



Attachment 4 | **San Diego Integrated Regional Water Management**
2014 IRWM Drought Solicitation Implementation Grant Proposal
Work Summary

Attachment 4 consists of the following items:

- ✓ **Work Summary.** This attachment includes summaries of the tasks necessary to complete each project in the Proposal, including necessary deliverables, and the current status of each project.
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Introduction

Included within this *San Diego IRWM Drought Solicitation Implementation Grant Proposal* are seven high-priority projects that were evaluated and selected by a subcommittee (the Project Selection Workgroup) of the Region’s primary stakeholder body (the Regional Advisory Committee or RAC). The Project Selection Workgroup carefully evaluated each project to determine its potential to provide drought relief to the Region as well as its readiness to proceed, previously completed work, and viability. The seven projects that were selected and are included within this Proposal have therefore been extensively vetted by regional experts who determined that the projects were reasonable, achievable, and consistent with California Department of Water Resources (DWR) requirements pertaining to Integrated Regional Water Management (IRWM) projects.

This attachment contains two-page summaries of the anticipated tasks necessary to complete each project in the Proposal, including the current status of the project (percent or % complete for each task), and any required permitting activities. The tasks and information provided for each project are consistent with project-related information provided in the Budget (Attachment 5) and Schedule (Attachment 6).

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Project 1: Reynolds Groundwater Desalination Facility Expansion

Local Project Sponsor: Sweetwater Authority (Sweetwater)
Partner: City of San Diego

The Reynolds Groundwater Desalination Facility (Reynolds Facility) is an existing facility that currently produces 3,600 acre-feet per year (AFY) of a local, drought-proof supply (desalinated groundwater) for potable use via six existing wells for customers in Sweetwater’s service area. The *Reynolds Groundwater Desalination Facility Expansion* project includes activities to expand the Reynolds Facility by 5,200 AFY so that it can produce up to 8,800 AFY of potable desalinated groundwater. Through an agreement with the City of San Diego, Sweetwater would receive up to 6,200 AFY, and the City of San Diego would receive up to 2,600 AFY of the total production of 8,800 AFY.

Sweetwater has been completing efforts towards this project for over a decade; an EIR was certified for the project in 2010, and as of June 2014 the project is 90% designed. Future activities associated with the project involve completing property acquisitions, finalizing design and permitting work, and four construction components:

- Brineline Extension: extension of the brineline approximately 2,000 feet west of the existing discharge point. This component of the project was completed in February 2014.
- Well construction: construction of an additional five groundwater wells
- Conveyance pipeline: construction of 13,400 linear feet of additional pipelines to connect the new groundwater wells to the Reynolds Facility
- Desalination process and well equipping:
 - New reverse osmosis (RO) system for the new groundwater wells
 - Updated controls to accommodate the increased capacity and new equipment
 - Modification of the clean-in-place system
 - Automation of some parts of the existing and new wells
 - Upgrading the pre-treatment system from the existing three cartridge filters to four larger-capacity filters.
 - Implementation of an additional iron and manganese treatment system

A Work Summary of the *Reynolds Groundwater Desalination Facility Expansion*, including the anticipated tasks necessary to complete the project, deliverables, and current status of the project, is provided in **Table 4-1** below.

**Table 4-1: Work Summary
Reynolds Groundwater Desalination Facility Expansion**

Task	Description of Work to be Completed for Task	Deliverables	% Complete
Grant Administration:	The San Diego County Water Authority will be responsible for overall administration and processing of the grant contract, including compiling and submitting project invoices, quarterly reports, and completion reports to DWR.		0%
Row (a): Direct Project Administration			
1: Project Administration	Task 1 will involve grant administration and coordinating with DWR per terms of the Grant Agreement and will also involve developing information for the Board of Directors. All of the administration work will be conducted by Sweetwater; this work is not included within the budget.	<ul style="list-style-type: none"> • Progress reports, invoices, supporting documentation • Final Board Reports 	0%
2: Labor Compliance Program	Sweetwater does not have a Labor Compliance Program (LCP) in place. Sweetwater will ensure an LCP compliant with the Department of Industrial Relations standards is created before construction begins in January 2015.	<ul style="list-style-type: none"> • Submission of LCP • Management of LCP 	0%
3: Reporting	Task 3 will involve preparation of quarterly progress reports, as well as a final report and post-completion report as required by DWR per terms of the Grant Agreement. All of the reporting work will be conducted by Sweetwater; this work is not included within the project budget.	<ul style="list-style-type: none"> • Quarterly Progress Reports • Final and Post-Completion Reports 	0%

Task	Description of Work to be Completed for Task	Deliverables	% Complete
Row (b): Land Purchase/Easement			
4: Land Acquisition	The five proposed production wells will be located on five separate properties. Three of the well sites will be constructed on easements and two will be constructed on real property. Sweetwater has purchased one of the easements and is in the process of obtaining the other four properties via easements (two additional) and purchase (two sites).	<ul style="list-style-type: none"> • Proof of Title Transfer for all five well sites 	20%
Row (c): Planning/Design/Engineering/Environmental Documentation			
5: Assessment and Evaluation	Sweetwater has prepared all necessary documents to move the project forward towards design. This work is not included as part of the project budget.	<ul style="list-style-type: none"> • USGS Study for San Diego Formation • Interim Groundwater Management Plan 	100%
6: Final Design	90 percent design was completed on June 30, 2014. Final design activities will immediately follow the completion of 90 percent design and will be completed by October 31, 2014.	<ul style="list-style-type: none"> • 90% design plans • Final drawings and specifications 	90%
7: Environmental Documentation	The CEQA compliance for the project was completed in 2010 via an EIR. The EIR was developed to also function as an EA under NEPA.	<ul style="list-style-type: none"> • Final EIR/EA 	100%
8: Permitting	Permits for the project will be required by several regulatory agencies (see deliverables column). All of the permitting work will be conducted by Sweetwater staff; the budget for this work is not included within this Proposal.	<ul style="list-style-type: none"> • NPDES & Waste Discharge Permits • CDPH Water Supply Permit • Encroachment & Traffic Control Permit • Well Drilling Permit 	25%
Row (d): Construction/Implementation			
9: Construction Contracting	Activities included as part of Task 9 include: advertisement for bids, a pre-bid contractors meeting, bid opening, bid evaluation, and selection of contractor with lowest responsive bid. The Board of Directors would then award the contract and a Notice to Proceed would be issued. There will be four (4) separate bid packages: 1) Brineline extension (complete), 2) well construction, 3) conveyance pipeline, and 4) desalination process and well equipping.	<ul style="list-style-type: none"> • Prep and Advertisement of Bid Packages • Bid Opening and Evaluation • Bid Award • Notice to Proceed 	10%
10: Construction			
10.1: Mobilization & Site Preparation	Contractor will mobilize equipment and secure permits and a safety plan for the Project. Pre-construction photographs of all construction sites will be taken.	<ul style="list-style-type: none"> • Permits and safety plan • Pre-construction photographs 	10%
10.2: Project Construction	Project construction will include the four components described above, including: 1) Brineline extension (complete), 2) well construction, 3) conveyance pipeline, and 4) desalination process and well equipping.	<ul style="list-style-type: none"> • Construct brineline extension • Construct five new wells • Construct 13,400 feet of pipelines • Expand desalination process 	10%
10.3: Performance Testing and Demobilization	This task involves all required materials testing, including soil content and compaction, concrete strength, pump motor horsepower, pump flow, RO membranes and appurtenances, and pipeline pressure testing. It also includes the production and submission of operating manuals for the equipment installed as well as taking post-construction photographs.	<ul style="list-style-type: none"> • Soil and concrete testing • Horsepower, flow, RO membranes, and pressure testing • Operating manuals • Post-construction photographs 	0%
11: Envntl Compliance	The well drilling contractor will be required to obtain a NPDES permit for groundwater discharge. Additionally, the contracted crew for construction of the recycled water facilities must comply with all Occupational Safety and Health Administration (OSHA) standards and requirements. Costs associated with this work are included under Task 10 as they will be the responsibility of the construction contractor.	<ul style="list-style-type: none"> • NPDES permit • Confirmation of OSHA compliance 	0%
12: Construction Admin	Construction management will include daily inspection, special inspections, labor compliance reporting, permitting review and compliance, and storm water compliance.	<ul style="list-style-type: none"> • Construction Management and Engineering Services during Construction 	0%

Project 2: Fallbrook Plant Nurseries Recycled Water Distribution System Expansion

Local Project Sponsor: Fallbrook Public Utility District (Fallbrook)

Partners: Mission Resources Conservation District (MRCD) and San Diego County Farm Bureau

The *Fallbrook Plant Nurseries Recycled Water Distribution System Expansion* project will provide recycled water to nursery operations in Fallbrook’s service area and will directly offset potable water use for nursery operations. Fallbrook currently produces 2,000 AFY of tertiary-treated recycled water at its wastewater treatment plant (WWTP), also called Plant No. 1; currently, only 600 AFY of this existing recycled water is used and the additional 1,400 AFY is discharged to the ocean through the Oceanside Ocean Outfall. The project will provide for efficient reuse of a portion of this existing resource by extending recycled water infrastructure to six nursery operations, which have a collective irrigation water demand of 642 AFY.

The project will also provide cost relief to local agriculture in the Fallbrook area. Fallbrook currently charges recycled water customers 85.5% of potable water costs, which saves recycled users 14.5% on their water costs. The recycled supply also provides agricultural water users with a long-term, reliable supply to ensure they will not be required to reduce nursery operations during an extended drought. Due to the importance of this project to the local agricultural community, Fallbrook has partnered with the MRCD and the Farm Bureau to conduct outreach to the agricultural community.

Fallbrook has already completed work associated with this project: easements are currently being secured, a Recycled Waterline Eastern Extension Planning Study was initiated in June 2014, 30% design specifications are complete, and a draft Negative Declaration (ND) has been completed. Activities that are associated with the project and included in the Work Summary include:

- Obtaining final easement agreements
- Finalizing planning documents and completing public outreach
- Finalizing design specifications and environmental documentation
- Securing all necessary permits
- Construction of recycled water piping and meters
- Providing onsite retrofit support to nurseries

A Work Summary of the *Fallbrook Plant Nurseries Recycled Water Distribution System Expansion*, including the anticipated tasks necessary to complete the project, deliverables, and current status of the project, is provided in **Table 4-2** below.

**Table 4-2: Work Summary
Fallbrook Plant Nurseries Recycled Water Distribution System Expansion**

Task	Description of Work to be Completed for Task	Deliverables	% Complete
Grant Administration:	The San Diego County Water Authority will be responsible for overall administration and processing of the grant contract, including compiling and submitting project invoices, quarterly reports, and completion reports to DWR.		0%
Row (a): Direct Project Administration			
1: Project Administration	Task 1 will involve grant administration and coordinating with DWR per terms of the Grant Agreement. Task 1 will also involve developing information for Fallbrook’s Board of Directors as necessary.	<ul style="list-style-type: none"> • Progress reports, invoices, supporting documentation • Final Board Reports 	0%
2: Labor Compliance Program	Fallbrook has a Labor Compliance Program (LCP) in place that is compliant with the Department of Industrial Relations standards. Work included in this Proposal involves time necessary to manage the existing LCP.	<ul style="list-style-type: none"> • Management of existing LCP 	0%
3: Reporting	Task 3 will involve preparation of quarterly progress reports, as well as a final report and post-completion report as required by DWR per terms of the Grant Agreement.	<ul style="list-style-type: none"> • Quarterly Progress Reports • Final and Post-Completion Reports 	0%

Task	Description of Work to be Completed for Task	Deliverables	% Complete
Row (b): Land Purchase/Easement			
4: Land Acquisition	The pipeline requires easements across four private parcels and the remainder will be in the County right-of-way. All easements have been secured except for one easement that is in final negotiation.	<ul style="list-style-type: none"> Final Easement Agreements 	90%
Row (c): Planning/Design/Engineering/Environmental Documentation			
5: Assessment and Evaluation	Fallbrook's Recycled Water Master Plan was completed and adopted in 2012 and identifies the extension to the nurseries as a priority project, this work set the stage for the project but is not included in the Proposal. Additional demand evaluations and pipeline alignment planning are necessary to update information for the project. Fallbrook will also conduct outreach with project partners MRCD and the Farm Bureau for future recycled water expansions.	<ul style="list-style-type: none"> Study summarizing preliminary alignment & final demand estimates Summary of results from outreach workshop 	10%
6: Final Design	30% design has been recently completed, and final design will take place immediately thereafter.	<ul style="list-style-type: none"> 30% Design Final Design 	30%
7: Environmental Documentation	A draft MND in accordance with CEQA has been prepared, and will be finalized and adopted after public review.	<ul style="list-style-type: none"> Final Adopted Mitigated Negative Declaration 	75%
8: Permitting	Permits associated with the project include: <ul style="list-style-type: none"> Regional Board (in conjunction with CDPH) – Add users to existing WDR permit Regional Board – Storm Water Pollution Prevention Program Permit (SWPPP) County of San Diego (SD) – Building and Traffic Control Permit County of SD – approval of on-site retrofits. SWPPP and Building and Traffic Control permits will be acquired by the construction contractor. Costs for these permits are included under Task 10.	<ul style="list-style-type: none"> Add users to WDR Permit SWPPP County of SD Building and Traffic Control Permit County of SD on-site retrofit approvals 	0%
Row (d): Construction/Implementation			
9: Construction Contracting	Bidding and construction will not be held until design has been finalized. The construction contracting for the project will be handled by Fallbrook staff in compliance with public contracting code. Tasks to secure the contract award include: advertisement for bids, a pre-bid contractors meeting, bid opening, bid evaluation and selection of contractor with lowest responsive bid. The Board would then award the contract and a Notice to Proceed would be issued.	<ul style="list-style-type: none"> Preparation & Advertisement of Bid Packages Bid Opening & Evaluation Bid Award Notice to Proceed 	0%
10: Construction			
10.1: Mobilization/Site Preparation	Contractor will mobilize equipment and secure permits and a safety plan for the project and will take pre-construction photographs.	<ul style="list-style-type: none"> Permits and safety plan Pre-construction photographs 	0%
10.2: Project Construction	Project construction will include: piping, meters, and asphalt restoration. An initial small extension to the first nursery will be completed by staff from Fallbrook while design is being completed on the larger extensions. No funds will be utilized for any labor associated with on-site retrofits by nursery users, but funds will be allocated for Fallbrook's time to support permitting and completion of the onsite retrofits.	<ul style="list-style-type: none"> Construct recycled water piping Install recycled water meters On-site retrofit support 	0%
10.3: Performance Testing and Demobilization	This task involves required materials testing, including soil content and compaction and pipeline pressure testing. It also includes demobilizing the construction crew and equipment from the work site as well as the production and submission of operating manuals for the equipment installed, and taking post-construction photographs. MRCD and Fallbrook will verify that onsite retrofits have been completed and installed properly.	<ul style="list-style-type: none"> Soil testing Operating manuals Demobilize equipment and crews Post-construction photographs 	0%
11: Env'tal Compliance	Environmental mitigation may be required per the Final ND; such measures are not known at this time but are anticipated to be small-scale in nature.	<ul style="list-style-type: none"> Other Environmental Safety Measures 	0%
12: Construction Admin	Fallbrook will provide engineering services during construction and construction management services. These construction management services will include daily inspections, labor compliance reporting, permitting review and compliance, and storm water compliance.	<ul style="list-style-type: none"> Construction Management Engineering Services during Construction 	0%

Project 3: Carlsbad Recycled Water Plant and Distribution System Expansion

Local Project Sponsor: Carlsbad Municipal Water District (Carlsbad)

Partner: Olivenhain Municipal Water District (OMWD)

The *Carlsbad Recycled Water Plant and Distribution System Expansion* project will create an additional 2,240 AFY of recycled water and deliver 363 AFY recycled water to customers in the short-term through implementation of specific components of Carlsbad’s Phase III Recycled Water Project. The Phase III Recycled Water Project implements Carlsbad’s 2012 Recycled Water Master Plan, and contains a series of eight pipeline expansion segments and expansion of the Carlsbad Water Reclamation Facility (WRF). The *Carlsbad Recycled Water Plant and Distribution System Expansion* project includes two components of the Phase III Recycled Water Project, including: a 2 million gallon per day (mgd) expansion of the Carlsbad WRF and construction of pipeline expansion segments 1a and 7.

The expanded capacity of the Carlsbad WRF will allow Carlsbad to provide recycled water to meet year-round demands of existing users; currently there is not enough recycled water to serve existing users and Carlsbad must supplement users with potable water (30 AFY). The project will also meet the demands from customers served by the pipeline expansion segments 1a and 7. Expansion Segment 1a will include construction of 9,400 linear feet (LF) of 4- to 8-inch pipelines, 56 service laterals, and deliver 99 AFY of recycled water to identified customers. Expansion Segment 7 will include construction of 7,500 LF of 4- to 8-inch pipeline to deliver 98 AFY recycled water to identified customers. Retrofits will be constructed for 30 customers that are adjacent to existing recycled water infrastructure to deliver an additional 126 AFY of recycled water. Recycled water produced and delivered by the project (353 AFY total) will directly offset imported potable water, and represents a drought-proof local supply. To further support the use of recycled water for irrigation, OMWD will conduct outreach efforts focused on turf management to educate users about how the quality of recycled water alters turf management and fertilizer application.

Carlsbad has already completed work for this project: 30% design is complete and a Mitigated Negative Declaration (MND) for the project was completed in 2012. Activities that are associated with the project and included in the Work Summary include:

- Finalizing design specifications and securing all necessary permits
- Expanding the Carlsbad WRF by 2 mgd
- Constructing Expansion Segments 1a and 7
- Providing onsite retrofit support and outreach to local users

A Work Summary of the *Carlsbad Recycled Water Plant and Distribution System*, including the anticipated tasks necessary to complete the project, deliverables, and current status of the project, is provided in **Table 4-3** below.

**Table 4-3: Work Summary
Carlsbad Recycled Water Plant and Distribution System**

Task	Description of Work to be Completed for Task	Deliverables	% Complete
Grant Administration:	The San Diego County Water Authority will be responsible for overall administration and processing of the grant contract, including compiling and submitting project invoices, quarterly reports, and completion reports to DWR.		0%
Row (a): Direct Project Administration			
1: Project Administration	Task 1 will involve grant administration and coordinating with DWR per terms of the Grant Agreement.	<ul style="list-style-type: none"> • Progress reports, invoices, supporting documentation 	0%
2: Labor Compliance Program	Carlsbad will assure that a LCP compliant with Department of Industrial Relations standards is in place prior to any construction activities covered under this grant program. All of the LCP work will be conducted by Carlsbad; the budget for this work is not included within this Proposal.	<ul style="list-style-type: none"> • Submission of LCP • Management of LCP 	0%
3: Reporting	Task 3 will involve preparing quarterly progress reports, a final report, and post-completion report as required by the Grant Agreement.	<ul style="list-style-type: none"> • Quarterly Progress Reports • Final and Post-Completion Reports 	0%
Row (b): Land Purchase/Easement			
4: Land Acquisition	There are no easement acquisitions that will be required for this project.	N/A	N/A

Task	Description of Work to be Completed for Task	Deliverables	% Complete
Row (c): Planning/Design/Engineering/Environmental Documentation			
5: Assessment and Evaluation	Carlsbad has prepared all necessary documents to move the project forward towards design. This work is not included as part of the project budget.	<ul style="list-style-type: none"> Phase III Recycled Water Project Feasibility Study 2012 Recycled Water Master Plan 	100%
6: Final Design	30% design of the Carlsbad WRF expansion has already been completed. Additional design work includes final design of the WRF expansion and preliminary and final design of Expansion Segments 1a and 7.	<ul style="list-style-type: none"> Preliminary and Final Design of Carlsbad WRF Preliminary and Final Design of pipeline segments 1a and 7 	30%
7: Environmental Documentation	A MND for the project was certified in November 2012, and CEQA Plus completed in May 2013. This work is not included as part of the budget.	<ul style="list-style-type: none"> Final MND and CEQA Plus 	100%
8: Permitting	Permits that are likely required for the project are listed in the column on the right for Deliverables. Work associated with obtaining all necessary permits will be conducted by Carlsbad and is not included as part of the budget.	<ul style="list-style-type: none"> Amendment to Order No. 2001-352 Coastal Development Permit Building and Traffic Control Permit Air Quality Management District Construction Permit 	0%
Row (d): Construction/Implementation			
9: Construction Contracting	The pipeline segments will be bid and contracted separately from the WRF expansion. Bids will be solicited after final design is completed. Tasks to secure the contract award include: advertising for bids, pre-bid contractors meeting, bid evaluation, award, and approvals, and a notice to proceed.	<ul style="list-style-type: none"> Preparation & Advertisement of Bid Packages Bid Opening, Evaluation, & Award Notice to Proceed 	0%
10: Construction			
10.1: Mobilization/Site Preparation	Contractor will mobilize equipment and secure permits and a safety plan for the project and will take pre-construction photographs.	<ul style="list-style-type: none"> Permits and safety plan Pre-construction photographs 	0%
10.2: Project Construction	This task includes work to construct Expansion Segment 1a and 7, including installation of pipelines and restoration of surface improvements. It also includes construction activities for the 2 mgd WRF expansion. WRF expansion requires construction of an on-site pump station and off-site transmission piping, an additional feed pump, 2 mgd microfiltration treatment train and chlorine contact basin, an airlift pump, onsite pipeline extensions, and installation of controllers and fiber optic/cable extensions.	<ul style="list-style-type: none"> Construct pipeline segment 1a & 7 Construct WRF expansion 	0%
10.3: Customer Retrofit	This task involves retrofitting customers identified as "Adjacent to Existing", who already have recycled water infrastructure in place and require retrofitting for connection to adjacent recycled water pipelines. The labor included in this task is Carlsbad staff labor, not the on-site labor.	<ul style="list-style-type: none"> Connection of 30 "Adjacent to Existing" customers 	0%
10.4: Performance Testing and Demobilization	This task involves pressure testing installed pipelines, removing equipment and material from staging areas, and testing of the new WRF treatment train and controls. Post-construction photos will be taken.	<ul style="list-style-type: none"> Soil and concrete testing Flow and pressure testing Demobilize equipment and crews Post-construction photographs 	0%
10.5: Outreach	Targeted outreach to irrigators and site managers about turf management, including the salt and nutrient content of recycled water and how this can offset some fertilizer use. OMWD will implement this task.	<ul style="list-style-type: none"> One turf management workshop Outreach materials 	0%
11: Env'tal Compliance	A Mitigation Monitoring and Reporting Program (MMRP) has been adopted as part of this CEQA compliance and will be implemented. This work is not included as part of the project budget.	<ul style="list-style-type: none"> Implementation of adopted MMRP 	0%
12: Construction Admin	This task involves work to manage the construction contractor for this project. Activities for this task include construction management, materials testing, and inspection.	<ul style="list-style-type: none"> Construction Management 	0%

Project 4: Regional Demand Management Program Expansion

Local Project Sponsor: San Diego County Water Authority (SDCWA)

Partners: SDCWA Member Agencies, San Diego Gas & Electric (SDG&E), California Landscape Contractors Association, Hans and Margaret Doe Charitable Trust

The *Regional Demand Management Program Expansion* is a multi-faceted water conservation program that is designed to deliver near-term water savings in response to 2014 drought conditions. The program will expand or replicate several ongoing, successful, regional water conservation initiatives described below:

1. The WaterSmart Landscape Efficiency Program (WSLEP): An existing incentive program that provides financial incentives to reduce outdoor water use, which accounts for the majority of the Region’s urban water use. Upon program completion onsite meter readings are verified against official water utility billing records to calculate and measure water savings per site.
2. Detention Facility Retrofit Project: The Bailey Detention Facility is a correctional facility in San Diego that was retrofitted with electronic flush valves, low-flow showerheads, and faucet aerators that cumulatively reduced water demands by more than 300 AFY.
3. Turf Replacement Rebates: Turf replacement retrofits are currently issued throughout the Region by the SoCal WaterSmart program that is collaboration between SDCWA Metropolitan Water District of Southern California, DWR, and the Bureau of Reclamation.
4. Landscape Workshops: A pilot phase of a workshop series was jointly funded by SDCWA and the Hans and Margaret Doe Charitable Trust. During the pilot phase of the program, 80 participants completed the series and expressed positive feedback and the need for additional workshops.

The *Regional Demand Management Program Expansion* will build upon the aforementioned successful conservation efforts and will include the following four components, which cumulatively will conserve 1,089 AF of water over the useful life of the program:

1. WSLEP: Will enroll 20 new 4-acre sites and provide performance-based financial incentives to achieve a 20% reduction in landscape water use through irrigation hardware upgrades and water management services.
2. Detention Facility Retrofit Project: Project will retrofit 188 units at a detention facility with plumbing fixtures such as water-efficient flush valves, shower heads and aerators. This retrofit project will be modeled after successful implementation of a similar project at the Bailey Detention Facility.
3. Turf Replacement Rebates: Program will convert 4.6 acres of high-water-use turf with WaterSmart landscapes through financial incentives to property owners.
4. WaterSmart Landscape Workshops: Program will deliver training to 250 homeowners to prepare them for successful turf conversion projects, and is modeled after a successful pilot program.

A Work Summary of the *Regional Demand Management Program Expansion*, including the anticipated tasks necessary to complete the program, deliverables, and current status of the program, is provided in **Table 4-4** below.

**Table 4-4: Work Summary
Regional Demand Management Program Expansion**

Task	Description of Work to be Completed for Task	Deliverables	% Complete
Grant Administration:	The San Diego County Water Authority will be responsible for overall administration and processing of the grant contract, including compiling and submitting project invoices, quarterly reports, and completion reports to DWR.		0%
Row (a): Direct Project Administration			
1: Project Administration	The program will be managed by several project managers within SDCWA’s Public Outreach/Conservation Department. Activities include program planning, grant administration and invoicing per the terms of the Grant Agreement, resolving issues, and managing program data and files. Project managers may also coordinate with member agencies and report to management and the Board of	<ul style="list-style-type: none"> • Team coordination • Invoices and supporting documentation • Final Board Reports 	0%

Task	Description of Work to be Completed for Task	Deliverables	% Complete
	Directors as necessary.		
2: Labor Compliance Program	This program is not a public works project and does not require a LCP.	N/A	N/A
3: Reporting	Task 3 will involve preparation of quarterly progress reports, as well as a final report and post-completion report as required by DWR per terms of the Grant Agreement. DWR-related reporting work will be conducted by SDCWA; this work is not included within the budget.	<ul style="list-style-type: none"> Quarterly Progress Reports Final and Post-Completion Reports 	0%
Row (b): Land Purchase/Easement			
4: Land Acquisition	There are no easement acquisitions or right-of-ways that will be required for this program.	N/A	N/A
Row (c): Planning/Design/Engineering/Environmental Documentation			
5: Assessment and Evaluation	All water savings projections were developed as engineering estimates using the best available information and past program experience. No further design or planning is anticipated. This work is not included as part of the budget.	<ul style="list-style-type: none"> Existing WSLEP Program Existing Bailey Detention Facility Existing Turf Rebate Program Pilot Landscape Workshops 	100%
6: Final Design	No design is required as part of this program.	N/A	N/A
7: Environmental Documentation	This program is exempt from CEQA requirements, because it does not meet the CEQA definition of a "project."	N/A	N/A
8: Permitting	The Detention Facility Retrofit will require obtaining construction permits from the County of San Diego. Work associated with obtaining all necessary permits is not included as part of the budget.	<ul style="list-style-type: none"> County of San Diego Construction Permits 	0%
Row (d): Construction/Implementation			
9: Implementation Contracting	Existing and similar programs have been procured via the RFP process consistent with the SDCWA's procurement policies. The implementation contracting for the program will be handled by SDCWA staff in compliance with public contracting code and internal policies. The four program components will be contracted separately.	<ul style="list-style-type: none"> Contracting of all programs, in accordance with public contracting code and internal procurement policies 	0%
10: Implementation			
10.1: Mobilization/ Site Preparation	No construction mobilization or site preparation is required for this program.	N/A	N/A
10.2: Project Implementation	Implementation activities for each program component are described below: <ul style="list-style-type: none"> WSLEP: provide performance-based financial incentives to achieve a 20% reduction in landscape water use through irrigation hardware upgrades and water management services Detention Facility Retrofit: installation of electronic flush valves, water efficient showerheads, and sink aerators Turf Replacement Rebates: Administration of rebate program to convert 4.6 acres of high-water-use turf with water-efficient landscapes through financial incentives Landscape Workshops: Administration of a community education program to help homeowners plan for the successful execution of turf conversion projects 	<p>WSLEP:</p> <ul style="list-style-type: none"> Contractor participation agreements 20 site participation agreements Irrigation hardware upgrades Irrigation management services <p>Detention Facility Retrofit:</p> <ul style="list-style-type: none"> 188 electronic flush valves kits 188 showerheads 188 aerators <p>Turf Replacement Rebates:</p> <ul style="list-style-type: none"> 4.6 acres of turf conversion <p>Landscape Workshops:</p> <ul style="list-style-type: none"> 10 landscape workshops series 	0%
10.3: Performance Testing and Demobilization	This task will only be required for the Detention Facility Retrofit, and will require testing the flow and timing of the electronic flush valves and submission of proper operating manuals.	<ul style="list-style-type: none"> Flow and pressure testing of water saving devices Operating manuals 	0%
11: Env'tal Compliance	Environmental compliance is not applicable for this project because it is not a "project" under CEQA.	N/A	N/A
12: Construction Admin	This program does not require any direct construction, and therefore will not involve construction management or administrative duties.	N/A	N/A

Project 5: San Diego Water Use Reduction Program

Local Project Sponsor: City of San Diego (City)

Partner: San Diego Gas & Electric (SDG&E)

The *San Diego Water Use Reduction Program* will include two components that contribute to immediate drought relief through the promotion of water use efficiency and water recycling measures:

1. Pressure Regulator Incentive Pilot Program (PRIP Program), which will incentivize the installation of up to 5,000 pressure reducing valves (PRVs) to reduce water waste and improve efficiency for residential and commercial customers.
2. Construction of a Recycled Water Filling Station (RWFS) at the North City Water Reclamation Facility (North City), which will enable water trucks to fill up with recycled water at one of six water meters for the purpose of dust suppression and soil compaction during construction and maintenance.

This program will promote awareness in the community about the value of water as our most precious resource by emphasizing the importance of using water efficiently and substituting potable water with recycled water as an affordable and sustainable alternate when the end use is appropriate. By partnering with SDG&E, the City will broaden the public awareness campaign and highlight the close nexus between energy use and water use. The PRIP Program and RWFS will together offset 381 AFY of potable water use.

The City has already completed work associated with this project: design for the RWFS is 10% complete and the City has completed a business case evaluation for the RWFS as well as internal research on the use and application of PRVs throughout its service area. Activities that are associated with the project and included in the Work Summary include:

- Finalizing design specifications
- Preparing and implementing the PRIP Program
- Constructing the RWFS facility
- Conducting public outreach and stakeholder involvement

A Work Summary of the *San Diego Water Use Reduction Program*, including the anticipated tasks necessary to complete the program, deliverables, and current status of the program, is provided in **Table 4-5** below.

**Table 4-5: Work Summary
San Diego Water Use Reduction Program**

Task	Description of Work to be Completed for Task	Deliverables	% Complete
Grant Administration:	The San Diego County Water Authority will be responsible for overall administration and processing of the grant contract, including compiling and submitting project invoices, quarterly reports, and completion reports to DWR.		0%
Row (a): Direct Project Administration			
1: Project Administration	Task 1 will involve grant administration and coordinating with DWR per terms of the Grant Agreement. Task 1 will also involve coordinating with project partners to develop formal agreements.	<ul style="list-style-type: none"> • Progress reports, invoices, supporting documentation • Letter of Agreement between the City and SDG&E 	0%
2: Labor Compliance Program	The City has a Labor Compliance Program (LCP) in place that is compliant with the Department of Industrial Relations standards. Work included in this Proposal involves time necessary to manage the existing LCP. Work for this task is not included in the budget.	<ul style="list-style-type: none"> • Management of existing LCP (ID No. 2003.00323) 	0%
3: Reporting	Task 3 will involve preparation of quarterly progress reports, as well as a final report and post-completion report as required by DWR per terms of the Grant Agreement.	<ul style="list-style-type: none"> • Quarterly Progress Reports • Final and Post-Completion Reports 	0%

Task	Description of Work to be Completed for Task	Deliverables	% Complete
Row (b): Land Purchase/Easement			
4: Land Acquisition	There are no easement acquisitions or right-of-ways that will be required for this program.	N/A	N/A
Row (c): Planning/Design/Engineering/Environmental Documentation			
5: Assessment and Evaluation	All project development work was developed by the City as engineering estimates using the best available information and past program experience. No further planning work is anticipated. This work is not included as part of the budget.	<ul style="list-style-type: none"> RWFS Business Case Evaluation City analysis of PRV savings and benefits 	100%
6: Final Design	No design work is required for the PRIP Program. The RWFS design is currently 10% complete. All design work will be completed by the City prior to contract execution and is not included as part of the budget.	<ul style="list-style-type: none"> Preliminary Design of RWFS Final Design of RWFS 	10%
7: Environmental Documentation	The PRIP program is exempt from CEQA requirements because it does not meet the CEQA definition of a "project." The RWFS is categorically exempt from CEQA requirements due to its size and location	N/A	N/A
8: Permitting	The PRIP program will not require permitting. The RWFS will be covered under the City's existing Waste Discharge and Water Recycling Requirements (WDR and WRR) permit for North City. Permitting work is not included as part of the budget.	<ul style="list-style-type: none"> Continued compliance with existing WDR and WRR permit 	100%
Row (d): Construction/Implementation			
9: Construction Contracting	All construction activities will be completed in-house by the City of San Diego; therefore, construction contracting is not included as part of this project.	N/A	N/A
10: Construction			
10.1: Mobilization/ Site Preparation	No mobilization or site preparation is required for this program.	N/A	N/A
10.2: Project Construction	<p>Implementation activities for the program are described below:</p> <p>PRIP Program:</p> <ul style="list-style-type: none"> Rebate Application Processing: Intake, review, approval/denial of customer rebate application. Customer follow up and interaction. Check Processing: Processing internal documentation needed to enable check to be cut and sent to customer. Post Installation Site Visits: Meeting customer at site for post installation inspection of pressure regulator for quality control. Public Outreach and Stakeholder Involvement: Outreach to residential customers and homeowner associations to announce new incentive program. Placements of announcements/articles about new program in local media. Outreach to stakeholders including HOAs, plumbers) at industry events. Presentations and attendance at community events. <p>RWFS:</p> <ul style="list-style-type: none"> Construction of RWFS facility includes construction activities necessary to prepare and construct the RWFS 	<p>PRIP Program:</p> <ul style="list-style-type: none"> Issuance of PRV rebate checks to customers Post-installation site visit records Documentation of public outreach and stakeholder involvement activities (articles, mailers, flyers, and presentations) <p>RWFS:</p> <ul style="list-style-type: none"> Pre and Post-Construction photos of the RWFS Facility site Installation of 8" gate valve, 8" fire hydrant, thick concrete apron, protection posts, 8" stub out piping, and onsite meters 	0%
10.3: Performance Testing and Demobilization	All testing and demobilization work associated with the RWFS will be conducted under Task 10.2	N/A	N/A
11: Env'tal Compliance	For the PRIP Program, the City is not responsible for individual onsite environmental compliance. Responsibility for any such requirements lies with the site owner or representative. The RWFS does not have environmental compliance requirements	N/A	N/A
12: Construction Admin	This task involves work to manage (administer) implementation of the PRIP Program and construction of the RWFS. Activities for this task include construction management, materials testing, and inspection.	<ul style="list-style-type: none"> PRIP Program Administration Construction Management 	0%

Project 6: Rincon Customer-Driven Demand Management Program

Local Project Sponsor: Rincon del Diablo Municipal Water District (Rincon)
Partner: City of Escondido

Rincon continues to be proactive in making its system operations as efficient as possible. One of these steps was the planned retrofit of its metered connections with an advanced metering infrastructure (AMI). Phase I of this program commenced in 2012 and was completed by June of 2014. During Phase I, Rincon purchased and installed AMI, which are radio-compatible meters, for 7,000 of its connections, representing approximately 80% of its customer base. These meters communicate with transmitters and send hourly customer meter reads to repeater stations that forward the data to Rincon’s operations staff through operation-specific software. The primary purpose of installing the AMI was to reduce the physical man-hours required to read individual meters, as well as reduce administrative workload by moving from manual to automatic data entry, thus increasing efficiency and saving time and money in the process. Another benefit is that it helps Rincon to monitor real-time water consumption data and monitor for leaks; however, the AMI alone does not include a customer interface or tools for managing individual customer conservation efforts.

Since the initial installation of AMI in Phase I, technology (WaterSmart software) became more readily available to interface with the customer base, which allows customers to access data from their AMI on a real-time basis and help with water savings and tracking of inefficient water usage. Studies conducted by East Bay Municipal Utility District on implementation of WaterSmart software have shown that when customers were given access to real-time water use data, conservation incentive/opportunities, social water comparisons, leak notification, information from the water agency, and customizable home water reports, water use was reduced by more than 5% per household (per metered connection).

Phase II involves work proposed in the *Rincon Customer-Driven Demand Management Program* and is anticipated to result in 300 AFY of water savings. Phase II includes several components, including:

1. Installing AMI for the remaining 20% of Rincon’s customers
2. Implementing WaterSmart technology for Rincon’s entire service area to allow all users to access the WaterSmart portal and realize conservation savings

A Work Summary of the *Rincon Customer-Driven Demand Management Program*, including the anticipated tasks necessary to complete the program, deliverables, and current status of the program, is provided in **Table 4-6** below.

Table 4-6: Work Summary
Rincon Customer-Driven Demand Management Program

Task	Description of Work to be Completed for Task	Deliverables	% Complete
Grant Administration:	The San Diego County Water Authority will be responsible for overall administration and processing of the grant contract, including compiling and submitting project invoices, quarterly reports, and completion reports to DWR.		0%
Row (a): Direct Project Administration			
1: Project Administration	Task 1 will involve grant administration and coordinating with DWR per terms of the Grant Agreement and will also involve developing information for the Board of Directors as necessary.	<ul style="list-style-type: none"> • Progress reports, invoices, supporting documentation • Final Board Reports 	0%
2: Labor Compliance Program	This program is not a public works project and does not require a LCP.	N/A	N/A
3: Reporting	Task 3 will involve preparation of quarterly progress reports, as well as a final report and post-completion report as required by DWR per terms of the Grant Agreement.	<ul style="list-style-type: none"> • Quarterly Progress Reports • Final and Post-Completion Reports 	0%
Row (b): Land Purchase/Easement			
4: Land Acquisition	There are no easement acquisitions or right-of-ways that will be required for this program.	N/A	N/A

Task	Description of Work to be Completed for Task	Deliverables	% Complete
Row (c): Planning/Design/Engineering/Environmental Documentation			
5: Assessment and Evaluation	All water savings projections were developed as engineering estimates using the best available information and past program experience. No further planning is anticipated. This work is not included as part of the budget.	<ul style="list-style-type: none"> Installation of existing AMIs 	100%
6: Final Design	No design is required as part of this program.	N/A	N/A
7: Environmental Documentation	This program is exempt from CEQA requirements, because it does not meet the CEQA definition of a "project".	N/A	N/A
8: Permitting	No permitting is required as part of this program.	N/A	N/A
Row (d): Construction/Implementation			
9: Implementation Contracting	No implementation-related contracting is required for this program.	N/A	N/A
10: Implementation			
10.1: Implementation Preparation	<p>This task involves development and implementation of an initial customer survey and outreach event to familiarize customers with the WaterSmart portal monitor. Rincon will monitor customer participation and reach out to customers with training and information to promote participation and proper use of the system.</p> <p>During the first six months of the program, significant interface between Rincon and its customers is required. Additional office support will be required to answer customer questions, address connectivity issues, and provide instructions. Office support will also assist with public outreach efforts, including press releases, website releases, and project coordination.</p> <p>In order to familiarize customers with the WaterSmart portal, a magnetic postcard mailing that includes details about the program will be prepared and distributed to all of Rincon's customers.</p>	<ul style="list-style-type: none"> Initial customer survey Monthly report that includes progress on the number of customers using the WaterSmart portal A log that shows the number of customers contacted for training and participation A log that shows the number of incoming phone calls with a description of the purpose of the call Outreach information, including press releases, website releases, etc. Magnetic postcard and log of distribution to customers 	0%
10.2: Project Implementation	<p>Rincon operations staff will install the remaining radio-compatible meters and transmitters once purchased. The customer accounts will be adjusted to reflect new meter numbers, and the transmitters will be activated.</p> <p>Materials such as radio-compatible meters, transmitters, and software will be purchased as part of this task.</p>	<ul style="list-style-type: none"> Records showing the installation date and activation date of the radio compatible meters and transmitters, including meter number, transmitter number, and installation date. 	0%
10.3: Performance Testing and Demobilization	No performance testing and demobilization is required for or included in this program.	N/A	N/A
11: Env'tal Compliance	This program does not require CEQA and is not a construction project, no environmental compliance is required.	N/A	N/A
12: Construction Admin	This program does not require any direct construction, and therefore will not involve construction management or administrative duties.	N/A	N/A

Project 7: Regional Emergency Storage and Conveyance Intertie Optimization

Local Project Sponsor: City of San Diego (City)

Partners: San Diego County Water Authority (SDCWA) and Santa Fe Irrigation District (SFID)

The *Regional Emergency Storage and Conveyance Intertie Optimization* Project aims to improve water quality in Hodges Reservoir so that water from the reservoir can be delivered to SDCWA’s regional aqueduct and thus to its member agencies. The project will reverse anoxia in Hodges Reservoir and improve other water quality parameters to restore the drinking water supply beneficial use, thus making 3,889 AFY of water available on a short-term basis to respond to the drought and 5,377 AFY of water available to the regional water supply system on a long-term basis.

The Emergency Storage Project (ESP) is a system of reservoirs, interconnected pipelines, and pumping stations designed to make water available to the Region in the event of an interruption in imported water deliveries. The ESP is made up of several components; one of which connects Hodges Reservoir to Olivenhain Reservoir. Prior to the ESP connection, Hodges Reservoir captured local runoff to serve the Santa Fe Irrigation District and San Dieguito Water District (Districts). To fully utilize Hodges Reservoir’s capacity to impound local runoff and store imported water, SDCWA built a connection between Hodges Reservoir and Olivenhain Reservoir. Olivenhain Reservoir is connected to the regional aqueduct system, therefore, this connection between the reservoirs links Hodges Reservoir and its stored water to the regional aqueduct system for the first time. However, seasonally degraded water quality in Hodges Reservoir makes the water unsuitable to place in the regional aqueduct system, which in turn has limited the optimal use of water supplies in Hodges Reservoir and prevented movement of this water for any purpose, including the ESP.

The project will implement an oxygenation system in Hodges Reservoir to improve water quality such that water from Hodges Reservoir can be moved into the regional aqueduct system. The technique of adding pure oxygen gas to deep anoxic water is well established based on the success of early tests, other systems in the Region and state, and other similar projects. Oxygenation systems are off-the-shelf systems, which makes design and implementation of such systems simple and expeditious.

The City and its partners have completed work associated with this project, including substantial planning and modeling work to validate the use of an oxygenation system to resolve water quality issues in Hodges Reservoir. Project activities that are included in the Work Summary are as follows:

- Finalizing design specifications and securing all necessary permits
- Preparation of environmental documentation
- Implementation of the oxygenation system (a speece cone)

A Work Summary of the *Regional Emergency Storage and Conveyance Intertie Optimization*, including the anticipated tasks necessary to complete the project, deliverables, and current status of the project, is provided in **Table 4-7** below.

**Table 4-7: Work Summary
Regional Emergency Storage and Conveyance Intertie Optimization**

Task	Description of Work to be Completed for Task	Deliverables	% Complete
Grant Administration:	The San Diego County Water Authority will be responsible for overall administration and processing of the grant contract, including compiling and submitting project invoices, quarterly reports, and completion reports to DWR.		0%
Row (a): Direct Project Administration			
1: Project Administration	Task 1 will involve grant administration and coordinating with DWR per terms of the Grant Agreement and will also involve developing information for the Board of Directors as necessary.	<ul style="list-style-type: none"> • Progress reports, invoices, supporting documentation • Final Board Reports 	0%
2: Labor Compliance Program	The City has a Labor Compliance Program (LCP) in place that is compliant with the Department of Industrial Relations standards. The budget necessary to manage the LCP is not included within this Proposal.	<ul style="list-style-type: none"> • Management of existing LCP (ID No. 2003.00323) 	0%
3: Reporting	Task 3 will involve preparation of quarterly progress reports, as well as a final report and post-completion report as required by DWR per terms of	<ul style="list-style-type: none"> • Quarterly Progress Reports • Final and Post-Completion Reports 	0%

Task	Description of Work to be Completed for Task	Deliverables	% Complete
	the Grant Agreement.		
Row (b): Land Purchase/Easement			
4: Land Acquisition	There are no easement acquisitions or right-of-ways that will be required for this program.	N/A	N/A
Row (c): Planning/Design/Engineering/Environmental Documentation			
5: Assessment and Evaluation	A Conceptual Planning Report for the project has been conducted by the City. Two additional technical papers are currently being written: the Compendium of Water Resource Initiatives in the Hodges Catchment and White Paper on Existing Barriers and IRWM Opportunities. The Compendium document has begun and the White Paper will be executed after the completion of the Compendium. A Sediment Oxygenation Demand Assessment will be performed prior to the design and engineering of the project.	<ul style="list-style-type: none"> • Conceptual Planning Report • Compendium of Water Resource Initiatives in the Hodges Catchment • White Paper on Existing Barriers and IRWM Opportunities • Sediment Oxygen Demand Assessment Report 	45%
6: Final Design	Hypolimnetic oxygenation systems are packaged and known to be off-the-shelf technology, expediting design of such systems. Preliminary and Final Design work will be required for this project.	<ul style="list-style-type: none"> • Preliminary Design • Final Design 	0%
7: Environmental Documentation	Preparation of required CEQA documents will occur prior to construction implementation. Based upon review from the City, a Mitigated Negative Declaration (MND) is anticipated for the project.	<ul style="list-style-type: none"> • Final MND 	0%
8: Permitting	Permits that are anticipated to be required for the project include: <ul style="list-style-type: none"> • Regional Water Quality Control Board (in conjunction with CDPH) – 401 Permit • Fish and Wildlife - 1602 Lake and Stream Alteration Agreement • Army Corps of Engineers - 404 Permit 	<ul style="list-style-type: none"> • 401 Permit • 1602 Documentation • 404 Permit 	0%
Row (d): Construction/Implementation			
9: Construction Contracting	The City will pursue a design-build contract in which the designer of the system would also provide construction services. Tasks to secure the contract award include: advertisement for bids, a pre-bid contractors meeting, bid opening, bid evaluation, selection of contractor with most cost-effective responsive bid, and issuance of a Notice to Proceed.	<ul style="list-style-type: none"> • Preparation and advertisement of bid packages • Bid opening, evaluation, and award • Notice to Proceed 	0%
10: Construction/Implementation			
10.1: Mobilization and Site Preparation	The contractor will mobilize equipment and abide by all applicable standards. Mobilization and site preparation for this project will also include an onsite barge and pre-construction photographs.	<ul style="list-style-type: none"> • Permits and safety plan • Onsite barge • Pre-construction photographs 	0%
10.2: Project Construction/Implementation	Project construction will include cement/rock placement, installation of a skid, pump, speece cone, on-shore and off-shore oxygen piping, electrical work, concrete pouring, and excavation. A site has been selected for the onshore building (5% of work complete to date). Project implementation will also include outreach through public service announcements, websites, community activities, speaking engagements, classroom demonstrations, field trips and other efforts.	<ul style="list-style-type: none"> • Masonry unit onshore building • Oxygen generation units • Skid-mounted speece cone • Intake screen, connecting piping and discharge manifold/diffuser • Pump and oxygen pipeline • Outreach materials 	5%
10.3: Performance Testing and Demobilization	This task involves demobilizing the construction crew and equipment from the work site. Follow-up inspection of equipment installed will occur after installation and ongoing monitoring of nutrients in the reservoir will be performed by the City. Post-construction photographs will be taken.	<ul style="list-style-type: none"> • Demobilize equipment and crews • Monitoring reports • Post-construction photographs 	0%
11: Envntl Compliance	The project will be constructed and implemented in accordance with the Mitigation Monitoring and Reporting Program (MMRP) that is adopted through the CEQA process.	<ul style="list-style-type: none"> • Implementation of MMRP during construction and operation 	0%
12: Construction Admin	Construction management services will include daily inspection, special inspections, labor compliance reporting, permitting review, and storm water compliance.	<ul style="list-style-type: none"> • Construction Management Engineering Services during Construction 	0%