francisco Bay Shoreline Project is a regional climate adaptation project extending from Palo Alto to Alviso.

SFCJPA Partners

Our partners have included the US Army Corps of Engineers, Don Edwards National Wildlife Refuge, California Department of Water Resources, San Francisco Estuary Partnership, San Francisco Bay Restoration Authority, Stanford University, PG&E, Facebook, East Palo Alto Sanitary District, CalTrans, US Geological Survey (USGS), South Bay Saltponds Restoration Authority (SBSPRA), San Francisco Estuary Institute (SFEI), Association of Bay Area Governments (ABAG), the San Francisco Regional Water Quality Control Board, and many other consultants, non-profit entities and regulatory agencies.

The work of the SFCJPA relies on collaboration and coordination. We acknowledge our role in the success of others, and their roles in our success. Not all past or present partners are listed among the illustrative examples below.

U S Army Corps of Engineers

The SFCJPA has a long-standing partnership with USACE. This includes collaboration on the initial hydraulic model for San Francisquito Creek (Noble 2009) and reviewing modifications to that model. USACE has been part of a CAP 205 Study in 2003 and a GI Study 2004-2020. We are now working with USACE on a new CAP 205 partnership for key project element(s) that may result in a favorable cost benefit ratio to alleviate floods. We recognize that the ACOE CAP 205 has a single mission for flood protection and that is why we are examining project elements, such as channel widening in Reach 2 that best fit that definition.

California Department of Water Resources (DWR)

The DWR has been a key funding partner for SFCJPA projects, particularly through the Integrated Water Resources Planning Program and Local Levee Repair programs. DWR grant funding totals more than of $17,000,000, with more than $14,000,000 that enabled construction of the Reach 1 Downstream project, SAFER Bay Feasibility Studies and SAFER Bay Phase 1 design permitting. For the Reach 2 Upstream project, DWR has awarded almost $3 million in funding in June 2020 from Integrated Regional Water Management Proposition 1, Round 1 funding that is being managed through the San Francisco Estuary Partnership.

California Office of Emergency Services/FEMA

The Cal OES/FEMA is a funding partner for both the Reach 2 Upstream project and the SAFER Bay Phase 1 in East Palo Alto and Menlo Park. For the Reach 2 Upstream project OES/FEMA has committed $3M for Pope Chaucer Bridge construction and has agreed to consider a request for additional funding.

Stanford University

Stanford University is the largest landowner in the watershed and an important watershed partner with the SFCJPA. We have worked closely with Stanford and used their sediment transport model for the Reach 2 Upstream project simulations. Our 2009 feasibility evaluation of potential upstream detention sites are all on Stanford land and Stanford has agreed to allow SFCJPA to evaluate this option.

The SFCJPA is supportive of Stanford's examination of options for the Searsville reservoir and consideration of the ways in which changes there will have an influence on the downstream portion of the watershed. The SFCJPA looks forward to working with Stanford University as their evaluation of options progresses.

South Bay Salt Ponds Restoration Authority (SBSPRA)

The SBSPRA has been a partner for the past six years on our SAFER Bay Project. We are working with the SBSPRA Project Management Team on restoration of former salt ponds R1 and R2. This includes design options that are currently best suited for this area based on SBSPRA adaptive management plan.

SFEI

The SFCJPA has partnered with SFEI since 2009 to develop historical ecology of the watershed and recommendations to improve flood control as part of Flood Control 2.0. In 2016, SFEI assessed the condition of the Santa Clara side of the watershed using the widely accepted California Rapid Assessment Methodology.

We continue to explore partnerships with SFEI and others for SAFER Bay and rising groundwater.

NGO partners

The SFCJPA has relationships with several local non-profits, among them, the Watershed Council, Grassroots Ecology, Canopy, Nuestra Casa, Acterra, and The Nature Conservancy.

The Watershed Council facilitated the development of the first collaboratively created watershed vision in 2005.

Grassroot Ecology is a restoration and educational partner with regular events that benefit San Francisquito Creek, including monthly water quality citizen science, invasive plant removal, coordination of community creek clean-up events, with many restoration projects in our watershed. Their native plant nursery has supplied phytophthora-free plants for our Reach 1 Downstream project and is located within the watershed in Palo Alto's Foothill Park.

The Nature Conservancy is a partner with the SFCJPA for nature-based flood protection and assessing the economic value of wetlands.

Nuestra Casa and Climate Resilient Communities are partnerships developed in 2019 for public outreach for the SAFER Bay Phase 1 Project to specifically engage economically disadvantaged members of our communities.

Stormwater Resource and Green Infrastructure Plans

The City/County Association of Governments of San Mateo County developed a Stormwater Resource Plan in February 2017 that used a watershed approach to identify and prioritize projects for implementation.

In 2019, the Santa Clara Valley Urban Runoff Pollution Prevention Program and Valley Water developed a SWRP for the Santa Clara county side of San Francisquito Creek.

The SFCJPA reviewed and provided input to each of these plans.

Each of our member cities is or has developed Green Infrastructure Plans that are consistent with the Stormwater Resources Plans. The SFCJPA believes that green infrastructure has an important role in managing stormwater runoff on a local level and encourages implementation where possible.

4. Comprehensive Flood Protection and Ecosystem Restoration Program

This section discuses SFCJPA projects and how they work together to form a suite of interrelated projects each with independent benefits, but together form a cohesive program. The following projects are components of the SFCJPA's overall plan to provide 100-year flood protection and improve habitat and ecosystems**.**

Reach 1 - San Francisco Bay to Highway 101: Downstream Project

This completed Reach 1 "Downstream" project was the necessary first step in our plan. The project included widening the creek channel, constructing new setback levees and flood walls, and creating in-channel marsh plain. In total, this project created more than 22 acres of new and improved marsh plain and added new trails on top of the levees that connect to the San Francisco Bay Trail and West Bayshore Road.

This project specifically incorporated consideration of three feet of sea level rise. When considering the safety factor of FEMA freeboard, the project as built protects against 100-year creek flows ~~and~~ up to 10 feet of sea level rise compared to today's daily high tide. (Completed June 2019).

The SFCJPA will work with FEMA to determine if the completion of Reach 1 project will allow some properties, particularly those in East Palo Alto, to have lower premiums for flood insurance.

Reach 2 – Highway 101 to Pope Chaucer Bridge

This project is designed to provide protection to people and property from a flood event similar to the 1998 event, which is considered a 70-year flood, while maintaining or improving the natural character of the banks and channel and improving in-channel habitat. The 70-year flood is the largest recorded flood since the US Geological Survey began measurements in the 1930's.

The City of Palo Alto has a parallel project to replace the Newell Street Bridge. Replacement of the Newell Street Bridge is part of the SFCJPA comprehensive plan but is being led by Caltrans and the City of Palo Alto. The bridge is a hydraulic constriction but is also functionally obsolete and therefore eligible for Caltrans funding to replace it for traffic safety. The new bridge is designed to Caltrans standards for safety and the SFCJPA design flow. Construction of the new bridge will be covered under the SFCJPA's regulatory permits for creek work.

This project will remove constrictions in the creek channel including concrete structures at four or five locations within Reach 2 (Figure 3).

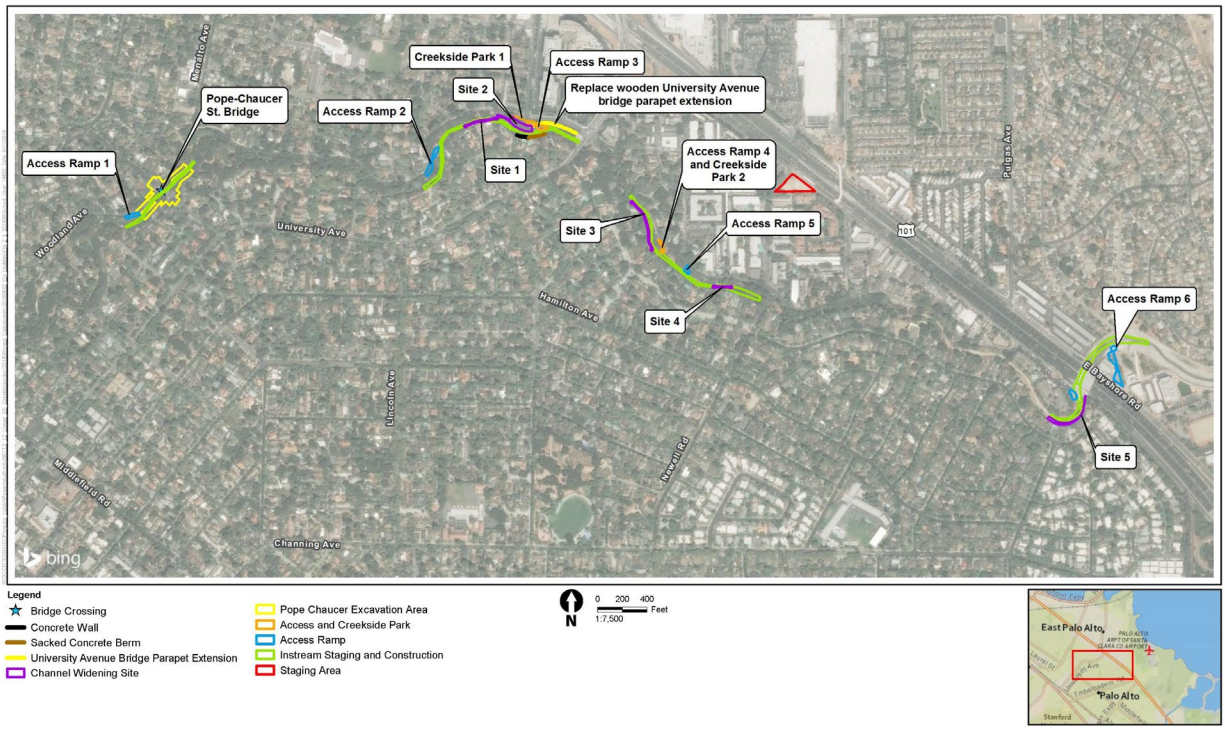


Figure 3. Location of Reach 2 Project Elements

The area around these project elements is fully developed, with Woodland Avenue ~~road~~ on the Menlo Park side and residential properties lining the opposite creek bank in Palo Alto. Most of the creek widening areas are constrained by engineering considerations, including shear stress and velocity requirements, and require updated hard armoring, while incorporating improvements to habitat. At one location in East Palo Alto, a large concrete structure will be removed, the creek bank will be regraded to a more natural configuration and planted with native riparian vegetation.

The Pope Chaucer Bridge, which is a concrete culvert, will be replaced with a new bridge and the natural creek bed will be restored. The new bridge will be as open as possible, taking into consideration constraints on the bridge design including existing homes in the area, maintaining street elevations, and ensuring safe pedestrian access. The intersections on both the Palo Alto and Menlo Park sides will be matched to the existing elevation (Construction anticipated 2023-2024). The Newell Bridge replacement must be completed before the Pope Chaucer bridge work can begin.

Following project completion, the SFCJPA will explore with FEMA if creek widening and bridge replacements in Reach 2 can allow some properties to be removed from flood insurance requirements and/or pay lower premiums.

. Reach 3 – Upstream Detention for 100-Year Flood Protection

Meeting the Federal Emergency Management Agency (FEMA) requirements for 100-year flood protection, including FEMA freeboard is envisioned as an additive project that was evaluated at a programmatic level in our September 2019 Environmental Impact Report. "Freeboard" is the amount of additional protection needed to modify FEMA floodplain maps and eliminate the need for home and business owners to purchase flood insurance. Just as our Reach 2 project from Highway 101 to Pope-Chaucer Bridge does not provide 100-year protection with FEMA freeboard by itself, the topography of the upper watershed does not allow for upstream detention at the scale needed to provide 100-year protection with FEMA freeboard on its own. Only a combination of the completed Reach 1 and Reach 2 water conveyance and capacity improvements, supplemented by upstream detention and/or other similar flow reduction or floodproofing features can achieve 100-year protection with FEMA freeboard for San Francisquito Creek.

One ongoing effort that may contribute to reducing flows downstream is Stanford University's planned modifications to Searsville Dam (which Stanford University is leading) that will allow for free flow conditions during normal weather but provide check-dam detention during large flow events. Another alternative could be constructing off-stream detention capacity that would provide similar benefits as the Searsville Dam project.

The SFCJPA Board affirmed their commitment to this project and has dedicated funding to evaluate it. The SFCJPA is working closely with Stanford for access to and information about the area to adequately evaluate potential options on Stanford lands. Data collection for a project level evaluation of potential alternatives that may ~~can~~ achieve 100-year flood protection with FEMA freeboard has been initiated. Results are anticipated in early 2022.

Tidal flood protection and marsh restoration- Strategy to Advance Flood Protection and Ecosystem Restoration along San Francisco Bay (SAFER Bay Project)

The Strategy to Advance Flood protection, Ecosystem restoration and Recreation Project (SAFER Bay) addresses tidal flood protection and projected sea level rise by protecting critical infrastructure using natural and manmade flood protection features along San Francisco Bay within SFCJPA jurisdiction. Public Draft Feasibility reports were issued in 2016 for East Palo Alto and Menlo Park, and in 2019 for Palo Alto. This project is intended to close the protection gap in the tidally influenced areas outside of our completed Reach 1 project from San Francisco Bay to Highway 101 described above.

We are currently moving forward with a portion of this project in East Palo Alto and Menlo Park for a project known as SAFER Bay Phase 1. We are coordinating with permitting agencies, ~~are~~ working on a conceptual design, project description, and communicating with stakeholders. The SFCJPA plans to release a Notice of Preparation for environmental documentation in the fall of 2021. The SFCJPA is

partnering with the South Bay Salt Ponds Restoration Authority to restore Ponds R1 and R2 as part of this project's natural flood protection against sea level rise.

Our completed Reach 1 Downstream project provides protection against flooding from San Francisquito Creek, but requesting a letter of map revision from FEMA at this time may not be beneficial because much of the area is also in the FEMA tidal floodplain. The SFCJPA's ultimate goal is to remove properties from the FEMA floodplain, and the associated requirement for flood insurance. SAFER Bay will build new levees and other flood control structures along the Bay in East Palo Alto and Menlo Park over the next few years and when these planned improvements are built, the area will be protected from both creek and tidal flood risks, and can then be removed from the FEMA flood maps. The SFCJPA will submit a request for map revision to FEMA after tidal flood risks are mitigated by SAFER Bay project.

This project incorporates the same protection criteria as the completed Reach 1 Downstream project from San Francisco Bay to Highway 101.

5. Stewardship

This section addresses long term actions, including monitoring and maintenance of implemented work. The SFCJPA facilitates an annual maintenance walk with member agencies, Stanford and Grassroots Ecology. The walk identifies key maintenance actions required prior to the rainy season and assigns responsibilities for action to each member entity. The annual maintenance walk also identifies areas for annual creek cleanup by community volunteers.

All of the SFCJPA's projects provide for watershed stewardship, for both short and long term. In the short term, up to 10 years after project completion, monitoring and assessment is performed for the project's components and overall health of the watershed in the project area as part of the Mitigation and Monitoring Plan. In the long term, the project's Operation and Maintenance manual specifies annual assessments of project performance and five-year plans to evaluate the project's effect on the watershed. These Operation and Maintenance manuals form the basis for long term stewardship in the Watershed.

The SFCJPA has or will delegate maintenance actions to member agencies where a project is located. For example, Valley Water and the City of East Palo Alto are the leads for long term operations and maintenance for our Reach 1 project between S.F. Bay and Highway 101.

6. Stakeholder Engagement

Ensuring the SFCJPA has the community's trust and confidence is essential to maintaining the SFCJPA's ability to execute projects. The SFCJPA's primary responsibility is to implement flood risk

mitigation projects. These must also integrate as many co-benefits as possible – such as ecosystem restoration and recreation opportunities - into project design and construction.

The goals of community and stakeholder engagement are to:

- Promote awareness of the SFCJPA, its purpose, roles, responsibilities and priorities, and its multi-benefit creek or bay shoreline flood mitigation projects by informing community members and stakeholders.
- Engage community members and stakeholders for the purposes of understanding community and stakeholder priorities and to refine and improve project design and implementation based on community and stakeholder input.
- Support community members and stakeholder involvement in the public engagement processes.

(Center for Economic and Community Development, Engagement Toolbox, at https://aese.psu.edu/research/centers/cecd/engagement-toolbox/).

Tools and Approaches

Electronic communications will be used to support community and stakeholder engagement. There are various tools and options for the purpose, some are more suitable to the SFCJPA than others.

Website - Our website at www.sfcjpa.org is the SFCJPA's main platform for sharing important information, projects, events and activities of the SFCJPA and its members or regional partners. The website hosts organizational documents, board meeting records, key project documents and schedule of meetings and events. The website also features links to our-Flood Early Warning System, and Palo Alto's real-time stream level monitor. This is an important community asset for Emergency Operations personnel and for winter flood response preparedness.

Newsletters – The SFCJPA has implemented a quarterly electronic newsletter. The newsletter provides timely information about SFCJPA projects, community creek or shoreline related issues, upcoming events, and meetings. Special announcements, such as those for community project updates, have also been ~~may also be~~ sent out via email specific distribution lists and by U.S. Post to ensure community members and stakeholders are aware of critical information.

Social Media – Various social media tools can be useful for reaching community members and stakeholders. However, maintaining social media accounts requires regular updates and dedicated staff with time for one-on-one engagement. With our small staff, and other mechanisms for outreach, our presence on these social media platforms is currently a low priority. The SFCJPA may choose to selectively use NextDoor through its member agencies' accounts, as it can be an effective platform for reaching local residents about specific events or issues.

Print and Traditional Media – The SFCJPA will maintain connections with local media outlets and keep them informed through media alerts when appropriate. The SFCJPA responds as appropriate to media inquiries.

SFCJPA Meetings & events - Regular in-Person meetings are an exceptional way to engage community members and stakeholders. However, for as long as the COVID-19 pandemic is a consideration, any in-person meetings must be carefully limited. In the future, in-person meetings may be utilized for project updates, tours for interested stakeholders, various working groups and committees, and other special events alone, or in combination with web-based meetings.

SFCJPA presentations to City Councils, Boards of Supervisors or their various committees and Commissions - SFCJPA Board members, Executive Director, and staff may make formal or informal presentations to the elected bodies of its member agencies, or their appointed commissions, as part of project approvals, or to provide less formal project or organizational updates.

Informal in-person, "office hours", or other local meetings – SFCJPA Board members, Executive Director and staff may set up informal opportunities for community members to visit and discuss creek or bay margin projects in an unscripted and informal setting. These settings may only reach a few community members at a time, but provide a relaxed setting, convenient to community members

Board meetings – In addition to being the primary vehicle by which the SFCJPA Board conducts business, regular board meetings provide an opportunity to hear from community members and to share information about SFCJPA operations and projects with stakeholders. All Board meetings are recorded and posted on the SFCJPA's website and YouTube channel.

Study sessions – These non-action item board meetings are an opportunity to explore topics of relevance to the SFCJPA. Study sessions often feature both in-house and outside experts presenting information. Study sessions provide community members and stakeholders the opportunity to hear the same information as the board, and to ask questions of the presenters. Study sessions conducted in person are typically hosted in a seminar format, with presentations, question and answer sessions and perhaps break-out groups for discussion and reporting back to all attendees.

Webinars – Webinars or video and audio presentations, with a Q&A component, are recorded and archived on the SFCJPA's website for future reference. Brief webinars, focusing on one topic, are coordinated, promoted via newsletters, email distributions or social media posts, with moderate staff time and effort. Staff may choose to conduct the presentations themselves or find experts to make presentations. The SFCJPA has found webinars to be an effective communication tool. In the future, webinars will continue to be used to inform~~ing~~ and engage community members on a variety of topics.

Project Update Community meetings – Meetings and presentations specific to project updates are an important mechanism for informing community members and stakeholders who have a direct interest in the activities associated with a project, or phase of a project. In situations where project neighbors may

be negatively impacted by project activities, informing community members of what to expect, what actions the SFCJPA and its contractors are taking to mitigate or minimize negative impacts, and who to contact with questions or concerns, can go a long way in alleviating community member's concerns or mistrust over project activities. One possible element of Project Update Community meetings may include project walk-arounds and tours of project elements, providing community members and stakeholders an opportunity to see the project in context.

One-on-One calls or meetings – Personal outreach to community members and stakeholders may be time-intensive but is an essential tool for building understanding between SFCJPA staff and community members and stakeholders.

Tours – As part of project updates, or as stand-alone activities, tours for community members and stakeholders provide an opportunity for staff to explain our projects in the context of the natural and human ecology of the San Francisquito Creek and the Bay margin.

Other meetings

CEO & City Manager's Meetings – These regular meetings, held approximately every two months, enable the SFCJPA to brief member agency staff leadership on the status of the SFCJPA's work, including legal issues, project activities, project funding, project regulatory permitting, etc.

San Francisquito Creek Multi-Agency Coordination for Emergency Planning/Public Safety (MAC) – A MAC group and associated operations plan was formed in 2015 to facilitate a common flood and severe weather response for San Francisquito Creek that historically has impacted each member. The SFCJPA supports the MAC, which was composed of the following stakeholders in 2019; but other members may be added as indicated:

- City of East Palo Alto
- City of Menlo Park
- City of Palo Alto
- County of San Mateo
- County of Santa Clara
- Menlo Park Fire Protection District
- Valley Water
- SFCJPA
- Stanford University
- CalFire

The MAC Operations Plan is developed and maintained by the Palo Alto Office of Emergency Services (OES), as the chair of the MAC group. The plan describes coordination between member agency emergency operations staff and typically includes an annual briefing and table-top exercise to test the concepts and mobilization activities, as well as an After-Action Review of the Plan with stakeholders.

Engaging volunteers and building educational partnerships –

The SFCJPA has a long history of supporting volunteer activities, including educational, fraternal, community and other outreach activities. We have supported educational research projects related to the Creek, promoted creek advocacy, and support many community events such as Bay Day, Earth Day, and Coastal Cleanup.

Volunteer opportunities have included:

- Tabling events and coordinating or presenting webinars
- Providing content for newsletters, blogs, and photographs or featuring the Creek or Bay margin on the SFCJPA website and/or in newsletters
- Promoting and coordinating community tours of various aspects of the creek and bay margin

The SFCJPA has supported high school and college internships.~~in the past~~. Interns are an option when funding can be secured to support paid, short-term, focused engagements. The SFCJPA has supported educational partnerships with local schools, colleges and universities as requested.

In the future, we may expand our presence in the community through additional coordination of volunteer support, as the Creek provides a rich opportunity for local community members, learners, and educators.

7. Advocacy

As a government agency, there are limitations on advocacy. The agency may advocate for its interests before local, State and federal legislatures, but is limited in its scope to advocate to community members and stakeholders. Education takes the place of advocacy in all communications to community members and stakeholders. There are also targeted educational opportunities including community events described above as part of SFCJPA outreach activities. In addition, the SFCJPA routinely coordinates with staff of local, State, and federal elected representatives to brief them on SFCJPA projects, progress, and issues. Elected representatives can play a key role in the success of SFCJPA projects, so ensuring their staff is well-informed is an important investment of the Executive Director and SFCJPA Board members.

Education – All elements of the community and stakeholder engagement can be described as education. Regarding building support for the long-term success of the SFCJPA, certain ideas or messages are important to instill, such as the importance of stream-side property owner stream stewardship, or elevating the importance of long-term funding for urban stream and bay margin flood mitigation and resilience projects.

To convey these messages, and any other timely priorities, SFCJPA Board and Executive Director may engage local elected representatives, regularly brief member City Councils and our County Supervisors (ideally twice a year) and inform local candidates about SFCJPA projects.

Advocacy – The Executive Director and SFCJPA Board may engage in advocacy before local, State, and federal legislative bodies on issues of importance to the SFCJPA.

Advocacy may take the form of support letters, participating in advocacy coalitions, meeting with individual policymakers to make the SFCJPA's case, or providing written or verbal testimony to committees or other bodies of elected or appointed officials.

In the future, the Board, and staff of the SFCJPA might choose to identify a specific set of policy issues and positions to facilitate advocacy engagement.

Access to funding and funding sources will likely be a relevant issue for the life of the SFCJPA. For example, there may be Statewide Climate Resiliency Bond measure issued in the future. This, and similar bond measures that provide flood risk mitigation, environmental restoration and stewardship are issues the SFCJPA should strongly support and be engaged in.

8. Funding

The SFCJPA has two funded components: operations and projects. Operations are funded through annual contributions from its five constituent members. Projects have been funded through a combination of funding from Valley Water's Safe Clean Water and Natural Flood Protection Program assessment revenues, additional contributions from member agencies, grant funding from the Department of Water Resources, State Water Resources Control Board, the Army Corps of Engineers and other sources. The SFCJPA developed a funding roadmap for the Reach 2 Upstream project. This roadmap will consider a broad range of funding options, including near and long-term funding strategies, which will include some or all of the options described below.

The Protecting the Bay Working Group has chosen to focus on the SFCJPA's SAFER Bay project for its assessment of the flood risk reduction benefits of salt marshes, and subsequent development of climate finance mechanisms. This working group consists of local stakeholders (San Mateo County Supervisor Dave Pine, Flood and Sea Level Rise Resiliency District, San Francisco Estuary Institute) and others focused on flood risk mitigation and natural infrastructure statewide (California Department of Insurance, California State Coastal Conservancy) and globally (TNC, Swiss RE).

Operations funding – The SFCJPA's operations funding comes from member contributions. Annual budgets are provided to the Board for consideration. Approved budget amounts are divided evenly among the five member agencies. These contributions pay for all shared costs: salaries, benefits, office and operations, etc.

Sponsorships are one possible additional operational funding source. These are gifts given directly to the SFCJPA to support specific operational purposes or activities. Typically, sponsorships are sought from private or corporate donors, who believe the purpose of the donation also helps them in some way. Such donations may be tax deductible charitable contributions for private or corporate donors. Sponsorships might support elements of the SFCJPA's operations, such as paying an internship stipend,

covering the costs to host a special event, or for the creation of a publication. Sponsorships might also be sought for ongoing ecosystem stewardship, recreational facilities and their maintenance. These activities are associated with projects but are themselves not capital projects.

Project Funding - The SFCJPA will continue to seek local and state contributions while also evaluating new funding opportunities.

Potential future funding mechanisms for projects include expansions of existing mechanisms, such as state agency grants funded through revenue bonds. Future revenue bonds may include a Statewide Climate Resiliency Bond measure, which may be on the ballot in the next couple of years. This, and similar bond measures that provide flood risk mitigation, environmental restoration and stewardship are issues the SFCJPA should strongly support and be engaged in.

Member contributions – the SFCJPA's members may choose to contribute funding or to provide collateral for low interest rate loans for project construction.

Philanthropy/Capital Campaign – Non-profit organizations such as museums, zoos or charitable organizations sometimes fund large investments in capital facilities through capital campaigns. These are well-organized, targeted fund-raising campaigns, seeking donations to fund large capital projects. While it may be unusual for a local government agency to conduct a capital campaign to fund projects such as creek channel modifications, flood detention basins, or bay margin levees, it is an option to consider.

General Parcel Taxes – This mechanism ~~is what~~ funds the Safe Clean Water and Natural Flood Protection program implemented by Valley Water. This provides a predictable, long-term revenue stream, which Valley Water apportions based on number of parcels and flood risk mitigation project needs. In November 2020, Santa Clara County voters approved a permanent extension of the Safe, Clean Water and Natural Flood Protection Program.

Parcel taxes may be assessed by a JPA, including the SFCJPA. According to California law, these parcel tax assessments must be approved by a vote of two thirds.

Community Facility or Benefit Assessment District – Community Facilities Districts, or Benefit Assessment Districts can be established by local governments as a means of obtaining additional public funding to pay for public works and some public services. Assessment Districts are a "property tax" mechanism and are established for a specific geographical area receiving a special benefit from specified public improvements and services. This approach may be an effective mechanism for raising revenues from property owners impacted by creek flooding and sea level rise.

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Glossary

This glossary is intended to assist the reader with words that they may not be familiar with, especially as they relate to San Francisquito Creek.

Alluvial fan- a triangle-shaped deposit of gravel, sand, and smaller pieces of sediment, such as silt. These unconsolidated deposits, or alluvium, are left by flowing streams. Alluvial fans are typically thicker close to streams and thinner at the outer edges.

Groundwater in the alluvial fan formed by San Francisquito Creek forms a productive aquifer known as the San Francisquito Creek Cone (named for the general cone shape).

Anadromous- is the term that describes fish born in freshwater who spend most of their lives in saltwater and return to freshwater to spawn, such as salmon and some species of sturgeon**.**

Beneficial Uses- As defined in the California Water Code, beneficial uses of the waters of the state that may be protected against quality degradation include, but are not limited to, domestic, municipal, agricultural and industrial supply; power generation; recreation; aesthetic enjoyment; navigation; and preservation and enhancement of fish, wildlife, and other aquatic resources or preserves.

The beneficial use category is related the California's water quality protection goals. For water with multiple beneficial uses, the beneficial use with the higher level of protection is used.

cfs - cubic feet per second**,** a measure of flow velocity

Engineered stream bed material- (ESM) this is a mix of boulders, cobbles and pebbles used to stabilize creek bottoms and banks. The mix is site-specific and depends on stream hydraulics and design criteria. The rocks are strategically emplaced to minimize scour, largest to smallest, tamped into place, and then covered with sand to minimize movement within design parameters.

ESM looks and functions much like a natural stream bed and has already been used in San Francisquito Creek in the Bonde Wier removal project that was completed in 2013. The SFCJPA prefers the use of ESM where possible over rock slope protection that uses uniform sized cobbles.

FEMA- Federal Emergency Management Agency, a federal agency that prepares for and responds to disasters. In 2003, FEMA became part of the Department of Homeland Security.

Freeboard-term used by the Federal Emergency Management Agency's National Flood Insurance Program to describe a factor of safety, usually expressed in feet above the 1-percent-annual-chance flood level.

Flashy- Stream that rapidly collects flows from the steep slopes of its catchment (watershed) and produces flood peaks soon after the rain that subside rather quickly after the cessation of rainfall. San Francisquito Creek is considered to be a flashy creek.

Groundwater - Water held underground in the soil or in pores and crevices in rock. that collects or flows beneath the Earth's surface, filling the porous spaces in soil, sediment, and rocks. Groundwater originates from rain and from melting snow and ice and is the source of water for aquifers, springs, and wells.

Overbank- Flows that exceed top of channel margins. Flood flows

Perched Creek- A stream with a bottom that is above that of the groundwater table and thus is separated from underlying groundwater. This condition can vary seasonally and annually depending on the amount of precipitation, as well as in different sections of the same streambed. Another term for this is a losing stream because it can recharge ground water unless there is a confining layer that inhibits percolation. A gaining stream is a stream bottom that is below the top of the groundwater table and is thus directly hydraulically connected with groundwater.

Refugia- A natural or constructed feature that provides a resting area for animals. The San Francisquito Creek constructed five high tide refugia islands for salt marsh harvest mice and California Ridgeway's Rail to adapt to rising tides. We also installed rootwads and rock berms that provide habitat and refuge for fish in the creek. Our Reach 2 U~~u~~pstream project has incorporated similar features and includes pools and riffles for fish.

Riparian- Riparian areas are lands that occur along watercourses and water bodies. Typical examples include flood plains and streambanks. They are distinctly different from surrounding lands because of unique soil and vegetation characteristics that are strongly influenced by the presence of water. A riparian area or zone is illustrated below:

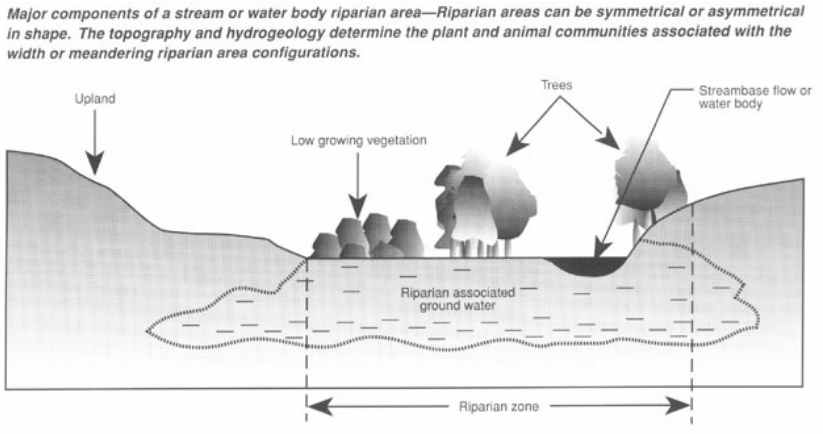


Image source: USDA, NRCS

Scour- Net removal of sediment from stream by action of water flow. Scour may be measured in volume of sediment removed from a channel reach, in average depth of sediment removal from an area, in average change of depth at a cross section, or in change of depth at a point.

Streambed scour is the mobilization/fluctuations in the vertical position of the bed of a stream as material is eroded and degrades. Some degree of streambed fluctuation is natural process; however, urban development and floodplain encroachment have resulted in excessive channel incision or bed lowering during larger flow events in San Francisquito Creek.

Salmonoid spawning success requires that deep scour of the bed does not occur during the time the eggs are incubating in gravel deposits.

Sediment- A collective term for rock and mineral particles that 1) are being transported by a fluid (sediment in transport, suspension, or motion) caused by the fluid motion or 2) have been deposited by the fluid (i.e., sediment deposits).

Sheet Pile- Sheet piles are three dimensional vertical sections, most commonly made of steel, that interlock to form a continuous wall that can hold back soil and/or water. The term sheet piling refers to any retaining wall type that is a) installed into the ground by driving or pushing, rather than pouring or injection.

Stage- The level of the water surface in a stream, river, or reservoir, measured with reference to some datum.

Stream Bank- The sloping margin of a stream or river that confines flow to the natural channel during normal stages.

Toe of Bank- The "toe" lies at the bottom of the creek side slopes or banks and supports the weight of the bank. The toe is the area that is most susceptible to erosion because it is located in between the ordinary water level and the low water level, and it is the area most affected by currents and/or storm flows.

Top of Bank- The point along the bank of a stream where an abrupt change in slope is evident, and where the stream is generally able to overflow the banks and enter the adjacent floodplain during an annual flood event. Determination of the top of bank is site specific and vary along a bank. This determination may require a survey but is important to creek protection policies and buffers.

Total Maximum Daily Load (TMDL): An evaluation of the condition of an impaired surface water on the Section 303(d) List that establishes limitations on the amount of pollution that water can be exposed to without adversely affecting its beneficial uses, and allocating proportions of the total limitation among dischargers to the impaired surface water.

Tidal/Tidal Influence- areas that are subject to the ebb and flow of tides. San Francisquito Creek is tidal in Reach 1 from San Francisco Bay to Highway 101.

Undergrounding- utility lines or piping that is moved from above ground to below ground.

Waters of the State- Defined more broadly than "waters of the United States and includes "any surface water or groundwater, including saline waters, within the boundaries of the state" (Water Code section 13050(e)). The definition is broadly interpreted to include all waters within the state's boundaries, whether private or public, including waters in both natural and artificial channels. California includes riparian area of creeks, from Top of Bank to Top of Bank, rather than mean high water as interpreted federally. This broader application stems from the Porter-Cologne Act that expands the aerial extent of the Water Quality Control Boards' authority as waters of the State. The Porter-Cologne Act also requires the Water Board to address both indirect and direct impacts of activities (including downstream impacts), as well as possible future impacts that can result in the degradation of water quality.

Waters of the United States - Very generally refers to surface waters, as defined by the federal Environmental Protection Agency in 40 C.F.R. § 122.2. In 2020, waters of the U.S. were defined to expressly to include the following:

- Territorial seas, and waters that are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including waters which are subject to the ebb and flow of the tide;
- Tributaries;
- Lakes and ponds, and impoundments of jurisdictional waters; and
- Adjacent wetlands.

The 2020 rule also has specific exclusions from waters of the U.S., including:

- Groundwater
- Ephemeral features, including ephemeral streams, swales, gullies, rills, and pools;
- Diffuse stormwater run-off and directional sheet flow over upland;
- Ditches that are not "waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including waters which are subject to the ebb and flow of the tide;"
- Tributaries; and non-ephemeral wetlands that are adjacent to waters of the United States;
- Prior converted cropland; artificially irrigated areas,
- Artificial lakes and ponds, or water filled depressions from mining or construction
- Stormwater and control features constructed or excavated in upland or in non-jurisdictional waters to convey, treat, infiltrate, or store stormwater runoff;
- Groundwater recharge, water reuse, and wastewater recycling structures, including detention, retention, and infiltration basins and ponds, constructed or excavated in upland or in non-jurisdictional waters; and
- Waste treatment systems.

SAN FRANCISQUITO CREEK
JOINT POWERS AUTHORITY

September 23, 2021

SFCJPA Regular Study Session & Board Meeting

Agenda

Members of the Public may speak on any agenda item for up to three minutes

1. ROLL CALL

2. APPROVAL OF AGENDA: Changes or additions to the agenda.

3. APPROVAL OF MEETING MINUTES: June 24, 2021 regular Board meeting.

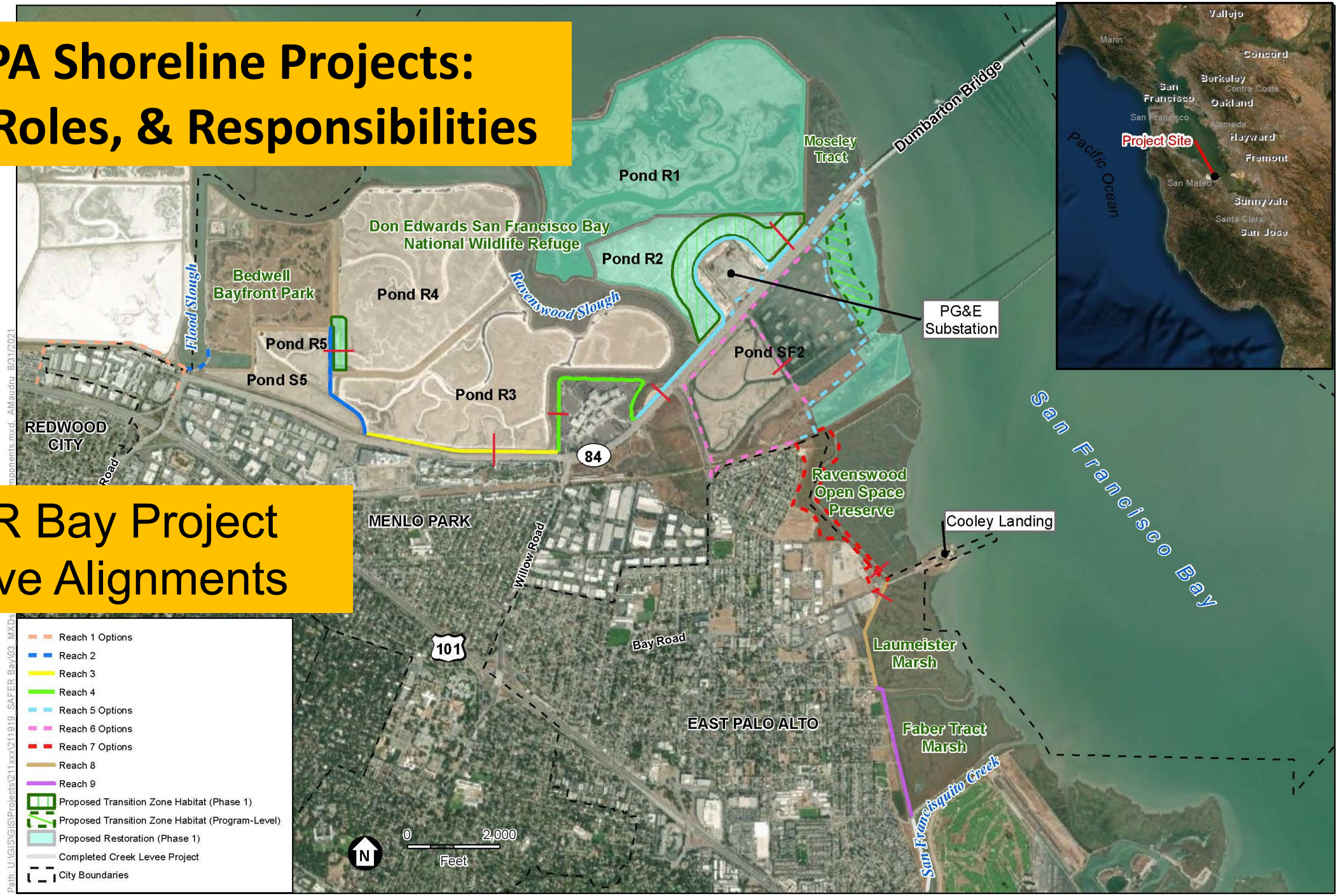
4. PUBLIC COMMENT: *Individuals may speak on a non-agendized topic for up to three minutes on a topic within the SFCJPA's jurisdiction.*

Agenda Item 5 –

Board Study Session on Shoreline Projects: Roles & Responsibilities

SFCJPA Shoreline Projects: Status, Roles, & Responsibilities

SAFER Bay Project Tentative Alignments



SFCJPA Shoreline Projects: Status, Roles, & Responsibilities

SFCJPA SAFER Bay Project Involvement - Context and Status

- 10+ years of involvement – based on tidal flooding and sea level rise vulnerability.
  - 2016 Feasibility Study
  - 2019 Feasibility Study
  - 2020 MTC/ABAG Dumbarton Corridor Study

SFCJPA Shoreline Projects: Status, Roles, & Responsibilities

SFCJPA SAFER Bay Project – Funding Status

- Multiple grants:
  - DWR - $1,045,625.
  - FEMA HMGP for East Palo Alto – $17.2M.
  - FEMA BRIC for Menlo Park - $50M plus $17.8M local match from PG&E and Facebook.
- Estimated total project cost ~$130M (not including CalTrans portion). Of that ~$87M has been secured. CalTrans' Dumbarton and Hwy 84 project cost likely to be ~$1B.

SFCJPA Shoreline Projects: Status, Roles, & Responsibilities

SFCJPA SAFER Bay Project – Roles & Responsibilities Status

- East Palo Alto HMGP Grant – SFCJPA providing lead coordinating and technical leadership
- Menlo Park BRIC Grant – SFCJPA providing technical leadership
- SFCJPA leading on Programmatic CEQA for entire project area
- SFCJPA leading on seeking and securing additional grant funding for overall project needs.
- SFCJPA communicating and coordinating with members on projects associated with SAFER Bay (ex. Bedwell Park entrance plans)
- SFCJPA leading discussion with property owners and stakeholders

Valley Water Shoreline Projects: Status, Roles, & Responsibilities

Placeholder for Valley Water slides

San Mateo County Flooding and Sea Level Rise Resiliency District ("OneShoreling") Shoreline Projects: Status, Roles, & Responsibilities

- Placeholder for OneShoreline slides

Discussion

- Open Questions:
  - Valley Water and Palo Alto are leading on shoreline work in Palo Alto. What are the implications of that jurisdictional overlap with the SFCJPA? Is there any role for the SFCJPA in this area?
  - San Mateo County now has the San Mateo County Flooding and Sea Level Rise Resiliency District (“OneShoreline”) whose purview includes shoreline flood protection projects throughout San Mateo County. What is their role with the SAFER Bay project, now, and in the future? Should there be criteria or conditions which trigger a shift in project support or leadership roles?

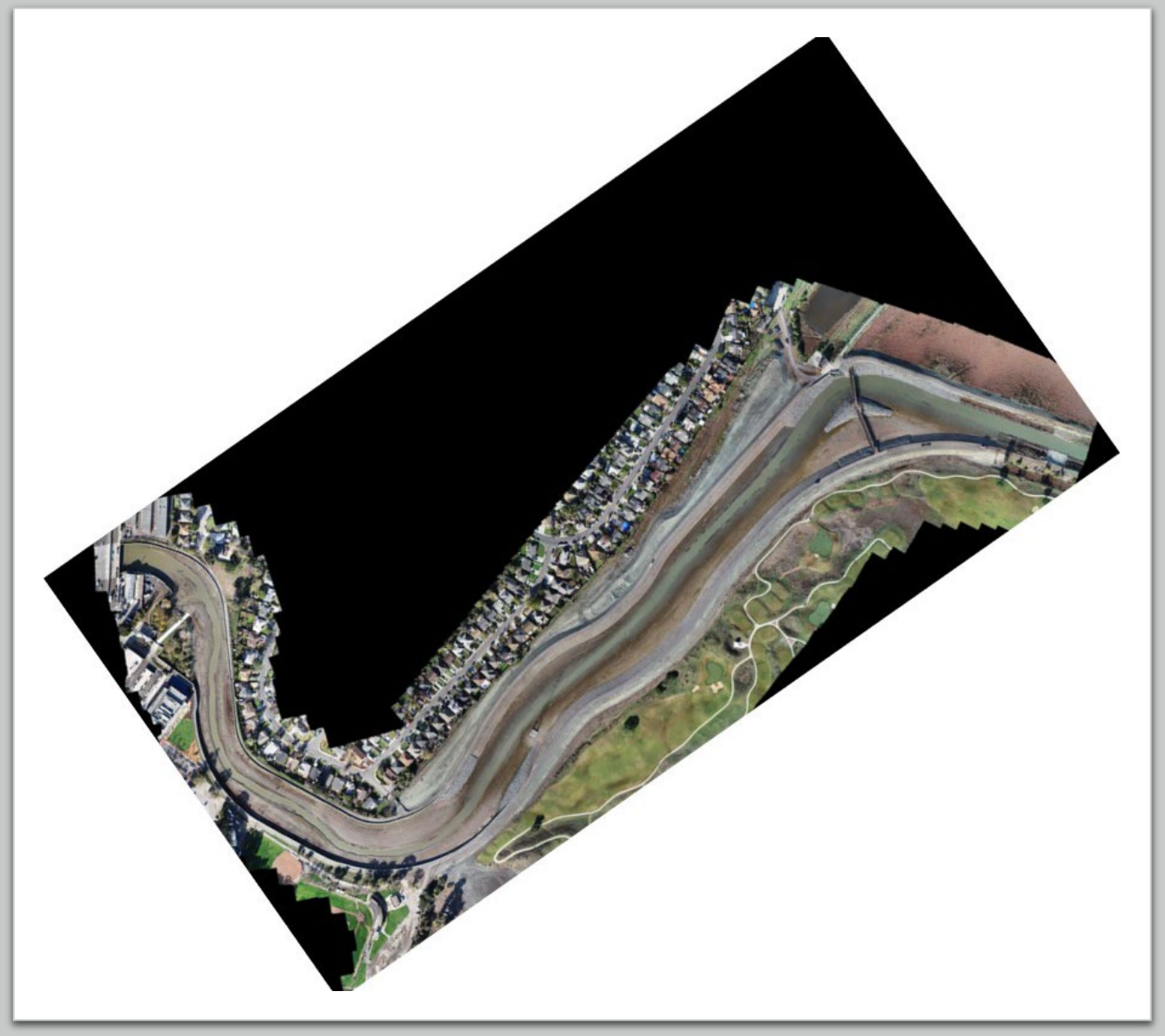
Agenda Item 6 - *Information Items*

Executive Director's Report –

Reach 1 – Downstream Project

Responsive bid selected for Monitoring and Reporting

Interpretive panels and commemorative bench design nearing finalization



Reach 2 – Upstream Project

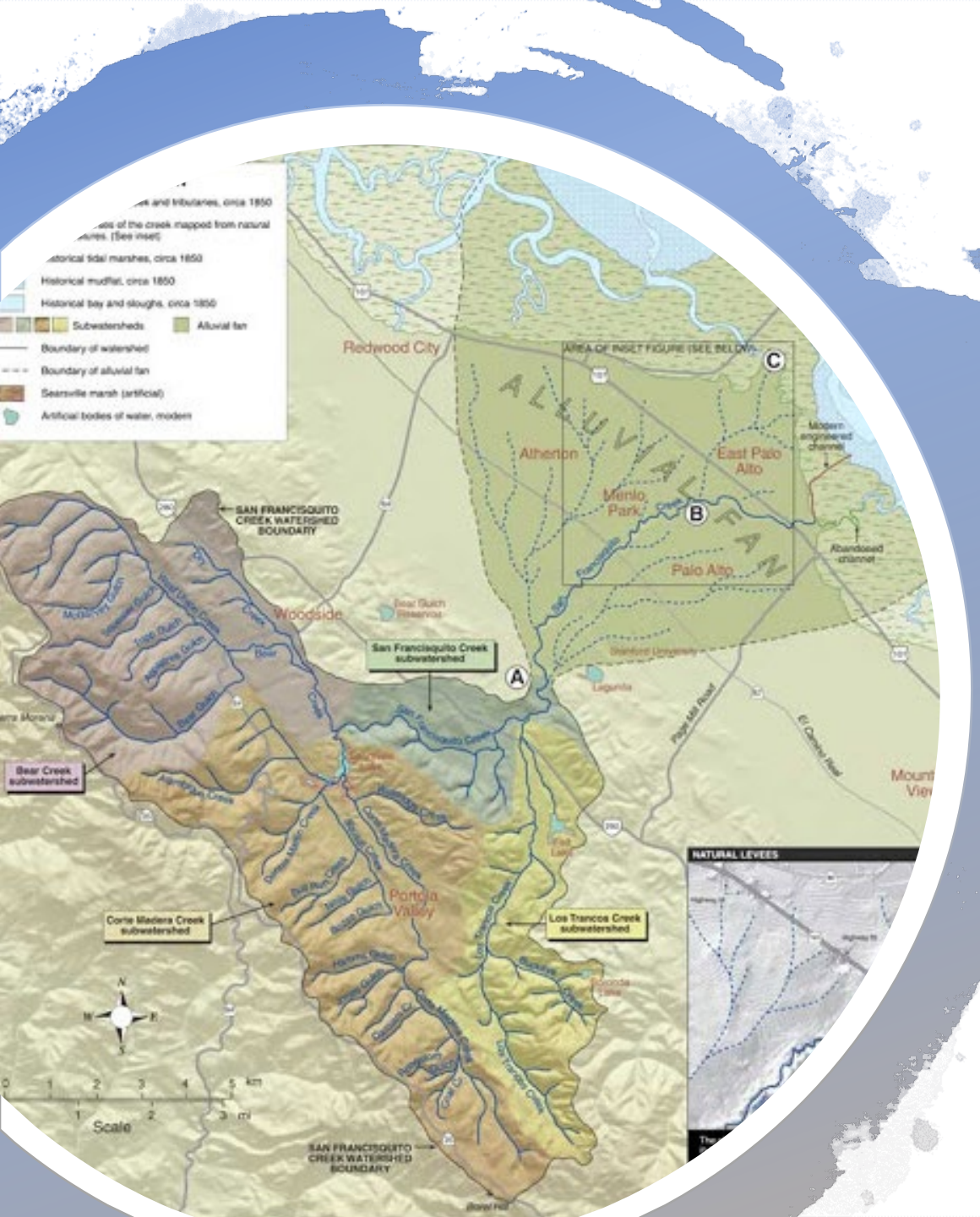
Continuing design evaluation and changes to reduce impacts to trees, neighbors, cultural resources.

LEDPA submittal delayed slightly so that we can address cultural resources questions.

Significant progress has been made in outreach to Palo Alto property owners.

The USACE CAP 205 team charrettes have been convened and completed.

October 25 Tentative date for community project update and USACE CAP 205 NEPA community outreach.



Reach 3 - 100-Year Flood Protection, evaluating detention basins

Initial site investigations complete.

Developing concept design that is feasible from an engineering standpoint with certain assumptions.

Information gaps memo drafted for Geotech and environmental evaluation.

Informal consultation with National Marine Fisheries Service held on 9/15.

A Feasibility Technical Memorandum planned for completion by end of the calendar year.

SAFER Bay Project

Presentation to the BRRIT occurred on Sept. 1. Agency feedback being incorporated into pending Notice of Preparation (NOP)

Our NOP planned for release in October.

We will be applying for Measure AA grant funding. Application due Oct. 7.

Administration/Operations -

Banking Transition is complete.

SSI/CalPers Balloting complete.

FEMA Risk Rating 2.0 webinar on August 24 was attended by over 160 people. The webinar materials are available on the SFCJPA's website.

Creation of a Board Handbook is underway.

Agenda Item 7 – Consent Agenda Items

7.A. SSI/CalPers

Agenda Item 8 - ACTION ITEMS

8.A. Monitoring, Maintenance & Reporting contract

Agenda Item 8 - ACTION ITEMS

8. B. - Comprehensive Plan

The 2021 edition of the SFCJPA Comprehensive Plan is presented here for the Board's review and approval.

Thanks to those who provided input.

Agenda Item 9

BOARD MEMBER COMMENTS and ANNOUNCEMENTS

Board members may share news, updates, and announcements and may request items for future agendas.

October 23, 2021, Board Meeting will include a study session on Reach 2 funding frameworks.

Agenda Item 10

Adjournment

Thank you, everyone.

SAN FRANCISQUITO CREEK
JOINT POWERS AUTHORITY