Bay Area Drought Relief Program (Bay DRP)

Attachment 5

Budget Summary

Association of Bay Area Governments

Proposition 84

Integrated Regional Water Management

2014 Drought Grant Application

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List of Acronyms and Abbreviations:

ABAG	Association of Bay Area Governments
AF	acre-feet
AFY	acre-feet per year
AMI	advanced metering infrastructure
AMR	automatic meter reading
BAAQMD	Bay Area Air Quality Management District
BACC	Bay Area Chemical Consortium
Bay DRP	Bay Area Drought Relief Program
CIP	Capital Improvement Program
COL-5	Chain of Lakes Well No. 5
CVP	Central Valley Project
Delta	Sacramento-San Joaquin River Delta
DERWA	Dublin-San Ramon Services District (DSRSD) and East Bay Municipal Utility District (EBMUD) Recycled Water Authority
DSRSD	Dublin-San Ramon Services District
DWR	California Department of Water Resources
EBMUD	East Bay Municipal Utility District
EIR/EIS	environmental impact report/environmental impact statement

FY	fiscal year
IRWM	Integrated Regional Water Management
JPA	joint powers authority
lb	pound
LCA	Lower Cherry Aqueduct
LCWD	Los Carneros Water District
MG	million gallons
MMWD	Marin Municipal Water District
MST	Milliken-Sarco-Tulocay
NRCS	Natural Resources Conservation Service
PAC	Powdered Activated Carbon
ppm	parts per million
Prop 84	Proposition 84
Proposal	Bay Area Drought Relief Program, Proposition 84, 2014 Integrated Regional Water Management Drought Grant Application
PSP	Proposal Solicitation Package
RWQCB	Regional Water Quality Control Board
San Mateo County RCD	San Mateo Resource Conservation District
SCVWD	Santa Clara Valley Water District
SFEP	San Francisco Estuary Partnership
SFPUC	San Francisco Public Utilities Commission
SRF	State Revolving Fund
SWRCB	State Water Resources Control Board
THMs	trihalomethanes
TOC	total organic carbon
TSS	total suspended solids
WPCP	water pollution control plant
WTP	Water Treatment Plant
Zone 7	Zone 7 Water Agency

Introduction

The Bay Area Drought Relief Program (Bay DRP) is a diverse set of well-considered, widely vetted, and cost-effective solutions to water supply and drought-related issues/needs around the San Francisco Bay Area. In funding this effort, the California Department of Water Resources (DWR) will support the significant investments of the Bay Area's water agencies, public agencies, and non-governmental organizations.

Organization of Project Budget Summaries

The Bay DRP consists of grant administration and 11 drought-preparedness projects geographically spanning all four regions of the Bay Area, with four primary areas of benefit:

- Water Supply Enhancement
- Recycled Water
- Human Right to Water
- Drought Preparedness

To facilitate review, the projects are grouped by primary benefit type, as listed below.

Primary Project Benefit	Project ID#	Project Proponent	Project Title
Water Supply Enhancement	1	San Francisco Public Utilities Commission (SFPUC)	Lower Cherry Aqueduct Emergency Rehabilitation Project
	2	Santa Clara Valley Water District (SCVWD)	Rinconada Water Treatment Plant Powdered Activated Carbon (PAC) Treatment
	3	Zone 7 Water Agency (Zone 7)	Zone 7 Water Supply Drought Preparedness Project
Recycled Water	4	Napa Sanitation District	Los Carneros Water District and Milliken-Sarco-Tulocay Recycled Water Pipelines
	5	SCVWD and City of Sunnyvale	Sunnyvale Continuous Recycled Water Production Facilities and Wolfe Road Pipeline
	6	DERWA*	DERWA Phase 3 Recycled Water Expansion Project
	7	City of Calistoga	Calistoga Recycled Water Storage Facility
Human Right to Water	8	San Mateo County Resource Conservation District	Drought Relief for South Coast San Mateo County
	9	Stinson Beach County Water District	Stinson Beach Water Supply & Drought Preparedness Plan
Drought Preparedness	10	StopWaste**	Bay Area Regional Drought Relief Conservation Program
	11	Marin Municipal Water District (MMWD)	WaterSMART Irrigation with AMI/AMR
Administration	12	Association of Bay Area Governments (ABAG)/ San Francisco Estuary Partnership (SFEP)	Grant Administration

**DERWA: Dublin-San Ramon Services District (DSRSD) and East Bay Municipal Utility District (EBMUD) Recycled Water Authority*

***This Project will be implemented by a group of 12 project proponents led by Alameda County StopWaste.org (StopWaste). Participating agencies and organizations include: Alameda County Water District, Bay Area Water Supply and Conservation Authority, City of Napa, Contra Costa Water District, EBMUD, MMWD, SFPUC, SCVWD, Solano County Water Agency, Sonoma County Water Agency, StopWaste, and Zone 7.*

The total cost of implementing this Proposal is **$111,291,230**. Of this amount, **$53,716,921** (48%) is non–state match funding, **$24,595,886** is other state funding, and **$0** is being requested as a disadvantaged community funding match waiver. A total of **$32,978,423** is being requested under the Proposition 84 Integrated Regional Water Management (IRWM) Drought Grant Program. The Proposal budget summary is shown in **PSP Table 8**, below.

PSP Table 8. Summary Budget

Proposal Title: Bay Area Drought Relief Program (Bay DRP)

	Individual Project Title	(a) Requested Grant Amount	(b) Cost Share: Non-State Fund Source (Funding Match)	(c) Cost Share: Other State Funding Sources	(d) Total Cost	(e) % Funding Match (Col b/Col d)
(a)	Lower Cherry Aqueduct Emergency Rehabilitation Project	$3,000,000	$15,102,790	$0	$18,102,790	83%
(b)	Rinconada Water Treatment Plant Powdered Activated Carbon (PAC) Treatment	$800,000	$306,221	$0	$1,106,221	28%
(c)	Zone 7 Water Supply Drought Preparedness Project	$3,000,000	$4,290,000	$0	$7,290,000	59%
(d)	Los Carneros Water District and Milliken-Sarco-Tulocay Recycled Water Pipelines	$4,000,000	$4,300,000	$24,595,886	$32,895,886	13%
(e)	Sunnyvale Continuous Recycled Water Production Facilities and Wolfe Road Pipeline	$4,000,000	$16,728,910	$0	$20,728,910	81%
(f)	DERWA Phase 3 Recycled Water Expansion Project	$4,000,000	$6,022,662	$0	$10,022,662	60%
(g)	Calistoga Recycled Water Storage Facility	$750,000	$406,156	$0	$1,156,156	35%
(h)	Drought Relief for South Coast San Mateo County	$3,872,000	$1,023,667	$0	$4,895,667	21%
(i)	Stinson Beach Water Supply & Drought Preparedness Plan	$937,452	$312,500	$0	$1,249,952	25%
(j)	Bay Area Regional Drought Relief and Water Conservation Project	$5,993,971	$4,899,015	$0	$10,892,986	45%
(k)	WaterSMART Irrigation with AMI/AMR	$975,000	$325,000	$0	$1,300,000	25%
(l)	Grant Administration	$1,650,000	$0	$0	$1,650,000	0%
(n)	**Proposal Total**	$32,978,423	$53,716,921	$24,595,886	$111,291,230	
(o)	DAC Funding Match Waiver Total *(Not applicable)*	-	-	-	-	-
(p)	**Grand Total**	**$32,978,423**	**$53,716,921**	**$24,595,886**	**$111,291,230**	**48%**

Project budget summaries are presented below for each of the 11 projects included in this Proposal, and for Grant Administration (Project 12). Project budget tables (**PSP Table 7**) illustrate project costs, requested grant support, and funding matches by task category.

Budget summaries for each project included in the Bay DRP are grouped by project benefit type:

- Water Supply Enhancement
- Recycled Water
- Human Right to Water
- Drought Preparedness

For each project, a Budget Summary is provided and PSP Table 7 is completed. Budget Summaries include a brief summary of the following budget categories, cost sharing (funding matches), and a discussion of how the budgets are reasonable:

a) Direct Project Administration,

b) Land Purchase/Easement,

c) Planning/Design/Engineering/Environmental Documentation, and

d) Construction/Implementation.

Budget Summaries – Water Supply Enhancement Projects

This section presents budget summaries for the projects listed below.

Project ID#	Project Proponent	Project Title
1	SFPUC	Lower Cherry Aqueduct Emergency Rehabilitation Project
2	SCVWD	Rinconada Water Treatment Plant Powdered Activated Carbon (PAC) Treatment
3	Zone 7	Zone 7 Water Supply Drought Preparedness Project

Project 1 – Lower Cherry Aqueduct Emergency Rehabilitation Project

Overview

The grand total cost of the San Francisco Public Utilities Commission's (SFPUC)'s Lower Cherry Aqueduct (LCA) Emergency Rehabilitation Project (Project) is $18,102,790. It includes $25,000 for grant administration, $2,412,510 for Planning/Design/Engineering/Environmental Documentation, and $15,665,280 for Construction/Implementation.

Justification

This Project is the least cost alternative to provide immediate access to more than 150,000 acre-feet (AF) of water supply for the Bay Area region. The cost of the Project is approximately $18.1 million, which translates to $120.66 per AF of raw water. The cost of SFPUC's raw water sold to its wholesale customers was $1,420 per AF in fiscal year (FY) 2013/14. Therefore, the new water supply provided by the LCA is significantly less expensive than current sources of supply. Moreover, it would be difficult, if not impossible, to find another source enabling access to 150,000 AF of potable water in a dry year. Equivalent amounts of conservation would be economically damaging to the Bay Area region. The Project will directly and immediately increase water supply for the region by more than 150,000 AF and will provide ongoing access to storage for potable water. Rehabilitation of the LCA will provide reliable access to the entire Tuolumne River system water supply for the 2.6 million residents served by the SFPUC before the end of calendar year 2014, providing immediate drought relief.

PSP Table 7. Project Budget

Proposal Title: Bay Area Drought Relief Program (Bay DRP)
Project Title: Lower Cherry Aqueduct Emergency Rehabilitation Project
Project serves a need of a DAC?: ☐ Yes ■ No
Funding Match Waiver request? ☐ Yes ■ No

Category		(a) Requested Grant Amount	(b) Cost Share: Non-State Fund Source* (Funding Match)	(c) Cost Share: Other State Fund Source	(d) Total Cost
(a)	Direct Project Administration	$0	$25,000	$0	$25,000
(b)	Land Purchase/Easement	$0	$0	$0	$0
(c)	Planning/Design/Engineering/ Environmental Documentation	$0	$2,412,510	$0	$2,412,510
(d)	Construction/Implementation	$3,000,000	$12,665,280	$0	$15,665,280
(e)	**Grand Total**	**$3,000,000**	**$15,102,790**	**$0**	**$18,102,790**

**Source of funding: SFPUC General Fund*

Project 2 – Rinconada Water Treatment Plant Powdered Activated Carbon (PAC) Treatment

Overview

The grand total cost of the Santa Clara Valley Water District's Rinconada Water Treatment Plant (WTP) Powdered Activated Carbon (PAC) Treatment Project (Project) is $1,106,221. Direct Project Administration costs are based on staff experience performing administration tasks for other grants with DWR and the State Water Resources Control Board (SWRCB).

Construction/Implementation costs are based on (1) historic water quality monitoring costs, (2) water plant operator experience with offloading and managing the PAC feed to Rinconada WTP and the contract cost for PAC bulk deliveries, and (3) database records for maintaining the PAC feed system.

SCVWD policies and procedures require a competitive procurement process for most purchases. SCVWD contracted with Norit Americas, the PAC vendor, through SCVWD's standard competitive procurement process for a unit cost of $0.61 per pound (lb). At this rate, the forecast 1,618,292 PAC units required by SCVWD will cost $985,623. SCVWD is a participant in the Bay Area Chemical Consortium (BACC), an informal cooperative of Bay Area water and wastewater agencies working together to purchase chemicals by combining bid solicitations (www.dsrsd.com/your-dollars-at-work/bay-area-chemical-consortium). BACC solicited bids for PAC in April 2014, but all the bids were rejected due to cost. The range of bids for delivery to the South Bay was $0.74/lb to $0.83/lb, more than SCVWD's contract of $0.61/lb with Norit Americas.

SCVWD orders PAC on an as-needed basis, usually in 40,000-lb increments. The maximum PAC storage at Rinconada WTP is 90,000 lb. SCVWD spent $96,065 on deliveries of about 160,000 lb of PAC from February through May 2014. The estimated PAC use for the remainder of the year assumes a 20-parts-per-milion (ppm) dose and adjusted treated-water contract flows (flow after 20% reduction).

Justification

Addition of PAC at Rinconada WTP is justified because of the drought conditions facing SCVWD and its water suppliers. The urgency of providing treated water to SCVWD's customers at a time when water sources and incoming water quality are depleted demands immediate action to prevent exceedance of water quality standards. SCVWD has completed a Planning Study Report documenting alternatives for achieving better trihalomethane (THM) reduction at Rinconada WTP, as well as other objectives. The Planning Study Report identifies a preferred alternative that will be effective at addressing source water quality concerns such as SCVWD is currently experiencing during the drought. The report documents that the upgraded treatment process will include ozone, which is effective at reducing total organic carbon (TOC), a THM precursor. The estimated capital cost of the ozone component is $7,489,000. However, implementation of ozonation at Rinconada WTP cannot be addressed immediately. Supporting documentation for budget estimates will be provided upon request.

PSP Table 7. Project Budget					
Proposal Title: Bay Area Drought Relief Program (Bay DRP) **Project Title:** Rinconada Water Treatment Plant Powdered Activated Carbon (PAC) Project serves a need of a DAC?: ☐ Yes ■ No Funding Match Waiver request? ☐ Yes ■ No					
Category		**(a)**	**(b)**	**(c)**	**(d)**
		Requested Grant Amount	**Cost Share: Non-State Fund Source* (Funding Match)**	**Cost Share: Other State Fund Source***	**Total Cost**
(a)	Direct Project Administration	$0	$6,552	$0	$6,552
(b)	Land Purchase/Easement	$0	$0	$0	$0
(c)	Planning/Design/Engineering/ Environmental Documentation	$0	$0	$0	$0
(d)	Construction/Implementation	$800,000	$299,669	$0	$1,099,669
(e)	**Grand Total**	**$800,000**	**$306,221**	**$0**	**$1,106,221**
**Source of funding: SCVWD Water Utility Fund*					

Project 3 – Zone 7 Water Supply Drought Preparedness Project

Overview

The grand total cost of the Zone 7 Water Supply Drought Preparedness Project is $7,290,201. The majority of the Project's budget consists of the design-build contract estimates for design and construction of the Project's two components: the Chain of Lakes Well No. 5 (COL-5 Project) and Cope Lake to Lake I Pipeline (CLP Project). For the COL-5 project, the design-build team fee covers the project design, construction management during construction, completion of as-built drawings, final submittal and project information packet, and warranty items; the contractor's fee includes the purchase of pipe, slide gate, manhole structure, various other minor mechanical appurtenances, and all work associated with the actual construction of the pipeline and all structures. For the CLP project, design work is already complete and construction work includes the construction of a monitoring well, the final supply well, well building, connecting pipelines, pump and motor installation, and installation of various electrical and mechanical components that are required to operate a well of this size. Additional costs associated with the Projects are for staff time to administer the Projects before, during, and after construction. Staff time is also included to cover time spent during the planning and design phase of the Project. Additional costs are associated with the purchase of the land on which the well is located, including legal counsel. The budget includes the cost of a rental generator, including the cost of a Bay Area Air Quality Management District (BAAQMD) permit to operate the generator, until permanent electrical facilities are completed. Surveying costs for the property acquisition are also included in this budget. The budget also includes a specialty consultant hired to provide guidance on these drought emergency projects.

Justification

The COL-5 well was planned to be constructed at a future date and has been accelerated due to the drought. When the COL-1 well was constructed in 2009, the chemical facilities were sized and a connector pipeline was constructed to accommodate a future COL-5 well. Construction of this well is the least cost alternative because the infrastructure necessary to distribute supply pumped from the well is already in place. Placement of the well at another location would not be cost effective and may not achieve the desired groundwater management goals.

For the CLP Project, Zone 7 investigated transferring water by siphon, but the physical characteristics of the site made that option unworkable. Zone 7 also investigated a pump system to move water from one lake to the other. This option had a lower construction cost, but the pump and energy costs associated with this project made it more expensive after a few years. The gravity-fed system proposed for the CLP Project is more reliable and eliminates the need for a pump and ongoing power costs from pumping.

PSP Table 7. Project Budget					
Proposal Title: Bay Area Drought Relief Program (Bay DRP) **Project Title:** Zone 7 Water Supply Drought Preparedness Project Project serves a need of a DAC?: ☐ Yes ■ No Funding Match Waiver request? ☐ Yes ■ No					
Category		**(a)**	**(b)**	**(c)**	**(d)**
		Requested Grant Amount	**Cost Share: Non-State Fund Source* (Funding Match)**	**Cost Share: Other State Fund Source***	**Total Cost**
(a)	Direct Project Administration	$61,727	$88,273	$0	$150,000
(b)	Land Purchase/Easement	$41,151	$58,849	$0	$100,000
(c)	Planning/Design/Engineering/ Environmental Documentation	$287,183	$410,691	$0	$697,874
(d)	Construction/Implementation	$2,609,939	$3,732,387	$0	$6,342,327
(e)	**Grand Total**	**$3,000,000**	**$4,290,000**	**$0**	**$7,290,201**
**Source of funding: Zone 7 Water Agency*					

Budget Summaries – Recycled Water Projects

This section presents budget summaries for the projects listed below.

Project ID#	Project Proponent	Project Title
4	Napa Sanitation District	Los Carneros Water District and Milliken-Sarco-Tulocay Recycled Water Pipelines
5	SCVWD and City of Sunnyvale	Sunnyvale Continuous Recycled Water Production Facilities and Wolfe Road Pipeline
6	DERWA	DERWA Phase 3 Recycled Water Expansion Project
7	City of Calistoga	Calistoga Recycled Water Storage Facility

Project 4 – Los Carneros Water District and Milliken-Sarco-Tulocay Recycled Water Pipelines

Overview

The grand total cost of the Napa Sanitation District's Los Carneros Water District (LCWD) and Milliken-Sarco-Tulocay (MST) Recycled Water Pipelines (Project) is $32,895,886. It includes $144,975 for Direct Project Administration, $80,000 for Planning/Design/Engineering/Environmental Documentation, and $32,670,911 for Construction/ Implementation. Note that all design and engineering costs leading up to the bidding of the Project have not been included in the Project budget, as this work has been completed using funding sources outside of this grant application. The design and engineering costs included here are for engineering services during construction.

The requested grant amount is $4,000,000 to put toward the construction cost. Federal funding will support the Project: $3,300,000 from a U.S. Bureau of Reclamation WaterSMART Grant for the MST portion of the Project; and a $1,000,000 WaterSMART grant that will fund the LCWD portion of the Project.

The remainder of the project cost ($24,595,886) will be provided by State Revolving Fund (SRF) loans. Napa County secured $9,859,434 for the MST project (approved by the State on June 30, 2014). The LCWD has applied for $14,736,452 in SRF loans to cover the remaining costs of the LCWD portion of the Project. Local residents in each area have voluntarily approved property assessments to repay the SRF loans.

The LCWD Project is in the last part of its design phase; therefore, the Project costs are estimates based on the 75% submittal from the design consultant. The costs for the MST Project are based on the actual construction and consultant contracts that have been awarded for this Project. The costs for the MST pipeline were consistent with the engineer's estimates for the Project. The costs on these two Projects are typical and reasonable based on other recently completed pipeline construction projects. Soils in Napa County are highly corrosive, so the pipelines will be installed with cathodic protection. Additionally, the pipelines cross creeks and drainage culverts, requiring pipe bridges and/or trenchless construction methods, methods which can affect project budgets.

Justification

The LCWD Engineering Feasibility Study evaluated all possible supply alternatives. Recycled water was the only viable option and is the least cost alternative. This pipeline was included in the grant application because it will be ready for construction in only a few months, and the benefits derived from the Project (1,250 acre-feet per year [AFY]) will provide significant drought relief.

The MST Project was initially envisioned as a much more extensive and expensive project. The environmental impact report/environmental impact statement (EIR/EIS)[1] was based upon this larger project. Unfortunately, sufficient funding could not be identified. The currently proposed Project constitutes the "backbone" of the larger system and has been optimized to serve the largest users identified; thus, the proposed Project provides the lowest cost per AF. This portion of the pipeline has been designed and bid, and the residents in the MST area have already formed an assessment district to pay for the pipeline as it has been designed. This Project is supported by the local funding source and starts construction in summer 2014, allowing for significant drought relief to residents and properties in an area already impacted by deficient water supplies.

[1] North San Pablo Bay Restoration and Reuse Project (North Bay Water Recycling Program) EIR/EIS certified/adopted by the U.S. Bureau of Reclamation and North Bay Water Reuse Authority in 2009. Available: http://nbwra.org/docs/index.html

PSP Table 7. Project Budget					
Proposal Title: Bay Area Drought Relief Program (Bay DRP) **Project Title:** Los Carneros Water District and Milliken-Sarco-Tulocay Recycled Water Pipelines Project serves a need of a DAC?: ☐ Yes ■ No Funding Match Waiver request? ☐ Yes ■ No					
Category		**(a)**	**(b)**	**(c)**	**(d)**
		Requested Grant Amount	**Cost Share: Non-State Fund Source* (Funding Match)**	**Cost Share: Other State Fund Source***	**Total Cost**
(a)	Direct Project Administration	$0	$0	$144,975	$144,975
(b)	Land Purchase/Easement	$0	$0	$0	$0
(c)	Planning/Design/Engineering/ Environmental Documentation	$0	$0	$80,000	$80,000
(d)	Construction/Implementation	$4,000,000	$4,300,000	$24,370,911	$32,670,911
(e)	**Grand Total**	**$4,000,000**	**$4,300,000**	**$24,595,886**	**$32,895,886**
**Sources of funding: Non-State fund sources consist of $3,300,000 Federal WaterSMART Grant for MST portion, from Title XI – U.S. Bureau of Reclamation; and $1,000,000 Federal WaterSMART Grant for LCWD portion, from Title XI – U.S. Bureau of Reclamation. Other State fund sources include State Revolving Fund (SRF) loans secured by Napa County and the LCWD ($24,595,886 total), to be repaid by local residents through voluntary property assessments.*					

Project 5 – Sunnyvale Continuous Recycled Water Production Facilities and Wolfe Road Pipeline

Overview

The grand total cost of the SCVWD and City of Sunnyvale's Sunnyvale Continuous Recycled Water Production Facilities and Wolfe Road Pipeline (Project) is $20,728,910. The budget is broken down as follows: Sunnyvale Water Pollution Control Plant (WPCP) Production Facilities Improvements: $3,280,000; and new SCVWD Distribution Pipeline and Booster Pump Station: $17,448,910. The WPCP Production Facilities budget was developed by the design consultant and consisted of a detailed cost breakdown of installed costs by cost component (previously referenced; reference supplied as part of submittal). The required improvements include large piping and valving, structural work in existing basins, and control system improvements. Project cost estimates are provided as installed cost, not as unit equipment or material cost. If the grant is awarded to the Project, detailed costs broken out by equipment and material costs can be provided.

This scope of work, together with a constrained construction footprint, translates into a project cost well within an acceptable range for this type of work and includes the following industry-standard plant improvement markups: construction contingency: 15%; design: 15%; and construction management: 14%. The new Distribution Pipeline and Booster Pump Station budget was developed by SCVWD staff whose basis for cost is recently designed and constructed SCVWD facilities of similar size. Distribution and Pump Station Project cost values include the following industry standard pipeline markups: construction contingency: 10%; design: 7%; and construction management: 16%.

The requested grant amount for the Project is $4,000,000. Subtracting the requested grant amount from the Project cost ($20,728,910) leaves a cost match of $16,728,910 or 80% of Project cost. The requested grant amount is allocated as follows: Production Facilities: $1,500,000; and Distribution Facilities: $2,500,000. Subtracting the requested grant amounts results in the following matching costs: Production Facilities: $1,780,000 ($3,280,000 – $1,500,000 grant funding) and Distribution Facilities: $14,948,910 ($17,448,910 – $2,500,000 grant funding). The Sunnyvale WPCP Production Facilities matching cost will be funded by the City of Sunnyvale. The SCVWD Distribution Facilities matching cost will be funded as follows: SCVWD: $6,548,910; Sunnyvale: $2,100,000; CalWater: $1,500,000; and Apple, Inc.: $4,800,000.

Sunnyvale Project funding has been secured through the City's Capital Improvement Program (CIP). SCVWD Project funding has been secured and allocated in the SCVWD's CIP. SCVWD has also negotiated joint funding agreements with Sunnyvale, CalWater, and Apple, Inc. The final funding agreements are scheduled to be submitted to the SCVWD Board for approval and execution in July 2014.

The cost-sharing table on the next page shows these costs broken down further by Project task grouping.

Justification

Alternatives were considered and the current Project was selected because it was preferable to all other considered alternatives. The Local Supply Development/Indirect Potable Reuse strategy has the following characteristics that are preferable to the alternatives considered: The Project provides a local supply of drought-proof water (the other strategies are dependent on hydrologic conditions); maintains local reservoir supplies that are used to meet flow and temperature requirements for fish (by using advanced-treated recycled water for recharge instead of local reservoir supplies); and will improve groundwater quality (because the advanced-treated recycled water is of higher quality than the local and imported supplies currently used for groundwater recharge).

In addition, the Wolfe Road pipeline alignment supports both the local and regional planning efforts to increase use of recycled water and provide future potential opportunities for indirect potable water reuse within Santa Clara County.

PSP Table 7. Project Budget					
Proposal Title: Bay Area Drought Relief Program (Bay DRP) **Project Title:** Sunnyvale Continuous Recycled Water Production Facilities and Wolfe Road Pipeline Project serves a need of a DAC?: ☐ Yes ■ No Funding Match Waiver request? ☐ Yes ■ No					
Category		**(a)** **Requested Grant Amount**	**(b)** **Cost Share: Non-State Fund Source (Funding Match)**	**(c)** **Cost Share: Other State Fund Source**	**(d)** **Total Cost**
(a)	Direct Project Administration	$0	$83,365[a] $12,000[b]	$0	$95,365
(b)	Land Purchase/Easement	$0	$0	$0	$0
(c)	Planning/Design/Engineering/ Environmental Documentation	$0	$602,922[a] $1,102,923[b]	$0	$1,705,845
(d)	Construction/Implementation	$4,000,000	$5,862,623[a] $2,765,077[b] $1,500,000[c] $4,800,000[d]	$0	$18,927,700
(e)	**Grand Total**	**$4,000,000**	**$16,728,910**	**$0**	**$20,728,910**
Sources of funding: *a. SCVWD Capital Improvement Fund* *b. City of Sunnyvale Capital Improvement Fund* *c. CalWater Capital Improvement Fund* *d. Apple, Inc.*					

Project 6 – DERWA Phase 3 Recycled Water Expansion Project

Overview

The grand total cost of the Dublin-San Ramon Services District (DSRSD) and East Bay Municipal Utility District (EBMUD) Recycled Water Authority (DERWA) Phase 3 Recycled Water Expansion Project (Project) is $10,022,662. The estimated Project construction cost is $7.2 million. Construction costs were estimated based on recent projects of a similar scale. The requested grant amount is $4 million; grant funds will be used toward construction costs. Non-state funding costs will be paid by DSRSD and EBMUD for their respective Project components.

1. *Central Dublin Pipeline:* Construction cost was estimated based on similar recycled water projects in the Bay Area. Unit costs were developed to estimate the construction cost. Engineering, legal, administrative, and construction management costs were estimated at 30% of the estimated construction cost.
2. *West Dublin Pipeline:* Construction cost was estimated based on similar recycled water projects in the Bay Area. Unit costs were developed to estimate the construction cost. Engineering, legal, administrative, and construction management costs were estimated at 30% of the estimated construction cost. In addition, a contingency factor of 15% was added to the construction estimate for additional construction effort that may be required due to the thicker pavement in San Ramon Road and additional traffic controls or adjusted construction schedule that may be needed to accommodate the high-traffic areas of Amador Valley Boulevard.
3. *San Ramon Valley Recycled Water Pipeline Phase 2:* Construction cost was estimated based on actual construction costs incurred on EBMUD's San Ramon Valley Phase 2B pipeline, as well as the actual costs of two other EBMUD potable water pipeline projects of similar scale. A unit cost was established based on the referenced projects. Other project costs were estimated as a percentage of construction cost: planning and project management, 9%; design, 11%; and construction management, 18%.

Justification

The Project will provide a reliable, drought-proof, long-term water supply and a permanent reduction in Delta water demands. The Project is preferable to all other alternatives considered. DSRSD does not have any other water supply alternatives. The terms of its water supply contract with Zone 7 prohibit DSRSD from purchasing additional water supply outside of Zone 7's service area. EBMUD has a supplemental limited drought-year water supply through its Central Valley Project (CVP) contract; the drought supply is water that is conveyed through the Freeport Diversion Facility at the Sacramento River. The cost to purchase, treat, and convey the dry-year CVP water supply is about $460 per AF. Using a per-AF comparison of supply costs, it is cheaper to purchase CVP water than to construct the Project. However, the lower cost CVP water is limited and is only made available during specific dry-year conditions. The CVP supply is not reliable and is not a long-term supply solution. Additionally, diversions of CVP water adversely affect the Delta.

This Project will provide a permanent, reliable, year-round, locally controlled water supply in response to this drought and future droughts. This recycled water Project will also allow EBMUD and DSRSD to respond to climate change and extreme conditions.

PSP Table 7. Project Budget					
Proposal Title: Bay Area Drought Relief Program (Bay DRP) **Project Title:** DERWA Phase 3 Recycled Water Expansion Project Project serves a need of a DAC?: ☐ Yes ■ No Funding Match Waiver request? ☐ Yes ■ No					
Category		**(a)**	**(b)**	**(c)**	**(d)**
		Requested Grant Amount	**Cost Share: Non-State Fund Source* (Funding Match)**	**Cost Share: Other State Fund Source**	**Total Cost**
(a)	Direct Project Administration	$0	$403,615	$0	$403,615
(b)	Land Purchase/Easement	$0	$0	$0	$0
(c)	Planning/Design/Engineering/ Environmental Documentation	$0	$978,892	$0	$978,892
(d)	Construction/Implementation	$4,000,000	$4,640,155	$0	$8,640,155
(e)	**Grand Total**	**$4,000,000**	**$6,022,662**	**$0**	**$10,022,662**
**Source of funding: DSRSD Water Fund and EBMUD Water Fund*					

Project 7 – Calistoga Recycled Water Storage Facility

Overview

The grand total cost of the Calistoga Recycled Water Storage Facility (Project) is $1,156,156. The estimate includes design/environmental, construction, and administrative services. The City of Calistoga (City) is requesting a grant in the amount of $750,000 for the project. The remaining $406,156 will be the City's contribution toward matching funds for the Project. The City will use its wastewater enterprise funds to provide this match and has the ability to pay this money within its current budget.

Construction costs make up 85% of the total Project costs, while Planning/Design/Engineering makes up about 13% and administrative cost the remaining 2%.

The lifespan of the Project improvements is anticipated to be 75 years. The storage pond will be constructed with native compacted materials and will have very little mechanical/electrical equipment, and is not expected to undergo much wear-and-tear. The estimated cost of Project equipment is less than 1% of the Project (approximately $100,000).

The facility will require maintenance over its lifespan to repair embankments as needed or possible linings (if required) in the future. All of the underground piping will consist of PVC SDR 26 with a 75- to 100-year lifespan; fittings and valves may need to be replaced every 25 years.

Justification

Based on a technical memorandum prepared by Larry Walker Associates in May 2008, the City expects that the Project will cost approximately $1,000,000. In this memo, Larry Walker Associates estimated that storage would cost about $12,000 per AF and, assuming a cost escalation factor of 3% per year, the 2015 pricing is anticipated to be $15,000 per AF. Therefore, a 20-million gallon (MG) or 61-AF pond is estimated to cost $915,000 to build; with design costs of approximately $85,000, the total Project cost is approximately $1,000,000. The City will not know final costs until design is complete and the Project goes out for bid.

Note that at this cost, storage for the earthen bank pond is about $0.05 per gallon. In contrast, a new steel tank costs about $1 per gallon and the cost for the City's recent buried concrete tank, built in 2012, was $4.5 per gallon (very expensive because it was mostly buried). The cost for the earthen pond is 5% of the cost of a steel tank and even less than for concrete, making it the most cost-effective storage solution.

PSP Table 7. Project Budget					
Proposal Title: Bay Area Drought Relief Program (Bay DRP) **Project Title:** Calistoga Recycled Water Storage Facility Project serves a need of a DAC?: ☐ Yes ■ No Funding Match Waiver request? ☐ Yes ■ No					
Category		**(a)**	**(b)**	**(c)**	**(d)**
		Requested Grant Amount	**Cost Share: Non-State Fund Source* (Funding Match)**	**Cost Share: Other State Fund Source***	**Total Cost**
(a)	Direct Project Administration	$0	$26,112	$0	$26,112
(b)	Land Purchase/Easement	$0	$0	$0	$0
(c)	Planning/Design/Engineering/ Environmental Documentation	$68,300	$81,924	$0	$150,224
(d)	Construction/Implementation	$681,700	$298,120	$0	$979,820
(e)	**Grand Total**	**$750,000**	**$406,156**	**$0**	**$1,156,156**
**Source of funding: City of Calistoga wastewater enterprise fund.*					

Budget Summaries – Human Right to Water Projects

This section presents budget summaries for the projects listed below.

Project ID#	Project Proponent	Project Title
8	San Mateo County RCD	Drought Relief for South Coast San Mateo County
9	Stinson Beach County Water District	Stinson Beach Water Supply & Drought Preparedness Plan

Project 8 – Drought Relief for South Coast San Mateo County

Overview

The grand total cost of the San Mateo County Resource Conservation District's (RCD's) Drought Relief for South Coast San Mateo County is $4,895,667, of which the San Mateo County RCD is requesting $3,872,000. The remaining $1,023,667 of the total amount consists of cost-share funds, including federal funding from the U.S. Department of Agriculture Natural Resources Conservation Service (NRCS) ($361,685) and U.S. Geological Survey (USGS) ($18,080), contributions from community water suppliers (Cuesta La Honda Guild customer fees $94,500), support from San Mateo County ($500,000), and support from local organizations and foundations: Wildlife Conservation Society ($28,000), National Fish and Wildlife Foundation ($14,902), and Newman's Own Foundation ($6,500). Additional financial support for this Project that is anticipated but not included in the cost-share total is additional leveraged funding, primarily from the NRCS Environmental Quality Incentives Program and private landowner contributions (cash and in-kind).

Overall Project construction costs make up approximately 79% of the total Project budget while Planning/Design/ Engineering tasks make up about 18%, with administrative costs accounting for the remaining 3%. Costs for aspects of the Project that have already been completed are based on actual costs. Domestic water main pipe repairs are based on actual costs for one site and engineers' estimates for three additional sites, which on average break out to approximately 8% for permitting, 30% for materials, and 62% for labor/implementation.

Agricultural water efficiency assessments (Project Element A.2) are estimated to cost approximately $7,200 each (a minimum of 20 to be conducted) based on the average cost of similar assessments previously conducted in the region. Construction of the two domestic water supply Projects (Project Element B.1), Granny Flats ($175,500) and Memorial Park ($1,690,600), are primarily based on estimates provided by engineers. Permitting and environmental monitoring for the Granny Flats Reservoir Project ($23,180) is estimated to be greater than most other Projects of similar scope due to the site's location within an area that may have San Francisco garter snake. Agricultural water supply Project costs (Project Element B.2) are based on actual costs for two sites and contractor/engineer estimates for two other sites, which on average break out to 26% for design and permitting, and 74% for labor/implementation.

Project planning, permitting, design, and administrative costs are based on costs already incurred, or are estimated utilizing the costs already incurred as the basis for estimating the costs for the portions of the Regional Drought Water Management Plan (Project Element C), and domestic water use efficiency efforts (Project Element A.1) that have not yet been completed. For these reasons, the budget amounts are believed to be reasonable.

All elements of the Project have a minimum 20-year lifespan, or the maximum lifespan available for necessary components. For example, drip irrigation lines and high-efficiency sprinkler heads typically last 5-15 years depending on level of use. However the irrigation infrastructure necessary to utilize high-efficiency sprinklers and drip lines, such as variable-frequency pumps, irrigation reservoirs, and supply lines, have a lifespan of at least 20 years.

Justification

Implementation of this project will increase local water supply reliability and delivery of safe drinking water for a region with limited water supply. Repair of water supply and storage infrastructure will result in both immediate and long-term benefits that outweigh cumulative costs associated with having to haul water from other regions during drought periods, when aging water supply lines break, and/or when reservoir water quality renders stored water unusable. Interties with urban water agency infrastructure are cost prohibitive due to distance, so increasing available drinking water supply by purchasing it from other areas is infeasible and not considered a realistic alternative. Trucking water is not a sustainable solution, as it is cost prohibitive and resource intensive. Based on a report from a community member who is already trucking water, the cost to truck water into the area is approximately $1,300 per month for a single household. Furthermore, bottled water also must be purchased for drinking and cooking since it is not possible for the residents to verify that the trucked-in water is potable. For residents who are not part of a community water supply system, the entire cost of trucking water would have to be covered by individual private landowners. This Project is the least-cost alternative because it effectively coordinates water supplies locally and implements Projects that will have the greatest efficiency and supply benefit.

PSP Table 7 – Project Budget					
Proposal Title: Bay Area Drought Relief Program (Bay DRP) **Project Title:** Drought Relief for South Coast San Mateo County Project serves a need of a DAC?: ☐ Yes ■ No Funding Match Waiver request? ☐ Yes ■ No					
Category		**(a)**	**(b)**	**(c)**	**(d)**
		Requested Grant Amount	**Cost Share: Non-State Fund Source*** **(Funding Match)**	**Cost Share: Other State Fund Source ***	**Total Cost**
(a)	Direct Project Administration	$188,540	$0	$0	$188,540
(b)	Land Purchase/Easement	$0	$0	$0	$0
(c)	Planning/Design/Engineering/ Environmental Documentation	$738,704	$162,500	$0	$901,204
(d)	Construction/Implementation	2,944,756	$861,167	$0	$3,805,923
(e)	**Grand Total**	**$3,872,000**	**$1,023,667**	**$0**	**$4,895,667**
**Source of match funding:* Federal grants from NRCS and USGS ($379,765 total) and local grants from San Mateo County $500,000, Cuesta La Honda Guild $94,500, Wildlife Conservation Society $28,000, National Fish and Wildlife Foundation $14,902, and Newman's Own Foundation $6,500.					

Project 9 – Stinson Beach Water Supply & Drought Preparedness Plan

Overview

The grand total cost of the Stinson Beach County Water District's Stinson Beach Water Supply & Drought Preparedness Plan (Plan) is $1,249,952. PSP Table 7, below, presents the requested grant and funding match amounts for the Plan. The total cost represents $937,452 in requested grant funding and $312,500 in match funding from District funds. The cost information is based on detailed budget estimates for the four components of the Plan. In large part, the detailed budget estimates are based on actual expenditures incurred to date for those portions of the Plan that have been completed and engineering cost estimates for those portions of the Plan that have been, and will be, released for competitive bidding by prospective contractors in 2014 and 2015, respectively. Similarly, the Project planning, permitting, design, and administrative costs are based on costs already incurred, or are estimated utilizing the costs already incurred as the basis for estimating the costs for the portions of the Plan that have not yet been completed. For these reasons, the budget amounts are believed to be reasonable, and the District can compile and provide documentation supporting the budget estimates (invoices for engineering and construction, materials and equipment invoices and cost estimates, administrative labor hours) upon request.

Justification

The Plan consists of four separate projects, each of which is justified below:

Project A. 2014 Calles Pipelines Replacement Project:

The Project will directly address drought preparedness in the form of water savings that will be realized from eliminating ongoing leaks and potentially finding and eliminating leaks that have not yet been discovered. The pipeline replacement Project is the only and least cost alternative. Different methods of installing the pipe were evaluated (trenching vs. trenchless) and installation by trenching was determined by the District's engineering consultant to be the least cost alternative, or comparable with the cost for the trenchless installation.

Project B. Patios Pipelines Replacement Project:

Like the Calles Pipelines Replacement Project, this Project will directly address drought preparedness in the form of water savings that will be realized from eliminating ongoing leaks and potentially finding and eliminating leaks that have not yet been discovered. The pipeline replacement Project is the only and least cost alternative. Different methods of installing the pipe were evaluated (trenching vs. trenchless) and installation by trenching was determined by the District's engineering consultant to be the least cost alternative, or comparable with the cost for the trenchless installation.

Project C. Supplemental Groundwater Supplies:

The primary benefit of this Project is increased water supply availability and reliability during dry and drought periods. Use of supplemental groundwater supplies will alleviate potable water demand on surface water supply, thereby providing incidental benefits to fish and wildlife. The new groundwater well and private well connections will supplement the limited surface water and groundwater supplies in the service area, increasing water availability and reliability. The District evaluated 24 water supply options; the groundwater supply option that will be implemented was chosen because of the benefits described above and because it is the least cost alternative.

Project D. Water Meter Replacements and In-Line Meters:

The Project will directly address drought preparedness in the form of water savings that will be realized from customer water meter replacements using new meters with improved technology and remote reading capability such that the District may be able to identify and repair leaks promptly. Additionally, the new customer meters, installed in conjunction with new in-line water meters, will greatly increase the District's ability to identify when and where water losses are occurring within its overall water distribution system. With strategically placed in-line water meters and new customer water meters, the District can perform accurate mass-balance accounting of water losses within isolated sections of its overall water system to determine when and where the losses are occurring and promptly repair or replace leaking pipes.

PSP Table 7. Project Budget					
Proposal Title: Bay Area Drought Relief Program (Bay DRP) **Project Title:** Stinson Beach Water Supply & Drought Preparedness Plan Project serves a need of a DAC?: ☐ Yes ■ No Funding Match Waiver request? ☐ Yes ■ No					
Category		**(a)** **Requested Grant Amount**	**(b)** **Cost Share: Non-State Fund Source* (Funding Match)**	**(c)** **Cost Share: Other State Fund Source***	**(d)** **Total Cost**
(a)	Direct Project Administration	$33,392	$0	$0	$33,392
(b)	Land Purchase/Easement	$7,044	$0	$0	$7,044
(c)	Planning/Design/Engineering/ Environmental Documentation	$139,815	$16,862	$0	$156,677
(d)	Construction/Implementation	$757,201	$295,638	$0	$1,052,839
(e)	**Grand Total**	**$937,452**	**$312,500**	**$0**	**$1,249,952**
**Source of funding: Stinson Beach County Water District*					

Budget Summaries – Drought Preparedness Projects

This section presents budget summaries for the projects listed below.

Project ID#	Project Proponent	Project Title
10	StopWaste	Bay Area Regional Drought Relief Conservation Program
11	MMWD	WaterSMART Irrigation with AMI/AMR

Project 10 – Bay Area Regional Drought Relief Conservation Program

Overview

The grand total cost of the Bay Area Regional Drought Relief Conservation Program (Program) is $10,892,986. Alameda County StopWaste.org (StopWaste) will oversee the administration of the Program (which includes management of 12 project agencies, accounting, and legal work; reviewing work products; approving invoices and quarterly reports; and preparing documents for ABAG review), while project proponents will provide rebates to customers who participate in the Program; each of the 12 agencies/organizations in the Program is responsible for implementing its individual rebate program. Grant and cost-share funding will be used to provide rebates to participating customers in the Program. Project proponents will submit invoices quarterly, with accompanying quarterly reports, to StopWaste in accordance with the format specified by the DWR Grant Agreement and StopWaste's agreement with each participating agency. These invoices will be based on rebate forms and records provided by the project proponents. StopWaste, with assistance from a consultant, will coordinate invoice submission and maintain records. An estimated $230,971 will cover Program Administration efforts by StopWaste.

Program implementation will require $10,892,986 and will be funding by the grant and matching funds from each of the 12 project proponents. This Program provides rebates to reduce water use of the three largest residential and commercial water users: lawns, toilets, and clothes washers, which account for more than 60% of the water use in a typical single-family home. Landscape Rebates will be provided with the goal of replacing 2,281,000 square feet of lawn with climate-appropriate landscaping and drip irrigation. Toilet/Urinal Rebates will be provided to replace approximately 9,364 older, high-volume toilets/ urinals with new high-efficiency models that are EPA WaterSense certified. The Direct Install Program will directly install 6,670 EPA WaterSense-certified high-efficiency toilets and urinals to eligible multi-family and commercial customers. Clothes Washer Rebates will be provided for 25,546 customers to install new, high-efficiency clothes washers.

The Drought-Resistant Soil and Garden Marketplace Project will improve drought resiliency by helping residents sheet-mulch their lawns. As overseen by StopWaste, this Project will convert a minimum of 100 lawns with sheet mulch and reach a minimum of 8,000 consumers over an 18-month period, with a projected water savings of 5 AF.

The Cost Detail Table (following the PSP Table 7 project budget summary) provides detail for the estimated Program costs. Columns A through F show Program costs based on unit costs and the targeted number of rebates (Columns A and B). Columns G and H provide detail on DWR grant costs per unit and as a total, respectively, from requested DWR grant funding. Columns I and J provide detail on agency costs per unit and as a total, respectively, from participating agencies in the Program. Columns K and L provide detail on the percentage of Program costs covered by DWR and participating agencies, respectively. Columns M through R provide detail on water savings and associated cost savings estimates.

Rebate amounts are developed based on a number of factors, including an agency's avoided cost of water, the cost of the fixture being rebated, current and expected market conditions (including codes and standards), estimated water savings, and (most importantly) what rebate amount will move customers to purchase the fixture. The consumer return on investment from installation of fixtures and equipment is considered in assessing an effective incentive level. As an example, a number of agencies had previously set their Lawn to Landscape Conversion rebates at 50 cents per square foot of lawn converted, primarily based on agency avoided cost. However, due to the high cost to replace a lawn with a water-wise landscape, these agencies have increased their rebates to $1 or more per square foot. This new rebate level will result in more customer participation. Project proponents will assess rebate levels on a regular basis and make adjustments as market conditions and other factors change.

The quantity of rebates estimated to be issued by each agency was developed based on historic, current, and anticipated customer demand. Project proponents will aim to meet that demand so that no eligible customers are refused a rebate. Individual agency projections are combined to quantify the number of rebates for the grant.

Conservation projects are the least costly water supply alternatives. At a total project cost of $10,892,986 to reduce consumption by 24,000 AF over the 20-year Project time horizon, the simple average cost per AF saved is equal to $454 ($10,892,986/24,000 AF). The Project-generated energy savings, greenhouse gas reductions, and avoided impacts of non-point-source pollution reduction are value-added benefits but beyond the scope of this benefit/cost analysis.

PSP Table 7. Project Budget					
Proposal Title: Bay Area Drought Relief Program (Bay DRP) **Project Title:** Bay Area Regional Drought Relief Conservation Program Project serves a need of a DAC?: ☐ Yes ■ No Funding Match Waiver request?: ☐ Yes ■ No					
Category		**(a)**	**(b)**	**(c)**	**(d)**
		Requested Grant Amount	**Cost Share: Non-State Fund Source* (Funding Match)**	**Cost Share: Other State Fund Source***	**Total Cost**
(a)	Direct Project Administration	$230,971	$0	$0	$230,971
(b)	Land Purchase/Easement	$0	$0	$0	$0
(c)	Planning/Design/Engineering/ Environmental Documentation	$0	$0	$0	$0
(d)	Construction/Implementation	$5,763,000	$4,899,015	$0	$10,662,015
(e)	**Grand Total**	**$5,993,971**	**$4,899,015**	**$0**	**$10,892,986**

**Sources of funding by project proponents:*

BAWSCA:	$499,438	Zone 7:	$282,112	City Napa:	$228,570
ACWD:	$443,643	Sonoma:	$480,508	SFPUC:	$438,968
EBMUD:	$483,900	Solano:	$415,083	SCVWD:	$890,474
CCWD:	$394,595	Marin:	$306,724	StopWaste:	$35,000

Cost Detail Table: Project 10 Bay Area Regional Drought Relief Conservation Project

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
Rebate Type	**Rebate Unit Cost**	**Total Number of Rebates**	**Unit Description**	**Total Rebate Cost**	**Total Agency Labor Cost**	**Total Program Cost**	**DWR Unit Cost**	**DWR Total Cost**	**Agency Unit Cost**	**Agency Total Cost**	**DWR Cost as % of Total**	**Agency Cost as % of Total**	**Total Annual Water Savings (AF/yr)**	**Life of Savings (yrs)**	**Total Life Savings (AF)**	**DWR Cost per AF Saved ($/AF)**	**Agency Cost per AF Saved ($/AF)**	**Total Project Cost per AF Saved ($/AF)**
Landscape Rebates	$1	2,281,000	Per Square Foot	$2,281,000	$482,432	$2,763,432	$0.75	$1,710,750	$0.46	$1,052,682	62%	38%	236	20	4,716	$363	$223	$586
Toilet/Urinal Rebates	$125	9,364	Per Toilet or Urinal	$1,170,500	$330,081	$1,500,581	$75	$702,300	$85.25	$798,281	47%	53%	165	20	3,307	$212	$24	$454
Toilet/Urinal Direct Installation	$350	6,670	Per Toilet or Urinal	$2,334,500	$94,047	$2,428,547	$200	$1,334,000	$164.10	$1,094,547	55%	45%	162	20	3,243	$411	$338	$749
Washer Rebates	$125	25,546	Per Washer	$3,193,250	$641,205	$3,834,455	$75	$1,915,950	$75.10	$1,918,505	50%	50%	625	20	12,509	$153	$153	$307
Education	-	-	-	-	-	$135,000	-	$100,000	-	$35,000	74%	26%	-	-	-	-	-	-
Direct Project Administration	-	-	-	-	-	$230,971	-	**$230,971**	-	-	-	-	-	-	-	-	-	-
Total Conservation Rebate Program				**$8,979,250**	**$1,547,764**	**$10,892,985**		**$5,993,971**		**$4,899,014**	**55%**	**45%**	**1,189**	**20**	**23,775**	**$252**	**$206**	**$458**

Project 11 – WaterSMART Irrigation with AMI/AMR

Overview

The grand total cost of MMWD's WaterSMART Irrigation with AMI/AMR (Project) budget is $1,300,000. The Project budget includes MMWD staff labor to administer the grant and Project implementation; consultant contracts for implementation, including an SAP scoping study and installation of SAP software upgrades; and AMI/AMR vendor contracts to purchase materials. MMWD staff will perform the installation of the AMI/AMR equipment, and a technical consultant will be hired to install and calibrate the monitoring software and provide training for MMWD staff. Grant dollars are budgeted for Project implementation, and cost-share dollars are budgeted for administration, planning and design, and implementation.

Justification

Implementation of the Project will result in the following water supply savings: an average annual reduction in water used for dedicated irrigation meters of 25% (300 AFY), 4,500 AF of supply reduction after 15 years, and savings that will offset local and imported water supplies. Extensive economic and financial analysis using present-value costs and benefits of on-site surveys, equipment rebates, mandatory landscape standards, and professional training have been conducted. The Project is the least cost alternative. During the first 15 years of operation, the Project will save an estimated 4,500 AF of water at an average cost of $250-$500 per AF saved, which compares to approximately $250/AF for water produced locally and over $1,200/AF for the next incremental supply of imported water.

PSP Table 7. Project Budget

Proposal Title: Bay Area Drought Relief Program (Bay DRP)
Project Title: WaterSMART Irrigation with AMI/AMR
Project serves a need of a DAC?: ☐ Yes ■ No
Funding Match Waiver request?: ☐ Yes ■ No

Category		(a) Requested Grant Amount	(b) Cost Share: Non-State Fund Source* (Funding Match)	(c) Cost Share: Other State Fund Source*	(d) Total Cost
(a)	Direct Project Administration	$0	$25,748	$0	$25,748
(b)	Land Purchase/Easement	$0	$0	$0	$0
(c)	Planning/Design/Engineering/ Environmental Documentation	$0	$25,716	$0	$25,716
(d)	Construction/Implementation	$975,000	$273,536	$0	$1,248,536
(e)	**Grand Total**	**$975,000**	**$325,000**	**$0**	**$1,300,000**

**Source of funding: MMWD General Fund*

Budget Summaries – Grant Administration

This section presents the budget summary for the project listed below.

Project ID#	Project Proponent	Project Title
12	ABAG/SFEP	Grant Administration

Project 12 – Grant Administration

Overview

The grand total cost of Grant Administration is $1,650,000. The Bay DRP Administration budget is intended to cover all administrative costs of the Bay DRP program, from negotiating the ABAG-DWR contract and the ABAG-Local Project Sponsor Agreements to managing the various Projects until their conclusion. Further, ABAG will be responsible for record-keeping to respond to audits long after all Bay DRP Projects are complete. The Administration budget adheres to DWR's guidance and does not exceed 5% of the total program cost. The budget includes staff time for ABAG's legal department and accounting department, as well as several project managers who will coordinate with Local Project Sponsors, assuring the timely completion of reporting tasks noted in the work plan. There is no project match associated with Project Administration.

The budget is broken down as follows:

- Legal and Contracting Staff Costs – $274,350
- Accounting, Invoicing Costs, Record-keeping and Auditing Staff – $471,750
- Project Management Staff Costs, including consultants, if needed – $788,900
- ABAG Indirect Costs – $115,000

Justification

Bay DRP includes 11 projects that will provide drought relief to residents of the San Francisco Bay Area and long-term planning for regional drought. The Bay DRP Administration provided by ABAG/SFEP oversees the implementation of grant funding and is the liaison between DWR and participating agencies. These tasks ensure that projects are completed, DWR receives Quarterly Reports, invoicing and record-keeping are current, and other administrative functions are completed.

Table 7. Project Budget

Proposal Title: Bay Area Drought Relief Program (Bay DRP)
Project Title: Grant Administration
Project serves a need of a DAC?: ☐ Yes ■ No
Funding Match Waiver request?: ☐ Yes ■ No

Category		(a) Requested Grant Amount	(b) Cost Share: Non-State Fund Source (Funding Match)	(c) Cost Share: Other State Fund Source	(d) Total Cost
(a)	Direct Project Administration	$0	$0	$0	$0
(b)	Land Purchase/Easement	$0	$0	$0	$0
(c)	Planning/Design/Engineering/ Environmental Documentation	$0	$0	$0	$0
(d)	Construction/Implementation	$1,650,000	$0	$0	$0
(e)	**Grand Total**	**$1,650,000**	**$0**	**$0**	**$1,650,000**