

# San Diego Integrated Regional Water Management

## 2022 IRWM Implementation Grant Proposal

### Work Plan

Attachment 2 consists of the following items:

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

## Contents

Project 1: The Acres Water Consolidation Project - Phase 1, Part 2.....	2
Implementing Agency .....	2
Project Description.....	2
Work Plan .....	4
Project 2: The Federal Blvd. De-channelization and Trail Construction Project .....	9
Implementing Agency .....	9
Project Description.....	9
Work Plan .....	11
Project 3: Ramona/Barona Tribe Recycled Water Pipeline Project .....	15
Implementing Agency .....	15
Project Description.....	15
Work Plan .....	16
Project 4: North San Diego Water Reuse Coalition – Regional Recycled Water Program .....	21
Implementing Agency .....	21
Project Description.....	21
Work Plan .....	23
Project 5: Integrated Multi-Benefit Solutions for Climate Resiliency in the San Diego Region .....	27
Implementing Agency .....	27
Project Description.....	27
Work Plan .....	29
Project 6: Oceanside Mesa Garrison Force Main River Crossing .....	33
Implementing Agency .....	33
Project Description.....	33
Work Plan .....	34
Grant Administration.....	38
Implementing Agency .....	38
Project Overview.....	38
Work Plan .....	38

## Project 1: The Acres Water Consolidation Project - Phase 1, Part 2

### Implementing Agency

**Implementing Agency:** Ramona Municipal Water District

**Partner:** Rural Community Assistance Corporation

### DAC Status

Is this a Disadvantaged Community Project? ☒ Yes ☐ No

DAC/EDA Benefit Level: 75% - 100%

This project serves a disadvantaged community (DAC), as defined by AB 1550, and is requesting a 100% cost share waiver (see *Attachment 5: DAC/EDA* of this Proposal for additional details and documentation).

### Project Description

#### Project Summary

The Acres is a community in Ramona, California which relies primarily on private groundwater wells for water supply. Groundwater for these homes is pumped from the Santa Maria Groundwater Basin, designated by the California Statewide Groundwater Elevation Monitoring Program (CASGEM) as a low priority basin. Although The Acres lies within the Ramona Municipal Water District (Ramona MWD) service area, many residences within the community are not located adjacent to a water main, and not connected to Ramona MWD's water system. Instead, these homes are currently reliant on groundwater, which has water quality concerns. Some residents of The Acres who do not have wells have resorted to using "spaghetti lines" to connect to Ramona MWD's water mains. "Spaghetti lines" are small, private water lines that pass through multiple private properties to connect to a water main.

Phase 1, Part 2 of *The Acres Water Consolidation Project* will extend the Ramona MWD water main to The Acres community, improving drinking water quality, supply reliability, and fire suppression by connecting up to 11 residences that are currently on wells to municipal water supplies (**Figure 2-1** and **Figure 2-2**). This project will also convert seven existing "spaghetti lines" to a direct service connection with the water main. Water delivered by the Ramona MWD is highly reliable, meets drinking water standards, and is provided through the regional diversified water supply. Relocation of the spaghetti line connections to the property line will reduce breakage and the significant loss of municipal water that is occurring through the broken spaghetti lines. It will also reduce the risks associated with cross-connections of potable water lines.

This project will be implemented in conjunction with Phase 1, Part 1 of *The Acres Water Consolidation Project* which was approved for funding of \$1.3 million to Ramona MWD under the 2022 Urban and Multi-Benefit Drought Relief Grant. Based on the current engineer cost estimate (dated May 2022), the funding allocated from that grant is not adequate to complete the project as originally envisioned in December 2021 and the project has therefore been divided into two phases. Construction of the Phase 1, Part 1 portion of the project is being funded under the Urban and Multi-Benefit Drought Relief Grant. The system configuration costs for the Part 1 customers are included in this Part 2 project and included in both this workplan and budget for the Proposition 1 IRWM Implementation Grant Round 2. The Phase 1, Part 2 portion of the project is seeking funding under this 2022 Proposition 1 IRWM Implementation Grant Round 2, and includes consolidation of residents along Kalbaugh Street, Beverly Street, and Haley Street.

The scope of work for the project includes the construction of approximately 2,850 feet of 8-inch water main and associated appurtenances. The appurtenances are currently estimated at three 8-inch tees, nine 8-inch gate valves, and six 6-inch fire hydrant assemblies. The project is designed to meet a fire flow of 2,500 gpm as required by the fire marshal. The project will include the service line laterals and backflow prevention devices between the water main and the meter, as well as the water system configuration costs for up to 18 new services for properties

served by mains funded under both this project and Phase 1, Part 1 of the project funded under the Urban and Multi-Benefit Drought Relief grant.

The planning, environmental compliance, design, outreach and construction for both Acres Consolidation projects will be implemented concurrently and are anticipated to be implemented by Rural Community Assistance Corporation (RCAC) and their consultant through a technical assistance agreement with the State Water Resources Control Board under the SAFER program. Those activities will occur outside of the scope of this project as included in this grant proposal.

### Project Need

The Acres residents that rely on groundwater to meet their indoor water needs do not currently have access to safe, clean drinking water unless they use expensive alternatives. Although The Acres lies within the Ramona MWD service area, many residences within the community are not located adjacent to a water main and are not connected to Ramona MWD's water system. Instead, these homes currently rely on groundwater and face drinking water quality issues. The private wells in the area have high hardness and total dissolved solids (TDS) exceeding the secondary maximum contaminant level (MCL). Data collected over the last two decades show that TDS is increasing in the basin and has approximately doubled since 2000. Additionally, water from wells that pull from the shallow aquifer has nitrate levels exceeding the MCL and has detectable coliform. Water from some of the wells also has uranium over the MCL due to the decomposed granite in the aquifer. In 2020, the State Water Resources Control Board collected samples from 10 private wells in The Acres community for analysis for uranium and nitrate. Water from eight of those wells exceeded the MCL for nitrate and nine exceeded the MCL for uranium.

For those residents that are aware of coliform, elevated nitrate or elevated uranium levels in their wells, many have resorted to purchasing bottled water for drinking and cooking. Other residents may rely on expensive point-of-use systems to treat their well water, costing thousands of dollars and continued maintenance expenses. These point-of-use systems return the concentrate to the groundwater basin, thus further increasing the salt, nitrate and uranium levels in the basin, and contributing to long-term groundwater quality concerns. Home treatment and bottled water are not affordable for all residents in the area and are expensive solutions for customers. Some well owners have already connected to Ramona MWD through spaghetti lines. Replacement of those spaghetti lines with properly constructed service connections at the property line will ensure a more reliable supply to those customers.

While some residents in The Acres community have been able to connect to Ramona MWD, those connections have required extension of water mains and installation of service connections that cross over other private properties through spaghetti line connections. Such connections are at higher risk of failure or damage than a standard lateral due to the distance the line must travel through private properties not controlled by the residence being served. Additionally, these lines may be poorly marked and not constructed to the standards required for standard laterals. Many residents cannot afford to run pipelines and connect to a reliable water supply.

With the current drought, the impacts of climate change, and increased future droughts, the risk of wildfire is also expected to increase. The region has a history of wildfires, and much of Ramona is a high-risk area for fire. The Acres lacks adequate water mains and associated fire hydrants, increasing the risk of damage from wildfire for residences in The Acres. The installation of water mains in The Acres will allow installation of fire hydrants near properties and bring The Acres up to both Ramona MWD district standards and county fire code for fire flow and hydrant spacing.

### Project Benefits

**Water Supply Reliability.** The primary benefit of 7.2 AFY of water supply reliability is based on the volume of indoor water use expected for the 11 connections that will be consolidated into Ramona MWD's potable water system. In 2020, water sales in the service area were 3,633 AFY of treated water for 9,696 connections, which equates to approximately 0.4 AFY/connection due to the rural nature of many of the properties in the service area and relatively high outdoor water use. Estimating 0.4 AFY/connection and 11 new connections, new customers represent 4.4 AFY of demand. This only accounts for the water used by new connections and not for the additional reliability that will be experienced by converting approximately seven existing spaghetti connections to more reliable connections to the main at the residences' property line. Assuming a total of seven spaghetti connection

conversions at 0.4 AFY/connection, there would be an additional 2.8 AFY of improved water supply reliability for a total of 7.2 AFY. The Acres would also benefit from new fire hydrants and lower risk of property loss from fire.

**Water Quality Improvement – Groundwater.** Groundwater quality benefits will be realized because the water used by residents of The Acres is disposed of via septic systems. Constituents of concern in the source water are therefore concentrating in the groundwater basin either through the septic systems or the point-of-use treatment system (which discharges concentrate to the septic system for disposal). Converting from well water to Ramona MWD water will reduce the level of constituents of concern returning to the groundwater basin. Groundwater quality benefits are estimated based on data collected from wells currently serving The Acres and water quality data from Ramona MWD. The average nitrogen levels of wells were 16.9 mg/L (46 lbs/AF) nitrate as N. Some homeowners may continue to use well water for some outdoor uses, while others may eliminate the use of well water entirely due to poor water quality. Assuming that half of the average per connection treated water use for Ramona MWD as a whole (0.4 AFY per connection) will be for indoor water use at properties served by the project (0.2 AFY per connection), and 11 new connections, the project would eliminate recharge of 101 lbs/year (of nitrogen by providing lower-nitrate Ramona MWD water compared to the shallow aquifer wells. Similarly, data from wells in The Acres show TDS levels of 2,000 mg/L. In contrast, water from Ramona MWD has a TDS level of 530 mg/L. By offsetting well water with Ramona MWD water, 1,470 mg/L (3,997 lbs/AF) of TDS will be eliminated. Over the total 11 new connections, which average 0.4 AFY of use, and assuming half of this will be for indoor use (0.2 AFY per connection) the project will eliminate 8,800 lbs/year (4.4 tons/year) of salt.

Quantitative Benefits	
<b>Water Supply Reliability.</b> 7.2 AFY (based on the volume of indoor water use expected for the 18 connections served by the project, including new connections and spaghetti lines).	<b>Water Quality Improvement – Groundwater.</b> Reduce 4.4 tons/year of salt loading.
Additional Qualitative Benefits	
<p><b>Public Health &amp; Safe Drinking Water.</b> Existing wells have poor water quality. Converting to Ramona MWD water, residents will have access to safe, clean drinking water.</p> <p><b>Fire Protection.</b> Project will install fire hydrants in a community that currently relies on undersized private tanks for fire suppression. Community is in a high fire risk area, as evidenced by the 180 acre Casner Fire (July 27-28, 2022).</p>	

## Work Plan

A Work Plan for The Acres Water Consolidation Project - Phase 1, Part 2 project, including the anticipated tasks necessary to complete the project and deliverables of the project, is provided in **Table 2-1**.

**Table 2-1: Work Plan for The Acres Water Consolidation Project - Phase 1, Part 2**

Task and Description of Work to be Completed	Deliverables	%*
<b>Budget Category (a): Project Administration</b>		
<b>1: Project Management</b> – Manage Grant Agreement including compliance with grant requirements, and preparation and submission of supporting grant documents and coordination with IRWM regional manager. Prepare invoices including relevant supporting documentation for submittal to DWR via the Grantee (San Diego County Water Authority). This task also includes administrative responsibilities associated with the project such as coordinating with project partners and managing consultants/contractors.	<ul style="list-style-type: none"> <li>Invoices and associated backup documentation</li> </ul>	0%
<b>2: Reporting</b> – Prepare progress reports detailing work completed during reporting period consistent with the requirements of the grant agreement. Submit reports to DWR. Prepare Project Completion Report and submit to DWR no later than 90 days after project completion for DWR Project Manager's	<ul style="list-style-type: none"> <li>Quarterly Project Progress Reports</li> <li>Project Completion Report</li> </ul>	0%

Task and Description of Work to be Completed	Deliverables	%*
comment and review. The report shall be prepared and presented in accordance with guidance as outlined in the grant agreement.	<ul style="list-style-type: none"> <li>Documentation of "Acknowledgement of Credit &amp; Signage" per Standard Condition D.2</li> </ul>	
<b>Budget Category (b): Land Purchase/Easement</b>		
<b>3: Land Purchase</b> – Not applicable; negotiations, purchase, plat, legal documents, and title reports for any easement(s) needed to be acquired will be done under an existing technical assistance agreement with the State Water Board (SAFER), as Part 1 of the project.	<ul style="list-style-type: none"> <li>N/A</li> </ul>	N/A
<b>Budget Category (c): Planning/Design/Engineering/Environmental Documentation</b>		
<b>4: Feasibility Studies</b> – Not applicable; feasibility studies are being done under an existing technical assistance agreement with the State Water Board (SAFER), as Part 1 of the project.	<ul style="list-style-type: none"> <li>N/A</li> </ul>	N/A
<b>5: CEQA Documentation</b> – Not applicable; environmental work will be done under an existing technical assistance agreement with the State Water Board (SAFER), as Part 1 of the project.	<ul style="list-style-type: none"> <li>N/A</li> </ul>	N/A
<b>6: Permitting</b> – Not applicable; permitting work will be done under an existing technical assistance agreement with the State Water Board (SAFER), as Part 1 of the project.	<ul style="list-style-type: none"> <li>N/A</li> </ul>	N/A
<b>7: Design</b> – Not applicable; design work will be done under an existing technical assistance agreement with the State Water Board (SAFER), as Part 1 of the project.	<ul style="list-style-type: none"> <li>N/A</li> </ul>	N/A
<b>8: Project Monitoring Plan</b> – Develop and submit a Project Monitoring Plan per Paragraph 16 for DWR's review and approval.	<ul style="list-style-type: none"> <li>Project Monitoring Plan</li> </ul>	0%
<b>Budget Category (d): Construction/Implementation</b>		
<b>9: Contract Services</b> – This task will comply with the Standard Condition D.11 – Competitive Bidding and Procurements in the grant agreement. Activities necessary to secure a contractor and award the contract, including develop bid documents, prepare advertisement and contract documents for construction contract bidding, conduct pre-bid meeting, bid opening and evaluation, selection of the contractor, award of contract, and issuance of notice to proceed.	<ul style="list-style-type: none"> <li>Bid Documents</li> <li>Proof of Advertisement</li> <li>Award of Contract</li> <li>Notice to Proceed</li> </ul>	0%
<b>10. Construction Administration</b> – This task includes managing contractor submittal review, answering requests for information, and issuing work directives. A full-time engineering construction observer will be on site for the duration of the project. Construction observer duties include documenting of pre-construction conditions, daily construction diary, preparing change orders, addressing questions of contractors on site, reviewing/ updating project schedule, reviewing contractor log submittals and pay requests, forecasting cash flow, notifying contractor if work is not acceptable. Upon completing the project, the DWR Certificate of Project Completion and record drawings will be provided to DWR.	<ul style="list-style-type: none"> <li>DWR Certificate of Project Completion</li> <li>Record Drawings</li> </ul>	0%
<b>11. Construction/Implementation Activities</b>		
<u>Subtask 11(a): Mobilization and Demobilization</u> – Mobilization and demobilization activities, including mobilization of equipment and transport to the site, site cleanup and site restoration (e.g., final grading, landscaping, touch-up paint); furnishing all documentation (warranties, manuals, Standard Operating Procedure); and removal of all temporary facilities.	<ul style="list-style-type: none"> <li>Photographic Documentation of Progress</li> </ul>	0%

Task and Description of Work to be Completed	Deliverables	%*
<p><u>Subtask 11(b): Site Preparation</u> – Site preparation activities, including: setting up temporary facilities (e.g., field office, construction barriers) and clearing site for construction.</p> <p><u>Subtask 11(c): Installation, Construction, and Excavation</u> – Construction of approximately 2,850 feet of 8-inch water main and associated appurtenances (currently estimated at three 8-inch tees, nine 8-inch gate valves, six 6-inch fire hydrant assemblies, service line laterals, and backflow prevention devices between the water main and the meter), and water system configuration costs for up to 17 new services (11 under this project and 6 for Part 1 project constructed under another grant program) for existing properties served by mains. <u>Subtask 11(d): Improvements</u> – Not applicable.</p>		
* The right-hand column displays percent complete for each task.		



**Figure 2-1: The Acres Water Consolidation Project - Phase 1, Part 2 Project Location Map**

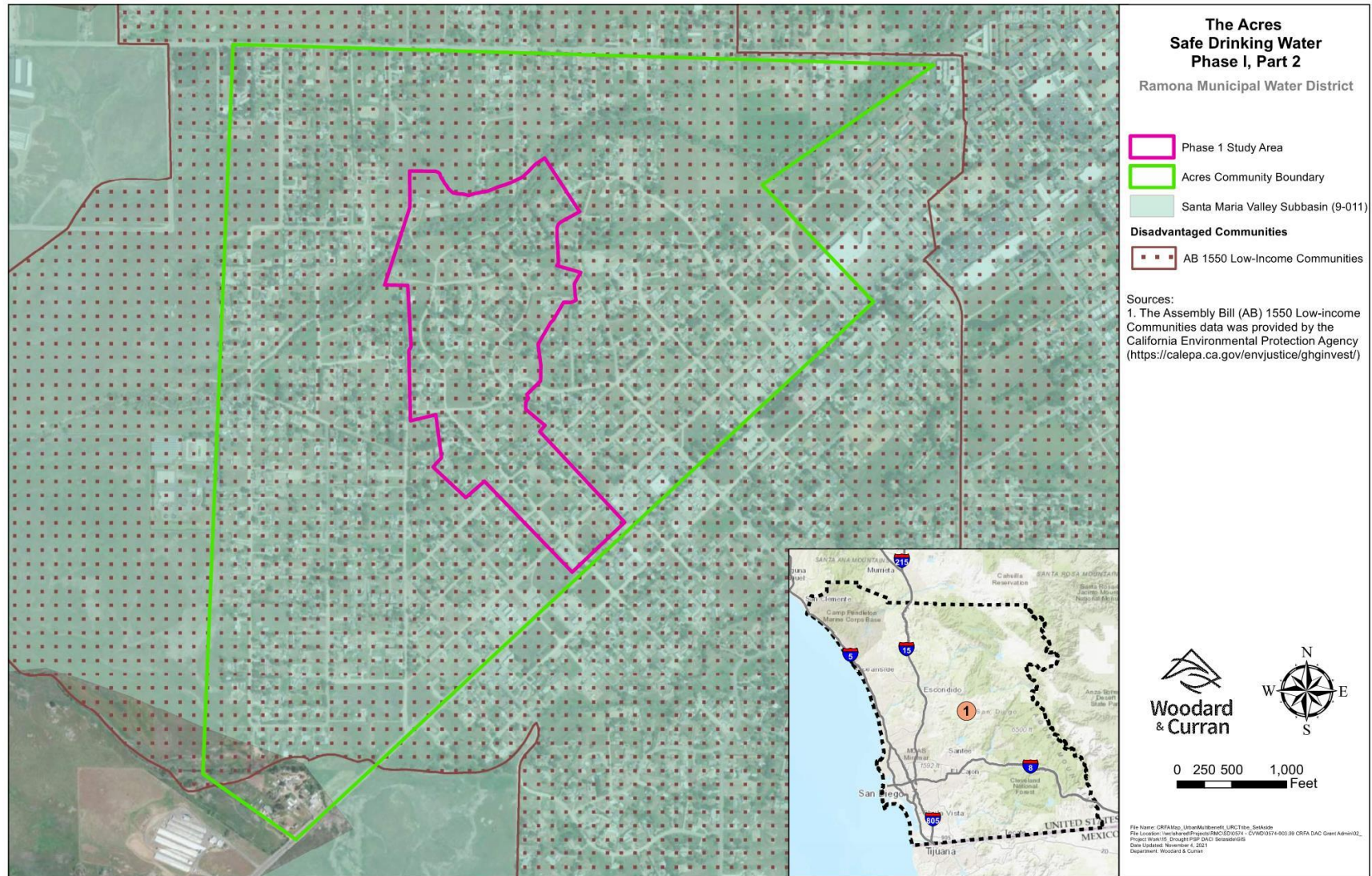
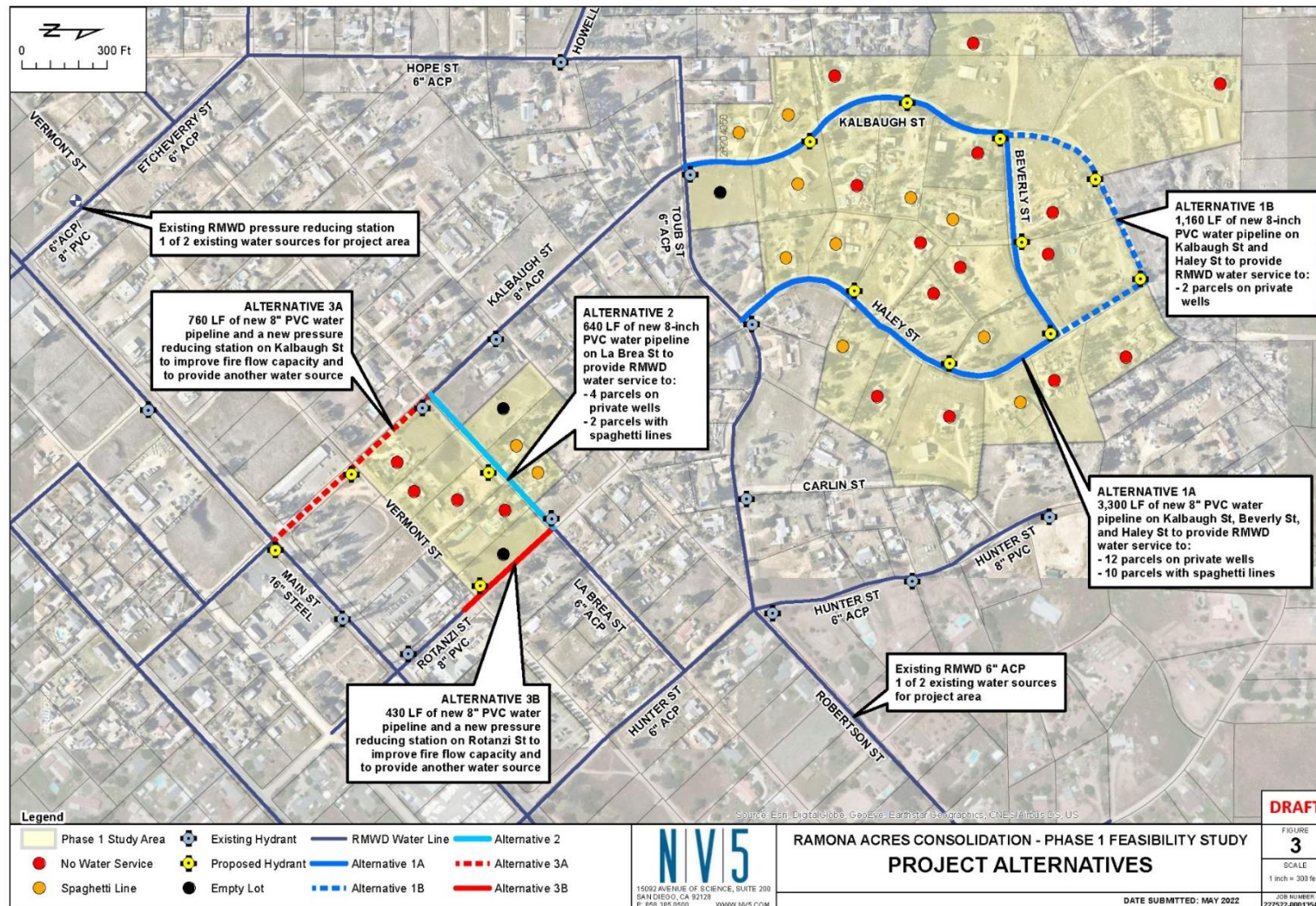




Figure 2-2: The Acres Water Consolidation Project - Phase 1, Part 2 Project Map<sup>1</sup>

1. Phase 1, Part 1 is the area shown in the left side of this map. Phase 1, Part 2 is shown in the upper right portion of this map. The solid blue line represents the pipeline to be installed. The dashed line is not included in this project. Orange dots represent spaghetti lines, and red are new connections. Note that the red dots and yellow hydrants along the blue dashed line will not be connected as part of this project.



## Project 2: The Federal Blvd. De-channelization and Trail Construction Project

### Implementing Agency

**Implementing Agency:** Groundwork San Diego – Chollas Creek

**Partners:** City of San Diego, Civic Communities, Urban Corps San Diego, Chollas Creek Coalition, San Diego Coastkeeper

### DAC Status

Is this a Disadvantaged Community Project? ☒ Yes ☐ No

DAC/EDA Benefit Level: 75% - 100%

Communities adjacent to the project site are characterized as disadvantaged and severely disadvantaged by DWR and are in a region of San Diego described as “park-poor,” lacking access to natural recreation areas. This project serves a disadvantaged community (DAC) and is requesting a 100% cost share waiver (see *Attachment 5: DAC/EDA* of this Proposal for additional details and documentation).

### Project Description

#### Project Summary

The *Federal Blvd. De-channelization and Trail Construction Project* will build on design and environmental clearance funded through IRWM's Proposition 1 Disadvantaged Community Involvement grant, to create an important multi-benefit water quality, flood control, and recreational resource in the underserved neighborhoods of Eastern Area and City Heights in the City of San Diego. Project construction includes three components:

- 1) De-channelization and restoration of over 1,000 linear feet of the Chollas Creek waterway, which includes improving flood capacity to contain 100-year floods, installation of an innovative permeable retaining wall structure adjacent to the SR 94 freeway, and removal of an unneeded culvert that contributes to flooding;
- 2) Construction of a recreational trail with stormwater capture features, native shade trees and landscaping adjacent to the north bank of the creek from Home Avenue to Sunshine Berardini Field Park; and
- 3) Construction of a climate-resilient mini-park at the corner of Home Avenue and Federal Blvd that will include additional stormwater capture features and interpretive signage describing the water and climate features of the project.

The project will remove impervious surfaces and non-native vegetation overgrowth in the Chollas Creek channel along Federal Blvd between Home Avenue and I-805 and replace it with a broader and deeper channel lined with natural stone and native vegetation. In its existing condition, almost half of the project acreage has a vegetation community categorized as disturbed, developed, or upland habitat, which includes primarily non-native plant species such as crown daisy, fountain grass, tree tobacco, wild fennel and ornamental trees. Native plants in this area represent only about 5% of the vegetation in the area, and are primarily located between the concrete channel and Federal Blvd. Removal of concrete and planting with native vegetation will improve surface water quality and reduce high volume surface runoff by allowing for infiltration.



The existing concrete creek channel looking west. SR 94 is at the top of the slope.

In addition, the channel cross-section will be widened to contain 100-year floods. Currently when the creek floods, the adjacent roadway and police facility are inundated. A gravity block retaining wall will be constructed along the south bank of the creek adjacent to the SR 94 right-of-way. This unique design will allow water from the vegetated freeway slope to slowly infiltrate through the gravity block

retaining wall into the creek while maintaining the integrity and safety of the freeway, protecting the community from 100-year flood events.

The project will develop a trail segment on the project site which will include stormwater capture features, augment recreational spaces, and connect communities to Sunshine Berardini Field Park and the future Chollas Creek Regional Park, which is included in the City of San Diego's Parks Master Plan. The trail will extend along the north bank of the newly restored reach of Chollas Creek from Home Avenue, through the future climate-resilient mini-park (to be built as part of this project), and under the I-805 overcrossing to Sunshine Berardini Field Park to the east. The east end of the trail will ultimately connect with another trail segment currently under design and approval by the City to extend northeast from Sunshine Berardini Field Park along the Chollas Creek canyon. The trail and mini-park will incorporate stormwater capture features such as tree wells and infiltration areas and the trail will be lined by 298 native oak and sycamore trees. Additional native landscaping will be separated from the creek by a split-rail fence. Interpretive signage will educate passersby about the project's water quality and flood protection, climate mitigation, and resiliency features.

When constructed, the project will reduce water pollution, decrease local flooding, and provide much needed shaded green space for local residents that will allow them to learn about the creek and enjoy its features. It will provide a recreational trail connecting them to a local park, and ultimately to the emerging Chollas Creek Regional Park through trail segments in the planning phase both upstream and downstream from the project.

The requested grant funds will leverage funds already committed by the Proposition 1 IRWM DAC Involvement Grant, the California Natural Resources Agency (CNRA), the California Wildlife Conservation Board, and the Bezos Earth Fund.

### Project Needs

Unlike other major waterways in San Diego County, Chollas Creek, located in an underserved urban community, has been neglected, channelized or put underground throughout much of its alignment over the past 70 years. In addition to denying local residents access to pleasing natural recreation areas, the concrete-lined channel contributes to negative impacts like water pollution, reduced groundwater infiltration, flooding, graffiti, non-native plants, and urban heat island effects. Under current site conditions, a 100-year rain event would flood Federal Boulevard and part of the adjacent police facility. In addition, local water quality is affected by significant urban runoff caused by extensive impervious services and insufficient tree canopy. Chollas Creek is included on the Clean Water Act Section 303(d) list as impaired for copper, diazinon, lead, zinc, bifenthrin, chlorpyrifos, cypermethrin, malathion, nitrogen, phosphorus, trash, and indicator bacteria.

The project will benefit DACs adjacent to the project which are characterized as "park-poor" neighborhoods according to the San Diego Foundation's Parks for Everyone report. As one of the first projects to contribute to the Chollas Creek Regional Park, included in the City of San Diego's new 2021 Parks Master Plan, the project will set the example for water quality and flood protection features to be included in other parts of the park. It is also included as a high priority in the City Chollas Watershed Master Plan.

### Project Benefits

**Ecosystem/habitat restoration.** The project will remove impervious creek bottom and replace more than 1,000 linear feet of concrete channel with a natural channel, supported with native vegetation. The amount of creek restoration under this project was quantified by the Project Engineer based on the project design drawings.

**Reduction in Greenhouse Gases.** By converting concrete-lined channels to vegetated channels, the project will also provide greenhouse gas (GHG) benefits through carbon sequestration. It is estimated 580 MT CO<sub>2</sub>e of GHG will be removed by tree planting, which was calculated using the California Air Resources Board's Benefits Calculator Tool for the Urban Greening Grant Program.

Quantitative Benefits	
<b>Ecosystem/habitat restoration.</b> Replace more than 1,000 linear feet of concrete channel with a natural channel with native vegetation.	<b>Reduction in Greenhouse Gases.</b> 580 MT CO <sub>2</sub> e of GHG will be removed by planting 298 native trees.
Additional Qualitative Benefits	
<b>Climate Resilience.</b> Flood improvements will help the community be more resilient to future climate changes. <b>Directly Benefits DAC.</b> Provides stormwater and flood control benefits to a DAC neighborhood, including protection of police facilities, and improves overall quality of life in the area. <b>Drought Resistance.</b> Re-vegetation will use drought tolerant plantings.	

## Work Plan

A Work Plan for The Federal Blvd. De-channelization and Trail Construction project, including the anticipated tasks necessary to complete the project and deliverables of the project, is provided in **Table 2-2**.

**Table 2-2: Work Plan for The Federal Blvd. De-channelization and Trail Construction Project**

Task and Description of Work to be Completed	Deliverables	%*
<b><u>Budget Category (a): Project Administration</u></b>		
<b>1: Project Management</b> – Manage Grant Agreement including compliance with grant requirements, and preparation and submission of supporting grant documents and coordination with IRWM regional manager. Prepare invoices including relevant supporting documentation for submittal to DWR via the Grantee (San Diego County Water Authority). This task also includes administrative responsibilities associated with the project such as coordinating with project partners and managing consultants/contractors.	<ul style="list-style-type: none"> <li>• Invoices and associated backup documentation</li> </ul>	0%
<b>2: Reporting</b> – Prepare progress reports detailing work completed during reporting period as outlined in the grant agreement. Submit reports to DWR. Prepare Project Completion Report and submit to DWR no later than 90 days after project completion for DWR Project Manager's comment and review. The report shall be prepared and presented in accordance with guidance as outlined in the grant agreement.	<ul style="list-style-type: none"> <li>• Quarterly Project Progress Reports</li> <li>• Project Completion Report</li> <li>• Documentation of "Acknowledgement of Credit &amp; Signage" per Standard Condition D.2</li> </ul>	0%
<b><u>Budget Category (b): Land Purchase/Easement</u></b>		
<b>3: Land Purchase</b> – Not applicable – Groundwork San Diego already has access to the project site.	<ul style="list-style-type: none"> <li>• N/A</li> </ul>	N/A
<b><u>Budget Category (c): Planning/Design/Engineering/Environmental Documentation</u></b>		
<b>4: Feasibility Studies</b> – Not applicable – feasibility was evaluated prior to this project.	<ul style="list-style-type: none"> <li>• N/A</li> </ul>	N/A
<b>5: CEQA Documentation</b> – A Mitigated Negative Declaration was completed and filed in May 2021 (SCH 2021050537). This task includes preparation of a letter stating no legal challenges.	<ul style="list-style-type: none"> <li>• All completed CEQA documents as required</li> <li>• No Legal Challenges Letter</li> </ul>	95%
<b>6: Permitting</b> – The following permits have already been acquired for this project: <ul style="list-style-type: none"> <li>• City of San Diego Site Development Agreement (SDP No. 2455085)</li> <li>• Regional Water Quality Control Board Section 401 Certification</li> <li>• California Department of Fish and Wildlife Streambed Alteration Agreement</li> </ul> The following permits are anticipated to be acquired for this project:	<ul style="list-style-type: none"> <li>• Regional Water Quality Control Board General Construction Permit</li> <li>• City of San Diego Grading Permit</li> <li>• Caltrans Encroachment Permit</li> </ul>	80%



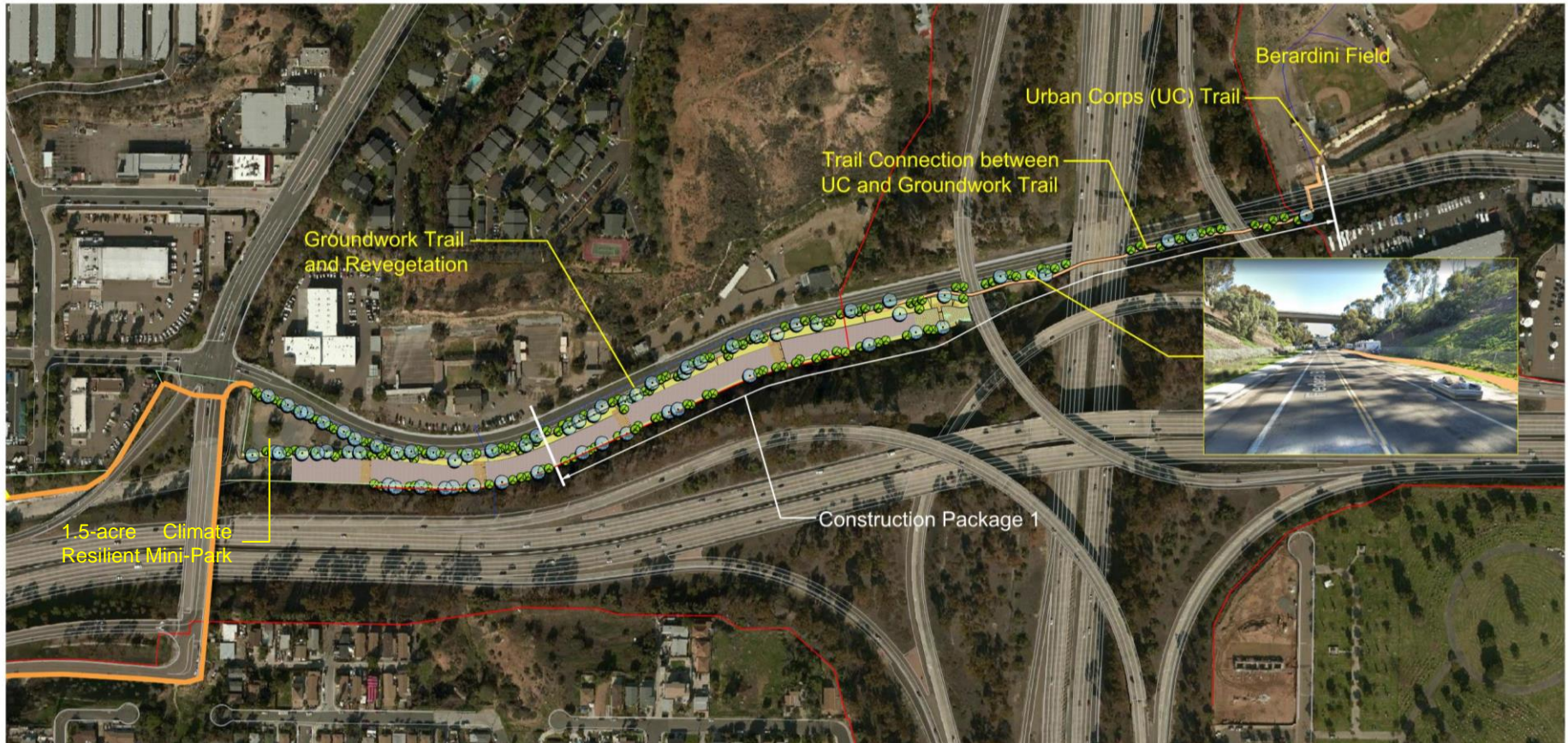
Task and Description of Work to be Completed	Deliverables	%*
<ul style="list-style-type: none"> <li>Regional Water Quality Control Board General Construction Permit</li> <li>City of San Diego Grading Permit</li> <li>Caltrans Encroachment Permit</li> <li>US Army Corps of Engineers Section 404 Permit</li> </ul>	<ul style="list-style-type: none"> <li>US Army Corps of Engineers Section 404 Permit</li> </ul>	
<b>7: Design</b> – The engineering design and hydraulic analysis, which are currently at 90% design, will be finalized for the proposed creek configuration, including creek bottom grade changes and tie-ins with the upstream and downstream existing concrete channel as part of the City of San Diego grading permit process. The Landscape Architect will develop the final trail, planting, and irrigation construction plans. The design will be developed into final construction plans as part of this task.	<ul style="list-style-type: none"> <li>100% Construction Documents approved by City of San Diego Development Services Department</li> </ul>	30%
<b>8: Project Monitoring Plan</b> – Develop and submit a Project Monitoring Plan per Paragraph 16 of the grant agreement for DWR's review and approval.	<ul style="list-style-type: none"> <li>Project Monitoring Plan</li> </ul>	0%
<b>Budget Category (d): Construction/Implementation</b>		
<b>9: Contract Services</b> – This task will comply with the Standard Condition D.11 – Competitive Bidding and Procurements in the grant agreement. Activities necessary to secure a contractor and award the contract, including develop bid documents, prepare advertisement and contract documents for construction contract bidding, conduct pre-bid meeting, bid opening and evaluation, selection of the contractor, award of contract, and issuance of notice to proceed.	<ul style="list-style-type: none"> <li>Bid Documents</li> <li>Proof of Advertisement</li> <li>Award of Contract</li> <li>Notice to Proceed</li> </ul>	0%
<b>10. Construction Administration</b> – This task includes managing contractor submittal review, answering requests for information, and issuing work directives. A full-time engineering construction observer will be on site for the duration of the project. Construction observer duties include documenting of pre-construction conditions, daily construction diary, preparing change orders, addressing questions of contractors on site, reviewing/ updating project schedule, reviewing contractor log submittals and pay requests, forecasting cash flow, notifying contractor if work is not acceptable. Upon completing the project, the DWR Certificate of Project Completion and record drawings will be provided to DWR.	<ul style="list-style-type: none"> <li>DWR Certificate of Project Completion</li> <li>Record Drawings</li> </ul>	0%
<b>11. Construction/Implementation Activities</b>		
<u>Subtask 11(a): Mobilization and Demobilization</u> – Mobilization and demobilization activities, including mobilization of equipment and materials; site cleanup and site restoration (e.g., final grading, landscaping, touch-up paint); and removal of all temporary facilities.  <u>Subtask 11(b): Site Preparation</u> – Site preparation activities, including setting up temporary facilities (e.g., field office, construction barriers) and site clean-up prior to construction.  <u>Subtask 11(c): Installation, Construction, and Excavation</u> – Construction activities include de-channelization and restoration of over 1,000 linear feet of the Chollas Creek waterway, including removal of the existing non-permeable channel bottom, installation of a permeable retaining wall structure, and removal of an unneeded culvert; construction of an approximately 3,100 foot recreational trail with stormwater capture features, installation of 298 native shade trees and landscaping; and construction of an approximately 1.5-acre climate resilient mini-park with additional stormwater capture features and interpretive signage.  <u>Subtask 11(d): Improvements</u> – Not applicable.	<ul style="list-style-type: none"> <li>Photographic Documentation of Progress</li> </ul>	0%
* The right-hand column displays percent complete for each task.		

**Figure 2-3: The Federal Blvd. De-channelization and Trail Construction Project Location Map**





**Figure 2-4: The Federal Blvd. De-channelization and Trail Construction Site Plan**





## Project 3: Ramona/Barona Tribe Recycled Water Pipeline Project

### Implementing Agency

**Implementing Agency:** Ramona Municipal Water District

**Partners:** Barona Band of Mission Indians

### DAC Status

Is this a Disadvantaged Community Project? ☒ Yes ☐ No

DAC/EDA Benefit Level: 75% - 100%

This project serves a Tribe and is requesting a 100% cost share waiver (see *Attachment 5: DAC/EDA* of this Proposal for additional details and documentation).

### Project Description

#### Project Summary

The *Ramona/Barona Tribe Recycled Water Pipeline* project will meet the demand for recycled water on the Barona Band of Mission Indians (Barona) Reservation with excess supply from Ramona Municipal Water District (MWD). The Barona Tribe currently relies on local groundwater for its drinking water supply and uses a combination of groundwater and recycled water from the Barona Water Reclamation Plant to serve irrigation demand. Due to extended and ongoing drought, the Barona Tribe does not have sufficient groundwater supply to meet its irrigation demand and anticipates such shortages to continue as the effects of climate change exacerbate drought conditions. The project will allow the Tribe to reserve groundwater for its critical drinking water supplies by offsetting groundwater demands for irrigation. It will also help the groundwater basin recover in non-drought years, protecting this critical local source of water for current and future water needs.

The project will construct a new 10,300-foot, 8-inch PVC pipeline from the existing San Vicente Water Reclamation Plant, owned by Ramona MWD, to an existing non-potable pipeline on the Barona Reservation (**Figure 2-6**). The new recycled water pipeline will reduce current and future demand for potable water supplies, providing recycled water to meet irrigation and other non-potable uses on the Barona Reservation. Ramona MWD will use existing pumping capacity to supply recycled water to the Reservation. The new pipeline will follow the roadway alignment from the intersection of San Vicente Road and Wildcat Canyon Road, south along Wildcat Canyon Road to the Tribal Reservation Boundary (**Figure 2-5**). Once on the Reservation, the pipeline will leave the existing roadway alignment and be constructed on Tribal land aligned generally parallel to Wildcat Canyon Road, crossing into the existing Tribal paintball facility, and continuing south. The new recycled water pipeline will be connected to the existing non-potable pipeline that currently conveys groundwater directly to the Barona Golf Course and Lake system.

Once the new recycled water pipeline is connected to the existing non-potable pipeline, all existing non-potable demands at the Barona Golf Course, the Barona Hotel and Casino complex, and Barona Government Building will be met with recycled water (instead of groundwater). The major non-potable demands include irrigation and other existing non-potable demands. Although not part of the proposed project, the Tribe will also be able to connect additional existing facilities to the recycled water pipeline in the future, including the Motocross Track, Ramona Raceway and paintball facilities. These facilities may use recycled water for dust control, other washdown operations, and localized irrigation needs.

#### Project Needs

The project will increase the beneficial reuse of Ramona's recycled water and reduce groundwater demand by providing recycled water for Tribal non-potable water uses. Ramona MWD's San Vicente Water Reclamation Plant produces approximately 450 acre-feet per year (AFY) of recycled water. Existing recycled water customers use approximately 250 AFY, leaving approximately 200 AFY currently unused. This project will allow for beneficial reuse of the currently unused recycled water. The new pipeline constructed through this project is designed to

provide up to 250 AFY of recycled water, which includes a 50 AFY buffer should any existing users reduce their consumption and allow for additional water to be supplied to the Barona Tribe.

During the 2007 drought, the Barona Tribe was forced to truck in drinking water due to low groundwater supply, which is costly and unsustainable. By offsetting irrigation needs with non-potable water supply, more groundwater will be available for potable use for the Barona Tribe. This project will also provide in-lieu recharge of the groundwater basin by offsetting pumping and reducing dependence on the groundwater basin. The project will increase water supply reliability through groundwater sustainability, supporting long-term water security for the Barona Tribe and providing 100% beneficial use of the recycled water produced at the San Vicente Water Reclamation plant.

Ramona MWD and the Barona Tribe benefit from this recycled water partnership by putting Ramona's excess recycled water to beneficial use and reducing disposal through sprayfield irrigation, reducing fertilizer application to the golf course through recycled water irrigation with higher nitrogen levels, and reducing groundwater pumping to keep more water available as drinking water supply to the Barona Tribe during drought.

### Project Benefits

**Increase Water Supply Reliability.** The San Vicente WRP collected 571 AFY of wastewater in 2020; however, only up to 300 AFY of this effluent is contracted for potential beneficial reuse at the San Diego Country Estates Golf Course. The Golf Course does not consistently take its full contracted supply, which results in at least 200 AFY being sent for disposal via spray irrigation. This project is being constructed to provide up to 250 AFY of a reliable water supply for non-potable needs to the Barona Tribe, with an expected average delivery of 200 AFY.

**Reduced Groundwater Pumping.** The project will also allow the Barona Tribe to reduce groundwater pumping to meet non-potable demands by an average of 200 AFY, which will increase groundwater levels, increase groundwater storage, and help to protect groundwater quality from the effects of over pumping.

Quantitative Benefits	
<b>Increase Water Supply Reliability.</b> Up to 250 AFY (average 200 AFY) of new local water supply through recycled water availability.	<b>Reduce Groundwater Pumping.</b> Up to 250 AFY (average 200 AFY) of reduced groundwater pumping.
Additional Qualitative Benefits	
<b>Directly Benefits URC.</b> Provides water supply reliability to a Tribe, considered an underrepresented community (URC).	

### Work Plan

A Work Plan for the *Ramona/Barona Recycled Water Pipeline* project, including the anticipated tasks necessary to complete the project and deliverables of the project, is provided in **Table 2-3**.

**Table 2-3: Work Plan for Ramona/Barona Recycled Water Pipeline Project**

Task and Description of Work to be Completed	Deliverables	%*
<b>Budget Category (a): Project Administration</b>		
<b>1: Project Management</b> – Manage Grant Agreement including compliance with grant requirements, and preparation and submission of supporting grant documents and coordination with IRWM regional manager. Prepare invoices including relevant supporting documentation for submittal to DWR via the Grantee (San Diego County Water Authority). This task also includes administrative responsibilities associated with the project such as coordinating with partnering agencies and managing consultants/contractors.	• Invoices and associated backup documentation	0%
<b>2: Reporting</b> – Prepare progress reports detailing work completed during reporting period as outlined in the grant agreement. Submit reports to DWR. Prepare Project Completion Report and submit to DWR no later than 90 days	• Quarterly Project Progress Reports	0%

Task and Description of Work to be Completed	Deliverables	%*
after project completion for DWR Project Manager's comment and review. The report shall be prepared and presented in accordance with guidance as outlined in the grant agreement.	<ul style="list-style-type: none"> <li>Project Completion Report</li> <li>Documentation of "Acknowledgement of Credit &amp; Signage" per Standard Condition D.2</li> </ul>	
<b>Budget Category (b): Land Purchase/Easement</b>		
<b>3: Land Purchase</b> – Not applicable; Ramona MWD and the Barona Tribe already have access to where the pipeline will be installed.	• N/A	N/A
<b>Budget Category (c): Planning/Design/Engineering/Environmental Documentation</b>		
<b>4: Feasibility Studies</b> – Not applicable; planning studies were previously completed for this project and are not included in this scope of work.	• N/A	N/A
<b>5: CEQA Documentation</b> – Complete environmental review pursuant to CEQA (anticipate Categorical Exemption). Prepare all necessary environmental documentation. Prepare letter stating no legal challenges (or addressing legal challenges). Ramona MWD will be the lead agency for the CEQA document prepared for the off-reservation portion of the project.	<ul style="list-style-type: none"> <li>Categorical Exemption</li> <li>No Legal Challenges Letter</li> </ul>	0%
<b>6: Permitting</b> – No permits have been acquired for this project. The following permits are anticipated to be acquired for this project: <ul style="list-style-type: none"> <li>County of San Diego Encroachment Permit</li> </ul>	• Permits, as required	0%
<b>7: Design</b> – The Preliminary Design Report is complete. The final design plans will be completed by Ramona MWD's District Engineer.	• 100% Design Plans and Specifications	0%
<b>8: Project Monitoring Plan</b> – Develop and submit a Project Monitoring Plan per Paragraph 16 of the grant agreement for DWR's review and approval.	• Project Monitoring Plan	0%
<b>Budget Category (d): Construction/Implementation</b>		
<b>9: Contract Services</b> – This task will comply with the Standard Condition D.11 – Competitive Bidding and Procurements of the grant agreement. Activities necessary (as applicable) to secure a contractor and award the contract, including develop bid documents, prepare advertisement and contract documents for construction contract bidding, conduct pre-bid meeting, bid opening and evaluation, selection of the contractor, award of contract, and issuance of notice to proceed.	<ul style="list-style-type: none"> <li>Bid Documents</li> <li>Proof of Advertisement</li> <li>Award of Contract</li> <li>Notice to Proceed</li> </ul>	0%
<b>10. Construction Administration</b> – This task includes managing contractor submittal review, answering requests for information, and issuing work directives. A full-time engineering construction observer will be on site for the duration of the project. Construction observer duties include documenting of pre-construction conditions, daily construction diary, preparing change orders, addressing questions of contractors on site, reviewing/ updating project schedule, reviewing contractor log submittals and pay requests, forecasting cash flow, notifying contractor if work is not acceptable. Upon completing the project, the DWR Certificate of Project Completion and record drawings will be provided to DWR.	<ul style="list-style-type: none"> <li>DWR Certificate of Project Completion</li> <li>Record Drawings</li> </ul>	0%
<b>11. Construction/Implementation Activities</b>		
<u>Subtask 11(a): Mobilization and Demobilization</u> – Mobilization and demobilization activities, including: mobilization of equipment, site cleanup and site restoration (e.g., final grading, landscaping, touch-up paint); furnishing all documentation (warranties, manuals, Standard Operating Procedure); and removal of all temporary facilities.	• Photographic Documentation of Progress	0%



Task and Description of Work to be Completed	Deliverables	%*
<p><u>Subtask 11(b): Site Preparation</u> – Site preparation activities, including: setting up temporary facilities (e.g., field office, construction barriers).</p> <p><u>Subtask 11(c): Installation, Construction, and Excavation</u> – Construction will include a new 10,300-foot, 8-inch PVC pipeline from the existing San Vicente Water Reclamation Plant to an existing non-potable pipeline on the Barona Reservation, and associated appurtenances. Pipeline construction is anticipated to consist of open trench construction unless the CEQA Initial Study determines that alternative constructions methods will be required or trenchless techniques can mitigate potential environmental impacts.</p> <p><u>Subtask 11(d): Improvements</u> – Not applicable.</p>		
* The right-hand column displays percent complete for each task.		

**Figure 2-5: Ramona/Barona Recycled Water Pipeline Project Location Map**

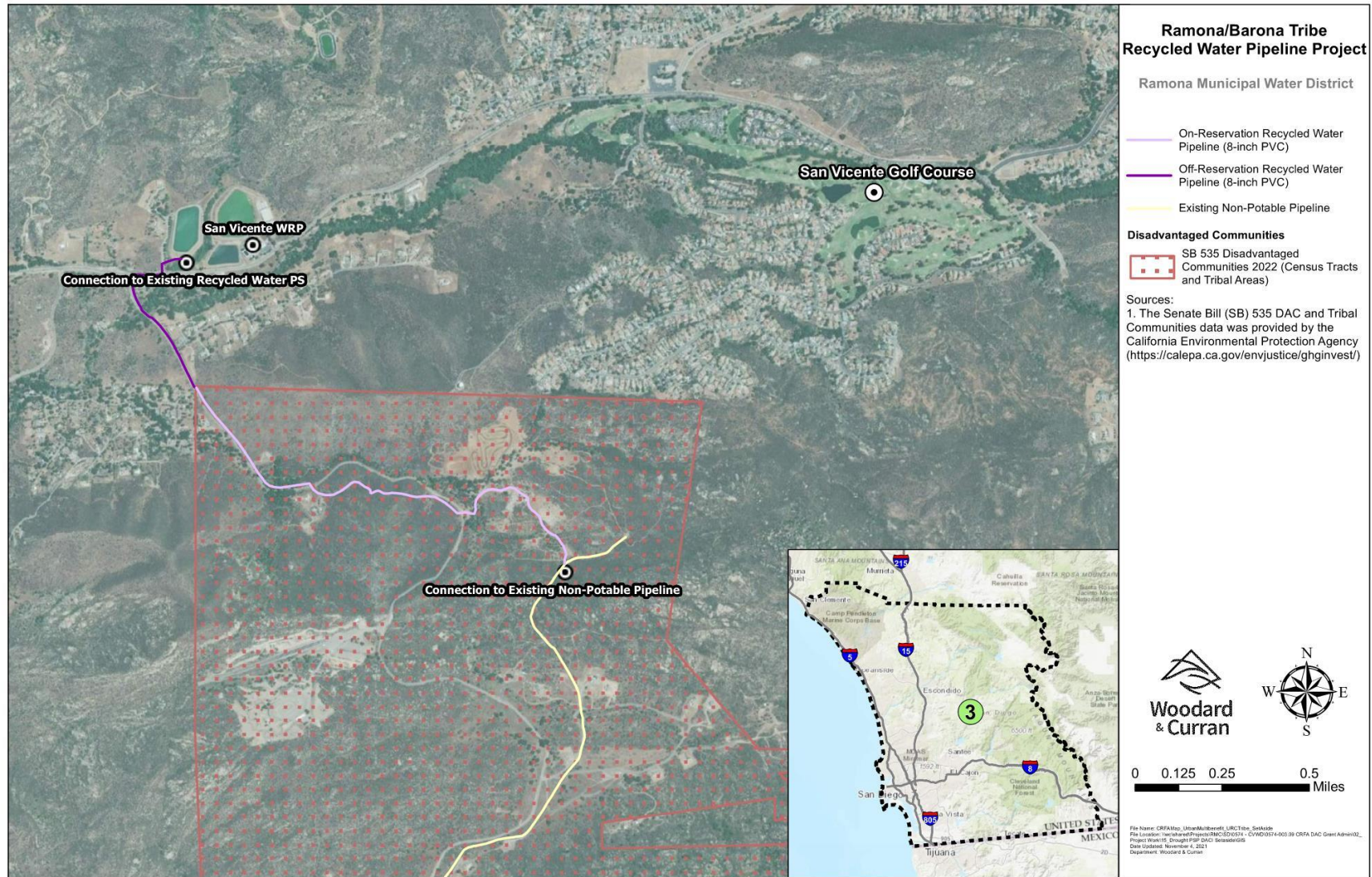
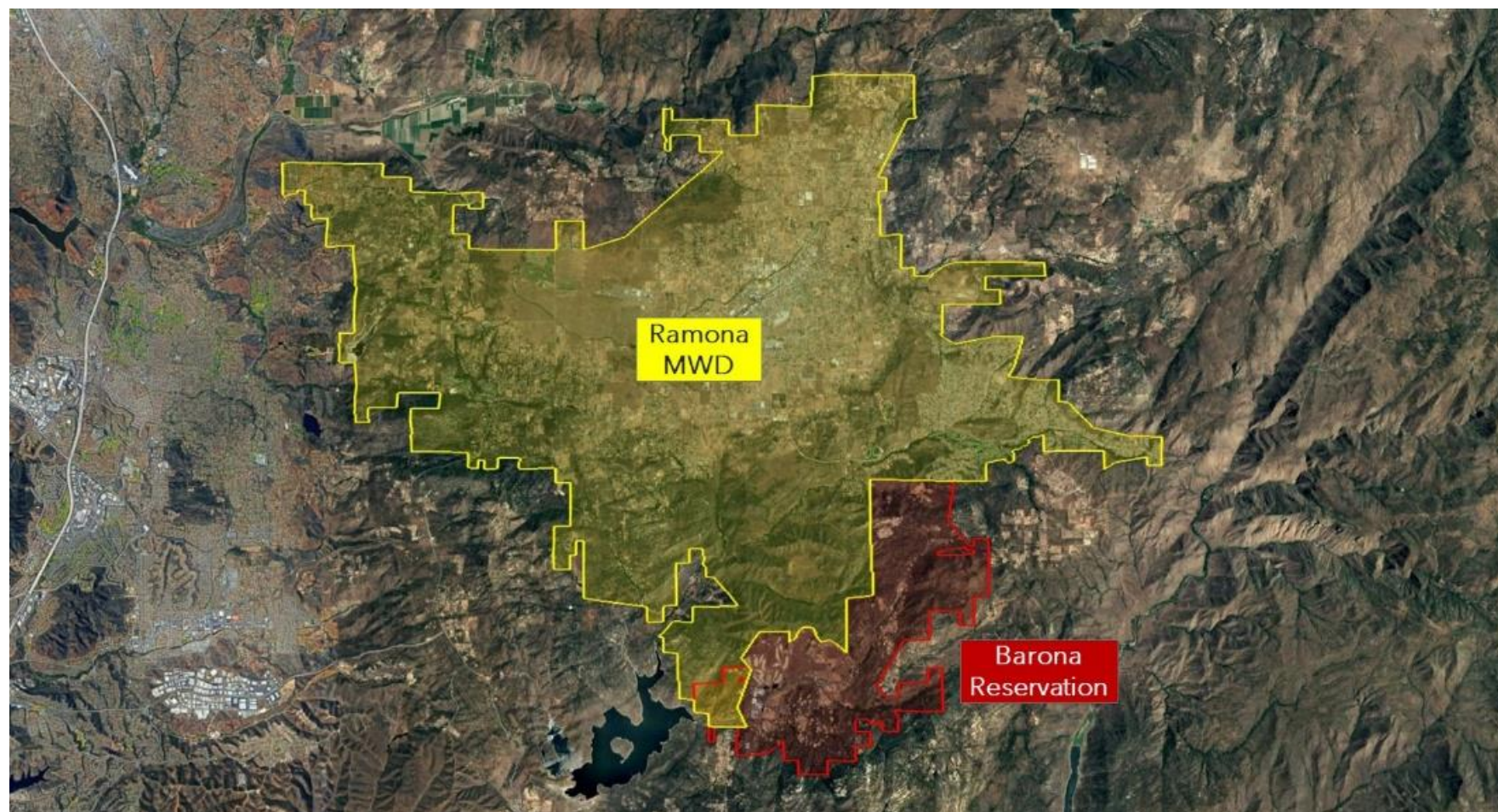




Figure 2-6: Barona Reservation Map





## Project 4: North San Diego Water Reuse Coalition – Regional Recycled Water Program

### Implementing Agency

**Implementing Agency:** Olivenhain Municipal Water District

**Partners:** North San Diego Water Reuse Coalition partners, including Carlsbad Municipal Water District, City of Oceanside, Leucadia Wastewater District, San Elijo Joint Powers Authority, Rincon del Diablo Municipal Water District, and Vallecitos Water District

### DAC Status

Is this a Disadvantaged Community Project? ☐Yes ☒No

DAC/EDA Benefit Level: Less Than 25%

This project is not requesting a cost share waiver.

### Project Description

#### Project Summary

The *North San Diego Water Reuse Coalition – Regional Recycled Water Program* project will integrate recycled water systems across seven collaborating agencies to move recycled water supply to locations of demand, increasing water reliability and optimizing system costs (**Figure 2-7**). The project consists of eight components, described below:

- *Oceanside Downtown Phase 2.* City of Oceanside is expanding its recycled water system to its downtown customers. Oceanside acquired 6.2 miles of 16-inch diameter pipeline, formerly used as the Fallbrook Outfall, and incorporated it into the City's recycled water system to convey recycled water along the Highway 76 corridor and through Downtown Oceanside from the San Luis Rey Water Reclamation Facility (WRF). This component includes approximately 5,580 linear feet (LF) of new 8-inch recycled water main extensions and services from the Fallbrook line in the downtown area. This component will deliver a total of 126 AFY of new recycled water.
- *OMWD Calle Barcelona, Village Park, and Summerhill Extensions.* Olivenhain Municipal Water District (OMWD) will construct new recycled water pipeline extensions and convert up to 27 meters from potable water to recycled water. The Calle Barcelona reach will install approximately 2,800 LF of 6-inch pipe along Calle Barcelona to complete a loop to the existing pipeline in Calle Acervo and allow for the installation of approximately 350 additional LF of 6-inch pipe on Via San Clemente. The Village Park Recreation Club #1 reach will install approximately 760 LF of 4-inch pipe, the Village Park Townhomes #1 reach will install approximately 300 LF of 6-inch pipe, and the Summerhill HOA reach will install approximately 1,180 LF of 6-inch pipe. In total, 39 AFY of recycled water will be delivered via this component.
- *OMWD Extension 153.* This component will install a flowmeter and control valves along a 14-inch recycled water transmission main to ensure reliability and control to the Southwest Quadrant in OMWD. The component will contribute 345 AFY to overall supply reliability.
- *SEJPA Connection to Wanket Tank and Cardiff extension.* San Elijo Joint Powers Authority (SEJPA) will design, permit, and construct the connecting pipeline to the 3-million-gallon Wanket reservoir (which is being converted from an abandoned potable water tank to a regional recycled water reservoir) to expand recycled water service capacity and reliability to OMWD, San Dieguito Water District, and SEJPA customers. Work will include the design and construction of approximately 1,000 LF of 12-inch or 16-inch diameter pipe and up to six 2-inch laterals and service meters and installation boxes, asphalt demolition and repair, and miscellaneous pipe fittings. The total new recycled water yield from this component is up to 15 AFY.
- *Carlsbad MWD Tank Site D.* Carlsbad Municipal Water District (MWD) will construct a 1.5 MG steel tank and yard piping at Tank Site D for recycled water. Carlsbad MWD facilities included in this component will

provide additional storage for new customer connections served by recently completed recycled water pipeline projects.

- *Rincon del Diablo MWD Pump Station Upgrades.* Rincon del Diablo MWD will expand the customer base of the Beethoven Pump Station (PS) and the North Iris PS by replacing critical mechanical elements and enhancing operational flexibility of facilities that limit the use of recycled water. The component will increase capacity of the recycled water distribution system, allowing Rincon del Diablo MWD to provide recycled water from Escondido's Hale Avenue Resource Recovery Facility (HARRF) to District customers in the most northern and southern portions of its service area. Construction includes replacement of three pumps and three variable frequency drives at each pump station, SCADA, and telemetry upgrades. These recycled water pump station upgrades will deliver 52 AFY of recycled water.
- *LWWD Gafner B1 Pipeline.* Leucadia Wastewater District (LWWD) will replace approximately 850 LF of the Secondary Effluent Force Main that transports secondary effluent from the Encina Water Pollution Control Facility (EWPCF) back to Gafner WRF. The pipe of this section is currently 16-inch ductile iron and will be replaced with 16-inch PVC pipe. Once complete, facilities will contribute 271 AFY to overall supply reliability.
- *Vallecitos WD Meadowlark Chlorine Contact Tank (CCT) Expansion.* The CCTs at Meadowlark Reclamation Facility (MRF) can process up to 5 million gallons per day (mgd) of recycled water, and all other treatment components can process up to 6.5 mgd. Vallecitos WD will expand the chlorine contact chamber from 5 to 6.5 mgd capacity to increase overall treatment capacity. This component will result in 1,680 AFY of additional treatment capacity at Meadowlark MRF.

This project is the next phase of implementation of the North San Diego Water Reuse Coalition (Coalition) Regional Recycled Water Project, which aims to develop regional recycled water infrastructure to increase the capacity and connectivity of the Coalition partners' recycled water systems and maximize reuse of available wastewater supplies. Previous phases of the Regional Recycled Water Project were funded through Proposition 1, Round 1, and Proposition 84 Rounds 1, 2, and 4. The Coalition itself is a partnership of nine northern San Diego County water and wastewater agencies working together to expand recycled water deliveries to northern San Diego County.

### Project Need

Due to California's increasing water supply concerns stemming from drought, population growth and overdraft of water resources, water suppliers are mandated to conserve potable water at increasing levels. Agencies in the Coalition are working together to implement projects designed to conserve local water supply resources and improve resiliency to climate change. This project is part of this greater effort and is designed to expand a multi-agency recycled water distribution and storage system, significantly increasing the supply of local, safe, and reliable drinking water across multiple cities and watersheds in the region.

The project addresses a need to decrease regional reliance on imported water supplies. In 2020, San Diego County Water Authority (SDCWA), the region's wholesale water agency, imported 70% of its supplies from the State Water Project (SWP) and the Colorado River. Imported water is vulnerable to restrictions resulting from climate, environment, or regulatory variables, and is subject to rationing during droughts, which are anticipated to become more extreme because of climate change. As of March 2022, SWP deliveries were reduced to 5% of allocations in a time when local supplies are stretched thin and water demand is rising. Similarly, the Colorado River is facing severe challenges stemming from long-term drought conditions. Lakes Mead and Powell, two reservoirs on the Colorado River, are at less than 50% capacity. The Department of the Interior declared the first shortage in history for the Colorado River in August 2021. As a result, imported water has become expensive and increasingly limited. Other alternative supply options are groundwater and surface water; however, the 2020 SDCWA Urban Water Management Plan Drought Risk Assessment determined these are susceptible to variation due to weather. During the recent historic drought, surface water reservoir levels within the County dropped to 38% of capacity.

The project will help address the existing drought by developing recycled water supplies that are drought-resilient and improving reliability. By recycling wastewater, the project will also reduce wastewater discharges to the Pacific Ocean.

## Project Benefits

**Water Supply – Recycled Water.** Three of the eight components will expand recycled water distribution systems to directly serve recycled water to new customers. These components and the anticipated recycled water deliveries include Oceanside Downtown Phase 2 (126 AFY), OMWD Calle Barcelona Extensions (39 AFY), and SEJPA Connection to Wanket Tank (15 AFY).

**Water Supply Reliability.** The remaining five components will improve recycled water supply reliability by providing additional recycled water storage, rehabilitating aging infrastructure, enhancing operational flexibility of aging facilities, and expanding treatment components for additional treatment capacity. These components to improve reliability include Carlsbad Tank Site D (5 AFY); Rincon Pump Station Upgrades (52 AFY), OMWD Extension 153 (345 AFY), LWWD Gafner B1 Pipeline (271 AFY), and Vallecitos WD Meadowlark CCT Expansion (1,680 AFY).

Quantitative Benefits	
<b>Water Supply – Recycled Water.</b> 180 AFY of potable water savings through the delivery of recycled water supply.	<b>Water Supply Reliability.</b> 2,353 AFY of increased water supply reliability.
Additional Qualitative Benefits	
<p><b>Reduction in Ocean Discharge.</b> Increasing water recycling will reduce the volume of effluent discharged through the ocean outfall, which will decrease contaminants and improve the water quality of the Pacific Ocean.</p> <p><b>Reduction in Dry Weather Flows.</b> Recycled water includes strict controls for overspray and irrigation efficiency.</p> <p><b>Reduced Nitrate Mass in Waterways.</b> Reduction in flow would result in a reduced mass of nitrogen in the waterway and ultimately in the Pacific Ocean, improving water quality and reducing the potential for harmful algal blooms.</p> <p><b>Climate Resilience.</b> Local water supply will help the community be more resilient to future climate changes.</p> <p><b>Reduction in Greenhouse Gases.</b> Local recycled water has lower emissions compared to imported water, which would be offset by the project.</p>	

## Work Plan

A Work Plan for the North San Diego Water Reuse Coalition – Regional Recycled Water Program project, including the anticipated tasks necessary to complete the project and deliverables of the project, is provided in **Table 2-4**.

**Table 2-4: Work Plan for North San Diego Water Reuse Coalition – Regional Recycled Water Program**

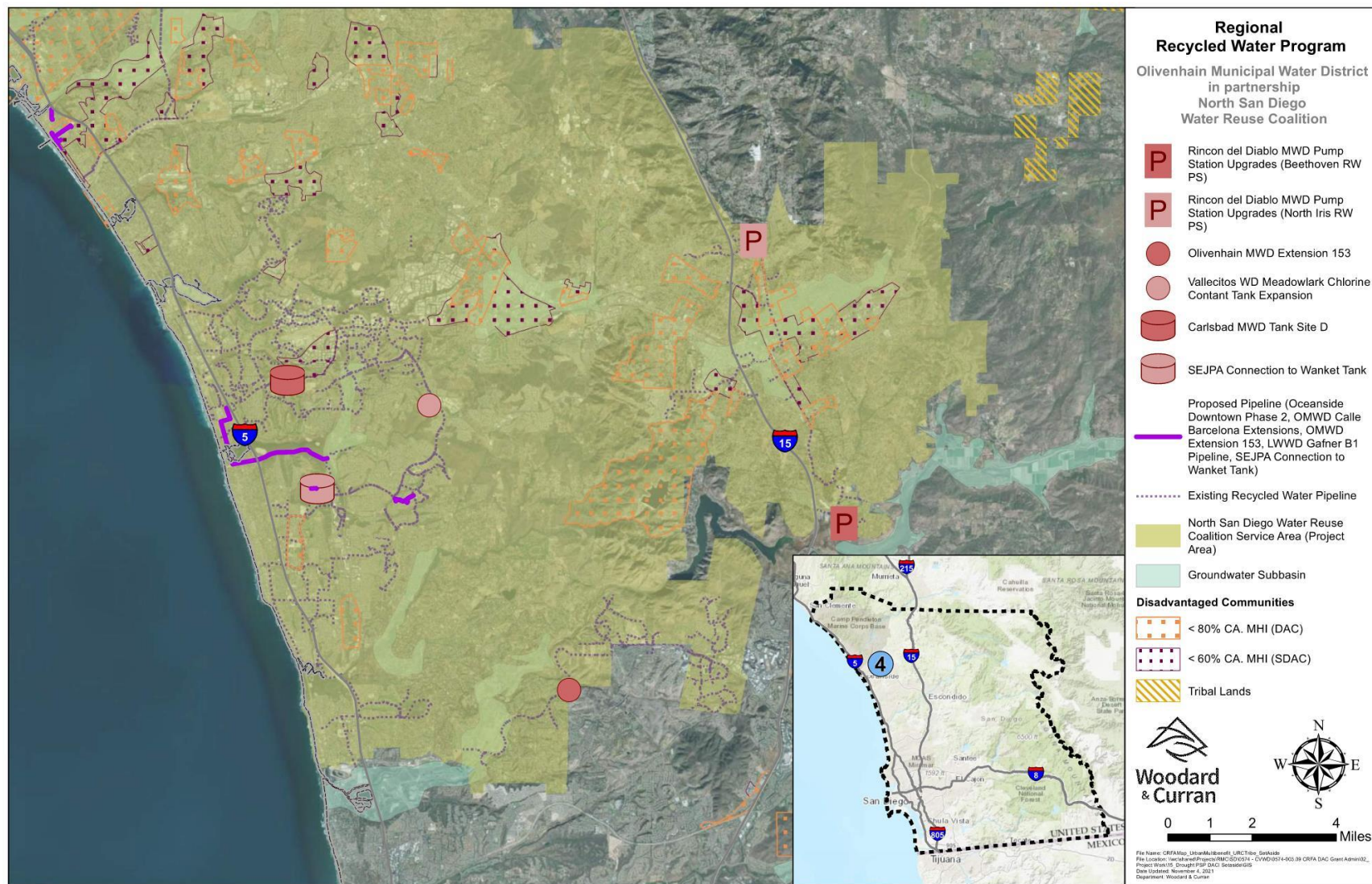
Task and Description of Work to be Completed	Deliverables	%*
<b>Budget Category (a): Project Administration</b>		
<b>1: Project Management</b> – Manage Grant Agreement including compliance with grant requirements, and preparation and submission of supporting grant documents and coordination with IRWM regional manager. Prepare invoices including relevant supporting documentation for submittal to DWR via the Grantee (San Diego County Water Authority). This task also includes administrative responsibilities associated with the project such as coordinating with partnering agencies and managing consultants/contractors.	<ul style="list-style-type: none"> <li>Invoices and associated backup documentation</li> </ul>	0%
<b>2: Reporting</b> – Prepare progress reports detailing work completed during reporting period as outlined in the grant agreement. Submit reports to DWR. Prepare Project Completion Report and submit to DWR no later than 90 days after project completion for DWR Project Manager's comment and review. The report shall be prepared and presented in accordance with guidance as outlined in the grant agreement.	<ul style="list-style-type: none"> <li>Quarterly Project Progress Reports</li> <li>Project Completion Report</li> <li>Documentation of "Acknowledgement of</li> </ul>	0%



Task and Description of Work to be Completed	Deliverables	%*
	Credit & Signage" per Standard Condition D.2	
<b>Budget Category (b): Land Purchase/Easement</b>		
<b>3: Land Purchase</b> – Not applicable; no land purchases or easements are required because the project partners already have access to the sites for the remaining project components.	• N/A	N/A
<b>Budget Category (c): Planning/Design/Engineering/Environmental Documentation</b>		
<b>4: Feasibility Studies</b> – Not applicable; feasibility studies were completed as part of the project development process, including the 2017 Regional Recycled Water Program Feasibility Study. Sufficient engineering, operational, and environmental documentation has been prepared regarding the necessity, feasibility, design, and operation of the project.	• N/A	N/A
<b>5: CEQA Documentation</b> – CEQA documents for the project were prepared separately from this scope of work. The Program Environmental Impact Report (PEIR) for NSDWRC's Regional Recycled Water Project was certified by OMWD's Board of Directors in October 2015. Multiple Addenda to the PEIR have previously been certified for the individual project components in this application. Two project components have not yet completed CEQA, but will be completing CEQA separately from this scope of work. These CEQA documents include LWWD's Gafner B1 Pipeline Addendum to the PEIR and the City of Oceanside's Categorical Exemption. As these two CEQA documents are being completed separately from this scope of work, they are not reflected in the budget or schedule. No legal challenges have been submitted on any of the project components. Letters stating no legal challenges will be prepared for each component.	<ul style="list-style-type: none"> <li>• Legal Challenges Letters (one per component)</li> <li>• CEQA documents as requested by DWR</li> </ul>	80%
<b>6: Permitting</b> – Various permits have been secured for the project. Already secured permits include: <ul style="list-style-type: none"> <li>• City of Carlsbad Coastal Development Permit for D4 Tank</li> <li>• City of Carlsbad Conditional Development Permit for D4 Tank</li> </ul> The following permits are in the process of being secured for this project: <ul style="list-style-type: none"> <li>• City of Escondido Traffic Control Permit for Rincon del Diablo MWD's Pump Station Upgrades</li> <li>• City of Encinitas Right-of-Way Permit for Wanket Tank and Fill Station</li> </ul>	<ul style="list-style-type: none"> <li>• Traffic Control Permit</li> <li>• Right-of-Way Permit</li> </ul>	80%
<b>7: Design</b> – The Coalition partners will develop the final design plans and specifications, and cost estimates for construction of each of the components.	• 100% Design Plans and Specifications (for each component)	0%
<b>8: Project Monitoring Plan</b> – Develop and submit a Project Monitoring Plan per Paragraph 16 of the grant agreement for DWR's review and approval.	• Project Monitoring Plan	0%
<b>Budget Category (d): Construction/Implementation</b>		
<b>9: Contract Services</b> – The Coalition partners will implement activities necessary to secure a contractor and award the contract, including develop bid documents, prepare advertisement and contract documents for construction contract bidding, conduct pre-bid meeting, bid opening and evaluation, selection of the contractor, award of contract, and issuance of NTP.	<ul style="list-style-type: none"> <li>• Bid Documents</li> <li>• Proof of Advertisement</li> <li>• Award of Contract</li> <li>• Notice to Proceed</li> </ul>	0%
<b>10. Construction Administration</b> – This task includes managing contractor submittal review, answering requests for information, and issuing directives. Upon completing the project, the DWR Certificate of Project Completion and record drawings will be provided.	<ul style="list-style-type: none"> <li>• DWR Certificate of Project Completion</li> <li>• Record Drawings</li> </ul>	0%
<b>11. Construction/Implementation Activities</b>		

Task and Description of Work to be Completed	Deliverables	%*
<p><i>Subtask 11(a): Oceanside Downtown Phase 2</i> – Mobilization, demobilization, and site preparation for this component; construction of approximately 5,580 linear feet (LF) of 8-inch recycled water main extensions and services; and site restoration to pre-construction conditions.</p> <p><i>Subtask 11(b): OMWD Calle Barcelona, Village Park, and Summerhill Extensions</i> – Mobilization, demobilization, and site preparation for this component; construct approximately 4,630 LF of 6-inch pipe and 760 LF of 4-inch pipe; convert up to 27 meters; and site restoration to pre-construction conditions.</p> <p><i>Subtask 11(c): OMWD Extension 153</i> – Mobilization, demobilization, and site preparation for this component; install a flowmeter and control valves; and site restoration to pre-construction conditions.</p> <p><i>Subtask 11(d): SEJPA Connection to Wanket Tank and Cardiff extension</i> – Mobilization, demobilization, and site preparation for this component; construct approximately 1,000 LF of 12-inch or 16-inch pipe and up to 6 service, 2-inch laterals and service meters and installation boxes, asphalt demolition and repair, and miscellaneous pipe fittings; and site restoration to pre-construction conditions.</p> <p><i>Subtask 11 (e): Carlsbad MWD Tank Site D</i> – Mobilization, demobilization, and site preparation for this component; construct a 1.5 MG steel tank and yard piping.</p> <p><i>Subtask 11(f): Rincon del Diablo MWD Pump Station Upgrades</i> – Mobilization, demobilization, and site preparation for this component; replace six pumps and six variable frequency drives, SCADA, and telemetry upgrades.</p> <p><i>Subtask 11(g): LWWD Gafner B1 Pipeline</i> – Mobilization, demobilization, and site preparation for this component; replace approximately 850 LF of 16-inch ductile iron pipe with 16-inch PVC pipe.</p> <p><i>Subtask 11(h): Vallecitos WD Meadowlark CCT Expansion</i> – Mobilization, demobilization, and site preparation for this component; expand the chlorine contact chamber from 5 to 6.5 mgd capacity. The major element of this component includes lengthening the existing concrete tank by 6 feet and raising the height by 4 feet.</p>	<ul style="list-style-type: none"> <li>• Photographic Documentation of Progress</li> </ul>	0%
* The right-hand column displays percent complete for each task.		

**Figure 2-7: North San Diego Water Reuse Coalition – Regional Recycled Water Program Project Location Map**





## Project 5: Integrated Multi-Benefit Solutions for Climate Resiliency in the San Diego Region

### Implementing Agency

**Implementing Agency:** San Diego County Water Authority

**Partners:** City of San Diego, Mission Resource Conservation District, The Urban Collaborative Project, I Love a Clean San Diego, County of San Diego Watershed Protection Program, Metropolitan Water District of Southern California, and Environmental Incentives

### DAC Status

Is this a Disadvantaged Community Project? ☐ Yes ☒ No

DAC/EDA Benefit Level: Less Than 25%

This project is not requesting a cost share waiver.

### Project Description

#### Project Summary

The *Integrated Multi-Benefit Solutions for Climate Resiliency in the San Diego Region* project is an innovative partnership that coordinates conservation programs between the San Diego County Water Authority (SDCWA) and the City of San Diego. The project consists of three components (**Figure 2-8**):

- **Multi-Benefit Sustainable Landscapes.** Through this component, the SDCWA, in collaboration with the City of San Diego, will provide services and incentives that target more than 20 large landscape properties for the replacement of turf and inefficient irrigation equipment with sustainable landscaping components. This component will place a special emphasis on large landscape turf conversion projects in the commercial, industrial, and institutional (CII) sector and in disadvantaged communities (DAC), the latter of which are often disproportionately landscaped with non-functional, overwatered turf grass and yet have the lowest levels of program participation. This innovative program design has been shown to overcome barriers by offering comprehensive services to produce projects which would not otherwise occur. Approximately 14 CII large landscape customers will benefit from “concierge-level services” to support the successful conversion of traditional turf grass areas to sustainable landscapes. Concierge-level services for CII customers include landscape surveys with detailed irrigation reports, project bid assistance, design services, irrigation repairs and post-project support. DAC large landscape properties will benefit from the direct, no-cost installation of turf conversion and irrigation upgrade projects. Targeted DAC properties include public agencies, schools, churches, senior living facilities, HOAs and condo associations – sites where projects like this would not otherwise be feasible. SDCWA will leverage existing turf and irrigation incentives to convert more than 0.5 million square feet of turf and upgrade to high efficiency irrigation systems. Water savings from this component are estimated to exceed 200 AFY.
- **Community-Driven Water Improvements.** This component, also implemented by SDCWA, in collaboration with the City of San Diego, includes DAC residential direct-install of toilets and the Valencia Park Showcase project in the DAC and Economically Distressed Area (EDA) communities of the City of San Diego. The direct-install of toilets will target single-family and multi-family properties in DAC areas for the replacement of 500 older, inefficient toilets at no cost to the property owner and is expected to provide approximately 20 AFY of water savings. The Valencia Park Showcase project expands on the DWR-funded Chollas Creek Watershed Home Makeover project (funded by IRWM Proposition 84, Round 4) and will include the direct installation of sustainable residential landscapes and appliances, including cisterns, sustainable plant materials, water-retaining swales, efficient toilets and showerheads, and leak detection devices. It will also implement new green infrastructure in a public space, developed with contributions from the Valencia Park community and using a local workforce. Community outreach and engagement will be integral to this effort, which seeks to create a sustained community of trained



individuals who can complete and maintain projects, as well as educators and groups that can support them. Feedback and progress will be tracked and integrated into other programs throughout the region and to make recommendations for replicability. This component is reasonably expected to produce water savings and water quality benefits.

- *Residential Water Conservation Program Enhancements.* This component, implemented by the City of San Diego, will administer and fund the expansion of the City's Residential Water Conservation Rebates Program, increase education and outreach to foster more enrollment and awareness of the Program, and implement a pilot project to implement expanded or enhanced adjustments to the program to increase engagement with DACs, EDAs, Communities of Concern, and areas where there has not been significant engagement in the Program in the past. There is evidence that increased education and outreach has a positive impact on overall engagement in the program and adoption of water conservation. During the last five years, an average of approximately \$125,000 in total Program rebates were provided by the City each fiscal year. The City estimates that approximately \$500,000 would be spent on rebates over the grant term. As part of this grant project, the City will implement expanded marketing and community-based education and outreach to increase participation across the City's water conservation rebate programs. In addition, the City potentially plans to increase rebate rates and caps and add other rebate offerings. Therefore, leveraging grant funding to increase education and outreach in underrepresented communities will enhance the water supply and water quality benefits of the Program. It is estimated that this component will provide approximately 43 AFY of water savings (calculated using the MWD 2018 Water Savings Table). This component will include:
  - Residential water conservation rebates, including reimbursement of funds to residents after application submittal, assisting residents with application questions, and processing or administering the applications and payment. Based on historic enrollment in the Rebate Program the City anticipates that during the proposed timeframe, they are expected to directly fund over 700 rain barrel rebates (~\$70,000), 40 downspout redirects (~\$2,000), 13,000 linear feet of gutter replacement (~\$20,000), and over 300,000 square feet of turf landscape being converted (~\$375,000). With additional education and outreach, the City anticipates that there will be an increase in overall enrollment, specifically within DACs across the City's jurisdiction.
  - Education and outreach, including coordination with local nonprofit and community-based organizations to provide education and outreach for residents about the rebates program. This includes education and outreach regarding water conservation and pollution prevention, benefits of the program, how to apply for the rebates, and how to properly install these, or other best management practices (BMPs).
  - Program expansion, including working with a consultant to identify options for enhancing and increasing engagement in the City's water conservation rebate program. These program enhancement options will be reviewed by City staff and will be implemented through pilot programs to help inform if alterations to the Rebate Program will be effective. Potential enhancement options to be explored may include removal of access barriers, innovative BMPs, increased outreach, more attractive rebates, and partnering with water supply agencies.

### Project Need

As San Diego suffers from cyclical droughts due to its semiarid climate and low levels of rainfall, water-use efficiency is key to the long-term strategies of SDCWA and the City of San Diego to increase the reliability of the region's water supply. Between 1990 and 2020, SDCWA initiatives contributed to a per capita potable water use decrease of 43 percent. The savings were achieved in part through programs aligned with policy principles that provide long-term, strategic direction for the development and implementation of water-use efficiency projects. Regional water quality concerns are also increasing, and the Region 9 co-permittees are facing urgent mandates to reduce dry and wet weather flows and pollutant loading for their MS4 permits. The City of San Diego adopted a Water Conservation Program in 1985 to address water scarcity concerns and since 1998, the City has progressively updated its municipal code requiring increased drought-level actions. To further water conservation in San Diego, in 2010 the City established its Residential Water Conservation Rebates Program to help promote water-use efficiency and conservation, watershed protection, stormwater resource management, and improve water quality within the City jurisdiction.

This project focuses on programs that achieve multiple benefits for both water supply and water quality. In anticipation of State water use regulations, the project will expand successful programs and develop innovative programs and practices for the commercial sector. These programs will support the, SDCWA, and its 24 member agencies including the City of San Diego in their efforts to comply with reductions required under the State regulatory framework by continuing to emphasize behavioral change and market transformation. Additionally, these programs will also support regional efforts to reduce pollutants in municipal, construction, and industrial storm water runoff, thus increasing water quality in compliance with State municipal storm water regulations.

### Project Benefits

**Reduced Water Demand.** This project will reduce water demands by a total of 263 AFY. Water savings benefits from turf conversion and irrigation efficiency improvements are based on studies of similar projects in other regions. Turf conversion savings average 0.000135 AFY conserved per square foot, per the MWD 2018 Water Savings Table. Irrigation efficiency savings on large landscapes are estimated using a percentage reduction on properties with water use exceeding 10 million gallons annually, as evidenced by the current County of San Diego Waterscape Rebate Program. This program estimates that savings on large landscapes with use in excess of 10 million gallons per year equals 3 million gallons annually. This project includes direct-install irrigation efficiency and turf replacement projects on large landscape DAC properties with an average size of 24,000 square feet. Water savings benefits from devices such as cisterns, residential toilets, leak detection devices, and greywater systems are estimated based on savings documented in the MWD 2018 Water Savings Table.

**Reduction in Greenhouse Gases.** Water is one of the highest energy use sectors in California. A study for SDG&E's Managed Landscape Program provides data for assumed embedded energy savings rate of 2,297 kWh/AF of water conserved for landscape uses (California Public Utilities Commission *Embedded Energy in Water Pilot Programs Impact Evaluation*). This accounts for importing water, energy to treat water, and energy to convey water regionally and locally. Approximately 604,000 kWh/year saved by reducing water demands by 263 AFY will result in 162 MT CO<sub>2</sub>e per year reduction in greenhouse gases that contribute to climate change, based on SDG&E's carbon intensity of approximately 590 lbs/MWh CO<sub>2</sub>e.

Quantitative Benefits	
<b>Reduced Water Demand.</b> 263 AFY of potable water will be conserved through turf conversion, irrigation efficiency improvements, and conservation programs.	<b>Other - Reduction in Greenhouse Gases.</b> 162 MT CO <sub>2</sub> e per year of GHGs will be avoided through offsets of imported water.
Additional Qualitative Benefits	
<b>Climate Resilience.</b> Long-term demand reductions will make the region more resilient to climate changes. <b>Drought Resistance.</b> Approximately 18 acres converted to native and water-wise landscaping. <b>Water-Wise Community and Culture.</b> This project contributes to changes in water use behaviors. <b>Improved Water Quality:</b> This project will result in reductions of dry weather flow to the storm drain system.	

### Work Plan

A Work Plan for the Integrated Multi-Benefit Solutions for Climate Resiliency in the San Diego Region project, including the anticipated tasks necessary to complete the project and deliverables of the project, is provided in **Table 2-5**.

**Table 2-5: Work Plan for Integrated Multi-Benefit Solutions for Climate Resiliency in the San Diego Region**

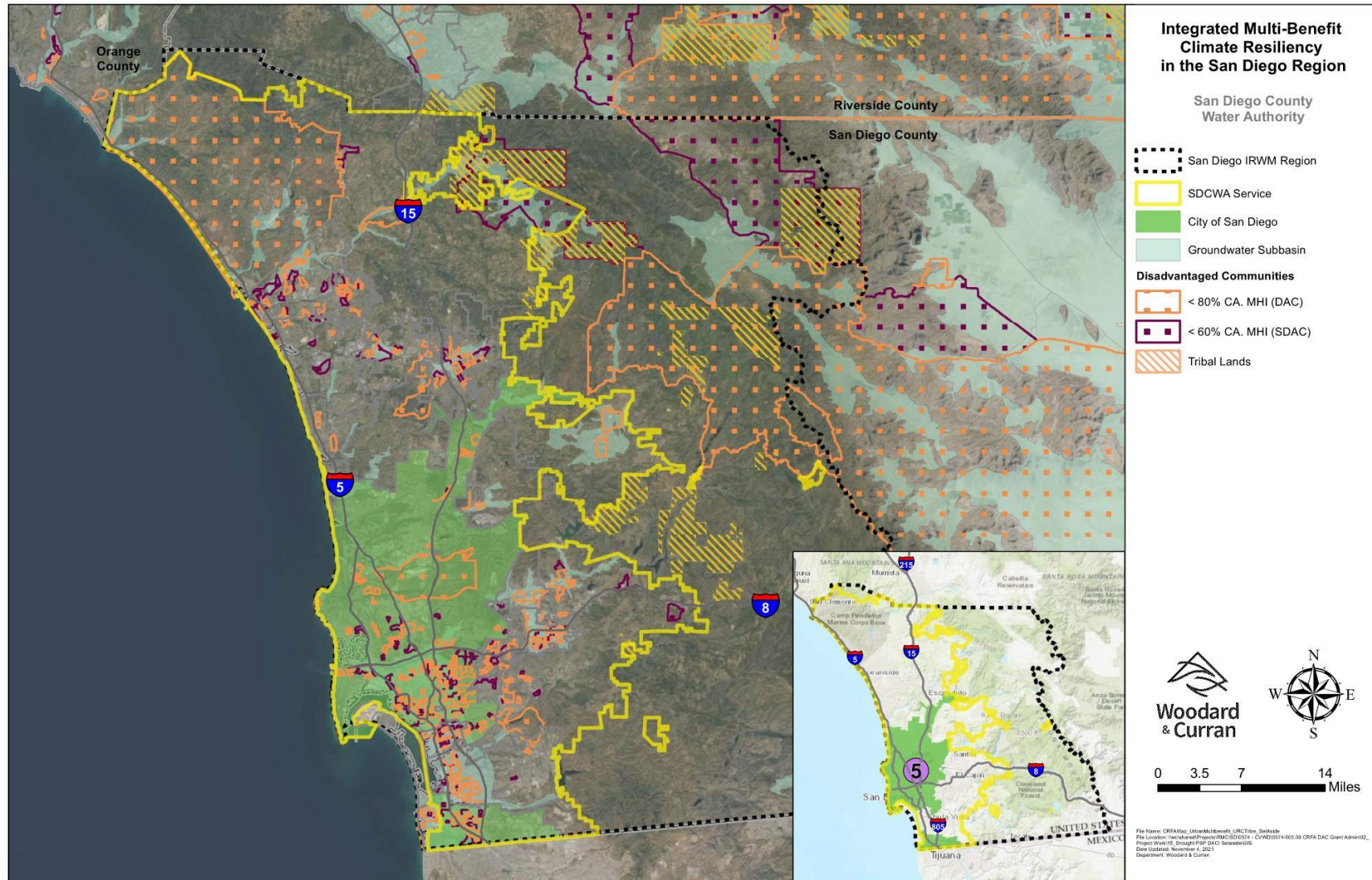
Task and Description of Work to be Completed	Deliverables	%*
<b>Budget Category (a): Project Administration</b>		
<b>1: Project Management</b> – Manage Grant Agreement including compliance with grant requirements, and preparation and submission of supporting grant documents and coordination with IRWM regional manager. Prepare invoices including relevant supporting documentation for submittal to DWR via the	• Invoices and associated backup documentation	0%

Task and Description of Work to be Completed	Deliverables	%*
Grantee (San Diego County Water Authority). This task also includes administrative responsibilities associated with the project such as coordinating with partnering agencies and managing consultants/contractors.		
<b>2: Reporting</b> – Prepare progress reports detailing work completed during reporting period as outlined in the grant agreement. Submit reports to DWR. Prepare Project Completion Report and submit to DWR no later than 90 days after project completion for DWR Project Manager's comment and review. The report shall be prepared and presented in accordance with guidance as outlined in the grant agreement.	<ul style="list-style-type: none"> <li>Quarterly Project Progress Reports</li> <li>Project Completion Report</li> <li>Documentation of "Acknowledgement of Credit &amp; Signage" per Standard Condition D.2</li> </ul>	0%
<b>Budget Category (b): Land Purchase/Easement</b>		
<b>3: Land Purchase</b> – Not applicable.	• N/A	N/A
<b>Budget Category (c): Planning/Design/Engineering/Environmental Documentation</b>		
<b>4: Feasibility Studies</b> – Not applicable.	• N/A	N/A
<b>5: CEQA Documentation</b> – Not applicable – this project does not meet the definition of a project under CEQA.	• N/A	N/A
<b>6: Permitting</b> – Not applicable.	• N/A	N/A
<b>7: Design</b> – Not applicable.	• N/A	N/A
<b>8: Project Monitoring Plan</b> – Develop and submit a Project Monitoring Plan per Paragraph 16 of the grant agreement for DWR's review and approval.	• Project Monitoring Plan	0%
<b>Budget Category (d): Construction/Implementation</b>		
<b>9: Contract Services</b> – Not applicable.	• N/A	N/A
<b>10. Construction Administration</b> – Not applicable.	• N/A	N/A
<b>11. Implementation Activities</b>		
<p><u>Subtask 11(a): Multi-Benefit Sustainable Landscapes</u> - SDCWA will provide services and incentives that target a minimum of 20 large landscape properties for the replacement of turf and inefficient irrigation equipment with sustainable landscaping components. Approximately 14 CII large landscape customers will receive concierge-level services, including landscape surveys with detailed irrigation reports, project bid assistance, design services, irrigation repairs and post-project support. An estimated additional 6 DAC large landscape customers will receive direct-install services for turf replacement and installation of efficient irrigation systems.</p> <p><u>Subtask 11(b): Community-Driven Water Improvements</u> - SDCWA will provide direct install of 500 toilets in single-family and multi-family residences. SDCWA will also provide direct installation of sustainable residential landscapes and appliances, including cisterns, sustainable plant materials, water-retaining swales, toilets and showerheads, and leak detection devices for an estimated 10 DAC homes in the Valencia Park community. Green infrastructure will be installed in the Valencia Park neighborhood's public spaces and may include bioretention areas, infiltration swales, or permeable pavement. SDCWA will conduct community outreach and engagement sessions to train residents on how to install these types of projects and create a community to support water efficient homes in the neighborhood.</p> <p><u>Subtask 11(c): Residential Water Conservation Program Enhancements</u> – City of San Diego will administer and fund the Residential Water Conservation Rebates Program. The City will fund approximately 700 rain barrel rebates,</p>	<ul style="list-style-type: none"> <li>Photographic documentation of progress and final work product</li> <li>Documentation or photographs of outreach materials</li> <li>City of San Diego study on increasing DAC engagement in conservation rebates</li> </ul>	0%



Task and Description of Work to be Completed	Deliverables	%*
about 40 downspout redirects, 13,000 linear feet of gutter replacement, and 300,000 square feet of turf landscape conversion. The City will also conduct education and outreach focused on increasing enrollment and awareness of the rebate program, including how to access rebates, install water use efficiency improvements, and other BMPs. They will also conduct a study to identify opportunities to increase engagement in the rebate program and pilot recommended solutions to increasing engagement in the program.		
* The right-hand column displays percent complete for each task.		

**Figure 2-8: Integrated Multi-Benefit Solutions for Climate Resiliency in the San Diego Region Project Map**



## Project 6: Oceanside Mesa Garrison Force Main River Crossing

### Implementing Agency

**Implementing Agency:** City of Oceanside

**Project Partners:** None

### DAC Status

Is this a Disadvantaged Community Project? ☐ Yes ☒ No

DAC/EDA Benefit Level: Less Than 25%

This project is not requesting a cost share waiver.

### Project Description

#### Project Summary

The *Oceanside Mesa Garrison Force Main River Crossing* project is a critical component of the City of Oceanside Water Recycling Optimization & Coastal Resilience program, which will provide an average of 3,276 acre feet per year (AFY) in new local water supply to the City. The City of Oceanside Water Recycling Optimization & Coastal Resilience program will realign the wastewater collection system to transport flows currently treated at an aging and vulnerable wastewater treatment facility located near the Pacific Ocean to a centralized water treatment campus called the San Luis Rey Water Reclamation Facility (SLRWRF), where the City's Advanced Water Purification Facility (AWPF), wastewater treatment, and recycled water treatment facilities are co-located. The wastewater collection system realignment program consists of a number of infrastructure improvements, including the Buccaneer Lift Station, Buccaneer Force Main, and the Oceanside Mesa Garrison Force Main (OMG FM). The transport of these sewer flows will be source water for 1.4 million gallons per day (MGD) or 1,596 AFY of Title 22 recycled water and an additional 1.5 MGD or 1,680 AFY of potable reuse water once the City expands the AWPF from 4.5 MGD production capacity to 6.0 MGD. This water will be used to offset imported, potable water.

The IRWM project, *OMG FM River Crossing*, includes the construction of the OMG FM undercrossing at the San Luis Rey River (**Figure 2-9**) which will enable the transport of wastewater to the SLRWRF to produce new potable reuse and recycled water. The OMG FM River Crossing Project will be completed by a progressive design-build contractor responsible for the environmental review, permitting, design and construction of the project. City Water Utilities staff and an Owner's Consultant will provide technical and construction support services for staff to manage the progressive design-build contractor and construction.

The OMG FM River Crossing Project is part of the larger OMG FM conveyance component and includes design and construction of approximately 1,000 linear feet (LF) of sewer force main. The details of the undercrossing are being determined through the design process and specific location evaluated to minimize environmental impacts. The City intends to locate any trenches for tunneling outside the jurisdictional boundaries of the San Luis Rey River. The preliminary size for the sewer force main is 36-inch, but may be revised as design progresses. The selected pipe material may be HDPE or PVC and will be finalized during design and based on material availability. Installation of pipe through the undercrossing will be through trenchless methods. Depending upon the selected tunneling method, and the precise location of the undercrossing, the length of pipe installation may vary.

The OMG FM (of which this project, the OMG FM River Crossing, is a component) will connect flows from El Corazon Lift Station to Mesa Drive and Garrison Street where flows will be collected from the existing Buena Vista Force Main before connecting to the 36-inch Hobas pipe through an existing tunnel. The OMG FM will continue on the north side of the tunnel where it will continue within easements to SLRWRF. The OMG FM will carry wastewater flows from the future Buccaneer Lift Station, Buena Vista Lift Station, and El Corazon Lift Station. OMG FM will be designed to convey an ultimate peak flow of 19 MGD (13,194 gallons per minute). Improvements for the overall OMG FM project will also include rerouting gravity flows at Mesa Drive and flows through Canyon



Creek Apartments with 1,600 LF of pipe and 800 LF of pipe to the new sewer lift station, those these elements are not included in this scope of work for the OMG FM River Crossing.

### Project Need

The project is a critical component of the infrastructure needed to reroute existing sewer flows currently treated at an aging and vulnerable coastal wastewater treatment facility. The project will enable the decommissioning of the La Salina Wastewater Treatment Plant (LSWWTP), an antiquated, seismically vulnerable facility built in 1948 and located on the coast. The asset has been identified in the City of Oceanside's Coastal Hazard Vulnerability Assessment as having "a high hazard exposure and consequence due to future coastal flooding and sea level rise." This project is needed to address DWR's goal of climate resilience by reducing the City's exposure to potential service disruptions caused by climate change.

The project will also reduce the City of Oceanside's reliance on imported water by expanding the drought proof, local supplies for the region and support the City's goal to provide more than 50% of its water from local supply by 2030.

### Project Benefits

**Water Supply.** The project will send approximately 3.3 MGD of wastewater flows to SLRWRF. With an 80% recovery rate associated with the production of indirect potable water and a 100% recovery rate associate with the production of non-potable recycled water, that amounts to 3,276 AFY of local water supply production. The local water supply production split will be approximately 1.5 MGD (1,680 AFY) of advanced treated potable water and 1.4 MGD (1,596 AFY) of non-potable recycled water. This project expands drought-proof, local supplies for the region and improving supply reliability by reducing the City's demand for imported water by 3,276 AFY. The project is needed to expand the City's water supply portfolio and assist in achieving its goal of providing more than 50% of its water from local supply by 2030.

**Reduce Ocean Outfall Discharges.** This project will reduce the quantity of treated wastewater flowing to the City of Oceanside's ocean outfall by approximately 3,276 AFY, enhancing ocean water quality by reducing nutrient discharges from wastewater. This value was calculated by taking the total sewer flows diverted (3.3 MGD or 3,696 AFY) and calculating the value representing 20% of the source water used to produce pure water (this amount will be returned to the wastewater stream and not used in the final pure water product): wastewater used to create pure water =  $(1.5/.8) \text{ MGD} \times .20 = .38 \text{ MGD}$  or 420 AFY. Therefore,  $3,696 - 420 = 3,276 \text{ AFY}$  is the amount of treated wastewater that will no longer move through the City's outfall to the Pacific Ocean.

Quantitative Benefits	
<b>Water Supply.</b> Create 3,276 AFY in new local water supply (1,680 AFY of potable reuse water and 1,596 AFY of Title 22 recycled water)	<b>Reduce Ocean Outfall Discharges.</b> Reduce the ocean outfall by approximately 3,276 AFY, enhancing ocean water quality by reducing nutrient discharges from wastewater
Additional Qualitative Benefits	
<p><b>Renewable Energy Production.</b> Overall project will produce 609,779 kWh/yr of renewable energy through anaerobic digestion.</p> <p><b>Reduction in Greenhouse Gases.</b> By reducing the use of imported water the project will contribute to the avoidance of 25.7 MT of CO<sub>2</sub>e in GHG emissions per year.</p> <p><b>Climate Resilience.</b> Decommissioning of the LSWWTP will address DWR climate resilience goals.</p>	

### Work Plan

A Work Plan for the Oceanside Mesa Garrison Force Main River Crossing project, including the anticipated tasks necessary to complete the project and deliverables of the project, is provided in **Table 2-6**.

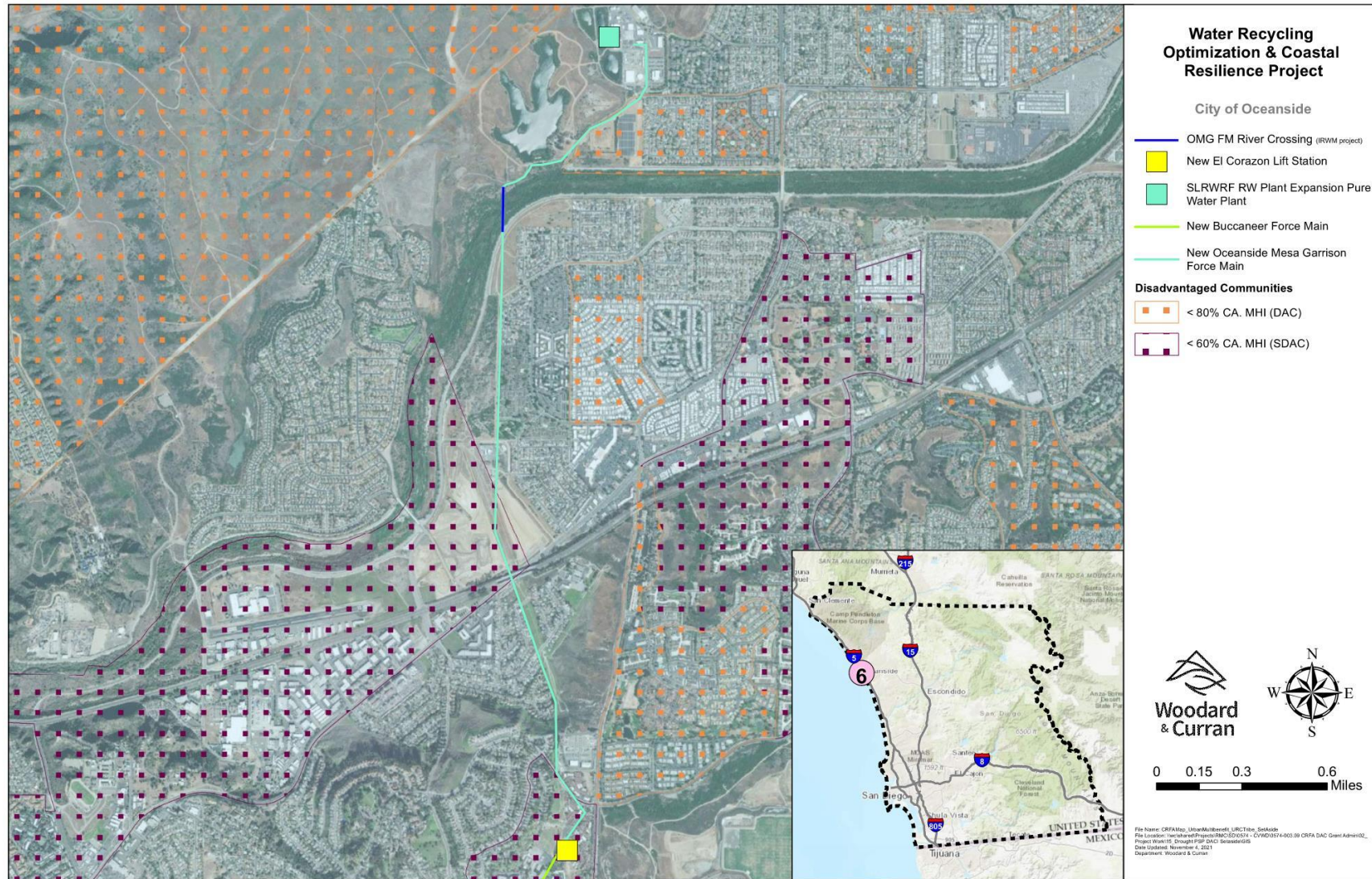
**Table 2-6: Work Plan for Oceanside Mesa Garrison Force Main River Crossing**

Task and Description of Work to be Completed	Deliverables	%*
<b>Budget Category (a): Project Administration</b>		
<b>1: Project Management</b> – Manage Grant Agreement including compliance with grant requirements, and preparation and submission of supporting grant documents and coordination with IRWM regional manager. Prepare invoices including relevant supporting documentation for submittal to DWR via the Grantee (San Diego County Water Authority). This task also includes administrative responsibilities associated with the project such as coordinating with partnering agencies and managing consultants/contractors.	<ul style="list-style-type: none"> <li>• Invoices and associated backup documentation</li> </ul>	0%
<b>2: Reporting</b> – Prepare progress reports detailing work completed during reporting period as outlined in the grant agreement. Submit reports to DWR. Prepare Project Completion Report and submit to DWR no later than 90 days after project completion for DWR Project Manager's comment and review. The report shall be prepared and presented in accordance with guidance as outlined in the grant agreement.	<ul style="list-style-type: none"> <li>• Quarterly Project Progress Reports</li> <li>• Project Completion Report</li> <li>• Documentation of "Acknowledgement of Credit &amp; Signage" per Standard Condition D.2</li> </ul>	0%
<b>Budget Category (b): Land Purchase/Easement</b>		
<b>3: Land Purchase</b> – Not applicable, City of Oceanside already has access to the project site.	<ul style="list-style-type: none"> <li>• N/A</li> </ul>	N/A
<b>Budget Category (c): Planning/Design/Engineering/Environmental Documentation</b>		
<b>4: Feasibility Studies</b> – The City has completed a preliminary hydraulic analysis study to evaluate all lift stations discharging into the OMG FM.	<ul style="list-style-type: none"> <li>• Hydraulic analysis study</li> </ul>	100%
<b>5: CEQA Documentation</b> – The City will complete environmental review pursuant to CEQA. A Program EIR is underway, and the City will complete project-level CEQA analysis following completion of the Program EIR, expected to be an Addendum. Prepare letter stating no legal challenges (or addressing legal challenges, as applicable following EIR and Addendum completion).	<ul style="list-style-type: none"> <li>• Program EIR and project-level Addendum</li> <li>• Legal Challenges Letter</li> </ul>	20%
<b>6: Permitting</b> – No permits have been acquired yet for the OMG FM River Crossing project. The following permits are anticipated to be acquired for this project, though final permits will be determined when design reaches completion: <ul style="list-style-type: none"> <li>• Encroachment Permit, Caltrans</li> </ul>	<ul style="list-style-type: none"> <li>• Permits, as required</li> </ul>	0%
<b>7: Design</b> – Contract with a design-build team to complete design. Design-build team will complete design of the OMG FM.	<ul style="list-style-type: none"> <li>• 100% Design Plans and Specifications</li> </ul>	0%
<b>8: Project Monitoring Plan</b> – Develop and submit a Project Monitoring Plan per Paragraph 16 of the grant agreement for DWR's review and approval.	<ul style="list-style-type: none"> <li>• Project Monitoring Plan</li> </ul>	0%
<b>Budget Category (d): Construction/Implementation</b>		
<b>9: Contract Services</b> – This task will comply with the Standard Condition D.11 – Competitive Bidding and Procurements in the grant agreement. Activities necessary (as applicable) to secure a contractor and award the contract, including develop bid documents, prepare advertisement and contract documents for construction contract bidding, conduct pre-bid meeting, bid opening and evaluation, selection of the contractor, award of contract, and issuance of notice to proceed. The project will be contracted as a design-build contract.	<ul style="list-style-type: none"> <li>• Bid Documents</li> <li>• Proof of Advertisement</li> <li>• Award of Contract</li> <li>• Notice to Proceed</li> </ul>	0%

Task and Description of Work to be Completed	Deliverables	%*
<b>10. Construction Administration</b> – This task includes managing contractor submittal review, answering requests for information, and issuing work directives. A full-time engineering construction observer will be on site for the duration of the project. Construction observer duties include documenting of pre-construction conditions, daily construction diary, preparing change orders, addressing questions of contractors on site, reviewing/ updating project schedule, reviewing contractor log submittals and pay requests, forecasting cash flow, notifying contractor if work is not acceptable. Upon completing the project, the DWR Certificate of Project Completion and record drawings will be provided to DWR.	<ul style="list-style-type: none"> <li>• DWR Certificate of Project Completion</li> <li>• Record Drawings</li> </ul>	0%
<b>11. Construction/Implementation Activities</b>		
<u>Subtask 11(a): Mobilization and Demobilization</u> – Mobilization and demobilization activities, including: mobilization of equipment; site cleanup and site restoration (e.g., final grading, landscaping, touch-up paint); furnishing all documentation (warranties, manuals, Standard Operating Procedure); and removal of all temporary facilities.  <u>Subtask 11(b): Site Preparation</u> – Site preparation activities, including: setting up temporary facilities (e.g., field office, construction barriers).  <u>Subtask 11(c): Installation, Construction, and Excavation</u> – Construction includes installation of approximately 1,000 linear feet (LF) of sewer force main under the San Luis Rey River, via trenchless construction methods such as horizontal directional drilling (HDD), though final method would be determined during the design-build process.  <u>Subtask 11(d): Improvements</u> – Not applicable.	<ul style="list-style-type: none"> <li>• Photographic Documentation of Progress</li> </ul>	0%
* The right-hand column displays percent complete for each task.		



**Figure 2-9: Oceanside Mesa Garrison Force Main River Crossing Project Location Map**



## Grant Administration

### Implementing Agency

**Implementing Agency:** San Diego County Water Authority

**Partners:** Implementing Agencies (Ramona Municipal Water District, Groundwork San Diego – Chollas Creek, Olivenhain Municipal Water District, San Diego County Water Authority, and City of Oceanside)

### Project Overview

#### Project Description

San Diego County Water Authority (SDCWA) (Grantee) is the applicant for the *2022 IRWM Implementation Grant Proposal* and will be responsible for contracting with DWR, contracting with Implementing Agencies for each project, submitting all invoices, progress reports, and deliverables to DWR on behalf of the Implementing Agencies, ensuring compliance with all grant requirements, and coordinating with DWR and Implementing Agencies.

The Grantee will administer the funds and respond to DWR's reporting and compliance requirements associated with the grant administration. The Grantee will act in a coordination role: disseminating grant compliance information to the project managers responsible for implementing the projects contained in this agreement, obtaining and retaining evidence of compliance (e.g., CEQA/NEPA documents, reports, monitoring compliance documents, labor requirements, etc.), obtaining data for progress reports from individual project managers, assembling and submitting progress reports to the State, and coordinating all invoicing and payment of invoices.

SDCWA has served as the grant administrator and has been awarded and managed ten IRWM grant programs since 2010 including: three Proposition 1 IRWM Grants (Planning Grant, Disadvantaged Community Involvement Grant, and Round 1 Implementation Grant), one Urban and Multibenefit Drought Relief Grant managed through IRWM, four Proposition 84 IRWM Implementation Grants (Round 1, Round 2, Drought Round, and Final Round), one Proposition 84 IRWM Planning Grant, and one Proposition 50 IRWM Implementation Grant.

### Work Plan

A Work Plan for the *Grant Administration*, including the anticipated tasks necessary to complete the project and deliverables of the project, is provided in **Table 2-7**.

**Table 2-7: Work Plan for Grant Administration**

Task and Description of Work to be Completed	Deliverables	% Complete
<b>Budget Category (a): Project Administration</b>		
<b>1. Agreement Administration</b> – The Grantee will respond to DWR's reporting and compliance requirements associated with the grant administration and coordinate with the project managers responsible for implementing the projects contained in this agreement. This work includes processing and managing grant sub agreements with Implementing Agencies, grant website set-up and maintenance, deliverables oversight and tracking, meeting participation with DWR to obtain grant information and guidance, and meeting facilitation with project partners to share grant requirements and other funding conditions as needed.	• Executed Grant Agreement	0%
<b>2. Invoicing</b> – The Grantee will be responsible for compiling invoices for submittal to DWR. This includes collecting and reviewing invoice documentation for costs eligibility, accuracy and sufficiency from each of the Implementing Agencies and compiling the information into a DWR Invoice	• Quarterly Invoices and associated backup documentation	0%

Task and Description of Work to be Completed	Deliverables	% Complete
Packet. Work also includes budget and expense management, and grant reimbursement and funding disbursement to project partners.		
<b>3. Reporting</b> – The Grantee will be responsible for compiling progress reports for submittal to DWR. The Grantee will coordinate with Implementing Agency staff to prepare and submit progress reports and final project completion reports for each project, as well as the grant program completion report. Reports will meet generally accepted professional standards for technical reporting and the requirements terms of the contract with DWR outlined in Exhibit F of the grant agreement.	<ul style="list-style-type: none"> <li>• Quarterly Progress Reports</li> <li>• Grant Completion Report</li> </ul>	0%