COASTAL CONSERVANCY

Staff Recommendation
February 2, 2017

SAN FRANCISQUITO CREEK FLOOD PROTECTION AND ECOSYSTEM RESTORATION PROJECT

Project No. 16-008-01
Project Manager: Brenda Buxton

RECOMMENDED ACTION: Authorization to disburse up to $5,093,351 of California Department of Water Resources IRWM grant funds to the San Francisquito Creek Joint Powers Authority to improve flood protection, enhance wetland habitats, and enhance trail connections in lower San Francisquito Creek between Highway 101 and San Francisco Bay, San Mateo County and adoption of findings under the California Environmental Quality Act.

LOCATION: East Palo Alto, San Mateo County

PROGRAM CATEGORY: San Francisco Bay Conservancy

EXHIBITS

Exhibit 1: Project Location

Exhibit 2: Project Site

Exhibit 3: Project Elements

Exhibit 4: Project Media

Exhibit 5: Environmental Impact Report

Exhibit 6: Summary Table of Impacts and Mitigation

RESOLUTION AND FINDINGS:

Staff recommends that the State Coastal Conservancy adopt the following resolution pursuant to Sections 31160–31165 of the Public Resources Code:

"The State Coastal Conservancy hereby authorizes disbursement of a California Department of Water Resources 2015 Integrated Regional Water Management Grant, received by the Conservancy under an subgrant agreement with the Association of Bay Area Governments, in the amount of up to $5,093,351 (five million ninety-three thousand three hundred fifty-one dollars) to the San Francisquito Creek Joint Powers Authority (SFCJPA) to undertake a project for the construction of flood protection, habitat enhancement, and public access improvements in San Francisquito Creek between Highway 101 and San Francisco Bay.

This authorization is subject to the following conditions:

1. Prior to the disbursement of any Conservancy funds, SFCJPA shall submit for the review and approval of the Conservancy's Executive Officer:
   a. A work program for the project, including schedule and budget, and the names of any contractors it intends to use to complete the project.
   b. Documentation that all required regulatory permits and approvals for the project have been obtained.
   c. Documentation that all other outside funds required to complete the project have been secured and are available.
2. In carrying out the project, SFCJPA shall comply with all applicable mitigation and monitoring measures that are identified in the *Final San Francisquito Creek Flood Reduction, Ecosystem Restoration and Recreation Project San Francisco Bay to Highway 101 Environmental Impact Report* (EIR) that was certified with findings by SFCJPA on October 18, 2012 or in any regulatory permit or approval for the project.
3. To the extent required, the grantee shall ensure that project public access facilities are consistent with all applicable federal or state laws governing access for persons with disabilities."

Staff further recommends that the Conservancy adopt the following findings:

"Based on the accompanying staff report and attached exhibits, the State Coastal Conservancy hereby finds that:

1. The proposed authorization is consistent with Chapter 4.5 of Division 21 of the Public Resources Code, regarding the Conservancy's mandate to address the resource and recreational goals of the San Francisco Bay area.
2. The proposed project is consistent with the current Conservancy Project Selection Criteria and Guidelines.
3. The Conservancy has independently reviewed and considered the information contained in the *Final San Francisquito Creek Flood Reduction, Ecosystem Restoration and Recreation Project San Francisco Bay to Highway 101 Environmental Impact Report* (EIR), attached to the accompanying staff recommendation as Exhibit 5, that was certified with findings by SFCJPA on October 18, 2012 in order to comply with its responsibilities as the lead agency under the California Environmental Quality Act (CEQA).
4. The EIR identifies "potentially significant" effects from project implementation in the areas of Air Quality, Traffic, Noise, Cultural Resources, Biological Resources, Green House Gases, and Hazardous Substances. With regards to these impacts, the Conservancy finds that the project, as modified by the incorporation of the mitigation measures identified in the EIR, avoids, reduces, or mitigates all possible significant environmental effects of the project except for the impacts identified in finding 5 below.
5. The EIR determined that the project may result in "significant and unavoidable" impacts in the areas of Air Quality (temporary violation of air quality standards and exposure to sensitive receptors during construction), Recreation (impacts to Palo Alto golf course), and Cumulative Impacts to Air Quality (temporary increase in emissions during construction in

an air basin currently at nonattainment for air quality standards). Specific environmental (habitat enhancement), economic and social (reduction of flood risk and damage to persons and property), recreational and other benefits of the project described in the accompanying staff recommendation and detailed in the EIR outweigh and render acceptable these unavoidable adverse environmental effects because the project will result in the long-term benefits of improving flood protection for 1,300 properties as well as improve wetland habitats that otherwise would be threatened by loss of critical habitat as well as improve access to spawning and rearing habitat for the threatened steelhead trout.

6. There are no feasible mitigation measures which would further avoid or reduce the potential impacts associated with the project. Alternatives to the project analyzed in the EIR are infeasible in that they do not achieve the project objectives of improved flood conveyance and habitat enhancement and will result in the same or greater environmental impacts."

PROJECT SUMMARY:

The proposed authorization is to provide $5,093,351 to support the San Francisquito Creek Joint Powers Authority's (SFCJPA) efforts to improve flood protection, restore habitat, and enhance recreation in the lower reach of San Francisquito Creek. This funding was awarded to the Conservancy as part of the Department of Water Resources (DWR) 2015 Integrated Regional Water Management (IRWM) grant program for projects in San Francisco Bay that will increase shoreline resilience and improve habitats. The DWR IRWM funds will be provided to the Conservancy under an agreement with the Association of Bay Area Governments (ABAG), which serves as the umbrella organization under contract with DWR to receive and disburse funds awarded for San Francisco Bay Area IRWM grant projects.

The project proposed will increase streamflow capacity in the creek downstream from East Bayshore Road (the frontage road adjacent to Highway 101) to San Francisco Bay (See Exhibit 2: Project Site). The capacity will be increased to accommodate a 100-year storm (1% event) by widening the creek channel, creating new setback levees, removing abandoned pipelines, and adding floodwalls where necessary. Approximately seven acres of the City of Palo Alto's golf course were acquired to expand the channel width. A levee separating the creek from an adjacent wetland at the Palo Alto Baylands Nature Preserve will be lowered, restoring the connection between the creek's floodwaters and adjacent wetlands. Portions of the creek channel will be excavated to marsh-plain elevation, creating approximately 18 new acres of marsh habitat, and the channel will be reconfigured to improve flood water conveyance and sediment transport. The project was designed to accommodate sea level rise through 2067 and upstream flood protection measures.

The channel widening is expected to improve the ecological conditions in the lower stream. The existing narrow channel has steep inboard levee faces, resulting in high velocities and scour during storms. The project will decrease velocities and install rock velocity breaks which will facilitate migration of steelhead trout (a federally listed threatened species). The lack of transition between the low flow channel and the upland area provides poor habitat for native vegetation and encourages the growth of invasive species. The widened channel will have more gradual transitions and provide more stable conditions for native marsh vegetation which should increase cover for fish and other species. Furthermore, a wider stream channel will increase the tidal prism and the more saline water will further deter the establishment of invasive species.

Other beneficial actions of the project are the creation of high tide refugia habitat by lowering and re-grading levees to have more gradual slopes.

The Bay Trail crosses San Francisquito Creek on Friendship Bridge, which connects the cities of East Palo Alto and Palo Alto. The project will maintain the Bay Trail alignment despite the creek widening by creating a boardwalk from the Friendship Bridge touch down to the adjacent levee top trail. In addition, the project will enhance public access by improving existing trailheads and installing interpretive signs. (See project elements in Exhibit 3.)

San Francisquito Creek serves as the boundary between San Mateo and Santa Clara Counties and flows through multiple cities. As one of the last unchannelized streams in the south Bay and with a migratory steelhead population, there have been numerous efforts to stabilize banks, remove fish barriers, and improve habitat in this regionally significant stream over the last few decades. However, most of these efforts have been in the upper portions of the watershed (see Project History, below). The undersized channel capacity and substandard levees in the lower portions of the stream have continued to leave the City of East Palo Alto, at the mouth of the creek, extremely vulnerable to flooding. The City of East Palo Alto has a median household income of $50,142 annually[1] and most of the City qualifies as a Disadvantaged Community (DAC) as defined by the California Department of Finance. East Palo Alto has not had the resources to address flooding and habitat decline on its own. However, galvanized by a 1998 flood in San Francisco Creek that damaged approximately 1,700 properties, the cities adjoining the creek, Palo Alto, Menlo Park, and East Palo Alto, as well as the County of San Mateo and the Santa Clara Valley Water District created the SFCJPA to address flooding and improve habitat along San Francisquito Creek.

The formation of the SFCJPA represents a transformation of how local jurisdictions have viewed the creek. Previously viewed as a divisive liability, the creek is now seen as a regional asset because SFCJPA is able to plan and implement ecosystem, recreation, and flood protection projects. Regional elected officials represent the local jurisdictions on the SFCJPA Board and SFCJPA employs an executive director and professional staff who have completed a multi-year planning process for this project. SFCJPA is the most appropriate grantee for these funds as it was explicitly created to plan and implement projects in San Francisquito Creek and has secured over $27 million in matching funds for this project.

Site Description: San Francisquito Creek watershed encompasses approximately 45 square miles. Fed by numerous tributary streams in the Santa Cruz Mountains, San Francisquito Creek is one of the few remaining open-channel urban creeks on the southern Peninsula of San Francisco Bay. The creek also has one of the last remaining runs of steelhead trout (a federally listed threatened species) in southern San Francisco Bay. Although portions of the watershed are inaccessible to steelhead due the construction of the Searsville Dam in 1892, steelhead do spawn in the in the watershed. The creek's upper watershed is largely rural but the lower reaches the creek courses through densely populated cities.

Project History: Ecosystem restoration in the San Francisquito Creek watershed has long been a priority of the Conservancy and its partners. In 1997, through the Conservancy's nonprofit small grant program, $7,000 was awarded to Peninsula Conservation Center Foundation for creek restoration. In 2001 the Conservancy provided SFCJPA with $112,064 to plan and design five habitat-friendly demonstration bank stabilization and revegetation projects on the creek. The

[1] American Fact Finder 2013

Conservancy's support of steelhead habitat restoration began in 2003 with a $233,000 grant to the non-profit organization Acterra, which funded efforts to improve fish passage and revegetate banks on the main stem of San Francisquito Creek and in two of its subwatersheds - Los Trancos Creek and Bear Creek. In 2013, the Conservancy provided matching funds to the San Mateo Resource Conservation District to complete the removal of a significant barrier (Bonde Weir) and, in 2014, provided funds to American Rivers to design and prepare for implementation three fish passage improvement projects on Los Trancos Creek and Bear Creek. To support SFCJPA's project to address shoreline flood protection around State Highway 84, north of San Francisquito Creek, the Conservancy granted $200,000 as part of the Climate Ready grant round.

PROJECT FINANCING

Coastal Conservancy (DWR Grant)	$5,093,351
SFCJPA (local funds)	$19,747,949
SFCJPA (Proposition 1E Grant)	$8,000,000
Project Total	**$32,841,300**

As described, above, the source of funding for this project is a grant to the Conservancy through ABAG of DWR IRWM grant program funds. The award also includes $41,000 for Conservancy administrative costs that are not included in the DWR grant amount above. The Conservancy's application for IRWM funding by DWR was for several San Francisco Bay projects that would enhance wetland resources, improve flood protection, and enhance climate resiliency. The San Francisquito Creek Flood Protection and Ecosystem Restoration Project was identified in the application submitted to DWR by ABAG for Bay Area IRWM funding and, along with the three other Conservancy San Francisco Bay projects, was approved for IRWM funding in 2016. The SFCJPA was specifically identified in the grant application as the subrecipient of the IRWM funds.

SFCJPA's local funding sources are from the member agencies and from a 2012 local ballot measure. SFCJPA also successfully applied to DWR for a $8 million Proposition 1E flood protection grant.

CONSISTENCY WITH CONSERVANCY'S ENABLING LEGISLATION:

This project will be undertaken pursuant to Chapter 4.5 of the Conservancy's enabling legislation, Public Resources Code Sections 31160-31165, to address resource goals in the San Francisco Bay Area.

The SFCJPA project is within the nine-county Bay Area as required under Section 31162 of the Public Resources Code.

Under Section 31162(b), the Conservancy may act to protect, restore, and enhance natural habitats and connecting corridors, watersheds, scenic areas, and other open-space resources of regional significance. This authorization would specifically provide for the creation or enhancement of approximately 18 acres of wetland habitat in the lower reaches of San Francisquito Creek and enhance stream function.

Under Section 31162(d), the Conservancy may act to promote, assist, and enhance projects that provide open space and natural areas that are accessible to urban populations for recreational and educational purposes. This project will re-construct and enhance the Bay Trail alignment in the project area.

The project is consistent with Sections 31163(a) and (b), directing the Conservancy to participate in and support interagency actions and public/private partnerships in the San Francisco Bay Area to implement long-term resources and outdoor recreational goals.

Consistent with Section 31163(c), the project meets the following criteria: (1) is supported by adopted regional plans, such as the *2013 Bay Area Integrated Regional Water Management Plan*, (2) is multijurisdictional (involves multiple agencies) and serves a regional constituency (the project will improve habitat on a regionally significant stream and enhance regional trail connections), (3) can be implemented in a timely way, (4) provides opportunities for habitat, flood protection, and public access benefits that could be lost if the project is not quickly implemented, and (5) includes matching funds from other sources of funding as described above in the "Project Financing" section.

CONSISTENCY WITH CONSERVANCY'S 2013 STRATEGIC PLAN GOAL(S) & OBJECTIVE(S), AS REVISED JUNE 25, 2015:

Consistent with **Goal 11, Objective D** of the Conservancy's 2013-2018 Strategic Plan, the proposed project will protect and enhance natural habitats and connecting corridors, watersheds, scenic areas, and other open-space resources of regional importance in the Bay Area by enhancing the riparian wetlands, tidal wetlands, upland habitat, and subtidal habitat of San Francisquito Creek.

CONSISTENCY WITH CONSERVANCY'S PROJECT SELECTION CRITERIA & GUIDELINES:

The proposed project is consistent with the Conservancy's Project Selection Criteria and Guidelines, last updated on October 2, 2014, in the following respects:

Required Criteria

1. **Promotion of the Conservancy's statutory programs and purposes:** See the "Consistency with Conservancy's Enabling Legislation" section above.
2. **Consistency with purposes of the funding source:** See the "Project Financing" section above.
3. **Promotion and implementation of state plans and policies:**

   • *California Water Action Plan* (2014). The California Natural Resources Agency, California Environmental Protection Agency, and California Department of Food and Agriculture developed this Water Action Plan to meet three broad objectives: more reliable water supplies, the restoration of species and habitat, and a more resilient, sustainably managed water resources system. The project helps achieve Goal #4 "Protect and restore important ecosystems (restore coastal watersheds and strategic coastal estuaries to restore ecological health and nature system connectivity to benefit local water systems and help

defend against sea level rise, eliminate barriers to fish migration)" and Goal #8, Increase Flood Protection, which calls for flood protection projects that achieve multiple benefits including through floodplain restoration.

• *California @ 50 Million: The Environmental Goals and Policy Report* (Governor's Office of Planning and Research, 2013 Draft). Key Action #1 of the "Preserve and Steward State Lands and Natural Resources" calls for building resilience in natural systems. Action #2 "Build Sustainable Regions that Support Healthy, Livable Communities" urges investment in sound infrastructure that is consistent with the state's long-term environmental goals and developing plans to help communities manage planned retreat from rising sea levels. Widening the creek will help restore the natural processes in the creek and flood protection improvements will protect local communities.

• *Safeguarding California: Implementation Action Plans* (The California Natural Resources Agency, 2014). Consistent with the emergency management recommendations of the report, this project will include hazard mitigation through green infrastructure and other protective structures to address sea level rise and stabilization of river banks and restoration and creation of wetlands.

4. **Support of the public:** the project is supported by Congresswoman Anna Eshoo, Congresswoman Jackie Speier, State Senator Jerry Hill, State Assemblymember Rich Gordon, San Mateo County Supervisor Dave Pine, the San Mateo County Flood Control District, Santa Clara Valley Water District, City of Palo Alto, City of East Palo Alto, and the City of Menlo Park and adjacent residents of the creek many of whom attending an August 5, 2016 ribbon-cutting event kick off construction of the project.

5. **Location:** San Francisquito Creek flows between San Mateo and Santa Clara Counties in the nine-county San Francisco Bay Area consistent with Section 31162 of the Public Resources Code.

6. **Need:** SFCJPA has secured funding from numerous funding sources and needs Conservancy/DWR IRWM funding to close the gap on the costs of this proposed project

7. **Greater-than-local interest:** The project has several regional benefits. It will enhance the habitat of a federally listed species, steelhead trout, and increase riparian and wetland habitat in San Francisco Bay. The project will also address flood threats for shoreline jurisdictions and facilities adjacent to the lower reach of San Francisquito Creek.

8. **Sea level rise vulnerability:** By widening the creek and creating setback levees, the project will decrease the vulnerability of shoreline communities to fluvial flooding that can be especially severe when combined with high tides. The project additionally considers 26 inches of sea level rise in the next 50 years in its design, in accordance with projections through mid-century.

Additional Criteria

9. **Urgency:** The need for flood risk management remains acute for the community of East Palo Alto and steelhead trout are a federally listed species that need improved access to spawning and rearing habitat.

10. **Resolution of more than one issue**: Multiple issues will be addressed: fish habitat will be improved, invasive exotic vegetation will be removed, native vegetation planted, upland transition zones created, and a regional approach to flood risk reduction implemented.
11. **Leverage**: See the "Project Financing" section above.
12. **Conflict resolution**: Long-standing conflicts on San Francisquito Creek over environmental justice issues (poorer communities on the receiving end of flood waters) and between flood protection infrastructure and habitat protection will be resolved with implementation of this project.
15. **Realization of prior Conservancy goals**: The Conservancy has made significant investments in improving the habitat of San Francisquito Creek. This project will further implement these goals by improving flood protection in a manner that also improves habitat.
16. **Return to Conservancy**: See the "Project Financing" section above.
17. **Cooperation**: The creation of the SFCJPA formalized the cooperation between multiple government agencies to address watershed issues.
18. **Vulnerability from climate change impacts other than sea level rise:** The viability of steelhead trout in many tributaries of San Francisco Bay in the future may be threatened by changes to the climate, including rising temperatures and changes in precipitation and hydrology. Implementing projects that open up larger areas of creek and river habitats for steelhead will increase the resilience of the species as it faces challenging conditions in the future.
19. **Minimization of greenhouse gas emissions:** The project seeks to minimize GHG emissions as much as possible with the incorporation of best management practices such as use of local materials, alternative fuel use, and recycling of construction materials incorporated into the plans and specifications.

CONSISTENCY WITH SAN FRANCISCO BAY PLAN:

The project is within the jurisdiction of the San Francisco Bay Conservation and Development Commission (BCDC) and permit no. 2013.007.00 was issued on February 22, 2016. The permit contains findings regarding the consistency of the project with the Bay Plan including:

Bay Fill. The project does include new permanent fill in the Bay but the primary purposes are for flood protection, the creation of high tide refugia, and to extend the Bay Trail connection via a boardwalk over the newly created open-water area. BCDC determined that the impacts of the fill will be exceeded by the public benefits, and that it was an appropriate water-oriented use, has no alternative upland location, uses the minimum amount of fill necessary, and will increase the amount of Bay by widening the creek and therefore was consistent with the Bay Plan and the McAteer-Petris Act.

Natural Resources. The Bay Plan has policies to protect fish and wildlife resources. BCDC determined that the project was consistent with these policies because the use of best management practices during construction, creation of high tide refugia, and restoration and enhancement of creek habitats will minimize the harmful impacts on fish and wildlife resources.

Water Quality. Bay Plan policies require that water pollution be prevented to the greatest extent feasible and that water surface area and volume be conserved or improved. To prevent water quality impacts the permit requires compliance with the Water Quality Certification and testing of soils and special handling of contaminated material.

Mitigation. The Bay Plan calls for mitigation of adverse impacts that cannot be avoided. The permit states that creation of high velocity refuge areas to aid steelhead passage, marsh and riparian habitats, and high tide refugia will mitigate the temporary and permanent impacts of the project.

Monitoring. The project includes a monitoring pan that was determined to be generally consistent with Bay Plan monitoring requirements.

Public Access. BCDC concluded that the project was consistent with Bay Plan policies to provide maximum public access because the project will improve, widen and pave trails, improve the signage and gates, and create additional trail access points in the project area.

Minimize Impacts to Wildlife from Public Access. Bay Plan public access policies call for public access to avoid adverse effects on Bay resources. To protect the adjacent tidal wetland areas from human intrusion and predators, the project will install a fence along the north levee near the connection to the Bay Trail.

Bay Plan Priority Use Areas. The Bay Plan has designated portions of the project as Waterfront Park and Wildlife Refuge priority use areas. The trail uses in the project area are consistent with this Waterfront Park designation. The project will minimize the temporary impacts to the Wildlife Refuge areas and restore habitat. BCDC found that the project is consistent with these priority use designations in the Bay Plan.

Shoreline Protection. The Bay Plan has numerous policies regarding shoreline protection projects. BCDC found that the project was consistent with the policies to authorize projects that are necessary provide flood protection and is based on a 100-year event with sea level rise, be regularly maintained, incorporate nonstructural elements that enhance the Bay ecosystems, and mitigate impacts to Bay ecosystems.

COMPLIANCE WITH CEQA:

In order to comply with the California Environmental Quality Act (CEQA), on October 18, 2012, SFCJPA adopted the *Final San Francisquito Creek Flood Reduction, Ecosystem Restoration and Recreation Project San Francisco Bay to Highway 101 Environmental Impact Report* (EIR) to evaluate the potential environmental impacts of the proposed project (Exhibit 5).

The EIR builds upon many previous planning efforts to address flood risk reduction in the San Francisquito Creek watershed. Under a U.S. Army Corps of Engineers' Continuing Authorities Program Flood Damage Reduction Projects (Section 205) two documents, the Report on Project Research and Scenarios for the U.S. Army Corps of Engineers Continuing Authority Program (CAP) 205 (May 2003) and the San Francisquito Creek Flood Damage Reduction & Ecosystem Restoration General Investigations Program 905(b) Analysis Reconnaissance Study (March 2005), were completed. Both studies determined that capacity improvements were needed in the lower creek in order to accommodate future upstream improvements. The May 2003 CAP 205 Report outlined the following actions:

Widen Culvert at U.S 101. Additional capacity for creek flows could be created by constructing additional culvert barrels under U.S. 101. However, since widening the culverts alone would not decrease flooding, this action would need to include closing the surface opening between U.S. 101 and the adjacent frontage road, West Bayshore Road, so creek flows would be directed through the additional culverts.

Raise Levees or Construct Flood Walls. This action would raise levees or construct flood walls in areas downstream of U.S. 101.

Construct Overflow to Open Space. This action would divert flood waters into the marshland and a public golf course at the creek mouth.

Widen Channel. This action calls for widening the creek channel on both sides and constructing new, set-back levees.

Construct Secondary Channel in Golf Course. This action would construct an additional channel through the Palo Alto gold course as a means of increasing flood capacity.

The Widen Culvert at U.S. 101 action was not further considered by the SFCJPA because Caltrans has since advanced a project to widen the culvert as part of a U.S. 101 and East/West Bayshore frontage roads upgrade project.

In 2009, SFCJPA prepared an Alternatives Analysis to evaluate the CAP 205 Report alternatives against the flood management objectives within the infrastructure and habitat constraints of the project area. This Alternatives Analysis recommended a combination of the actions recommended in the CAP 205 Report to reduce peak water levels described in the study as Alternatives 1, 2, and 3. Alternatives 1 and 2 were similar and featured flood walls, excavation of the flood plain, levee setbacks and a widened channel to allow flood bypass flows but Alternative 2 featured levee setbacks instead of flood walls, increased levee setbacks in the middle reach, and greater excavation of the flood plain (to marsh plain elevation). Alternative 3 did not include levee setbacks but increased flood conveyance by excavation of creek channel to marsh elevations and addition of a large bypass channel extending across the center of the golf course. The Alternatives Analysis recommended Alternative 2 since it provided the greatest reduction in peak water levels. The golf course bypass channel in Alternative 3 combined with channel modifications proposed in Alternative 2 provided similar reductions at significantly more cost.

The Draft EIR carried forward Alternative 2 as the preferred alternative and Proposed Project, Alternative 3 became the only feasible action Alternative, now called Alternative 1, and also referred to as the Golf Course Bypass, and the alternative previously called Alternative 1 was not advanced for further analysis in the Draft EIR. The Draft EIR also added a No Project Alternative.

The EIR identified numerous potentially significant, significant, and cumulatively significant environmental impacts for both project and the action alternative (Alternative 1 or Golf Course Bypass). Since Alternative 1 incorporates very similar measures as the project, the impacts were largely the same except that Alternative 1 would potentially be more disruptive of recreational resources (by creating a bypass channel through the adjacent golf course), require a longer construction period, and be significantly more expensive. The No Project alternative had fewer impacts to resources, but since it would not accomplish the project's flood protection and habitat

enhancement goals, it could not be identified as the environmentally superior alternative, nor was it feasible.

The project's significant effects and mitigation measures are set forth in the EIR and summarized in the summary table in Exhibit 6, titled "Table 1. Impacts and Mitigation for the San Francisquito Creek Flood Reduction, Ecosystem Restoration, and Recreation Project San Francisco Bay to Highway 101." These mitigation measures are also summarized along with their implementation responsibility, schedule, reporting, and enforcement requirements in the project's Mitigation Monitoring and Reporting Plan in Appendix F of the EIR (Exhibit 5). The discussion below summarizes these impacts and mitigations.

Significant Effects Reduced to Less Than Significant Levels By Mitigation

Biological Resources. The EIR identified numerous impacts to biological resources from construction activities and the changed hydrology resulting from the project. Species that could be impacted by the project were Western Burrowing Owls, Ridgway's Rail (formerly California Clapper Rail), Salt Marsh Harvest Mouse and Salt Marsh Wandering Shrew, California Least Tern, Western Snowy Plover, California Red-Legged Frog and San Francisco Garter Snake, and Steelhead Trout. The EIR identifies mitigation measures appropriate for each species. These measures include work awareness training to recognize and avoid species, pre-construction surveys for species, and creating avoidance measures. (Mitigation Measures BIO 2.1, 4.1, 5.1, 5.2, 6.1, 7.1, 8.1, and 9.1). To mitigate impacts to riparian and wetland habitats, the EIR identifies additional measures that will restore riparian habitat and avoid jurisdictional wetlands (Mitigation Measures BIO 11.1, 11.2, 12.1). In regards to the loss of trees, the EIR identifies measures to transplant or compensate for trees and protect remaining trees from construction (Mitigation Measures BIO 13.1, 13.2). These mitigation measures were determined to reduce the biological impacts to *less than significant.*

Cultural and Paleontological Resources. The EIR notes that the project has the potential to disturb undocumented cultural resources, including human remains, and to damage significant paleontological resources. To reduce these potential impacts to a *less than significant* level, the EIR calls for mitigation measures to conduct preconstruction surveys and inventories, conduct worker awareness training focused on archaeological resources, and to stop work immediately if buried cultural resources are discovered (Mitigation Measures CR 1.1, 1.2, 1.3 and PALEO 1.1, 1.2).

Greenhouse Gas Emissions. Due to extensive amounts of earth work, the project has the potential, either directly or indirectly, to have a significant impact on the environment. To mitigate this impact to a *less than significant* level the project will implement Bay Area Air Quality Management District's Best Practices for Construction which requires use of alternative fueled vehicles, local building materials, and construction waste recycling (Mitigation Measure GHG 1.1).

Hazardous Materials and Public Health. The project also has several potential impacts regarding hazardous materials and public health. The project could potentially create hazards by movement of hazardous materials, expose workers or the public to hazardous materials, generate hazardous materials near a school, construction vehicles and activities could interfere with an emergency response, or the project could harbor disease vectors such as mosquitos. These potentials impacts will be mitigated with preparation and implementation

of a spill prevention plan, proper storage and handling of hazardous materials, procedures to stop work and remediate hazardous materials if unknown hazardous materials are encountered, following guidelines for hazardous materials use and storage, implementation of a site-specific traffic control plan, and prevention of mosquito breeding during project construction (Mitigation Measure HAZ 1.1, 1.2, 2.1, 8.1, and TT 1).

Hydrology and Water Resources. Although the project will ultimately reduce flood risk, the disruption to existing infrastructure could impact flood risk. The project will reduce this impact by temporarily relocating storm drain facilities and permanently relocate storm drain facilities to improve flood risk management (HWR 1.1, 1.2).

Noise and Vibration. Construction noise and vibrations are a potentially significant impact that will be mitigated to a *less than significant* level by implementing vibration control approaches, providing advance notification of construction schedule, implementation of work site noise control measures, designate a noise and air quality disturbance coordinator, and installation of temporary noise barriers (Mitigation Measures NV 2.1, 4.1, 4.2, 4.3, 4.4).

Air Quality. Due the extensive amount of earth movement required by the project, a potential impact of the emissions generated by the project are 1) violations of air quality standards or substantially contributing to an existing or projected air quality violation, 2) exposure of sensitive receptors to substantial pollutant concentrations, and 3) creation of objectionable odors. Several mitigation measures seek to reduce this impact as much as feasible by implementing tailpipe emission measures, using delivery and construction equipment that meets current emission standards, providing advanced notice and a coordinator for adjacent residents (Mitigation Measures AQ2.1, AQ2.2, AQ2.3, NV1.1, and NV1.3). However, even with incorporation of these mitigation measures, the EIR determined that the impacts to air quality standards and sensitive receptors were *significant and unavoidable*.

Significant Impacts that Cannot Be Fully Mitigated

Violation of Air Quality Standards. Although the project incorporates mitigation measures to reduce nitric oxide, they are unlikely to reduce nitric oxide emissions to less than significant level. Since there is no alternative or additional mitigation that would reduce emissions to below BAAQMD thresholds, this is considered a *significant and unavoidable* impact.

Exposure of Sensitive Receptors. Although the project has incorporated mitigation to reduce the exposure of sensitive receptors (homes, schools, residences), because the project is unlikely to reduce emissions to a less-than-significant level, there could be temporary but still *significant and unavoidable* impacts to sensitive receptors.

Reduced Availability of Existing Recreational Resources. The project would impact holes 12 through 15 in the existing golf course by widening the creek and relocating the levee. SFCJPA is required to provide monetary compensation to the City of Palo Alto (the golf course's owner) to offset the costs of reconfiguring the golf course to maintain its playability. However, since the implementation of this mitigation measure is outside SFCJPA's jurisdiction, the project cannot guarantee that it is implemented, making this a *significant and unavoidable* impact.

Cumulative Impacts

The EIR also identifies cumulative impacts for the project in the area of Air Quality. As described above, the project will incorporate mitigation measures to reduce air quality impacts but even with these measures, the project will result in a significant and unavoidable impact to air quality. This impact also applies on a cumulative basis since the project is expected to have a cumulatively considerable contribution to regional air quality degradation.

Project Benefits

As SFCJPA concluded in their CEQA findings, there are significant project benefits to the project. Conservancy staff has independently reviewed the EIR, its accompanying appendices, and the MMRP and concurs with this assessment. The numerous benefits provided by the project include:

- Protection of properties and infrastructure between East Bayshore Road and the San Francisco Bay from water levels resulting from 100-year creek flood flows occurring at the same time as a 100-year high tide that includes 26 inches of sea level rise through 2067.
- Accommodation of future flood protection measures that might be constructed upstream of the project.
- Enhancement of habitats along the lower reaches of the creek, particularly habitat for threatened and endangered species.
- Enhancement of recreational uses.
- Minimization of operation and maintenance requirements.

Statement of Overriding Considerations

In the event a project has unavoidable significant potential effect, the CEQA Guidelines require the decision-making agency to balance, as applicable, the economic, legal, social, technological, or other benefits of a proposed project against its unavoidable environmental risks when determining whether to approve the project (14 Cal. Code of Regulations Section 15093). If the specific project benefits outweigh the unavoidable adverse environmental effects of the project, a Statement of Overriding Consideration may be adopted and the project approved, despite its adverse environmental effects. The SFCJPA adopted a Statement of Overriding Consideration as part of its Finding of Facts on October 18, 2012.

The overall environmental benefits of the proposed project, as detailed in the EIR, warrant the Conservancy's decision to approve the project even though not all of the environmental effects of the project are fully mitigated. As discussed above, the unavoidable cumulative significant impacts to air quality are significant but not permanent. The impacts to the adjacent golf course potentially could be fully mitigated but since the implementation of this mitigation measure is to be implemented by another party, SFCJPA cannot guarantee that this mitigation will take place, therefore for the purposes of CEQA, this is determined to be a significant and unavoidable impact. Furthermore, as discussed above, the action alternative (Golf Course Bypass) would have very similar impacts on resources, including similar air quality impacts, but would have even greater impacts on the adjacent golf course and the overall construction period would be longer, increasing the period of impacts. The no action alternative avoids impacts to air quality and the golf course but does not reduce flood risk or improve habitat. In the long run, the no action alternative could

have potential impacts to cultural resources, traffic, and public services from aging and failing infrastructure and flooding impacts but it is difficult to determine if these will be worse than existing baseline due to uncertainty of future events.

For these reasons, the Conservancy staff recommends that the Conservancy find that the project, as mitigated, avoids or reduces to less than significant all potentially significant environmental effects, except for significant and unavoidable as well cumulative effects related to Air Quality, and significant and unavoidable impacts to Recreational Resources. With respect to these potential unavoidable effects, Conservancy staff likewise recommends that the Conservancy find that the specific environmental, resource, flood protection and public access enhancement benefits of the project proposed in this authorization outweigh the unmitigated or unavoidable environmental effects of the project, thereby warranting its approval.

Upon Conservancy approval of the proposed projects, Conservancy staff will prepare and file a Notice of Determination.