

San Diego Integrated Regional Water Management

2019 IRWM Implementation Grant Proposal

Budget

Attachment 5 consists of the following items:

- ✓ **Budget.** This attachment includes an estimated capital cost to complete each project in the Proposal.

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Project 1: Paradise Valley Creek Water Quality and Community Enhancement

Local Project Sponsor: City of National City

Partners: City of San Diego Transportation and Storm Water Department, Environmental Health Coalition, Paradise Creek Educational Park, ARTS Program, California Conservation Corps

A project summary budget table consistent with Exhibit D in the 2019 PSP is provided as **Table 5-1** for the *Paradise Valley Creek Water Quality and Community Enhancement* project. Following the table is a two-page summary to demonstrate how the budget shown in **Table 5-1** is reasonable, based on current available information. Construction costs are based on the construction bid developed for the entire project (Phases 1-3) by Harris & Associates and reduced to include only those costs specific to the Phase 2 project. Total cost for this project is \$3,681,056. This is a DAC project and is requesting a 100% funding match waiver. As such, the full project cost is being submitted for grant funding.

Table 5-1: Total Project Budget for *Paradise Valley Creek Water Quality and Community Enhancement*

Proposal Title: San Diego 2019 IRWM Implementation Grant Proposal				
Project Title: Paradise Valley Creek Water Quality and Community Enhancement				
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)
<i>Activity</i>	Cost Share/Match (Non-State)	Grant Request	Other Cost Share (Including State)	Total
<i>(a) Project Administration</i>	\$0	\$100,000	\$0	\$100,000
Task 1: Project Management	\$0	\$76,000	\$0	\$76,000
Task 2: Reporting	\$0	\$24,000	\$0	\$24,000
<i>(b) Land Purchase/Easement</i>	N/A	N/A	N/A	N/A
Task 3: Land Purchase	N/A	N/A	N/A	N/A
<i>(c) Planning/Design/Engineering/Environmental Documentation</i>	\$0	\$10,000	\$0	\$10,000
Task 4: Feasibility Studies	N/A	N/A	N/A	N/A
Task 5: CEQA Documentation	N/A	N/A	N/A	N/A
Task 6: Permitting	N/A	N/A	N/A	N/A
Task 7: Design	N/A	N/A	N/A	N/A
Task 8: Project Performance Monitoring Plan	\$0	\$10,000	\$0	\$10,000
<i>(d) Construction/Implementation</i>	\$0	\$3,571,056	\$0	\$3,571,056
Task 9: Contract Services	\$0	\$44,000	\$0	\$44,000
Task 10: Construction Administration	\$0	\$350,000	\$0	\$350,000
Task 11: Construction/Implementation Activities	\$0	\$3,177,056	\$0	\$3,177,056
11.1: Mobilization, Demobilization and Site Preparation	\$0	\$270,047	\$0	\$270,047
11.2: Channel Improvements	\$0	\$1,590,500	\$0	\$1,590,500
11.3: Culvert Replacement	\$0	\$646,500	\$0	\$646,500
11.4: Curb Construction and Safety Measures	\$0	\$139,000	\$0	\$139,000
11.5: Educational Signage	\$0	\$1,500	\$0	\$1,500
Contingency	\$0	\$529,509	\$0	\$529,509
(e) Project Total	\$0	\$3,681,056	\$0	\$3,681,056
*List sources of funding: The scope of work included in this Proposal has been limited to reduce grant administration and ensure schedule compliance, in accordance with preferences expressed by DWR at the pre-application workshop. This project is a DAC project and is requesting a 100% cost-share waiver. Planning, environmental compliance, and design were completed as part of the DACI Grant. Phase 1 – biofiltration basin (not included in this Proposal), was funded by a combination of Proposition 84 Clean Beaches Program and City match of \$1,344,425.				

Row (a) Project Administration Costs

Task 1: Project Management

Costs for this task include time for a City staff member to complete all administration efforts required for grant administration and contract management. Coordination between SDCWA and DWR will be required for documentation of grant contract execution and project progress. The total task cost is \$76,000 which will consist of a Project Manager dedicating 390 total hours at an average hourly rate of \$200/hr. This is roughly equivalent to an average of 12 hours per month for invoicing and consultant management, and 20 hours for grant contracting, and is based on costs developed based on similar projects and invoicing efforts for the City of National City's planning project under the Proposition 1 DACI Grant.

Task 2: Reporting

Costs for this task include time for a City staff member to prepare the quarterly and final project reports. The proposed task budget is \$24,000 based on a Project Manager working 110 total hours at a billing rate of \$200/hr. The proposed schedule shows the project would span 8 quarterly reports and a project completion report. This Proposal assumes an average of 8 hours per quarter, and 40 hours to develop a project completion report and respond to DWR comments on the completion report. This task accounts for responses to DWR comments on the reports. This estimate is based on the City's level of effort for reporting on its planning project under the *Proposition 1 DACI Grant*.

Row (b) Land Purchase/ Easement

Task 3: Land Acquisition

Not applicable – there are no costs for land purchase/easement because the City already owns the property, which was purchased in the early 1900s.

Row (c) Planning/ Design/ Engineering/ Environmental Documentation

Task 4: Feasibility Studies

Not applicable – all feasibility studies necessary for the project have already been completed.

Task 5: CEQA Documentation

Not applicable – CEQA was completed in June 2019 under the Proposition 1 DACI Grant.

Task 6: Permitting

Not applicable – all required permits were acquired by July 2019 under the *Proposition 1 DACI Grant*.

Task 7: Design

Not applicable. Final drawing designs are complete for this project and were funded through the Proposition DACI Grant.

Task 8: Project Performance Monitoring Plan

Costs for this task include time for a City staff member to complete the Project Performance Monitoring Plan. The proposed task budget of \$10,000 is based on 50 total hours of a Project Manager at billing rate of \$200/hr.

Row (d) Construction/Implementation

Task 9: Contract Services

Preparing bid documents will cost a total of \$44,000, or 220 hours of work by a Design Engineer and Project Manager at a billing rate of \$200/hr. This cost was based on the Design Engineer's (from Harris & Associates) estimate for creating bid documents to reflect the refined Phase 2 project.

Task 10: Construction Administration

Construction administration would occur over the course of construction, or two full years. Construction administration would require an average of 50 hours per month or approximately 11 hours per week for a total of 1,200 hours. This task also includes preparation of final as-built drawings and development and submittal of a Letter of Map Revision, which together will require 550 hours from the consultant Design Engineer. At a billing rate of \$200/hr for a Construction Manager and a Design Engineer, the total cost of Task 10 is \$350,000, as estimated based on the City's experience with similar projects and an estimate provided by the City's Design Engineer (Harris & Associates).

Task 11: Construction/Implementation

The costs for this task were developed by Harris & Associates for Phases 1-3 of this project. This Proposal includes only those costs associated with implementation of Phase 2, which is a total of \$3,177,056 and include concrete removal, culvert replacement, curb construction, and educational signage. The construction costs were developed under the *Proposition 1 DACI Grant* that funded project planning, design, and CEQA. A detailed breakdown of these costs, by construction category, is provided in **Table 5-2**. Construction will include all necessary steps to replace the channel lining, mitigate storm flooding, and improve land areas along the channel. A 20% construction contingency (based on total construction costs across all of Task 11) is included, which is standard for the City of National City's construction projects.

Table 5-2: Detailed Budget for Paradise Valley Creek Water Quality and Community Enhancement Task 11

Activity	Hourly Rate/Unit Cost	Number of Hours/Units	Type of Unit
<i>Subtask 11.1: Mobilization, Demobilization, and Site Preparation</i>	-	-	\$270,047
Mobilization, Bonds, Cleanup, and Demobilization	\$100,000	Lump Sum	\$100,000
Prepare and execute Storm Water Pollution Prevention and furnish and install Erosion Control	\$25,000	Lump Sum	\$25,000
Prepare Traffic Control Design/Plans and implement Traffic Control	\$25,000	Lump Sum	\$25,000
Design dewatering plan, furnish and install dewatering system, including discharge and disposal of groundwater	\$85,000	Lump Sum	\$85,000
Furnish any and all necessary or preferred subsurface utility locating and potholing	\$35,047	Lump Sum	\$35,047
<i>Subtask 11.2: Channel Improvements</i>	-	-	\$1,590,500
Perform earthwork, grading, removal, and disposal of material associated with the trapezoidal channel sections of Paradise Creek upstream of culvert	\$250	2400 LF	\$600,000
Perform earthwork, grading, removal, and disposal of material associated with the trapezoidal channel sections of Paradise Creek downstream of culvert	\$250	980 cubic feet	\$245,000
Furnish and install high-performance turf reinforcing mat and drought-tolerant revegetation	\$21	35,500 SF	\$745,500
<i>Subtask 11.3: Culvert Replacement</i>	-	-	\$646,500
Furnish and install 10-foot by 5-foot Reinforced Concrete Box (RCB) Culvert	\$1,770	325 LF	\$575,250
Furnish and install 1-ton riprap material, defined by SDRSD D-40	\$285	250 LF	\$71,250
<i>Subtask 11.4: Curb Construction and Safety Measures</i>	-	-	\$139,000
Furnish and install improvements associated with Drainage System, including 18-inch diameter RCP storm drain and concrete curb inlet	\$10,000	Lump Sum	\$10,000
Furnish and install concrete headwalls (other than Drain Systems No. 1-4), as defined by SDRSD D-34	\$10,000	Lump Sum	\$10,000
Furnish and install 1/2-ton riprap material, defined by SDRSD D-40	\$200	120 LF	\$24,000
Furnish and install 1/4-ton riprap material, defined by SDRSD D-40	\$200	200 LF	\$40,000
Furnish and install #2 backing riprap slope protection	\$250	220 LF	\$55,000
<i>Subtask 11.5: Educational Signage</i>	-	-	\$1,500
Furnish and install Water Quality Interpretative Sign	\$500	3 each	\$1,500
Construction Costs	-	-	\$2,647,547
Contingency	\$529,509	20%	\$529,509
Total			\$3,177,056

Project 2: North City Pure Water Facility Influent Pump Station

Local Project Sponsor: City of San Diego

Funding Partners: U.S. Environmental Protection Agency and U.S. Bureau of Reclamation

A project summary budget table consistent with Exhibit D in the PSP is provided below as **Table 5-3** for the *North City Pure Water Facility Influent Pump Station*. Following the table is a two-page summary demonstrating how the budget shown in **Table 5-3** is reasonable based on current available information. Construction costs are based on an engineer's estimate prepared by the design consultant, Ch2M Hill Engineers, Inc. (Jacobs) dated March 1, 2018. Total project cost is \$9,918,606. 50% (\$4,959,303) is provided as non-state cost share.

Table 5-3: Total Project Budget for North City Pure Water Facility Influent Pump Station

Proposal Title: San Diego 2019 IRWM Implementation Grant Proposal				
Project Title: North City Pure Water Facility Influent Pump Station				
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)
Activity	Cost Share/Match (Non-State)	Grant Requested	Other Cost Share (Including State)	Total
<i>(a) Project Administration</i>	\$0	\$0	\$74,055	\$74,055
Task 1: Project Management	\$0	\$0	\$36,140	\$36,140
Task 2: Reporting	\$0	\$0	\$37,915	\$37,915
<i>(b) Land Purchase/Easement</i>	N/A	N/A	N/A	N/A
Task 3: Land Purchase	N/A	N/A	N/A	N/A
<i>(c) Planning/Design/Engineering/Environmental Documentation</i>	\$0	\$0	\$4,800	\$4,800
Task 4: Feasibility Studies	N/A	N/A	N/A	N/A
Task 5: CEQA Documentation	N/A	N/A	N/A	N/A
Task 6: Permitting	N/A	N/A	N/A	N/A
Task 7: Design	N/A	N/A	N/A	N/A
Task 8: Project Performance Monitoring Plan	\$0	\$0	\$4,800	\$4,800
<i>(d) Construction/Implementation</i>	\$4,959,303	\$1,477,600	\$3,420,848	\$9,839,751
Task 9: Contract Services	N/A	N/A	N/A	N/A
Task 10: Construction Administration	N/A	N/A	N/A	N/A
Task 11: Construction/Implementation Activities	\$4,959,303	\$1,477,600	\$3,402,848	\$9,839,751
<i>Subtask 11.1: Construct Pump Station Building</i>	\$3,360,467	\$400,000	\$0	\$3,760,467
<i>Subtask 11.2: Install Pumps</i>	\$1,499,360	\$1,000,000	\$0	\$2,499,360
<i>Subtask 11.3: Electrical, Controls, and Appurtenances</i>	\$99,476	\$77,600	\$3,402,848	\$3,579,924
(e) Project Total	\$4,959,303	\$1,477,600	\$3,481,703	\$9,918,606
*List sources of funding: Match funds and Other Cost Share includes the City's water revenue funds and US EPA WIFIA loan funds. The City has already entered into a WIFIA loan agreement to partially fund this project. Other funding sources for the full Pure Water Program entail: City water and wastewater funds, short-term commercial paper loans, USBR Watersmart grant to fund planning and design, Municipal Bonds, and potential State Water Resources Board Clean Water and Drinking Water State Revolving Fund (SRF) loans and Proposition 68 (the Pure Water projects have been included in the SRF Intended Use Plans for FY2020).				

Row (a) Project Administration Costs

Task 1: Project Management

Task 1 includes overall project management and preparation of invoices for DWR. The task budget is \$36,140, based on 8 hours per quarter for a Project Manager (at \$160/hour) and 12 hours per quarter for a Financial Analyst (at \$125/hour) to prepare grant invoices. The City Project Manager and City Financial Analyst will prepare invoices to submit to DWR (via SDCWA as the grantee) as part of its normal project management activities, using internal staff time.

Task 2: Reporting

Costs for this task include time for City staff to prepare the required reports. The task budget of \$37,915 is based on 64 hours of a Project Engineer at billing rate of \$160/hr and 128 hours of a Financial Analyst at \$125/hr. This is approximately 11 hours per quarter for the Financial Analyst to prepare progress reports and respond to SDCWA and DWR questions, and 40 hours to prepare the Project Completion Report, while the Project Engineer will spend an average of 6 hours per quarter on the quarterly reports and 16 hours on the Project Completion Report. This is based on the City's experience preparing reports for *Proposition 84 IRWM Implementation Grants* and the project schedule.

Row (b) Land Purchase/ Easement

Task 3: Land Acquisition

Not applicable - the City already owns the property the pump station would be constructed on.

Row (c) Planning/ Design/ Engineering/ Environmental Documentation

Task 4: Feasibility Studies

Not applicable – all feasibility studies for the project were previously completed.

Task 5: CEQA Documentation

Not applicable – all CEQA documentation for the pump station was previously completed.

Task 6: Permitting

Not applicable – permits for the Pure Water San Diego – Phase 1 program were previously acquired.

Task 7: Design

Not applicable – design for the Pure Water San Diego – Phase 1 program, including this pump station, was previously completed.

Task 8: Project Performance Monitoring Plan

The City will prepare a Project Performance Monitoring Plan that details how the project's physical benefits will be measured and monitored. Based on the City's experience preparing monitoring plans for *Proposition 84 IRWM Implementation Grants*, this is expected to require 30 hours for the City's Project Engineer, at an hourly rate of \$160. This task will cost \$4,800.

Row (d) Construction/Implementation

Task 9: Contract Services

Not applicable – construction contracting will be completed for Pure Water San Diego – Phase 1.

Task 10: Construction Administration

Not applicable – construction administration will be completed as part of the larger Pure Water San Diego – Phase 1 program. Construction administration specific to the pump station is difficult to separate from the rest of the Phase 1 program, therefore construction administration is not included in this scope of work and budget.

Task 11: Construction/Implementation

Construction costs are based on the construction bid dated March 2018 from /CH2M Hill Engineers, Inc. (Jacobs) and a summary of detailed construction costs are provided **Table 5-4**. Due to page limitations, costs have been rolled up, and a full detailed cost table can be provided upon request. Equipment is needed for concrete work, metals, electrical work, earthwork, utilities, and process pipe, and will include the use of cranes, trucks, and cement trucks. Additional costs will be accrued through the construction of the pump station building and installing of the air compressors and turbine pumps. Total cost for construction is \$9,839,751, and include materials, labor,

subcontractors, other related costs, and contingency (incorporated into the unit cost or lump sum for each line item). \$1,477,600 of the construction costs will be funded through this grant application. \$4,959,303 of the construction costs will be funded through a non-State fund source as match and the remaining \$3,402,848 will be funded by a combination of City funds, State and federal loans.

Table 5-4: Detailed Budget for North City Pure Water Facility Influent Pump Station Task 11

Activity	Hourly Rate/Unit Cost	Number of Hours/Units	Total Cost
<i>Subtask 11.1: Construct Pump Station Building</i>	-	-	\$3,760,467
Concrete Work	\$1,663.68	1,335.71 CY	\$2,222,199*
Metals	-	-	\$137,939
<i>Structural Steel</i>	<i>\$1,040.83/LF</i>	<i>128 LF</i>	<i>\$133,226</i>
<i>Metal Fabrications</i>	<i>\$157.10/LF</i>	<i>30 LF</i>	<i>\$4,713</i>
Thermal and Moisture Protection	-	-	\$24,272
<i>Membrane Roofing</i>	<i>\$7.55/SF</i>	<i>3,216 SF</i>	<i>\$24,272</i>
Openings	-	-	\$87,421*
<i>Doors & Frames</i>	<i>\$3,922.22/ea</i>	<i>5</i>	<i>\$19,611</i>
<i>Roof Hatch</i>	<i>\$3,832/ea</i>	<i>11</i>	<i>\$42,154</i>
<i>Roll-up Doors</i>	<i>\$4,474.80/ea</i>	<i>1</i>	<i>\$4,475</i>
<i>Wall Louvers</i>	<i>\$21,181.55/ea</i>	<i>1</i>	<i>\$21,182</i>
Finishes	-	-	\$128,399
<i>Building Painting</i>	<i>\$40,657.90</i>	<i>Lump Sum</i>	<i>\$40,657.90</i>
<i>Painting and Coatings</i>	<i>\$87,741.07</i>	<i>Lump Sum</i>	<i>\$87,741</i>
Earthwork	\$1,160,234.01	Lump Sum	\$1,160,234
<i>Subtask 11.2: Install Pumps</i>	-	-	\$2,499,360
Air Compressor	\$60,434.43 /ea	1	\$60,434
Vertical Turbine Pumps	\$442,117.15 / ea	5	\$2,210,585
Tank Construction	\$228,341.38	Lump Sum	\$228,341
<i>Subtask 11.3: Electrical, Controls, and Appurtenances</i>	-	-	\$3,579,924
Plumbing	\$42,038.18	Lump Sum	\$42,038
HVAC	\$120,361.61	Lump Sum	\$120,362
Electrical Work	\$1,548,244.63	Lump Sum	\$1,548,245
<i>Site Electrical</i>	<i>\$103,966.03</i>	<i>Lump Sum</i>	<i>\$103,966</i>
<i>Process Electrical</i>	<i>\$321,193.87</i>	<i>Lump Sum</i>	<i>\$321,194</i>
<i>Facility Electrical</i>	<i>\$122,251.55</i>	<i>Lump Sum</i>	<i>\$122,252</i>
<i>Electrical Equipment</i>	<i>\$978,311.74</i>	<i>Lump Sum</i>	<i>\$978,312</i>
<i>Electronic Safety and Security</i>	<i>\$22,521.44</i>	<i>Lump Sum</i>	<i>\$22,521</i>
Utilities	\$447,575.58	Lump Sum	\$447,576
Process Pipe	\$2,221.86/LF	492 LF	\$1,093,157*
Instrumentation & Controls	\$328,548.04	Lump Sum	\$328,548
Total			\$9,839,751

*Some differences due to rounding

Project 3: 2020 Regional Water Use Efficiency Program

Local Project Sponsor: San Diego County Water Authority

Partners: Mission Resource Conservation District

A project summary budget table consistent with Exhibit D in the PSP is provided below as **Table 5-5** for the 2020 *Regional Water Use Efficiency Program*. Following the table is a two-page summary that demonstrates how the budget is reasonable based on current available information. The budget is based on similar programs implemented by SDCWA in the past. Total cost for this project is \$8,404,114. 83% (\$6,964,114) is being provided as funding match. The match provided above the required 50% is being used to also provide match for Grant Administration, which is fully grant funded, and being implemented by the same project sponsor (SDWCA).

Table 5-5: Total Project Budget for 2020 Regional Water Use Efficiency Program

Proposal Title: San Diego 2019 IRWM Implementation Grant Proposal					
Project Title: 2020 Regional Water Use Efficiency Program					
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)
Activity		Cost Share/Match (Non-State)	Requested Grant Amount	Other Cost Share (Including State)	Total
(a)	<i>Project Administration</i>	\$0	\$122,300	\$0	\$122,300
	Task 1: Project Management	\$0	\$91,725	\$0	\$91,725
	Task 2: Reporting	\$0	\$30,575	\$0	\$30,575
(b)	<i>Land Purchase/ Easement</i>	N/A	N/A	N/A	N/A
	Task 3: Land Purchase	N/A	N/A	N/A	N/A
(c)	<i>Planning/ Design/ Engineering/ Environmental Documentation</i>	\$0	\$5,000	\$0	\$5,000
	Task 4: Feasibility Studies	N/A	N/A	N/A	N/A
	Task 5: CEQA Documentation	N/A	N/A	N/A	N/A
	Task 6: Permitting	N/A	N/A	N/A	N/A
	Task 7: Design	N/A	N/A	N/A	N/A
	Task 8: Project Performance Monitoring Plan	\$0	\$5,000	\$0	\$5,000
(d)	<i>Construction/ Implementation</i>	\$6,964,114	\$1,312,700	\$0	\$8,276,814
	Task 9: Contract Services	N/A	N/A	N/A	N/A
	Task 10: Construction Administration	N/A	N/A	N/A	N/A
	Task 11: Construction/Implementation	\$6,964,114	\$1,312,700	\$0	\$8,276,814
	Subtask 11.1: Landscape Efficiency Program	\$6,964,114	\$898,200	\$0	\$7,862,314
	Subtask 11.2: Agricultural Irrigation Efficiency Program	\$0	\$414,500	\$0	\$414,500
(e)	Project Total	\$6,964,114	\$1,440,000	\$0	\$8,404,114
*List sources of funding: Funding match is provided through turf removal rebates anticipated for the Steele Canyon Golf Club and Del Mar Country Club.					

Row (a) Project Administration

Task 1: Project Management

Costs for project administration include time for SDCWA's Project Manager, with the support of its consultant (Hoch Consulting) to complete administrative duties and grant invoicing. The proposed task budget of \$91,725 is based on 633 total hours at a billing rate of \$145/hr. The project is expected to occur over 46 months. This task assumes an average of approximately 14 hours per month.

Task 2: Reporting

Costs for this task include time for SDCWA's Project Manager, with the support of its consultant (Hoch Consulting) to prepare quarterly reports and the Project Completion Report. The proposed task budget of \$30,575 is based on approximately 211 hours at a billing rate of \$145/hr. This includes approximately 11 hours per quarter to prepare the quarterly reports for 16 quarters for the duration of the project and approximately 35 hours to prepare the Project Completion Report.

Row (b) Land Purchase/ Easement

Task 3: Land Acquisition

Not applicable – land purchase/easement is not required for this project.

Row (c) Planning/ Design/ Engineering/ Environmental Documentation

Task 4: Feasibility Studies

Not applicable – no feasibility studies will be prepared for the proposed project.

Task 5: CEQA Documentation

Not applicable – no CEQA documentation is required for this proposed project.

Task 6: Permitting

Not applicable – permitting is not required for this proposed project.

Task 7: Design

Not applicable – no design will be prepared for the proposed project.

Task 8: Project Performance Monitoring Plan

Costs for this task include time for SDCWA's Project Manager or consultant to prepare a Project Performance Monitoring Plan. The task budget of \$5,000 is based on approximately 35 hours at a billing rate of \$145/hr.

Row (d) Construction/Implementation

Task 9: Contract Services

Not applicable – no contract services are required for this project.

Task 10: Construction Administration

Not applicable – no construction administration services are required for this project.

Task 11: Construction/Implementation

The bulk of the project costs come from implementation of the two program components. Subtask 11.1: LEP includes activities designed to promote outdoor water use efficiency and a reduction in outdoor water use by offering incentives to replace turf grass, as well as homeowner and professional landscaper training to ensure the new sustainable landscapes are designed, irrigated and maintained appropriately. Subtask 11.2: Ag IEP includes activities to assist local farmers in implementing irrigation system equipment retrofits that will result in improved distribution uniformity and water use efficiency.

The total cost for implementation of these two tasks is \$8,276,814 and is a combination of grant and funding match. A detailed breakdown of the subtask costs is provided in **Table 5-6**. These costs are based on the value of the rebates, total area to be converted, and costs from previous conservation programs to implement training in support of successful, long-term, turf conversions.

Table 5-6: Detailed Budget for 2020 Regional Water Use Efficiency Program Task 11

Activity	Hourly Rate/Unit Cost	Number of Hours/Units	Type of Unit	Total Cost
<i>Subtask 11.1: Landscape Efficiency Program</i>	-	-	-	\$7,862,314
Del Mar Country Club and Steele Canyon Golf Club Turf Replacement	\$2	3,482,057	Square ft	\$6,964,114
2020 Regional Water Use Efficiency Turf Conversion Incentives	\$1	470,200	Square ft	\$470,200
Four-class series	\$17,000	11	Series	\$187,000
Workshops	\$1,500	22	Workshop	\$33,000
Professional training classes taught in English	\$9,000	10	class	\$90,000
Professional training classes taught in Spanish	\$9,700	8	class	\$77,600
Professional training classes taught as a local community college course	\$3,025	10	class	\$30,250
Professional training taught at continuing education unit (CEU) Events	\$1,015	10	event	\$10,150
<i>Subtask 11.2: Agricultural Irrigation Efficiency Program</i>	-	-	-	\$414,500
Irrigation Efficiency Cost Share/Incentive	\$550	700	acre	\$385,000
Inspection, Reporting and Administration	\$55	536	hour	\$29,500
Total				\$8,276,814

Project 4: Lower Santa Margarita River IPR Pilot Project

Local Project Sponsor: Fallbrook Public Utility District

Partners: Marine Corps Base Camp Pendleton

A project summary budget table consistent with Exhibit D in the PSP is provided below as **Table 5-7** for the *Lower Santa Margarita River IPR Pilot Project*. The following pages include the two-page summary to demonstrate how the budget shown in **Table 5-7** is reasonable based on current available information. The budget is based on the cost estimate developed by FPUD for the RFP for the project, which was released November 4, 2019. Total cost is \$1,392,560. 50% (\$696,300) is provided as cost share, funded through FPUD CIP Funds.

Table 5-7: Total Project Budget for Lower Santa Margarita River IPR Pilot Project

Proposal Title: San Diego 2019 IRWM Implementation Grant Proposal					
Project Title: Lower Santa Margarita River IPR Pilot 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		
Activity		(a) Cost Share/Match (Non-State)	(b) Requested Grant Amount	(c) Other Cost Share (Including State)	(d) Total
(a)	<i>Project Administration</i>	\$28,800	\$0	\$8,760	\$37,560
	Task 1: Project Management	\$28,800	\$0	\$0	\$28,800
	Task 2: Reporting	\$0	\$0	\$8,760	\$8,760
(b)	<i>Land Purchase/ Easement</i>	N/A	N/A	N/A	N/A
	Task 3: Land Purchase	N/A	N/A	N/A	N/A
(c)	<i>Planning/ Design/ Engineering/ Environmental Documentation</i>	\$81,800	\$3,600	\$0	\$85,400
	Task 4: Feasibility Studies	\$16,000	\$0	\$0	\$16,000
	Task 5: CEQA Documentation	N/A	N/A	N/A	N/A
	Task 6: Permitting	\$10,400	\$0	\$0	\$10,400
	Task 7: Design	\$55,400	\$0	\$0	\$55,400
	Task 8: Project Performance Monitoring Plan	\$0	\$3,600	\$0	\$3,600
(d)	<i>Construction/ Implementation</i>	\$585,700	\$683,900	\$0	\$1,269,600
	Task 9: Contract Services	N/A	N/A	N/A	N/A
	Task 10: Construction Administration	N/A	N/A	N/A	N/A
	Task 11: Construction/Implementation	\$585,700	\$683,900	\$0	\$1,269,600
	Subtask 11.1: Fallbrook Pilot Treatment Train	\$261,550	\$288,350	\$0	\$549,900
	Subtask 11.2: Camp Pendleton Pilot Treatment Train	\$224,150	\$238,350	\$0	\$462,500
	Subtask 11.3: Upper San Ysidora Tracer Test	\$100,000	\$100,000	\$0	\$200,000
	Subtask 11.4: Fallbrook Live Stream Discharge Feasibility Study	\$0	\$50,000	\$0	\$50,000
	Subtask 11.5: Technology/Knowledge Transfer Report	\$0	\$7,200	\$0	\$7,200
(e)	Project Total	\$696,300	\$687,500	\$8,760	\$1,392,560
*List sources of funding: Match funds include FPUD CIP Funds. FPUD's approved capital projects budget for FY19-20 includes \$350,000 for the project. Another \$350,000 is planned for the following fiscal year, which starts in July 2020. The CIP funds allocated to the project are slightly higher than the anticipated project budget to cover a small contingency if needed.					

Row (a) Project Administration

Task 1: Project Management

Costs for project management include just under 200 hours for FPUD's Project Manager to administer the project (including creating a design scope, procuring a design/research consultant, overseeing pilot project design, overseeing treatment train equipment procurement/installation, and conducting education/outreach efforts) and prepare invoices, at an hourly rate of \$120/hour, and 40 hours for Camp Pendleton's Project Manager, also at an hourly rate of \$120/hour to administer the pilot project facilities at its site and the tracer study. This is based on the project duration, and FPUD's experience administering projects under a *Proposition 84 Round 3 Implementation Grant*. Total cost for this task is \$28,800.

Task 2: Reporting

Costs for this task include time for FPUD's Project Manager to prepare 6 quarterly reports and the Project Completion Report. The number of quarterly reports is based on the duration of the project and 25 hours for the Project Completion Report. At a rate of \$120/hour, the Project Manager will spend a total of 73 hours, for a cost of \$8,760 for Task 2.

Row (b) Land Purchase/ Easement

Task 3: Land Acquisition

Not applicable – the project will be located at existing treatment plants and within existing rights-of-way.

Row (c) Planning/ Design/ Engineering/ Environmental Documentation

Task 4: Feasibility Studies

Task 4 will be completed by FPUD's Design Consultant (to be selected per the RFP released November 4, 2019). Based on experience from previous projects regarding expected level of effort, the consultant is expected to spend 80 hours at an average hourly rate of \$200 to prepare the Pilot Project Feasibility Study as described in Attachment 4 Work Plan. Total cost for this task is \$16,000.

Task 5: CEQA Documentation

Not applicable – CEQA documentation is complete and is not included as part of this Proposal.

Task 6: Permitting

Costs for this task include an estimated 40 hours of FPUD's Design Consultant time to prepare supporting information for a livestream discharge permit application and 20 hours for FPUD and Camp Pendleton's Project Manager to prepare and submit the actual discharge permit. At an average hourly rate of \$200/hour for the Design Consultant and \$120/hour for FPUD and Camp Pendleton's Project Manager, the total cost for this task is \$10,400.

Task 7: Design

The total design costs are \$55,400, based on a Design Consultant billing rate of \$200/hour, and an estimated 277 hours to complete the three design memorandums described in Attachment 4 Work Plan. This cost is based on level of effort for similar projects and the work as described in the project's RFP and this application's Work Plan.

Task 8: Project Performance Monitoring Plan

Costs for this task include time for FPUD's Project Manager to prepare a Project Performance Monitoring Plan. Past rounds of IRWM grants indicate this will require approximately 30 hours to prepare. At an hourly rate of \$120/hour, the total cost for this task is \$3,600.

Row (d) Construction/Implementation

Task 9: Contract Services

Not applicable. Costs for contract services are not included in this Proposal because FPUD has already issued the RFP for the project and will complete the contracting process prior to Final Grant Award. Procurement, installation, and operation of the pilot equipment will be undertaken by FPUD and Camp Pendleton staff, and associated costs are included under Task 11 Construction/Implementation.

Task 10: Construction Administration

Not applicable. Construction administration activities are included in Task 1 Project Administration.

Task 11: Construction/Implementation

Task 11 includes four subtasks, as described in Attachment 4 Work Plan. These costs were developed based on FPUD's expertise and experience, and total \$1,269,600, which will be funded through a combination of grant and local match. **Table 5-8** provides a detailed breakdown of costs for each of the subtasks, as developed by FPUD engineers in preparation for release of the RFP.

Table 5-8: Detailed Budget for Lower Santa Margarita River IPR Pilot Project Task 11

Activity	Hourly Rate/Unit Cost	Number of Hours/Units	Total Cost
<i>Subtask 11.1: Fallbrook Pilot Treatment Train</i>	-	-	\$549,900
Procurement/Installation	\$375,000	Lump Sum	\$375,000
Fallbrook Creek Pilot System Discharge	\$87,400	Lump Sum	\$87,400
Monitoring and operation	\$87,500	Lump Sum	\$87,500
<i>Subtask 11.2: Camp Pendleton Pilot Treatment Train</i>	-	-	\$462,500
Procurement/Installation	\$375,000	Lump Sum	\$375,000
Monitoring and operation	\$87,500	Lump Sum	\$87,500
<i>Subtask 11.3: Upper San Ysidora Tracer Test</i>	-	-	\$200,000
Tracer test	\$200,000	Lump Sum	\$200,000
<i>Subtask 11.4: Full Scale Feasibility Report</i>	-	-	\$50,000
Data Analysis and Report Preparation	\$50,000	Lump Sum	\$50,000
<i>Subtask 11.5: Technology/Knowledge Transfer Report</i>	-	-	\$7,200
Fact Sheets	\$120/hour	12 hours	\$1,440
Technology/Knowledge Transfer Report	\$120/hour	26 hours	\$3,120
Presentation	\$120/hour	10 hours	\$1,200
Public Workshop	\$120/hour	12 hours	\$1,440
Total			\$1,269,600

Project 5: Pure Water Oceanside

Local Project Sponsor: City of Oceanside

A project summary budget table consistent with Exhibit D in the PSP is provided below as **Table 5-9** for the *Pure Water Oceanside* project. The following pages include the two-page summary to demonstrate how the budget shown in **Table 5-9** is reasonable based on current available information. This project's total cost is \$8,791,673. The total grant request is \$3,115,000, total match is \$4,395,836 (50% of total project cost share). The remaining \$1,280,836 will be provided as other cost share.

Table 5-9: Total Project Budget for *Pure Water Oceanside*

Proposal Title: San Diego 2019 IRWM Implementation Grant Proposal					
Project Title: Pure Water Oceanside					
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)
Activity		Cost Share/Match (Non-State)	Requested Grant Amount	Other Cost Share (Including State)	Total
(a)	Project Administration	\$0	\$0	\$50,078	\$50,078
	Task 1: Project Management	\$0	\$0	\$29,728	\$29,728
	Task 2: Reporting	\$0	\$0	\$20,350	\$20,350
(b)	Land Purchase/ Easement	N/A	N/A	N/A	N/A
	Task 3: Land Purchase	N/A	N/A	N/A	N/A
(c)	Planning/ Design/ Engineering/ Environmental Documentation	\$1,162,000	\$0	\$39,919	\$1,201,919
	Task 4: Feasibility Studies	N/A	N/A	N/A	N/A
	Task 5: CEQA Documentation	N/A	N/A	N/A	N/A
	Task 6: Permitting	\$0	\$0	\$36,965	\$36,965
	Task 7: Design	\$1,162,000	\$0	\$0	\$1,162,000
	Task 8: Project Performance Monitoring Plan	\$0	\$0	\$2,955	\$2,955
(d)	Construction/ Implementation	\$3,233,836	\$3,115,000	\$1,190,839	\$7,539,675
	Task 9: Contract Services	N/A	N/A	N/A	N/A
	Task 10: Construction Administration	\$0	\$0	\$373,251	\$373,251
	Task 11: Construction/Implementation	\$3,233,836	\$3,115,000	\$817,588	\$7,166,424
	Subtask 11.1: Mobilization/Demobilization	\$260,000	\$0	\$0	\$260,000
	Subtask 11.2: Conveyance Pipelines	\$1,214,570	\$1,550,000	\$0	\$2,764,570
	Subtask 11.3: Injection Wells	\$1,759,266	\$1,565,000	\$817,588	\$4,141,854
(e)	Project Total	\$4,395,836	\$3,115,000	\$1,280,836	\$8,791,673
<p>*List sources of funding: City of Oceanside CIP Funds. The City has also applied for a U.S. Bureau of Reclamation WIIN grant and expects to hear whether the project was awarded funding under that program by the end of December 2019. Should WIIN grant be awarded, it would be used to offset the City of Oceanside's CIP fund contribution to this project.</p>					

Row (a) Project Administration Costs

Task 1: Project Management

Costs for project management include time for City of Oceanside staff members to complete all administration efforts required for project management (including managing consultants and contractors) and grant administration. City Staff will dedicate a total of 435 hours to for a total cost of \$29,728 (approximately 24 hours per month, for the 18-month project duration). That includes 110 hours for a Project Manager (\$88/hr), 125 hours Senior Management Analyst (\$83/hr), and 200 hours for a Finance Specialist (\$48/hr).

Task 2: Reporting

Costs for this task include time for a City of Oceanside staff member to prepare reports for grant compliance. The proposed task budget of \$20,350 is based on 230 total hours of a Project Manager at billing rate of \$88/hr. This is approximately 30 hours per quarter for the 18-month project duration, and an additional 50 hours to prepare the Project Completion Report, based on the City's experience as a project partner for previous IRWM grants.

Row (b) Land Purchase/ Easement

Task 3: Land Acquisition

Not applicable – the City will construct the project in existing public rights-of-way.

Row (c) Planning/ Design/ Engineering/ Environmental Documentation

Task 4: Feasibility Studies

Not applicable – no additional feasibility studies will be prepared for the proposed project.

Task 5: CEQA Documentation

Not applicable – CEQA was completed in December 2018 and is not included in the budget.

Task 6: Permitting

This task estimate includes City of Oceanside staff time to prepare permits, based on historical efforts. Permits needed for injection well construction include a Well Discharge Permit, Well/Boring Installation Permit, Well/Boring Destruction Permit, and Air Pollution Control Permit for Standby Generator. City staff will dedicate a total of 435 hours to this task (135 hours for a Project Manager (\$88/hr) and 300 hours for a Senior Management Analyst (\$83/hr). Total costs for the task are estimated to be \$36,965.

Task 7: Design

Final design is currently at 90% for the injection wells and 30% for conveyance, both designed by TetraTech. Total costs for the task are estimated to be \$1,162,000, based on the design contract.

Task 8: Project Performance Monitoring Plan

Development of a Project Performance Monitoring Plan will be completed by City of Oceanside staff and is expected to take 35 hours (7 hours for a Project Manager [\$88/hr], 28 hours Senior Management Analyst [\$83/hr]). Costs for this task total \$2,955 and will be covered through Oceanside's existing staff time and budget.

Row (d) Construction/Implementation

Task 9: Contract Services

Not applicable – The City of Oceanside has already issued a Request for Proposals, evaluated submitted proposals, and selected a construction contractor. This task is complete and not included in the budget.

Task 10: Construction Administration

Construction administration activities include construction administration, review of submittals, review of Requests for Information, review of Change Orders, bi-weekly progress meetings, review of payment requests, full-time construction inspection, and preparation of record drawings. Construction administration costs are estimated at approximately 5% of construction costs for a total of \$373,251, consistent with the City's standard estimate for Construction Administration.

Task 11: Construction/Implementation

Construction costs for the project are based on a 30% engineers estimate from TetraTech, prepared in August 2019, as shown below in **Table 5-10**. For purposes of Table 5-9, above, a 20% contingency for all construction activities (Subtasks 11.1, 11.2, and 11.3) has been included in the cost for Subtask 11.3 Injection Wells above.

Table 5-10: Detailed Budget for Pure Water Oceanside Task 11

Activity	Hourly Rate/Unit Cost	Number of Hours/Units	Total Cost
<i>Subtask 11.1 Mobilization/Demobilization</i>	-	-	\$260,000
Mobilization/Demobilization	\$260,000	Lump Sum	260,000
<i>Subtask 11.2 Conveyance Pipelines</i>	-	-	\$2,764,570
18-inch CML&C Steel Pipe (Supply)	\$243/LF	4350 LF	\$1,057,050
12-inch CML&C Steel Pipe (Supply)	\$183/LF	1740 LF	\$318,420
18-inch Flush Water Drain Pipe	\$180/LF	4400 LF	\$792,000
18-inch Butterfly Valves (Buried)	\$5,200/ea	4	\$20,800
12-inch Butterfly Valves (Buried)	\$2,700/ea	8	\$21,600
2-inch Air Release/Vacuum Valves	\$4,000/ea	5	\$20,000
Connection to Injection Well Supply Pipeline (IWSP)	\$10,000	Lump Sum	\$10,000
Connection to 21-inch SS (at Pala Rd and Douglas Dr)	\$75,000	Lump Sum	\$75,000
Connection to 21-inch SS (at El Camino Real)	\$75,000	Lump Sum	\$75,000
Relocation of Existing 16-inch ACP (W)	\$20,000	Lump Sum	\$20,000
Remove and replace curb/gutter	\$31,200	Lump Sum	\$31,200
AC Pavement and Class 2 Base	\$5/LF	34,900 LF	\$174,500
Speed bump, traffic control, sheeting/shoring/bracing, potholing	\$149,000	Lump Sum	\$149,000
<i>Subtask 11.3 Injection Wells</i>			\$2,947,450
Flush Water Air Gap Structures	\$117,650	Lump Sum	\$117,650
Injection Well Vault (12'x19'x8'H)	\$120,000/ea	2	\$240,000
Vault HVAC Equipment	\$7,000/ea	2	\$14,000
Injection Well Purge Pumps	\$54,000/ea	2	\$108,000
Injection Well Pipe (In Vault)	\$117,200	Lump Sum	\$117,200
12-inch Check Valve (in vault)	\$2,800/ea	2	\$5,600
12-inch Butterfly Valve (in vault)	\$7,800/ea	6	\$46,800
Downhole Flow Control Valve (Baski)	\$90,000/ea	2	\$180,000
12-inch Flow Meters (in vault)	\$23,300/ea	4	\$93,200
Electrical and Control Facilities and Materials	\$790,000	Lump Sum	\$790,000
Bypass Pumping of 21-inch SS	\$50,000	Lump Sum	\$50,000
Cathodic Protection	\$75,000	Lump Sum	\$75,000
Construct Injection Well 1	\$575,000	Lump Sum	\$575,000
Construct Injection Well 3	\$535,000	Lump Sum	\$535,000
Construction Costs	-	-	\$5,972,020
Contingency	\$1,194,404	20%	\$1,194,404
Total			\$7,166,424

Project 6: North County Recycled Water Project

Local Project Sponsor: San Elijo Joint Powers Authority (San Elijo JPA)

Partners: City of Oceanside and Olivenhain Municipal Water District (Olivenhain MWD)

A project summary budget table consistent with Exhibit D in the PSP is provided below as **Table 5-11** for the *North County Recycled Water Project*. Following the table is a two-page summary demonstrating how the budget is reasonable based on current available information. This project's total cost is \$12,605,141. This project's funding match totals 50% (\$6,302,571).

Table 5-11: Total Project Budget for North County Recycled Water Project

Proposal Title: San Diego 2019 IRWM Implementation Grant Proposal				
Project Title: North County Recycled Water 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)
Activity	Cost Share/Match (Non-State)	Grant Request	Other Cost Share (Including State)	Total
<i>(a) Project Administration</i>	\$0	\$25,000	\$62,620	\$87,620
Task 1: Project Management	\$0	\$25,000	\$6,980	\$31,980
Task 2: Reporting	\$0	\$0	\$55,640	\$55,640
<i>(b) Land Purchase/Easement</i>	N/A	N/A	N/A	N/A
Task 3: Land Purchase	N/A	N/A	N/A	N/A
<i>(c) Planning/Design/Engineering/Environmental Documentation</i>	\$242,868	\$0	\$53,967	\$296,835
Task 4: Feasibility Studies	N/A	N/A	N/A	N/A
Task 5: CEQA Documentation	\$0	\$0	\$25,485	\$25,485
Task 6: Permitting	\$0	\$0	\$22,257	\$22,257
Task 7: Design	\$242,868	\$0	\$0	\$242,868
Task 8: Project Performance Monitoring Plan	\$0	\$0	\$6,225	\$6,225
<i>(d) Construction/Implementation</i>	\$6,059,703	\$2,795,000	\$3,365,983	\$12,220,686
Task 9: Contract Services	\$0	\$0	\$0	\$0
Task 10: Construction Administration	\$1,203,246	\$0	\$0	\$1,203,246
Task 11: Construction/Implementation Activities	\$4,856,457	\$2,795,000	\$3,365,983	\$11,017,440
<i>Subtask 11.1: Recycled Water Storage and Pumping System Expansion (SE)</i>	\$539,375	\$595,000	\$0	\$1,134,375
<i>Subtask 11.2: Recycled Water Pipeline: North El Camino Real (OC)</i>	\$4,082,104	\$1,450,000	\$3,365,983	\$8,898,087
<i>Subtask 11.3: Recycled Water Pipeline: South El Camino Real (OM)</i>	\$234,978	\$750,000	\$0	\$984,978
(e) Project Total	\$6,302,571	\$2,820,000	\$3,482,570	\$12,605,141
*List sources of funding: San Elijo JPA, City of Oceanside, and Olivenhain MWD CIP funds.				

Row (a) Project Administration Costs

Task 1: Project Management

Costs for project management include time for San Elijo JPA staff to complete all administration efforts required to implement the project and administer the grant. Staff will dedicate a total of 260 hours to this task, for an average of 9 hours per month over 29 months (156 hours for a Financial Analyst at \$75/hour and 104 hours for a Project Manager at \$195/hour). Total costs for the task are \$31,980. This was estimated based on the overall project schedule, the need to coordinate across project partners, and San Elijo JPA's experience administering a Proposition 84 IRWM Implementation Grant.

Task 2: Reporting

Costs for this task include time for San Elijo JPA staff to prepare 10 quarterly reports in addition to the Project Completion report. The proposed task budget of \$55,640 is based on 312 total hours of staff time (Project Engineer at \$175/hour for 260 hours and a Project Manager at \$195/hour for 52 hours). This was estimated based on San Elijo JPA's experience preparing progress reports for past IRWM Implementation Grants and the Coalition's experience preparing Project Completion Reports.

Row (b) Land Purchase/ Easement

Task 3: Land Acquisition:

Not applicable – no land purchase or easements are necessary.

Row (c) Planning/ Design/ Engineering/ Environmental Documentation

Task 4: Feasibility Studies:

Not applicable – feasibility studies have already been completed for the project.

Task 5: CEQA Documentation

San Elijo JPA has already completed an MND for upgrades to the SEWRF, which included *Recycled Water Storage and Pumping System Expansion (SE)*. The City of Oceanside (*Recycled Water Pipeline: North El Camino Real (OC)*) has already completed an Addendum to a PEIR for their pipelines. Neither of these costs are included in this proposal because they are completed work. Olivenhain MWD (*Recycled Water Pipeline: South El Camino Real*) is completing an MND for its components for an estimated \$25,485, including US Fish and Wildlife filing fees, based on the Professional Services Agreement with RECON Environmental Inc. This MND will be adopted by the OMWD Board on February 12, 2020.

Task 6: Permitting

Recycled Water Storage and Pumping System Expansion (SE) does not require permitting because San Elijo JPA is a self-permitting agency for treatment improvements, therefore permitting costs are not included in this proposal. *Recycled Water Pipeline: North El Camino Real (OC)* will secure general construction permits through the general requirements task in Task 11. A Coastal Development Permit for pipeline installation for *Recycled Water Pipeline: South El Camino Real (OM)* will be secured in 2020, for an estimated cost of \$22,257. Total permitting cost is \$22,257.

Task 7: Design

Design work for the project will total \$242,868, based on engineer's estimates and contracted design costs for the project components. *Recycled Water Storage and Pumping System Expansion (SE)* design will cost \$99,825 based on previous experience. *Recycled Water Pipeline: North El Camino Real (OC)* is complete and those costs are not included in this proposal. NV5 is completing design work for *Recycled Water Pipeline: South El Camino Real* for a cost of \$143,043; the project is currently at 90% design.

Task 8: Project Performance Monitoring Plan

Costs for this task include time for a San Elijo JPA Project Manager and Project Engineer to complete the Project Performance Monitoring Plan. The proposed task budget of \$6,225 is based on 55 total hours of staff time (Project Engineer at \$175/hour for 15 hours, Support Staff at \$75/hr for 35 hours, and a Project Manager at \$195/hour for 5 hours), based on experience under a previous IRWM grant.

Row (d) Construction/Implementation

Task 9: Contract Services

Not applicable - Project partners will be completed this service in-house and in some cases is already complete and therefore not included in the project budget.

Task 10: Construction Administration

Construction administration activities will occur during construction of the proposed project components. Construction management, inspection services, and engineering services during construction for *Recycled Water Storage and Pumping System Expansion* are estimated to be \$113,438, based on San Elijo JPA's standard assumptions of 7.5% of construction costs for construction management and inspection and 2.5% for engineering services during construction. Construction administration for *Recycled Water Pipeline: North El Camino Real (OC)* is expected to cost \$889,809, based on a standard 10% of construction costs. *Recycled Water Pipeline: South El Camino Real (OM)* construction administration is estimated to cost up to \$200,000. The RFP was released in November 2019 and proposals are due on December 20, 2019.

Task 11: Construction/Implementation

Construction costs for each component of the project are estimated below based on similar construction projects, engineer estimates, and contracted work. A standard construction contingency of 10% has been added below.

Table 5-12: Detailed Budget for North County Recycled Water Project Task 11

Activity	Hourly Rate/Unit Cost	Number of Hours/Units	Total Cost
<i>Subtask 11.1: Recycled Water Storage and Pumping System Expansion</i>	-	-	\$1,134,375
Division 1 - General Requirements	\$93,750	1	\$93,750
Division 2 – Sitework	\$49,000	1	\$49,000
Division 3 – Concrete	\$562,500	1	\$562,500
Division 4 – Masonry	\$ -		\$0
Division 11 – Equipment	\$110,000	1	\$110,000
Division 15 – Mechanical	\$128,000	1	\$128,000
Division 16 – Electrical	\$88,000	1	\$88,000
Construction Contingency	\$103,125	10%	\$103,125
<i>Subtask 11.2: Recycled Water Pipeline: North El Camino Real</i>	-	-	\$8,898,087
General Requirements	\$1,337,300	1	\$1,337,300
Sitework	\$475,000	1	\$475,000
Install Reclaimed Water Services	\$7,000	22	\$154,000
10" PVC C900 DR 18 Reclaimed Water Pipeline	\$120	17,044	\$2,045,280
12" PVC C900 DR 18 Reclaimed Water Pipeline	\$130	4,519	\$587,470
16" PVC C900 DR 18 Reclaimed Water Pipeline	\$180	18,984	\$3,417,120
Construction Contingency	\$808,917	10%	\$808,917
<i>Subtask 11.3: Recycled Water Pipeline: South El Camino Real</i>	-	-	\$984,978
Mobilization/Demobilization/Permits/Bonds	\$100,000	1	\$100,000
6" PVC Pipeline	\$136	3,720	\$505,435
Traffic Control	\$60,000	1	\$60,000
Irrigation Connections	\$150,000	1	\$150,000
Miscellaneous	\$80,000	1	\$80,000
Construction Contingency	\$89,543	10%	\$89,543
Total			\$11,017,440

Project 7: San Elijo Stormwater Capture & Reuse

Local Project Sponsor: San Elijo Joint Powers Authority (San Elijo JPA)

Partners: The Nature Collective

A project summary budget table consistent with Exhibit D in the PSP is provided below as **Table 5-13** for the *San Elijo Stormwater Capture & Reuse* project. A two-page summary to demonstrate how the budget is reasonable based on current available information follows the table. Total project cost is \$5,040,100, 61% of which is provided as match. \$1,195,000 is requested in grant.

Table 5-13: Total Project Budget for San Elijo Stormwater Capture & Reuse

Proposal Title: San Diego 2019 IRWM Implementation Grant Proposal					
Project Title: San Elijo Stormwater Capture & Reuse					
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
Activity		(a) Cost Share/Match (Non-State)	(b) Requested Grant Amount	(c) Other Cost Share (Including State)	(d) Total
(a)	Project Administration	\$0	\$105,820	\$0	\$105,820
	Task 1: Project Management	\$0	\$46,020	\$0	\$46,020
	Task 2: Reporting	\$0	\$59,800	\$0	\$59,800
(b)	Land Purchase/ Easement	N/A	N/A	N/A	N/A
	Task 3: Land Purchase	N/A	N/A	N/A	N/A
(c)	Planning/ Design/ Engineering/ Environmental Documentation	\$0	\$237,832	\$772,263	\$1,010,095
	Task 4: Feasibility Studies	N/A	N/A	N/A	N/A
	Task 5: CEQA Documentation	\$0	\$16,000	\$384,037	\$400,037
	Task 6: Permitting	\$0	\$15,257	\$0	\$15,257
	Task 7: Design	\$0	\$200,000	\$388,226	\$588,226
	Task 8: Project Performance Monitoring Plan	\$0	\$6,575	\$0	\$6,575
(d)	Construction/ Implementation	\$3,072,837	\$851,348	\$0	\$3,924,185
	Task 9: Contract Services	\$0	\$29,548	\$0	\$29,548
	Task 10: Construction Administration	\$0	\$59,096	\$0	\$59,096
	Task 11: Construction/Implementation	\$3,072,837	\$762,704	\$0	\$3,835,541
	Subtask 11.1: Preliminary Treatment Upgrades	\$2,992,837	\$0	\$0	\$2,992,837
	Subtask 11.2: Desilting Basins and Pumping System	\$0	\$682,704	\$0	\$682,704
	Subtask 11.3: Signage and Messaging	\$80,000	\$80,000	\$0	\$160,000
(e)	Project Total	\$3,072,837	\$1,195,000	\$772,263	\$5,040,100
*List sources of funding: San Elijo JPA CIP Funds and The Nature Collective staff time.					

Row (a) Project Administration Costs

Task 1: Project Management

Costs for project management include time for San Elijo JPA staff to complete all administration efforts required to implement the project and administer the grant. Staff will dedicate a total of 364 hours to this task, which is 12 hours per month on average (208 hours for a Financial Analyst at \$75/hour and 156 hours for a Project Manager at \$195/hour). Total cost for the task is \$46,020.

Task 2: Reporting

Costs for this task include time for a San Elijo JPA staff member to prepare quarterly reports in addition to the Project Completion report. The proposed task budget of \$59,800 is based on 328 total hours of staff time (Project Engineer at \$175/hour for 208 hours and a Project Manager at \$195/hour for 120 hours). This estimate was developed based on SEJPA's experience completing reporting under the Proposition 84 IRWM Implementation Grant, and assumes approximately 25 hours per quarter for 11 quarters to develop the quarterly report and respond to DWR comments, and approximately 50 hours to prepare the Project Completion Report. Total cost for this task is \$59,800.

Row (b) Land Purchase/ Easement

Task 3: Land Acquisition

Not applicable – no land purchase or easements are necessary because the site is already owned by SEJPA and The Nature Collective already has access to the San Elijo Lagoon.

Row (c) Planning/ Design/ Engineering/ Environmental Documentation

Task 4: Feasibility Studies

Not applicable – a feasibility study was already completed in 2017 and is not included in this budget.

Task 5: CEQA Documentation

A Mitigated Negative Declaration was completed in May 2016 for an actual cost of \$384,037. An Addendum to the MND will be prepared for the *Desilting Basins & Pumping Station*. The cost to prepare the Addendum is \$16,000 based on SEJPA's experience preparing similar addendums and will be completed in house. The total cost of this task is \$400,037.

Task 6: Permitting

Permits for work on the *Preliminary Treatment Upgrades* were previously acquired and are not included in this project's work plan or budget. A CDFW 1600 Streambed Alteration Agreement will be acquired for the *Desilting Basins & Pumping Station*, estimated to cost \$15,257, including fees based on previous experience.

Task 7: Design

Design for the *Preliminary Treatment Upgrades* was completed in November 2015 for a total actual cost of \$388,226. Based on similar projects, design for the *Desilting Basins & Pumping Station* is expected to cost \$200,000. This includes approximately 1,080 hours of time for a Design Engineer, at an average hourly rate of \$185.

Task 8: Project Performance Monitoring Plan

Costs for this task include time for a San Elijo JPA staff to complete the Project Performance Monitoring Plan. The task budget of \$6,575 is based on 37 total hours of staff time (Project Engineer at \$175/hour for 32 hours and a Project Manager at \$195/hour for 5 hours). This level of effort was estimated based on SEJPA's experience developing monitoring plans under previous IRWM Implementation grants.

Row (d) Construction/Implementation

Task 9: Contract Services

Contract services includes the San Elijo JPA's costs to prepare a Notice Inviting Bids, perform advertisements for bid, conduct a pre-bid meeting, perform bid phase services, review bid packages, and recommend award to a Contractor for the project. Contract services costs are estimated to be 5% of construction costs, based on SEJPA's standard costs to prepare and bid projects. Contracting for the *Preliminary Treatment Upgrades* were completed in 2016 and not included in this project. Contracting for the *Desilting Basins & Pumping Station* is estimated to be \$29,548 (5% of construction costs). No contracting services are required for the *Signage and Messaging*.

Task 10: Construction Administration

Construction administration activities include construction administration, review of submittals, review of Requests for Information, review of Change Orders, bi-weekly progress meetings, review of payment requests, full-time construction inspection (for 24 weeks of on-site construction activities), and preparation of record drawings and are estimated at approximately 7.5% of construction costs, which is standard for SEJPA projects. Engineering services during construction are estimated to be 2.5% of construction costs. In total, construction management, inspection services, and engineering services during construction for the *Desilting Basins & Pumping Station* are estimated to be \$59,096.

Task 11: Construction/Implementation

Construction costs for the project are based on actual construction costs for completed work and estimates based on similar projects for the desilting basin enhancements. Outreach supporting the concept of stormwater capture and reuse for community benefit, along with protection of stormwater quality into the Lagoon, in *Signage and Messaging* are developed based on planned number of field trips and classes and The Nature Collective's extensive experience developing and implementing education programs. A 10% construction contingency (construction only) and 10% project contingency (includes planning, design, environmental) is included for construction of the *Desilting Basins & Pumping Station*, consistent with SEJPA's standard contingency.

Table 5-14: Detailed Budget for San Elijo Stormwater Capture & Reuse Task 11

Activity	Hourly Rate/Unit Cost	Number of Hours/Units	Total Cost
<i>Subtask 11.1 Preliminary Treatment Upgrades</i>	-	-	\$2,992,837
Division 1 – General Requirements	\$191,901	Lump Sum	\$191,901
Division 2 - Sitework	\$543,410	Lump Sum	\$543,410
Division 3 - Concrete	\$697,746	Lump Sum	\$697,746
Division 4 - Masonry	\$0	Lump Sum	\$0
Division 11 - Equipment	\$788,100	Lump Sum	\$788,100
Division 15 - Mechanical	\$389,530	Lump Sum	\$389,530
Division 16 - Electrical	\$382,150	Lump Sum	\$382,150
<i>Subtask 11.2 Desilting Basins and Pumping System</i>	-	-	\$682,704
Division 1 - General Requirements	\$52,360	Lump Sum	\$52,360
Division 2 - Sitework	\$150,000	Lump Sum	\$150,000
Division 3 - Concrete	\$130,000	Lump Sum	\$130,000
Division 11 - Equipment	\$55,000	Lump Sum	\$55,000
Division 15 - Mechanical	\$103,600	Lump Sum	\$103,600
Division 16 - Electrical	\$100,000	Lump Sum	\$100,000
Contingency	\$59,096	10%	\$59,096
Project Contingency (includes planning)	\$32,648	10%	\$32,648
<i>Subtask 11.3 Signage and Messaging</i>			\$160,000
Field trips (2,000 students/year, 80 class/year)	\$915/class	160 classes	\$146,400
Curriculum development	\$8,000	Lump Sum	\$8,000
Display board (development and printing)	\$5,600	Lump Sum	\$5,600
Total			\$3,835,541

Grant Administration

Implementing Agency: San Diego County Water Authority (SDCWA)

Partners: Local Project Sponsors (City of National City, City of San Diego, Fallbrook Public Utility Department, City of Oceanside, and San Elijo Joint Powers Authority)

A project summary budget table consistent with Exhibit D in the PSP is provided below as **Table 5-15** for *Grant Administration*. The following pages include the two-page summary to demonstrate how the budget shown in is **Table 5-15** reasonable based on current available information.

Table 5-15: Total Project Budget for Grant Administration

Proposal Title: San Diego 2019 IRWM Implementation Grant Proposal				
Project Title: Grant Administration				
Project serves a need of a DAC?:	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No
Funding Match Waiver request?:	<input checked="" type="checkbox"/>	Yes	<input type="checkbox"/>	No
	(a)	(b)	(c)	(d)
Activity	Cost Share/Match (Non-State)	Grant Request	Other Cost Share (Including State)	Total
<i>(a) Project Administration</i>				
Task 1: Agreement Administration	\$0	\$178,012	\$0	\$178,012
Task 2: Invoicing	\$0	\$378,526	\$0	\$378,526
Task 3: Progress Reports and Completion Reports	\$0	\$363,642	\$0	\$363,642
Project Total	\$0	\$920,180	\$0	\$920,180
<p>*List sources of funding: No funding match is being provided for Grant Administration. Grant Administration will be funded entirely through grant dollars. The PSP allows up to 10% of total grant be allocated to grant administration activities by the grantee (SDCWA) and the project sponsors. Total grant request in this application is \$15,336,336. 6% of this has been allocated for the grantee to perform grant administration activities. Overall, the proposal includes approximately 8% of total grant for grant administration, well below the maximum allocation allowed by DWR for administration activities by the grantee and project sponsors. Although SDCWA is not providing match here for grant administration, SDCWA is providing 82% cost share in its 2020 <i>Regional Water Use Efficiency Program</i>, \$2.7 million higher than the required 50%. Overall, this application provides 52% funding match.</p>				

Row (a) Project Administration Costs

SDCWA has extensive experience administering IRWM grants on behalf of the San Diego IRWM Region. Based on this experience, approximately 6% of the grant request has been set aside for grant administration by SDCWA, or \$920,180. An explanation of costs associated with each task is provided below, along with hourly rates and an estimate of hours to complete each task. Note that some variation may occur due to rounding.

Task 1: Agreement Administration

Cost break down for this task is provided in **Table 5-16** below. The cost is calculated as the level of effort to execute the grant agreement with DWR and individual LPS agreements, based on SDCWA's experience with administering IRWM grants. The Grant Administrator, Management Analyst, and Assistant Management Analyst each require an average of 40 hours for DWR Grant Administration (agreement processing and coordination with DWR and LPS). The Grant Administrator requires an additional 200 hours per agreement to manage the DWR and LPS agreements compliance, with the Assistant Management Analyst spending 50 hours per LPS agreement. These hours also include costs attending meetings with DWR and LPS, as necessary, assists LPS with grant agreement compliance monitoring, tracking and education related to all aspects of grant requirements. This budget also contain labor needed to attend administration workgroup and management meetings to report on grant status and obtain knowledge related to the administration of this grant. In order to facilitate coordination with the LPS, this task includes enhancement and maintenance of the Grants Webtool to incorporate a new Proposition 1- Round 1 Implementation Grant module. This task budget also includes other materials, equipment and supplies required to perform this task during the implementation period. Hourly rates are based on estimated salary and benefits, and represent an average rate anticipated over the grant administration period (mid-2020-2025).

Table 5-16: Detailed Budget for Grant Administration Task 1

Discipline	Hourly Rate	Number of Hours	Total Cost
Grant Administrator	\$92	1,510	\$138,980
Management Analyst	\$81	210	\$17,035
Assistant Management Analyst	\$73	300	\$21,996
TOTAL			\$178,012

Task 2: Invoicing

Cost breakdown for this task is presented in **Table 5-17** below. Costs associated with invoicing includes the time required to coordinate with LPS staff to obtain invoices, time to review each invoice packet from LPS, compile LPS invoices into DWR's invoice packet, review invoices for accuracy and adequacy based on grant agreement criteria, and revise inadequate invoice packets. This task also includes invoice development for grant administration costs by SDCWA, which requires separate quarterly submittal. The grant will be administered for an estimated five years (mid-2020-2025) for a total of 22 invoice submittals to DWR under this grant. Based on the project schedules, the number of invoice packets received each quarter will be reduced as projects are completed, until all projects are completed. As proposed in this application, 6 LPS will manage 7 projects, and each project will submit an invoice package to SDCWA each quarter. Based on SDCWA's past grant administration experience, the Grant Administrator will require about 10 hours per invoice packet received from the LPS (7 packets per quarter) to process. The Management and Assistant Management Analysts will also require about 34 hours per invoice packet, per quarter. This task will also include disbursement of grant reimbursements from DWR to the LPS and retention requests and reimbursements to the LPS once projects are deemed complete. An additional budget of 25 hours per project has been included in the case of any necessary amendments. Amendments will be avoided if possible, however, experience has shown that an amendment for a project is likely to occur during the 5-year grant administration period.

Table 5-17: Detailed Budget for Grant Administration Task 2

Discipline	Hourly Rate	Number of Hours	Total Cost
Grant Administrator	\$92	1,155	\$106,306
Management Analyst	\$81	2,000	\$162,240
Assistant Management Analyst	\$73	1,500	\$109,980
TOTAL			\$378,526

Task 3: Progress Reports and Completion Reports

Cost breakdown for preparation of quarterly project progress reports and project and program completion reports is provided in **Table 5-18** below. Based on SDCWA's past grant administration experience, the Grant Administrator will require 15 hours per progress report from each of the LPS (6 LPS, 7 projects), and 25 hours per project completion report. The Management and Assistant Management Analysts, combined, will require approximately 30 hours per progress report and project completion report from each of the LPS. The grant will be administered for about five years (mid-2020-2025) for a total of 22 progress report submittals.

Table 5-18: Detailed Budget for Grant Administration Task 3

Discipline	Hourly Rate	Number of Hours	Total Cost
Grant Administrator	\$92	1,505	\$138,520
Management Analyst	\$81	1,210	\$98,155
Assistant Management Analyst	\$73	1,729	\$126,967
TOTAL			\$363,642