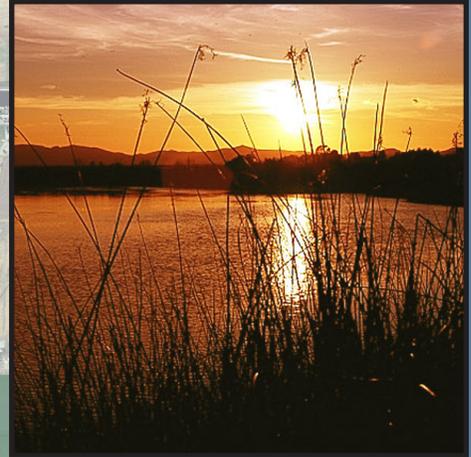


**Contra Costa Water District
Proposition 1E Grant Proposal
Round 2
Attachment 9
Program Preferences**



**East Contra Costa County Region
Contra Costa Water District
Round 2 Stormwater Flood Management Grant Proposal**

**ATTACHMENT 9 –
PROGRAM PREFERENCES**

<u>Program Preferences</u>	<u>Page</u>
Contra Costa Canal Levee Elimination and Flood Protection Project	9-1

This attachment discusses how this proposal addresses the program preferences outlined in Section II.F of the Integrated Regional Water Management Guidelines. In accordance with the PSP, the following pages:

- ✓ Identify the specific Program Preferences that the Proposal will meet
- ✓ Discuss the certainty that the Proposal will meet the program preferences
- ✓ Discuss the breadth and magnitude by which the Program Preference will be met.

Program Preferences Addressed by Proposed Project

The Contra Costa Canal Levee Elimination and Flood Protection Project (Project) achieves multiple Program Preferences. Of particular significance, there is a **HIGH DEGREE OF CERTAINTY** that the Project will provide *long-term drought preparedness* at the **LOCAL, REGIONAL, and STATEWIDE** levels. Over the life of the Project, approximately 344,000 AF of Delta supply required for blending and achieving Delta water quality goals will be conserved.

The table below identifies the Program Preferences addressed by the proposed Project. A more detailed discussion of the program preferences addressed by the Project and the certainty, breadth and magnitude by which the Preference will be met follows.

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
Contra Costa Canal Flood Protection and Levee Elimination Project								
Breadth	Local, Regional, Statewide	Local, Regional, Statewide		Local, Regional, Statewide		Local, Regional, Statewide	Local, Regional, Statewide	Local, Regional, Statewide

Program Preferences Addressed by the Project

Contra Costa Water District's (CCWD) Canal Levee Elimination and Flood Protection Project (Project) is needed to reduce the flood risk currently posed by the Contra Costa Canal (the Canal). At least seven square miles are currently at risk of flooding if the Canal levees failed; including housing developments, roads, working farms and a tidal marsh restoration project.

The full, five-phased Project will replace 21,000 feet of the unlined Contra Costa Canal (the Canal) with a pipeline and install a Canal flood isolation structure that will allow CCWD to remotely isolate the Canal following a major flood or earthquake. Completion of the Project will reduce regional flood risk and improve water supply reliability and delivered water quality for CCWD's 500,000 customers. Secondary benefits include increasing water supply and water supply reliability for the State Water Project and Central Valley Project and improving public safety by limiting access to the open Canal. Segment 1 of the Project, encasement of the Canal from Pump Plant #1 to Marsh Creek, was completed in 2009. Construction of the flood isolation structure and Segment 2 pipeline is scheduled to begin in the fall of 2013.

The portion of the Project included in this proposal involves installing approximately 5,000 feet of pipe and replacing the Canal embankments along the portion of the unlined Canal immediately adjacent to the Dutch Slough Properties. The proposed Project is intricately linked with the Dutch Slough Tidal Marsh Restoration Project which will construct 3.4 miles of new flood protection levees surrounding the Emerson, Gilbert and Burroughs Parcels adjacent to the Canal. Together, these projects will improve regional flood protection four-fold. Based on historical water levels, flood frequency curves in the area, and previous damage to the Canal, there is a 2% chance of major failure in the Canal embankments any given year. By eliminating the Canal embankments and upgrading the Dutch Slough levees, the risk of major flood damage in the region decreases from 2% in a given year to 0.5% or less.

Other benefits of the Project include improving source water quality by preventing intrusion of saline groundwater, improving public safety by eliminating the drowning risk of the open water Canal, and improving CCWD's water supply reliability. This Project meets the following Program Preferences:

- ✓ **Regional Project:** This Project meets the following CWC §10537 regional criteria: Improve Flood Management; Increase Water Supplies for Beneficial Uses; Improve Operational Efficiency and Supply Reliability; and Improve Water Quality; Improve Resource Stewardship. The Project will provide local benefits by reducing flooding risk and improving public safety along the Canal where work is completed. Because the project will protect drinking water supplies throughout East Contra Costa County, it will provide regional benefits. Finally, by improving Delta water quality and allowing the Dutch Slough Tidal Marsh Restoration to move forward, it will provide statewide benefits.
- ✓ **Integrates Water Management:** This Project integrates several water management strategies including: Flood Management; Ecosystem Restoration; Habitat Protection and Improvement; Water Supply Reliability; Water Quality Protection and Improvement; Wetlands Enhancement & Creation; Conveyance – Delta and Regional/Local; System Reoperation; Surface Storage – CALFED; Surface Storage – Regional/Local; and Salt and Salinity Management. The Project will provide local benefits by reducing flooding risk and improving public safety along the Canal where work is completed. Because the project will protect drinking water supplies throughout East Contra Costa County, it will provide regional benefits. Finally, by improving Delta water

quality and allowing the Dutch Slough Tidal Marsh Restoration to move forward, it will provide statewide benefits.

- ✓ **Contributes to CALFED Objectives:** This Project addresses the Levee System Integrity; Water Quality; Water Supply Reliability; and Ecosystem Restoration and CALFED program objectives. The Project will provide local benefits by reducing flooding risk and improving public safety along the Canal where work is completed. Because the project will protect drinking water supplies throughout East Contra Costa County, it will provide regional benefits. Finally, by improving Delta water quality and allowing the Dutch Slough Tidal Marsh Restoration to move forward, it will provide statewide benefits.
- ✓ **Integrates Water and Land Use Planning:** This Project integrates water and land use planning. Currently, the Dutch Slough Tidal Marsh Restoration is planned to be implemented adjacent to the unlined Contra Costa Canal. Tidal marsh restoration adjacent to an unlined drinking water Canal is an example of incompatible land uses. By replacing the unlined Canal with a pipeline, the incompatibility of the tidal marsh land use and adjacent water supply infrastructure is corrected. As such, the Project integrates water and land use planning. The Project will provide local benefits by reducing flooding risk and improving public safety along the Canal where work is completed. Because the project will protect drinking water supplies throughout East Contra Costa County, it will provide regional benefits. Finally, by improving Delta water quality and allowing the Dutch Slough Tidal Marsh Restoration to move forward, it will provide statewide benefits.
- ✓ **Eligible for SWFM Funding and Provides Multiple Benefits:** The Project is eligible for SWFM Funding and provides multiple benefits. As shown in Figure 9-1, the Project is not part of the State Plan of Flood Control. In addition, this project provides multiple benefits as follows.
 - *Implementation of Multi-Purpose Flood Management Programs:* This integrated Project will provide flood protection, water quality, water supply, and habitat restoration and creation benefits.
 - *Improvement of Water Quality:* This project will provide significant water quality benefits to CCWD and its customers by reducing intrusion of saline groundwater into the Canal.
 - *Water Supply Reliability:* The project provides significant water supply benefits to CCWD, the State Water Project and the Central Valley Project by reducing reservoir releases necessary to achieve water quality standards.
- ✓ **Statewide Priorities:** This Project addresses the statewide priorities as discussed in the following section.

Statewide Priorities Addressed by the Project

The Project addresses the statewide priorities of drought preparedness, use and reuse water more efficiently, climate change response actions, expand environmental stewardship, practice integrated flood management, and protect surface water quality, as shown in Table 9-2 and discussed in the paragraphs that follow.

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
Permanente Creek Flood Protection Project	✓	✓	✓	✓	✓	✓		

- ✓ **Drought Preparedness:** The Project addresses drought preparedness by: 1) allowing CCWD to retain more water in Los Vaqueros Reservoir and thereby improving the availability and reliability of emergency water supplies for CCWD customers and partner agencies; 2) improving water quality at Pumping Plant 1, which will allow the CVP/SWP to release less water from upstream reservoirs to meet the water quality standard at Rock Slough (compliance measured at Pumping Plant 1), conserving supplies; and 3) allowing CCWD to shift pumping away from the Old and Middle River Intakes and CVP/SWP, gaining operational flexibility and possibly increasing maximum exports during times when export operations are normally constrained by Old and Middle River flow regulations.

- ✓ **Use and Reuse Water More Efficiently:** The Project contributes to the statewide priority to use and reuse water more efficiently because, by improving water quality at Pumping Plant No. 1, the Project allows the CVP/SWP to release less water from upstream reservoirs to meet the water quality standard at Rock Slough (compliance measured at Pumping Plant 1). As such, water is conserved for supply purposes, rather than being released for water quality purposes, improving CVP/SWP operational efficiency. In addition, improved water quality at Pumping Plant No. 1 will allow CCWD to shift pumping away from the Old and Middle River Intakes and CVP/SWP, gaining operational flexibility and maximizing operational efficiency.

- ✓ **Climate Change Response Actions:** The Project will assist CCWD in adapting to climate change by reducing risk of levee failure during significant storms, which are projected to become more frequent and intense in future years due to climate change. In addition, the Project will allow CCWD to retain more water in Los Vaqueros Reservoir, which will better equip CCWD to meet water demands during the extended drought periods projected to result from climate change.

- ✓ **Expand Environmental Stewardship:** Without the Project, the Dutch Slough Tidal Marsh Restoration Project cannot proceed. By enabling the Dutch Slough Tidal Marsh Restoration Project to proceed, the Project expands environmental stewardship.

- ✓ **Practice Integrated Flood Management:** The Project practices integrated flood management by integrating multiple resource management strategies, including Urban Water Use Efficiency, Flood Risk Management, Ecosystem Restoration, Surface Storage – Regional/local, Drinking Water Treatment and Distribution, Land Use Planning and Management, Salt and Salinity Management, and Urban Runoff Management.
- ✓ **Protect Surface Water Quality:** The Project protects surface water quality by reducing salinity as measured at Pumping Plant No. 1. In addition, by reducing the frequency of levee failures, the Project reduces the risk of significant surface water quality impacts generated by flooding resulting from levee failure.

Certainty that Program Preferences and Statewide Priorities will be Achieved

The Project and its benefits are supported by a significant number of information and studies, including the following.

- Environmental documentation has been completed in accordance with the California Environmental Quality Act (CEQA) and National Environmental Protection Act (NEPA). A Negative Declaration was filed on November 30, 2007; it was determined that the Project will not have significant effects on the environment. A Finding of No Significant Impact (FONSI) was filed on July 11, 2007.
- Several permits and agreements were secured in 2007, including: Central Valley Regional Water Quality Control Board 401 Permit, CA Department of Fish and Game 1600 and 2081 Permits, State Historic Preservation Officer MOU, US Army Corps of Engineers 404 Permit, National Marine Fisheries Service Letters of Concurrence, US Fish and Wildlife Coordination Act Letter, and Bureau of Reclamation/Western Area Power Administration (WAPA) NEPA EA/FONSI.
- In addition, Phase 1 of the Project, which included encasing 1,900 linear feet of pipeline from Pump Station #1 to Marsh Creek, has been completed. Completed environmental mitigation has included 98 acres of upland habitat and 47 acres of wetland habitat in the adjacent Holland Tract.

Because the Project has been well-studied, is based on significant body of credible data and analysis, and has necessary environmental documentation and permits in place, there is a high degree of certainty that the benefits claimed can and will be achieved through Project implementation.

