

ATTACHMENT 9:
Program Preferences

SANTA CLARA VALLEY WATER DISTRICT

**Proposition 1E Round 2
Stormwater Flood Management Grant Program
Berryessa Creek Flood Protection Proposal**

In accordance with PSP requirements, **Attachment 9** consists of the following items:

- ✓ A description of how the Proposal assists in meeting the **Program Preferences** described in Section II.F of the 2012 Guidelines.

Overview

The Project meets 6 of the 8 Program Preferences and four of the Statewide Priorities identified in the Proposition 84 and Proposition 1E IRWM Guidelines. This attachment details the specific Program Preferences and Statewide Priorities that are met by the Project, the certainty that the Proposal will meet the Program Preferences, and the breadth and magnitude to which the Program Preferences will be met. **Table 9-1**, below, identifies the Program Preferences which the Project will assist in meeting.

Table 9-1: Program Preferences Met by Project

Project	Program Preferences							
	Include Regional Projects or Programs	Integrates Projects Within an Identified Region or IRWM Sub-region	Effectively resolves Significant Water-related Conflicts within or between Regions	Contribute to Attainment of One or More CALFED Objectives	Address Critical Water Supply or Quality Needs of DAC	Integrates Water Management with Land Use Planning	Eligible for SWFM Funding	Address Statewide Priorities
Berryessa Creek Flood Protection Project	✓	✓		✓		✓	✓	✓

In addition, this project will assist in achieving the following Statewide Priorities.

Table 9-2: Statewide Priorities Met by Project

Project	Assists in Meeting Statewide Priorities							
	Drought Preparedness	Use and Reuse Water More Efficiently	Climate Change Response Actions	Expand Environmental Stewardship	Practice Integrated Flood Management	Protect Surface Water Quality	Improve Tribal Water and Natural Resources	Ensure Equitable Distribution of Benefits
Berryessa Creek Flood Protection Project			✓	✓	✓	✓		

Program Preferences Achieved by Proposal

As described above, the proposed project will assist in achieving the following Program Preferences:

- Regional Project
- Integrates Projects Within an Identified Region or IRWM Sub-region
- Contribute to Attainment of One or More CALFED Objectives
- Integrates Water Management with Land Use Planning
- Eligible for SWFM Funding
- Address Statewide Priorities

The manner in which the project will address each program preference is discussed below.

Regional Project

The District’s mission is a healthy, safe, and enhanced quality of living in Santa Clara County through watershed stewardship and comprehensive management of water resources in a practical, cost-effective, and environmentally sensitive manner for current and future generations. The proposed project is part of the District’s regional Flood Protection and Stream Stewardship Program, which implements the watershed stewardship portions of the mission, related to protecting Santa Clara County from floods and storm waters and ensuring healthy creeks, bays and watersheds. This project is an integral component of the District’s regional flood control program.

The California Water Code (section 10537) defines a “Regional” project as any project in an IRMWP that accomplishes any of the following : (a) reduced water demand; (b) increased water supplies for beneficial use; (c) Improve operational efficiency/reliability; (d) Improve water quality; (e) Improve resource stewardship; and (f) Improve flood management. This Project will improve operational efficiency for the District’s flood control operations, improve water quality by reducing sediment loading, improve resources stewardship by improving water quality for habitat and ecosystem function, and improve flood management.

In addition, the District will be partnering with federal and regional agencies, including the Valley Transportation Authority, the US Army Corps of Engineers, and Santa Clara County to coordinate improvements and new infrastructure for stormwater control, particularly surrounding critical regional transportation corridors.

As a regional Project, the Project has been included in the Bay Area IRWM Plan, which is currently being updated.

Integrates Projects Within An Identified Region or IRWM Sub-Region

The Project is located in the Greater Coyote Creek watershed, which is the largest watershed (or sub-region) in Santa Clara County and drains approximately 320 square miles along the eastside of the County. Coyote Creek empties into South San Francisco Bay along with other watersheds including the Guadalupe River. The Project will integrate with other projects in the watershed to provide comprehensive flood protection within the Coyote Creek Watershed and watershed restoration benefits within the larger South Bay Region. The connection between Berryessa Creek and Coyote Creek is important to note for several reasons: 1) flood protection improvements upstream are likely to positively affect the flooding situation downstream; 2) water quality improvements upstream should lead to improvements downstream; 3) improvements to the channel, including habitat restoration and renegotiation, should lead to improved fisheries habitat and fish migration downstream; and 4) improvements to the channel for reduced sedimentation should result in less sediment loading downstream. In addition to these benefits, recreational opportunities will be available, such as improved connectivity to the City of Milpitas' and City of San Jose's trail network.

The Project is located in Northern Santa Clara County, which has been identified as a sub-Region of the San Francisco Bay Area IRWM Plan. As discussed previously, the Project has been identified as contributing to several Bay Area IRWM Plan goals and objectives through the Southern Subregion (located in Northern Santa Clara County).

Contributes to Attainment of One or More CALFED Objectives

The Project contributes to the attainment of two CALFED Bay-Delta Program objectives – the water quality and ecosystem restoration objectives. In fact, the two objectives are linked as it is ecosystem restoration that leads to water quality improvements. The CALFED water quality objective is met because the Project improves the hydrologic function of Berryessa and Lower Penitencia Creeks by controlling excessive in-stream erosion and sedimentation, establishing and expanding the existing riparian corridor. The Project contributes significantly to ecosystem restoration as it employs sediment removal, vegetation management, bank protection, natural channel formation, and creation of habitat acreages for riparian habitat and uplands. Berryessa Creek empties into Coyote Creek, which empties into the southern part of the San Francisco Bay which is part of the CALFED Program area.

Integrates Water Management with Land Use Planning

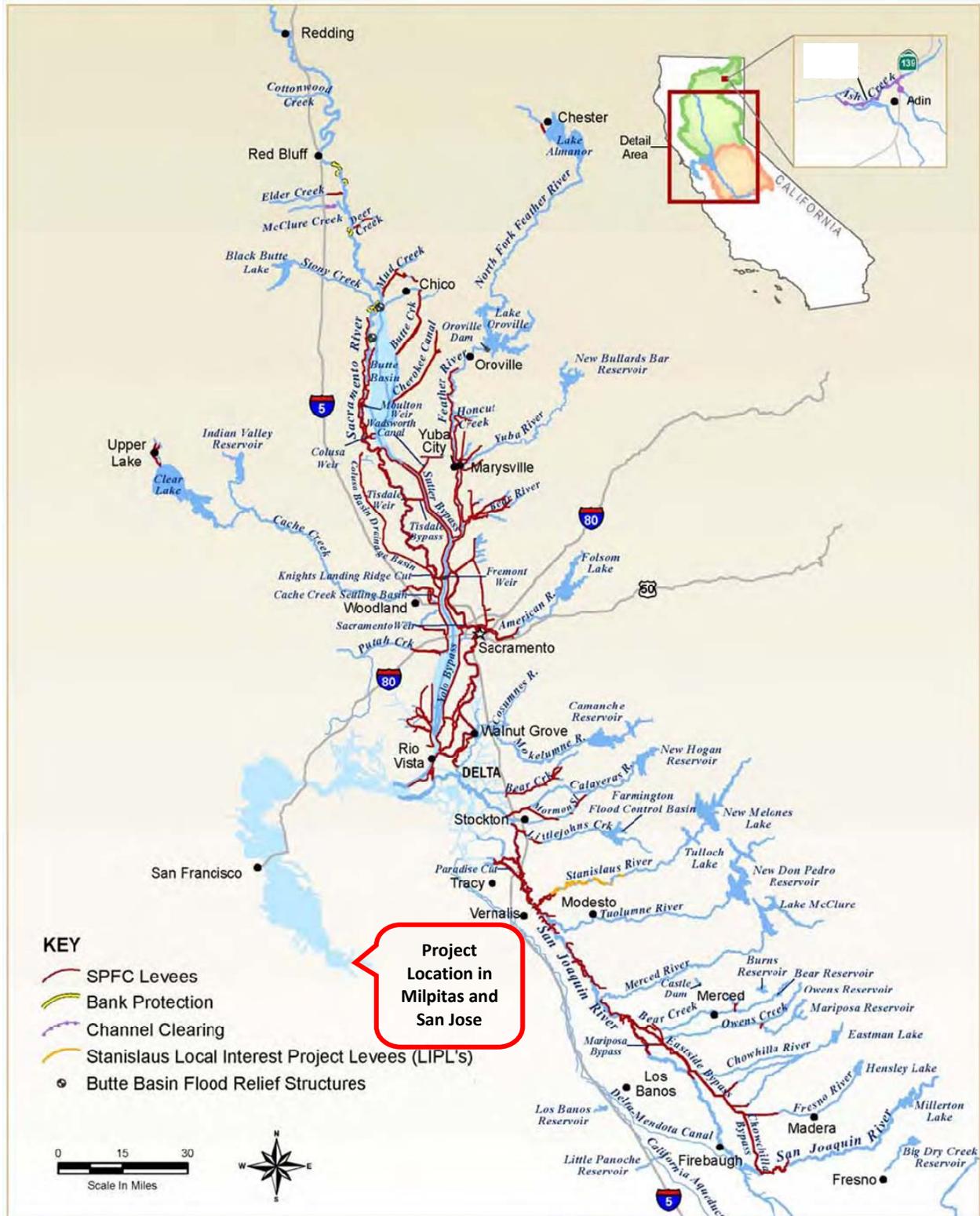
Beyond these habitat improvements, the Project also provides opportunities to expand existing trail systems by up to six miles along the creek via the construction of pedestrian bridges and maintenance roads that could serve multiple uses, including trail use. The local General Plans for the Cities of San Jose and Milpitas include objectives related to providing natural flood protection. This Project will assist in achieving local flood plan objectives identified in local land use plans.

Not Receiving State Flood Protection Funding and Provides Multiple Benefits

The Project is eligible for funding as the San Francisco Bay Area Integrated Regional Water Management (IRWM) Region was approved through the Regional Acceptance Process. The Project is part of the Bay Area Integrated Regional Water Management Plan. The District has prepared and implemented a GWMP in compliance with CWC 10753.7. The District adopted its 2010 UWMP update on May 24, 2011. The 2010 UWMP Update has been reviewed by the Department of Water Resources and determined to meet California Water Code requirements.

The District is compliant with AB 1420. The District is in compliance with CWC 10920 for a groundwater monitoring program. The Project is not receiving State funding for flood control, as shown on **Figure 9-1**.

Figure 9-1. Project Location Outside the SPFC



The Project is eligible for SWFM funding because:

- The Project is included in the adopted Bay Area IRWM Plan, which addresses all the Plan Standards, as listed in the IRWM Guidelines that were final at the time of the RWMG's adoption (i.e., Proposition 50 Guidelines)
- The IRWM Plan, adopted by the RWMG, has also been adopted by the applicant (Santa Clara Valley Water District)
- The project is not part of the State Plan Flood Control (SPFC).
- The project is designed to manage stormwater runoff and reduce flood damage.
- The project yields multiple benefits including water quality improvements, habitat restoration, cooling, and reduction in sedimentation.
- The project is consistent with the applicable regional Water Quality Control Plan to manage stormwater runoff to reduce flood damages.

In addition to providing flood protection benefits, the Project will provide the following additional benefits, as discussed in Attachments 3, 7 and 8:

- **Reduce Sedimentation and Erosion:** Erosion and sedimentation along the Berryessa Creek and its tributaries are a major issue when it comes to impeded stream flow and channel capacity, degraded water quality, and establishment of native habitat. Implementation of the Project will widen channels to reduce erosion on banks, and will create a proper bankfull channel to transport sediments.
- **Improve Water Quality:** The banks of Berryessa Creek and its tributaries are currently subject to varying degrees of erosion and sedimentation, which degrades the overall water quality of the creeks. Implementation of this Project will result in reduced sedimentation and erosion and will therefore improve water quality.
- **Habitat Protection and Restoration:** The Berryessa Creek habitat is currently comprised of mostly non-native vegetation. Implementation of this Project will allow for the planting of native species along the 6-mile stream corridor and will reduce the sedimentation and erosion and associated bank failures that currently limit native plant colonization. The Project will also allow for the preservation of wetland habitat.
- **Improved Maintenance:** Inadequate access makes maintenance of Berryessa Creek and its tributaries more difficult, costly and time-consuming. Additionally, these creeks frequently require sediment removal from the channel bottoms to maintain flow capacity, but this process is currently burdened by a lack of suitable access for equipment. Implementation of this Project will provide improved access and a continuous maintenance road that will facilitate maintenance of the Creek. A properly-sized bankfull channel with a depressed benches constructed in the proper elevation will reduce maintenance activities in the channel in the long-term. In addition, the project will reduce maintenance requirements such as sediment removal and erosion repair work caused by bank failures, and trash and graffiti removal caused by existing blight conditions.
- **Expanded Trail/Recreation Opportunities:** Implementation of this Project will provide new recreational amenities for City of Milpitas and the northern portions of the City of San Jose, including pedestrian bridges and multiple-use trails that will extend for up to 6 miles along the Berryessa Creek.

Addresses Statewide Priorities

The Project addresses numerous Statewide Priorities as identified on page 13 of the Propositions 84 and 1E Guidelines. **Table 9-3** below graphically illustrates the Statewide Priorities addressed by the Project.

Table 9-3: Addressing Statewide Priorities

Project	Assists in Meeting Statewide Priorities							
	Drought Preparedness	Use and Reuse Water More Efficiently	Climate Change Response Actions	Expand Environmental Stewardship	Practice Integrated Flood Management	Protect Surface Water Quality	Improve Tribal Water and Natural Resources	Ensure Equitable Distribution of Benefits
Berryessa Creek Flood Protection Project			✓	✓	✓	✓		

The Project addresses five Statewide Priorities:

- **Climate Change Response Actions** – A climate change consequence is a rising sea level which would increase the likelihood of flooding. The Project will reduce the impact of rising sea level when combined with a flooding event, most notably through the raising of existing levees.
- **Environmental Stewardship** – As previously mentioned, the Project controls excessive in-stream erosion and sedimentation, establishes and expands the existing riparian corridor. The Project employs vegetation management, stream bank protection, and creation of habitat acreages for riparian habitat and uplands.
- **Practice Integrated Flood Management** – The Project protects 2,463 homes and businesses from a 100-year flood event. The Project balances environmental quality and protection from flooding in a cost-effective manner through use of natural flood protection strategies such as natural detention and incorporating recreation and public access features such as six miles of new trails.
- **Protect Surface Water Quality** – The project contributes to the protection and improvement of the quality of water resources by reducing mass loading of pollutants to San Francisco Bay through the preservation, enhancement, and widening of the Berryessa Creek stream corridor to improve filtration of point and non-point source pollutants. This Project also helps benefit the 303(d) list impairment for trash on lower Silver Creek. Likewise, increased shading as a result of the establishment of SAR habitat is expected to decrease summer water temperatures.

Certainty that the Proposal will meet Program Preferences

All components of the Project have undergone extreme scrutiny; therefore, there is great certainty that the proposed Project will achieve the Program Preferences as outlined above. The Project meets criteria designed to address Proposition 1E and achieve the Bay Area IRWM Plan objectives. The Project has the ability to achieve its required benefits, is technically feasible, has secured a 63 percent local / non-State match, and is implementable within a reasonable length of time after the grant award date.

A partial listing of the existing data and studies that demonstrate the project is technically sound and likely to be implemented are found below in **Table 9-4** (a full list of data and studies can be found in Attachment 3).

Table 9-4: Existing Data and Studies

Project	Existing Data and Studies
Component 1: Lower Berryessa Creek Flood Protection Improvements	<ul style="list-style-type: none"> • Lower Berryessa Creek Plans and Drawings, Santa Clara Valley Water District, March 2000 to March 2001 • Final Geotechnical Data Report Calera Creek Access Bridge, Santa Clara Valley Water District, July 2001 • Final Preliminary Geotechnical Report and Appendices Berryessa Creek Levee, Santa Clara Valley Water District, August 2001 • Design Flow Rate Comparisons Berryessa Creek, Santa Clara Valley Water District, January 2003 to March 2006 • Baseline Hydraulic Model, Report and Addendum, Santa Clara Valley Water District, April 2003 with Addendum October 2006 • Problem Definition, Objectives, and Conceptual Alternatives Technical Memorandum, Santa Clara Valley Water District, 2003 • Environmental and Permitting Analysis of Six Preliminary Alternatives of Lower Berryessa Creek, Santa Clara Valley Water District, April 2004-2006 • Berryessa Creek Levees Evaluation of Preliminary Alternatives, Santa Clara Valley Water District, May 2005 • Calera and Tularcitos Geotechnical Reports, Santa Clara Valley Water District, 2005 • Calera and Tularcitos Creeks Existing Conditions, Santa Clara Valley Water District, June 2005 • Tularcitos Creek Reach Problem Definition, Santa Clara Valley Water District, August 2005 • Calera Creek Reach Problem Definition, Santa Clara Valley Water District, August 2005 • Draft Technical Memorandum – Evaluation of Alternatives Tularcitos Creek Reach, Santa Clara Valley Water District, 2007 • Draft Technical Memorandum – Evaluation of Alternatives Calera Creek Reach, Santa Clara Valley Water District, 2007 • Draft Technical Memorandum – Evaluation of Alternatives Upper Calera Creek Reach, Santa Clara Valley Water District, 2007 • Draft Technical Memorandum – Evaluation of Alternatives Upper Calera Creek Reach 2, Santa Clara Valley Water District, 2007 • Draft Technical Memorandum – Final Hydraulic Model, Santa Clara Valley Water District, 2010 • Planning to Design Transition Report Lower Berryessa Creek and Calera Creek, Santa Clara Valley Water District, 2010 • Lower Berryessa Creek Project Planning Study Report, Santa Clara Valley Water District and Winzler and Kelly, 2010 • Notice of Preparation, Santa Clara Valley Water District, 2007 • Scoping Report, Santa Clara Valley Water District, 2008 • Notice of Exemption, Santa Clara Valley Water District, 2010

Project	Existing Data and Studies
	<ul style="list-style-type: none"> • Initial Determination Memo, Santa Clara Valley Water District, 2010 • Draft Environmental Impact Report, Santa Clara Valley Water District, June 2011
Lower Penitencia Creek Flood Protection Improvements	<ul style="list-style-type: none"> • Lower Penitencia Creek Planning Study Report/Engineers Report/Negative Declaration, Santa Clara Valley Water District, 1982 • Upper Penitencia Creek Historical Ecology Assessment, San Francisco Estuary Institute, June 2012 • Recertification of Provisionally Accredited Levee P52 on Lower Penitencia Creek, Santa Clara Valley Water District, 2009 • Berryessa Creek Watershed Hydrology Report, Berryessa Creek Levees Project, Northwest Hydraulic Consultants, 2005 • Geotechnical Investigation for Lower Penitencia Creek Levee Recertification, AMEC Geomatrix, 2009
Upper Berryessa Creek Flood Protection Improvements	<ul style="list-style-type: none"> • 2001 Storm Drain Master Plan, City of Milpitas, 2001 • Economic Analysis, Santa Clara Valley Water District, 2004 • Technical Memorandum on Basin Geomorphology, Santa Clara Valley Water District, 2001 • Draft Phase I Environmental Site Assessment, Santa Clara Valley Water District, 2001 • Phase II Hazmat Investigation, Santa Clara Valley Water District, 2006 • Upper Berryessa Creek Project – Draft General Evaluation Report and EIS/EIR, Santa Clara Valley Water District, 2012

Breadth and Magnitude to Which Program Preference will be Met

The breadth and magnitude to which the Program Preferences will be met by the Project can be gauged by examining the breadth and magnitude to which the Project meets IRWM Plan goals. The Bay Area IRWM Plan goals are described in detail in Attachment 3 – Work Plan on page 3.

The Bay Area IRWM Plan articulates six goals, five of which this Project will meet. Those goals are as follows:

1. Promote economic, social, and environmental sustainability
2. Improve water supply reliability
3. Protect and improve hydrologic function
4. Protect and improve quality of water resources
5. Protect public health, safety and property
6. Create, protect, enhance, and maintain environmental resources and habitats

Table 9-5 provides both quantitative and qualitative data on the breadth and magnitude to which the projects meet the IRWM Plan goals

Table 9-5: Quantitative and Qualitative Data – IRWM Plan Goals

Breadth/Magnitude to Which Project Achieves IRWM Plan Objectives	
Promote economic, social, and environmental sustainability	The multiple benefits of the Project have led to broad support from the surrounding cities and the local communities. The communities understand that the multiple benefits of the Project will lead to a more attractive environment which in turn increases economic viability of the Cities of Milpitas and San Jose. Environmental sustainability is promoted by not only reducing the risk of flooding to homes and businesses but by factoring in the added benefits of erosion and sedimentation control, increased riparian vegetation, water quality improvements, and management of pests and invasive species.
Improve Water Supply Reliability	N/A
Protect and improve hydrologic function	The Project contributes to the protection and improvement of hydrologic function by controlling excessive in-stream erosion and sedimentation, improving in-stream flow conditions through the provision of a low-flow channel and increased riparian vegetation, and by reducing flooding and channel bank failures.
Protect and improve quality of water resources	The Project protects and improves the quality of water resources by reducing mass loading of pollutants to San Francisco Bay through the preservation, enhancement, and widening of the Berryessa Creek stream corridor to improve filtration of point and non-point source pollutants.
Protect public health, safety, and property	The Project contributes to the protection of public health, safety, and property by protecting homes, business, and roads from the 100-year flood from Berryessa Creek and its tributaries. The Project will increase the capacity of the creek channel to safely handle a 100-year flood event and remove 3,400 parcels from the 100-year flood plain. The management of invasive species will also lead to a healthier environment.
Create, protect, enhance, and maintain environmental resources and habitats.	The Project creates, protects, enhances, and maintains environmental resources by conserving and restoring habitat for species protection. Pests and invasive species will be better managed and the structural complexity of the stream will be restored. Watershed restoration will be promoted through the reestablishment of natural wetlands, riparian, and upland habitats.