

WaterSMART

APPLICATION

WaterSMART

Water Recycling and Desalination Planning

NOFO R23AS00076



Regional Recycled Water and Groundwater Recharge Study



Rancho California Water District

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List of Acronyms

AF	Acre-feet
AFY	Acre-feet per year
CEQA	California Environmental Quality Act
CIP	Capital Improvement Plan
NEPA	National Environmental Policy Act
NOAA	National Oceanic and Atmospheric Administration
NOFO	Notice of Funding Opportunity
O&M	Operation & Maintenance
Rancho Water	Rancho California Water District
Reclamation	United States Bureau of Reclamation
SAM	System for Award Management
SWRCB	State Water Resources Control Board
SWP	State Water Project
TDS	total dissolved solids
UWMP	Urban Water Management Plan

Section 1: Technical Proposal and Evaluation Criteria

1.1 Executive Summary

Date: February 28, 2023
Applicant Name: Rancho California Water District
Applicant City, County, State: Temecula, Riverside County, California
Project Title: Regional Recycled Water and Groundwater Recharge Study

Project Summary

As the West and the seven Colorado River Basin States continue to address water supply challenges, it is crucial for water managers throughout our region to maximize water recycling for supplementing local water supplies. Therefore, Rancho California Water District (Rancho Water/District), in partnership with Fallbrook Public Utilities District, Marine Corps Base Camp Pendleton, the City of Oceanside, and Rainbow Municipal Water District, is seeking \$1 million in funding for completion of a Regional Recycled Water and Groundwater Recharge Feasibility Study (Feasibility Study), which could help develop up to 27,000 additional acre-feet per year of recycled water supplies for both non-potable and potable uses. These partner agencies have already made significant individual investments in the development and use of recycled water for landscape irrigation in their service areas; however, maximizing recycled water production for these agencies will require partnerships to fund projects and to solve brine disposal and groundwater recharge challenges. The proposed Feasibility Study will explore the creation of interconnections between the partners' existing facilities and the construction of new inland pipelines required for transforming what are now individual and isolated systems into a regional recycled water infrastructure that can be used for brine disposal and recharge of treated supplies into groundwater basins, a necessary step in undertaking *advanced* recycled water production. With advanced recycled water, more uses are possible, including development of seawater intrusion barriers, groundwater recharge in salt sensitive basins, use in the production of technologies and pharmaceuticals, irrigation of salt sensitive crops, reservoir augmentation, and direct potable reuse. The proposed Feasibility Study would encompass facilities of the five partner agencies (see Figure 1), and the area covered would be more than 516 square miles with a population of approximately half a million persons. Specifically, the proposed Feasibility Study will: (1) describe the study/benefit area; (2) perform a recycled water supply assessment (current and future) in the benefit area; (3) perform a recycled water market assessment; (4) update the Murrieta-Temecula Groundwater Model (to understand recycled water recharge options); (5) evaluate potable reuse options; (6) evaluate brine disposal options; (7) describe regional recycled water alternatives; (8) perform an economic analysis; and (9) evaluate project financing options. The outcome will be a feasibility study that meets the

requirements of WTR 11-01, completes conceptual design and identifies the necessary environmental compliance activities for a future construction project.

Project Timing

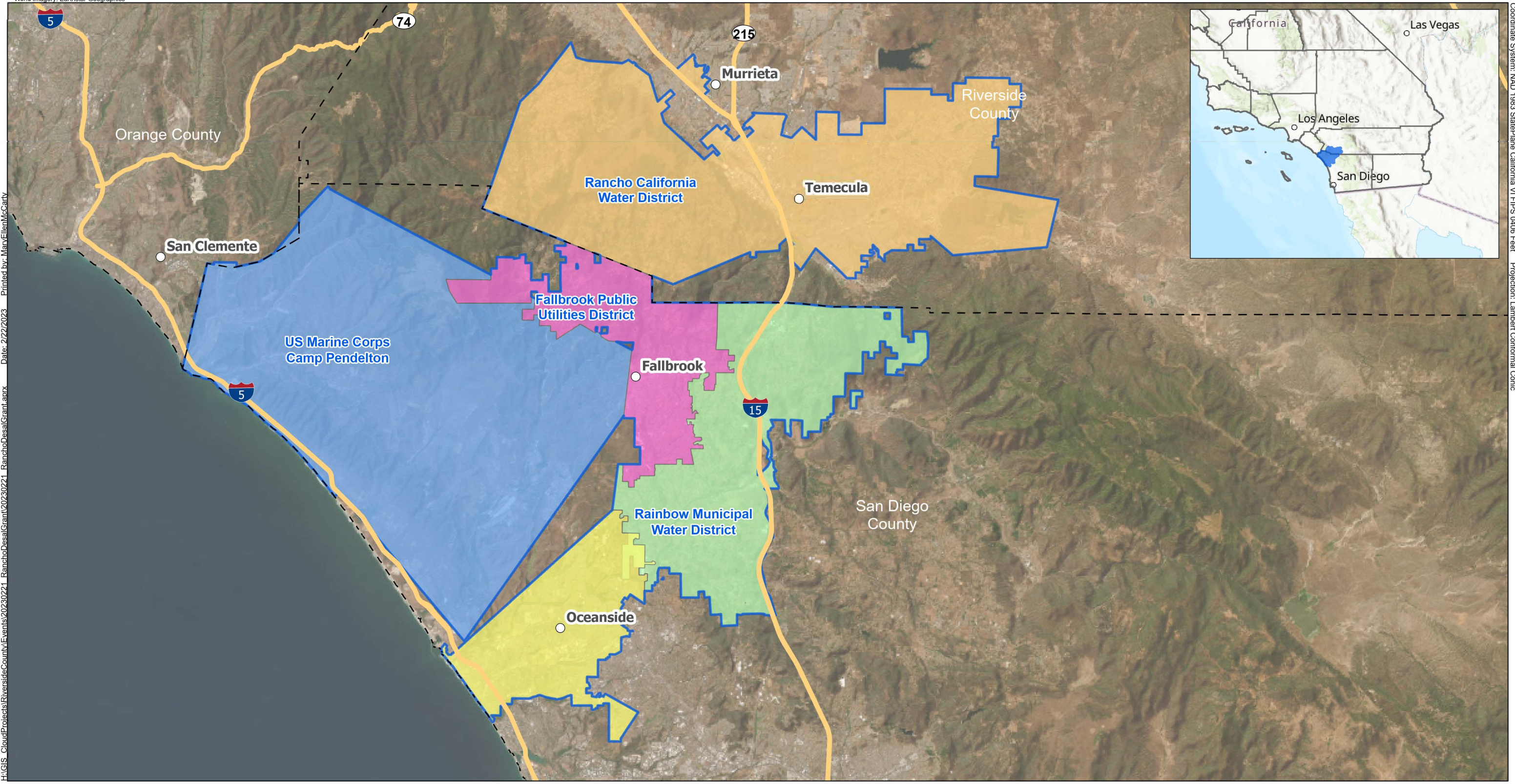
The work of the feasibility study will begin in August 2023 and conclude in June 2025.

Project Relationship to Federal Facility

This is a planning study that will be used by Marine Base Camp Pendleton, a federal facility, to help them optimize use of recycled supplies.

1.2 Project Location

The project area is the approximately 516 square miles that comprise the service area of Rancho Water, Fallbrook Public Utilities District, Marine Base Camp Pendleton, the City of Oceanside, and Rainbow Municipal Water District (see Figure 1). The project benefit area would comprise a large portion of the corridor between Camp Pendleton and Oceanside inland to the City of Murrieta. Specific evaluations will take place of facilities located within Camp Pendleton and distribution facilities in San Diego and Riverside Counties and incorporated cities such as Fallbrook, Temecula, and Murrieta.



Legend

- Fallbrook Public Utilities District
- Rainbow Municipal Water District
- Rancho California Water District
- US Marine Corps Camp Pendelton
- Oceanside
- Study Area

Acres: 330,726
 Total Population: 411,497
 Total Households: 129,187

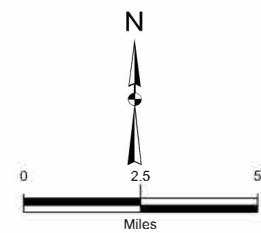


Rancho California Water District
 Grant Application
 Riverside County, CA

Project Study Area/Project Benefit Area

2344202*00

Figure 2



1.3 Technical Project Description

1.3.1 Applicant Category

Rancho Water is seeking funding from Funding Group I.

1.3.2 Applicant Eligibility

Rancho California Water District is a water district within the state of California and therefore is an eligible applicant.

1.3.3 Goals

In 2015, Rancho Water entered a Memorandum of Understanding (MOU) with Fallbrook Public Utilities District, Marine Corps Base Camp Pendleton, and the City of Oceanside to explore the idea of brine disposal using these agencies' existing inland pipelines and ocean outfall for Indirect Potable Reuse (IPR) within Rancho Water's service area. The work performed under this MOU resulted in the completion of an Indirect Potable Reuse Brine Conveyance and Alignment Study & Preliminary Basis of Design document (Preliminary Study) that identified a comprehensive opinion of probable project cost for constructing 16.2 miles of brine disposal pipeline that would be connected to these agencies' facilities for operating an IPR facility—solely for the benefit of Rancho Water's service area. Because this Preliminary Study did not yield positive results in terms of cost effectiveness for the construction of such facilities for the benefit of Rancho Water's population of 150,000 water users, the Proposed Feasibility Study explores a more regional approach that would incorporate construction of a larger brine disposal pipeline, along with additional inland pipelines and interconnections within the service areas of the partnering agencies that would increase water recycling and reuse within a 516 square mile area that is home to approximately 500,000 people. Therefore, the goal of the proposed Feasibility Study is to renew the partnership established under the 2015 MOU, to add Rainbow Municipal Water District as a partnering agency, and to advance the idea of constructing a regional recycled water infrastructure. The Feasibility Study will help maximize recycled water in a way that improves current and future regional water supply reliability through the following outcomes:

- Optimize existing facilities in the region, including treatment plants, storage (including groundwater), and pipelines.
- Support economic development by developing a sustainable water supply and creating brine disposal for both agricultural producers and technology and pharmaceutical manufacturers in the project area.
- Identify areas with sensitive ecosystems and habitats so that design can be done in a way to avoid environmental impacts.
- Provide the basis for future design of regional facilities such as interconnections and pipelines.

- Provide the basis for understanding project costs so that participants in can arrange project financing.
- Develop a feasibility study that meets Reclamation standards and qualifies the applicant for potential future construction project funding through the WIIN Act or Bipartisan Infrastructure Legislation.

1.3.4 Approach

The talents of knowledgeable consultant(s) will be retained for the study and these consultant(s) will perform the necessary technical analysis (groundwater modeling, financial projections, pipeline layouts). The consultant(s) will act to bridge the significant local knowledge of the five participating entities and ensure the resultant product is a regional study.

Proposed Activities

Task 1. Execute Partnership Memorandum of Understanding

A Memorandum of Understanding (MOU) will be executed between five project partners, including Rancho Water, Fallbrook Public Utilities District, Rainbow Municipal Water District, Marine Corps Base Camp Pendleton, and the City of Oceanside. The purpose of the MOU will be to document the agencies' commitment toward implementing a regional facility approach to water management and brine waste discharge to efficiently utilize local water supplies (groundwater, surface water, and recycled water) and to increase water supply reliability in a cost-effective manner. The result of the work performed under this MOU will be the completion of the proposed Feasibility Study.

Task 2. Contract Services

Rancho Water will select a consultant to perform: (a) the Regional Recycled Water and Groundwater Recharge Study as well as specialized technical services (e.g., groundwater model development, cost and rate analyses). Rancho Water will conduct the activities necessary to secure consultant(s) and award the contracts as per its Purchasing Policy.

Task 3. Data Gathering

This task shall include collecting and reviewing background information including previous master planning documents, GIS data, hydraulic models, customer billing data, feasibility studies, record drawings, and any other pertinent data. Selected consultant will review existing recycled water operations, deliveries, and infrastructure used by Rancho Water, Fallbrook Public Utilities District, Marine Base Camp Pendleton, and the City of Oceanside. Consultant will also gather information on the Fallbrook land outfall, Oceanside existing and planned land outfall, and capacity and permit requirements of Oceanside ocean outfall. The result will be an inventory of existing recycled water operations and facilities. Consultant will review existing information and document limitations to using recycled water in the study area, including limitations on groundwater recharge.

Consultant will hold meetings with engineering staff of each agency in the service area to confirm the recycled water inventory as well as current limitations on recycled water use in the study area.

Task 4. Describe the Study Area

Consultant will prepare maps and text summaries of the regional demographics, industry, growth trends, and other factors affecting water supply and use for each participating entity. This section will also describe the current understanding of climate change and effects on the study area. This section will provide a description of anticipated supply and demand imbalances and articulate the goals of the various agencies for their recycled water programs as well as their likely future actions without federal funding.

This task will meet Reclamation Manual, Directives and Standards, Water Reclamation and Reuse Program and Desalination Construction Program Feasibility Study Review (hereafter WTR 11-01), sections entitled “Introductory information”. This task along with Tasks 3 and 4 will fulfill WTR section entitled “Statement of Problems and Needs”.

Task 5. Recycled Water Supply Assessment

Potential sources of supply to be explored will be discussed with Rancho Water, Fallbrook Public Utilities District, Marine Base Camp Pendleton, City of Oceanside, and Rainbow Municipal Water District and the estimated quantity, quality, and seasonal availability of each supply will be based on available data, provided by the agencies, or estimates from prior studies or professional experience. This task includes the following:

1. Estimates of the quantity of recycled water given California’s pending indoor water conservation and use standards.
2. Describe all major treated water and advanced treated recycled water treatment facilities, including capacities, present flows, water quality, and description of treatment processes.
3. Describe the existing recycled water distribution system including major facilities; injection wells; pipeline alignment, sizes, capacities, age, material type, and appurtenances.
4. Identify existing non-potable uses, including users, quantities, water quality objectives (if applicable) and contractual and pricing arrangements.

This task, along with Tasks 3 and 5 will meet WTR 11-01, sections entitled “Statement of Problems and Needs” and “Water Reclamation, Recycling or Desalination Opportunities”.

Task 6. Recycled Water Market Assessment

A desktop market survey will be provided to quantify future non-potable reuse demands, including demands that could be met with advanced treated water. The results of the survey will be utilized to (1) identify potential expansion areas for

recycled water distribution facilities and potential existing facility deficiencies and (2) to quantify recycled water supplies that could be available for indirect potable water reuse and aquifer recharge. A GIS file will be created that estimates existing recycled water demand, advanced treated water demand, and potable demand by end use type. For undeveloped land within the service area, applicable zoning and future land use will be used to estimate end use type. This analysis will consider how demands for recycled water may change with climate change, including increasing demands for outdoor irrigation and increase demands for climate change mitigation strategies like fire suppression and sea water intrusion barriers. Meetings would be held with the cities within the service area as well as the County of Riverside and County of San Diego to understand future land use patterns and to identify potential future recycled water demand.

This task, along with Tasks 3 and 4 will meet WTR 11-01, sections entitled “Statement of Problems and Needs” and “Water Reclamation, Recycling or Desalination Opportunities”.

Task 7. Update of Murrieta-Temecula Groundwater Basin Model

For groundwater recharge with recycled water, it is necessary to understand limitations/challenges and water quality in specific basins, including the Pauba Valley and Upper Mesa Hydrologic Subunits of the Murrieta-Temecula Groundwater Basin. To this end this task includes, specific to the Pauba Valley and Upper Mesa Hydrologic subunits, the following groundwater modeling activities:

1. Collecting and compiling geohydrologic data from the time period following the last update of the existing groundwater model for the Murrieta-Temecula Groundwater Basin,
2. Performing land level monitoring through collection of extensometer readings, water level data, and water production data,
3. Using the updated geohydrologic data to update an existing 3-D lithologic model,
4. Using the updated geohydrologic data and 3-D lithologic model to update, refine, and recalibrate the existing groundwater model for the Murrieta-Temecula Groundwater Basin,
5. Using the updated, refined, and recalibrated groundwater model for understanding regarding groundwater recharge capabilities at existing Rancho Water recharge facilities,
6. Compiling results of model updates into Draft and Final Model Addendum Reports detailing Rancho Water’s groundwater/recharge, storage, and extraction capabilities using existing and future facilities, and
7. Creating a GIS Site Suitability Analysis Model using the updated groundwater models for preliminary evaluation of future potential recharge, storage, and extraction sites for water banking operations including recycled water recharge.

The result of this work will be a decision support tool that will allow identification of groundwater recharge, storage, and extraction capabilities using existing and

planned facilities, including advanced water treatment and brine management. The decision support tool will help:

1. Determine if recycled water or advanced treated water are cost-effective sources of additional water supply for groundwater banking,
2. Determine viable locations for groundwater recharge,
3. Evaluate the physical characteristics of potential recharge sites,
4. Evaluate recharge and extraction rates,
5. Evaluate the potential size of a future groundwater bank for both Rancho Water and regional needs,
6. Specify the size, location, phasing, and cost of the additional infrastructure required to extract and to convey the recovered water both within Rancho Water's service area and throughout the Region, and
7. Identify any potential implementation challenges such as regulatory or environmental constraints.

Task 8. Reuse Options

This task consists of developing estimates of yield and brine flow that could occur under the various potable reuse and potential expansion for non-potable reuse alternatives under consideration by the five agencies in the study area. The goal of this task is to identify the optimal mix of potable reuse and expansion of non-potable irrigation uses for each agency. This work will build on previous studies and projects undertaken in the service area including:

- Fallbrook PUD and Camp Pendleton Potable Reuse study (basis for use of recycled water injection for groundwater augmentation and seawater barrier at Camp Pendleton)
- Indirect Potable Reuse studies— Rancho California Water District and City of Oceanside
- Recycled Water Master Plan Documents for Rancho California Water District, City of Oceanside and Fallbrook PUD.

Task 9. Brine Disposal Options

Based on the estimate potential brine flow (Task 7) and origination of brine flows, Consultant will define brine disposal options, including use of existing facilities, facility interconnections, facility expansion, and new pipelines and new pumping.

Analysis will include the evaluation of a brine disposal line from Rancho Water's wastewater treatment plant to the Fallbrook land outfall. The capacity of the Fallbrook and Oceanside wastewater land outfalls and Oceanside ocean outfall will be evaluated. Participants anticipate that the expansion of recycled water in Fallbrook, Rainbow, Pendleton, and Oceanside could free up capacity for municipal brine from Rancho Water and support industrial development in the Murrieta-Temecula Valley.

Task 10. Description of Alternatives

Potable reuse options and brine disposal options will be paired to develop up to six potable reuse/non potable irrigation expansion alternatives. For each alternative the major facilities, capital costs, operations costs, and life-cycled cost will be developed for an optimize expansion of available potable reuse and non-potable irrigation expansion. The alternatives will be evaluated utilizing weighted criteria that will be established during workshops with staff of the participating agencies. Each participating agency will be asked to provide their proposed weighting (%) for a set of screening criteria such that the sum of all screening criteria weightings is 100%. The average of all weighting distribution weighting values may initially be used to define weighted criteria. A project or set of project recommendations will be provided based on the numeric scoring and direction participating agencies.

Alternatives will be compared against the “No Project”, the likely course of action should federal funding not be received.

This task will meet WTR 11-01, sections entitled “Description of Alternatives”.

Task 11. Economic Analysis

Consultant shall describe the conditions without the project and the benefits that are expected should the recommended alternative be implemented, including supporting of economic development in the Murrieta-Temecula Valley. Both quantifiable (water supply, reduced water cost) and non-quantifiable (reduced imported water demands, system reliability, reduced diversions from natural water courses, reduced demands on federal infrastructure) benefits will be described. Consultant shall describe other water supplies that could meet the identified water needs in Task 3. This section will provide a comparison of the selected project cost relative to other potential water supplies with emphasis on those supply options most likely should the regional recycled water project not move forward. Task 10 will fulfill WTR 11-01, section entitled “Economic Analysis”.

Task 12. Next Steps

Consultant shall develop discussion on the next steps needed to implement the recommended Regional Recycled Water and Groundwater Recharge project. This section shall include specifics on the necessary environmental review under both California Environmental Quality Act (CEQA) and National Environmental Policy Act (NEPA). This section shall identify specific specialized reviews or studies that will be needed to understand potential impacts to sensitive species, public health and safety, cultural resources, historic properties, and regulated waters of the United States. Information should be sufficient to understand the costs and timeline for NEPA and CEQA compliance. Consultant shall identify the institutional requirements needed to implement the recommended Regional Recycled Water and Groundwater Recharge project, including land access agreements, any water rights issues, any Indian Trust responsibilities, and interagency agreements needed. Permitting requirements for operation (Regional Water Quality Control Board, State Division of

Drinking Water) and construction (State Coastal Commission, California Department of Fish and Wildlife, local agency encroachment permits) and there anticipated timeline will be included in the text. After evaluation of the necessary environmental reviews, permitting, institutional agreements and arrangements needed, Consultant shall develop a schedule for implementation of the recommended Regional Recycled Water and Groundwater Recharge project.

Task 11 will fulfill WTR 11-01, sections entitled “Environmental Considerations and Potential Effects” and “Legal and Institutional Requirements”.

Task 13 – Project Financing Options

Consultant shall evaluate the following types of financing for the capital costs of the recommended Regional Recycled Water and Groundwater Recharge project: public-public partnerships, bonding, grants, loans, or combinations thereof. This section of the analysis shall also review the anticipated operations, maintenance, and replacement costs and how this will be arranged by the participating agencies.

Task 14. Preparation of a Feasibility Study Meeting Guidelines

Task 13 includes taking the work of Tasks 1 through 12 and preparing a feasibility study consistent with Reclamation Manual, Directives and Standards, Water Reclamation and Reuse Program and Desalination Construction Program Feasibility Study (WTR 11-01). An administrative draft, for comment by Rancho Water will be produced first. Following Rancho Water review, a second administrative draft will be prepared for review by the participating agencies. After the comments of the participating agencies are addressed a Draft Feasibility Study will be prepared and submitted to Reclamation. Following Reclamation comments and any corrections, the final Feasibility Study will be produced.

Task 15. Meetings & Workshops

This task consists of workshops and meetings with staff from the five participating agencies to collect data and receive feedback on the direction of the overall study. Agendas, meeting materials, and meeting notes will be prepared for each workshop or meeting. Up to 20 meetings of 2 hours each have been budgeted.

Task 16. Project Management

Rancho Water will provide project management for the Regional Recycled Water and Groundwater Recharge Study. Project management includes review of consultant deliverables, coordination to keep the project on schedule, budget tracking, and coordination with the participating agencies and Reclamation.

Implementation Schedule

A schedule is provided as part of the response to Evaluation Criteria 1b.

1.4 Evaluation Criteria

Brief narratives describing how the project meets criteria are provided in the following subsections. The evaluation criteria are presented first in *italics*, followed by specific information on the proposed study.

1.4.1 Criterion 1. Project Planning and Analysis

Subcriterion No. 1a-Water Recycling Needs and Opportunities (15 Points)

1. Describe the current and projected water supplies and demands in the project area; include a discussion on supply and demand imbalances.

As documented Table 1, the study area is still a growing region within California. Table 1 illustrates the anticipated growth in water demands from year 2020 to year 2045. To meet these demands, the five agencies of the project study area planned on a mix of imported water (primarily Colorado River Water), native groundwater, a minor amount of surface water, and recycled water (including advanced treated recycled water). Table 2 shows the water supply sources utilized in year 2020. As shown in Table 2, the region is heavily dependent on imported water/Colorado River Water. As considered in year 2020, the planned water supplies to meet demands in year 2045 were still heavily skewed toward the use of imported water, and assumed that volumes of imported water delivered could increase, as documented in Table 3.

Due to climate change and other pressures that are reducing the reliability of these imported supply sources, it is critical for the region to create additional and more reliable local supplies that can be accessed during severe drought conditions or other emergency situations in which imported sources are not available. This points to the purpose and need for additional supplies, including the recycled water supplies that would be made available following the feasibility study. Table 4 illustrates that in year 2020 there was significant beneficial reuse of recycled water however there was still significant volumes of wastewater discharged, meaning there are opportunities for additional reuse with appropriate treatment and infrastructure. These regional opportunities will be the subject of the Regional Recycled Water and Groundwater Recharge Study.

Tasks 4 and Task 5 of the Regional Recycled Water and Groundwater Recharge Study will include an analysis of recycled water generation and recycled water demands given growth in the plan area, given land use in the plan area, and given changes in supply and demand with climate change.

2. Describe how the planning activities will investigate potential uses and markets for reclaimed or desalinated water.

Task 5 of the study involves performing a recycled water market assessment, including demands that could be met with advanced treated recycled water.

3. Describe the source water that will be considered for the project, including location, capacities, existing flows, treatment processes, and quantities of impaired water available to meet the new reclaimed, recycled, or desalinated water demands.

The purpose of Task 4 of the study is to evaluate recycled water source water from the participating agencies including quantity, quality, and seasonality.

Subcriterion No.1b-Evaluation of Project Alternatives (15 Points)

1. *Describe the objectives that all alternatives will be designed to meet. What other water supply alternatives and project alternatives will be investigated?*

Task 9 of the proposed study includes development of ranked weighted criteria by participating agencies so that alternatives can be compared and contrasted, and a recommended project be developed. The workshops with the participating agencies will establish the objectives by which all alternatives will be judged. Criteria are likely to include: project yield, capital cost per unit yield, operational cost per unit yield, permitting complexity, and timeline to implement.

2. *Describe how the planning activities will develop project alternatives.*

There are several factors that go into understanding how to develop feasible recycled water alternatives and the Regional Recycled Water and Groundwater Recharge Study undertakes these steps. First the study will look at the Study Area and its water supplies and water supply needs (Task 3). The study will also evaluate how much recycled water supply may be available (Task 4) and estimates demands for recycled water (Task 5). The study will evaluate means to store and indirectly reuse recycled water in a local groundwater basin (Task 6). After these steps are completed the study will consider potable reuse options (Task 7) including brine disposal options (Task 8).

TABLE 1. ANTICIPATED WATER DEMANDS STUDY AREA 2020 TO 2045 (ACRE-FEET [AF])

Water Demands 2020-2035 (AF)	2020	2025	2030	2035	2040	2045
Rancho Water	53,986	75,042	78,192	79,874	81,984	84,157
Fallbrook Public Utilities District	8,403	8,645	8,969	9,551	9,760	9,860
Marine Base Camp Pendleton	8,631	8,631	8,631	8,631	8,631	8,631
City of Oceanside	23,963	21,041	19,098	19,271	19,327	19,500
Rainbow Municipal Water District	14,297	13,750	13,200	12,672	12,165	11,679
<i>Total Estimated Demands</i>	<i>109,280</i>	<i>127,109</i>	<i>128,090</i>	<i>129,999</i>	<i>131,867</i>	<i>133,827</i>

Source: 2020 Urban Water Management Plans and data reported to the California Department of Water Resources by Rancho California Water District, Fallbrook Public Utilities District, City of Oceanside, and Rainbow Municipal Water District and 2018 Final Joint Integrated Natural Resources Management Plan for Marine Corps Base and Marine Corps Air Station Camp Pendleton.

TABLE 2. WATER SUPPLY SOURCES UTILIZED IN YEAR 2020 (AF)

Water Supply Sources 2020 (AF)	Imported Water	Native Groundwater	Native Surface Water	Recycled Water	Other
Rancho Water	37,623	17,736	-	4,020	-
Fallbrook Public Utilities District	8,303	100	-	517	-
Marine Base Camp Pendleton	100	8,531	-	-	-
City of Oceanside	21,662	2,302	-	249	-
Rainbow Municipal Water District	14,297	-	-	-	-
<i>Subtotal by Supply Type</i>	<i>81,985</i>	<i>28,669</i>	<i>-</i>	<i>4,786</i>	<i>-</i>
<i>Percent Regional Supply</i>	<i>71%</i>	<i>25%</i>	<i>0%</i>	<i>4%</i>	<i>0%</i>

Source: 2020 Urban Water Management Plans and data reported to the California Department of Water Resources by Rancho California Water District, Fallbrook Public Utilities District, City of Oceanside, and Rainbow Municipal Water District and 2018 Final Joint Integrated Natural Resources Management Plan for Marine Corps Base and Marine Corps Air Station Camp Pendleton.

TABLE 3. WATER SUPPLY SOURCES 2045 AS PLANNED IN 2020 (AF)

Water Supply Sources 2020 (AF)	Imported Water	Native Groundwater	Native Surface Water	Recycled Water	Other
Rancho Water	62,400	22,000	-	5,424	-
Fallbrook Public Utilities District	5,260	4,300	300	830	-
Marine Base Camp Pendleton	100	8,531	-	-	-
City of Oceanside	9,980	2,800	-	10,080	-
Rainbow Municipal Water District	11,679	2,000	-	-	-
<i>Subtotal by Supply Type</i>	<i>89,419</i>	<i>39,631</i>	<i>300</i>	<i>16,334</i>	<i>-</i>
<i>Percent Regional Supply</i>	<i>61%</i>	<i>27%</i>	<i>0%</i>	<i>11%</i>	<i>0%</i>

Source: 2020 Urban Water Management Plans and data reported to the California Department of Water Resources by Rancho California Water District, Fallbrook Public Utilities District, City of Oceanside, and Rainbow Municipal Water District and 2018 Final Joint Integrated Natural Resources Management Plan for Marine Corps Base and Marine Corps Air Station Camp Pendleton.

As described in Task 9, up to six potable reuse and brine disposal options will be paired to develop up to six reuse alternatives. The planning activities (Tasks 4-8) will develop project alternatives based on recycled water availability, likely end users, groundwater storage potential, and brine disposal potential. Alternatives will be compared against the “No Project”, the likely course of action should federal funding not be received.

TABLE 4. WASTEWATER PUT TO BENEFICIAL REUSE VS WASTEWATER DISCHARGED IN THE REGION YEAR 2020 (AF)

	Wastewater Put to Beneficial Reuse (AF)	Wastewater Discharged (AF)
Rancho Water	4,237	14,583
Fallbrook Public Utilities District	525	1,186
Marine Base Camp Pendleton	870	unknown
City of Oceanside	54,230	11,825
Rainbow Municipal Water District	NA, wastewater sent to Oceanside	
<i>Subtotal</i>	59,862	27,594

Source: 2020 Urban Water Management Plans and data reported to the California Department of Water Resources by Rancho California Water District, Fallbrook Public Utilities District, City of Oceanside, and Rainbow Municipal Water District. Volume of water put to beneficial reuse by Camp Pendleton based on Tentative “Order No. R9-2018-0023 Master Recycling Permit US Marine Corps Base Camp Pendleton.

3. Provide a general description of the selected project, including project features, benefits, anticipated costs, and analyses conducted.

A recommended project will be selected as part of the Regional Recycled Water and Groundwater Study but has not yet occurred.

4. Include a preliminary schedule showing major tasks, milestones, and dates for the planning, design, and construction activities related to the project.

This proposal goes through feasibility planning as shown in the schedule provided above and repeated here:

	Task	Begin Date	Estimated Duration	Estimated End Date
1	Execute Partnership MOU	Aug 2023	4 months	Nov 2023
2	Contract Services	Nov 2023	3 months	Jan2024
3	Data Gathering	Jan 2024	2 months	Feb 2024
4	Describe the Study Area	Mar 2024	2 months	Apr 2024
5	Recycled Water Supply Assessment	Mar 2024	3 months	May 2024
6	Recycled Water Market Assessment	Mar 2024	4 months	Jun 2024
7	Update of Groundwater Basin Model	Mar 2024	6 months	Aug 2024
8	Reuse Options	Jun 2024	4 months	Sept 2024
9	Brine Disposal Options	Sept 2024	6 months	Feb 2025
10	Description of Alternatives	Jan2025	4 months	Apr 2025
11	Economic Analysis	Mar 2025	2 months	Apr 2025
12	Next Steps	Mar 2025	2 months	Apr 2025
13	Project Financing Options	Apr 2025	1 month	Apr2025

	Task	Begin Date	Estimated Duration	Estimated End Date
14	Admin Draft 1 and 2, Draft Feasibility Study	Apr 2025	3 months	Jun 2025
15	Meetings and Workshops	Nov 2023	20 months	Jun 2025
16	Project Management	Nov 2023	20 months	Jun 2025

1.4.2 Criterion 2. Stretching Water Supplies

- 1. Describe the potential for the project to reduce, postpone, or eliminate the development of new or expanded non-recycled water supplies.*
- 2. Describe the potential for the project to alleviate pressure on existing water supplies and/or facilities. Please describe the existing water supplies, identify the supplies and/or facilities that will be impacted and explain how they will be impacted by the Project, including quantifications where applicable.*

The agencies in the project area are all heavily dependent on imported water supplies, particularly from the Colorado River. The agencies have already taken extraordinary steps to ensure local supplies, including extensive recycled water systems, extensive groundwater recharge facilities and groundwater desalters, and large surface water/stormwater capture facilities (e.g., Vail Lake). Concurrently, the agencies have taken proactive steps to reduce water demand through use of water budget tiered rates, rebate programs for residential customers, and technical assistance and rebates to reduce agricultural irrigation needs.

The current supplies available in the planning area, particularly imported water, are likely to be curtailed with climate change and increased competition. There is no clear way to further expand imported supplies; however, as shown in Table 4 above, there is potential for putting additional wastewater to beneficial use. This wastewater is currently being generated in the service areas, but is limited to outdoor irrigation only within certain groundwater basins. This curbs the benefits of recycled water.

Completion of the proposed Feasibility Study will identify clear options for developing up to 27,000 AFY in additional, highly reliable local water supplies for both non-potable and potable uses, for the benefit of approximately 500,000 people, a grate number of technology and pharmaceutical companies that require highly treated water, and a significant agricultural sector consisting of salt sensitive crops.

- 3. Describe the potential for the project to make water available to address a specific concern.*

With appropriate interconnections and some additional inland pipeline, existing facilities could turn into regional facilities used for brine disposal, a necessary step in undertaking advanced recycled water production. With advanced recycled water more uses are possible, including development of seawater intrusion barriers, groundwater recharge in salt sensitive basins, irrigation of salt sensitive crops, reservoir augmentation, and direct potable reuse. In particular, a construction project resulting from the proposed Feasibility Study could create up to 27,000 AFY

in additional drinking water supplies to protect the health and safety of 500,000 people whose water supplies are compromised due to climate change, to help support economic growth in technology and pharmaceutical industries that rely on highly treated water, and to sustain a \$1 billion agricultural economy (one that is comprised heavily of avocado orchards, which is one of the most salt-intolerant crops grown in the United States).

4. Describe the potential for the project to help create additional flexibility to address drought.

All current water sources in the planning area are subject to drought. However, through water reuse these limited resources are put to beneficial use multiple times. So while recycled water is not “drought proof” it is generally not highly impacted by drought conditions and is more drought resilient than supplies such as imported water, local surface water, and groundwater. As noted in Table 4 above, there is currently over 27,000 AF of wastewater discharged and not put to beneficial use, which could be used beneficially in the planning area through construction of a regional recycled water infrastructure.

1.4.3 Criterion 3. Environment and Water Quality

1. Describe the potential for the project to improve the quality of surface water or groundwater.

2. Describe the potential for the project to improve effluent quality beyond levels necessary to meet State or Federal discharge requirements.

The project will lay the groundwork for: (1) the use of advanced treated water, (2) for a better understanding of local groundwater basins, and (3) for regional brine disposal. All three actions will benefit local groundwater quality.

Advanced treated water is typically low in the constituents of concern in local groundwater such as total dissolved solids, nutrients, arsenic, fluoride, iron, and manganese. Groundwater recharge with advanced treated water will augment the basins with a higher quality water than the ambient groundwater. Importantly, the brine line developed for use advanced treated water creates the possibility of future groundwater treatment projects (e.g., desalters) that require brine disposal. The brine line would facilitate desalters for removal of total dissolved solids as well as future constituents of concern, such as per- and polyfluoroalkyl substances (PFAS)

3. Describe the potential for the project to improve flow conditions in a natural stream channel.

4. Describe the potential for the project to restore or enhance habitat for non-listed fish and wildlife species.

5. Describe the potential for the project to provide water or habitat for federally listed threatened or endangered species.

The Feasibility Study and resulting project is unlikely to improve flow conditions in a natural stream channel nor restore or enhance habitat for fish and wildlife species.

1.4.4 Criterion 4. Department of Interior Priorities

Climate Change: Points will be awarded based on the extent the project will reduce climate pollution; increase resilience to the impacts of climate change; protect public health; and conserve our lands, waters, oceans, and biodiversity.

As part of the Upper Santa Margarita Watershed Integrated Regional Water Management Plan (<https://www.ranchowater.com/DocumentCenter/Index/38>), a climate change vulnerability assessment was performed. This assessment generally covers the project benefit area of this application. This assessment found the following likely climate change effects by 2050:

- Increased average January temperature: 2°Fahrenheit (F) to 4°F
- Increased average July temperature by 3°F to 5°F
- Decrease in rainfall of 2 to 4 inches
- Up to 25% decrease in State Water Project (SWP) supplies
- Up to 24% decrease in Colorado River supplies
- Decrease in local supplies
- Increase in demand
- Same or slight increase in wildfire risk

The effects of climate change and extended drought are being felt now in the scarcity of imported water supplies. The Colorado River is in a historic and sustained drought. Other users of the river, including upper basin states, Nevada, and Arizona have already been subject to mandatory cutbacks. It is anticipated that these water use reductions will not be sufficient to sustain operations on the River and Reclamation has ordered continued negotiations to try to reduce water use in the immediate future.

However, the climate change vulnerability performed for the Upper Santa Margarita Watershed makes it clear that all current water supplies used in the study area are threatened by climate change. And this decrease in supply will be accompanied by an increase in demand, particularly outdoor irrigation demand.

The Department of Defense conducted its own assessment of climate change and found that climate change will play a significant role in Camp Pendleton's ability to fulfill its mission. Historic sea level rise along the California coast is estimated to be between 6 to 8 inches each century (Cayan et al 2012; NOAA 2015). This sea level rise threatens seawater intrusion in the basins used by Camp Pendleton for their water supply.

Adding advanced treated recycled water to the regional supply portfolio will bolster local supplies. Adding advanced treated recycled water will allow local agencies to continue use of significant recycled water and groundwater infrastructure already in place. Adding advanced treated recycled water to the local portfolio will give coastal jurisdictions more options for creating sea water intrusion barriers to protect their local groundwater.

1. Disadvantaged or Underserved Communities: Points will be awarded based on the extent to which the Project serves economically disadvantaged or underserved communities in rural or urban areas. Please describe in detail how the community is disadvantaged based on a combination of variables

Avoiding water supply shortages for both municipal and agricultural customers protect health and safety and the economic structure of a community.

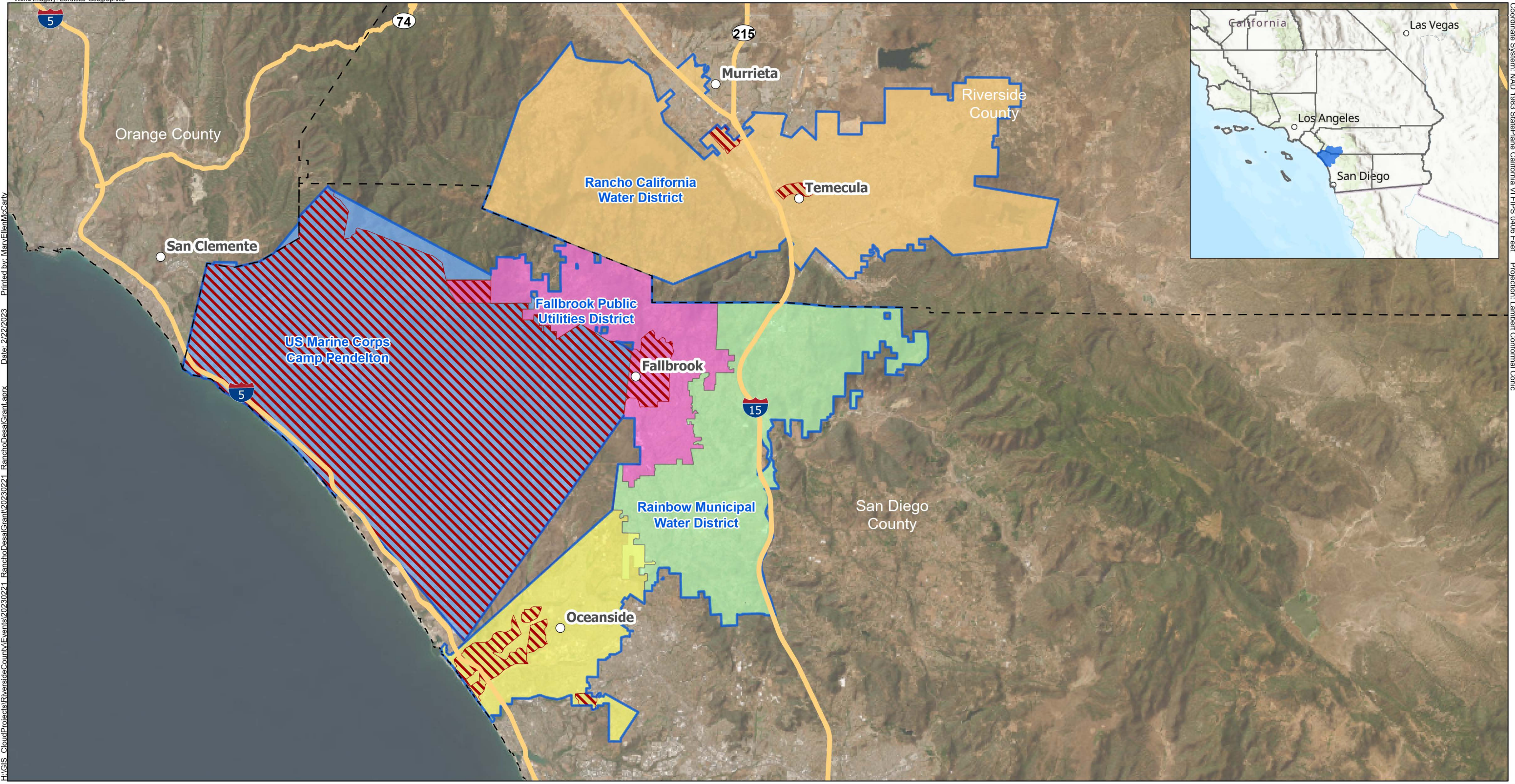
Approximately 40% of the water service areas in the Feasibility Study qualify as a disadvantaged or underserved community based on the following definitions (see also Figure 2):

1. A disadvantaged community (DAC) is a community with an annual median household income (MHI) that is less than 80% of the Statewide annual median household income. Using the U.S. Census Bureau American Community Survey (ACS) data for the years 2016 -2020, 80% of the California Statewide MHI is \$62,938.
- An underserved community is a community that scores in the top 25% of Census tracts in California for pollution burden (exposure and environmental effects) and socioeconomic factors (unemployment, income). The ranking is done by the California Environmental Protection Agency for each tract in the state.

2. Tribal Benefits: Points will be awarded based on the extent to which the Project will honor the Federal government's commitments to Tribal Nations.

- *Does the proposed project directly serve and/or benefit a Tribe? Will the project improve water management for an Indian Tribe?*
- *Does the proposed project support Tribal resilience to climate change and drought impacts or provide other Tribal benefits such as improved public health and safety by addressing water quality, new water supplies, or economic growth opportunities?*


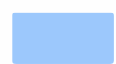

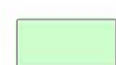



Tribal lands make up approximately 2 percent of the overall benefit area and that is the estimated project benefit to a Tribe. Specifically in the planning area is the Pechanga Band of Luiseno Mission Indians (Pechanga), a federally recognized tribe with a reservation of over 6,000 acres. Since 2006, Pechanga and Rancho Water have had an agreement in place to address concerns with over-pumping in the shared local groundwater basin. The Regional Recycled Water and Groundwater Study would likely lead to a project that improves water supply reliability for the Tribe 1) through groundwater recharge with advanced treated recycled water (the Tribe and Rancho Water use the same aquifer), and 2) offsetting Rancho Water's purchases of imported water supplies, which makes more water available for use by the Tribe during droughts or other emergencies.



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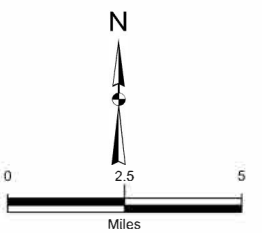
Legend

- | | | |
|--|--|---|
|  Fallbrook Public Utilities District |  US Marine Corps Camp Pendelton |  Disadvantaged and Underserved Community Areas |
|  Rainbow Municipal Water District |  Oceanside | 39.83% of Benefit Area |
|  Rancho California Water District |  Benefit Area | |



Rancho California Water District
Grant Application
Riverside County, CA

**Disadvantaged Communities
in the Project Benefit Area**



2344202*00
Figure 2

1.4.5 Criterion 5. Watershed Perspective and Stakeholder Involvement

Points will be awarded based on the extent to which the project being investigated promotes or applies a watershed.

- 1. Will the proposed project implement a regional or state water plan or an integrated resource management plan? Explain.*

The project is consistent with the Upper Santa Margarita Regional Integrated Water Management Plan, the San Diego Integrated Regional Water Management Plan, and the California Water Supply Strategy.

- The Upper Santa Margarita Regional Integrated Water Management Plan calls for projects, like the proposed Regional Recycled Water and Groundwater Recharge Study, that increase diversification of the water supply portfolio.
- The San Diego Integrated Regional Water Management Plan includes objectives such as: 'Develop and maintain a diverse mix of water resources, encouraging their efficient use and development' and 'Encourage the development of integrated solutions to address water management issues and conflicts'. A regional recycled water program is consistent with these objectives.

California's Water Supply Strategy calls for the reuse and recycling of at least 800,000 acre-feet of water per year by 2030, enabling better and safer use of wastewater currently discharged to the ocean. The Regional Recycled Water and Groundwater Recharge Study is consistent with this goal.

- 2. Will the proposed project help meet the water supply needs of a large geographic area, region, or watershed? Explain.*

The proposed project will help meet, avoid, or lessen anticipated supply shortages for an area of more than 516 square miles and a population of approximately half a million persons.

- 3. Will the proposed project promote collaborative partnerships to address water-related issues? Explain. Describe stakeholder involvement in the project planning process.*

- 4. Will the proposed project include public outreach and opportunities for the public to learn about the project?*

The project is a regional planning effort. As demonstrated in the workplan, the proposed Regional Recycled Water and Groundwater Study will be guided by the five participating agencies: Rancho Water, Fallbrook Public Utilities District, Marine Base Camp Pendleton, the City of Oceanside, and Rainbow Municipal Water District. The participating agencies will be asked to: (1) provide data to the consultant selected to prepare the study, (2) identify ranking criteria/priorities for comparing desalination options, (3) critically review chapters of the study, (4) provide input as requested by Reclamation on the Feasibility Study.

Section 2: Project Budget

Note to reviewers, the Project Budget is being provided both within the Technical Proposal and as a separate budget Narrative Attachment.

2.1 Funding Plan and Letters of Commitment

2.1.1 Non-Federal Share of Project Costs

The non-federal cost share will come from two sources: a State of California, Department of Water Resources, Proposition 1 Integrated Regional Water Management implementation grant and Rancho Water capital improvement plan funds. The notification of grant award occurred in January 2023.

Table 5 below summarizes all funding sources (non-Federal and Federal) for the proposed project.

TABLE 5. SUMMARY OF NON-FEDERAL AND FEDERAL FUNDING SOURCES

Funding Sources	Percent of Project Cost	Funding Amount
Non-Federal Entities		
California Department of Water Resources grant to Rancho California Water District	43%	1,068,444
Rancho California Water District (Applicant)	16%	398,788
Non-Federal Subtotal	59%	1,467,232
Requested Reclamation Funding	40%	\$ 1,000,000

2.1.2 Other Funding Requests

No funding has been requested or received from other Federal partners for the Proposed Project. There are no other outstanding funding requests. If funding for the project is denied, the portion of the project funded by the State of California, focused on Task 6, Update of Murrieta-Temecula Groundwater Basin Model, will be the only portion that goes forward.

2.1.3 Request for Pre-Award Costs

Pre-award costs are not being sought.

2.2 Budget Proposal

The Project Budget consists of costs associated with the planning and fall within various budget categories, including supplies and materials, contractual/ construction, among others. The budget proposal is summarized in Table 6 and detailed in Table 7. Table 7 reflects all budget categories listed in the Notice of Funding Opportunity.

TABLE 6. TOTAL PROJECT COST TABLE

Funding Sources	Amount
Costs to be reimbursed with the requested Federal Funding	\$ 1,000,000
Costs to be paid by applicant	\$ 398,788
Value of third- party contributions	\$ 1,068,444
Total Project Cost	\$ 2,467,232

TABLE 7. BUDGET PROPOSAL

Summary			
Figures in this summary table are calculated from entries made in subsequent categories, only blank white cells require data entry.			
6. Budget Object Category	Total Cost	Federal Estimated Amount	Non-Federal Estimated Amount
a. Personnel	\$47,971		
b. Fringe Benefits	\$48,614		
c. Travel	\$0		
d. Equipment	\$0		
e. Supplies	\$0		
f. Contractual	\$2,258,444		
g. Construction	\$0		
h. Other Direct Costs	\$0		
i. Total Direct Costs	\$2,355,028		
i. Indirect Charges	\$112,204		
Total Costs	\$2,467,232	\$1,000,000	\$1,467,232
Cost Share Percentage		41%	59%

Summary			
6. Budget Object Category	Total Cost	Federal Estimated Amount	Non-Federal Estimated Amount
a. Personnel	\$47,971		
b. Fringe Benefits	\$48,614		
c. Travel	\$0		
d. Equipment	\$0		
e. Supplies	\$0		
f. Contractual	\$2,258,444		
g. Construction	\$0		
h. Other Direct Costs	\$0		
i. Total Direct Costs	\$2,355,028		
i. Indirect Charges	\$112,204		
Total Costs	\$2,467,232	\$1,000,000	\$1,467,232
	Cost Share Percentage	41%	59%

2.2.1 Personnel

District staff anticipates performing project management for the Proposed Project, including grant administration and grant reporting. Key Rancho Water staff that could be utilized in the project include the following:

- Robert Avera, Principal Engineer. Work will include review of requests for proposals, input and review of Feasibility Study chapters on (a) recycled water supply assessment, (b) recycled water market assessment, (c) the update to the groundwater model, (d) reuse options, and (e) brine disposal options.
- Casey Arndt, Contracts Administrator. Work will include release request for proposals and consultant selection.
- Rhonda Barkey, Contracts Administrator .Work will include release request for proposals and consultant selection.
- Justin Haessly, Water Efficiency and Grants Manager. Work will include general consultant oversight and coordination with Reclamation.

Rancho Water staff that could be utilized in the project include the Principal Engineer, Contracts Manager, and Water Efficiency and Grants Manager.

2.2.2 Fringe Benefits

Rancho Water is seeking fringe benefit costs for their staff time. Rancho Water has a negotiated indirect cost agreement with the Federal Government.

2.2.3 Travel

No travel expenses are anticipated for the project.

2.2.4 Equipment

No equipment expenses are anticipated for the project.

2.2.5 Supplies

No materials or supplies are anticipated for the project.

2.2.6 Contractual

Contractual work to be performed is described in Section 1.3.4 of this application. Consultants are anticipated to be used to perform nearly all the work of the study, including: description of the study area, recycled water supply assessment, recycled water market assessment, update of the Murrieta-Temecula Groundwater Basin Model, development of potable reuse options, development of brine disposal

options, development of alternatives (including costs), and preparation of the study in a manner that meets the requirements of the WTR 11-01 guidelines.

Cost estimates for the engineering work described in Section 1.3.4 were developed in consultation with the engineering firm that prepared the District's 2018 Recycled Water Resources Plan. The estimated costs are based on similar work performed by the engineering firm for other Southern California clients.

2.2.7 Construction

Construction is not part of the proposed project.

2.2.8 Other Direct Costs

All direct costs are discussed in categories above.

2.2.9 Indirect Costs

Rancho Water is seeking grant and match funds for costs related to general overhead and administration and engineering overhead. Rancho Water has a negotiated indirect cost agreement with the Federal Government.

2.3 Total Cost

The total cost of the proposed project is \$2,467,232. Rancho Water is requesting \$1,000,000 in funding from Reclamation. This represents 41 percent of the total project costs. No other Federal funding has been requested or received for the proposed project.

Section 3: Other

3.1 Unique Entity Identifier and System for Award Management Registration

Rancho Water is currently registered in the System for Award Management (SAM) and will maintain an active SAM registration with current information at all times during which it has an active Federal award or plan under consideration by a Federal award agency.

Rancho Water's Unique Entity Identified is: NE1EAF6GET5

3.2 Disclosure of Lobbying Activities

An SF-LLL is included with this application, which provides required lobbying information.

3.3 Environmental and Cultural Resources Compliance

The project proposed in this application is a feasibility study and does not require environmental and cultural resources compliance. However, recognizing Reclamation's obligations, the feasibility study will evaluate the potential environmental impacts and cultural resource protection actions needed by any future projects.

3.4 Required Permits or Approvals

The project proposed in this application is a feasibility study and does not require environmental and cultural resources compliance. However, recognizing Reclamation's obligations, the feasibility study will evaluate the potential environmental impacts and cultural resource protection actions needed by any future projects.

3.5 Letters of Support

Letters of support from potential project beneficiaries and identified project partners have been obtained and are included with this application. More Letters of Support are expected following the submission of this application, and they will be submitted to Reclamation when received.

3.6 Overlap or Duplication of Effort Statement

At the current time, there is not a known overlap between the Western Riverside County Desalination Feasibility Study and other active or anticipated proposals or projects in terms of activities, costs, or commitment of key personnel.

3.7 Conflict of Interest Disclosure Statement

Rancho Water has not identified an actual or potential conflict of interest with regard to the Western Riverside County Desalination Feasibility Study.

3.8 Uniform Audit Reporting Statement

Rancho Water is required to submit a Single Audit report for the most recently closed fiscal year. The Single Audit is taking place now, and it is anticipated that the final audit will be available through the Federal Audit Clearinghouse in April 2023. Once uploaded to the Clearinghouse, it will be associated with Rancho Water's Employer Identification Number (EIN) 952415751.

3.9 Official Resolution

The required official Resolution will be adopted by Rancho Water's Board of Directors at its March 9, 2023 meeting. The adopted Resolution will be submitted to Reclamation by March 10, 2023.

Section 4: References

- California natural Resources Agency. 2022. California's Water Supply Strategy, Adapting to a Hotter, Drier Future. August.
- Cayan, D., M. Tyree, D. Pierce, and T. Das (Scripps Institution of Oceanography). 2012. Climate change and Sea Level Rise Scenarios for California Vulnerability and Adaptation Assessment. California Energy Commission Publication Number: CEC-500-2012-008.
- Fallbrook Public Utilities District. 2021. 2020 Urban Water Management Plan Update. June.
- National Oceanic and Atmospheric Administration (NOAA). 2015. Currents and Tides. Sea Level Trends. Available at: tidesandcurrents.noaa.gov/sltrends/sltrents.html
- Oceanside, City of. 2021. 2020 Urban Water Management Plan Update. June.
- Rainbow Municipal Water District. 2020 Urban Water Management Plan Update. June.
- Rancho California Water District. 2021. 2020 Urban Water Management Plan Update. June.
- Upper Santa Margarita Watershed Integrated Regional Water Management Plan Update Final April 2014 Prepared by: Rancho California Water District Riverside County Flood Control and Water Conservation District County of Riverside Stakeholder Advisory Committee.
- US Marine Corps, Marine Corps Base Camp Pendleton and Marine Corps Air Station Camp Pendleton. 2018. Final Joint Integrated Natural Resources Management Plan for Marine Corps Base and Marine Corps Air Station Camp Pendleton. March.

APPENDIX A

Letters of Project Support

California State Senate, Senator Kelly Seyarto

City of Fallbrook

City of Temecula

City of Oceanside

Rainbow Municipal Water District

County Supervisor Washington

CAPITOL OFFICE
1021 O ST., SUITE 7120
SACRAMENTO, CA 95814
TEL (916) 651-4032
FAX (916) 651-4932

DISTRICT OFFICE
25186 HANCOCK AVE., SUITE 320
MURRIETA, CA 92562
TEL (951) 894-3530
FAX (951) 894-5053

WWW.SENATE.CA.GOV/SEYARTO

SENATOR.SEYARTO@SENATE.CA.GOV

California State Senate

SENATOR
KELLY SEYARTO
THIRTY-SECOND DISTRICT



COMMITTEES
GOVERNANCE AND FINANCE
VICE CHAIR
NATURAL RESOURCES AND WATER
VICE CHAIR
MEMBER
APPROPRIATIONS
BUDGET SUBCOMMITTEE #5 ON
CORRECTIONS, PUBLIC SAFETY, JUDICIARY,
LABOR AND TRANSPORTATION
ENERGY, UTILITIES AND COMMUNICATIONS
GOVERNMENTAL ORGANIZATION
HOUSING
JOINT LEGISLATIVE AUDIT
TRANSPORTATION

February 21, 2023

Bureau of Reclamation
Financial Assistance Operations Section
Attn: NOFO Team
PO Box 25007, Mail Code: 84-51000
Denver, CO 80225

Subject: Support for the Regional Recycled Water and Groundwater Recharge Study

I would like to express my support for Rancho California Water District's grant application to the Bureau of Reclamation's WaterSMART Recycled Water and Desalination Program for funding a Regional Recycled Water and Groundwater Recharge Study (Study) for western Riverside and north San Diego counties, the fastest-growing region in California.

With uncertainty surrounding the availability of water in California, and additional challenges within the drought-stricken Colorado River Basin, it is critical for Southern California water suppliers to explore new, local supply sources. For years, agencies in Riverside County and San Diego County have made major investments in programs to reuse water, and the Regional Recycled Water and Groundwater Recharge Study will help facilitate opportunities will continue to grow these investment opportunities.

Rancho California Water District, Fallbrook Public Utilities District, Marine Base Camp Pendleton, Rainbow Municipal Water District, and the City of Oceanside all collect wastewater for recycling and subsequent non-potable reuse in outdoor irrigation settings. Collectively these agencies have an assortment of wastewater collection, wastewater treatment plants, recycled water storage, and effluent conveyance pipelines (including the Oceanside Ocean Outfall, Oceanside Land Outfall, Fallbrook Land Outfall, and Pendleton Land Outfall). With appropriate interconnections and some additional inland pipelines, these facilities could be used for brine disposal, a necessary step in undertaking advanced recycled water production. With advanced recycled water, more uses are possible, including groundwater recharge in salt-sensitive basins, irrigation of salt-sensitive crops, reservoir augmentation, the attraction of industries that rely on purified water such as the technology and medical industries, and direct potable reuse.

Thank you for your consideration of this request.

Sincerely,

A handwritten signature in black ink that reads "Kelly Seyarto".

Kelly Seyarto
State Senator, 32nd District



Board of Directors

Dave Baxter
Division 1

Ken Endter
Division 2

Jennifer DeMeo
Division 3

Don McDougal
Division 4

Charley Wolk
Division 5

Staff

Jack Bebee
General Manager

David Shank
*Assistant General Manager/
Chief Financial Officer*

Lauren Eckert
*Executive Assistant/
Board Secretary*

General Counsel

Paula de Sousa
Best Best & Krieger

February 22, 2023

Bureau of Reclamation
Financial Assistance Operations Section
Attn: NOFO Team
PO Box 25007, Mail Code: 84-51000
Denver, CO 80225

Subject: Support for the Regional Recycled Water and Groundwater Recharge Study

To Whom It May Concern:

On behalf of Fallbrook Public Utility District, I would like to express my strong support for the grant application to the Bureau of Reclamation's WaterSMART Recycled Water and Desalination Program for funding a Regional Recycled Water and Groundwater Recharge Study (Study) for western Riverside and north San Diego counties submitted by Rancho California Water District (Rancho Water).

With uncertainty surrounding the availability of water in California, and additional challenges within the drought-stricken Colorado River Basin, it is critical for Southern California water suppliers to explore new, local supply sources. For years, agencies in Riverside County and San Diego County have made major investments in programs to reuse water, and the Regional Recycled Water and Groundwater Recharge Study will help facilitate opportunities will continue to grow these investment opportunities.

Rancho Water, Fallbrook Public Utilities District, Marine Base Camp Pendleton, Rainbow Municipal Water District, and the City of Oceanside all collect wastewater for recycling and subsequent non-potable reuse in outdoor irrigation settings. Collectively these agencies have an assortment of wastewater collection, wastewater treatment plants, recycled water storage, and effluent conveyance pipelines (including the Oceanside Ocean Outfall, Oceanside Land Outfall, Fallbrook Land Outfall, and Pendleton Land Outfall). With appropriate interconnections and some additional inland pipelines, these facilities could be used for brine disposal, a necessary step in undertaking *advanced* recycled water production. With advanced recycled water, more uses are possible, including groundwater recharge in salt-sensitive basins, irrigation of salt-sensitive crops, reservoir augmentation, the attraction of industries that rely on purified water such as the technology and medical industries, and direct potable reuse (i.e. use for drinking water supplies).

The purpose of the Study is to identify the best alternatives for making future recycled water investments, which would expand the use of recycled water as a reliable local drinking water supply for the aforementioned agencies, which serve areas within the fastest-growing region in California.

It is for these reasons that Fallbrook Public Utility District supports this important study. Feel free to contact me at 760.999.201 and jackb@fpud.com if you have any questions.

Sincerely,

A handwritten signature in blue ink, appearing to read "Jack Bebee". The signature is fluid and cursive, with the first name "Jack" and last name "Bebee" clearly distinguishable.

Jack Bebee
General Manager
Fallbrook Public Utility District



City of Temecula

41000 Main Street ■ Temecula, CA 92590
(951) 694-6416 ■ Fax (951) 694-6499 ■ www.cityoftemecula.org

February 24, 2023

Bureau of Reclamation
Financial Assistance Operations Section
Attn: NOFO Team
PO Box 25007, Mail Code: 84-51000
Denver, CO 80225

Subject: Support for the Regional Recycled Water and Groundwater Recharge Study

To Whom It May Concern:

On behalf of the City of Temecula, I would like to express my strong support for Rancho California Water District's grant application to the Bureau of Reclamation's WaterSMART Recycled Water and Desalination Program for funding a Regional Recycled Water and Groundwater Recharge Study (Study) for western Riverside and north San Diego counties. Please consider this as the City of Temecula's documented support for the application and the resulting feasibility study.

With uncertainty surrounding the availability of water in California, and additional challenges within the drought-stricken Colorado River Basin, it is critical for Southern California water suppliers to explore new, local supply sources. For years, agencies in Riverside County and San Diego County have made major investments in programs to reuse water, and the Regional Recycled Water and Groundwater Recharge Study will help facilitate opportunities will continue to grow these investment opportunities.

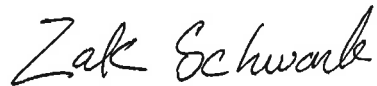
Rancho California Water District, Fallbrook Public Utilities District, Marine Base Camp Pendleton, Rainbow Municipal Water District, and the City of Oceanside all collect wastewater for recycling and subsequent non-potable reuse in outdoor irrigation settings. Collectively these agencies have an assortment of wastewater collection, wastewater treatment plants, recycled water storage, and effluent conveyance pipelines (including the Oceanside Ocean Outfall, Oceanside Land Outfall, Fallbrook Land Outfall, and Pendleton Land Outfall). With appropriate interconnections and some additional inland pipelines, these facilities could be used for brine disposal, a necessary step in undertaking *advanced* recycled water production. With advanced recycled water, more uses are possible, including groundwater recharge in salt-sensitive basins, irrigation of salt-sensitive crops, reservoir augmentation, the attraction of industries that rely on purified water such as the technology and medical industries, and direct potable reuse (i.e. use for drinking water supplies).

Bureau of Reclamation
Financial Assistance Operations Section
February 24, 2023
Page 2

The purpose of the Study is to identify the best alternatives for making future recycled water investments, which would expand the use of recycled water as a reliable local drinking water supply for the aforementioned agencies, which serve areas within the fastest-growing region in California.

It is for these reasons that the City of Temecula supports this important study. Feel free to contact me if you have any questions.

Sincerely,

A handwritten signature in black ink that reads "Zak Schwank". The signature is written in a cursive style with a large, prominent "Z" and "S".

Zak Schwank
Mayor



CITY OF OCEANSIDE
WATER UTILITIES DEPARTMENT

February 23, 2023

Bureau of Reclamation
Financial Assistance Operations Section
Attn: NOFO Team
PO Box 25007, Mail Code: 84-51000
Denver, CO 80225

Subject: Support for the Regional Recycled Water and Groundwater Recharge Study

To Whom It May Concern:

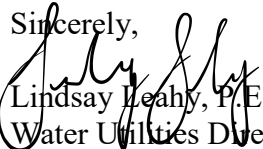
On behalf of the City of Oceanside, I would like to express my strong support for the grant application to the Bureau of Reclamation's WaterSMART Recycled Water and Desalination Program for funding a Regional Recycled Water and Groundwater Recharge Study (Study) for western Riverside and north San Diego counties submitted by Rancho California Water District (Rancho Water).

With uncertainty surrounding the availability of water in California, and additional challenges within the drought-stricken Colorado River Basin, it is critical for Southern California water suppliers to explore new, local supply sources. For years, agencies in Riverside County and San Diego County have made major investments in programs to reuse water, and the Regional Recycled Water and Groundwater Recharge Study will help facilitate opportunities will continue to grow these investment opportunities.

Rancho Water, Fallbrook Public Utilities District, Marine Base Camp Pendleton, Rainbow Municipal Water District, and the City of Oceanside all collect wastewater for recycling and subsequent non-potable reuse in outdoor irrigation settings. Collectively these agencies have an assortment of wastewater collection, wastewater treatment plants, recycled water storage, and effluent conveyance pipelines (including the Oceanside Ocean Outfall, Oceanside Land Outfall, Fallbrook Land Outfall, and Pendleton Land Outfall). With appropriate interconnections and some additional inland pipelines, these facilities could be used for brine disposal, a necessary step in undertaking *advanced* recycled water production. With advanced recycled water, more uses are possible, including groundwater recharge in salt-sensitive basins, irrigation of salt-sensitive crops, reservoir augmentation, the attraction of industries that rely on purified water such as the technology and medical industries, and direct potable reuse (i.e. use for drinking water supplies).

The purpose of the Study is to identify the best alternatives for making future recycled water investments, which would expand the use of recycled water as a reliable local drinking water supply for the aforementioned agencies, which serve areas within the fastest-growing region in California.

It is for these reasons that the City of Oceanside supports this important study. Feel free to contact me at (760) 435-5913 or LLeahy@OceansideCA.org if you have any questions.

Sincerely,

Lindsay Leahy, P.E.
Water Utilities Director
City of Oceanside



02/22/2023

Bureau of Reclamation
Financial Assistance Operations Section
Attn: NOFO Team
PO Box 25007, Mail Code: 84-51000
Denver, CO 80225

Subject: Support for the Regional Recycled Water and Groundwater Recharge Study

To Whom It May Concern:

On behalf of Rainbow Municipal Water District, I would like to express my strong support for Rancho California Water District's (Rancho Water) grant application to the Bureau of Reclamation's WaterSMART Recycled Water and Desalination Program for funding a Regional Recycled Water and Groundwater Recharge Study (Study) for western Riverside and north San Diego counties.

With the uncertainty surrounding the availability of water in California, and additional challenges within the drought-stricken Colorado River Basin, it is critical for Southern California water suppliers to explore new, local supply sources. For years, agencies in Riverside County and San Diego County have made major investments in programs to reuse water, and the Regional Recycled Water and Groundwater Recharge Study will help facilitate and continue to grow these investment opportunities.

Rancho Water, Fallbrook Public Utilities District, Marine Base Camp Pendleton, Rainbow Municipal Water District, and the City of Oceanside all collect wastewater for recycling and subsequent non-potable reuse in outdoor irrigation settings. Collectively these agencies have an assortment of wastewater collection, wastewater treatment plants, recycled water storage, and effluent conveyance pipelines (including the Oceanside Ocean Outfall, Oceanside Land Outfall, Fallbrook Land Outfall, and Pendleton Land Outfall). With appropriate interconnections and some additional inland pipelines, these facilities could be used for brine disposal, a necessary step in undertaking advanced recycled water production. With advanced recycled water, more uses are possible, including groundwater recharge in salt-sensitive basins, irrigation of salt-sensitive crops, reservoir augmentation, the attraction of industries that rely on purified water such as the technology and medical industries, and direct potable reuse (i.e. use for drinking water supplies).

The purpose of the Study is to identify the best alternatives for making future recycled water investments, which would expand the use of recycled water as a reliable local

drinking water supply for the aforementioned agencies, which serve areas within the fastest-growing region in California.

It is for these reasons that Rainbow Municipal Water District supports this important study. Feel free to contact me at 760-728-1178 and tkennedy@rainbowmwd.com if you have any questions.

Sincerely,

RAINBOW MUNICIPAL WATER DISTRICT



Tom Kennedy (Feb 22, 2023 17:06 PST)

Tom Kennedy
General Manager

COUNTY OF RIVERSIDE

District Office: French Valley
37600 Sky Canyon Drive, #505
Murrieta, CA 92563
(951) 955-1030 – Fax (951) 955-2194

Robyn Brock, Chief of Staff
E-Mail: D3Email@rivco.org
www.SupervisorChuckWashington.com



Riverside Office:
4080 Lemon Street, 5th Floor
Riverside, CA. 92501

Hemet Office:
43950 Acacia Ave, Suite A
Hemet, CA. 92544

Supervisor Chuck Washington Third District

February 27, 2023

Bureau of Reclamation

Financial Assistance Operations Section

Attn: NOFO Team

PO Box 25007, Mail Code: 84-51000

Denver, CO 80225

Subject: Support for the Regional Recycled Water and Groundwater Recharge Study

To Whom It May Concern:

On behalf of, Riverside County Board of Supervisors Third District, Supervisor Chuck Washington, I would like to express my strong support for Rancho California Water District's grant application to the Bureau of Reclamation's WaterSMART Recycled Water and Desalination Program for funding a Regional Recycled Water and Groundwater Recharge Study (Study) for western Riverside and north San Diego counties. Please consider this documented Third District Supervisor Chuck Washington's support for the application and the resulting feasibility study.

With uncertainty surrounding the availability of water in California, and additional challenges within the drought-stricken Colorado River Basin, it is critical for Southern California water suppliers to explore new, local supply sources. For years, agencies in Riverside County and San Diego County have made major investments in programs to reuse water, and the Regional Recycled Water and Groundwater Recharge Study will help facilitate opportunities will continue to grow these investment opportunities.

Rancho California Water District, Fallbrook Public Utilities District, Marine Base Camp Pendleton, Rainbow Municipal Water District, and the City of Oceanside all collect wastewater for recycling and subsequent non-potable reuse in outdoor irrigation settings. Collectively these agencies have an assortment of wastewater collection, wastewater treatment plants, recycled water storage, and effluent conveyance pipelines (including the Oceanside Ocean Outfall, Oceanside Land Outfall, Fallbrook Land Outfall, and Pendleton Land Outfall).

With appropriate interconnections and some additional inland pipelines, these facilities could be used for brine disposal, a necessary step in undertaking *advanced* recycled water production. With advanced recycled water, more uses are possible, including groundwater recharge in salt-sensitive basins, irrigation of salt-sensitive crops, reservoir augmentation, the attraction of industries that rely on purified water such as the technology and medical industries, and direct potable reuse (i.e. use for drinking water supplies).

The purpose of the Study is to identify the best alternatives for making future recycled water investments, which would expand the use of recycled water as a reliable local drinking water supply for the agencies, which serve areas within the fastest-growing region in California.

It is for these reasons that Riverside County Third District Supervisor Chuck Washington supports this important study. Feel free to contact me at (951) 955-1030 or C.washington@rivco.org if you have any questions.

Sincerely,

A handwritten signature in blue ink that reads "Chuck Washington". The signature is fluid and cursive, with the first name "Chuck" being more prominent than the last name "Washington".

Chuck Washington
Riverside County Third District Supervisor