



San Francisco Bay Regional Water Enhancement Program

Attachment 4

BUDGET

Association of Bay Area Governments
Proposition 84
Integrated Regional Water Management
Round 2, Implementation Grant Application





ATTACHMENT 4: BUDGET

SAN FRANCISCO BAY REGIONAL WATER ENHANCEMENT PROGRAM

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Introduction

The San Francisco Bay Regional Water Enhancement Program is a diverse set of well-considered, widely vetted, and cost-effective solutions to water supply and quality, habitat and flooding issues/needs around the San Francisco Bay Area. In funding this effort, the Department of Water Resources will support the significant investments of the Bay Area’s water agencies, public agencies, and non-governmental organizations.

Presented in this section is the overall Proposal summary budget (PSP Table 8), followed by project budgets (PSP Table 7) for each of the 19 projects included in this Proposal. Additionally, budget details are provided for grant administration (Project 0). Documentation for project cost estimates are provided in the appendices to this Attachment.

Summary Budget (PSP Table 8)

The total cost of implementing this Proposal is **\$57,349,273**. Of this amount, **\$33,597,473** (59%) is non-state match funding, **\$3,751,800** is other state funding, and **\$825,000** is being requested as a disadvantaged community funding match waiver. A total of **\$20,000,000** is being requested under the Proposition 84 Round 2 Implementation Grant Program. The Proposal budget summary is shown in **Table 8**, below.

Table 8 – Summary Budget						
Proposal Title: San Francisco Bay Regional Water Enhancement Program						
		(a)	(b)	(c)	(d)	(e)
	Individual Project Title	Requested Grant Amount	Cost Share: Non-State Fund Source (Funding Match)	Cost Share: Other State Fund Source	Total Cost	% Funding Match
0	ABAG Grant Administration	\$750,000	\$0	\$0	\$750,000	0%
1	Bay Area Regional Conservation and Education Program	\$2,700,000	\$2,558,168	\$0	\$5,258,168	49%
2	East Bayshore Recycled Water Project Phase 1A (Emeryville)	\$1,000,000	\$1,041,712	\$0	\$2,041,712	51%
3	Lagunitas Creek Watershed Sediment Reduction and Management Project	\$720,000	\$240,000	\$0	\$960,000	25%
4	Marin/Sonoma Conserving Our Watersheds: Agricultural BMP Projects	\$600,000	\$220,000	\$0	\$820,000	27%
5	Napa Milliken Creek Flood Damage Reduction and Fish Passage Barrier Removal	\$500,000	\$918,540	\$0	\$1,418,540	65%
6	North Bay Water Reuse Program – Sonoma Valley CSD 5th Street East/McGill Road Recycled Water Project	\$1,020,000	\$1,540,490	\$0	\$2,560,490	60%
7	Oakland Sausal Creek Restoration Project	\$500,000	\$924,700	\$1,451,800	\$2,876,500	32%

Table 8 – Summary Budget						
Proposal Title: San Francisco Bay Regional Water Enhancement Program						
		(a)	(b)	(c)	(d)	(e)
Individual Project Title		Requested Grant Amount	Cost Share: Non-State Fund Source (Funding Match)	Cost Share: Other State Fund Source	Total Cost	% Funding Match
8	Pescadero Water Supply and Sustainability Project	\$700,000	\$125,000	\$0	\$825,000	15%
9	Petaluma Flood Reduction, Water & Habitat Quality, and Recreation Project for Capri Creek	\$825,000	\$275,010	\$0	\$1,100,010	25%
10	Redwood City Bayfront Canal and Atherton Channel Flood Improvement and Habitat Restoration Project	\$1,135,000	\$3,089,840	\$0	\$4,224,840	73%
11	Regional Groundwater Storage and Recovery Project Phase 1A - South Westside Basin, Northern San Mateo County	\$1,400,000	\$2,022,261	\$0	\$3,422,261	59%
12	Richmond Breuner Marsh Restoration Project	\$750,000	\$5,854,800	\$2,300,000	\$8,904,800	66%
13	Roseview Heights Infrastructure Upgrades for Water Supply and Quality Improvement, Santa Clara County	\$500,000	\$625,500	\$0	\$1,125,500	56%
14	San Francisco Bay Climate Change Pilot Projects Combining Ecosystem Adaptation, Flood Risk Management and Wastewater Effluent Polishing	\$2,100,000	\$3,265,125	\$0	\$5,365,125	61%
15	San Francisco International Airport Reclaimed Water Facility	\$750,000	\$5,285,847	\$0	\$6,035,847	88%
16	San José Green Streets & Alleys Demonstration Projects	\$2,000,000	\$666,667	\$0	\$2,666,667	25%
17	San Pablo Rheem Creek Wetlands Restoration Project	\$750,000	\$1,000,018	\$0	\$1,750,018	57%
18	St. Helena Upper York Creek Dam Removal and Ecosystem Restoration Project	\$800,000	\$3,819,282	\$0	\$4,619,282	83%
19	Students and Teachers Restoring a Watershed (STRAW) Project—North and East Bay Watersheds	\$500,000	\$125,000	\$0	\$625,000	20%
(i)	Proposal Total	\$20,000,000	\$33,597,960	\$3,751,800	\$57,349,760	
(j)	DAC Funding Match Waiver Total	-	-	-	\$825,000	
(k)	Grand Total	\$20,000,000	\$33,597,960	\$3,751,800	\$56,524,760	59%

Project Budgets (PSP Table 7)

Project budget details are presented below for each of the 19 projects included in this Proposal, and for Grant Administration (Project 0). Project budget tables (PSP Table 7) illustrate project costs, requested grant support, and funding matches by task category.

For each project, PSP Table 7 is completed, followed by a Labor Rate Table, a Construction/Implementation Costs Table, an Equipment and Materials Cost Table, if applicable. Narrative text and references for the cost estimates, including contingency assumptions, are included where provided by the project proponent.

Project 0: Grant Administration

Table 7 - Project 0: Grant Administration Budget Project serves a need of a DAC? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Funding Match Waiver request? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
	(a)	(b)	(c)	(d)
Category	Requested Amount	Cost Share: Non-State Funding Match	Cost Share: Other State Fund Source	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	\$750,000	0	0	\$750,000
(e) Environmental Compliance/Mitigation/Enhancement	0	0	0	0
(f) Construction Administration	0	0	0	0
(g) Other Costs	0	0	0	0
(h) Construction/Implementation Contingency	0	0	0	0
(i) Grand Total	\$750,000	\$0	\$0	\$750,000

Labor Rates Table

Project 0: ABAG - Grant Administration								
Category	Task Name / Description	Labor (Total hours per category shown in bold)						Subtotal Labor Cost By Category
		SFEP Director	Contract Manager	Principal Planner	Attorney	Finance Director	Accounting Staff	
	Hourly Rate	\$150	\$95	\$115	\$279	\$272	\$129	
a	Direct Project Administration							\$0
b	Land Purchase/Easement							\$0
c	Planning/Design/Engineering/ Environmental Documentation							\$0
d	Construction/Implementation	60	1160	1285	173	45	2500	\$649,982
8	Construction Contracting							
8.1	DWR Contracting	10	40	25	60	20		
9	Project Construction/Implementation							
9.1	Issue Implementation Agreements		160		100			
9.2	Quarterly and Final Reports		200	160				
9.3	Invoices		160				1000	
9.4	Reimbursement		100				1000	
9.5	Bookkeeping and Auditing		300		13	25	500	
9.6	Coordination, Support and Records		100	700				
9.7	Field Verification			200				
9.8	Project Management	50	100	200				
e	Environmental Compliance/ Mitigation/Enhancement							\$0
f	Construction Administration							\$0
g	Other Costs							\$0
h	Construction/Implementation Contingency							\$0
	Total Labor Hours	60	1160	1285	173	45	2500	5223
	Total Labor Cost							\$649,982

Construction/Implementation Costs Table

Project 0: ABAG - Grant Administration						
Category	Task Name / Description	Construction/Implementation Expenses				Subtotal Construction Cost
		Materials	Equipment	Construction Consultants	Other Expenses	
a	Direct Project Administration					\$0
b	Land Purchase/Easement					\$0
c	Planning/Design/Engineering/ Environmental Documentation					\$0
d	Construction/Implementation			\$100,018		\$100,018
8	Construction Contracting					
9	Project Construction					
9.1	Issue Implementation Agreements					\$0
9.2	Quarterly and Final Reports			\$25,018		\$25,018
9.3	Invoices			\$25,000		\$25,000
9.4	Reimbursement					\$0
9.5	Bookkeeping and Auditing			\$25,000		\$25,000
9.6	Coordination, Support and Records			\$25,000		\$25,000
9.7	Field Verification					\$0
9.8	Project Management					\$0
e	Environmental Compliance/ Mitigation/Enhancement					\$0
f	Construction Administration					\$0
g	Other Costs					\$0
h	Construction/Implementation Contingency					\$0
Total Construction Cost		\$0	\$0	\$100,018	\$0	\$100,018

Project 1: Bay Area Regional Conservation and Education Program

The Bay Area Regional Water Conservation Program includes a package of conservation program elements designed to reduce indoor and landscape water use. These program elements will be implemented by the following participating water agencies:

- Alameda County Water District (ACWD)
- Bay Area Water Supply & Conservation Agency (BAWSCA)
- Contra Costa Water District (CCWD)
- City of Napa
- East Bay Municipal Utilities District (EBMUD)
- San Francisco Public Utilities Commission (SFPUC)
- Santa Clara Valley Water District (SCVWD)
- Solano County Water Agency
- Sonoma County Water Agency
- Southern Sonoma County Resource Conservation District
- StopWaste.org/Bay-Friendly Landscaping & Gardening Coalition (Bay-Friendly)
- Zone 7 Water Agency (Zone 7)

The participating water agencies will each implement their own programs utilizing a set of common program terms and conditions. The program elements to be implemented include:

- Water-Efficient Landscape Rebate
- Water Efficiency Sustainable Landscape Education Program
- Water Conservation and Mobile Water Lab Project (Water Lab)
- Weather Based Irrigation Controller Rebate (SF)
- Weather Based Irrigation Controller Rebate (CII/ MF)
- Large Landscape Irrigation Retrofit Program (SFPUC)
- High-Efficiency Toilets (SCVWD)
- High-Efficiency Washers (SCVWD)
- Home Water Report

Further information on these programs and agency participation is presented in Attachment 3.

Each agency will offer a minimum rebate amount determined necessary to garner customer participation. Implementation of the Bay Area Regional Water Conservation and Education Program for three years will require a total of \$5,258,168. This Proposal requests \$2,700,000 (rounded up from \$2,699,999) from Proposition 85, Round 2 Implementation funds. This grant amount will include \$150,000 of administration costs and \$2,558,168 to support Program implementation. The remaining amount required to implement the Program is

\$2,558,169 and will be provided by matching funds provided by each partner agency. This information is summarized in Table 7 - Bay Area Regional Conservation and Education Program Budget.

The participating agencies associated with this project are requesting that the DWR grant pay a fixed dollar amount per water conservation rebate provided. This fixed amount is based on the DWR grant paying a maximum of 75% of the rebate and the participating agencies paying a minimum of 25% of the rebate amount, and 100% of the administration costs to implement the program. The breakdown of the costs for each program element and associated rebate costs are shown in the *Category (d), Task 9 Program Implementation Costs Table*. The minimum rebate costs, DWR grant amount, and participating agency matching costs are shown in the *Rebate Costs Table*.

Additional supporting documentation for the estimated program rebates, cost sharing, and anticipated water savings is included in the Attachment 4 Appendix for Project 1 (Tables A, B, and C.)

Table 7 – Project 1: Bay Area Regional Conservation and Education Program Budget				
Project serves a need of a DAC? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No				
Funding Match Waiver request? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
	(a)	(b)	(c)	(d)
Category	Requested Amount	Cost Share: Non-State Funding Match*	Cost Share: Other State Fund Source	Total Cost
(a) Direct Project Administration	\$150,000	\$0	\$0	\$150,000
(b) Land Purchase/Easement	\$0	\$0	\$0	\$0
(c) Planning/Design/Engineering/Environmental Documentation	\$0	\$0	\$0	\$0
(d) Construction/Implementation	\$2,550,000	\$2,558,168	\$0	\$5,258,168
(e) Environmental Compliance/Mitigation/Enhancement	\$0	\$0	\$0	\$0
(f) Construction Administration	\$0	\$0	\$0	\$0
(g) Other Costs	\$0	\$0	\$0	\$0
(h) Construction/Implementation Contingency	\$0	\$0	\$0	\$0
(i) Grand Total	\$2,700,000	\$2,558,168	\$0	\$5,258,168

***Sources of funding:**

Funding matches will be provided by each participating agency.

The amount of the funding match is calculated as follows:

$$\begin{aligned} & \text{(Number of Rebates Issued by Program * Minimum Rebate Cost) * 25\% Match} \\ & + \text{Total Number of Rebates by Program * Administration Costs} \end{aligned}$$

The estimated funding match provided by each agency is listed below (note that these estimates do not include administration costs):

- ACWD: \$139,530
- BAWSCA: \$158,060
- CCWD: \$142,725
- City of Napa: \$104,540
- EBMUD: \$192,800
- Napa County - Southern Sonoma RCD: \$65,000 (includes \$43,905 from a USDA Natural Resources Conservation Service grant for implementation of the Water Conservation and Mobile Water Lab Project)
- SFPUC: \$724,383
- SCVWD: \$394,830
- Solano County Water Agency: \$107,985
- Sonoma County Water Agency: \$164,085
- StopWaste/Bay-Friendly: \$213,931 (includes \$205,000 from training and workshop registration fees and donations from partners and sponsors)
- Zone 7: \$150,300

Total Funding Match from agencies listed above (\$2,558,168) includes 100% of the labor, benefits, and overhead costs of implementing the program elements (approximately \$884,685).

The total administration costs for the Program is \$150,000. This cost is for quarterly and annual reports and DWR invoicing.

Category (d), Task 9 Program Implementation Costs Table

Project 1: Bay Area Regional Water Conservation and Education Program					
Program Element	Total Regional Rebates	Minimum Rebate Cost/ Unit	Measurable Unit	Administration Unit Cost*	Total Program Cost/ Incl. Admin Unit costs
Water-Efficient Landscape Rebate	1,385,000	\$0.75	Square Foot	\$0.28	\$1,429,320
Water Efficiency Sustainable Landscape Education Program	414,124	\$0.00	Per Training	-	\$414,124
Water Lab and Education	260,000	\$0.00	Per Survey	-	\$260,000
Weather Based Irrigation Controller Rebate (SF)	3,145	\$20.00	Irrigation Station	\$7.05	\$85,072
Weather Based Irrigation Controller Rebate (CII/ MF)	4,200	\$30.00	Irrigation Station	\$7.05	\$155,610
Large Landscape Irrigation Retrofit Program	330,000	\$2.75	Square Foot	\$0.155	\$958,683
High-Efficiency Toilets (SCVWD)	2,300	\$100.00	Per Toilet	\$35.25	\$311,075
High-Efficiency Washers (SCVWD)	5,750	\$50.00	Per Washer	\$18.05	\$391,288
Home Water Report	203,882	4.00	Per Households	\$1.41	\$1,102,996
Grant Administration	-	-	-	-	\$150,000
Program Total					\$5,258,168

* Administration Unit Costs includes Labor, Benefits, Overhead, Services and Materials.

Rebate Costs Table

Project 1: Bay Area Regional Water Conservation and Education Program							
Program Element	Measurable Unit	Minimum Rebate Cost/Unit	DWR Grant Funding (75% of Rebate Unit)	Agency Matching Costs (25% of Rebate)	Minimum Agency Cost (100% of Admin)	Minimum Total Agency Cost	Total Cost by Program
Water-Efficient Landscape Rebate	Square Foot	\$0.75	\$0.56	\$0.1875	\$0.28	\$0.47	\$1,429,320
Water Efficiency Sustainable Landscape Education Program	Per Training	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$414,124
Water Lab and Education	Per Survey	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$260,000
Weather Based Irrigation Controller Rebate (SF)	Irrigation Station	\$20.00	\$15.00	\$5.00	\$7.05	\$12.05	\$85,072
Weather Based Irrigation Controller Rebate (CII/ MF)	Irrigation Station	\$30.00	\$22.50	\$7.50	\$7.05	\$14.55	\$155,610
Large Landscape Irrigation Retrofit Program	Square Foot	\$2.75	\$0.71	\$2.04	\$0.155	\$2.20	\$958,683
High-Efficiency Toilets (SCVWD)	Toilet Rebate	\$100.00	\$75.00	\$25.00	\$35.25	\$60.25	\$311,075
High-Efficiency Washers (SCVWD)	Washer Rebate	\$50.00	\$37.50	\$12.50	\$18.05	\$30.55	\$391,288
Home Water Report	Households	\$4.00	\$3.00	\$1.00	\$1.41	\$2.41	\$1,102,996
Grant Administration	-	-	\$150,000	-	-	-	\$150,000
Program Total			\$2,699,999	\$2,558,169			\$5,258,168

Equipment and Materials List and Costs

(these costs are included in the grant requested funds to implement specific program elements, as noted)

Equipment or Materials Description	Unit Costs (\$)	No. of Units	Total Cost
Printing costs for the program elements sponsored by Bay-Friendly		3500	\$11,500
SFPUC Large Landscape Irrigation Retrofit Program:			
SFPUC Booster Pump	\$30,000	1	\$30,000
SFPUC Irrigation Controllers	\$10,000	1	\$10,000
SFPUC New Irrigation System (includes mainline and lateral piping, irrigation valves, etc.)	\$3.00 sq.ft.	200,000 sq.ft.	\$600,000
SFPUC Landscape Restoration (includes new low water-use “no-mow” and climate-appropriate plantings)	\$1.50 sq.ft.	60,000 sq.ft.	\$90,000
Total			\$741,500

Budget/Funding Comments:

Large Landscape Irrigation Retrofit Program Expenses:

This program is sponsored by SFPUC, only. They intend to construct one (1) large landscape irrigation retrofit project with support from this grant. SFPUC-Administration costs in the first year (2012) include development of the construction documents (topographic survey, grading, landscape, and irrigation plans). Administration costs in the second year are for project management during construction. Replacement costs in both years include the installation of the new irrigation system and landscape plantings. Other costs include development and printing of signage that will be permanently installed at the site to educate the public on efficient landscape practices.

Bay-Friendly Water Efficient Sustainable Landscape Program Expenses:

- 2000 Bay-Friendly Pocket Guides at a cost of \$4,000
- 1000 Bay-Friendly Landscape Guides at a cost of \$5,000
- 500 Bay-Friendly Landscape Guidelines at a cost of \$2,500

See Attachment 4, Appendix 1 for further supporting documentation for the project costs and funding match calculations.

Project 2: East Bayshore Recycled Water Project Phase 1A (Emeryville)

Table 7 - Project 2: East Bayshore Recycled Water Project Phase 1A (Emeryville) Budget Project serves a need of a DAC? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Funding Match Waiver request? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No					
Category		(a)	(b)	(c)	(d)
		Requested Amount	Cost Share: Non-State Funding Match	Cost Share: Other State Fund Source	Total Cost
(a)	Direct Project Administration Costs	\$0	\$110,856	\$0	\$110,856
(b)	Land Purchase/Easement	\$0	\$0	\$0	\$0
(c)	Planning/Design/Engineering/ Environmental Documentation	\$0	\$143,366	\$0	\$143,366
(d)	Construction/Implementation	\$1,000,000	\$335,290	\$0	\$1,335,290
(e)	Environmental Compliance/ Mitigation/Enhancement	\$0	\$0	\$0	\$0
(f)	Construction Administration	\$0	\$192,200	\$0	\$192,200
(g)	Other Costs	\$0	\$0	\$0	\$0
(h)	Construction/Implementation Contingency	\$0	\$260,000	\$0	\$260,000
(i)	Grand Total	\$1,000,000	\$1,041,712	\$0	\$2,041,712
*Sources of funding: East Bay Municipal Utilities District General Fund					

Labor Rates Table

Project 2: East Bayshore Recycled Water Project Phase 1A (Emeryville)										
Category	Task Name / Description	Labor (Total hours per category shown in bold)								Subtotal Labor Cost By Category
		Director	Manager	Sr. Engineer	Assoc. Engineer	Assist. Engineer	Legal	Admin	Planner	
	Hourly Rate	\$190	\$160	\$130	\$113	\$102	\$152	\$55	\$85	
a	Direct Project Administration	8	34	108	480		8	80		\$80,856
1	Administration									
	1.1 Contract Management	8	16	64	192		8	32		
	1.2 Project Performance Plan Development									
2	Labor Compliance Program									
	2.1 Labor Compliance Monitoring		8	24	208			24		
3	Reporting									
	3.1 Quarterly Reports		8	16	64			16		
	3.2 Final Report		2	4	16			8		
b	Land Purchase/Easement									\$0
c	Planning/Design/Engineering/Environmental Documentation	22	44	98	316	780	4	58	4	\$143,366
	4.2 Assessment and Feasibility Studies				60					
	4.3 Conceptual Design (10%)			10	40	120		10		
	4.4 30% Design			10	50	300		10		
	4.5 60% Design			20	50	120		10		
5	Final Design									
	5.1 90% Design	10	20	20	60	120		10		
	5.2 100% Design	10	20	30	40	120		10		
6	Environmental Documentation									
	6.1 CEQA Compliance	2	4	8	16		4	8	4	
d	Construction/Implementation	5	10	40	80	50		80		\$26,290
8	Construction Contracting									
	8.1 Construction Contracting	5	10	40	80	50		80		
9	Project Construction									

e	Environmental Compliance/ Mitigation/Enhancement									\$0
f	Construction Administration		40	200	400	800		600		\$192,200
11	Construction Administration									
	11.1 Construction Administration		40	200						
	11.2 Construction Inspection and Management				400	800		600		
g	Other Costs									\$0
h	Construction/Implementation Contingency									\$0
	Total Labor Hours	35	128	446	1276	1630	12	818	4	4349
								Total Labor Cost		\$442,712

Construction/Implementation Costs Table

Project 2: East Bayshore Recycled Water Project Phase 1A (Emeryville)							
Category	Task Name / Description	Construction/Implementation Expenses					Subtotal Construction Cost
		Materials	Equipment	Construction Consultants	Other Expenses	Construction/Implementation Contingency	
a	Direct Project Administration	\$0	\$0	\$0	\$30,000	\$0	\$30,000
2	Labor Compliance Program						
2.1	Labor Compliance Monitoring				\$30,000		\$30,000
b	Land Purchase/Easement						\$0
c	Planning/Design/Engineering/ Environmental Documentation						\$0
d	Construction/Implementation	\$0	\$0	\$1,300,000	\$9,000	\$0	\$1,309,000
8	Construction Contracting						
8.1	Construction Contracting				\$9,000		\$9,000
9	Project Construction						
9.1	Mobilization and Site Preparation						\$0
9.2	Project Construction			\$1,300,000			\$1,300,000
9.3	Performance Testing and Demobilization						\$0
e	Environmental Compliance/ Mitigation/Enhancement						\$0
f	Construction Administration	\$0	\$0	\$0	\$0	\$0	\$0
11	Construction Administration						
g	Other Costs	\$0	\$0	\$0	\$0	\$0	\$0
7	Permitting						
h	Construction/Implementation Contingency	\$0	\$0	\$0	\$0	\$260,000	\$260,000
9.2	Contingency (20%)					\$260,000	\$260,000
Total Construction Cost		\$0	\$0	\$1,300,000	\$39,000	\$260,000	\$1,599,000

Budget/Funding Comments:

Construction contingency is estimated at 20% of total project construction cost, including allowances, and is based on experience with similar projects.

Project 3: Lagunitas Creek Watershed Sediment Reduction and Management Project

Table 7 - Project 3: Lagunitas Creek Watershed Sediment Reduction and Management Project Budget Project serves a need of a DAC? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Funding Match Waiver request? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
	(a)	(b)	(c)	(d)
Category	Requested Amount	Cost Share: Non-State Funding Match	Cost Share: Other State Fund Source	Total Cost
(a) Direct Project Administration	\$25,669	\$25,182	\$0	\$50,851
(b) Land Purchase/Easement	\$0	\$0	\$0	\$0
(c) Planning/Design/Engineering/Environmental Documentation	\$0	\$145,340	\$0	\$145,340
(d) Construction/Implementation	\$563,889	\$55,824	\$0	\$619,713
(e) Environmental Compliance/Mitigation/Enhancement	\$20,312	\$0	\$0	\$20,312
(f) Construction Administration	\$42,130	\$0	\$0	\$42,130
(g) Other Costs	\$0	\$9,654	\$0	\$9,654
(h) Construction/Implementation Contingency	\$68,000	\$4,000	\$0	\$72,000
(i) Grand Total	\$720,000	\$240,000	\$0	\$960,000
*Sources of funding: Marin Municipal Water District Capital Budget Funds				

Labor Rates Table

Project 3: Lagunitas Creek Watershed Sediment Reduction and Management Project									
Category	Task Name / Description	Labor (Total hours per category shown in bold)							Subtotal Labor Cost By Category
		Watershed Manager	Project Manager	Grant Manager	IS Analyst	Engineer	Engineer	Env.Coord.	
	Hourly Rate	\$91	\$79	\$76	\$69	\$111	\$111	\$87	
a	Direct Project Administration	20	82	132	20	20	20	20	\$25,850
1	Administration								
	1.1 Contract Management		10	40					
	1.2 Project Work Plan Development	20	20	20	20	20	20	20	
	1.3 Project Performance Plan Development		18	18					
2	Labor Compliance Program								
	2.1 Labor Compliance Monitoring								
3	Reporting								
	3.1 Quarterly Reports		20	40					
	3.2 Draft Final Report		10	10					
	3.3 Final Report		4	4					
b	Land Purchase/Easement								\$0
c	Planning/Design/Engineering/ Environmental Documentation		18					80	\$8,386
	4.2 Assessment and Feasibility Studies								
	4.3 Conceptual Design (10%)								
5	Final Design								
	5.1 Site Assessment and Design (100% Design Documents)		10						
6	Environmental Documentation								
	6.1 CEQA and NEPA Compliance		8						
	6.2 IS/EA Administrative Management							80	
	6.3 DWR CEQA Review and NOD								

d	Construction/Implementation					78	190		\$29,713
8	Construction Contracting								
	8.1 Bid Solicitation and Construction Contracting					78	190		
9	Project Construction								
	9.1 Mobilization and Site Preparation, Demolition								
	9.2 Project Construction								
	9.3 Performance Testing and Demobilization								
e	Environmental Compliance/Mitigation/Enhancement		16					58	\$6,312
10	Environmental Compliance/Mitigation/Enhancement								
	10.1 Mitigation Monitoring and Reporting		16					58	
	10.2 Revegetation (CCNB contract)								
f	Construction Administration					80	300		\$42,131
11	Construction Administration								
	11.1 Construction Administration					30	148		
	11.2 Construction Inspection and Management					50	152		
g	Other Costs		12					100	\$9,654
7	Permitting								
	7.1 Federal and State Permitting		12					100	
h	Construction/Implementation Contingency								\$0
Total Labor Hours		20	128	132	20	178	510	258	1246
								TOTAL LABOR COST	\$122,045

Construction/Implementation Costs Table

Project 3: Lagunitas Creek Watershed Sediment Reduction and Management Project							
Category	Task Name / Description	Construction/Implementation Expenses					Subtotal Construction Cost
		Materials	Equipment	Construction Consultants	Other Expenses	Construction/Implementation Contingency	
a	Direct Project Administration	\$0	\$0	\$0	\$25,000	\$0	\$25,000
2	Labor Compliance Program						
2.1	Labor Compliance Monitoring				\$25,000		\$25,000
b	Land Purchase/Easement						\$0
c	Planning/Design/Engineering/ Environmental Documentation	\$0	\$0	\$136,955	\$0	\$0	\$136,955
4.2	Assessment and Feasibility Studies						\$0
4.3	Conceptual Design (10%)						\$0
5	Final Design						
5.1	Site Assessment and Design (100% Design Documents)			\$72,000			\$72,000
6	Environmental Documentation						
6.1	CEQA and NEPA Compliance			\$64,955			\$64,955
6.2	IS/EA Administrative Management						\$0
6.3	DWR CEQA Review and NOD						\$0
d	Construction/Implementation	\$175,000	\$190,000	\$225,000	\$0	\$0	\$590,000
8	Construction Contracting						
8.1	Bid Solicitation and Construction Contracting						\$0
9	Project Construction						
9.1	Mobilization and Site Preparation						\$0
9.2	Project Construction	\$175,000	\$190,000	\$225,000			\$590,000
9.3	Performance Testing and Demobilization						\$0
e	Environmental Compliance/ Mitigation/Enhancement	\$0	\$0	\$14,000	\$0	\$0	\$14,000
10	Environmental Compliance/Mitigation/Enhancement						
10.1	Mitigation Monitoring and Reporting						\$0
10.2	Revegetation (CCNB contract)			\$14,000			\$14,000
f	Construction Administration	\$0	\$0	\$0	\$0	\$0	\$0

g	Other Costs	\$0	\$0	\$0	\$0	\$0	\$0
7	Permitting						
h	Construction/Implementation Contingency	\$0	\$0	\$0	\$0	\$72,000	\$72,000
	5.1 Design Contingency					\$8,000	\$8,000
	8.1 Construction Contracting Contingency					\$4,000	\$4,000
	9.1 Construction Contingency					\$55,000	\$55,000
	11.1 Construction Administration Contingency					\$5,000	\$5,000
TOTAL CONSTRUCTION COST		\$175,000	\$190,000	\$375,955	\$25,000	\$72,000	\$837,955

Equipment and Materials List and Costs

Equipment or Materials Description	Unit Costs (\$)	No. of Units	Total Cost
Arch Culverts – corrugated steel	\$210/cy	180 ft	\$37,800
Round Culverts	\$140/ft	200 ft	\$28,000
Rebar	\$3.75/ft	4,000 ft	\$15,000
Concrete	\$140/cy	160 cy	\$22,400
Rip-rap rock	\$85/cy	100 cy	\$ 8,500
AC Pavement	\$7,500/site	3 sites	\$22,500
Native Plants	\$20/ea.	60	\$ 1,200
Misc.	Lump Sum	n/a	\$ 39,600
Total Equipment and Materials Cost			\$175,000

Budget/Funding Comments:

Labor rates include 48% benefits/indirect costs.

The contingency costs are roughly 10% of the estimated construction and other category costs to cover potential changes in the contractor's market conditions, increases in fuel costs, and change orders. Replacing culverts often requires redesign once the site is excavated because the original stream elevation and proximity of bedrock can only be approximated. Also, final design of the channel for fish passage may be revisited after excavation.

Project 4: Marin/Sonoma Conserving Our Watersheds: Agricultural BMP Projects

Table 7 - Project 4: Marin/Sonoma Conserving Our Watersheds: Agricultural BMP Projects Budget Project serves a need of a DAC? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Funding Match Waiver request? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
	(a)	(b)	(c)	(d)
Category	Requested Amount	Cost Share: Non-State Funding Match*	Cost Share: Other State Fund Source	Total Cost
(a) Direct Project Administration	\$117,228			\$117,228
(b) Land Purchase/Easement	\$15,064			\$15,064
(c) Planning/Design/Engineering/ Environmental Documentation	\$72,936			\$72,936
(d) Construction/Implementation	\$316,020	\$220,000		\$536,020
(e) Environmental Compliance/ Mitigation/Enhancement	\$63,000			\$63,000
(f) Construction Administration	\$3,752			\$3,752
(g) Other Costs	\$12,000			\$12,000
(h) Construction/Implementation Contingency	\$0			\$0
(i) Grand Total	\$600,000	\$220,000	\$0	\$820,000
*Sources of funding: Clean Water Act 319(h) grant received in 2012 (\$200,000); Marin RCD funds (\$20,000)				

Labor Rates Table

Project 4: Marin/Sonoma Conserving Our Watersheds: Agricultural BMPs											
Category	Task Name / Description	Labor (Total hours per category shown in bold)									Subtotal Labor Cost By Category
		Executive Director	Business Manager	Env. Planner	Soils Scientist	Biologist	Ecologist	Admin	Project Technician	Technical Editor	
	Hourly Rate	\$77	\$50	\$67	\$62	\$50	\$50	\$50	\$50	\$50	
a	Direct Project Administration	408	80	1020	56						\$107,228
1	Administration										
	1.1 Contract Management	264		700							
	1.2 Project Performance Plan Development	8		24							
2	Labor Compliance Program										
	2.1 Labor Compliance Monitoring										
3	Reporting										
	3.1 Quarterly Reports	96	80	192							
	3.2 Final Report	24		80	40						
	3.2 Final Report	16		24	16						
b	Land Purchase/Easement	24		48							\$5,064
4	Land Purchase/Planning/Design										
	4.1 TAC and Selection Criteria	24		48							
c	Planning/Design/Engineering/Environmental Documentation			64	550						\$38,388
	4.2 Project Sites and BMPs				450						
	4.3 BMP Standards and Specifications				100						
5	Final Design										
	5.1 100% Design										
6	Environmental Documentation										
	6.1 CEQA Compliance			40							
	6.2 DWR CEQA Review			8							
	6.3 Tribal Notification			8							
	6.4 NEPA Compliance			8							

d	Construction/Implementation			120	520							\$40,280
8	Construction Contracting											
	8.1 Construction Contracting			120	120							
9	Project Construction											
	9.1 Mobilization and Site Preparation											
	9.2 Project Construction											
	9.3 Performance Monitoring				400							
e	Environmental Compliance/ Mitigation/Enhancement											\$0
10	Environmental Compliance/Mitigation/Enhancement											
f				56								\$3,752
11	Construction Administration											
	11.1 Construction Administration			56								
g	Other Costs											\$0
7	Permitting											
h	Construction/Implementation Contingency											\$0
TOTAL LABOR HOURS		432	80	1308	1126	0	0	0	0	0	0	2946
											TOTAL LABOR COST	\$194,712

Construction Costs Table

Project 4: Marin/Sonoma Conserving Our Watersheds: Agricultural BMPs						
Category	Task Name / Description	Construction/Implementation Expenses				Subtotal Construction Cost
		Materials	Equipment	Construction Consultants	Construction/Implementation Contingency	
a	Direct Project Administration	\$0	\$0	\$10,000	\$0	\$10,000
2	Labor Compliance Program					
2.1	Labor Compliance Monitoring			\$10,000		\$10,000
b	Land Purchase/Easement	\$0	\$0	\$10,000	\$0	\$10,000
4	Land Purchase/Planning/Design					
4.1	TAC and Selection Criteria			\$10,000		\$10,000

c	Planning/Design/Engineering/ Environmental Documentation	\$0	\$0	\$34,548	\$0	\$34,548
4.2	Project Sites and BMPs			\$4,548		\$4,548
4.3	BMP Standards and Specifications					\$0
5	Final Design					
5.1	100% Design			\$30,000		\$30,000
6	Environmental Documentation					
d	Construction/Implementation	\$0	\$0	\$495,740	\$0	\$495,740
8	Construction Contracting					
8.1	Construction Contracting					\$0
9	Project Construction					
9.1	Mobilization and Site Preparation			\$50,000		\$50,000
9.2	Project Construction			\$440,000		\$440,000
9.3	Performance Monitoring			\$5,740		\$5,740
e	Environmental Compliance/ Mitigation/Enhancement	\$0	\$0	\$63,000	\$0	\$63,000
10	Environmental Compliance/Mitigation/Enhancement					
10.1	General Construction Measures			\$3,000		\$3,000
10.2	Re-vegetation			\$60,000		\$60,000
f	Construction Administration	\$0	\$0	\$0	\$0	\$0
11	Construction Administration					
g	Other Costs	\$0	\$0	\$12,000	\$0	\$12,000
7	Permitting					
7.1	FGC Section 1602			\$3,000		\$3,000
7.2	CWA Section 401			\$3,000		\$3,000
7.3	CWA Section 404			\$3,000		\$3,000
7.4	County of Marin			\$3,000		\$3,000
h	Construction/Implementation Contingency	\$0	\$0	\$0	\$0	\$0
TOTAL CONSTRUCTION COST		\$0	\$0	\$625,288	\$0	\$625,288

Budget/Funding Comments:

The budget for the COW program is \$820,000 which includes a request from Proposition 84 (\$600,000) and a federal match (\$200,000) equivalent to 25% of the total. The match was secured in April 2012 from the US EPA 319(h) program (Grant Agreement No. 11-092-552) for the construction of BMPs. It is anticipated these funds will be expended in 2012/13. An additional \$20,000 in non-state match funding from Marin RCD's funds will be applied to the projects for performance monitoring, bringing the grand project total to \$820,000.

A total of 30% of the project request is applied to administration of the grant contract, planning, permitting and engineering services. Budget allocations are based on program experience over the last 8 years. The program has been funded by a variety of sources in years past including Proposition 50, Proposition 84, American Recovery and Reauthorization Act, CWA 319(h), USDA Natural Resources Conservation Service, US Fish and Wildlife Service, Marin Agricultural Land Trust and private funding from agricultural producers. Project costs and budget estimates have been refined with each round of funding. Construction costs amount to \$550,000 and equate to 69% of the budget, excluding state match.

All equipment and materials costs will be determined based on final list of approved COW projects and BMPs. Marin RCD Procurement Procedures for Construction Contracts will be used in determining contractors.

Post construction maintenance and monitoring (M&M) responsibilities will be conducted by the Marin RCD as indicated in landowner authorization agreements throughout the life of this project and will continue for a sum total of 10 years. M&M responsibilities are previously approved by Regional Water Quality Control Board staff and are tailored to each individual practice as outlined in the Marin RCD Riparian Zone Monitoring Plan. Ranchers are required to monitor the structural integrity of their projects and inform Marin RCD in the event of project failures.

Project 5: Napa Milliken Creek Flood Damage Reduction and Fish Passage Barrier Removal

Table 7 - Project 5: Napa Milliken Creek Flood Damage Reduction and Fish Passage Barrier Removal Budget				
Project serves a need of a DAC? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
Funding Match Waiver request? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
	(a)	(b)	(c)	(d)
Category	Requested Amount	Cost Share: Non-State Funding Match*	Cost Share: Other Non-State Fund Source	Total Cost
(a) Direct Project Administration		\$75,120		\$75,120
(b) Land Purchase/Easement		\$55,000		\$55,000
(c) Planning/Design/Engineering/ Environmental Documentation		\$135,000		\$135,000
(d) Construction/Implementation	\$500,000	\$298,320		\$798,320
(e) Environmental Compliance/ Mitigation/Enhancement		\$77,000		\$77,000
(f) Construction Administration		\$74,000		\$74,000
(g) Other Costs		\$35,000		\$35,000
(h) Construction/Implementation Contingency		\$169,100		\$169,100
(i) Grand Total	\$500,000	\$918,540	\$0	\$1,418,540
*Sources of funding:				
The direct match \$185,000 will be provided from Napa County Measure "A" Funds.				
Other leveraged funds totaling \$733,540 will be provided by private landowners.				

Labor Rate Table

Project 5: Napa Milliken Creek Flood Damage Reduction and Fish Passage Barrier Removal											
Category	Task Name / Description	Labor (Total hours per category shown in bold)									Subtotal Labor Cost By Category
		Deputy Director	Wtrshd and Fld Ops Mgr	Wtrshd Res Spec	Assoc Eng	Eng Aide/Cons Insp	Analyst	Acct Sprv	Acct Clerk	Admin	
	Hourly Rate	\$120	\$100	\$90	\$90	\$80	\$70	\$60	\$55	\$50	
a	Direct Project Administration	24	140	180	156		24		24	20	\$51,120
1	Administration										
	1.1 Grant/Contract Management	8	12	12			24		24		
	1.2 Work Plan/Project Performance Plan Development	4	8	24	24						
	1.3 Landowner Liaison	4	40	24							
	1.4 Project Management	8	80	80	80						
2	Labor Compliance Program										
	2.1 Labor Compliance Monitoring				12						
3	Reporting										
	3.1 Quarterly Reports			24	24					12	
	3.2 Draft Final Report			8	8						
	3.3 Final Report			8	8					8	
b	Land Purchase/Easement										\$0
c	Planning/Design/Engineering/ Environmental Documentation										\$0
5	Final Design										
6	Environmental Documentation										
d	Construction/Implementation				48						\$4,320
8	Construction Contracting										
	8.1 Bid Solicitation				24						
	8.2 Construction Contracting				24						
9	Project Construction										
	9.1 Project Construction										
e	Environmental Compliance/ Mitigation/Enhancement										\$0
10	Environmental Compliance/Mitigation/Enhancement										
f	Construction Administration			80	120	200					\$34,000

11	Construction Administration										
	11.1 Construction Administration			80	120						
	11.2 Construction Inspection and Management					200					
g	Other Costs										\$0
7	Permitting										
h	Construction/Implementation Contingency										\$0
Total Labor Hours		24	140	260	324	200	24	0	24	20	1016
TOTAL LABOR COST											\$89,440

Construction Cost Table

Project 5: Napa Milliken Creek Flood Damage Reduction and Fish Passage Barrier Removal							
Category	Task Name / Description	Construction/Implementation Expenses					Subtotal Construction Cost
		Materials	Equipment	Construction Consultants	Other Expenses	Construction/Implementation Contingency	
a	Direct Project Administration	\$0	\$0	\$0	\$24,000	\$0	\$24,000
2	Labor Compliance Program						
2.1	Labor Compliance Monitoring				\$24,000		\$24,000
b	Land Purchase/Easement	\$0	\$0	\$0	\$55,000	\$0	\$55,000
4	Land Purchase/Planning/Design						
4.1	Land Purchase/Easement				\$55,000		\$55,000
c	Planning/Design/Engineering/Environmental Documentation	\$0	\$0	\$0	\$135,000	\$0	\$135,000
4.2	Refine Conceptual Design (10%)				\$25,000		\$25,000
4.3	30% Design				\$40,000		\$40,000
4.4	60% Design				\$35,000		\$35,000
5	Final Design						
5.1	90% Design				\$20,000		\$20,000
5.2	100% Design				\$15,000		\$15,000

d	Construction/Implementation	\$0	\$0	\$794,000	\$0	\$0	\$794,000
8	Construction Contracting						
8.1	Bid Solicitation						\$0
8.2	Construction Contracting						\$0
9	Project Construction						
9.1	Project Construction			\$794,000			\$794,000
e	Environmental Compliance/ Mitigation/Enhancement	\$0	\$0	\$0	\$77,000	\$0	\$77,000
10	Environmental Compliance/Mitigation/Enhancement						
10.1	Pre-Construction Env Assessments				\$15,000		\$15,000
10.2	NPDES compliance				\$12,000		\$12,000
10.3	Re-vegetation				\$50,000		\$50,000
f	Construction Administration	\$0	\$0	\$0	\$40,000	\$0	\$40,000
11	Construction Administration						
11.1	Construction Administration						\$0
11.2	Construction Inspection and Management				\$40,000		\$40,000
g	Other Costs	\$0	\$0	\$0	\$35,000	\$0	\$35,000
7	Permitting						
7.1	California DFW Section 1602				\$10,000		\$10,000
7.2	RWQCB/CWA Section 401				\$5,000		\$5,000
7.3	US ACOE/CWA Section 404				\$10,000		\$10,000
7.4	Napa County Floodplanin Mngmt Permit				\$10,000		\$10,000
h	Construction/Implementation Contingency	\$0	\$0	\$0	\$0	\$169,100	\$169,100
6.1	CEQA Compliance					\$50,000	\$50,000
9.1	Project Construction					\$119,100	\$119,100
TOTAL CONSTRUCTION COST		\$0	\$0	\$794,000	\$366,000	\$169,100	\$1,329,100

Budget/Funding Comments:

The Project Budget is based on cost benefit/feasibility study completed in 2011. Construction costs include a 15% contingency.

Project 6: North Bay Water Reuse Program – Sonoma Valley CSD 5th Street East/McGill Road Recycled Water Project

Table 7 - Project 6: North Bay Water Reuse Program – Sonoma Valley CSD 5th Street East/McGill Road Recycled Water Project Budget Project serves a need of a DAC? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Funding Match Waiver request? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
	(a)	(b)	(c)	(d)
Category	Requested Amount	Cost Share: Non-State Funding Match*	Cost Share: Other State Fund Source	Total Cost
(a) Direct Project Administration		\$128,720		\$128,720
(b) Land Purchase/Easement		\$88,000		\$88,000
(c) Planning/Design/Engineering/Environmental Documentation		\$281,360		\$281,360
(d) Construction/Implementation	\$1,020,000	\$403,110		\$1,423,110
(e) Environmental Compliance/Mitigation/Enhancement		\$13,520		\$13,520
(f) Construction Administration		\$223,840		\$223,840
(g) Other Costs		\$21,640		\$21,640
(h) Construction/Implementation Contingency		\$380,300		\$380,300
(i) Grand Total	\$1,020,000	\$1,540,490	\$0	\$2,560,490
*Sources of funding: Matching funds for the 5 th Street East and McGill Road projects will be provided from Sonoma Valley County Sanitation District Sewer User Fees. The McGill Road project may also receive funding support from a pending U.S. Bureau of Reclamation WaterSMART Grant for \$87,500. If the WaterSMART grant funds are not awarded, the remainder of the McGill Road project costs would be paid by Sonoma Valley County Sanitation District Sewer User Fees.				

Labor Rate Table

Project 6: North Bay Water Reuse Program – Sonoma Valley CSD 5th Street East/McGill Road Recycled Water Project													
Category	Task Name / Description	Labor (Total hours per category shown in bold)											Subtotal Labor Cost By Category
		Principal Engineer	Eng III	Eng II	Env. Spec.	Land Surveyor	Surveyors (2)	Right of Way Agent	Eng Tech III	Tech Writer	Admin Services	Clerical	
	Hourly Rate	\$215	\$180	\$150	\$130	\$180	\$250	\$140	\$130	\$135	\$135	\$90	
a	Direct Project Administration	28		368						204	296		\$128,720
1	Administration												
	1.1 Contract Management	12		92							40		
	1.2 Project Performance Plan Development	8		80									
2	Labor Compliance Program												
	2.1 Labor Compliance Monitoring	8		16							52		
3	Reporting												
	3.1 Quarterly Reports			60						68	68		
	3.2 Draft Final Report			60						68	68		
	3.3 Final Report			60						68	68		
b	Land Purchase/Easement					84	60	242					\$64,000
4	Land Purchase/Planning/Design												
	4.1 Land Purchase/Easement					84	60	242					
c	Planning/Design/Engineering/Environmental Documentation	156	150	900	20				132	356			\$263,360
	4.2 Assessment and Feasibility Studies												
	4.3 Conceptual Design (10%)	28	50	180									
	4.4 30% Design	48	40	238					36	100			
	4.5 60% Design	40	30	200					32	92			
5	Final Design												
	5.1 90% Design	24	20	170					32	88			
	5.2 100% Design	16	10	112					32	76			
6	Environmental Documentation												
	6.1 CEQA Compliance				20								

d	Construction/Implementation	28	76	28					50		24	\$32,810	
8	Construction Contracting												
	8.1 Bidding and Award	28	76	28					50		24		
9	Project Construction												
e	Environmental Compliance/Mitigation/Enhancement				104							\$13,520	
10	Environmental Compliance/Mitigation/Enhancement												
	10.1 Construction Monitoring				104								
f	Construction Administration	128	260	80			40		848	128		\$223,840	
11	Construction Administration												
	11.1 Construction Administration	128		80					108	128			
	11.2 Construction Inspection and Management		260				40		740				
g	Other Costs	8		8	144							\$21,640	
7	Permitting												
	7.1 Other Regulatory or Local Agency Approvals	8		8	144								
h	Construction/Implementation Contingency											\$0	
Total Labor Hours		348	486	1384	268	84	100	242	980	738	296	24	4,950
Total Labor Cost												\$747,890	

Construction Cost Table

Project 6: North Bay Water Reuse Program – Sonoma Valley CSD 5th Street East/McGill Road Recycled Water Project							
Category	Task Name / Description	Construction/Implementation Expenses					Subtotal Construction Cost
		Materials	Equipment	Construction Consultants	Other Expenses	Construction/Implementation Contingency	
a	Direct Project Administration	\$0	\$0	\$0	\$0	\$0	\$0
1	Administration						
2	Labor Compliance Program						
3	Reporting						

b	Land Purchase/Easement	\$0	\$0	\$0	\$24,000	\$0	\$24,000
4	Land Purchase/Planning/Design						
4.1	Land Purchase/Easement				\$24,000		\$24,000
c	Planning/Design/Engineering/ Environmental Documentation	\$0	\$0	\$0	\$18,000	\$0	\$18,000
4.2	Assessment and Feasibility Studies						\$0
4.3	Conceptual Design (10%)						\$0
4.4	30% Design				\$18,000		\$18,000
4.5	60% Design						\$0
5	Final Design						
6	Environmental Documentation						
d	Construction/Implementation	\$0	\$0	\$1,379,800	\$10,500	\$0	\$1,390,300
8	Construction Contracting						
9	Project Construction						
9.1	Mobilization and Site Preparation, Demolition						\$0
9.2	Project Construction			\$1,379,800	\$10,500		\$1,390,300
9.3	Performance Testing and Demobilization						\$0
e	Environmental Compliance/ Mitigation/Enhancement	\$0	\$0	\$0	\$0	\$0	\$0
10	Environmental Compliance/Mitigation/Enhancement						
f	Construction Administration	\$0	\$0	\$0	\$0	\$0	\$0
11	Construction Administration						
g	Other Costs	\$0	\$0	\$0	\$0	\$0	\$0
7	Permitting						
h	Construction/Implementation Contingency	\$0	\$0	\$0	\$0	\$380,300	\$380,300
Total Construction Cost		\$0	\$0	\$1,379,800	\$52,500	\$380,300	\$1,812,600

Budget/Funding Comments:

Costs are determined by Water Agency Professional Engineers based on projects of similar size and scope implemented by the Water Agency since 1950. Administrative costs are 5% of total project costs. Contingency for construction of McGill recycled water pipeline is 10% based on the size and scope of the project and the engineering design; contingency for construction of the 5th Street East-High School recycled water pipeline is estimated at 30% based on the 10% engineering design.

Project 7: Oakland Sausal Creek Restoration Project

Table 7 - Project 7: Oakland Sausal Creek Restoration Project Budget				
Project serves a need of a DAC? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No				
Funding Match Waiver request? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
	(a)	(b)	(c)	(d)
Category	Requested Amount	Cost Share: Non-State Funding Match*	Cost Share: Other State Fund Source*	Total Cost
(a) Direct Project Administration	\$13,000	\$96,000	\$80,000	\$189,000
(b) Land Purchase/Easement	\$0	\$0	\$0	\$0
(c) Planning/Design/Engineering/Environmental Documentation	\$0	\$0	\$0	\$0
(d) Construction/Implementation	\$388,000	\$571,700	\$1,154,800	\$2,114,500
(e) Environmental Compliance/Mitigation/Enhancement	\$74,000	\$48,500	\$132,000	\$254,500
(f) Construction Administration	\$25,000	\$200,000	\$85,000	\$310,000
(g) Other Costs	\$0	\$8,500	\$0	\$8,500
(h) Construction/Implementation Contingency	\$0	\$0	\$0	\$0
(i) Grand Total	\$500,000	\$924,700	\$1,451,800	\$2,876,500
*Sources of funding:				
Non-state Funding: Alameda County Flood Control District and Local Oakland Measure DD Bond Funds (\$924,700)				
Other State Funding: River Parkways Proposition 50 Grant (\$1,451,800)				

Labor Rate Table

Project 7: Oakland Sausal Creek Restoration Project								
Category	Task Name / Description	Labor (Total hours per category shown in bold)						Subtotal Labor Cost By Category
		Watershed Supervisor	Project Manager	City Staff	Design Consultant	Project Technician	Technical Editor	
	Hourly Rate	\$150	\$128	\$120	\$180	\$50	\$50	
a	Direct Project Administration	186.7	500.0	100	472.2			\$189,000
1	Administration							
	1.1 Project Management	166.7	312.5		444.4			
	1.2 Develop Financing	13.3	78.1					
	1.3 Project Performance and Monitoring Plan	6.7	31.3		27.8			
2	Labor Compliance Program							
	2.1 Contract Compliance and Labor Compliance			100				
3	Reporting							
	3.1 Quarterly Reports		62.5					
	3.2 Final Report		15.6					
b	Land Purchase/Easement							\$0
4	Land Purchase/Planning/Design							
	4.1 Land Purchase/Easement							
c	Planning/Design/Engineering/ Environmental Documentation							\$0
5	Final Design							
6	Environmental Documentation							
d	Construction/Implementation		54.7	291.7				\$42,000
8	Construction Contracting							
	8.1 Bid Solicitation		39.1	83.3				
	8.2 Construction Contracting		15.6	208.3				
e	Environmental Compliance/Mitigation/Enhancement			20.8				\$2,500
10	Environmental Compliance/Mitigation/Enhancement							
	10.4 Traffic Control Plan			20.8				

f	Construction Administration		234.4	2083.3	166.7			\$310,000
11	Construction Administration							
	11.1 Construction Administration		78.1	208.3				
	11.2 Construction Inspection and Management		156.3	1875.0	166.7			
g	Other Costs		15.6		5.6			\$3,000
7	Permitting							
	7.5 City of Oakland Creek Protection and Building Permits		15.6		5.6			
h	Construction/Implementation Contingency							\$0
Total Labor Hours		186.67	804.69	2495.83	644.44	0.00	0.00	4131.63
							Total Labor Cost	\$546,500

Construction Cost Table

Project 7: Oakland Sausal Creek Restoration Project							
Category	Task Name / Description	Construction/Implementation Expenses					Subtotal Construction Cost
		Materials	Equipment	Construction Consultants	Other Expenses	Construction/Implementation Contingency	
a	Direct Project Administration						\$0
b	Land Purchase/Easement						\$0
c	Planning/Design/Engineering/ Environmental Documentation						\$0
d	Construction/Implementation	\$1,675,500	\$0	\$397,000	\$0	\$0	\$2,072,500
8	Construction Contracting						
9	Project Construction						
9.1	Mobilization and Site Prep	\$73,000		\$12,000			\$85,000
9.2	Demolition, Clearing and Grubbing	\$217,000		\$85,000			\$302,000
9.3	Dewatering	\$30,000		\$15,000			\$45,000
9.4	Rough and Fine Grading	\$660,000		\$100,000			\$760,000
9.5	Instream Structures and Boulders	\$70,000		\$20,000			\$90,000
9.6	Soft Surfaces and Paths	\$120,000		\$30,000			\$150,000
9.7	Soil Bioengineering	\$45,000		\$15,000			\$60,000
9.8	Sod Lawn and Hydroseed	\$12,000		\$10,000			\$22,000
9.9	Signage/Interpretive Elements	\$42,500		\$20,000			\$62,500

9.11	Site Furnishings and Walls	\$175,000		\$40,000			\$215,000
9.12	Restroom	\$181,000		\$40,000			\$221,000
9.13	Performance Testing and Demobilization	\$50,000		\$10,000			\$60,000
e	Environmental Compliance/ Mitigation/Enhancement	\$185,000	\$0	\$67,000	\$0	\$0	\$252,000
10	Environmental Compliance/Mitigation/Enhancement						
10.1	General Construction BMPs	\$15,000		\$5,000			\$20,000
10.2	Erosion and Sediment (E&S) Control Plan			\$5,000			\$5,000
10.3	NPDES compliance		-	\$17,000	-	-	\$17,000
10.4	Traffic Control Plan		-	\$5,000	-	-	\$5,000
10.5	Hazardous Materials Management Plan			\$5,000			\$5,000
10.6	Irrigation and Planting (Revegetation)	\$170,000		\$30,000			\$200,000
f	Construction Administration	\$0	\$0	\$0	\$0	\$0	\$0
11	Construction Administration						
g	Other Costs	\$0	\$0	\$500	\$5,000	\$0	\$5,500
7	Permitting						
7.1	FGC Section 1602 (Task Complete)						\$0
7.2	CWA Section 401 (Task Complete)						\$0
7.3	CWA Section 402			\$500			\$500
7.4	CWA Section 404 (Task Complete)						\$0
7.5	City Creek Protection and Building Permits				\$5,000		\$5,000
h	Construction/Implementation Contingency	\$0	\$0	\$0	\$0	\$0	\$0
Total Construction Cost		\$1,860,500	\$0	\$464,500	\$5,000	\$0	\$2,330,000

Equipment and Materials List and Costs

Equipment or Materials Description	Unit Costs (\$)	No. of Units	Total Cost
Perimeter Fencing	\$4	1,700 LF	\$6,800
Tree Protection Fencing	\$4	1,730 LF	\$6,920
Boulders	\$350	36 TN	\$12,600
Under-drain	\$5,000	1 EA	\$5,000
Decomposed granite	\$8,00	250 SF	\$2,000
Concrete Pavers	\$25	36 SF	\$900
Compost	\$.35	30,000 SF	\$15,000
15 gallon tree	\$200	50 EA	\$10,000
5 gallon shrub	\$50	30 EA	\$1,500
1 gallon shrub	\$12	435 EA	\$5,220
D-40 pot plant	\$9	815	\$7,335
D-16 pot plant	\$6	1,548	\$9,288
Mulch	\$1.25	20,000 SF	\$25,000
Sod	\$4	850 SF	\$3,400
Lawn seeding	\$1.50	25,000 SF	\$3,750
Controller	\$4,000	1 EA	\$4,000
Master Valve	\$2,000	1 EA	\$2,000
Quick Couplers	\$250	8 EA	\$2,000
Rail fencing	\$110	80 LF	\$8,800
Rail fencing	\$70	45 LF	\$3,150
Mesh fencing	\$100	50 LF	\$5,000
Embossed Trout icons	\$500	15 EA	\$7,500
Embossed Word icons	\$2,000	5 EA	\$10,000
Interpretive sign	\$7,500	1 EA	\$7,500

Construction sign	\$1,500	1 EA	\$1,500
Restoration fencing	\$5	800 LF	\$4,000
Wooden bollards	\$300	14 EA	\$4,200
Restroom Building	\$221,000	1 EA	\$221,000
Total Equipment and Materials Cost			\$395,363

Project 8: Pescadero Water Supply and Sustainability Project

Table 7 - Project 8: Pescadero Water Supply and Sustainability Project Budget Project serves a need of a DAC? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Funding Match Waiver request? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No				
	(a)	(b)	(c)	(d)
Category	Requested Amount	Cost Share: Non-State Funding Match*	Cost Share: Other State Fund Source	Total Cost
(a) Direct Project Administration	\$18,849			\$18,849
(b) Land Purchase/Easement				
(c) Planning/Design/Engineering/Environmental Documentation	\$17,827	\$112,130		\$129,957
(d) Construction/Implementation	\$515,709			\$515,709
(e) Environmental Compliance/Mitigation/Enhancement	\$2,220			\$2,220
(f) Construction Administration	\$66,195			\$66,195
(g) Other Costs		\$12,870		\$12,870
(h) Construction/Implementation Contingency	\$79,200			\$79,200
(i) Grand Total	\$700,000	\$125,000	\$0	\$825,000
*Sources of funding: County of San Mateo Non-Departmental Services Reserves appropriated to County Service Area (CSA) 11				

Labor Rate Table

Project 8: Pescadero Water Supply and Sustainability Project Budget								
Category	Task Name / Description	Labor (Total hours per category shown in bold)						Subtotal Labor Cost By Category
		Principal Civil Engineer	Construction Inspector	Public Works Technician II	Biologist / Permitting	Admin.	Planner	
	Hourly Rate	\$157	\$135	\$111	\$111	\$111	\$75	
a	Direct Project Administration	28	8	72	16		48	\$18,849
1	Administration							
	1.1 Project Management	20	8	20	8		40	
2	Labor Compliance Program							
	2.1 Labor Compliance Monitoring			20				
3	Reporting							
	3.1 Quarterly Reports	4		16	4		4	
	3.2 Final Project Completion Report	4		16	4		4	
b	Land Purchase/Easement							\$0
c	Planning/Design/Engineering/ Environmental Documentation			50				\$5,549
5	Final Design							
6	Environmental Documentation							
d	Construction/Implementation⁴	2	4	120	8			\$15,059
8	Construction Contracting							
	8.1 Construction Contracting	2	4	40				
9	Project Construction							
	9.3 Water Conservation Program			80	8			
e	Environmental Compliance/Mitigation/Enhancement				20			\$2,220
10	Environmental Compliance/Mitigation/Enhancement							
	10.1 Monitoring per permit conditions				20			

f	Construction Administration		20					\$2,695
11	Construction Administration							
	11.1 Construction Inspection and Management		20					
g	Other Costs	10		68			25	\$10,995
7	Permitting							
	7.1 Obtain permits for design and construction	10		68			25	
h	Construction/Implementation Contingency							\$0
Total Labor Hours		40	32	310	44	0	73	499
Total Labor Cost								\$55,367

Construction Cost Table

Project 8: Pescadero Water Supply and Sustainability Project Budget								
Category	Task Name / Description ¹	Construction/Implementation Expenses						Subtotal Construction Cost
		Materials ⁶	Equipment	Construction Consultants	Reproductions/Postage	Other Expenses	Construction/Implementation Contingency	
a	Direct Project Administration							\$0
b	Land Purchase/Easement							\$0
c	Planning/Design/Engineering/Environmental Documentation	\$0	\$0	\$115,580	\$4,250	\$4,578	\$0	\$124,408
4.1	Groundwater Study			11,320	\$250	\$25		\$11,595
4.2	Disadvantaged Community Study ²			9,640				\$9,640
4.3	75% Design Submittal			72,740	\$3,500	\$1,650		\$77,890
5	Final Design							
5.1	100% Design			\$16,880	\$500	\$446		\$17,827
6	Environmental Documentation							
6.1	Categorical Exemption / Mitigated Negative Declaration			\$5,000		\$2,457		\$7,457
d	Construction/Implementation⁴	\$209,200	\$0	\$291,200	\$200	\$50	\$0	\$500,650
8	Construction Contracting							
8.1	Construction Contracting			\$5,000	\$200	\$50		\$5,250

9	Project Construction							
9.1	Mobilization, Demobilization, Site Preparation	\$30,400		\$48,500				\$78,900
9.2	Project Construction, Performance Testing	\$126,800		\$237,700				\$364,500
9.3	Water Conservation Program ⁵	\$52,000						\$52,000
e	Environmental Compliance/ Mitigation/Enhancement							\$0
10	Environmental Compliance/Mitigation/Enhancement							
f	Construction Administration	\$0	\$0	\$60,000	\$500	\$3,000	\$0	\$63,500
11	Construction Administration							
11.1	Construction Inspection and Management			\$60,000	\$500	\$3,000		\$63,500
g	Other Costs	\$0	\$0	\$0	\$0	\$1,875	\$0	\$1,875
7	Permitting							
7.1	Obtain permits for design and construction					\$1,875		\$1,875
h	Construction/Implementation Contingency	\$0	\$0	\$0	\$0	\$0	\$79,200	\$79,200
9.1	Mobilization, Demobilization, Site Preparation						\$14,100	\$14,100
9.2	Project Construction, Performance Testing						\$65,100	\$65,100
Total Construction Cost		\$209,200	\$0	\$466,780	\$4,950	\$9,504	\$79,200	\$769,633

Equipment and Materials List and Costs

Equipment or Materials Description	Quantity	Unit	Unit Cost	Total Cost
Mobilization	1	LS	\$1,500	\$1,500
Demobilization	1	LS	\$1,000	\$1,000
Erosion, Sediment and Stormwater Control	1	LS	\$1,600	\$1,600
Site Preparation	1	LS	\$5,360	\$5,360
Excavation and Grading	1	LS	\$400	\$400
Surface Restoration	1	LS	\$1,600	\$1,600
6' Chainlink Fencing	500	LF	\$6	\$3,200
12' Swing Gate, 20' Swing Gate	4	EA	\$440	\$1,760
Aggregate Base	25	CY	\$20	\$500

Bolted Steel Tank - 140,000 Gallon, concrete ringwall foundation, coating	1	EA	\$60,000	\$60,000
Altitude Valve	1	EA	\$2,000	\$2,000
8" DI Pipe	150	LF	\$60	\$8,925
8" Gate Valve	5	EA	\$74	\$368
8" Bends, 45, 90, Tee	5	EA	\$88	\$438
Well drilling, installation, screen, casing, etc.	1	LS	\$7,800	\$7,800
Well pump, equipping ²	1	LS	\$8,000	\$8,000
Cast-In-Place Concrete	1	CY	\$250	\$250
2'x2' Catch Basin	1	EA	\$750	\$750
12" Gravity Storm Drain PVC	50	LF	\$45	\$2,250
12" X 12" Tee Storm Drain Connection	1	EA	\$60	\$60
12" X 12" Wye Storm Drain Connection	1	EA	\$60	\$60
Storm Drain Outlet Structure	1	EA	\$1,800	\$1,800
Rip Rap	2	CY	\$180	\$360
Electrical & Controls	1	LS	\$31,500	\$31,500
Conduit Wires and Trenching	1	LS	\$7,800	\$7,800

Budget/Funding Comments:

1. HydroScience Engineers, Proposal for Engineering Services, CSA 11 Water Supply Project, 12/18/12.
2. Email correspondence with Carole Foster, County of San Mateo, 01/17/13.
3. Labor costs from Well permitting estimate per Carole Foster, County of San Mateo, 01/17/13. Consultant costs are for Tribal Notification and Other Expenses are Fish and Game filing fees (Carole Foster).
4. Per Draft 30% Engineer's Construction Cost Estimate (HydroScience Engineers, 01/30/13).
5. Equipment costs are based on an assumed rebate amount of \$200 per high efficiency toilet/urinal (20 units), \$500 per high efficiency toilet/urinal and installation (40 units), and \$700 per high efficiency washer (40 units). The total costs assumes only 50% participation.
6. Equipment costs for Task 9 are included in the materials cost. See the Draft 30% Engineer's Construction Cost Estimate (HydroScience Engineers, 01/30/13, for more details.

Project 9: Petaluma Flood Reduction, Water & Habitat Quality, and Recreation Project for Capri Creek

Table 7 - Budget Project 9: Petaluma Flood Reduction, Water & Habitat Quality, and Recreation Project for Capri Creek Project serves a need of a DAC? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Funding Match Waiver request? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
	(a)	(b)	(c)	(d)
Category	Requested Amount	Cost Share: Non-State Funding Match*	Cost Share: Other State Fund Source	Total Cost
(a) Direct Project Administration	\$0	\$59,808	\$0	\$59,808
(b) Land Purchase/Easement	\$0	\$0	\$0	\$0
(c) Planning/Design/Engineering/Environmental Documentation	\$0	\$86,428	\$0	\$86,428
(d) Construction/Implementation	\$750,000	\$53,650	\$0	\$803,650
(e) Environmental Compliance/Mitigation/Enhancement	\$0	\$8,876	\$0	\$8,876
(f) Construction Administration	\$0	\$31,888	\$0	\$31,888
(g) Other Costs	\$0	\$34,360	\$0	\$34,360
(h) Construction/Implementation Contingency	\$75,000	\$0	\$0	\$75,000
(i) Grand Total	\$825,000	\$275,010	\$0	\$1,100,010
*Sources of funding: Existing Flood Control Management Funds from project partners and in-kind services.				

Labor Rate Table

Project 9: Petaluma Flood Impact Reduction, Water & Habitat Quality, and Recreation Project for Capri Creek									
Category	Task Name / Description	Labor (Total hours per category shown in bold)							Subtotal Labor Cost By Category
		Dept. PW&U Director	Finance Director	Project Mgr.	Project Engineer	Biologist	Engr. Technician	Technical Editor	
	Hourly Rate	\$110	\$110	\$50	\$72	\$65	\$45	\$50	
a	Direct Project Administration	20	14	688	284		24		\$59,668
1	Administration								
	1.1 Contract Management	10	10	416	208				
	1.2 Project Assessment and Evaluation Plan			80	36				
2	Labor Compliance Program								
	2.1 Labor Compliance Monitoring			104					
3	Reporting								
	3.1 Quarterly Reports	8	4	64	32		16		
	3.2 Final Project Completion Report	2		24	8		8		
b	Land Purchase/Easement								\$0
4	Land Purchase/Planning/Design								
c	Planning/Design/Engineering/ Environmental Documentation			372	904		52		\$86,028
	4.2 Assessment and Feasibility Studies			60	40				
	4.3 Conceptual Design (10%)			20	80		4		
	4.4 30% Design			40	160				
	4.5 60% Design			40	240		8		
5	Final Design								
	5.1 90% Design			16	240				
	5.2 100% Design			8	120		24		
6	Environmental Documentation								
	6.1 CEQA Compliance			180	24		16		
	6.2 NEPA Compliance			8					

d	Construction/Implementation	8	4	168	600		4		\$53,100
8	Construction Contracting								
	8.1 Bid Solicitation	4	2	48	80		2		
	8.2 Construction Contracting	4	2	36	100		2		
9	Project Construction								
	9.1 Mobilization and Site Preparation			24	64				
	9.2 Project Construction			36	320				
	9.3 Performance Testing and Demobilization			24	36				
e	Environmental Compliance/ Mitigation/Enhancement			76	68		4		\$8,876
10	Environmental Compliance/Mitigation/Enhancement								
	10.1 General Construction Measures			12	24				
	10.2 Erosion and Sediment (E&S) Control Plan			12	12				
	10.3 Stormwater Pollution Prevention Plan (NPDES compliance)			16	12				
	10.4 Hazardous Materials Management Plan			8	8				
	10.5 Traffic Control Plan			4	4				
	10.6 Revegetation			24	8		4		
f	Construction Administration	48	56	128	169		32		\$31,448
11	Construction Administration								
	11.1 Construction Administration	24	48	64	49		8		
	11.2 Construction Inspection and Management	24	8	64	120		24		
g	Other Costs			180	50	84	20		\$18,960
7	Permitting								
	7.1 CWA Section 401 Certification			36	16	16	4		
	7.2 CA ESA/CA Fish and Game Code			40	8	32	6		
	7.3 Federal ESA Section 7			48	8	16	2		
	7.4 Federal ESA, Marine Mammal Protection Act			16	2	4	2		
	7.5 Other Regulatory or Local Agency Approvals			40	16	16	6		
h	Construction/Implementation Contingency								\$0
	Total Labor Hours	48	56	384	287	84	56	0	915
	Total Labor Cost								\$258,080

Construction Cost Table

Project 9: Petaluma Flood Impact Reduction, Water & Habitat Quality, and Recreation Project for Capri Creek							
Category	Task Name / Description	Construction/Implementation Expenses					Subtotal Construction Cost
		Materials	Equipment	Construction Activity	Other Expenses	Construction/Implementation Contingency	
a	Direct Project Administration				\$140		\$140
3	Reporting						
3.1	Quarterly Reports				\$120		\$120
3.2	Final Project Completion Report				\$20		\$20
b	Land Purchase/Easement						\$0
c	Planning/Design/Engineering/ Environmental Documentation				\$400		\$400
4.2	Assessment and Feasibility Studies				\$50		\$50
4.3	Conceptual Design (10%)						\$0
4.4	30% Design						\$0
4.5	60% Design				\$100		\$100
5	Final Design						
5.1	90% Design						\$0
5.2	100% Design				\$250		\$250
6	Environmental Documentation						
d	Construction/Implementation	\$95,000		\$655,000	\$550		\$750,550
8	Construction Contracting						
8.1	Bid Solicitation				\$350		\$350
8.2	Construction Contracting				\$200		\$200
9	Project Construction						
9.1	Mobilization and Site Preparation			\$44,000			\$44,000
9.2	Project Construction	\$95,000		\$575,000			\$670,000
9.3	Performance Testing and Demobilization			\$36,000			\$36,000
e	Environmental Compliance/ Mitigation/Enhancement						\$0
10	Environmental Compliance/Mitigation/Enhancement						

f	Construction Administration				\$400		\$440
11	Construction Administration						
11.1	Construction Administration				\$240		\$240
11.2	Construction Inspection and Management				\$200		\$200
g	Other Costs				\$15,400		\$15,400
7	Permitting						
7.1	CWA Section 401 Certification						\$0
7.2	CA ESA/CA Fish and Game Code				\$2,400		\$2,400
7.3	Federal ESA Section 7				\$5,000		\$5,000
7.4	Federal ESA, Marine Mammal Protection Act						\$0
7.5	Other Regulatory or Local Agency Approvals				\$8,000		\$8,000
h	Construction/Implementation Contingency					\$75,000	\$75,000
9.1	Mobilization and Site Preparation					\$4,000	\$4,000
9.2	Project Construction					\$67,000	\$67,000
9.3	Performance Testing and Demobilization					\$4,000	\$4,000
Total Construction Cost		\$95,000	\$0	\$655,000	\$16,930	\$75,000	\$841,930

Equipment and Materials List and Costs

Equipment or Materials Description	Unit Costs	No. of Units	Total Cost
Concrete for headwall repair	150/cu yd.	10	\$1,500
Revegetation material (native grasses, shrubs, trees)	.20/sq.ft.	~ 4-5 acres (exclusive of low flow channel)	\$35,000
Landscaping Rock for terrace edge accent	2024/ton	10	\$20,500
Educational Kiosks, benches, site amenities	5,000/kiosks 2,000/benches	2 kiosks 2 benches	\$14,000
Erosion Prevention Material	.40/sq.ft.	60,000	\$24,000
Total			\$95,000

Budget/Funding Comments:

The City is able to keep the project management and construction administration costs to 11% as the same engineering/planning/project management team members have been involved since conceptual design and will be responsible for completing final design, environmental permitting, bid solicitation, award, and contract administration. The grant budget was defined to allow the full grant award to be used for construction activities, thereby simplifying the grant reimbursement requests; with matching funds used for both construction and administration/permitting/revegetation mitigation. To the extent possible, revegetation planting materials will be purchased from the local High School Native Plant Nursery and the local Sonoma County Jail Nursery to obtain quality plants at substantial savings. This project management strategy has worked successfully in other City riparian corridor terracing and enhancement projects.

City work order rates are billed with a 26% Admin Overhead Charge, pursuant to adopted Work Order Rates for FY 12-13, effective July 1, 2012. Positions used for maintenance work is Utility Service Worker III, Labor Unit No. 2, hourly rate, including estimate benefit cost is \$50.21/hour. Work estimate based on work performed in 2012 for similar project (Denman Reach Flood Terrace and Upland Restoration project, Phases 1 and 2). Work Order Rate Source: City of Petaluma Department of Finance. Project Comparison work schedule: Public Works & Utilities Supervisor Pat Dirrane.

Contingency funds are based on a 10% contingency of the total construction costs, minus mobilization activities. Final design will modify specific item costs, thus contingency allows additional funds to be flexible to meet specific project needs when final design is completed. Other expenses include printing and postage expenses (\$1,530) and \$15,400 for project permitting fees.

Project 10: Redwood City Bayfront Canal and Atherton Channel Flood Improvement and Habitat Restoration Project

Table 7 - Budget Project 10: Redwood City Bayfront Canal and Atherton Channel Flood Improvement and Habitat Restoration Project Project serves a need of a DAC? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Funding Match Waiver request? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
	(a)	(b)	(c)	(d)
Category	Requested Amount	Cost Share: Non-State Funding Match*	Cost Share: Other State Fund Source	Total Cost
(a) Direct Project Administration		\$0		\$0
(b) Land Purchase/Easement		\$0		\$0
(c) Planning/Design/Engineering/Environmental Documentation		\$403,120		\$403,120
(d) Construction/Implementation	\$1,135,000	\$1,793,300		\$2,928,300
(e) Environmental Compliance/Mitigation/Enhancement		\$14,720		\$14,720
(f) Construction Administration		\$0		\$0
(g) Other Costs		\$0		\$0
(h) Construction/Implementation Contingency		\$878,700		\$878,700
(i) Grand Total	\$1,135,000	\$3,089,840	\$0	\$4,224,840
*Sources of funding: City Capital Improvement Program funds				

Labor Rate Table

Project 10: Redwood City Bayfront Canal and Atherton Channel Flood Improvement and Habitat Restoration Project											
Category	Task Name / Description	Labor (Total hours per category shown in bold)									Subtotal Labor Cost By Category
		Principal	Sup. Eng.	Senior Eng.	Prof. Eng.	Staff Eng.	CAD Tech.	Biologist	Ecologist	Admin	
	Hourly Rate	\$240	\$200	\$180	\$160	\$120	\$120	\$150	\$150	\$100	
a	Direct Project Administration										\$0
1	Administration										
2	Labor Compliance Program										
3	Reporting										
b	Land Purchase/Easement										\$0
c	Planning/Design/Engineering/Environmental Documentation		178	516	692	696	670				\$403,120
	4.2 Assessment and Feasibility Studies		20	32	120	120	50				
	4.3 Conceptual Design (10%)		20	32	120	120	50				
	4.4 30% Design		48	160	160	160	200				
	4.5 60% Design		48	160	160	160	200				
5	Final Design										
	5.1 90% Design		36	96	96	96	120				
	5.2 100% Design		6	36	36	40	50				
6	Environmental Documentation										
d	Construction/Implementation										\$0
e	Environmental Compliance/Mitigation/Enhancement		4	16	24	60					\$14,720
10	Environmental Compliance/Mitigation/Enhancement										
	10.3 NPDES compliance		4	16	24	60					
f	Construction Administration										\$0
g	Other Costs										\$0
7	Permitting										
h	Construction/Implementation Contingency										\$0
	Total Labor Hours		182	532	716	756	670				2856
	Total Labor Cost										\$417,840

Construction Cost Table

Project 10: Redwood City Bayfront Canal and Atherton Channel Flood Improvement and Habitat Restoration Project						
Category	Task Name / Description	Construction/Implementation Expenses				Subtotal Construction Cost
		Materials	Equipment	Construction Consultants	Construction/Implementation Contingency	
a	Direct Project Administration					\$0
b	Land Purchase/Easement					\$0
c	Planning/Design/Engineering/ Environmental Documentation					\$0
5	Final Design					
6	Environmental Documentation					
d	Construction/Implementation	\$1,058,500	\$826,300	\$1,043,500	\$0	\$2,928,300
8	Construction Contracting					
9	Project Construction					
9.1	Mobilization and Site Preparation			\$133,000		\$133,000
9.2	Disposal of Excavated Soils in Landfill	\$849,000		\$131,000		\$980,000
9.3	Project Construction	\$209,500	\$826,300	\$646,500		\$1,682,300
9.4	Performance Testing and Demobilization			\$133,000		\$133,000
e	Environmental Compliance/ Mitigation/Enhancement					\$0
10	Environmental Compliance/Mitigation/Enhancement					
f	Construction Administration					\$0
11	Construction Administration					
g	Other Costs					\$0
7	Permitting					
h	Construction/Implementation Contingency	\$0	\$0	\$0	\$878,700	\$878,700
9.1	Mobilization and Site Preparation				\$40,000	\$40,000
9.2	Disposal of Excavated Soils in Landfill				\$294,000	\$294,000
9.3	Project Construction				\$504,700	\$504,700
9.4	Performance Testing and Demobilization				\$40,000	\$40,000
Total Construction Cost		\$1,058,500	\$826,300	\$1,043,500	\$878,700	\$3,807,000

Equipment and Materials List and Costs

Equipment or Materials Description	Unit Costs (\$)	No. of Units	Total Cost
Replace 48" RCP's	\$90	50 LF	\$4,500
Construct 4' x 8' concrete box culverts	\$375	300 CY	\$112,500
Concrete Structures	\$375	30 CY	\$11,250
Concrete Open Channel	\$275	270 CY	\$74,250
Temporary Bypass Line	\$7,000	1 LS	\$7,000
Disposal of Excavated Soils	\$30	28,300 CY	\$849,000
Total			\$1,058,500

Budget/Funding Comments:

The labor rates included in the cost-estimate for engineering design and for writing the SWPPP for NPDES compliance are based on engineering consultant rates that are reasonable and common for the San Francisco Bay Area.

The Construction/Implementation costs for Construction Consultants includes a 15% profit and overhead rate for the prime contractor. The costs for Construction/ Implementation Contingency is based on a rate of 30%

The operations and maintenance costs are based on an assumed labor rate of \$100 per hour. The maintenance cost is based on quarterly inspections with a 2-person team. The operations cost is based on the two days per year when the first-flush gates will need to be first opened at the beginning of the wet-season following the first-flush rain event, and then later closed at the end of the wet-season. This task assumed a 3-person team.

The cost-estimate for design and construction was developed by Moffatt & Nichol based on the current conceptual design for the project.

Project 11: Regional Groundwater Storage and Recovery Project Phase 1A - South Westside Basin, Northern San Mateo County

Table 7 - Budget Project 11: Regional Groundwater Storage and Recovery Project Phase 1A - South Westside Basin, Northern San Mateo County Project serves a need of a DAC? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Funding Match Waiver request? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
	(a)	(b)	(c)	(d)
Category	Requested Amount	Cost Share: Non-State Funding Match*	Cost Share: Other State Fund Source	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	\$1,400,000	\$2,022,261	\$0	\$3,422,261
(e) Environmental Compliance/ Mitigation/Enhancement	\$0	\$0	\$0	\$0
(f) Construction Administration	\$0	\$0	\$0	\$0
(g) Other Costs	\$0	\$0	\$0	\$0
(h) Construction/Implementation Contingency	\$0	\$0	\$0	\$0
(i) Grand Total	\$1,400,000	\$2,022,261	\$0	\$3,422,261
*Sources of funding: SFPUC Water System Improvement Program (WSIP) Bonds				

Construction Cost Table

Project 11: Regional Groundwater Storage and Recovery Project Phase 1A - South Westside Basin, Northern San Mateo County						
Category	Task Name / Description	Construction/Implementation Expenses				Subtotal Construction Cost
		Materials	Equipment	Construction Costs	Construction/Implementation Contingency	
a	Direct Project Administration					\$0
1	Administration					
2	Labor Compliance Program					
3	Reporting					
b	Land Purchase/Easement					\$0
4	Land Purchase/Planning/Design					
c	Planning/Design/Engineering/ Environmental Documentation					\$0
5	Final Design					
6	Environmental Documentation					
d	Construction/Implementation	\$1,197,791	\$0	\$2,224,470	\$0	\$3,422,261
8	Construction Contracting					
9	Project Construction					
9.1	Mobilization and Site Preparation	\$1,197,791				\$1,197,791
9.2	Project Construction			\$1,711,131		\$1,711,131
9.3	Performance Testing and Demobilization			\$513,339		\$513,339
e	Environmental Compliance/ Mitigation/Enhancement					\$0
10	Environmental Compliance/Mitigation/Enhancement					
f	Construction Administration					\$0
11	Construction Administration					
g	Other Costs					\$0
7	Permitting					
h	Construction/Implementation Contingency					\$0
Total Construction Cost		\$1,197,791	\$0	\$2,224,470	\$0	\$3,422,261

Budget/Funding Comments:

No SFPUC labor hours are included in the project costs or grand funding request.

Construction costs include:

Task 9.1: Materials to be purchased include: conductor casing, blank casing, screen, all well materials (stainless steel), filter pack, and seal.

Task 9.2: Construction of five (5) groundwater production wells. Construction activities include: mobilization, borehole drilling, logging, well construction, and demobilization.

Task 9.3: Development, pump testing, and pump testing analysis of five (5) groundwater production wells.

Project 12: Richmond Breuner Marsh Restoration Project

Table 7 - Project 12: Richmond Breuner Marsh Restoration Project Budget Project serves a need of a DAC? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Funding Match Waiver request? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
	(a)	(b)	(c)	(d)
Category	Requested Amount	Cost Share: Non-State Funding Match*	Cost Share: Other State Fund Source*	Total Cost
(a) Direct Project Administration	\$0	\$52,400	\$0	\$52,400
(b) Land Purchase/Easement	\$0	\$850,000	\$0	\$850,000
(c) Planning/Design/Engineering/ Environmental Documentation	\$0	\$50,000	\$500,000	\$550,000
(d) Construction/Implementation	\$750,000	\$4,171,800	\$1,425,000	\$6,346,800
(e) Environmental Compliance/ Mitigation/Enhancement	\$0	\$0	\$75,000	\$75,000
(f) Construction Administration	\$0	\$205,000	\$100,000	\$305,000
(g) Other Costs	\$0	\$0	\$200,000	\$200,000
(h) Construction/Implementation Contingency	\$0	\$525,600	\$0	\$525,600
(i) Grand Total	\$750,000	\$5,854,800	\$2,300,000	\$8,904,800

***Sources of funding:**

Non-State Funding Matches:

- East Bay Regional Parks District WW Bond (\$2,006,800);
- East Bay Regional Parks District CC Bond (\$400,000);
- U.S. Fish and Wildlife Service Grant (\$920,000);
- Castro Cove Trustees Grant (\$930,000);
- National Park Service Land and Water Conservation Fund (LWCF) (\$200,000 to be awarded in December 2014);
- Federal Highways Recreational Trails Grant (\$398,000 to be awarded in June 2014); and
- Environmental Protection Agency Grant (\$1,000,000 application to be submitted in March 2013).

Other State Funding:

- California Coastal Conservancy (\$1,250,000);
- California Wildlife Conservation Board (\$1,000,000 to be awarded in December 2013); and
- San Francisco Bay Trail (Coastal Conservancy grant sponsored by ABAG) (\$50,000 to be awarded in June 2014)

Labor Rate Table

Project 12: Richmond Breuner Marsh Restoration Project						
Category	Task Name / Description	Labor (Total hours per category shown in bold)				Subtotal Labor Costs By Category
		EBPRD Manager	Inspector	Admn. Staff	Engineer	
	Hourly Rate	\$100	\$80	\$70	\$100	
a	Direct Project Administration	34				\$3,400
1	Administration					
2	Labor Compliance Program					
3	Reporting					
	3.1 Quarterly Reports	24				
	3.2 Final Report	10				
b	Land Purchase/Easement					\$0
c	Planning/Design/Engineering/ Environmental Documentation					\$0
5	Final Design					
6	Environmental Documentation					
d	Construction/Implementation	80	40	80	100	\$26,800
8	Construction Contracting					
	8.1 Construction Contracting	80	40	80	100	
9	Project Construction					
e	Environmental Compliance/ Mitigation/Enhancement					\$0
10	Environmental Compliance/Mitigation/Enhancement					
f	Construction Administration	200	500	500	500	\$145,000
11	Construction Administration					
11.1	Construction Inspection and Management	200	500	500	500	
11.2	Biological Monitor during Construction					
g	Other Costs					\$0
7	Permitting					
h	Construction/Implementation Contingency					\$0
	Total Labor Hours	314	540	580	600	2034
	Total Labor Cost					\$175,200

Construction Cost Table

Project 12: Richmond Breuner Marsh Restoration Project							
Category	Task Name / Description	Construction/Implementation Expenses					Subtotal Construction Cost
		Materials	Equipment	Construction Consultants	Other Expenses	Construction/Implementation Contingency	
a	Direct Project Administration	\$0	\$0	\$24,000	\$25,000	\$0	\$49,000
1	Administration						
1.1	Remedial Action Plan				\$25,000		\$25,000
2	Labor Compliance Program						
2.1	Labor Compliance Monitoring			\$24,000			\$24,000
3	Reporting						
b	Land Purchase/Easement	\$0	\$0	\$0	\$850,000	\$0	\$850,000
4	Land Purchase/Planning/Design						
4.1	Project Planning				\$850,000		\$850,000
c	Planning/Design/Engineering/ Environmental Documentation	\$0	\$0	\$0	\$550,000	\$0	\$550,000
5	Final Design						
5.1	Project Design (100%)				\$500,000		\$500,000
6	Environmental Documentation						
6.1	NEPA EA/FONSI				\$50,000		\$50,000
d	Construction/Implementation	\$0	\$0	\$6,320,000	\$0	\$0	\$6,320,000
8	Construction Contracting						
8.1	Construction Contracting						\$0
9	Project Construction						
9.1	Demolition and debris removal			\$50,000			\$50,000
9.2	Mobilization, protection and BMP's			\$670,000			\$670,000
9.3	Hazmat remediation			\$200,000			\$200,000
9.4	Clearing and grubbing			\$200,000			\$200,000
9.5	Grading			\$2,000,000			\$2,000,000
9.6	Paving and surfacing			\$800,000			\$800,000
9.7	Bridges and boardwalks			\$1,600,000			\$1,600,000
9.8	Parking, picnic area, restroom, etc.			\$400,000			\$400,000
9.9	Planting/establishment			\$400,000			\$400,000

e	Environmental Compliance/ Mitigation/Enhancement	\$0	\$0	\$75,000	\$0	\$0	\$75,000
10	Environmental Compliance/Mitigation/Enhancement						
10.1	Weed Control (3 Years)			\$75,000			\$75,000
f	Construction Administration	\$0	\$0	\$0	\$160,000	\$0	\$160,000
11	Construction Administration						
11.1	Construction Inspection and Management				\$100,000		\$100,000
11.2	Biological Monitor during Construction				\$60,000		\$60,000
11.3	Construction Contingency						\$0
g	Other Costs	\$0	\$0	\$0	\$200,000	\$0	\$200,000
7	Permitting						
7.1	Construction Permits				\$200,000		\$200,000
h	Construction/Implementation Contingency	\$0	\$0	\$0	\$0	\$525,600	\$525,600
11.3	Construction Contingency					\$525,600	\$525,600
Total Construction Cost		\$0	\$0	\$6,419,000	\$1,785,000	\$525,600	\$8,729,600

Budget/Funding Comments:

This budget was prepared based upon standard practices and specifications for time and materials following commonly accepted practices. EBRPD's construction contingency is 7.5%. This amount is based on professional guidelines for new construction for projects over \$5 million. Those guidelines, including the American Institute of Architects, typically recommend construction contingencies between 5% and 10%. EBRPD has chosen the mid-point between these guideline amounts.

Project 13: Roseview Heights Infrastructure Upgrades for Water Supply and Quality Improvement, Santa Clara County

Table 7 - Budget Project 13: Roseview Heights Infrastructure Upgrades for Water Supply and Quality Improvement, Santa Clara County Project serves a need of a DAC? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Funding Match Waiver request? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
	(a)	(b)	(c)	(d)
Category	Requested Amount	Cost Share: Non-State Funding Match*	Cost Share: Other State Fund Source	Total Cost
(a) Direct Project Administration		\$20,000		\$20,000
(b) Land Purchase/Easement		\$12,000		\$12,000
(c) Planning/Design/Engineering/ Environmental Documentation		\$88,000		\$88,000
(d) Construction/Implementation	\$500,000	\$269,700		\$769,700
(e) Environmental Compliance/ Mitigation/Enhancement		\$2,800		\$2,800
(f) Construction Administration		\$72,000		\$72,000
(g) Other Costs		\$6,000		\$6,000
(h) Construction/Implementation Contingency		\$155,000		\$155,000
(i) Grand Total	\$500,000	\$625,500	\$0	\$1,125,500
*Sources of funding: Roseview Heights Mutual Water Company Water Users Fees				

Labor Rates Table

Project 13: Roseville Heights Mutual Water Infrastructure Upgrades for Water Supply and Quality Improvement, Santa Clara County													
Category	Task Name / Description	Labor (Total hours per category shown in bold)											Subtotal Labor Cost By Category
		Exec. Director	Business Manager	Planner	Engineer	Geologist	Surveyor	Admin	Project Tech.	Attorney	Laborer	Equip Oper.	
	Hourly Rate	\$50	\$50	\$50	\$175	\$200	\$100	\$50	\$100	\$300	\$50	\$100	
a	Direct Project Administration	20	180	20				176					\$19,800
1	Administration												
	1.1 Contract Management	20	80	20									
	1.2 Project Performance Plan Development		20										
2	Labor Compliance Program												
	2.1 Labor Compliance Monitoring		50					50					
3	Reporting												
	3.1 Quarterly Reports		30					88					
	3.2 Final Report							38					
b	Land Purchase/Easement						74			14			\$11,600
4	Land Purchase/Planning/Design												
	4.1 Land Purchase/Easement						74			14			
c	Planning/Design/Engineering/Environmental Documentation				307	35		110	209				\$87,125
	4.2 Assessment and Feasibility Studies					35			27				
	4.3 Conceptual Design (10%)				10			1	2				
	4.4 30% Design				79			20	50				
	4.5 60% Design				80				60				
5	Final Design												
	5.1 90% Design				80			20	50				
	5.2 100% Design				18			9	20				
6	Environmental Documentation												
	6.1 CEQA Compliance				40			60					

d	Construction/Implementation			56			100	26	965		1258	1080	\$281,500
8	Construction Contracting												
	8.1 Bid Solicitation			36									
	8.2 Construction Contracting			20				20					
9	Project Construction												
	9.1 Mobilization and Site Preparation, Demolition										200	100	
	9.2 Project Construction - Temporary Tanks								60		60	60	
	9.3 Project Construction - Pipeline						100		200		200	350	
	9.4 Project Construction - Tank Foundations								100		140	200	
	9.5 Project Construction - 165K Tank								260		280	200	
	9.6 Project Construction - 50K Tank								130		140	100	
	9.7 Project Construction - PG&E								45		50	70	
	9.8 Temporary Repairs - Liner installation								130				
	9.9a Fencing										160		
	9.9b Performance Testing and Demobilization							6	40		28		
e	Environmental Compliance/Mitigation/Enhancement				16								\$2,800
10	Environmental Compliance/Mitigation/Enhancement												
	10.1 General Construction Measures				8								
	10.2 Erosion and Sediment (E&S) Control Plan				4								
	10.3 Hazardous Materials Management Plan				4								
f	Construction Administration	200	200	200	60	40		270	80				\$70,000
11	Construction Administration												
	11.1 Construction Administration	200	200	200				200	80				
	11.2 Construction Inspection and Management				60	40		70					
g	Other Costs				20			40					\$5,500
7	Permitting												
	7.1 CDPH Permit							18					

	7.2 Other Regulatory of Local Agency Approvals				20			22					
h	Construction/Implementation Contingency												
Total Labor Hours		220	380	276	403	75	174	622	1254	14	1258	1080	5756
Total Labor Cost												\$478,325	

Construction Cost Table

Project 13: Roseville Heights Mutual Water Infrastructure Upgrades for Water Supply and Quality Improvement, Santa Clara County							
Category	Task Name / Description	Construction/Implementation Expenses					Subtotal Construction Cost
		Materials	Equipment	Construction Consultants	Other Expenses	Construction/Implementation Contingency	
a	Direct Project Administration	\$0	\$0	\$0	\$200	\$0	\$200
3	Reporting						
3.1	Quarterly Reports				\$100		\$100
3.2	Final Report				\$100		\$100
b	Land Purchase/Easement	\$0	\$0	\$0	\$400	\$0	\$400
4	Land Purchase/Planning/Design						
4.1	Land Purchase/Easement				\$400		\$400
c	Planning/Design/Engineering/ Environmental Documentation	\$0	\$0	\$0	\$875	\$0	\$875
4.2	Assessment and Feasibility Studies				\$300		\$300
4.4	30% Design				\$175		\$175
5	Final Design						
5.2	100% Design				\$400		\$400
d	Construction/Implementation	\$389,000	\$99,000	\$0	\$200	\$0	\$488,200
8	Construction Contracting						
8.1	Bid Solicitation				\$200		\$200
9	Project Construction						
9.1	Mobilization and Site Preparation, Demolition		\$20,000				\$20,000
9.2	Project Construction - Temporary Tanks	\$20,000	\$5,000				\$25,000
9.3	Project Construction - Pipeline	\$82,000	\$33,000				\$115,000
9.4	Project Construction - Tank Foundations	\$42,000	\$11,000				\$53,000

9.5	Project Construction - 165K Tank	\$165,000	\$15,000				\$180,000
9.6	Project Construction - 50K Tank	\$50,000	\$10,000				\$60,000
9.7	Project Construction - PG&E	\$10,000	\$3,000				\$13,000
9.8	Temporary Repairs - Liner installation	\$8,000	\$2,000				\$10,000
9.9a	Fencing	\$12,000					\$12,000
e	Environmental Compliance/ Mitigation/Enhancement						\$0
f	Construction Administration	\$0	\$0	\$0	\$2,000	\$0	\$2,000
11	Construction Administration						
11.1	Construction Administration				\$2,000		\$2,000
11.2	Construction Inspection and Management						\$0
g	Other Costs	\$0	\$0	\$0	\$500	\$0	\$500
7	Permitting						
7.1	CDPH				\$100		\$100
7.2	Other Regulatory or Local Agency Approvals				\$400		\$400
h	Construction/Implementation Contingency	\$0	\$0	\$0	\$0	\$155,000	\$155,000
1.1	Contract Management					\$10,000	\$10,000
4.1	Land Purchase/Easement					\$10,000	\$10,000
5.2	100% Design					\$10,000	\$10,000
6.1	CEQA Compliance					\$10,000	\$10,000
6.2	NEPA Compliance					\$5,000	\$5,000
9.1	Mobilization and Site Preparation, Demolition					\$10,000	\$10,000
9.2	Project Construction - Temporary Tanks					\$10,000	\$10,000
9.3	Project Construction - Pipeline					\$25,000	\$25,000
9.4	Project Construction - Tank Foundations					\$10,000	\$10,000
9.5	Project Construction - 165K Tank					\$25,000	\$25,000
9.6	Project Construction - 50K Tank					\$10,000	\$10,000
9.7	Project Construction - PG&E					\$10,000	\$10,000
11.2	Construction Inspection and Management					\$10,000	\$10,000
Total Construction Cost		\$389,000	\$99,000	\$0	\$4,175	\$155,000	\$647,175

Equipment and Materials List and Costs

Equipment or Materials Description	Unit Costs (\$)	No. of Units	Total Cost
Demolition – rentals, disposal fees, etc.			20,000
Backflow devices	2,000	4	8,000
Valves, shoring, trenching, boring			60,000
Temporary water storage tanks, plumbing	10,000	2	20,000
Temporary repair tank liner	10,000	1	10,000
PG&E Transformers/Electrical equip.			13,000
8" HDPE		90 @ 20'	10,000
Pipeline filler materials – gravel, sand,			24,000
165K gallon steel tank & appurtenances		1	180,000
50K gallon steel tank & appurtenances		1	60,000
New tank foundations, concrete, rebar, etc.			53,000
Service Laterals	1250	4	5,000
Water meters	250	8	2,000
SCADA	2000	3	6,000
Fencing		1	12,000
Total Equipment and Materials			488,000

Budget/Funding Comments:

The construction contingency budget is estimated at 20% of total project construction cost per review of other water system projects and preliminary budgetary quotes. This contingency is needed for possible cost overruns due to unforeseen site and geologic conditions. Other reasons for the contingency budget include:

- Inability to acquire a construction access easement from the owner of a Santa Clara County parcel to allow access for heavy equipment for tank construction at the site, in which case helicopter crane may be required.
- Boring may be required in some areas of the pipeline alignment to avoid existing structures, excessively deep trenching (~20') and to avoid the removal of large (3' - 4' diameter) trees.

Other expenses include \$3,075 for printing and postage and \$1,100 for project permit fees.

Project 14: San Francisco Bay Climate Change Pilot Projects Combining Ecosystem Adaptation, Flood Risk Management and Wastewater Effluent Polishing

Table 7 - Budget Project 14: San Francisco Bay Climate Change Pilot Projects Combining Ecosystem Adaptation, Flood Risk Management and Wastewater Effluent Polishing Project serves a need of a DAC? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Funding Match Waiver request? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
	(a)	(b)	(c)	(d)
Category	Requested Amount	Cost Share: Non-State Funding Match*	Cost Share: Other State Fund Source	Total Cost
(a) Direct Project Administration	\$101,575	\$0	\$0	\$101,575
(b) Land Purchase/Easement	\$0	\$0	\$0	\$0
(c) Planning/Design/Engineering/Environmental Documentation	\$0	\$416,280	\$0	\$416,280
(d) Construction/Implementation	\$1,998,425	\$2,680,285	\$0	\$4,678,710
(e) Environmental Compliance/Mitigation/Enhancement	\$0	\$15,000	\$0	\$15,000
(f) Construction Administration	\$0	\$75,000	\$0	\$75,000
(g) Other Costs	\$0	\$78,560	\$0	\$78,560
(h) Construction/Implementation Contingency	\$0	\$0	\$0	\$0
(i) Grand Total	\$2,100,000	\$3,265,125	\$0	\$5,365,125
*Sources of funding:				
Oro Loma Sanitary District General Funds				

Labor Cost Table

Project 14: San Francisco Bay Climate Change Pilot Projects Combining Ecosystem Adaptation, Flood Risk Management and Wastewater Effluent Polishing										
Category	Task Name / Description	Labor (Total hours per category shown in bold)								Subtotal Labor Costs By Category
		Principal Planner	Contract Manager	SFEP Director	Finance Director	Financial Spec.	Account Clerk	ABAG Attorney	Technical Editor	
	Hourly Rate	\$115	\$95	\$150	\$272	\$129	\$129	\$279	\$50	
a	Direct Project Administration	335	300	18	10	10	190	10		\$91,575
1	Administration									
	1.1 Contract Management	12	162	10	10	10	170	10		
	1.2 Project Performance and Monitoring Plan	25	10							
3	Reporting									
	3.1 Quarterly Reports	170	70	8						
	3.2 Final Report	100	20							
b	Land Purchase/Easement									\$0
c	Planning/Design/Engineering/ Environmental Documentation									\$0
5	Final Design									
6	Environmental Documentation									
d	Construction/Implementation	250		30						\$33,250
8	Construction Contracting									
9	Project Construction									
	9.5 Project Evaluation/Lessons learned for POTWs	100		20						
	9.6 Outreach to other POTWs & wider Bay Audience	150		10						
e	Environmental Compliance/ Mitigation/Enhancement									\$0
10	Environmental Compliance/Mitigation/Enhancement									
f	Construction Administration									\$0
11	Construction Administration									
g	Other Costs									\$0
7	Permitting									
h	Construction/Implementation Contingency									\$0
	Total Labor Hours	557	262	48	10	10	170	10	0	1067
	Total Labor Cost									\$124,825

Construction Costs Table

Project 14: San Francisco Bay Climate Change Pilot Projects Combining Ecosystem Adaptation, Flood Risk Management and Wastewater Effluent Polishing						
Category	Task Name / Description	Construction/Implementation Expenses				Subtotal Construction Cost
		Oro Loma Sanitation District	Bay Institute	Planning & Construction Consultants	Construction/ Implementation Contingency	
a	Direct Project Administration	\$10,000	\$0	\$0	\$0	\$10,000
2	Labor Compliance Program					
2.1	Labor Compliance Monitoring	\$10,000				\$10,000
b	Land Purchase/Easement					\$0
c	Planning/Design/Engineering/ Environmental Documentation	\$0	\$0	\$416,280	\$0	\$416,280
4.2	Assessment and Feasibility Studies			\$48,020		\$48,020
4.3	10% Concept Design			\$22,460		\$22,460
4.4	30% Complete Design			\$26,880		\$26,880
4.5	60% Complete Design			\$26,880		\$26,880
4.6	Geological, Biotechnical Studies for Design			\$179,980		\$179,980
5	Final Design					
5.1	90% Design			\$26,880		\$26,880
5.2	100% Design			\$15,100		\$15,100
6	Environmental Documentation					
6.1	CEQA Compliance			\$70,080		\$70,080
d	Construction/Implementation	\$5,000	\$25,000	\$4,615,460	\$0	\$4,645,460
8	Construction Contracting					
8.1	Bid Solicitation	\$5,000		\$12,320		\$17,320
8.2	Construction Contracting			\$13,240		\$13,240
9	Project Construction					
9.1	Mobilization and Site Preparation					\$0
9.2	Project Construction (includes mob, and planting)			\$3,824,900		\$3,824,900
9.3	Planting					\$0
9.4	Monitoring			\$265,000		\$265,000
9.5	Project Evaluation/Lessons learned for POTWs			\$500,000		\$500,000
9.6	Outreach to other POTWs & wider Bay Audience		\$25,000			\$25,000

e	Environmental Compliance/ Mitigation/Enhancement	\$15,000	\$0	\$0	\$0	\$15,000
10	Environmental Compliance/Mitigation/Enhancement					
10.1	General Construction Measures	\$5,000				\$5,000
10.2	Erosion and Sediment (E&S) Control Plan	\$5,000				\$5,000
10.3	Stormwater Pollution Prevention Plan	\$5,000	-	-	-	\$5,000
f	Construction Administration	\$75,000	\$0	\$0	\$0	\$75,000
11	Construction Administration					
11.1	Construction Administration	\$50,000				\$50,000
11.2	Construction Inspection and Management	\$25,000				\$25,000
g	Other Costs	\$0	\$0	\$78,560	\$0	\$78,560
7	Permitting					
7.1	Permitting			\$78,560		\$78,560
h	Construction/Implementation Contingency					\$0
	Total Construction Cost	\$105,000	\$25,000	\$5,110,300	\$0	\$5,240,300

Project 15: San Francisco International Airport Reclaimed Water Facility

Table 7 - Budget Project 15: San Francisco International Airport Reclaimed Water Facility Project serves a need of a DAC? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Funding Match Waiver request? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
	(a)	(b)	(c)	(d)
Category	Requested Amount	Cost Share: Non-State Funding Match*	Cost Share: Other State Fund Source	Total Cost
(a) Direct Project Administration		\$53,800		\$53,800
(b) Land Purchase/Easement				\$0
(c) Planning/Design/Engineering/ Environmental Documentation		\$43,600		\$43,600
(d) Construction/Implementation	\$750,000	\$3,321,000		\$4,071,000
(e) Environmental Compliance/ Mitigation/Enhancement		\$3,000		\$3,000
(f) Construction Administration		\$348,000		\$348,000
(g) Other Costs		\$0		\$0
(h) Construction/Implementation Contingency		\$1,516,447		\$1,516,447
(i) Grand Total	\$750,000	\$5,285,847	\$0	\$6,035,847
*Sources of funding: San Francisco Airport's Capital Funds				

Labor Costs Table

Project 15: San Francisco International Airport Reclaimed Water Facility							
Category	Task Name / Description	Labor (Total hours per category shown in bold)					Total Labor Expenses By Category
		Executive Director	Business Manager	Engineer	Admin	Project Technician	
	Hourly Rate			\$60	\$60		
a	Direct Project Administration			30	200		\$13,800
1	Administration						
	1.1 Contract Management				200		
3	Reporting						
	3.1 Quarterly Reports			20			
	3.2 Final Report			10			
b	Land Purchase/Easement						\$0
c	Planning/Design/Engineering/ Environmental Documentation			60			\$3,600
	4.3 Conceptual Design (10%)			50			
5	Final Design						
6	Environmental Documentation						
	6.1 CEQA Compliance			5			
	6.2 NEPA Compliance			5			
d	Construction/Implementation						\$0
e	Environmental Compliance/ Mitigation/Enhancement			50			\$3,000
10	Environmental Compliance/Mitigation/Enhancement						
	10.1 Construction Monitoring			50			
f	Construction Administration			5800			\$348,000
11	Construction Administration						
	11.1 Construction Administration			3800			
	11.2 Construction Inspection and Management			2000			
g	Other Costs						\$0
7	Permitting						
h	Construction/Implementation Contingency						\$0
Total Labor Hours		0	0	5940	200	0	6140
Total Labor Cost						\$368,400	

Construction Cost Table

Project 15: San Francisco International Airport Reclaimed Water Facility							
Category	Task Name / Description	Construction/Implementation Expenses					Subtotal Construction Cost
		Materials	Equipment	Construction Consultants	Other Expenses	Construction/Implementation Contingency	
a	Direct Project Administration	\$0	\$0	\$0	\$40,000	\$0	\$40,000
1	Administration						
2	Labor Compliance Program						
2.1	Labor Compliance Monitoring				\$40,000		\$40,000
b	Land Purchase/Easement	\$0	\$0	\$0	\$0	\$0	\$0
4	Land Purchase/Planning/Design						
c	Planning/Design/Engineering/ Environmental Documentation	\$0	\$0	\$0	\$40,000	\$0	\$40,000
5	Final Design						
6	Environmental Documentation						
6.1	CEQA Compliance				\$40,000		\$40,000
d	Construction/Implementation	\$0	\$0	\$4,071,000	\$0	\$0	\$4,071,000
8	Construction Contracting						
9	Project Construction						
9.1	Mobilization and Site Preparation						\$0
9.2	Project Construction			\$4,071,000			\$4,071,000
9.3	Performance Testing and Demobilization						\$0
e	Environmental Compliance/ Mitigation/Enhancement	\$0	\$0	\$0	\$0	\$0	\$0
10	Environmental Compliance/Mitigation/Enhancement						
f	Construction Administration	\$0	\$0	\$0	\$0	\$0	\$0
11	Construction Administration						
g	Other Costs	\$0	\$0	\$0	\$0	\$0	\$0
7	Permitting						
h	Construction/Implementation Contingency	\$0	\$0	\$0	\$0	\$1,516,447	\$1,516,447
9.2	Project Construction Contingency					\$1,516,447	\$1,516,447
Total Construction Cost		\$0	\$0	\$4,071,000	\$80,000	\$1,516,447	\$5,667,447

Budget/Funding Comments:

From CH2M HILL (2012) Technical Memorandum 4, page 2:

“Cost estimates for the technology alternatives were developed by obtaining budgetary-level equipment costs from equipment suppliers and calculating facility costs using CH2M HILL’s cost-estimating methodology (CPES) for projects of similar type and size.

The cost estimates developed for this analysis provide a relative comparison of the treatment alternatives and are considered order-of-magnitude estimates. An order-of-magnitude cost estimate is defined as “an approximate estimate made without detailed engineering data.” The Association for the Advancement of Cost Engineering (AACE) International defines order-of-magnitude costs as Class 5 cost estimates without detailed engineering data. This estimate is prepared based on limited information, where little more than proposed plant type, its location, and the capacity are known, where preliminary engineering is from 0% to 2% complete. Strategic planning purposes include, but are not limited to, market studies, assessment of viability, evaluation of alternate schemes, project screening, location and evaluation of resource needs and budgeting, and long-range capital planning. Examples of estimating methods used would include cost/capacity curves and factors, scale-up factors, and parametric and modeling techniques. Typically, little time is expended in the development of this estimate. The expected accuracy ranges for this class of estimate are –20% to –50% on the low range side and +30% to +100% on the high range side. The cost estimates prepared, which include any resulting conclusions on project financial or economic feasibility or funding requirements, have been prepared for guidance in project evaluation and implementation from the information available at the time of the estimate. The final costs of the project and resulting feasibility will depend on actual labor and material costs, competitive market conditions, actual site conditions, final project scope, implementation schedule, continuity of personnel and engineering, and other variable factors. Therefore, the final project costs will vary from the estimate presented here. Because of these factors, project feasibility, benefit/cost ratios, risks, and funding needs must be carefully reviewed prior to making specific financial decisions or establishing project budgets to help ensure proper project evaluation and adequate funding.

The subtotal of capital cost includes the following contractor markups:

- Bond and insurance: 2 percent
- Contractors overhead and profit: 8 percent

Construction contingency is estimated at 37.25% of the total construction cost.

Project 16: San José Green Streets & Alleys Demonstration Projects

Table 7 - Budget Project 16: San José Green Streets & Alleys Demonstration Projects Project serves a need of a DAC? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Funding Match Waiver request? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
	(a)	(b)	(c)	(d)
Category	Requested Amount	Cost Share: Non-State Funding Match*	Cost Share: Other State Fund Source	Total Cost
(a) Direct Project Administration	\$0	\$77,362	\$0	\$77,362
(b) Land Purchase/Easement	\$0	\$14,256	\$0	\$14,256
(c) Planning/Design/Engineering/Environmental Documentation	\$0	\$363,968	\$0	\$363,968
(d) Construction/Implementation	\$1,827,250	\$150,480	\$0	\$1,977,730
(e) Environmental Compliance/Mitigation/Enhancement	\$0	\$37,997	\$0	\$37,997
(f) Construction Administration	\$0	\$22,604	\$0	\$22,604
(g) Other Costs	\$0	\$0	\$0	\$0
(h) Construction/Implementation Contingency	\$172,750	\$0	\$0	\$172,750
(i) Grand Total	\$2,000,000	\$666,667	\$0	\$2,666,667
*Sources of funding: City of San José Storm Sewer Operating Fund and City of San José Storm Sewer Capital Fund				

Labor Cost Table

Project 16: San José Green Streets & Alleys Demonstration Projects													
Category	Task Name / Description	Labor (Total hours per category shown in bold)											Subtotal Labor Cost By Category
		Env. Prog. Mgr.	Sup. Env. Svcs. Spec.	Env. Svcs. Spec.	Biol.	Senior Eng.	Assoc. Eng.	Eng. I/II	Senior Eng. Tech.	Inspt.	Material Testing Lab	Survey	
	Hourly Rate	\$102	\$90	\$80	\$72	\$163	\$134	\$116	\$103	\$119	\$121	\$106	
a	Direct Project Administration	180	65	560	116								\$77,362
1	Administration												
	1.1 Project Administration (ESD)	100	40	200	60								
2	Labor Compliance Program												
3	Reporting												
	3.1 Quarterly Project Monitoring Reports	40	15	280	30								
	3.2 Final Project and Monitoring Report	40	10	80	26								
b	Land Purchase/Easement					16	40	40	16				\$14,256
4	Land Purchase/Planning/Design												
	4.1 Scoping/Scheduling/Funding					16	40	40	16				
c	Planning/Design/Engineering/Environmental Documentation					112	696	696	808	72	240	480	\$363,968
	4.2 Conceptual Design (10%)					16	80	80	80		80	160	
5	Final Design												
	5.1 35% Design					40	300	300	240	40	80	160	
	5.2 65% Design					24	150	150	200	24	70	140	
	5.3 95% Design					20	100	100	160	8	10	20	
	5.4 100% Design					12	50	50	120				
6	Environmental Documentation												
	6.1 CEQA Compliance						16	16	8				
d	Construction/Implementation					32	288	288	128	1040	160	160	\$250,480
8	Construction Contracting												
	8.1 Bid and Award						48	48	48				
9	Project Construction												
	9.1 Construction Management					32	240	240	80				

	9.2 Inspection									1040			
	9.3 Testing										160		
	9.4 Survey											160	
e	Environmental Compliance/ Mitigation/Enhancement	20	46	115									\$13,760
10	Environmental Compliance/Mitigation/Enhancement												
	10.1 Monitoring and QAPP Development	8	10	45									
	10.2 Pre-construction Water Quality Monitoring	4	16	30									
	10.3 Post-Construction Water Quality Monitoring	8	20	40									
f	Construction Administration				4	32	32	80	48				\$22,604
11	Construction Administration												
	11.1 Project Close Out				4	32	32	80	48				
g	Other Costs												\$0
7	Permitting												
h	Construction/Implementation Contingency												\$0
	Total Labor Hours	180	85	606	231	164	1056	1056	1032	1160	400	640	6610
													Total Labor Cost
													\$742,430

Construction Cost Table

Project 16: San José Green Streets & Alleys Demonstration Projects							
Category	Task Name / Description	Construction/Implementation Expenses					Subtotal Construction Cost
		Materials	Equipment	Construction	Other Expenses	Construction/Implementation Contingency	
a	Direct Project Administration						\$0
b	Land Purchase/Easement						\$0
4	Land Purchase/Planning/Design						
4.1	Scoping/Scheduling/Funding						\$0
c	Planning/Design/Engineering/ Environmental Documentation						\$0
5	Final Design						
6	Environmental Documentation						
d	Construction/Implementation	\$0	\$0	\$1,727,250	\$0	\$0	\$1,727,250
8	Construction Contracting						
8.2	Construction Contract			\$1,727,250			\$1,727,250
9	Project Construction						
e	Environmental Compliance/Mitigation/Enhancement	\$0	\$0	\$0	\$24,237	\$0	\$24,237
10	Environmental Compliance/Mitigation/Enhancement						
10.2	Pre-construction Water Quality Monitoring				\$8,237		\$8,237
10.3	Post-construction Water Quality Monitoring	-	-	-	\$16,000	-	\$16,000
f	Construction Administration						\$0
11	Construction Administration						
g	Other Costs						\$0
7	Permitting						
h	Construction/Implementation Contingency	\$0	\$0	\$0	\$0	\$172,750	\$172,750
8.3	Contingency					\$172,750	\$172,750
Total Cost		\$0	\$0	\$1,727,250	\$24,237	\$172,750	\$1,924,237

Project 17: San Pablo Rheem Creek Wetlands Restoration Project

Table 7 - Budget Project 17: San Pablo Rheem Creek Wetlands Restoration Project Project serves a need of a DAC? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Funding Match Waiver request? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
	(a)	(b)	(c)	(d)
Category	Requested Amount	Cost Share: Non-State Funding Match*	Cost Share: Other State Fund Source	Total Cost
(a) Direct Project Administration	\$0	\$99,940	\$0	\$99,940
(b) Land Purchase/Easement	\$750,000	\$25,146	\$0	\$775,146
(c) Planning/Design/Engineering/Environmental Documentation	\$0	\$123,507	\$0	\$123,507
(d) Construction/Implementation	\$0	\$240,000	\$0	\$240,000
(e) Environmental Compliance/Mitigation/Enhancement	\$0	\$350,000	\$0	\$350,000
(f) Construction Administration	\$0	\$21,914	\$0	\$21,914
(g) Other Costs	\$0	\$124,512	\$0	\$124,512
(h) Construction/Implementation Contingency	\$0	\$15,000	\$0	\$15,000
(i) Grand Total	\$750,000	\$1,000,018	\$0	\$1,750,018
*Sources of funding: Contra Costa Water District General Funds				

Labor Cost Table

Project 17: San Pablo Rheem Creek Wetlands Restoration Project									
Category	Task Name / Description	Labor (Total hours per category shown in bold)							Subtotal Labor Cost By Category
		Assistant General Manager	Principal Planner	Grant Specialist	Assoc Engineer	Real Property Agent	Analyst	Admin	
	Hourly Rate	\$204	\$152	\$123	\$120	\$119	\$99	\$78	
a	Direct Project Administration	32	296	298			58	74	\$99,790
1	Administration								
	1.1 Contract Management		98	100				8	
	1.2 Project Performance Plan Development		80	40				8	
2	Labor Compliance Program								
	2.1 Labor Compliance Monitoring			40					
3	Reporting								
	3.1 Quarterly Reports	30	98	98			50	50	
	3.2 Final Report	2	20	20			8	8	
b	Land Purchase/Easement	8	20		8	80			\$15,146
4	Land Purchase/Planning/Design								
	4.1 Land Purchase/Easement	8	20		8	80			
c	Planning/Design/Engineering/ Environmental Documentation		144		88			8	\$33,107
	4.2 Assessment and Feasibility Studies		16		8				
	4.3 Conceptual Design (10%)		16						
	4.4 30% Design		8		20				
	4.5 60% Design		8		20				
5	Final Design								
	5.1 90% Design		8		20				
	5.2 100% Design		8		20				
6	Environmental Documentation								
	6.1 CEQA Compliance		40					4	
	6.2 NEPA Compliance		40					4	
d	Construction/Implementation								\$0
8	Construction Contracting								

9	Project Construction								
e	Environmental Compliance/ Mitigation/Enhancement								\$0
10	Environmental Compliance/Mitigation/Enhancement								
f	Construction Administration				16				\$1,914
11	Construction Administration								
	11.2 Construction Inspection and Management				16				
g	Other Costs		190		20	6		12	\$33,012
7	Permitting								
	7.1 FGC Section 1602								
	7.2 CWA Section 401		75					4	
	7.3 CWA Section 402								
	7.4 CWA Section 404		75					4	
	7.5 Other Regulatory of Local Agency Approvals		40		20	6		4	
h	Construction/Implementation Contingency								\$0
Total Labor Hours		40	650	298	132	86	58	94	1358
								Total Labor Cost	\$182,968

Construction Cost Table

Project 17: San Pablo Rheem Creek Wetlands Restoration Project							
Category	Task Name / Description	Construction/Implementation Expenses					Subtotal Construction Cost
		Materials	Equipment	Construction Consultants	Other Expenses	Construction/Implementation Contingency	
a	Direct Project Administration	\$0	\$0	\$0	\$150	\$0	\$150
1	Administration						
2	Labor Compliance Program						
3	Reporting						
3.1	Quarterly Reports				\$100		\$100
3.2	Final Report				\$50		\$50
b	Land Purchase/Easement	\$750,000	\$0	\$10,000	\$0	\$0	\$760,000
4	Land Purchase/Planning/Design						
4.1	Land Purchase/Easement	\$750,000		\$10,000			\$760,000
c	Planning/Design/Engineering/ Environmental Documentation	\$0	\$0	\$90,000	\$400	\$0	\$90,400
4.3	Conceptual Design (10%)			\$10,000			\$10,000
4.4	30% Design			\$10,000	\$100		\$10,100
4.5	60% Design			\$10,000	\$100		\$10,100
5	Final Design						
5.1	90% Design			\$10,000	\$100		\$10,100
5.2	100% Design			\$10,000	\$100		\$10,100
6	Environmental Documentation						
6.1	CEQA Compliance			\$10,000			\$10,000
6.2	NEPA Compliance			\$30,000			\$30,000
d	Construction/Implementation	\$130,000	\$100,000	\$10,000	\$0	\$0	\$240,000
8	Construction Contracting						
9	Project Construction						
9.1	Grading, Earthwork, Culverts, Trenching	\$105,000	\$90,000				\$195,000
9.2	Vegetation	\$25,000	\$10,000				\$35,000
9.3	Performance Testing and Demobilization			\$10,000			\$10,000

e	Environmental Compliance/ Mitigation/Enhancement	\$350,000	\$0	\$0	\$0	\$0	\$350,000
10	Environmental Compliance/Mitigation/Enhancement						
10.1	Interim Management (Years 1-5)	\$100,000					\$100,000
10.2	Endowment (Year 6)	\$250,000					\$250,000
f	Construction Administration	\$0	\$0	\$20,000	\$0	\$0	\$20,000
11	Construction Administration						
11.1	Construction Administration						\$0
11.2	Construction Inspection and Management			\$20,000			\$20,000
g	Other Costs	\$0	\$0	\$90,000	\$1,500	\$0	\$91,500
7	Permitting						
7.1	FGC Section 1602						\$0
7.2	CWA Section 401			\$25,000			\$25,000
7.3	CWA Section 402						\$0
7.4	CWA Section 404			\$25,000			\$25,000
7.5	Other Regulatory of Local Agency Approvals			\$40,000	\$1,500		\$41,500
h	Construction/Implementation Contingency					\$15,000	\$15,000
9.1	Grading, Earthwork, Culverts, Trenching					\$15,000	\$15,000
Total Cost		\$1,230,000	\$100,000	\$220,000	\$2,050	\$15,000	\$1,567,050

Equipment and Materials List and Costs

Equipment or Materials Description	Unit Costs (\$)	No. of Units	Total Cost
Grading, Earthwork, Culverts, Trenching			\$215,000
Wetland Planting			\$35,000
Land Acquisition	\$75,000	10 acres	\$750,000
Total			\$1,000,000

Budget/Funding Comments:

Initial total cost includes the cost of the mitigation land estimated at \$750,000, project construction estimated at \$250,000, project permitting, planning, engineering, approvals and development (\$300,000), and the endowment cost of \$250,000 for long term maintenance.

The interim endowment is estimated to be \$100,000 and is assume to be expended equally over the first five years following project construction at \$20,000 per year.

Project Administration is estimated to be \$100,000 and is estimated to be greatest when the project is being permitted, developed, contracting and construction. Project Administration is expected to be reduced once the wetlands are constructed.

Other Expenses includes \$550 for printing and postage and permit fees.

Project 18: St. Helena Upper York Creek Dam Removal and Ecosystem Restoration

Table 7 - Budget				
Project 18: St. Helena Upper York Creek Dam Removal and Ecosystem Restoration Project				
Project serves a need of a DAC? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
Funding Match Waiver request? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
	(a)	(b)	(c)	(d)
Category	Requested Amount	Cost Share: Non-State Funding Match*	Cost Share: Other State Fund Source	Total Cost
(a) Direct Project Administration	\$0	\$22,507	\$0	\$22,507
(b) Land Purchase/Easement	\$0	\$0	\$0	\$0
(c) Planning/Design/Engineering/Environmental Documentation	\$0	\$259,930	\$0	\$259,930
(d) Construction/Implementation	\$800,000	\$3,287,099	\$0	\$4,087,099
(e) Environmental Compliance/Mitigation/Enhancement	\$0	\$82,702	\$0	\$82,702
(f) Construction Administration	\$0	\$120,000	\$0	\$120,000
(g) Other Costs	\$0	\$47,044	\$0	\$47,044
(h) Construction/Implementation Contingency	\$0	\$0	\$0	\$0
(i) Grand Total	\$800,000	\$3,819,282	\$0	\$4,619,282
*Sources of funding:				
City of St. Helena Department of Finance Funds				

Labor Cost Table

Project 18: St. Helena Upper York Creek Dam Removal and Ecosystem Restoration Project							
Category	Task Name / Description	Labor (Total hours per category shown in bold)					Subtotal Labor Cost By Category
		Public Works Director	Asst Public Works Director	Mgmt. Analyst	Streets supervisor	PW Inspector	
	Hourly Rate	\$81	\$75	\$67	\$57	\$37	
a	Direct Project Administration	32	112	45			\$14,007
1	Administration						
	1.1 Contract Management	20	80	20			
	1.2 Project Performance Plan Development	10	20				
2	Labor Compliance Program						
	2.1 Labor Compliance Monitoring		10	25			
3	Reporting						
	3.1 Quarterly Reports	1	1				
	3.2 Final Report	1	1				
b	Land Purchase/Easement						\$0
4	Land Purchase/Planning/Design						
	4.1 Land Purchase/Easement						
c	Planning/Design/Engineering/ Environmental Documentation	30	100				\$9,930
	4.4 30% Design	5	10				
	4.5 60% Design	5	10				
5	Final Design						
	5.1 90% Design	10	40				
	5.2 100% Design	10	40				
6	Environmental Documentation						
d	Construction/Implementation	17	64	15	20	640	\$32,002
8	Construction Contracting						
	8.1 Bid Solicitation			10			
	8.2 Construction Contracting			5			

9	Project Construction						
	9.1 Mobilization and Site Preparation	5	20				
	9.2 Project Construction	10	40		20		
	9.3 Performance Testing and Demobilization	2	4			640	
e	Environmental Compliance/ Mitigation/Enhancement	20	80				\$7,620
10	Environmental Compliance/Mitigation/Enhancement						
	10.1 General Construction Measures	5	20				
	10.2 Erosion and Sediment (E&S) Control Plan	5	20				
	10.3 Stormwater Pollution Prevention Plan (NPDES compliance)	5	20				
	10.4 Re-vegetation	5	20				
f	Construction Administration						\$0
11	Construction Administration						
g	Other Costs	24	48				\$5,544
7	Permitting						
	7.1 FGC Section 1602	5	10				
	7.2 CWA Section 401	2	4				
	7.3 CWA Section 402	2	4				
	7.4 CWA Section 404	10	20				
	7.5 Napa County Encroachment Permit	5	10				
h	Construction/Implementation Contingency						\$0
Total Labor Hours		123	404	60	20	640	1247
Total Labor Cost							\$69,103

Construction Cost Table

Project 18: St. Helena Upper York Creek Dam Removal and Ecosystem Restoration Project							
Category	Task Name / Description	Construction/Implementation Expenses					Subtotal Construction Cost
		Materials	Equipment	Construction Consultants	Other Expenses	Construction/ Implementation Contingency	
a	Direct Project Administration	\$0	\$0	\$0	\$8,500	\$0	\$8,500
1	Administration						
2	Labor Compliance Program						
3	Reporting						
3.1	Quarterly Reports				\$5,000		\$5,000
3.2	Final Report				\$3,500		\$3,500
b	Land Purchase/Easement	\$0	\$0	\$0	\$0	\$0	\$0
4	Land Purchase/Planning/Design						
c	Planning/Design/Engineering/ Environmental Documentation	\$0	\$0	\$0	\$250,000	\$0	\$250,000
4.4	30% Design				\$20,000		\$20,000
4.5	60% Design				\$60,000		\$60,000
5	Final Design						
5.1	90% Design				\$80,000		\$80,000
5.2	100% Design				\$60,000		\$60,000
6	Environmental Documentation						
6.1	CEQA Compliance				\$30,000		\$30,000
d	Construction/Implementation	\$428,195	\$264,439	\$3,352,463	\$10,000	\$0	\$4,055,097
8	Construction Contracting						
8.1	Bid Solicitation				\$10,000		\$10,000
9	Project Construction						
9.1	Mobilization and Site Preparation			\$134,580			\$134,580
9.2	Project Construction	\$428,195	\$264,439	\$3,097,395			\$3,790,029
9.3	Performance Testing and Demobilization			\$120,488			\$120,488

e	Environmental Compliance/ Mitigation/Enhancement	\$12,546	\$0	\$62,536	\$0	\$0	\$75,082
10	Environmental Compliance/Mitigation/Enhancement						
10.3	Stormwater Pollution Prevention Plan		-	\$4,000		-	\$4,000
10.4	Re-vegetation	\$12,546	-	\$58,536		-	\$71,082
f	Construction Administration	\$0	\$0	\$0	\$120,000	\$0	\$120,000
11	Construction Administration						
11.2	Construction Inspection and Management				\$120,000		\$120,000
g	Other Costs	\$0	\$0	\$0	\$41,500	\$0	\$41,500
7	Permitting						
7.1	FGC Section 1602				\$10,000		\$10,000
7.2	CWA Section 401				\$10,000		\$10,000
7.3	CWA Section 402				\$4,500		\$4,500
7.4	CWA Section 404				\$15,000		\$15,000
7.5	Napa County Encroachment Permit				\$2,000		\$2,000
h	Construction/Implementation Contingency	\$0	\$0	\$0	\$0	\$0	\$0
Total Construction Cost		\$440,741	\$264,439	\$3,414,999	\$430,000	\$0	\$4,550,179

Equipment and Materials List and Costs

Equipment or Materials Description	Unit Costs (\$)	No. of Units	Total Cost
18" HDPE (lf)	9.87	1800	19,841
24" HDPE (lf)	16.51	6	124
T-Posts (5') (ea)	7.03	220	1547
Rock Mix (tons)	50.25	6600	331,683
Rock: 2T, 4T (tons)	57.79	480	27,741
Coir Twine Mat (rolls)	585.95	37	21,680
C125 Coconut Mat (rolls)	158.30	30	4,749
18" Pins (box)	50.28	221	11,112
Rice Straw Bales (ea)	8.79	50	440
Seed Mix A (lbs)	62.82	100	6,282
Compost (yds)	37.69	60	2,261
Plants/Protectors/Mats (ea)	12.56	1000	12,564
Safety Fence (roll)	27.64	20	553
Safety Ties (bag)	8.17	20	163
Total			440,741

Budget/Funding Comments:

Detailed cost estimate from Prunuske Chatham Inc. for project design, construction management and construction for all costs.

Project 19: Students and Teachers Restoring a Watershed (STRAW) Project—North and East Bay Watersheds

Table 7 – Budget Project 19: Students and Teachers Restoring a Watershed (STRAW) Project —North and East Bay Watersheds Project serves a need of a DAC? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Funding Match Waiver request? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
	(a)	(b)	(c)	(d)
Category	Requested Amount	Cost Share: Non-State Funding Match*	Cost Share: Other State Fund Source	Total Cost
(a) Direct Project Administration	\$35,737	\$0	\$0	\$35,737
(b) Land Purchase/Easement	\$0	\$0	\$0	\$0
(c) Planning/Design/Engineering/Environmental Documentation	\$37,193	\$0	\$0	\$37,193
(d) Construction/Implementation	\$427,070	\$125,000	\$0	\$552,070
(e) Environmental Compliance/Mitigation/Enhancement	\$0	\$0	\$0	\$0
(f) Construction Administration	\$0	\$0	\$0	\$0
(g) Other Costs	\$0	\$0	\$0	\$0
(h) Construction/Implementation Contingency	\$0	\$0	\$0	\$0
(i) Grand Total	\$500,000	\$125,000	\$0	\$625,000
*Sources of funding: Matching funds from In-kind volunteer hours				

Labor Cost Table

Project 19: STRAW Project - North and East Bay Watersheds											
Category	Task Name / Description	Labor (Total hours per category shown in bold)									Subtotal Labor Cost By Category
		Program Director- LR	Restoration Manager JP	Restoration Asst Mgr-- EA	Watershed Educator-- MS	Rest. Spec. --LG	Rest. Spec. --VW	Rest. Spec. --IT	Interns	Volunteers	
	Hourly Rate	\$85	\$75	\$47	\$51	\$42	\$41	\$40	\$8	\$22	
a	Direct Project Administration	160	294								\$35,737
1	Administration										
	1.1 Contract Management	160	160								
	1.2 Project Performance Plan Development		40								
2	Labor Compliance Program										
3	Reporting										
	3.1 Quarterly Reports		70								
	3.2 Draft Final Report		16								
	3.3 Final Report		8								
b	Land Purchase/Easement										\$0
4	Land Purchase/Planning/Design										
c	Planning/Design/Engineering/Environmental Documentation		40	40	80	40	120	40			\$17,193
	4.1 Coordination with Schools				80		80				
	4.2 Coordination with Design Staff		40	40		40	40	40			
5	Final Design										
6	Environmental Documentation										
d	Construction/Implementation	310	995	1,070	350	1,070	1,070	1,070	2,646	5,737	\$447,070
8	Construction Contracting										
9	Project Construction/Implementation										
	9.1 Professional Development Workshops	200	45	60	150	60	60	60	150		
	9.2 Classroom Activities	30			120				320		
	9.3 Restoration Project	80	450	450	80	450	450	450	1,000	5,737	

	Construction										
	9.4 Maintenance and Monitoring		500	560		560	560	560	1,176		
e	Environmental Compliance/ Mitigation/Enhancement										\$0
10	Environmental Compliance/Mitigation/Enhancement										
f	Construction Administration										\$0
11	Construction Administration										
g	Other Costs										\$0
7	Permitting										
h	Construction/Implementation Contingency										\$0
	Total Labor Hours	470	1329	1110	430	1110	1190	1110	2646	5737	15132
										Total Labor Cost	\$500,000

Construction Cost Table

Project 19: STRAW Project - North and East Bay Watersheds							
Category	Task Name / Description	Construction/Implementation Expenses					Subtotal Construction Cost
		Materials	Equipment	Construction Consultants	Other Expenses	Construction/Implementation Contingency	
a	Direct Project Administration						\$0
1	Administration						
2	Labor Compliance Program						
3	Reporting						
b	Land Purchase/Easement						\$0
4	Land Purchase/Planning/Design						
c	Planning/Design/Engineering/ Environmental Documentation			\$20,000			\$20,000
4.1	Coordination with Schools						\$0
4.2	Coordination with Design Staff			\$20,000			\$20,000
5	Final Design						
6	Environmental Documentation						
d	Construction/Implementation	\$50,000		\$30,000	\$25,000		\$105,000
8	Construction Contracting						
9	Project Construction						
9.1	Professional Development Workshops			\$5,000	\$1,750		\$6,750
9.2	Classroom Activities			\$25,000	\$8,750		\$33,750
9.3	Restoration Project Construction	\$40,000			\$13,000		\$53,000
9.4	Maintenance and Monitoring	\$10,000			\$1,500		\$11,500
e	Environmental Compliance/ Mitigation/Enhancement						\$0
10	Environmental Compliance/Mitigation/Enhancement						
f	Construction Administration						\$0
11	Construction Administration						
g	Other Costs						\$0
7	Permitting						
h	Construction/Implementation Contingency						\$0
Total Construction Cost		\$50,000	\$0	\$50,000	\$25,000	\$0	\$125,000

Equipment and Materials List and Costs

Equipment or Materials Description	Unit Costs (\$)	No. of Units	Total Cost
Plants	\$12/plant	1600	\$19,200
Mulch	\$19.21/yd	120	\$2300
Browse cage	\$28/50 ft roll	100	\$2800
Browse cage support	\$97/250 count bale	20	\$1900
Irrigation Materials	Approx \$690	20	\$13,800
Total			\$40,000

Budget/Funding Comments:

STRAW project staff has been conducting professional community-based restoration projects and environmental science education for over 20 years. The costs included in the budget are based on staff experience completing hundreds of successful projects and programs. Costs for these projects have been approved and supported by many local, state, and federal entities.

The materials estimates are based on the attached invoices for typical supplies used for the restoration practices we will implement through this funding. Irrigation materials are quite variable, so we calculated an average amount using past projects.

The in-kind match amounts are based on the federal rate of \$21.79/hr, and is based on a minimum of 5,737 volunteer hours. The total number of volunteer hours will be substantially more upon project completion.

The formal match hours will be derived from volunteer hours on portions of larger projects that have already been completed.

Other Expenses are indirect costs associated with implementation and establishment work. For example, purchase of materials, use of consultants, etc.