

WaterSMART: Water Recycling and Desalination Planning, FY 2023

NOFO No. R23AS00076

Desalination Executable Solution and Logistics (DESAL) Plan



San Luis Obispo County Flood Control and Water Conservation District

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ACRONYMS & ABBREVIATIONS

AF	Acre Feet
AFY	Acre Feet per Year
BAY-DELTA	Sacramento-San Joaquin Delta
BOARD	San Luis Obispo County Board of Supervisors
COUNTY	San Luis Obispo County
CVP	Central Valley Project
CWAT	Countywide Water Action Team
DAC	Disadvantaged Community
DESAL PLAN	Desalination Executable Solution and Logistics Plan
DISTRICT	San Luis Obispo County Flood Control and Water Conservation District
DWR	Department of Water Resources
FY	Fiscal Year
IRWMP	Integrated Regional Water Management Plan
MWR	Master Water Report
NOFO	Notice of Funding Opportunity
NWP	Nacimiento Water Project
PROJECT	Desalination Executable Solution and Logistics Plan
RMS	Resource Management Strategy
RWIRP	Regional Water Infrastructure Resiliency Plan
SB COUNTY	Santa Barbara County
SWP	State Water Project
SWRCB	State Water Resources Control Board
USBR / RECLAMATION	United States Bureau of Reclamation
WRAC	Water Resources Advisory Committee

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1.0 Technical Proposal & Evaluation Criteria

This funding application for the Desalination Executable Solution and Logistics (DESAL) Plan (Project) prepared by the San Luis Obispo County Flood Control and Water Conservation District (District), is submitted to the United States Bureau of Reclamation (USBR or Reclamation) under the Department of the Interior in response to the WaterSMART: Water Recycling and Desalination Planning Notice of Funding Opportunity (NOFO - R23AS00076) Fiscal Year (FY) 23. A hardcopy document is being submitted due to difficulties with registering with the System for Award Management (SAM). The District is working with SAMs staff to resolve the issue but won't have an active account and Unique Entity Identifier until after the application deadline.

Date: 02/28/2023

Applicant: San Luis Obispo County Flood Control and Water Conservation District

City, County, State: San Luis Obispo, San Luis Obispo County, California

1.1 Executive Summary

The District is advancing development of the DESAL Plan, that when complete will contain balanced recommendations related to responsibly advancing the implementation of a regional desalination project that will benefit the people, economy, and environment in San Luis Obispo County (County or Region). The District has an important role in ensuring the County's water supplies are adequate and able to respond to, and accommodate, change while continuing to meet the many various water use needs. In the County, existing conditions and future projections indicate that water security is decreasing as demands increase and available supplies and their reliability decrease. Ongoing water supply efforts in the County include conservation, stormwater capture, surface water and groundwater optimization and/or expansion, State Water Project (SWP) and Water Management Tools, recycled water, produced water from oil extraction operations, cloudseeding, and regional resiliency. However, these efforts are not enough to overcome long-term shortages or to be relied upon to sustainably meet future needs. Competition for existing water supplies, particularly those that depend on precipitation, in the County and across the State is anticipated to increase with new regulations related to groundwater/surface water interactions and minimum sustainability thresholds, water quality, environmental flow, climate change, and housing directives. A new, drought proof, local water supply will be necessary to sustain the County long-term. Desalination is the longest-term and most resilient strategy since it leverages a renewable, almost inexhaustible resource that would not be diminished by insufficient rainfall or water conservation efforts. Recognizing that a desalination project will take time to plan, permit, and construct, the District has developed a five-phase approach to developing a DESAL Plan and project. The District is respectfully requesting \$548,410 from Reclamation to leverage District funds and support implementation of DESAL Plan "Phase 2.A: Development Phase". Phase 2.A specifically includes developing and implementing the public and stakeholder engagement process, developing ranking criteria for alternatives, identifying and analyzing project concept alternatives, developing a short-list of projects to further pursue, and preparing a Feasibility Study documenting the Phase 2.A work that is aligned with the requirements of Reclamation's

Feasibility Study Directives and Standards WTR 11-01. DESAL Plan Phase 2.B will include additional analysis of the short-listed projects and selection of a preferred project to implement. Phase 2.A tasks will be completed within the 24 month grant eligible cost period (10/31/2025). The proposed planning efforts are not for a project on a Federal facility and won't involve Federal land, but will provide a benefit to Federal water supplies as detailed in Section 1.7.2 Evaluation Criterion 2.

1.2 Project Location

The County is located on the Pacific coast, approximately halfway between the metropolitan areas of Los Angeles and San Francisco. The County is bordered by Monterey County to the north, Kern County to the east, Santa Barbara County to the south, and 100 miles of Pacific coastline to the west (County of San Luis Obispo, 2023). The Region encompasses a total area of 3,304 square miles. The District's boundary is co-terminus with the County. The County's boundary effectively links land use and water management planning efforts within the context of the same physical, political, environmental, social, and economic boundaries needed to facilitate active stakeholder involvement at the local and regional levels. Figure 1 shows the Countywide project location and regional water resources and infrastructure.

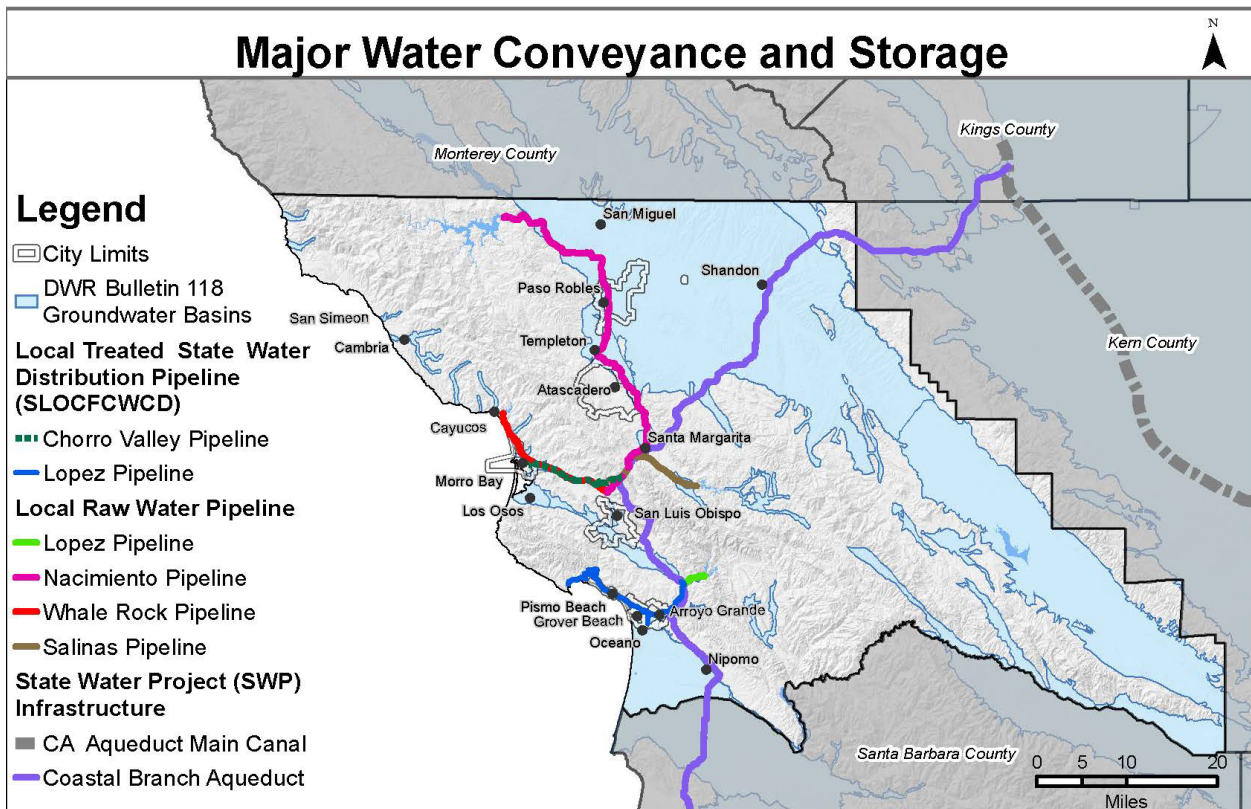


Figure 1. Project Location

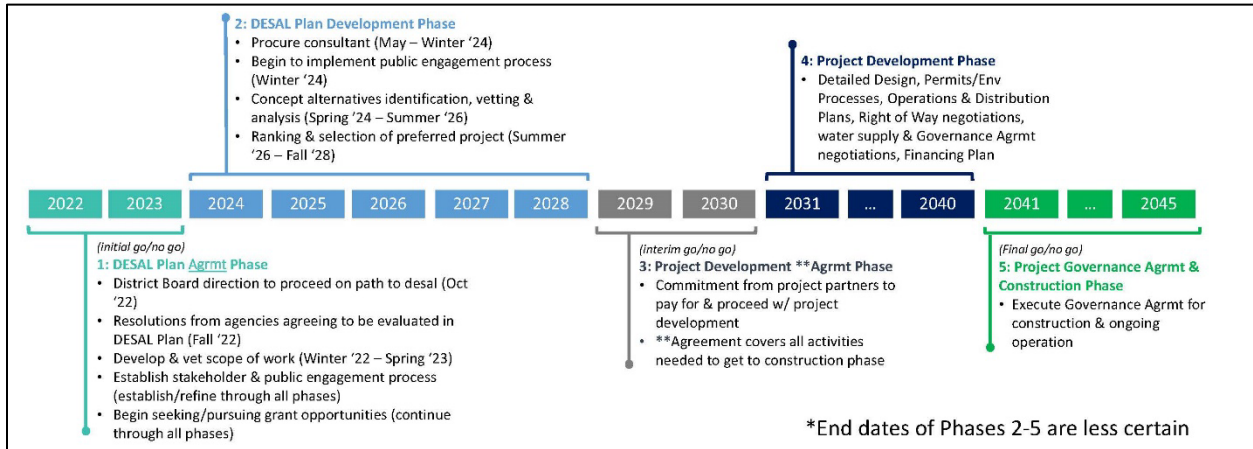
Desalination opportunities and challenges throughout the County will be investigated as part of the DESAL Plan. Desalination opportunities will primarily focus on ocean and brackish source waters along the County's coast, but source alternatives throughout the County will be considered and analyzed. The District will engage with regional partners and stakeholders

throughout the County to ensure that regional impacts and benefits are considered as alternatives are vetted and as a short-list of projects is selected to further pursue. In addition, the County will engage with Santa Barbara County (SB County) to discuss opportunities for water exchanges that derive from a desalination plant in the County and that may be mutually beneficial to the County and communities located in the northern portion of SB County. The District has asked SB County and water purveyors within the County to adopt resolutions agreeing to participate in development of the DESAL Plan.

1.3 Technical Project Description

The communities within the County and northern SB County have been confronted with multiple recent exceptional droughts, severe declines in groundwater and surface water levels, and limitations on imported water supplies. Over the past decade, the San Luis Obispo County Board of Supervisors (Board) has expressed interest in desalination as a water supply opportunity and, on November 16, 2021, the Board identified water resilience and desalination as a top priority. Desalination is a drought proof solution for current and projected water supply imbalances caused by strained supplies, increased demand, and could be scalable such that its capacity could be expanded as future needs increase. The new supply could leverage existing regional water infrastructure to facilitate partnerships and exchanges to maximize the benefit of a new desalination plant. Desalination projects take time to plan, permit, and construct. Factors that contribute to the feasibility of a desalination project include, but are not limited to, permitting, cost, funding, community support, and environmental protection.

The District has coordinated with the Countywide Water Action Team (CWAT), an informal working group of staff from entities across the County with water supply planning responsibilities, to create a 5-phase approach to develop a desalination project.



Note: Phase 2 is now split into two phases – Phase 2.A and Phase 2.B. This funding request is for Phase 2.A. Original timeline, shown above, will be modified to meet grant constraints.

Figure 2. DESAL Plan Phases

The District has completed Phase 1: DESAL Plan Agreement Phase, getting Board direction on October 18, 2022 to proceed on the path to a desalination project, obtain resolutions from agencies agreeing to be evaluated in the DESAL Plan, develop this scope of work, establish a

preliminary stakeholder and public engagement process, and pursue grant opportunities. The scope of work the District is seeking funding assistance under this NOFO is for DESAL Plan Phase 2.A: Development Phase, where a consultant will be engaged to work with the District, participating agencies, the public, and various stakeholders to develop a short-list of desalination projects to further pursue, and identifying next steps for Phase 2.B. Phase 2.B and subsequent phases include selecting a preferred project and making it a reality. The Phase 2.A work will be documented in a report that is aligned with Reclamation's Feasibility requirements.

1.3.1 Eligibility and Applicant Category

As a water district located in California, the District is eligible to pursue funding through this NOFO. The District is pursuing funding under Funding Group I. The District is committed to a cost share of \$548,410 (50% of the total eligible project costs \$1,096,820). Expenses will be covered directly by the District or from other non-Federal funding sources secured for the project as further detailed in the Project Budget section.

On October 18, 2022, the District Board authorized District staff to proceed with developing the DESAL Plan in coordination with other participating water-purveying agencies and stakeholders and authorized the Director of Public Works to pursue grants to offset project costs. The October 18, 2022 Resolution along with the District's Draft Resolution, authorizing the District to enter into a funding agreement with Reclamation should funds be awarded through this NOFO, are provided as attachments. The Draft Resolution will be finalized and provided within 60 days of the application submittal deadline due to the timing of Board meetings.

1.3.2 Goals

Desalination is a drought proof solution for current and projected water supply imbalances. The DESAL Plan Phase 2.A has the following goals to advance desalination due diligence efforts.

- Develop and implement stakeholder engagement process that provides a range of inputs and viewpoints
- Identify, analyze, and screen desalination project concept alternatives
- Rank and select a short-list of optimal desalination projects
- Develop scope for subsequent DESAL Plan phases
- Prepare a Feasibility Study documenting the DESAL Plan Phase 2.A work and is aligned with Reclamation's Feasibility Study requirements

The DESAL Plan goals are anticipated to evolve as the project proceeds in accordance with findings at each milestone.

1.3.3 Approach

The following reflects the District's planned approach for completing Phase 2.A of the DESAL Plan.

Task 1 – Project Management

This task involves coordination with District staff and other administrative efforts associated with the project.

Task 2 – Stakeholder Engagement

This task involves developing a stakeholder engagement plan that describes the purpose and approach to DESAL Plan stakeholder engagement. Activities would include periodic meetings with District staff, the CWAT working group, and DESAL Plan stakeholders engaged to provide input to the project at key milestones. Potential stakeholders include those who may participate in development of a desalination project, including those who may directly or indirectly benefit, those who may be impacted, and those with a role in reviewing, permitting, approving and/or funding a project. This task also includes presentations on project progress at key milestones during consultations with decision makers, regulators, and during public meetings of the District’s Water Resources Advisory Committee, Board of Supervisors, purveyor’s Boards/Councils, and other organizations.

Task 3.a – Develop Vetting and Ranking Criteria and Method

This task includes coordination with stakeholders to establish criteria that will be used to analyze, vet, and rank the concept alternatives that made it through rough screening. Criteria will be based on feasibility, technical, environmental, economic, climate change, underserved community impacts, and institutional requirements, as well as public acceptance, reliability, multi-benefits, and grant potential. The criteria and method will be developed to meet USBR Feasibility Study requirements.

Task 3.b – Identify Concept Alternatives

This task involves identifying and engaging the stakeholders to develop and describe concept alternatives. Alternatives include, but are not limited to:

- Direct delivery to near-coastal communities only
- Direct delivery to near-coastal communities with inland investors to free up existing supplies currently going to near-coastal communities
- Onshore and offshore facility options
- Co-located facility and new site options

This task includes reviewing studies, reports, and collecting information and data to understand available technologies, alternatives, opportunities, and constraints. Descriptions of concept alternatives will include, but not be limited to, locations, partnerships, institutional and financial arrangements, energy access, technology options, and mitigation considerations. This task will include a screening analysis to identify which options are most feasible to be carried forward for more detailed evaluation. This task also includes a desalination supply source risk assessment.

Task 4 – Vetting, Ranking and Selection of a Short-List of Projects to Further Pursue

This task includes coordination with stakeholders to vet the concept alternatives against the criteria in accordance with the method developed in Task 3.a. Because projects will likely involve partnerships, it is anticipated that this process will be iterative in nature and negotiations may result in modifications to the initial method for selecting a short-list of preferred projects.

Task 5 – Develop Scope for DESAL Plan Phase 2.B

This task includes developing the scope, schedule, and budget for implementing the DESAL Plan Phase 2.B to identify a preferred project. The scope may include defining agreements, establishing the need for special studies and/or a desalination pilot program, permitting consultations, etc.

Task 6 – DESAL Plan Phase 2.A Feasibility Study

Document work in Tasks 1 to 5 in a report. The report will address Reclamation’s Feasibility Study Directives and Standards WTR 11-01 requirements applicable to the work completed in Tasks 1 to 5. However, the feasibility study is not anticipated to be fully compliant with Reclamation requirements because the District does not anticipate selecting one preferred project as part of the DESAL Plan Phase 2.A scope.

1.4 Evaluation Criteria

1.4.1 Evaluation Criterion 1 - Project Planning and Analysis

Subcriterion No. 1a – Water Recycling Needs and Opportunities

1. Describe the problems and needs in the project area.

With cyclical droughts, declining groundwater levels, degradation of groundwater quality, and the limited availability of surface water supplies, it is important for all entities in the County to effectively manage available water resources to protect the public health and safety, maintain viable ecosystems, avoid seawater intrusion, and allow for sustainable agriculture. Water related needs are diverse in the County, in terms of scale, cost, timing, geography and stakeholder priorities. Many water supply efforts have been completed or are under way to address existing depleted water supplies, ongoing resiliency issues, and future needs. However, various studies indicate the need to evaluate desalination with a range of water supply alternatives and demand management programs for communities with long-term water supply issues.

The County’s 2012 Master Water Report (MWR) included a County-wide, land use-based water supply and demand analysis that identified current or projected supply deficiencies and potential water supply strategies to address deficiencies, including but not limited to local and regional supply projects, conservation, recycled water, and desalination. However, water users in the County have reduced per-capita water use by 30% since 2009 and are meeting State water use efficiency goals and limited new supplies other than recycled water remain. To implement one of the recommendations of the MWR, the Regional Water Infrastructure Resiliency Plan (RWIRP) was developed. The RWIRP was completed in 2021 and provides an updated supply and demand analysis and resiliency risk evaluation, which determined a number of agencies have elevated resiliency risk and supply deficiencies, especially when considering drought and climate change. The RWIRP identifies mitigation opportunities to meet short-term needs and recommends evaluation of long-term resiliency concepts, including desalination, to meet long-term needs.

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The County is pursuing early engagement with other agencies to ensure a comprehensive understanding of existing infrastructure deficiencies and opportunities from the outset, informing the widest range of conceptual alternatives for consideration. To address this need, on June 7, 2022, the Board approved working with stakeholders to update the countywide MWR. This effort will compliment desalination project planning efforts by providing up-to-date information on supply/demand imbalances and information on short-term water supply strategies such as conservation, recycled water, and groundwater management. It is important to first optimize the use of existing water supplies and there are other separate efforts currently underway to explore and develop those options. However, since they may only be sustainable in the short-term, it is important to pursue a long-term solution for water supply, such as desalination.

- 2. Describe the current and projected water supplies and demands in the project area; include a discussion on supply and demand imbalances. Additional consideration will be given to proposals that explain how the problems and needs in the area may be impacted by climate change, and/or if supply and demand projections will include climate change information.*

Out of 41 suppliers, the RWIRP determined the following numbers of suppliers have less than a 5% surplus of supply for meeting: existing demand (12 suppliers), future low range demand projections (17 suppliers) and future high range demand projections (28 suppliers). When considering drought conditions and climate change impacts to supply, even more suppliers have less than a 5% surplus of supply for meeting: existing demand (14 suppliers), future low range demand projections (20 suppliers), and future high range demand projections (30 suppliers). The potential supply deficit is up to 5,800 AFY depending on future demand and use of existing and alternative supplies.

Furthermore, the California State Water Resource Control Board's online Drinking Water Needs Assessment Dashboard (California State Water Resource Control Board, n.d.) shows that of 71 water systems evaluated in the County, 12 are failing, 3 are at-risk, and 6 are potentially at-risk when considering criteria for water quality, accessibility, affordability, and technical, managerial and financial capacity. This translates to 20,566 people served by water systems that have a Safe and Affordable Funding for Equity and Resilience (SAFER) status of potentially at-risk or worse. More specifically, when looking at the Accessibility Risk Level category, there are 24 systems in the medium or high-risk scoring categories serving 31,476 people. Accessibility Risk Indicators used in the methodology to calculate risk scores include consideration of exposure to climate change impacts by using the California Department of Water Resources' (DWR) Drought and Water Shortage Risk Scoring Tool and Water Shortage Vulnerability Tool for Self-Supplied Communities (State Water Resources Control Board, 2022).

- 3. Describe how the planning activities will investigate potential uses and markets for reclaimed or desalinated water (e.g., environmental restoration, fish and wildlife, groundwater recharge, municipal, domestic, industrial, agricultural, power generation, and recreation).*

As described in Task 3, a regional desalination project would consider both direct delivery to near-coastal communities based on local supply needs and direct delivery to near-coastal

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communities with inland partners to free up existing supplies currently going to near-coastal communities. Existing infrastructure that could facilitate exchanges with inland participants is shown in Figure 1 and includes participants in the Nacimiento Project, State Water Project Coastal Branch, and Lopez Project as well as supplemental supplies for groundwater sustainability agencies, which include municipal, domestic, industrial, and agricultural users. Environmental and fish and wildlife uses from the Lopez Project may be identified in the Arroyo Grande Creek Habitat Conservation Plan and could be met via exchange with desalination. Also, desalinated water could be recharged in local groundwater basins for storage or provide in-lieu groundwater recharge where desalinated water replaces pumping of groundwater.

- 4. 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.*

Task 2 and Task 3 will review available data and engage stakeholders to understand available technologies, alternatives, opportunities, and constraints for implementing a desalination project. Task 3 includes a rough screening analysis to identify which desalination options are most feasible to be carried forward for more detailed evaluation. As part of this analysis, the District will consider all potential sources of water, fully vet regional opportunities, and build off prior desalination analysis that has been conducted within the County.

In 2015 the District prepared the *San Luis Obispo County Desalination Opportunities Summary Report* which summarized opportunities and challenges of desalination as a water supply for the County. Sources of water identified in the report included seawater and brackish water from both surface and subsurface sources. The Pacific Ocean is the primary surface water source considered for desalination within the County. While ocean water practically provides an inexhaustible source, the marine environment is susceptible to adverse conditions at the intake and outfall structures and surrounding areas. To mitigate environmental impacts from open water intakes and outfalls, subsurface wells could be used to collect water from the ocean or other saline surface water. These wells, galleys, or other structures are located underneath the seafloor, within the beach, under an inland sea, bay or estuary, or another configuration. Although an intake may be subsurface, the level of salinity encountered can be either categorized as seawater or brackish water as determined by the total dissolved solids concentration. Locations that are farther inland from the beach may be a mix of ocean water and groundwater, providing a less saline water source to improve treatment cost effectiveness.

Other potential sources for desalinated water may include brackish groundwater or inland surface waterbodies, bays and estuaries. The identification and investigation of brackish water sources is important for any given project to consider as lower energy is required to desalinate sources with lower salinity. During the analysis of inland wells, it will be important to consider any impacts to the fresh groundwater.

The DESAL Plan will further investigate source water alternatives identified in the 2015 report and will identify both ocean and brackish waters as potential sources—including their locations. Desalination opportunities previously identified for the County include expanding existing desalination facilities, co-locating a new facility at an existing industrial site, and locating a desalination facility at a new site. The following list includes potential locations for desalination

opportunities in the County: 1) expansion of the Morro Bay Desalination Facility; 2) expansion of the Cambria Emergency Water Supply Project; 3) expansion of the Diablo Canyon Power Plant desalination facility; 4) co-location at the South San Luis Obispo County Wastewater Treatment Plant; 5) co-location at the Nipomo Mesa Refinery; 6) co-location at the Morro Bay Power Plant; and 7) a new facility at the Estero Marine Terminal.

As part of the District's investigation, a desalination supply source risk assessment will be developed which will evaluate the vulnerability of each of the water supply sources to climate change, natural disaster, maintenance shutdowns and failures, and regulatory, environmental and water rights challenges.

Subcriterion No. 1b – Evaluation of Project Alternatives

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

Implementing water supply strategies and achieving water resources sustainability requires broad consensus on what the water supply related conditions are and what they need to be. Defensible data and sound analysis are critical to support any decision to invest in additional infrastructure and associated administrative costs. A regional desalination project may be an appropriate solution for the County to address water supply issues when integrated with the communities' goals and strategies. However, the feasibility for a desalination project depends on the various needs of water managers, decision makers, and the general public. Desalination must be compared with a range of water supply alternatives and approaches to demand management that exist to assist County communities with long term water supply issues. As part of the DESAL Plan, stakeholders will collaborate to define objectives that all alternatives need to meet. At a minimum, alternatives will need to be economically and environmentally sound projects that will diversify the regional water supply portfolio and ensure a long-term, verifiable, reliable, and be a sustainable supply that meets current and future agricultural, urban, and environmental demands.

The District is actively investigating water supply alternatives besides desalination for implementation in the County which include conservation, stormwater capture, surface water and groundwater optimization and/or expansion (Nacimiento Water Project optimization, Lopez Water Project spillway raise and optimization, and Salinas Dam transfer and spillway raise), State Water Project and Water Management Tools, recycled water, produced water from oil extraction operations, cloudseeding, and regional resiliency. These supply alternatives will be investigated separately from the DESAL Plan as part of the District's current MWR Update for comparison with desalination. However, these efforts are not enough to overcome long-term shortages or be relied upon to sustainably meet future needs.

The DESAL Plan will proceed concurrently with other regional water supply analysis to identify and advance a long-term project for the County that can provide a new, drought proof, local water supply to help sustain the region. Relying on water sourced from precipitation is challenging due to the County's relative geographic isolation, energy and right of way requirements, and the fluctuating supply availability year to year. Recycled water projects provide a great opportunity for expanding purveyors water supply portfolio's; however, they

are dependent on wastewater flows that are impacted by water availability and conservation efforts.

2. Describe how the planning activities will develop project alternatives (water supply sources, reuse strategies, or treatment technologies) that have been or will be investigated.

As previously noted, the District is already investigating water supply projects outside of desalination, and the DESAL Plan will focus on investigating alternative desalination projects that will consider saline and brackish water sources, treatment technologies, and final uses. A desalination project in the County could potentially benefit various agencies, both directly and indirectly, by leveraging existing regional supply and infrastructure. The DESAL Plan will be most robust if all local agencies are willing to join the exploratory efforts to see what kind of value there may be for their agency. The DESAL Plan and any resulting project will benefit from wide interest and involvement from the local water purveying agencies and their communities. Therefore, a first step the District has taken was to reach out to those water purveying agencies to adopt resolutions agreeing to be evaluated and participate in development of the DESAL Plan. As of February 2023, 14 agencies have submitted resolutions or a letter of support (that are attached and described in Evaluation Criterion 5.3). Task 2 includes stakeholder engagement activities that will bring all interested participants to the table to develop project alternatives. Task 3.a includes establishing criteria that will be used to analyze, vet and rank the concept alternatives that made it through rough screening. Criteria will be based on feasibility and technical, environmental, economic, and institutional requirements, as well as public acceptance, reliability, multi-benefit and grant potential, etc. Concept alternatives will be vetted against the criteria in accordance with the method developed. It is anticipated that this process will be iterative in nature and negotiations may result in modifications to the initial method for selecting a short-list of preferred projects.

Task 3.b involves engaging stakeholders to develop and describe concept alternatives. Alternatives include, but are not limited to:

- Direct delivery to near-coastal communities only
- Direct delivery to near-coastal communities with inland participants to free up existing supplies currently going to near-coastal communities
- Onshore and offshore facility options
- Co-located facility and new site options

The District will review studies and reports and collect information and data to understand available technologies, alternatives, opportunities, and constraints. Descriptions of concept alternatives will include, but not be limited to, locations, partnerships, institutional and financial arrangements, energy access, technology options and mitigation considerations. A rough screening analysis will be conducted to identify which options are most feasible to be carried forward for more detailed evaluation. The District will leverage past desalination investigations conducted in the County and build off of those efforts, including the 2015 Desalination Opportunities Summary Report prepared by District staff, which described seven potential sites and two previous studies (2008 South County Desalination Study and 2007 Nipomo CSD Desalination Study) and identified several implementation challenges.

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

The goal of the DESAL Plan is to ultimately provide balanced recommendations related to responsibly advancing the implementation of a regional desalination project that will benefit the people, economy and environment in the County. This grant funded scope (DESAL Plan Phase 2.A) will identify, vet, and analyze concept alternatives; rank and select a short list of optimal desalination projects to further pursue; develop a scope for Project Development Phases; and prepare a report that documents Phase 2.A work aligned with applicable Reclamation Feasibility Study requirements. Task 4 includes selection of a short list of projects that will be further pursued during a subsequent phase of the DESAL Plan. Once the short-listed projects are further analyzed and vetted then a preferred project will be selected for implementation.

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

Key schedule milestones for the DESAL Plan grant-funded scope are summarized in Table 1. The overall program schedule was shown in Figure 2.

Table 1. Grant Tasks Schedule

Tasks	2023	2024				2025			
	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	
Task 1 – Project Management									
Task 2 – Stakeholder Engagement									
Task 3 – Develop Vetting and Ranking Criteria and Method & Identify Concept Alternatives									
Task 4 – Vetting, Ranking and Selection of Short-List of Preferred Projects									
Task 5 – Develop Scope for DESAL Plan Phase 2.B									
Task 6 – Phase 2.A Feasibility Study									

*Assumed Start Date: October 31, 2023

1.4.2 Evaluation 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.*

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On March 16, 2021, the Board received a presentation on the various water supply efforts in the County, including conservation, stormwater capture, Nacimiento Water Project optimization, Lopez Water Project spillway raise and optimization, Salinas Dam transfer and spillway raise, State Water Project and Water Management Tools, recycled water, produced water from oil extraction operations, cloudseeding, and regional resiliency. While many of these efforts are in the planning and/or implementation phases and will help extend the County's water supply, they are not enough to overcome long-term shortages or be relied upon to sustainably meet future needs.

The District is pursuing early engagement with other agencies to ensure a comprehensive understanding of existing infrastructure deficiencies and opportunities from the outset, informing the widest range of conceptual alternatives for consideration. To address this need, on June 7, 2022, the Board approved working with stakeholders to update the Countywide MWR. This effort will compliment desalination project planning efforts by providing up-to-date information on supply/demand imbalances and information on short-term water supply strategies such as conservation, recycled water, and groundwater management. It is important to first optimize the use of existing water supplies and there are other separate efforts currently underway to explore and develop those options. However, since they may only be sustainable in the short-term, it is important to pursue a long-term solution for water supply, such as desalination.

Desalination is a drought proof solution for current and projected water supply imbalances caused by strained alternative supplies and increased demand. Desalination could be scalable such that its capacity could change as future needs change. Therefore, if deemed appropriate, desalination could be scaled to potentially reduce, postpone, or eliminate the development of new or expanded existing 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.*

As discussed in the previous section, desalination could be scaled, which could alleviate pressure on existing water supplies and/or facilities that will be impacted by the Project. Existing water supplies and facilities impacted by the Project are described in the previous section and in responses to Evaluation Criterion 1. The RWIRP quantifies a potential supply deficit of up to 5,800 AFY depending on future demand and use of existing and alternative supplies.

In addition, a desalination project has the potential to reduce imported water demands which would directly benefit the Sacramento-San Joaquin Delta (Bay-Delta) system flows, habitat, and ecosystems. In the Bay-Delta, 300% more water is allocated to various uses than is actually available for use each year. There is no solution for correcting these allocation issues; however, every effort to reduce demand from these systems will have a beneficial impact and reduce pressure on these supplies. Because implementation of the DESAL Plan has the potential to reduce imports from the Bay-Delta, it in turn will positively affect Federal Water Projects such as the Central Valley Project (CVP). Overseen by USBR, the CVP has long-term agreements to

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supply water to more than 250 contractors in 29 California counties. CVP deliveries provide an average of 5 million AF of water for farms, 600,000 AF of water for municipal and industrial uses, and water for wildlife refuges and maintaining water quality in the Bay-Delta (United States Bureau of Reclamation, 2023).

- 3. Describe the potential for the project to make water available to address a specific concern. Explain the specific concern and its severity. Also explain the role of the project being investigated in addressing that concern and the extent to which the project will address it. Specific concerns may include, but are not limited to: Water supply shortages; Water supply reliability; Groundwater depletion; Water quality issues; Natural disasters that may impact water supply infrastructure; Heightened competition for water supplies; Availability of alternative supplies; Increasing cost of water supplies.*

The Project would address most of the specific concerns listed in question 3 above. The previous section and responses to Evaluation Criterion 1 describe how the Project could address the concern of water supply shortages.

Responses to Evaluation Criterion 3 address the concerns of water quality issues and groundwater depletion. Furthermore, the County has three groundwater basins designated as critically overdrafted basins by the state and 12 basins with potential seawater intrusion issues that can be potentially mitigated with desalination.

Heightened competition and reliability concerns for existing water supplies (particularly those that depend on precipitation) in the County and across the State is anticipated to increase with new regulations related to groundwater/surface water interactions and minimum sustainability thresholds, water quality, environmental flow, climate change, and housing directives. A new, drought proof, local water supply will be necessary to sustain County supplies long-term. Desalination is the most resilient strategy since it leverages a renewable, almost inexhaustible resource that would not be diminished by insufficient rainfall or water conservation efforts.

- 4. Describe the potential for the project to help create additional flexibility to address drought. Will water made available by the project being investigated continue to be available during periods of drought? To what extent is the water made available by the project being investigated more drought resistant than alternative water supply options? Explain.*

The U.S. Drought Monitor currently characterizes the County as Abnormally Dry to Moderate Drought due to extensive precipitation in January 2023. However, groundwater basins in the County will require multiple above average precipitation years to recover unprecedented low levels, indicated by the U.S. Drought Monitor's characterization of the County in November 2022 as Severe Drought and Extreme Drought.

Desalination is the most resilient strategy since it leverages a renewable, almost inexhaustible resource that would not be diminished by insufficient rainfall or water conservation efforts. Potable reuse of recycled water can provide similar resilience and is expected to be maximized across the County prior to implementation of desalination. Across the County, there are 18 public wastewater treatment systems and 11 currently generate effluent that directly offsets potable water use with approximately 2,050 AFY of beneficially reused effluent used for

groundwater recharge, irrigation, seawater intrusion barriers and recycled water uses in the County. In addition, multiple communities are actively pursuing indirect potable reuse projects that are projected to create an additional 4,600 AFY of water for groundwater replenishment. The potable reuse projects are accounted for in supply and demand projections.

1.4.3 Evaluation Criterion 3 – Environmental and Water Quality

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

Protecting the quality of water resources in the County is an imperative objective of advancing any desalination project. Through Phase 2.A of the DESAL Plan (which is the scope of this grant), the District will consider alternative locations to site desalination project(s) as well as potential beneficial uses for desalination water. A key consideration of the alternative evaluation criteria will be the potential impacts on the quality of surface water and groundwater. It is anticipated that projects that recharge groundwater basins, maintain or form a barrier to seawater intrusion, and/or increase surface flows will score higher under this criterion. The high-quality product water of desalination will have a positive benefit on the quality of any water body should that be the selected project to implement. In addition, a project that uses brackish groundwater as a supply source may provide a direct benefit to the basin by removing salts and other potential contaminants through extraction and the desalination treatment process.

Project alternatives may not only directly improve the quality of surface water or groundwater but could also provide an indirect benefit by reducing existing demands on both local surface water and groundwater supplies as well as SWP water that will allow more water to remain in these natural surface water systems and protect water quality.

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

This question is primarily directed toward recycled water projects rather than desalination projects. However, to protect the water quality of any locations that may receive the discharges, treatment processes will be designed to meet or exceed all regulatory requirements. The permitting process will be complex due to stringent mitigation measures and water quality limitations associated with desalination; and efforts to engage regulatory agencies will occur early on in the planning phase to ensure effluent limitations are understood and that any future projects are designed to meet or exceed those requirements.

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.

Responses to questions 3 and 4 are combined as environmental impacts are another key factor that will be considered as part of the alternatives evaluation criteria. Improved flow conditions in natural stream channels could result from reductions in surface water used by local water purveyors and/or from discharge of desalination product water to stream channels (potentially for mitigation purposes). The County relies primarily on five reservoirs for surface water supplies - Lake Nacimiento, Whale Rock Reservoir, Lopez Lake/Reservoir, Santa Margarita

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Lake/Salinas Reservoir, and Chorro Reservoir - and any decrease in the use of water from these sources that may be offset by desalinated water would result in higher reservoir levels, improved flows, and enhanced habitat conditions for wildlife within the watershed.

In addition, the District has an annual allocation of 25,000 AF of water from the SWP. The SWP and Reclamation's Central Valley Project (CVP) are jointly operated under a coordinated operating agreement (COA). The COA provides that either SWP or CVP water may be used for deliveries so any deliveries to the County by the SWP is essentially the same as a delivery made by the CVP. Desalinated water has the potential to offset the use of SWP water which would have a direct benefit to the Bay-Delta system and CVP water that would benefit the San Joaquin River and Sacramento River watersheds. Reductions in surface water use would help to improve in-stream flows and enhance habitat locally, in the Bay-Delta ecosystems, and the Central Valley Basin for non-listed species. Maintaining adequate surface water flows is important because habitats, species, and water quality suffer when flows are altered greatly from natural conditions (California Department of Water Resources, 2018).

Finally, the DESAL plan will consider benefits from a desalination project on groundwater supplies directly from recharge or offset pumping, or indirectly from improving/maintaining lake releases which could increase groundwater levels in the County. Higher groundwater levels would increase water levels in groundwater dependent ecosystems and ultimately improve flow conditions.

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

As discussed above, environmental impacts are a key factor that will be considered as part of the DESAL Plan alternative evaluation criteria. The use of desalinated water to offset surface water and groundwater demands would potentially increase stream flows and enhance habitat for federally listed threatened and endangered species. Threatened species include South Central California Steelhead, Red-Legged Frogs, Tidewater Goby, and potentially many more that will be considered during the alternative analysis. Offsetting SWP supplies would make water available to support federally endangered and protected fish species in the Bay-Delta which include Delta Smelt and Chinook Salmon. Furthermore, offsetting CVP supplies would make water available to support federally endangered and protected fish species in the Central Valley Basin. Reducing pressure on existing water supplies and improving flexibility to return streams and rivers to their more natural patterns will more closely mimic natural conditions which will provide threatened and endangered native species a better chance of outcompeting invasive species.

1.4.4 Evaluation Criterion 4 – Department of the Interior Priorities

Climate Change

1. Please provide specific details and examples on how the project will address the impacts of climate change and help combat the climate crisis.

Desalination is a top resilient supply strategy for the County since it leverages a renewable, almost inexhaustible resource that would not be diminished by climate change, insufficient rainfall, or water conservation efforts. As described in Evaluation Criterion 1, existing supply

accessibility and deficits indicate that many agencies in the County have elevated resiliency risk and supply deficiencies when considering non-desalinated supplies' vulnerability to drought and climate change. The only other supply that could have similar resiliency is potable reuse which is also being explored in the County.

As part of the District's investigation, a desalination supply source risk assessment will be developed which will evaluate the vulnerability of each of the water supply sources to climate change, natural disaster, maintenance shutdowns and failures, and regulatory, environmental and water rights challenges. A new, drought proof, local water supply will be necessary to sustain the County long-term. Desalination can help meet County objectives by diversifying the regional water supply portfolio and ensuring a long-term, verifiable, reliable, and sustainable supply to meet current and future agricultural, urban, and environmental demands.

In addition, the District's investigation will consider energy sources and potentially integrated desalination production with new clean energy projects planned in the County, such as the Morro Bay Wind Energy Area. The Department of the Interior, in coordination with the Department of Defense, identified a 399-square-mile area northwest of Morro Bay as a location that will support three gigawatts of offshore wind. In December 2022, the Department of the Interior's Bureau of Ocean Energy Management announced three leases for the Morro Bay Wind Energy Area.

- 2. Does this proposed project strengthen water supply sustainability to increase resilience to climate change? Does the proposed project contribute to climate change resiliency in other ways not described above?*

As described in the Governor's March 28, 2022, Executive Order (N-7-22), California is in a state of emergency due to extreme and expanding drought conditions. California has most recently had three years of drought and has been setting records for both heat and dryness over the past year. Research has shown that the past two decades rank as the driest 22-year period in 1,200 years, surpassing the severity of megadroughts that were previously considered worst-case scenarios (Nature Climate Change, 2022). With rising temperatures, erratic rain patterns, and the fact that almost all water supply sources are impacted by climate (e.g., surface water supplies, imported supplies, groundwater basins), existing supplies throughout the County have and will decrease accordingly. While supply availability declines, potential future scenarios indicate an increase in water stress and demand due to changing hydrologic behavior and projected regulations (e.g., enforcement of groundwater/surface water interaction regulations, increasing environmental flow requirements, decreasing availability and reliability of existing water supplies, enforcement of housing mandates, increased water quality requirements, etc.). Lack of water has severe impacts on communities, the environment, the economy, agriculture, etc. and desalination is the only climate-independent, almost inexhaustible water resource.

Disadvantaged or Underserved Communities

- 1. Will the proposed project serve or benefit a disadvantaged or historically underserved community?*
- 2. Please describe in detail how the community is disadvantaged.*

3. *If the proposed project is providing benefits to an underserved community, provide information to demonstrate that the community meets the definition in E.O. 13985.*

The County has seven identified Disadvantaged Communities (DACs). The County's DESAL Plan is a Countywide project, where the entire County is analyzed from a watershed and water system perspective. Due to this, approximately 31% of the project area population is designated as a DAC through use of the DWR DAC Mapping Tool as shown in Figure 3.

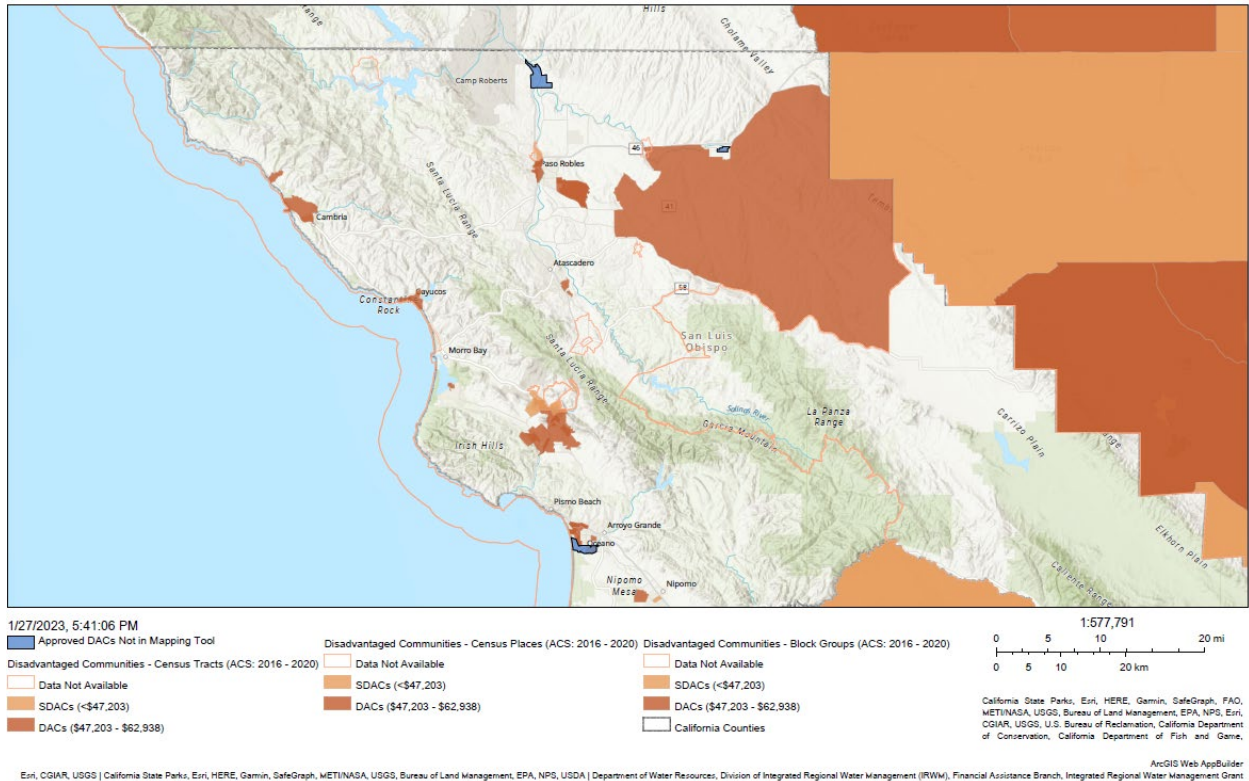


Figure 3. San Luis Obispo County DAC Map

Tribal Benefits

1. *Does the proposed project directly serve and/or benefit a Tribe? Will the project improve water management for an Indian Tribe?*
2. *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?*

The District’s efforts to advance the DESAL Plan and implement a project will not directly benefit a Tribe as the County does not have any tribal lands; however, the project has the potential to provide indirect benefits to Tribes. California Native American Tribes are all Indigenous Communities of California, which are on the contact list maintained by the Native American Heritage Commission, including those that are federally non-recognized and federally recognized, and those with allotment lands, regardless of whether they own those lands. Native American Tribes are sovereign nations and the District will coordinate with Tribes on a government-to-government basis. The District maintains an open policy to continually invite

and encourage collaboration with Tribes. Letters to local Native American Tribes will be sent to invite them to engage during the various DESAL Plan processes and encourage their participation during both plan development and implementation. Local Native American Tribes and any tribes in surrounding counties that have members living in San Luis Obispo County will be contacted via mail, email, and telephone. In addition, all potential desalination sites will be vetted for potential impacts to locations that are culturally sensitive and ongoing communication with Tribes will occur as part of California Environmental Quality Act AB 52 Consultation, which will be part of a future project phase.

A benefit of advancing a regional desalination project is that dependence on imported surface water supplies may be reduced. Two-thirds of California's water originates in the Sierra Nevada mountains, eventually flowing through the Bay-Delta, where it is delivered to more than 27 million Californians and about 750,000 acres of farmland (California Department of Water Resources, 2023). A reduction in imported water has the potential to reduce impacts to Tribes relying on surface water supplies that are used to provide SWP and CVP water. In addition, Tribes that rely on SWP or CVP water as part of their supply may also benefit from a reduced demand by the County on a supply which is already strained by climate change, natural disasters, environmental regulations, and increasing demands.

1.4.5 Evaluation Criterion 5 – Watershed Perspective and Stakeholder Involvement

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

Yes, the County 2019 Integrated Regional Water Management Plan (IRWMP) includes desalination as a resource management strategy (RMS). An RMS is defined by DWR as a project, program, or policy that local agencies can implement to manage water related resources to meet integrated plan objectives (San Luis Obispo County Flood Control and Water Conservation District, 2019). Desalination can help meet IRWMP objectives by diversifying the regional water supply portfolio and ensuring a long-term, verifiable, reliable, and sustainable supply to meet current and future agricultural, urban, and environmental demands.

The DESAL Plan aligns with California's Water Resilience Portfolio, finalized in July 2020, which is a blueprint for equipping California to cope with more extreme droughts, floods, and rising temperatures, while addressing long-standing challenges that include declining fish populations, over-reliance on groundwater and lack of safe drinking water in many communities. State goals and actions are organized into four categories: 1) maintain and diversify water supplies, 2) protect and enhance natural ecosystems, 3) build connections, and 4) be prepared.

The DESAL Plan also aligns with the California Water Code Section 85021 - a statewide policy to reduce reliance on the Bay-Delta to meet California's future water supply needs through a statewide strategy of investing in improved regional supplies, conservation, and water use efficiency. Each region that depends on water from the Bay-Delta watershed shall improve its regional self-reliance for water through investment in water use efficiency, water recycling, advanced water technologies, local and regional water supply projects, and improved regional coordination of local and regional water supply efforts.

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In addition, the DESAL Plan aligns with the State of California's goals and the Governor's May 2019 Executive Order to achieve water resiliency using a multi-benefit / portfolio water management solution – benefiting the environment, strengthening partnerships and utilizing the best technology for improved climate-resiliency.

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

Yes, when complete the DESAL Plan will contain balanced recommendations related to responsibly advancing the implementation of a regional desalination project that will benefit the people, economy and environment throughout the County which encompasses a total area of 3,304 square miles. Throughout development of the DESAL Plan, the District will engage with regional partners and stakeholders to ensure that regional impacts and benefits are considered as alternatives are vetted and a project is selected for implementation. The District will collaborate with the Water Resources Advisory Committee (WRAC), which is an advisory body made up of citizens and governmental representatives, including elected officials, appointed by the District's Board to advise the Board on water resource policies and programs in the Region. The WRAC has 37 members representing county supervisorial districts, cities, community service districts, resource conservation districts, water management agencies, water purveyors, institutions, and at-large individuals and organizations for agricultural, development, and environmental interests. The WRAC offers an ongoing stakeholder forum to provide input and recommendations to the District Board during DESAL Plan development and implementation.

In addition, the District is collaborating with SB County officials to identify opportunities for a wider ranging program that could provide water supply benefits that extend into the northern portion of SB County.

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

Yes, stakeholder outreach and early engagement are critical to the success of the DESAL Plan and a desalination project for many reasons. One reason is that it takes time to build a broad coalition and public buy-in, both of which are necessary to obtain future permits. Another reason for early engagement is to ensure comprehensive understanding of existing infrastructure deficiencies and opportunities from the outset, informing the widest range of conceptual alternatives for consideration. To address this need, on June 7, 2022, the Board approved working with stakeholders to update the Countywide MWR. This effort will compliment desalination project planning efforts by providing up-to-date information on supply/demand imbalances and information on short-term water supply strategies such as conservation, recycled water, and groundwater management. It is important to first optimize the use of existing water supplies and there are other separate efforts currently underway to explore and develop those options. However, since they may only be sustainable short-term, it is important to pursue a long-term solution for water supply, such as desalination.

The key stakeholders in a desalination project are water agencies because they are tasked with supplying water to customers and potentially investing in such a project. The regional infrastructure and/or supply associated with these agencies may also be needed both directly

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and indirectly to make a project feasible. It follows that the DESAL plan, and any resulting project, will be most robust if there is wide interest and involvement from the local water-purveying agencies and their communities. Therefore, a first step that has already been taken by the District was asking those water-purveying agencies to adopt resolutions agreeing to be evaluated and participate in development of the DESAL Plan. DESAL plan participants currently include: City of Arroyo Grande; Atascadero Mutual Water Company; Avila Beach CSD; Cambria CSD; Golden State Water Company; Los Osos CSD; City of Morro Bay; Nipomo CSD; City of Paso Robles; San Miguel CSD; San Miguelito Mutual Water Company; Santa Barbara County; City of San Luis Obispo; and Templeton CSD. The District will then work with designated staff from those agencies to draft a scope of work for developing the DESAL Plan and approach for involving the full spectrum of stakeholders, from regulatory agencies to the general public.

In addition to local stakeholders, the DESAL Plan will require involvement from regulating agencies, including the State Water Resources Control Board (SWRCB), California Coastal Commission (CCC), California Department of Fish and Wildlife, Central Coast Regional Water Quality Control Board, State Land Commission, and National Marine Fisheries Service.

It should be noted that on August 11, 2022, Governor Newsom released a publication called California's Water Supply Strategy that discusses how the "...State will help streamline and expedite permitting to provide clarity and to further desalination projects. By June 2023, the SWRCB, CCC, the DWR, and other state entities will develop criteria for siting of desalination facilities along the coast and recommend new standards to facilitate approval."

The District has a history of collaborating with their neighbors and local communities to achieve working solutions. The DESAL Plan will prioritize improving dialogue and relationships with persons and entities within and bordering the County and expanding lines of communication with state natural resource offices, water authorities, tribes, and local communities.

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

Yes, a communications and outreach plan will be developed, which includes formal and informal communication. Throughout development of the DESAL Plan, local stakeholder engagement and public involvement is anticipated to be facilitated by public meetings of the WRAC, where regular updates and opportunities for input will be provided. Public and stakeholder involvement will be integrated into the decision-making process in a manner that ensures education, awareness, balanced opportunity to participate, and clear communication conduits. Public and stakeholder involvement facilitates overall assimilation of information to achieve a more water-aware culture that moves beyond traditional alliances to a more comprehensive vision which is realistic in relation to the watersheds in which we live and the water resources we share. It is important to recognize barriers to involvement such as remote community locations and limited staffing capacity of regional agencies so efforts can be made to overcome them. The District is fully committed to public engagement throughout the planning phase to ensure transparency and keep community members informed and public outreach will continue to be an important component as development of the DESAL Plan advances.

2.0 Project Budget

2.1 Funding Plan and Letters of Funding Commitment

On November 16, 2021, the District Board of Supervisors made Desalination planning a budget priority. On October 18, 2022, the District Board of Supervisors authorized staff to proceed with developing the DESAL Plan and authorized the Director of Public Works, or Designee, to pursue grants to offset project costs. Preliminary costs of \$50,000 for personnel costs and project scope/grant application development have been included in the Fiscal Year 22/23 budget, and full DESAL Plan costs will be approved in June 2023 for Fiscal Year 23/24.

Budget Proposal

Table 2. Summary of Non-Federal and Federal Funding Sources

Funding Sources	Amount
Non- Federal Entities	
San Luis Obispo County Flood Control and Water Conservation District	\$548,410
Non- Federal Subtotal	\$548,410
REQUESTED Reclamation Funding	\$548,410

Table 3. Total Project Budget Proposal

Budget Item Description	\$/Unit	Quantity	Quantity Type	Total Cost
Personnel				
Engineer IV (Y1)	\$ 62	200	Hours	\$ 12,356
Engineer IV (Y2)	\$ 67	200	Hours	\$ 13,344
Engineer II (Y1)	\$ 41	300	Hours	\$ 12,318
Engineer II (Y2)	\$ 44	300	Hours	\$ 13,305
Division Manager (Y1)	\$ 77	175	Hours	\$ 13,519
Division Manager (Y2)	\$ 80	175	Hours	\$ 13,925
Fringe Benefits ¹				
Engineer IV	46%	400	Hours	\$5,438
Engineer II	45%	600	Hours	\$5,189
Division Manager	52%	350	Hours	\$ 7,420
Travel				
Stakeholder Meetings	\$ 0.655	450	Mileage	\$ 295

Project Budget

Budget Item Description	\$/Unit	Quantity	Quantity Type	Total Cost
Contractual				
Consultant (TBD)	\$ 900,000	1	Lump sum	\$ 900,000
Indirect				
De minimis	10%	\$997,108	Lump sum	\$99,711
Total Estimated Project Costs				1,096,820

1. Fringe Benefit percentages were applied to the employee cost over two years and account for salary increases in year 2 that are shown under the Personnel heading.

Table 4. Total Project Cost Table

Source	Amount
Cost to be reimbursed with the requested Federal funding	\$548,410
Cost to be paid by the applicant	\$548,410
Value of third-party contributions	N/A
TOTAL project cost	\$1,096,820

2.2 Budget Narrative

Personnel

Compensation and wages are shown in Table 3. The primary project manager is the Engineer IV position, currently held by Angela Ford, Water Resources Supervising Engineer. The project manager responsibilities include preparing subcontracts, managing subcontractors, stakeholder coordination, completing reports, and preparing/reviewing deliverables. The District estimates 400 hours of project management for the DESAL Plan over the length of the Project at a rate of \$62/hour the first year and \$67 the second year. The hourly rate for year two includes a 3% increase which is the average annual increase in compensation for all employees and the specific person’s anticipated compensation step increase. The hourly rate is for the person currently assigned. Compensation rates are consistently applied to Federal and non-Federal activities.

The District’s Engineer II is responsible for supporting the project manager. It is estimated that the Engineer II will spend approximately 600 hours per year supporting the DESAL Plan over the length of the Project at a rate of \$41/hour the first year and \$44/hour the second year. The hourly rate for year two includes a 3% increase which is the average annual increase in compensation for all employees and the specific person’s anticipated compensation step increase. The hourly rate is for the person currently assigned. Compensation rates are consistently applied to Federal and non-Federal activities.

Management oversight for the Project is the District's Division Manager position. Management support includes ensuring the project is being developed in accordance with District Board of Supervisors' policy. The District estimates that the Division Manager will spend 350 hours on the DESAL Plan project for an estimated total of \$13,519 the first year and \$13,925 the second year. The hourly rate for year two includes a 3% increase which is the average annual increase in compensation for all employees. The hourly rate is for the person currently assigned and the person is at the top compensation step already. Compensation rates are consistently applied to Federal and non-Federal activities.

Fringe Benefits

Fringe benefits include health insurance which includes dental and vision, life insurance, retirement contributions which include social security and Medicare, and other benefits like workers' compensation, state unemployment insurance, and employee assistance programs. Rates and calculations are provided in Table 3, and are 46% of the employee's total cost on the project over two years for an Engineer IV, 45% for an Engineer II and 52% for a Division Manager.

Travel

Expenses for traveling for project supervision is included in Table 3 and includes a 0.655/mile cost for an estimated 15 meetings at an average of 30 miles round trip.

Equipment

No equipment costs are anticipated for preparing the DESAL Plan.

Supplies

No supply costs are anticipated for preparing the DESAL Plan.

Contractual

Contract expenses include planning, public outreach, and program management. Activities includes stakeholder outreach and coordination, regulatory outreach, conceptual layouts, cost estimating and preparing reports and other deliverables. The contractual cost estimate is based on similar planning efforts the District has conducted.

Construction

No construction costs are required for preparing the DESAL Plan.

Other

Other expenses associated with the DESAL Plan include the following assumed reporting requirements for the grant which are accounted for in personnel and contract costs:

- Semiannual Financial Reports
- Annual Performance Reports
- Final Performance Report

Indirect Costs

A 10% de minimis rate was applied to the modified direct cost to account for indirect costs associated with clerical, administrative and other costs accounted for in the District's accounting system.

Total Costs

The total eligible cost of the DESAL Plan under this NOFO is \$1,096,820. Of this, the District is committed to a cost share of \$548,410 (50% of the total eligible project costs). Expenses will be covered directly by the District and/or from other non-federal funding sources secured for the project.

We respectfully request \$548,410 from USBR under this NOFO. This represents 50% of the eligible Federal cost share. Please see Table 2 for the Proportion of Non-Federal Funding.

3.0 Environmental & Cultural Resources Compliance

Environmental and cultural resources compliance is not required for the pre-construction activities proposed for the grant. The Project will not complete CEQA-plus environmental documentation as part of the grant funded work. If an EIR were to be prepared, it would be prepared as a “CEQA-Plus” document to satisfy National Environmental Protection Act (NEPA) requirements to be considered for federal funding. Because the EIR would be prepared to include sections required under NEPA, federal agencies could use this EIR and other NEPA-required supporting documents as a basis for decision making for the proposed action.

4.0 Required Permits or Approvals

No permits or approvals are required for the pre-construction activities proposed for the grant. The Project will require permits and approvals that will be identified during the grant funded work.

5.0 Statements

5.1 Overlap or Duplication of Effort Statement

The proposal submitted for consideration under this program does not in any way duplicate any proposal or project that has been submitted for funding consideration to any other potential funding source—whether it be Federal or non-Federal.

5.2 Conflict of Interest Disclosure Statement

In accordance with 2 CFR §1402.112, the District is providing a statement that no actual or potential conflict of interest exists at the time of this application submission.

6.0 References

- Bureau of Reclamation. (2023, February 6). *California-Great Basin*. Retrieved from <https://www.usbr.gov/mp/cvp/>
- California Department of Water Resources. (2018, July 9). *A Beginner's Guide to the Sacramento-San Joaquin Delta*. Retrieved from <http://sacdeltaguide.atavist.com/>
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- County of San Luis Obispo. (2023, February 5). *About the County*. Retrieved from <https://www.slocounty.ca.gov/Departments/County-Administrative-Officer/About-the-County.aspx>
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- New York Times. (2023, January 18). Despite Rain Storms, California Is Still in Drought.
- San Luis Obispo County Flood Control and Water Conservation District. (2019). *San Luis Obispo County 2019 Integrated Regional Water Management Plan*.
- State Water Resources Control Board. (2022). *2022 Drinking Water Needs Assessment*.
- United States Bureau of Reclamation. (2023, February 8). *Central Valley Project*. Retrieved from USBR.gov: <https://www.usbr.gov/projects/index/php?id=506>

Official Resolution

- October 18, 2022 Resolution is attached which authorizes District staff to proceed with developing the DESAL Plan.
- Due to the timing of the Board meetings, the executed Official Resolution authorizing the Director of Public Works, or Designee, as the authorized representative to prepare, review, approve and file an application and execute agreement(s) for the U.S Department of Interior Bureau of Reclamation WaterSMART: Water Recycling and Desalination Planning Funding Opportunity will be provided within 60 days of the application deadline (April 29, 2023). A copy of the Draft Resolution is attached.

Stakeholder Agency Resolutions & Letters of Project Support

No.	Resolutions
1	Nipomo Community Services District
2	San Miguel Community Services District
3	Templeton Community Services District
4	City of San Luis Obispo
5	Los Osos Community Services District
6	City of Morro Bay
7	Santa Barbara County Water Agency
8	Atascadero Mutual Water Company
9	Avila Beach Community Services District
10	Cambria Community Services District
11	City of Arroyo Grande
12	City of El Paso De Robles
No.	Letters of Support
13	County of San Luis Obispo Groundwater Sustainability
14	Golden State Water Company
15	U. S. Representative 19 th Congressional District, California – Jimmy Panetta
16	U.S. Representative 24 th Congressional District, California – Salud Carbajal
17	U.S. Senator, California – Alex Padilla

Mandatory Federal Forms

The following mandatory Federal forms are attached.

1. SF-424: Application for Federal Assistance
2. SF-424A: Budget Information for Non-Construction Programs
3. SF-424B: Assurances for Non-Construction Programs
4. SF-LLL: Disclosure of Lobbying Activities
5. GG Lobbying Form: Certification Regarding Lobbying

Unique Entity Identifier & SAM Registration

A hardcopy document is being submitted due to difficulties with registering with SAM. The District is working with SAMs staff to resolve the issue but won't have an active account and Unique Entity Identifier until after the application deadline.