



Bay Area Regional Climate Change Preparedness

Attachment 6

PROGRAM PREFERENCES



Association of Bay Area Governments
Proposition 84
Integrated Regional Water Management
2015 Implementation Grant Application





Introduction 1

Project 1 – Bay Area Advanced Quantitative Precipitation Information (AQPI) System 2

Project 2 – Anderson Dam Seismic Retrofit Project 3

Project 3 – Marin 2020 Turf Replacement Project 4

Project 4 – East Palo Alto Groundwater Supply Project 5

Project 5 – Coastal San Mateo County Drought Relief Phase II..... 6

Project 6 – San Francisquito Creek Flood Protection and Ecosystem Restoration Project 7

Project 7 – Mountain View Shoreline Portion of the SBSPR Project 8

Project 8 – Eden Landing Portion of the SBSPR Project 9

Project 9 – Novato Creek Flood Protection and Habitat Enhancement Project..... 10

List of Acronyms and Abbreviations

AB	Assembly Bill
ABAG	Association of Bay Area Governments
AF	acre-feet
AFY	acre-feet per year
CC	Coordinating Committee
CDFW	California Department of Fish and Wildlife
DAC	Disadvantaged Community
DWR	California Department of Water Resources
GPCD	gallons per capita per day
GWMP	groundwater management plan
IRWM	Integrated Regional Water Management
IRWMP	Integrated Regional Water Management Plan
JPA	joint powers authority
MCL	maximum contaminant level
MMWD	Marin Municipal Water District
Prop 84	Proposition 84
Proposal	Bay Area Regional Climate Change Preparedness, 2015 Integrated Regional Water Management (IRWM) Implementation Grant Application
PSI	pounds per square inch
PSP	Proposal Solicitation Package
RWQCB	Regional Water Quality Control Board
San Mateo County RCD	San Mateo County Resource Conservation District
SCVWD	Santa Clara Valley Water District
SFPUC	San Francisco Public Utilities Commission
SWRCB	State Water Resources Control Board
USGS	U.S. Geological Survey

Introduction

The Bay Area Regional Climate Change Preparedness 2015 Integrated Regional Water Management (IRWM) Implementation Grant Application (Proposal) and its nine high-priority projects compose a geographically diverse and well-integrated implementation program with multiple water supply, water quality, habitat improvement, and socio-economic benefits. This attachment demonstrates that this Proposal includes significant, dedicated, and well-defined projects that meet multiple Program Preferences of the California Department of Water Resources (DWR) 2015 IRWM Implementation Grant Solicitation Guidelines. This attachment describes the specific Program Preferences met by each of the projects, the certainty that the projects meet the Program Preferences, and the breadth and magnitude to which the Program Preferences are met. **Table 6-1** lists the nine projects by identification number and indicates the Program Preferences met by each project. **Table 6-2** (located on the last page of this Attachment) is based on Table 1 of the IRWM Grant Program 2015 Implementation Guidelines and provides more detail about the specific statewide priorities met by each project.

Table 6-1. IRWM Plan Program Preferences by Project

Project ID #/Name	IRWM Program Preferences							
	Inclusion of Regional Projects or Programs	Integrative Project within a Hydrologic Region Identified	Resolves Regional Water-related Conflicts	Supports One or More CALFED Bay-Delta Program Objectives	Addresses Critical Water Supply/ Water Quality Needs of a DAC	Integrates Water Management with Land Use Planning	Helps Reduce Reliance on the Sacramento–San Joaquin Delta for Water Supply	Addresses Statewide Priorities*
1 - Bay Area Advanced Quantitative Precipitation Information (AQPI) System	●	●		●			●	●
2 - Anderson Dam Seismic Retrofit Project	●		●	●		●	●	●
3 - Marin 2020 Turf Replacement Project						●		●
4 - East Palo Alto Groundwater Supply Project					●			●
5 - Coastal San Mateo County Drought Relief Phase II			●			●		●
6 - San Francisquito Creek Flood Protection and Ecosystem Restoration Project	●	●	●		●	●		●
7 - Mountain View Shoreline Portion of SBSPR Project	●	●				●		●
8 - Eden Landing Portion of SBSPR Project	●	●				●		●
9 - Novato Creek Flood Protection and Habitat Enhancement Project	●	●			●	●		●

* See Table 6-2 for details.

Project 1 – Bay Area Advanced Quantitative Precipitation Information (AQPI) System

Certainty for Meeting the Program Preferences

The Bay Area AQPI System meets many IRWM Program Preferences. The project is a truly integrated and regional project, covering all nine Bay Area counties. The project provides benefits to water supply, wastewater, and flood management agencies as well as emergency managers and the general public. Completion of the proposed project will result in more water in the Bay Area's reservoirs (in wet years), which lessens the region's dependence on water imports from the Delta. With reservoirs better managed, aquatic life in the streams that feed and are fed by reservoirs benefits as well (from the reduction of regional conflicts of water that impact aquatic systems). Improved storm warnings allow for emergency managers to serve the public better, and members of the public have a greater chance to move themselves and their property out of harm's way.

The Bay Area AQPI System addresses several important statewide priorities: 1) drought preparedness, by expanding the region's water supply through improved reservoir management; 2) more efficient water use, by reducing reliance on out-of-region water supplies such as the Delta; 3) climate change response actions, by working with emergency managers and flood management managers; 4) expanded watershed stewardship, by improving stream flows with better reservoir management practices; and (5) the practice of integrated flood management, by providing better emergency preparedness and response. In addition, implementation of this project will improve rain harvesting by improving the lead time and atmospheric river location predictions for precipitation capture in San Francisco Bay and Sierra Nevada water supply reservoirs.

Breadth and Magnitude of Meeting Program Preferences

Advanced weather prediction will contribute significantly to the region's long-term water supply reliability, drought preparedness, emergency preparedness, and resilience to climate change, particularly as atmospheric rivers, which cause most flooding in the Bay Area, become more rain-laden and intense. The proposed project has regional breadth and will have increasing magnitude over the years as water and emergency managers utilize the advanced storm warnings from the proposed project to improve their systems/responses to storms.

Human Right to Water Policy

This project addresses the Human Right to Water Policy (AB685/CWC106.3) by improving water reliability within the region and by improving reservoir management practices. The project also benefits disadvantaged communities within the 100-year flood plain of the San Francisco Bay. This includes communities in North Richmond, Oakland, East Palo Alto, and Vallejo.

DAC Water Supply or Water Quality Needs

The Bay Area AQPI system will assist regional flood-protection and water-supply managers in ensuring that DACs and the entire San Francisco Bay Area region are adequately protected against effects of climate change. The AQPI system will provide early warnings and lead-time so that emergency response agencies can better act to protect private property and public safety.

The project team is working closely with water-supply and flood-control managers who directly manage resources and public safety protection for all of the DACs in the region. Local governments of all flood management and major water-supply agencies in the Bay Area IRWM region are participating in the AQPI system. The data generated by this effort will benefit all DACs identified in DWR's DAC Mapping Tool.

Many of the Bay Area's DACs are located along the edge of the bay (East Palo Alto, Richmond, Redwood City, etc.), and these populations will benefit from early warning on flood issues. As is discussed for the San Francisquito Creek Flood Protection and Ecosystem Restoration Project (Project 6 of this grant proposal), DAC populations around the Bay Area are prone to flooding under storm conditions. This project will provide a higher level of precipitation data quality and advanced storm warnings to allow individuals and emergency service personnel to respond appropriately to protect the property and public health of DACs in the region.

Project 2 – Anderson Dam Seismic Retrofit Project

Certainty for Meeting the Program Preferences

The Anderson Dam Seismic Retrofit Project directly affects flood safety and water supply reliability within the entire region serviced by the Santa Clara Valley Water District (SCVWD). This project is necessary due to studies completed in 2009 that determined that Anderson Dam is not seismically sound. Therefore, a high degree of certainty exists that this project will be constructed such that it meets the Program Preferences.

The Anderson Reservoir is interconnected with the entire SCVWD water supply network. Completion of the proposed project will directly impact SCVWD water supply reliability, which condition meets the Program Preferences, by reducing water conflicts within SCVWD's service area, supplying water to DACs, reducing the region's reliance on Delta water supplies, increasing drought preparedness, and improving water management planning.

Breadth and Magnitude of Meeting Program Preferences

After completion, the proposed project will result in an immediate and significant reduction in the risk of catastrophic dam failure that would lead to flooding along the Coyote Creek and Pajaro River systems downstream of the dam. The breadth of this benefit includes a significant reduction of flood risk to the area within the inundation zone of the dam failure map, including portions of San Jose, Morgan Hill, Gilroy, and Watsonville.

Additionally, after completion of this project, SCVWD will be able to return Anderson Reservoir to normal operations, restoring approximately 28,500 acre-feet of storage capacity. This result immediately impacts the ability of SCVWD to store water, both runoff from the watershed and imported water, allowing for increased water reliability and drought preparedness for the entire Santa Clara Valley.

Human Right to Water Policy

The proposed project will restore the full operational capacity of Anderson Reservoir, SCVWD's largest reservoir, thereby greatly supporting water supply reliability by restoring approximately 28,500 acre-feet of storage capacity.

DAC Water Supply or Water Quality Needs

Disadvantaged communities (DAC) located within the SCVWD service area, as identified in DWR's DAC Mapping Tool, include several DAC block groups, tracts, and places located in Santa Clara County and in Monterey County (a different IRWM funding area) that would be affected by flooding resulting from catastrophic failure of Anderson Dam. In comparing DWR's DAC Mapping Tool against dam failure flood hazard maps, the flood damage area of Anderson Dam includes DACs around the Cities of San Jose, Morgan Hill, Gilroy, and Watsonville. The Anderson Dam Seismic Retrofit Project would benefit these identified DAC areas by preventing flood damage caused by dam failure due to a large seismic event.

The project will benefit the DACs in SCVWD's service area. However, less than 25% of the area served by this project meets the definition of a DAC.

Project 3 – Marin 2020 Turf Replacement Project

Certainty for Meeting the Program Preferences

The Marin 2020 Turf Replacement Project is supported by well-established planning and implementation infrastructure. Marin Municipal Water District (MMWD) has implemented conservation programs for many decades, and program development investments have occurred for elements of the project that will support and facilitate overall project implementation. In addition, the project addresses landscape water use directly, which is consistent with the California Urban Water Conservation Council's (CUWCC) statewide effort to develop a new norm in landscapes in California.

Breadth and Magnitude of Meeting Program Preferences

Immediate and long-term drought relief will be achieved by reducing demand on limited water supplies by approximately 18.1 acre-feet per year. This in turn will resolve water-related conflicts by improving landscape irrigation efficiency and reducing non-point-source pollution, lessening energy demands and reducing greenhouse gas emissions, and assuring water availability both for environmental demands and human consumption.

The project will provide direct drought relief and water supply benefits by replacing non-functional, high-water-use turfgrass with environmentally beneficial, low-water-use landscapes and by upgrading landscape irrigation equipment. The project will also provide cross-functional benefits. For example, water-efficient landscapes will directly benefit receiving water bodies through reduced irrigation overspray and runoff, and natural plantings that require fewer nutrients and that are managed with integrated pest management best practices will benefit water quality. Therefore, this project will contribute to a reduction in the quantity of water quality contaminants and will support the requirement to reduce pesticides and herbicides as specified in the current County of Marin Phase II Stormwater Permit.

Decreased demand on the local water supply will free up potable supply for environmental uses, such as improving flow to aquatic ecosystems and contributing to habitat restoration. The project also supports environmental stewardship by promoting native and climate appropriate landscapes, holistic approaches to improving soils, reduction of green waste, and elimination of the use of chemical fertilizers, herbicides, and pesticides.

Human Right to Water Policy

The implementation of this project will enhance water supply reliability by decreasing everyday water demand and thus improving the ability of water managers to respond to supply shortages due to emergency, regulatory, or drought conditions. This project increases water security and equity for all MMWD customers. It reduces the impacts of wasteful and discretionary landscape irrigation uses on potable water supply, thereby increasing adequate access to safe, clean, and affordable water for human consumption. This project supports the Human Right to Water but does not provide new water supplies to an area or population previously lacking in high-quality drinking water.

DAC Water Supply or Water Quality Needs

There are several Disadvantaged Community (DAC) block groups within MMWD's service area; these are located in Marin City and the City of San Rafael, including areas of central San Rafael, the Canal District, and Contempo Marin. Two DACs are identified within MMWD's service area; one abuts Marin City and includes a portion of Sausalito, and the other is in Mill Valley. According to the census and MHI data presented in DWR's DAC Mapping Tool, less than 25% of the area served by this project meets the definition of a DAC.

The Marin 2020 Turf Replacement Project implementation will occur throughout the entire service area, including within the identified DAC areas. The project will address water-related needs of the entire service area, including water-supply reliability during drought periods. However, less than 25% of these benefits will directly affect DACs in the MMWD service area.

Project 4 – East Palo Alto Groundwater Supply Project

Certainty for Meeting the Program Preferences

The East Palo Alto Groundwater Supply Project and its benefits are described and technically supported in thorough planning, design, and environmental documentation prepared by and for the City of East Palo Alto (City) including: *Gloria Way Water Well Production Alternatives Analysis & East Palo Alto Water Security Feasibility Study* (2012), *Gloria Way Well Retrofit Project, Joint Initial Study and Environmental Assessment* (2013), *Report on Drilling, Construction, and Testing of Pad D Test Well* (2014), the City's forthcoming Groundwater Management Plan (2015), and the *30% Design Submittal for the Gloria Way Well Treatment System* (2015). The project will reduce the City's demand on the San Francisco Public Utilities Commission (SFPUC) regional water system (RWS) in all years, and particularly in drought years, thereby making more water available to flow into the Delta from the Tuolumne River.

Breadth and Magnitude of Meeting Program Preferences

The proposed project has regional breadth and will have increasing magnitude over the years as it contributes to the City's long-term water supply reliability, drought preparedness, emergency preparedness, and resilience to climate change, particularly droughts. Implementation of the project will enable the City to no longer be 100% reliant on the SFPUC RWS, which has demonstrated its vulnerability to drought shortages and water quality breaches. These vulnerabilities could have devastating economic and public health impacts that would be felt regionally.

With implementation of this project, the City's demands will no longer outstrip its contractual allocation from the SFPUC RWS, and the City will not have to purchase water otherwise allocated to other SFPUC system users or the environment (e.g., the Delta). Further, water supply will no longer constrain the City's ability to support increased growth and economic development, a consequence with broad local and regional impacts; and with emergency storage and increased water system pressures to meet fire-fighting flow requirements, the City will be less vulnerable in the event of a catastrophic event (e.g., earthquake or fire), particularly in the DACs with current low-pressure issues and associated risks.

Human Right to Water Policy

This project will provide clean, affordable, and accessible water to the City, including its DACs. The cost to produce highly treated groundwater is estimated to be \$400/AF, as compared to the current cost of \$1,960/AF to purchase SFPUC water. Lower-cost potable water will enable low-income residents to meet consumption, cooking, and sanitary needs.

The City already has one of the lowest residential per-capita water uses in the State (45 GPCD), which makes drought cutbacks difficult to achieve without significant impacts to customers. Most, if not all, of the City's residential homes have minimal landscape irrigation or other discretionary water usage. By adding a supplemental source of water at a key point in the City's distribution system, the project will also increase system pressures and fire flows in the City's DACs that are chronically plagued by system pressures as low as 20 psi. Currently, during peak usage periods, residents cannot shower or otherwise use water in a manner consistent with the Human Right to Water tenets. Furthermore, chronic low pressures in the DAC neighborhoods leave these high-density areas of the City extremely vulnerable to fire or other emergencies due to water insufficient in quantity to fight a fire or otherwise respond to an emergency.

The project will also provide a buffer against SFPUC RWS water quality breaches—such as occurred on March 3, 2015, when the SFPUC system served untreated water to the City's customers—and other potential supply disruptions. The project will produce highly treated groundwater for potable use that meets all primary and secondary California maximum contaminant levels (MCLs). With a groundwater resource, the City will increase its water supply by up to 900–1,200 AFY (assuming continuous pumping for 11 months each year), thus augmenting the City's water supply portfolio and increasing the City's water supply reliability in both normal and dry years.

DAC Water Supply or Water Quality Needs

This project will provide clean, safe, affordable, and accessible water to the City and DACs. DAC census blocks in the City cover 0.84 square miles, approximately 33% of the area served by the project (2.58 square miles). Approximately 13,226 City residents (45% of total residents) live in DAC neighborhoods. This project is considered local, with regional benefits. All benefits provided by the project will directly affect the DACs (providing increased water supply, drought relief and preparedness, increased system pressure for routine and emergency use, reduced cost for water, and human right to water). Additionally, input from DACs (e.g., complaints of low-water pressure and associated human health dangers) is a primary reason the City is pursuing this project. As the project moves forward, the DACs will continue to be engaged in the development and preparation of the project.

Project 5 – Coastal San Mateo County Drought Relief Phase II

Certainty for Meeting the Program Preferences

The Drought Relief Phase II Project improves drought preparedness, water supply reliability, and reliability of safe drinking water within the coastal region of San Mateo County. The project helps rural communities that rely entirely on local water supplies to meet water use needs while protecting critical instream habitat for salmonids and other aquatic species.

This project addresses critical water supply issues in 2016 and beyond by: (1) fixing significant water system leaks and broken pipes; (2) improving water conveyance and storage facilities; and (3) increasing water supply and drought resiliency for domestic, agricultural, and environmental water use with improvements in water use efficiency and strategic water diversion management on farms.

The project addresses critical water supply and water quality issues throughout the Pescadero-Butano, Pilarcitos, and San Gregorio creek watersheds; implementation of the project will increase local water supply reliability and delivery of safe drinking water for the region.

Breadth and Magnitude of Meeting Program Preferences

The southern half of the Bay Area (including the project area) has been designated as an Area of Exceptional Drought by the U.S. Drought Monitor. Groundwater supplies in the region are limited by the local geology, so most water is acquired from the region's creeks and springs by pumps and wells adjacent to these waterways. Based on more than 35 years of streamflow data from U.S. Geological Survey (USGS) gages located on San Gregorio Creek (USGS 11162570) and Pescadero Creek (USGS 11162500), 2014 streamflows in these watersheds are approximately 8% and 7% of average, respectively.

This project will improve both immediate and long-term water supply and water quality reliability by generating (1) an estimated 25 AF of water per year of additional water supply and (2) 11.15 AF of water per year in reduced water demand due to improved water storage and distribution efficiencies. This volume of water represents approximately 2.7% of the estimated domestic water supply allocations for all residents in the Cuesta La Honda Guild. Additionally, the locations of water supply projects and the reduced summer diversion rates (from improved water pumping management practices) and amounts will augment in-stream flows critical to summer salmonid rearing. Modifications in pumping rates will reduce local stream impairments by as much as 65% during low-flow periods.

Without project implementation, residents will continue to truck in potable water—increasing greenhouse gas emissions—and agricultural water users in the area will be forced to leave fields fallow. In addition, if water diversion pumping and low-flow conditions continue at current rates, salmonid populations, including federally listed endangered and threatened species, will be increasingly at risk.

Human Right to Water Policy

This project addresses the Human Right to Water Policy (AB685/CWC106.3) by improving water reliability and ensuring that residents and those visiting some of the most rural communities within San Mateo County have access to potable water. Rural water suppliers within San Mateo County's South Coast region are isolated from other water purveyors and water sources, thus requiring them to depend entirely on surface and groundwater supplies from within local watersheds to meet drinking water and other water supply needs. The distance of these rural water suppliers from municipal water supply infrastructure located elsewhere in the Bay Area makes the development of interties for obtaining water from outside areas infeasible due to high infrastructure and maintenance costs not financially feasible with a small customer fee-base.

During the current drought, some residents have already begun trucking in water from other areas. Without drought relief funding, many residents will be in danger of having no water supply, and trucking water in from other areas will increase. The implementation of these priorities will ensure that the project area has sufficient clean, affordable, and accessible water for human consumption, cooking, and sanitary purposes.

DAC Water Supply or Water Quality Needs

There are no Disadvantaged Communities in or near the project sites as presented in DWR's DAC Mapping Tool.

Project 6 – San Francisquito Creek Flood Protection and Ecosystem Restoration Project

Certainty for Meeting the Program Preferences

The San Francisquito Creek Flood Protection and Ecosystem Restoration Project – East Bayshore Road to San Francisco Bay meets the majority of the IRWM Program Preferences. The project is both a regional and an integrative project. With San Francisquito Creek as the dividing line between San Mateo and Santa Clara Counties, historically, both jurisdictions and communities have viewed it as a liability. In the formation of the San Francisquito Creek Joint Powers Authority, the cities of Palo Alto, Menlo Park, and East Palo Alto, the County of San Mateo, and the Santa Clara Valley Water District joined together to create a new regional government agency. The San Francisquito project is the agency's first major capital project to go to construction and will provide riverine flood protection, water quality improvements, and habitat improvements, ecosystem restoration, and habitat enhancements, and will help to combat rising sea levels for East Palo Alto, a DAC, and Palo Alto.

Breadth and Magnitude of Meeting Program Preferences

The proposed project has regional breadth that impacts two counties and three cities, and it is the necessary first step in an overall plan to provide protection to properties located within the flood-prone areas of San Francisquito Creek. Other flood protection efforts, such as bridge replacements upstream (west) of Highway 101, cannot be undertaken until the creek's capacity has been increased downstream. Once completed in their entirety, these actions will provide flood protection to more than 5,700 homes and businesses in Palo Alto, Menlo Park, and East Palo Alto.

Human Right to Water Policy

The Human Right to Water Policy is not applicable to this project.

DAC Water Supply or Water Quality Needs

The City of East Palo Alto is located in San Mateo County. Citywide, the median household income (MHI) for the period from 2009-2013 in East Palo Alto is \$50,142 (American Fact Finder 2013). According to 2010 U.S. Census data, 50% of East Palo Alto residents are low-income (i.e., have incomes less than 80% of the State median income), and 18.4% of the City's residents are below the poverty line (as compared to 7.6% in San Mateo County and 15.9% in the State). Five hundred thirty-eight (32.6%) out of 1,650 acres in the City are a DAC, according to DWR's DAC Mapping Tool.

Flood protection is the primary water-related need of East Palo Alto. Of all the areas within the fluvial floodplain of San Francisquito Creek, the area of East Palo Alto to be protected by the project is at the highest risk of loss of human life resulting from overtopping or levee failure. Most of the properties within this area sit below sea level, with rooftops at or below the height of the existing creek levees. A catastrophic flood in this area would lead to several feet of inundation, and would require water rescue to evacuate those left stranded, similar to what was required in New Orleans following Hurricane Katrina in 2005. While the geographic expanse of flooding would be less than in New Orleans, the threat to those affected would be similar.

The project will remove fluvial flooding risks from San Francisquito Creek for more than 1,300 properties, of which approximately 1,100 are primary residences located in East Palo Alto, 341 of which are within a DAC as designated by the State. These properties currently are at risk of flooding during moderate events and would be inundated to the greatest depth during a 100-year event. Properties within the DAC experienced flooding as recently as December 2012, when floodwaters from a 22-year event broke out of San Francisquito Creek and flowed into homes. Once the project is completed, the DAC will be protected from fluvial flooding up to the 100-year flood event, which has a 1% chance of occurring in any given year.

Although the project will provide flood protection and other benefits to areas outside of the DAC, the urgency to complete the project in a timely manner is due to the significant risk of property damage and loss of life within the DAC. This community has been the biggest advocate for completion of the project, and all of the public outreach meetings conducted under CEQA were held within East Palo Alto so that meetings would be accessible to community residents. The community supports the project and is eager to see their risk reduced.

26.2% of the population to be protected by the project is within the DAC as defined by DWR. When considering other methodologies for determination of a DAC, such as that used by the California Department of Finance Population Research Unit, this percentage would be greater.

Project 7 – Mountain View Shoreline Portion of the SBSPR Project

Certainty for Meeting the Program Preferences

This Mountain View Shoreline Portion of the South Bay Salt Pond Restoration (SBSPR) Project is part of a regional program that addresses holistic goals for achieving restoration success and shoreline sustainability in the San Francisco Bay Region. The proposed project supports the *USFWS Recovery Plan for Tidal Marsh Ecosystems of Northern and Central California* and the *Baylands Ecosystem Habitat Goals Report* objectives by actively restoring contiguous wetlands and incorporating features such as complex channel networks, upland transition zones, and refuge islands that are specifically designed to increase reproductive success and survivorship of listed species, including California Ridgway's rail and salt marsh harvest mouse.

The project integrates water management with land use planning by assisting in the development of a more sustainable bay shoreline, with resilience to climate change, while providing multiple habitat, flood, water quality, and wildlife benefits. By doing so, the project reduces the need for more severe land use decisions that can meet only single-purpose objectives (e.g., infrastructure protection from sea-level rise, etc.).

The project addresses four of the statewide priorities, including Climate Change Response Actions, Expanding Environmental Stewardship, Practicing Integrated Flood Management, and Protecting Surface Water Quality. The project will provide shoreline protection against future sea-level rise; it will incorporate large upland transition areas to provide shoreline resiliency in the face of climate change and greatly enhance natural resources in a manner consistent with the California Department of Fish and Wildlife's (CDFW) California State Wildlife Action Plan 2005, thereby reducing habitat impacts of flood protection and providing multiple benefits. The project will also enhance the water quality of near-shore surface water resources of the San Francisco Bay, and will enhance environmental stewardship and public understanding of shoreline habitats.

Breadth and Magnitude of Meeting Program Preferences

This project includes restoration of 710 acres and flood protection for 395 acres. In addition, this project provides regional breadth at a scale that will secure long-term benefits region-wide. It is part of regional effort to restore tidal wetlands and other habitats on a landscape scale in order to provide habitat connectivity and recover threatened and endangered species, increase shoreline flood protection and resiliency, and provide recreational opportunities. The region is in the process of restoring approximately 35,000 acres of tidal marsh, towards a regional goal of 100,000 acres, to which this project contributes greatly. The benefits of the project will have a lasting, positive effect on the environment.

Human Right to Water Policy

The Human Right to Water Policy is not applicable to this project.

DAC Water Supply or Water Quality Needs

There are no Disadvantaged Communities (DAC) in or near the project site as presented in DWR's DAC Mapping Tool.

The Mountain View project will provide direct flood damage reduction benefits to public property within 395 acres. However, less than 25% of the area served by this project meets the definition of a DAC.

Project 8 – Eden Landing Portion of the SBSPR Project

Certainty for Meeting the Program Preferences

The proposed Eden Landing Portion of the South Bay Salt Pond Restoration (SBSPR) Project supports the *USFWS Recovery Plan for Tidal Marsh Ecosystems of Northern and Central California* and the *Baylands Ecosystem Habitat Goals Report* objectives by actively restoring contiguous wetlands and incorporating features such as complex channel networks, upland transition zones, and refuge islands that are specifically designed to increase reproductive success and survivorship of listed species, including California Ridgway's rail and salt marsh harvest mouse. The SBSPR program of activities addresses holistic goals for achieving restoration success and shoreline sustainability in the San Francisco Bay Region.

The project integrates water management with land use planning by assisting in the development of a more sustainable bay shoreline, with resilience to climate change, while providing multiple habitat, flood, water quality, and wildlife benefits. By doing so, the project reduces the need for more severe land use decisions that can meet only single-purpose objectives (e.g., infrastructure protection from sea-level rise, etc.).

The project addresses four of the statewide priorities, including Climate Change Response Actions, Expanding Environmental Stewardship, Practicing Integrated Flood Management, and Protecting Surface Water Quality. The project will provide shoreline protection against future sea-level rise; it will incorporate large upland transition areas to provide shoreline resiliency in the face of climate change and greatly enhance natural resources in a manner consistent with the CDFW's California State Wildlife Action Plan 2005, thereby reducing habitat impacts of flood protection and providing multiple benefits. The project will also enhance the water quality of near-shore surface water resources of the San Francisco Bay, and will enhance environmental stewardship and public understanding of shoreline habitats.

Breadth and Magnitude of Meeting Program Preferences

This project will improve flood protection for 593 acres, and it will restore 1,300 acres of tidal wetland habitat. In addition, this project provides regional breadth at a scale that will secure long-term benefits region-wide. It is part of regional effort to restore tidal wetlands and other habitats on a landscape scale in order to provide habitat connectivity and recover threatened and endangered species, increase shoreline flood protection and resiliency, and provide recreational opportunities. The region is in the process of restoring approximately 35,000 acres of tidal marsh towards a regional goal of 100,000 acres, to which this project contributes greatly. The benefits of the project will have a lasting, positive effect on the environment.

Human Right to Water Policy

The Human Right to Water Policy is not applicable to this project.

DAC Water Supply or Water Quality Needs

There are several DAC block groups in the vicinity of the project site, including a block group of 1,425 residents (ID 060014403312), as presented in DWR's DAC Mapping Tool.

The Eden Landing project will provide direct flood damage reduction benefits to residential homes and commercial businesses within 593 acres. However, less than 25% of the area served by this project meets the definition of a DAC.

Project 9 – Novato Creek Flood Protection and Habitat Enhancement Project

Certainty for Meeting the Program Preferences

The proposed Novato Creek Flood Protection and Habitat Enhancement Project combines flood protection benefits with seasonal wetlands enhancements. The project integrates water management with land use planning by assisting in the development of a more sustainable bay shoreline, with resilience to climate change, while providing multiple habitat, flood, water quality, and wildlife benefits. By doing so, the project reduces the need for more severe land use decisions that can meet only single-purpose objectives (e.g., infrastructure protection from sea-level rise, etc.).

The project addresses four of the statewide priorities, including Climate Change Response Actions, Expanding Environmental Stewardship, Practicing Integrated Flood Management, and Protecting Surface Water Quality. The project will provide shoreline protection against future sea-level rise; it will incorporate large upland transition areas to provide shoreline resiliency in the face of climate change and greatly enhance natural resources in a manner consistent with the CDFW's California State Wildlife Action Plan 2005, thereby reducing habitat impacts of flood protection and providing multiple benefits. The project will also enhance environmental stewardship and public understanding of shoreline habitats.

Breadth and Magnitude of Meeting Program Preferences

This project provides regional breadth at a scale that will secure long-term benefits region-wide. It is part of the Bay Area Regional Shoreline Resilience Program, a regional effort to restore tidal wetlands and other habitats on a landscape scale in order to provide habitat connectivity and recover threatened and endangered species, increase shoreline flood protection and resiliency, and provide recreational opportunities. The region is in the process of restoring approximately 35,000 acres of tidal marsh towards a regional goal of 100,000 acres, to which the subsequent phase of this project contributes greatly.

The proposed project will provide flood protection and habitat restoration, and will have lasting, positive effects on the environment. The proposed project is part of a larger flood protection strategy combined with shoreline resiliency and habitat benefits for the lower Novato creek watershed. It is a first phase of a larger plan to restore significant acreage of tidal and seasonal wetlands to lower Novato Creek and to enhance shoreline resiliency with flood protection benefits now and under sea-level-rise conditions.

Ultimately, the completed multi-phase project will contribute to restoration of one of the most extensive and important reaches of San Pablo Bay, connecting and creating a tidal wetlands habitat and corridor across the northern San Francisco Bay to three North Bay counties. Starting in Marin County, tidal marsh extends from the historic China Camp wetlands through the recently completed tidal wetlands at the former Hamilton Air Base, up around and through the Sonoma Baylands and Sears Point Restoration Projects in Sonoma County, and continues along the Highway 37 wetlands to the Napa/Sonoma salt ponds and Napa River projects in Napa County. Connecting these bay wetlands is critically important for biological connectivity; doing so restores habitat for the many critically threatened and endangered species that use these areas, while increasing the biodiversity of our bay habitats and the quality of our aquatic environment. The lower Novato Creek baylands are a keystone piece in this landscape-scale wetland restoration, both now and under sea-level-rise conditions, since much of the lower watershed is still undeveloped. The restored marshes will ultimately provide important benefits for flood control and shoreline erosion, both of which are expected to increase in severity over time.

Human Right to Water Policy - The Human Right to Water Policy is not applicable to this project.

DAC Water Supply or Water Quality Needs

While the majority of Novato does not qualify as a DAC, there are two census tract block groups in Novato that do qualify as a DAC: Block Group Numbers 060411022021 and 060411032002. These DAC block groups are located southwest of downtown Novato and encompass 3,048 people. The median household income of these block group areas is \$31,710 (DWR 2015¹). Element B, the Novato Creek Phase I Flood Protection and Habitat Enhancement Project, would provide direct flood protection benefits to the two block groups identified above. Approximately 134 (24.7%) out of 542 acres of the Element B project benefit area are a DAC. The Element B project will directly reduce the risk of flood flows that threaten the habitability of dwellings within Novato and its DACs by constructing a weir to divert flood flows to the Deer Island basin. Further discussion of the direct flood protection benefits of Element B for DACs is provided in Attachment 7.

¹ Department of Water Resources (DWR). 2015. Disadvantaged Communities Mapping Tool. Available: http://www.water.ca.gov/irwm/grants/resources_dac.cfm. Accessed July 2015.

Table 6-2. Consistency of Projects with Statewide Priorities

Project ID #	Drought Preparedness	Use and Reuse Water More Efficiently	Climate Change Response Actions					Expand Environmental Stewardship	Practice Integrated Flood Management	Protect Surface Water and Groundwater Quality	Improve Tribal Water and Natural Resources	Ensure Equitable Distribution of Benefits
			Adaptation	Reduce GHGs	Reduction of Energy Consumption							
	Promote water conservation, conjunctive use, reuse, & recycling	Increase urban & agricultural water use efficiency measures										
	Improve landscape and agricultural irrigation efficiencies	Capture, store, treat, & use urban stormwater runoff										
	Achieve long-term reduction of water use	Incorporate/implement LID design features, techniques, & practices										
	Efficient groundwater basin management	Improve the water supply reliability of the Sacramento-San Joaquin Delta										
	Establish system interties	Reduce reliance on the Sacramento-San Joaquin Delta										
	Yields a new water supply	Expand water supply reliability consistent with adopted plans										
		Advance and expand conjunctive management										
		Use and reuse water more efficiently										
		Water management system modifications to address anticipated climate change impacts										
		Establish migration corridors, re-establish river-floodplain hydrologic continuity, reintroduce anadromous fish, and enhance & protect upper watershed forests and meadows										
		Reduce energy consumption of water systems and uses										
		Use cleaner energy sources to move and treat water										
		Water use efficiency										
		Water recycling										
		Water system energy efficiency										
		Reuse runoff										
		Watershed, floodplain & instream function improvement										
		Sustaining water & flood management ecosystems										
		Protect, restore & enhance Delta ecosystem										
		Better emergency preparedness and response										
		Improved flood protection										
		More sustainable flood & water management systems										
		Enhanced floodplain ecosystems										
		LID techniques that store & infiltrate runoff while protecting groundwater										
		Protect and restore surface water and groundwater quality to safeguard public and environmental health and secure water supplies for beneficial uses										
		Salt/nutrient management planning as a component										
		Include access to safe drinking water to small DACs and for areas that have been identified as nitrate high-risk areas										
		Development of Tribal Consultation, collaboration, and access to funding for water programs and projects										
		Increase the participation of small and disadvantaged communities in the IRWM process										
		Develop multi-benefit projects considering affected disadvantaged communities and vulnerable populations										
		Projects that address safe drinking water and wastewater treatment needs of DACs										
		Address and consider the Human Right to Water needs										
		Address critical water supply or quality needs of California Native American Tribes										
		Help meet State policies intended to provide access to safe, clean, and affordable water										
1												
2												
3	●	●	●	●	●	●	●	●	●	●	●	●
4	●	●	●	●	●	●	●	●	●	●	●	●
5	●	●	●	●	●	●	●	●	●	●	●	●
6												
7												
8												
9		●										