## **WaterSMART**

Water Recycling and Desalination Planning, FY 2023 NOFO No. R23AS00076

## **Groundwater Augmentation Program (GAP)**



## **Project Manager:**

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## Submitted to:

Bureau of Reclamation Financial Assistance Operations Section Attn: NOFO Team P.O. Box 25007, MS 84-27133 Denver, CO 80225 MONTECITO WATER DISTRICT

FEBRUARY 2023

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## **ACROYNMS & ABBREVIATIONS**

ADWF Average Dry Weather Flow

AWPF Advanced Water Purification Facility

AFY Acre-Feet per Year

CEQA California Environmental Quality Act

CGB Carpinteria Groundwater Basin

CVP Central Valley Project

District Montecito Water District

DWR Department of Water Resources
GAP Groundwater Augmentation Project
GSP Groundwater Sustainability Plan

IPR Indirect Potable Reuse
mg/L Milligrams per Liter

MGB Montecito Groundwater Basin

MGD Million Gallons per Day
MSD Montecito Sanitary District
MWD Montecito Water District

NOFO Notice of Funding Opportunity

NPDES National Pollutant Discharge Elimination System

Project Groundwater Augmentation Project
Reclamation United States Bureau of Reclamation

ROWD Report of Waste Discharge

SGMA Sustainable Groundwater Management Act

SWP State Water Project

SWRCB State Water Resources Control Board

TDS Total Dissolved Solids

USBR United States Bureau of Reclamation

WWTP Wastewater Treatment Plant

## 1.0 Technical Proposal & Evaluation Criteria

This funding application for the Groundwater Augmentation Program (GAP or Project), prepared by the Montecito Water District (District or MWD), 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, Fiscal Year (FY) 23, Notice of Funding Opportunity (NOFO) Number R23AS00076.

**Date:** 02/28/2023

**Applicant:** Montecito Water District

City, County, State: Montecito, Santa Barbara County, California

Unique Entity Identifier: RMZRPJQKV7H5

## 1.1 Executive Summary

GAP is a regional indirect potable reuse (IPR) project that will improve water supply reliability and resiliency to benefit the people, economy, and environment in the unincorporated communities of Montecito and Summerland, California, located in Santa Barbara County. The Project would also provide groundwater benefits to the neighboring Carpinteria Groundwater Basin (CGB) in Carpinteria, California. Grant funding would facilitate advancing the next phase of the Project, including preliminary design, environmental documentation, and USBR Feasibility Study.

The mission of MWD is "to provide an adequate and reliable supply of high quality water to the residents of Montecito and Summerland, at the most reasonable cost". 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 Montecito include conservation, regional groundwater banking, local groundwater management, stormwater capture, and desalination. However, these efforts are not enough to overcome long-term shortages or be relied upon to sustainably meet future needs as surface water supply yield and reliability is expected to further decrease. The competition for existing surface water supplies (particularly those that depend on precipitation) in the region and across the State, is anticipated to increase with new regulations related to groundwater/surface water interactions and minimum sustainability thresholds, water quality issues, environmental flows, climate change, and housing directives.

MWD has already invested in a partnership with the City of Santa Barbara for desalination. However, a new, drought-resistant, local water supply will be necessary to sustain the District long-term. This new potable water supply would reduce demand on its other sources of supply, including groundwater from the stressed Montecito Groundwater Basin (MGB). Water reuse is a long-term and resilient strategy since it leverages a renewable resource that would not be diminished by insufficient rainfall. Recognizing that an IPR project will take time to plan, permit, and construct, the District has developed a phased approach to developing GAP.

The District is respectfully requesting \$1,000,000 from Reclamation to leverage District funds and a potential California Sustainable Groundwater Management grant to support the preliminary design (30%), environmental documentation, a supply integration analysis, public

and stakeholder engagement process, and a USBR Feasibility Study that meets the all of the requirements of Reclamation's Feasibility Directive & Standard WTR 11-01. Tasks will be completed within the 24-month grant eligible cost period. The proposed planning efforts are not for a project on a Federal facility and won't involve Federal land, but could provide an indirect benefit to Federal water supplies which is detailed in response to Evaluation Criterion 5 of this application.

## 1.2 Project Location

The Montecito Water District is located on the Central Pacific coast of California, approximately 100 miles north of Los Angeles. The service area encompasses 15.4 square miles and lies in the eastern portion of the coastal plain south of the Santa Ynez Mountains. The service area includes a very small eastern part of the City of Santa Barbara, the unincorporated communities of Montecito and Summerland, Toro Canyon, and small parts of the western Carpinteria Valley.

GAP includes an Advanced Water Purification Facility (AWPF) to produce purified recycled water and a pump station and pipelines to convey the water to an injection well in the CGB for groundwater recharge. The AWPF would be located at the MSD's existing wastewater treatment plant (WWTP), as shown in Figure 1. The pipeline network would be located primarily within existing roadways, road shoulders, and rights-of-way and would generally parallel the alignment of U.S. Highway 101 between the AWPF and the injection well location in Carpinteria, as shown in Figure 2. Groundwater modeling will confirm the location of the injection well.



Figure 1. GAP Advanced Water Purification Facility at MSD WWTP

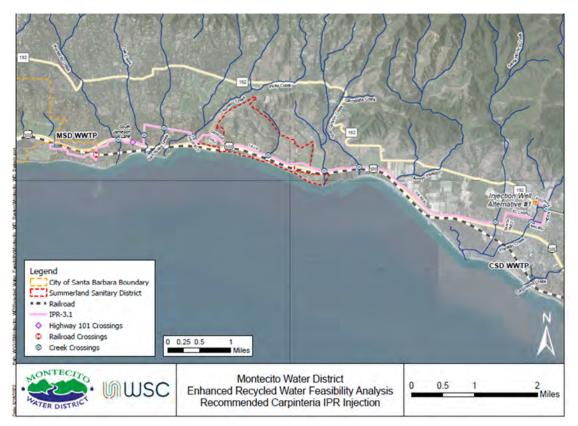


Figure 2. GAP Conveyance and Injection Well Infrastructure

## 1.3 Technical Project Description

This Project phase advances the planning for GAP, which is a regional IPR project that will produce roughly 500 acre-feet per year (AFY) of new water supply from treated wastewater currently being discharged to the ocean. The Project entails an AWPF, pump station, 54,000 feet of pipeline, and an injection well in the CGB.

Implementing the Project will increase the District's drought-resistant supplies and reduce demand on the District's existing supplies, including surface water from State Water Project (SWP), the Cachuma Project and Jameson Lake as well as groundwater supply from the MGB. Reducing demand on groundwater supplies will help to avoid future undesirable results¹ and achieve sustainability pursuant to the Sustainable Groundwater Management Act (SGMA). Past groundwater modeling performed on the MGB as part of the Montecito Groundwater Sustainability Plan (GSP) (Dudek, 2023) indicates that the MGB is experiencing historically low conditions (i.e., low groundwater levels due to a reduction in natural recharge resulting from climate change and an increased reliance on groundwater by public and private entities). If similar hydrologic conditions continue, as experts predict, the MGB could experience

<sup>&</sup>lt;sup>1</sup> SGMA defines six "undesirable results" to be avoided: 1) Chronic lowering of groundwater levels; 2) reduction of groundwater storage; 3) seawater intrusion; 4) degradation of water quality; 5) land subsidence; and 6) Groundwater-related surface water depletions.

undesirable results in the near term and long term unless reducing groundwater use and/or augmenting the groundwater supply. In 2022, MWD and the Montecito Sanitary District (MSD), a local public sanitary agency, collaborated on an Enhanced Recycled Water Feasibility Analysis (Carollo Engineers, 2022). The study evaluated a range of recycled water options, including regional partnerships, and recommended GAP - a regional IPR project involving multiple local and regional public agencies and multiple groundwater basins. The Project involves advanced purification of MSD's treated wastewater for injection into the neighboring CGB for eventual potable use by MWD.

MWD previously conducted a Groundwater Augmentation Feasibility Analysis (GSI Water Solutions, 2019) for the MGB that analyzed the feasibility implementing an IPR project for storage within different regions of the MGB. The study concluded that injection and storage of recycled water within the MGB is feasible in certain limited areas but injection and recovery capacity is limited (35 to 75 AFY) and would be financially infeasible to implement. The GAP involves injection in the CGB and MWD will receive the supply benefit either through pumpback or direct exchange with Carpinteria Valley Water District. The Project provides benefits to the MGB from less groundwater extractions and therefore the retention of groundwater in storage (i.e. in-lieu recharge).

Grant funding is requested to complete preliminary (30%) design, environmental documentation, supply integration analysis, public outreach, and USBR Feasibility Study.

## 1.4 Eligibility and Applicant Category

As a county water district, organized and existing under the laws of the State of California, the District is eligible to pursue funding through this NOFO. The District is pursuing funding under Funding Group I for planning, outreach, preliminary design, and environmental efforts that will support development of the GAP project. The District is committed to a cost share of \$1,656,068 (62% of the total eligible project costs \$2,656,068). 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 of this application.

The final resolution authorizing the District to enter into a funding agreement with Reclamation should funds be awarded through this NOFO is provided as Attachment A.

## 1.4.1 Goals

IPR is a drought-resistant solution for current and projected water supply imbalances caused by strained supplies and increased demand driven by climate change. The grant-funded activities would accomplish the following goals for GAP:

- Prepare a preliminary (30%) design report, including groundwater modeling for the CGB to determine injection location(s).
- Complete an environmental review compliant with the California Environmental Quality Act (CEQA), including "CEQA-Plus" that facilitates future National Environmental Protection Act (NEPA) coverage by Reclamation.
- Complete a supply integration analysis to characterize integration of the new supply from GAP into the District's existing portfolio.

- Develop and implement stakeholder engagement process that provides a range of inputs and viewpoints.
- Prepare a feasibility study meeting Reclamation's Feasibility Study Directive & Standard WTR 11-01.

## 1.4.2 Approach

The following reflects the District's planned approach for completing the next phase of GAP.

## **Task 1. Project Management**

This task involves coordination with District staff and other administrative efforts associated with the Project. This task also involves preparing reports that may be required by the grant, such as Semiannual Financial Reports, Annual Performance Reports, and Final Performance Report.

## Task 2. Stakeholder Engagement

This task involves preparation of an engagement plan and periodic meetings with stakeholders to provide input to the project at key milestones and as required by CEQA. This task also includes presentations on project progress at key milestones during public meetings of the MWD Board of Directors.

### Task 3. Environmental Review

This task includes the preparation of documentation required to satisfy the requirements of CEQA and other CEQA-related standards and technical studies, including "CEQA-Plus" that facilitates future NEPA coverage by Reclamation.

#### **Task 4. Supply Integration Analysis**

This task consists of evaluating how to best integrate the new GAP supply into MWD's current supply portfolio, MWD's receipt of water stored in CGB, and MWD's long-term water supply projections. This task also includes evaluation of Project water recovery via exchange with Carpinteria Valley Water District and/or direct pump back from CGB, and an update of MWD's water supply projections to incorporate this new supply.

## Task 5. Preliminary (30%) Design

This task involves the creation of a Preliminary Design Report, representing a 30% design, including drawings for an MSD AWPF, pump station, pipelines, and injection facilities. This work also includes the development of several technical memorandums discussing water quality and treatment process goals and requirements as well as groundwater modeling. The groundwater modeling will be used to determine the injection location(s) within the CGB to accept, store, and recover the purified recycled water.

## Task 6. USBR Feasibility Study

This task involves preparing a Title XVI compliant feasibility study meeting Reclamation's Feasibility Study Directive & Standard WTR 11-01 requirements through referencing information in the 2023 Enhanced Recycled Water Feasibility Analysis and development of remaining information required to meet Reclamation requirements.

### 1.5 Evaluation Criteria

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, and the reduced availability of surface water supplies, it is important for MWD to effectively manage available water resources to protect public health and safety, maintain viable ecosystems, and avoid seawater intrusion. Many water supply efforts have been completed to address existing depleted water supplies, ongoing resiliency issues, and future needs. Multiple studies indicate the need for recycled water as a way to reduce demand on and augment existing surface water and groundwater supplies.

The Draft 2023 MGB GSP (Dudek, 2023), prepared by the Montecito Groundwater Basin Groundwater Sustainability Agency indicates that the MGB is experiencing low groundwater levels due to a reduction in natural recharge as a result of climate change and an increased reliance on groundwater. If similar hydrologic conditions continue, the MGB could experience undesirable results<sup>2</sup> unless there is a reduction in groundwater use and/or the groundwater supply is augmented with an alternative such as recycled water. GAP is a drought-resistant supply that could reduce reliance on the MGB and surface water supplies that are subject extreme drought conditions, and is part of the District's long-term resiliency strategy.

MWD's 2020 Urban Water Management Plan (UWMP) (Zanjero, 2021) included water supply and demand analysis that identified current and projected supply deficiencies and potential water supply strategies to address deficiencies, including 500 AFY of recycled water to meet future demands. (The water shortage deficiencies are described further in the response to the next question). To determine the best uses of recycled water, the District partnered with MSD in 2022 to produce the Enhanced Recycled Water Feasibility Analysis (Carollo Engineers, 2022) to identify the preferred method of pursuing wastewater reuse. Six alternatives and four different concepts were evaluated – non-potable reuse, IPR, and two types of direct potable reuse – with GAP being the preferred alternative based on the initial analysis. However, important data gaps remain to confirm Project feasibility, such as pipeline alignments, groundwater modeling, supply integration, and environmental impacts.

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.

<sup>&</sup>lt;sup>2</sup> SGMA defines six "undesirable results" to be avoided: 1) Chronic lowering of groundwater levels; 2) reduction of groundwater storage; 3) seawater intrusion; 4) degradation of water quality; 5) land subsidence; and 6) Groundwater-related surface water depletions.

The District obtains its water supplies from multiple sources, including imported surface water supplies from Lake Cachuma, SWP, and supplemental purchases of water from around the State; and the District's own Jameson Lake, Doulton Tunnel, and the MGB. MWD's future projections indicate that water security is decreasing as demands increase and available supplies and their reliability decrease. According to the District's 2020 UWMP (Zanjero, 2021), the District does not have sufficient supplies to meet unconstrained demands without implementing MWD Water Shortage Contingency Plan actions during four out of five years of five-year simulated drought. A Stage 1 Water Shortage Condition is necessary for the first year and third years of the drought, and the more serious Stage 2 water Shortage Condition would be invoked in the last two years of drought. The most severe shortage experienced in the final year of the drought would cause a 20 percent supply shortage. In the simulated droughts beginning in 2030 and later, the addition of recycled water supplies helps limit projected supply shortages to no more than 14 percent. New sources of water supply, including the Project, are key factors contributing to the District's supply reliability. Implementation of the Project will provide critically needed supply augmentation.

Climate change is generally forecasted to bring higher temperatures, more variability in precipitation, and more frequent and prolonged droughts. This will place strain on summer and fall water supply from the SWP and local surface water. Increased evapotranspiration would also accompany the intensification of hotter extreme temperatures, thereby increasing water demand for irrigation. Other likely future changes in the area include extreme weather events, droughts, flooding, fires, coastal erosion, and sea level rise, all which could potentially affect groundwater and surface water supplies. Local water surface water supply reliability will likely also be affected as rainfall captured in Jameson Lake and Lake Cachuma will be subject to increased variability and reduced capacity from sedimentation. Development of reliable local water supply is an important part of the District's approach to addressing climate change and supply vulnerability. Adapting to climate change impacts is of fundamental importance to maintain the reliability of regional water supplies. Methods for adapting to these changes include recharging groundwater with alternative supplies (e.g., use of purified recycled water). The District's efforts to obtain additional local, rainfall independent water supplies, like this Project will enhance reliable water supplies in the face of climate change.

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

GAP is an IPR project that would recharge groundwater in the CGB for eventual potable use by MWD. Previous studies evaluated non-potable, indirect potable, and direct potable use of recycled water. Ultimately, GAP was identified as the preferred use of recycled water. The Project increases overall water availability, which in turn can create less demand on surface water and groundwater supplies. The District's surface water supplies face increasing pressures from a combination of higher variability, increased evaporation, reservoir sedimentation, and environmental flows. GAP allows the District to mitigate for these risks and adapt to changes in existing supplies in the future. Environmental, fish, and wildlife benefits could be realized

indirectly from Project since GAP would reduce MWD's reliance on surface water and groundwater supplies.

The planning activities include groundwater modeling of injection in the CGB to confirm injection location and understand groundwater basin response. Also, the supply integration analysis will investigate key components of the Project, mechanics of MWD's receipt of water whether stored in CGB or by exchange, and updating the MWD's long-term water supply plan.

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 recycled, recycled, or desalinated water demands.

The 2023 Enhanced Recycled Water Feasibility Analysis (Carollo Engineers, 2022) established the current and future anticipated flows to the MSD WWTP considering growth, conservation, and septic conversions. The range of flows and mass loads have a critical role in determining the feasibility of modifications to the existing plant including the addition of equalization basins and an AWPF. The existing average dry weather flow (ADWF) is 0.62 million gallons per day (MGD), based on data from 2017 to 2021, and future ADWF is estimated to be 0.7 MGD. The minimum flow requirements to keep the outfall operational and to minimize scaling was also investigated. Neither issue appear to be a challenge to treat all flows such that discharges from the AWPF are AWPF brine. After accounting for AWPF losses, GAP is expected to produce approximately 500 AFY.

## 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?

## The GAP project objectives are as follows:

- Reduce reliance on existing water supplies that are dependent on precipitation and being impacted by climate change, such as MGB and surface water supplies. For example, MWD's groundwater extractions make up approximately 50 percent of total extractions from the MGB so GAP supply will reduce the District's reliance on groundwater from the MGB.
- Provide a new drought-resistant water supply for the Montecito and Summerland communities, improving long-term water supply reliability and bolstering their ability to respond to future drought conditions.
- 3. Support MWD's conjunctive use program, increasing groundwater availability during non-drought periods and extending its availability during future droughts for all MGB stakeholders.
- 4. Promote multi-agency and multi-basin collaboration.
- 5. Improve groundwater quality in the CGB by injecting high quality purified recycled water and reducing the risk of seawater intrusion, which was recently detected in the CGB.
- 6. Reduce MSD's discharge to the Pacific Ocean and recapture the supply for beneficial reuse.

As noted in response to Evaluation Criteria 1a.1, the MWD 2020 UWMP (Zanjero, 2021) included supply projections and potential new supplies and the 2023 Enhanced Recycled Water Feasibility Analysis (Carollo Engineers, 2022) evaluated six recycled water alternatives.

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

The District's investigation into alternative rainfall independent water supply projects is ongoing. The District has already invested in desalination through a partnership with the City of Santa Barbara. GAP will focus on maximizing the benefit from reuse of wastewater that is currently being discharged to the ocean by providing IPR through groundwater recharge. The groundwater modeling effort will evaluate alternatives for the injection location(s) within the CGB to accept and store, temporarily and potentially long-term, approximately 500 AFY of advanced purified recycled water from MSD. The Supply Integration Analysis includes the evaluation of various key components associated with the Project, evaluating the mechanics of MWD's receipt of water stored in CGB, and updating the MWD long-term water supply plan. The analysis also includes an evaluation of water exchange alternatives between the Carpinteria Valley Water District and MWD, and/or direct pump back from CGB to the District.

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

This Project includes planning tasks for the GAP involving IPR that, when implemented, will reduce demand on surface water and groundwater supplies for the MGB, helping to avoid future undesirable results and achieve sustainability pursuant to the SGMA. This Project component entails a full and complete environmental review, a USBR Title XVI compliant feasibility study, public outreach, and a preliminary (30%) design of an AWPF, pump station, pipelines, and an injection well in the CGB. GAP involves a multi-agency and groundwater basin collaboration that benefits the MGB, its stakeholders, and the adjacent CGB. Additional supportive work is necessary, including a supply integration analysis that will include water system modeling and assessments. This phase of GAP is anticipated to cost \$2,656,068.

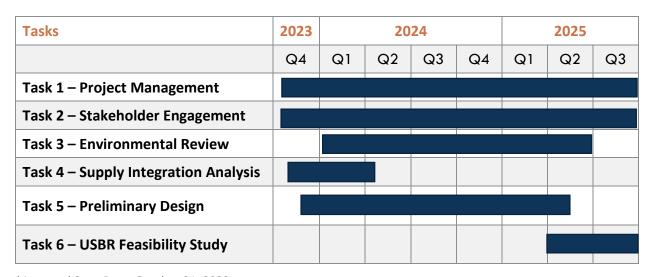
The programs benefits are listed below:

- 1. The Project will result in in-lieu recharge of the MGB. With MWD's extractions making up approximately 50% of total extractions from the MGB under certain conditions, its use of this new water supply will reduce its reliance on groundwater from the MGB and increase stored water in the MGB by up to approximately 500 AFY.
- 2. The Project will support MWD's conjunctive use program, increasing groundwater availability during non-drought periods, and extending its availability during future droughts for all stakeholders of the MGB.
- The multi-basin collaboration will increase groundwater stored in the CGB. The MWD's temporary use of the CGB would likely involve water being left behind in storage for the benefit of all CGB stakeholders, increasing the availability of groundwater in that basin annually.

- 4. The Project will provide a new drought-resistant water supply for the Montecito and Summerland communities, improving long-term water supply reliability and bolstering their ability to respond to future drought conditions.
- 5. The Project will improve groundwater quality in the CGB. With both the MGB and CGB adjacent to the ocean, seawater intrusion is a risk. This supply will be available to elevate groundwater levels to help prevent seawater intrusion in the MGB and CGB through in-lieu and direct recharge, respectively.
- 6. The Project will reduce the MSD's discharge to the Pacific Ocean and recapture the supply for beneficial reuse.
- 7. The Project presents an opportunity for another local public sanitary district to participate in the Project, further enhancing the project benefits.
- 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 GAP grant-funded scope are summarized in **Error! Reference** source not found.

**Table 1. Grant Tasks Schedule** 



<sup>\*</sup>Assumed Start Date: October 31, 2023

### 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.

Water is critical to the health and well-being of the people, economy, and environment of Montecito now and into the future. The District has an important role in ensuring the region's water supplies are adequate in terms of quantity and resiliency, which is the ability of the water supply systems to respond to and accommodate change and continue meeting needs. Many water supply efforts have been completed or are under way to address existing depleted water supplies, ongoing resiliency issues, and future needs.

MWD has already invested in desalination through a partnership with the City of Santa Barbara. This Project will provide a new drought-resistant water supply for use by MWD, which will reduce its reliance on groundwater and surface water supplies, particularly during non-drought periods. Reduction in MWD's groundwater use during non-drought periods will increase the amount of groundwater available during normal and drought periods for MGB small water systems and domestic well stakeholders, providing an enhancement in the long-term reliability of this supply. Additionally, increased groundwater in storage will extend the viability of the groundwater supply for all stakeholders during future periods of drought and potentially reduce, postpone, or eliminate the development of new or expanded existing supplies. Finally, the Project will allow for additional surface water to be stored in the District's groundwater bank in the Central Valley for use during future dry periods.

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 District obtains its water supplies from multiple sources, including imported surface water supplies from Lake Cachuma, SWP, and supplemental purchases of water from around the State; and the District's own Jameson Lake, Doulton Tunnel, and the MGB. The Project would alleviate pressure on existing water supplies. Existing water supplies and facilities impacted by the Project are described in the previous section and in responses to Evaluation Criteria 1a.2.

In addition, GAP has the potential to reduce SWP 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 one ution 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 GAP 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 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, and increasing cost of water supplies.

The Project would address all of the listed specific concerns:

- Water supply shortages: See response to Evaluation Criteria 1a.2
- Water supply reliability: See response to Evaluation Criteria 1a.1

- Groundwater depletion: See response to Evaluation Criteria 1a.1
- Water quality issues: See response to Evaluation Criteria 3.1
- Natural disasters that may impact water supply infrastructure: Besides local supplies groundwater and desalination, the District's water supplies are conveyed across
  mountain ranges that are impacted by natural disasters, such as earthquakes, wildfires,
  and mudslides. For example, imported water conveyance pipelines cross multiple
  seismic faults, wildfires have cut off access to facilities and decreased surface water
  quality, and mudslides caused comprised supply pipelines a
- Heightened competition for water supplies: Heightened competition for existing water supplies, particularly those that depend on precipitation, in the region 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.
- Availability of alternative supplies: See response to Evaluation Criteria 1b.2
- Increasing cost of water supplies: The District's unit costs have been increasing as fixed costs remain the same while yield has decreased, as described in Evaluation Criteria 1a.1. In addition, surface water supplies will require new investments to attempt to achieve historic yield, such as sediment removal from Lake Cachuma or Delta Conveyance Project for SWP. The District's priority is to target new investment in more reliable supplies, such as GAP, rather than rainfall dependent supplies.

A new, drought-resistant, local water supply will be necessary to sustain MWD supplies long-term. IPR is the most resilient strategy since it leverages a renewable resource that would not be diminished by insufficient rainfall.

• 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 characterized Santa Barbara County in November 2022 as Severe Drought and Extreme Drought. After extensive precipitation in January 2023, the county is now characterized as Abnormally Dry to Moderate Drought. However, groundwater basins in the area will require multiple above average precipitation years to recover unprecedented low levels, indicated by the previous characterization.

IPR is a drought resilient strategy since it leverages a renewable resource that would not be diminished by insufficient rainfall or imported water shortages. Desalination is an alternative water supply with similar drought supply benefits and the District has already entered into a partnership with the City of Santa Barbara for desalination supplies. IPR does have more flexibility than desalination because the purified recycled water can be stored in the groundwater basin for use several months or years later whereas desalination must be used ondemand and cannot be stored.

## Evaluation Criterion 3 – Environmental and Water Quality

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

MGB and CGB groundwater quality is suitable for most uses and, in general, water quality is stable, with no trends toward impairment. Basin-wide chloride concentrations have remained relatively steady for the past several years. In the MGB, the Project would provide seawater intrusion prevention benefits by increasing groundwater levels through in-lieu recharge as MWD uses less groundwater from MGB.

In the CGB, elevated Total Dissolved Solids (TDS), chloride and nitrate have been identified in localized areas and no subsurface outflow has occurred from the basin to the ocean in the last 15 years due to depressed water levels, which presents a potential risk for seawater intrusion (GSI Water Solutions, 2023).

The Project would produce purified recycled water for injection into the local groundwater basin. Advanced water treatment will result in higher quality groundwater within the basin, as it dilutes the existing levels of TDS and hardness concentrations. For example, CGB TDS levels of 600 to 900 milligrams per liter (mg/L) are slightly above the recommended Environmental Protection Agency TDS secondary standard of 500 mg/L (GSI Water Solutions, 2023). TDS of the injected advanced treated recycled water is expected to be approximately 200 mg/L. With the injection of advanced treated recycled water, groundwater TDS concentrations will decrease over time in the Project area. Thus, after the Project implementation, the continued injection of purified recycled water will improve the groundwater extracted and the basin will achieve better quality over time.

The CGB annual groundwater management plan reports indicate that there is a water-level depression in the central portion of the basin that developed during the extended drought period of 2012 through 2022. The center of this depression is approximately 60 feet below sea level with levels at the coast being around 5 feet below sea level (GSI Water Solutions, 2023). The Project will improve groundwater elevation in the area of the injection wells, resulting in higher basin levels over all and reducing the depth of the depression. The extent of improvements will be defined with groundwater modeling as part of the grant funded project.

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

Purified recycled water will meet or exceed the requirements set forth by Title 22, which include total nitrogen limit, total organic carbon limit, primary and secondary maximum contaminant levels, lead and copper Action Levels, California State Water Resources Control Board (SWRCB) Division of Drinking Water Notification Levels, and Basin Plan Water Quality Objectives for the CGB. The purified recycled water is anticipated to meet all requirements.

The MSD is subject to an existing National Pollutant Discharge Elimination System (NPDES) permit for its wastewater discharge to the Pacific Ocean. To complete the project, MSD will file a report of waste discharge (ROWD) to receive an amended NPDES permit to allow for a reduction of the secondary wastewater effluent discharge and for discharge of the AWPF brine

to the MSD Ocean Outfall. As part of this ROWD, the MSD will complete a brine impacts analysis to evaluate compliance with the California Ocean Plan.

Further, the Project will potentially help the District meet the requirements of anticipated future legislation that would regulate the volume of ocean discharges. For example, the California Ocean Protection Council included a goal in is 2020 Strategic Plan to Protect California's Coast and Ocean 2020-2025 of establishing interim goals for significantly reducing nutrient loading and/or phasing out coastal wastewater discharges into the ocean. The Ocean Protection Council would like to achieve a goal of recycling 80 to 90% of coastal wastewater discharges for beneficial use by 2040.

- 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.

GAP increases overall water availability, which in turn can create less demand on the District's surface water and groundwater supplies. The District's surface water supplies face increasing pressures from a combination of higher variability, increased evaporation, reservoir sedimentation, and environmental flows. GAP could allow the District to mitigate for these demands, such as natural stream flows and habitat restoration, and adapt to changes in existing supplies in the future.

The CGB contains natural resources that have local, regional, and statewide significance, including natural and developed open space and a variety of natural physical resources. These resources include several environmentally sensitive habitat areas such as wetlands, butterfly habitat, marine mammal rookeries and hauling grounds, rocky points and intertidal areas, subtidal reefs, kelp beds, creeks and riparian habitat, significant native plant communities such as coastal sage scrub, riparian scrub, coastal bluff scrub, and native oak woodlands, and sensitive habitat. The California Natural Diversity Database indicates 32 species may occur within the Project area. Of those, 22 species have a non-listed status, most of which are associated with riparian and aquatic habitats.

Reduced dependence on imported SWP water potentially improves flow conditions in the natural stream channels of the Bay-Delta. The Bay-Delta supports a variety of fish and wildlife species that could benefit from the increased flows that are the direct result of reduced exports. By decreasing the importation of water from these supply sources, the project components will increase flows within those systems and enhance the habitat for the associated species.

The Bay-Delta encompasses 1,600 square miles and provides habitat for more than 500 species of fish and wildlife. The 2013 Bay-Delta Conservation Plan prepared by California Department of Water Resources (DWR) identified over 30 non-listed species potentially impacted by withdrawals from that system through the SWP. Impacts from withdrawals occur due to the change of river flow by pumping, capture within pumping equipment, and increased saltwater intrusion due to pumping. A decrease in water imported through the SWP could help to

alleviate these pressures on the Delta ecosystem and could help restore habitat for non-listed species.

By reducing reliance on imported water, the habitat of non-listed species is more resilient to changing climate patterns. Non-listed species could benefit greatly from reduced pumping of imported water from their habitat, as many species rely on these habitats for ecologic function at various life stages and require constant freshwater flow.

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

As discussed above, GAP increases overall water availability, which in turn can create less demand on the District's surface water and groundwater supplies. A Biological Opinion for southern California steelhead is currently being developed for the Cachuma Project that has the potential to require increased releases from Lake Cachuma and, as a result, reduced deliveries to the South Coast water agencies, including the District. Although the demands for the MWD do not adversely impact flow requirements for southern California steelhead and fisheries during average years, during dry years the demand will be higher because MWD cannot overdraw from the groundwater basin. Thus, the reduced dependency of MWD on the Lake Cachuma supplies could provide water and improved maintenance of Santa Ynez River flow for steelhead.

In the Delta system, this could mean increased outflow through the San Francisco Bay helping to reduce salinity and improve habitat for fish and other species, which contains more than 35 endangered species. In addition to the number of non-listed species mentioned above, there are 21 federally listed threatened and endangered species in the Delta that will benefit from the reduction in imported water for the District. These species include delta smelt, Chinook salmon, least Bell's vireo, and Conservancy fairy shrimp. Several fish species, such as bonytail and delta smelt, live their entire lives within the Delta ecosystems, respectively. Other fish species, including Chinook salmon and steelhead, rely on the Delta for spawning, rearing, and migration during critical times of year. With more water in the Delta, these species become more resilient to changes in the ecosystem.

Tidal marsh microhabitat within the Delta supports diverse species of mammals, birds, and plants while riparian woodlands sustained by Delta flows provide breeding habitat for several federally listed birds. Species' relationships to water supply within the are extremely diverse and require various flow conditions during critical times of year to sustain these sensitive species populations. Reducing demands for imported water will increase the flows available to support these habitats and species.

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.

Changes in precipitation, including total quantity, length of the rainy season, and number of precipitation events will cause changes in the amount, intensity, timing, quality, and variability

of water runoff and recharge. Adapting to these changes is of fundamental importance to maintain the reliability of regional water supplies under climate change. Methods for adapting to these changes include the recharge of groundwater basins with alternative supplies (e.g., injection of purified recycled water). IPR is a top resilient supply strategy for the region since it leverages a renewable resource that would not be diminished by climate change or insufficient rainfall. A reliable, local supply that can be stored in the groundwater basin allows MWD to be more flexible in use of existing supplies and adapt to the larger wet and dry extremes projected from climate change such that, in wet periods, surface water can be used while purified recycled water is stored underground and, in dry periods, the stored water can be recovered.

The GAP can also help meet SGMA objectives for the MGB and CGB with groundwater recharge and ensuring a long-term, verifiable, reliable, and sustainable supply to meet current and future agricultural, urban, and environmental demands.

IPR is also less energy intensive than the primary drought-resistant supply alternative – desalination – and of existing SWP supplies. Lower energy consumption will lower greenhouse gas emissions and help to combat the climate crisis.

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 had many 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 other water supply sources are impacted by climate (e.g., surface water supplies, imported supplies, groundwater basins), existing supplies throughout the region 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 IPR is a climate-independent water resource.

GAP 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.

In addition, GAP 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.

## 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.

Currently MWD has no underrepresented communities, tribes, or severely disadvantaged communities. The CGB boundary encompasses Disadvantaged Community Census Tracks between Sandyland Cove and US Highway 101, and east of the Santa Barbara/Ventura County line. To the extent that these areas are supplied by groundwater from the CGB via the Carpinteria Valley Water District and the Project results in an increase in stored groundwater in the CGB and decreases the potential for undesirable results, the Project benefits those disadvantaged communities.

The Project will have a positive impact on small water systems and domestic well stakeholders by protecting them from, and providing projects and management actions to address, undesirable results that are applicable to the MGB, including seawater intrusion, groundwater elevation decline, loss of groundwater in storage, and degradation of groundwater quality. The Montecito Groundwater Sustainability Agency, led by MWD, has estimated that there are at least 46 domestic groundwater wells within the MGB serving more than 100 parcels that do not receive water from the MWD. The Project will provide a new drought-resistant water supply for use by the MWD, which will reduce its reliance on groundwater, particularly during non-drought periods. This reduction in MWD's groundwater use during non-drought periods will increase the amount of groundwater available for small water systems and domestic well stakeholders, providing an enhancement in the long-term reliability of this supply. Additionally, increased groundwater in storage will extend the viability of the groundwater supply for all stakeholders during future periods of drought.

The Project will support the Human Right to Water Act and established policy of the state that every human being has the right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes by providing for continued and increased collection and analysis of data.

#### **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 Project will not directly benefit a Tribe as MWD 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 GAP implementation and encourage their participation. Local Native American Tribes and any tribes in surrounding counties that have members living in Santa Barbara County will be contacted via mail, email, and telephone. In addition, all planned infrastructure sites will be vetted for potential impacts to locations that are culturally sensitive and ongoing communication with Tribes will occur as part of CEQA AB 52 Consultation.

A benefit of advancing the 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 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 that rely on their local surface water supplies used to provide State Water Project (SWP) water as well as SWP water used by Tribes which are strained by climate change, natural disasters, environmental regulations, and increasing demands.

## 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.

The Santa Barbara County 2019 Integrated Regional Water Management Plan Update identifies recycled water as a resource management strategy and identifies recharging groundwater basins with recycled water as a method to address climate change through adaptation and mitigation. The Project will be included in the next plan update.

The Project 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.

The Project 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.

In addition, the Project 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.

As a water supplier for the south coast of Santa Barbara County, the Project will provide a reliable source of water for MWD. Although this Project directly supports MWD's local supply, the benefits of the project are not limited to MWD's service area. Local water production offsets the need for imported water purchases from the SWP and the Cachuma Project. This could allow for increased natural flows in the Delta to benefit diverse ecosystems and listed species such as the delta smelt. This leaves water available in the river for other users or for habitat.

The District's current primary water sources, including groundwater from MGB, Cachuma Project, SWP supplies, and desalination are shared with private pumpers, Carpinteria Valley Water District, the City of Santa Barbara, Goleta Water District, and the Santa Ynez River Water Conservation District Improvement District No. 1. As demand rises it is critical to create a sustainable supply to meet the area's needs. The Project will reduce the MWD's dependence of its current sources and has potential to allow more water to be allocated to other regions.

The Project will help MWD and the Montecito Groundwater Sustainability Agency (GSA) manage the groundwater basin. Proper management of the groundwater basin will reduce over-pumping and declining water levels, which could result in increased seawater intrusion and other undesirable results.

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

The District has pursued 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.

MWD has a history of collaborating with their neighboring agencies and local communities to achieve working solutions. The Project is a result of multi-year collaboration between MWD, MSD, CVWD, Montecito GSA, Carpinteria GSA, and the SWRCB. In 2019, MWD and MSD completed a Recycled Water Facilities Plan (Woodard & Curran, 2019), which was partially funded by the SWRCB. The plan provided initial regional planning for recycled water development, including the Project, to help reliably and cost effectively meet the area's water supply needs. In 2022, the Enhanced Recycled Water Feasibility Analysis (Carollo Engineers, 2022) provided a deeper understanding of the alternatives available and recommended further investigation of GAP to confirm feasibility. Also, the proposed supply integration analysis will continue this dialogue between MWD and Carpinteria Valley Water District to ensure the best use of limited resources.

Letters of support from project partners and supporters are included in Appendix B.

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

Public outreach was conducted during the initial phases of GAP through public Board meetings of MWD, MSD, and Montecito GSA, regional partner meetings, and through media channels, including social media, local newspapers, and MWD and MSD websites. Throughout development of GAP, local stakeholder engagement and public involvement is anticipated to be facilitated by public meetings of the MWD Board of Directors, social media, and the District's website, where regular updates and opportunities for input will be provided. Also, meetings with Project partners, such as MSD, Carpinteria GSA, and Carpinteria Valley Water District, are anticipated. In addition, public outreach is an essential part of the CEQA process.

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. Apart from building relationships and capacity, public and stakeholder involvement facilitates a more water-aware culture that moves beyond traditional alliances to a more comprehensive vision. 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 the development of the GAP advances.

## 2.0 Project Budget

## 2.1 Funding Plan and Letters of Funding Commitment

The non-Federal funds for the Project are from MWD and potentially from a DWR grant. The Montecito GSA, in partnership with MWD, submitted a grant request to the DWR Sustainable Groundwater Management (SGM) program in December 2022 to partially fund Project preliminary design, environmental documentation, and public outreach. DWR anticipates grant award announcements in May 2023. The funds would be available after an agreement between the GSA and DWR is executed. The GSA has provided a letter of commitment (see Appendix C) to provide the funds for the Project. If the grant is awarded by DWR, the DWR grant funds would reduce MWD's contribution and be used to provide match funding to the Federal cost share. If the grant is not awarded, MWD funds will be used to meet all of the non-Federal cost share. Table 2, Table 4, and Table 4 present required budget tables.

Table 2. Summary of Non-Federal and Federal funding source

Funding Sources	Amount
Non- Federal Entities	
1. Montecito Water District <sup>(1)</sup>	\$1,656,058
Non- Federal Subtotal	\$1,656,058
REQUESTED Reclamation Funding	\$1,000,000

Note 1: MWD submitted a SGM program grant application to DWR in December 2022 to fund this amount. If awarded, the DWR grant would reduce MWD's contribution.

Table 3. Total Project Budget Proposal

Budget Item Description	\$/Unit	Quantity	Quantity Type	Total Cost
Personnel				
AGM/Engineering Manager	\$98	832	Hours	\$81,536
Engineering Assistant	\$44	1284	Hours	\$56,496
Public Information Officer	\$44	208	Hours	\$9,152
Fringe Benefits <sup>1</sup>				
AGM/Engineering Manager	\$39.20	832	Hours	\$32,614
Engineering Assistant	\$17.60	1284	Hours	\$22,598
Public Information Officer	\$17.60	208	Hours	\$3,661
Contractual				
Carollo <sup>(1)</sup>	\$2,400,000	1	Lump Sum	\$2,400,000
WSC	\$50,000	1	Lump Sum	\$50,000
<b>Total Estimated Project Costs</b>				\$2,656,058

Note 1: Based on detailed cost estimate of labor hours and rates for over 20 staff.

**Table 4. Total Project Cost Table** 

Source	Amount
Cost to be reimbursed with the requested Federal funding	\$1,000,000
Cost to be paid by the applicant <sup>(1)</sup>	\$1,656,058
Value of third-party contributions	
TOTAL project cost	\$2,656,058

Note 1: MWD submitted a SGM program grant application to DWR in December 2022 to fund this amount. If awarded, the DWR grant would reduce MWD's contribution.

## 2.2 Budget Narrative

#### Personnel

Compensation and wages are shown in Table 3. The primary project manager is Adam Kanold, Assistant General Manager/ Engineering Manager. The project manager responsibilities include preparing subcontracts, managing subcontractors, stakeholder coordination, completing reports, and deliverables. The District estimates 832 hours of project management for the GAP over the length of the Project at a rate of \$98/hour or \$137/hour with fringe benefits.

The District's Engineering Assistant is responsible for supporting the project manager. It is estimated that the Engineering Assistant will spend approximately 1284 hours supporting GAP over the length of the Project at a rate of \$44/hour or \$62/hour with fringe benefits.

The District's Public Information Officer (PIO) will lead stakeholder engagement. It is estimated that the PIO will spend approximately 208 hours supporting the GAP over the length of the Project at a rate of \$44/hour or 62/hour with fringe benefits.

#### 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, employee assistance program, and deferred contributions. Rates and calculations are provided in the budget proposal.

#### Travel

Expenses for traveling for project supervision are not included.

## Equipment

No equipment costs are anticipated for the Project.

#### **Supplies**

No supply costs are anticipated for the Project.

### Contractual

Contract expenses include planning, feasibility study, public outreach, preliminary design, and environmental documentation. Costs estimates totaling \$2,450,000 were acquired from

consultants selected through a competitive Request for Proposal process. The costs are based on experience with similar projects, recent bids, current and foreseeable regulatory requirements, and an understanding of the necessary project components. As the project progresses, the costs could vary from the estimates provided herein.

#### Construction

No construction costs are required for the project.

#### Other

No "other" expenses are anticipated.

### **Indirect Costs**

Indirect cost rate has not been negotiated for the Project, and therefore not included in the Project budget.

## **Total Costs**

The total eligible cost of the Project under this NOFO is \$2,656,058. Of this, MWD is committed to a cost share of \$1,656,058. Expenses will be covered directly by MWD and/or from other non-federal funding sources secured for the project.

We respectfully request \$1,000,000 from USBR under this NOFO. This represents 38% of the eligible Federal cost share.

## 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 complete CEQA-plus environmental documentation as part of the grant funded work. NEPA compliance will occur upon grant approval. The EIR will be prepared as a "CEQA-Plus" document to satisfy NEPA requirements to be considered for federal funding. Because the EIR will 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 or will be 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 is known to exist at the time of this application submission.

## 5.3 Uniform Audit Reporting Statement

The District was not required to submit a Single Audit report for the most recently closed fiscal year.

## 6.0 References

- California Department of Water Resources. (2023, February 6). *Delta Conveyance*. Retrieved from https://water.ca.gov/deltaconveyance
- Carollo Engineers. (2022). Montecito Enhanced Recycled Water Feasiblity Analysis.
- Dudek. (2023). DRAFT Montecito Groundwater Sustainability Plan.
- GSI Water Solutions. (2019). Montecito Groundwater Basin, Groundwater Augmentation Feasibility Analysis.
- GSI Water Solutions. (2023). DRAFT Carpinteria Groundwter Sustainability Plan.
- Nature Climate Change. (2022, March). Rapid intensification of the emerging southwestern North American megadrougt in 2020-2021. Retrieved from https://www.nature.com/articles/s41558-022-01290-z.epdf
- United States Bureau of Reclamation. (2023, February 8). *Central Valley Project*. Retrieved from USBR.gov: https://www.usbr.gov/projects/index/php?id=506
- Woodard & Curran. (2019). Montecito Recycled Water Facilities Plan.
- Zanjero. (2021). Montecito Water District 2020 Urban Water Management Plan.

## Appendix A Official Resolution

### **RESOLUTION NO. 2248**

## A RESOLUTION OF THE BOARD OF DIRECTORS OF THE MONTECITO WATER DISTRICT

DESIGNATING AN AUTHORIZED REPRESENTATIVE AND AUTHORIZING THE SUBMITTAL OF AN APPLICATION AND EXECUTION OF A GRANT AGREEMENT WITH THE UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF RECLAMATION FOR A WATERSMART: WATER RECYCLING AND DESALINATION PLANNING GRANT FOR GROUNDWATER AUGMENTATION PROJECT

WHEREAS, the Montecito Water District ("District") is a County Water District organized and existing under the laws of the State of California, situated and serving an area entirely within the County of Santa Barbara; and

WHEREAS, in December 2022, the District, in collaboration with the Montecito Sanitary District, completed an *Enhanced Recycled Water Feasibility Analysis* which evaluated various potential potable and non-potable reuse projects, including potential regional partnerships, and recommended a regional indirect potable reuse project involving multiple local and regional public agencies and multiple groundwater basins.; and

WHEREAS, the next phase of project development involves preliminary design and environmental review; and

**WHEREAS**, the United States Bureau of Reclamation (USBR) is soliciting applications for authorized projects for the "WaterSMART: Water Recycling and Desalination Planning" grant Program, USBR Funding Opportunity Number R23AS00076; and

WHEREAS, pursuant to this grant program, USBR makes funds available for water recycling planning projects including Title XVI compliant feasibility studies, preliminary design and environmental compliance; and

WHEREAS, the District wishes to submit an application for financial assistance from the USBR WaterSMART: Water Recycling and Desalination Planning Grant Program to cover a portion of the cost of the project by the February 28, 2023 application deadline; and

WHEREAS, an agreement for federal financial assistance will impose certain obligations upon the Montecito Water District ("District") and will require the District to provide the local share of the project cost (50%); and

WHEREAS, USBR requires the applicant include in its application an official resolution adopted by the Board of Directors verifying 1) the identity of the official with legal authority to enter into an agreement, 2) that the Board of Directors has reviewed and supports the application submitted, 3) that the District will work with USBR to meet established deadlines for entering into a grant or cooperative agreement.

**NOW, THEREFORE, BE IT RESOLVED** by the Board of Directors of the Montecito Water District as follows:

- 1. The District General Manager is authorized to submit an application to the USBR for a WaterSMART: Water Recycling and Desalination Planning grant per USBR Funding Opportunity Number R23AS00076; and
- 2. The District General Manager is authorized to enter into an agreement with USBR, subject to final approval by the District Board of Directors, if awarded federal financial assistance through the program; and
- 3. The District Board of Directors supports the application and authorizes the General Manager to receive and review the application that will be submitted on the 28th day of February 2023; and
- 4. The District has adequate capacity for the local funding required by the grant program.
- 5. The District will work with the USBR to meet established deadlines required for entering into a cooperative agreement to obtain the aforementioned grant funding.

**PASSED AND ADOPTED** by the Board of Directors of the Montecito Water District this 28th day of February 2023, by the following roll call vote:

AYES: Coates, Goebel, Hayman, Plough, Wicks

NOES: none ABSENT: none ABSTAIN: none

**APPROVED:** 

Tobe Plough, President

**ATTEST:** 

Nicholas Turner, Secretary

## Appendix B Letters of Project Support

No.	Letters of Support
1	Carpinteria Valley Water District
2	Montecito Sanitary District
3	Montecito Groundwater Sustainability Agency
4	County of Santa Barbara



## Carpinteria Valley Water District

1301 Santa Ynez Avenue • Carpinteria, CA 93013 Phone (805) 684-2816 BOARD OF DIRECTORS

Case Van Wingerden President

Casey Balch Polly Holcombe Shirley L. Johnson Matthew Roberts

GENERAL MANAGER

Robert McDonald, P.E. MPA

February 24, 2023

The Honorable Camille Touton Commissioner Bureau of Reclamation 1849 C Street, NW Washington, DC 20240-0001

SUBJECT: WaterSMART Water Recycling and Desalination Planning Grant Endorsement,

Montecito Water District, Groundwater Augmentation Program

Dear Commissioner Touton,

I write this letter in strong support of the application by the Montecito Water District (MWD) for Federal funding from the WaterSMART program for Water Recycling and Desalination Planning, administered through the United States Bureau of Reclamation, U.S. Department of the Interior. The MWD is requesting funding to support the planning, outreach, and preliminary design efforts that will support development of the Groundwater Augmentation Program (GAP).

The GAP consists of multiple components including a Title XVI compliant feasibility study, environmental review and preliminary design of an advanced water purification facility and associated distributive infrastructure necessary to support an Indirect Potable Reuse (IPR) program. The key benefit of the GAP is the augmentation of the groundwater supply with a new drought resistant source.

Funding the GAP will build upon a multi-year collaboration between MWD and Montecito Sanitary District (MSD), with the involvement of other potential regional partners to identify the project that maximizes the beneficial reuse of MSD's treated wastewater. This collaboration analyzed various potable and non-potable reuse options including regional partnerships and recommended a regional IPR project involving multiple local and regional public agencies and multiple groundwater basins. This project will provide MWD with a new local drought resistant water source, reducing its reliance on groundwater and increasing groundwater available in storage. Additionally, the project will extend the viability of the groundwater supply for all stakeholders during future drought periods. The advancement of this project is critical for bolstering the reliability of water supplies for Montecito and Summerland, and will lessen the impact future droughts will have on the region.

I support the efforts being undertaken by the MWD to advance the GAP and improve water sustainability for the region.

Sincerely,

Bob McDonald, P.E. MPA

General Manager

Carpinteria Valley Water District

Rhut Im Donald

PHONE: (805) 969-4200 www.montsan.org EMAIL: jweigold@montsan.org

February 24, 2023

The Honorable Camille Touton Commissioner **Bureau of Reclamation** 1849 C Street, NW Washington, DC 20240-0001

SUBJECT: WaterSMART Water Recycling and Desalination Planning Grant Endorsement,

**Montecito Water District, Groundwater Augmentation Program** 

Dear Commissioner Touton,

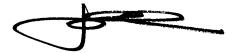
I write this letter in strong support of the application by the Montecito Water District (MWD) for Federal funding from the WaterSMART program for Water Recycling and Desalination Planning, administered through the United States Bureau of Reclamation, U.S. Department of the Interior. The MWD is requesting funding to support the planning, outreach, and preliminary design efforts that will support development of the Groundwater Augmentation Program (GAP).

The GAP consists of multiple components including a Title XVI compliant feasibility study, environmental review and preliminary design of an advanced water purification facility and associated distributive infrastructure necessary to support an Indirect Potable Reuse (IPR) program. The key benefit of the GAP is the augmentation of the groundwater supply with a new drought resistant source.

Funding the GAP will build upon a multi-year collaboration between MWD and Montecito Sanitary District (MSD), with the involvement of other potential regional partners to identify the project that maximizes the beneficial reuse of MSD's treated wastewater. This collaboration analyzed various potable and non-potable reuse options including regional partnerships and recommended a regional IPR project involving multiple local and regional public agencies and multiple groundwater basins. This project will provide MWD with a new local drought resistant water source, reducing its reliance on groundwater and increasing groundwater available in storage. Additionally, the project will extend the viability of the groundwater supply for all stakeholders during future drought periods. The advancement of this project is critical for bolstering the reliability of water supplies for Montecito and Summerland communities and will lessen the impact future droughts will have on the region.

I most highly support the efforts being undertaken by the MWD to advance the GAP and improve water sustainability for the region.

Sincerely,



John F. Weigold, IV

General Manager



February 27, 2023

BOARD OF DIRECTORS: Brian Goebel, President Ken Coates, Vice President Cori Hayman, Director Floyd Wicks, Director Tobe Plough, Director

> General Manager and Board Secretary: Nick Turner

The Honorable Camille Touton Commissioner Bureau of Reclamation 1849 C Street, NW Washington, DC 20240-0001

Subject:

WaterSMART Water Recycling and Desalination Planning Grant Endorsement,

Montecito Water District, Groundwater Augmentation Program

To Whom It May Concern,

I am writing on behalf of the Montecito Groundwater Basin Groundwater Sustainability Agency ("Montecito GSA") in support of the Grant Application submitted by the Montecito Water District ("MWD") for Federal funding from the WaterSMART program for Water Recycling and Desalination Planning, administered through the United States Bureau of Reclamation, U.S. Department of the Interior. MWD is requesting funding to support the planning, outreach, and preliminary design efforts that will support development of a Groundwater Augmentation Program ("GAP").

Montecito GSA is a single-agency GSA formed in 2018 with the requirement of developing and implementing a Groundwater Sustainability Plan for the Montecito Groundwater Basin pursuant to the Sustainable Groundwater Management Act ("SGMA"). MWD is the primary urban water purveyor residing over the Montecito Groundwater Basin, servicing the areas of Montecito and Summerland. MWD and Montecito GSA are working closely together on the GAP because there are benefits to both agencies.

The proposed GAP consists of preliminary design and environmental review for an Indirect Potable Reuse project involving regional partners and multiple groundwater basins. Key benefits of the GAP include direct and in-lieu recharge of the Carpinteria and Montecito groundwater basins, respectively with a new drought-resistant source. When completed, this new source of supply will reduce MWD's reliance on groundwater during normal hydrologic periods, thereby increasing availability during future droughts. Additionally, elevated groundwater levels in each groundwater basin will reduce the risk of undesirable results occurring, such as seawater intrusion.

This grant would provide critical funding for the advancement of the MWD's GAP, which is critical to achieving both MWD's strategic plan for long-term water supply reliability for Montecito and Summerland, and Montecito GSA's efforts to ensure a reliable and sustainable groundwater supply through effective basin management.

Sincerely,

Brian Goebel, Board President

Montecito GSA

DAS WILLIAMS County Supervisor, First District 805.568.2186



Board of Supervisors 105 East Anapamu Street, 4th Floor Santa Barbara, California 93101

#### COUNTY OF SANTA BARBARA

February 27, 2023

The Honorable Camille Touton Commissioner Bureau of Reclamation 1849 C Street, NW Washington, DC 20240-0001

SUBJECT: WaterSMART Water Recycling and Desalination Planning Grant Endorsement, Montecito Water District,

**Groundwater Augmentation Program** 

Dear Commissioner Touton,

I write this letter in strong support of the application by the Montecito Water District (MWD) for Federal funding from the WaterSMART program for Water Recycling and Desalination Planning, administered through the United States Bureau of Reclamation, U.S. Department of the Interior. The MWD is requesting funding to support the planning, outreach, and preliminary design efforts that will support development of the Groundwater Augmentation Program (GAP).

The GAP consists of multiple components including a Title XVI compliant feasibility study, environmental review and preliminary design of an advanced water purification facility and associated distributive infrastructure necessary to support an Indirect Potable Reuse (IPR) program. The key benefit of the GAP is the augmentation of the groundwater supply with a new drought resistant source.

Funding the GAP will build upon a multi-year collaboration between MWD and Montecito Sanitary District (MSD), with the involvement of other potential regional partners to identify the project that maximizes the beneficial reuse of MSD's treated wastewater. This collaboration analyzed various potable and non-potable reuse options including regional partnerships and recommended a regional IPR project involving multiple local and regional public agencies and multiple groundwater basins. This project will provide MWD with a new local drought resistant water source, reducing its reliance on groundwater and increasing groundwater available in storage. Additionally, the project will extend the viability of the groundwater supply for all stakeholders during future drought periods. The advancement of this project is critical for bolstering the reliability of water supplies for Montecito and Summerland, and will lessen the impact future droughts will have on the region.

As the County Supervisor who represents Montecito on the Santa Barbara County Board of Supervisors, I have been advocating for the development of an Indirect Potable Reuse (IPR) program since I was the Assemblymember for the region. I am very grateful for the progress that has been made and strongly urge support of this request so this project can finally come to fruition to the great benefit of our region.

Sincerely,

Das Williams

First District Supervisor

Santa Barbara County

# Appendix C Letter of Commitment

#### **Reliable Since 1921**

583 San Ysidro Road Santa Barbara, CA 93108-2124

Phone: 805.969.2271 Fax: 805.969.7261

**Email:** info@montecitowater.com **Web:** montecitowater.com

MATER DISTRICT

**Board of Directors** Tobe Plough, President

Kenneth Coates, Vice President
Cori Hayman, Director
Floyd Wicks, Director
Brian Goebel, Director

General Manager and Board Secretary Nick Turner

The Honorable Camille Touton Commissioner Bureau of Reclamation 1849 C Street, NW Washington, DC 20240-0001

February 27, 2023

**Subject: WaterSMART Water Recycling and Desalination Planning Grant** 

**Montecito Water District, Groundwater Augmentation Program** 

**Letter of Funding Commitment** 

### Dear Commissioner Touton,

The Montecito Water District (MWD) is pursuing funding through the United States Bureau of Reclamation WaterSMART Recycling and Desalination Planning Grant program for the development of a Groundwater Augmentation Program (GAP). The GAP comprises an Indirect Potable Reuse (IPR) project involving multiple local and regional public agencies and several groundwater basins. The IPR project will provide advanced purification of the Montecito Sanitary District's treated wastewater for injection into the neighboring Carpinteria Groundwater Basin for eventual potable use. Primary benefits of the GAP include a new local drought-resistant water supply for the MWD, and direct and indirect groundwater recharge of both the Carpinteria and Montecito Groundwater Basins.

The Montecito Groundwater Basin Groundwater Sustainability Agency (Montecito GSA), in cooperation with MWD applied to the California Department of Water Resources (DWR) Sustainable Groundwater Management (SGM) Round 2 grant program in December 2022 to partially fund preliminary design, environmental review, and public outreach for the GAP. DWR anticipates grant award announcements in May 2023. If awarded, the funds would be available after an agreement between the Montecito GSA and DWR is executed. Due to significant statewide interest in the DWR SGM Round 2 grant funds, award of the full grant request is uncertain. Therefore, MWD is pursuing other funding opportunities, including a WaterSMART grant.

If the DWR SGM Round 2 grant is awarded to the Montecito GSA for the GAP, these funds will be used to provide a portion of, or the entire non-Federal funding for, the WaterSMART grant. If the DWR SGM Round 2 grant is not awarded, or the award is insufficient to cover the entire non-Federal cost share, MWD will use its unrestricted reserve funds to meet the non-Federal cost share.

MWD's use of unrestricted reserves would occur as part of its normal budget process and require MWD Board of Director approval.

Cinagnaly

General Manager

Cc/:

Tobe Plough, MWD Board President Brian Goebel, Montecito GSA Walt Wendelstein, MWD General Counsel

# Appendix D Mandatory Federal Forms

The following mandatory Federal forms have been submitted separately via grants.gov.

- 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. GG\_LobbyingForm: Certification Regarding Lobbying

# Appendix E Unique Entity Identifier & SAM Registration

The Montecito Water District is registered with SAM. The Unique Entity Identifier is RMZRPJQKV7H5.

## 1.0 Project Budget

## 1.1 Funding Plan and Letters of Funding Commitment

The non-Federal funds for the Project are from MWD and potentially from a DWR grant. The Montecito GSA, in partnership with MWD, submitted a grant request to the DWR Sustainable Groundwater Management (SGM) program in December 2022 to partially fund Project preliminary design, environmental documentation, and public outreach. DWR anticipates grant award announcements in May 2023. The funds would be available after an agreement between the GSA and DWR is executed. The GSA has provided a letter of commitment (see Appendix C in project narrative) to provide the funds for the Project. If the grant is awarded by DWR, the DWR grant funds would reduce MWD's contribution and be used to provide match funding to the Federal cost share. If the grant is not awarded, MWD funds will be used to meet all of the non-Federal cost share. Table 1, Table 3, and Table 4 present required budget tables.

Table 1. Summary of Non-Federal and Federal funding source

Funding Sources	Amount
Non- Federal Entities	
1. Montecito Water District <sup>(1)</sup>	\$1,656,058
Non- Federal Subtotal	\$1,656,058
REQUESTED Reclamation Funding	\$1,000,000

Note 1: MWD submitted a SGM program grant application to DWR in December 2022 to fund this amount. If awarded, the DWR grant would reduce MWD's contribution.

Table 2. Total Project Budget Proposal

Budget Item Description	\$/Unit	Quantity	Quantity Type	Total Cost
Personnel				
AGM/Engineering Manager	\$98	832	Hours	\$81,536
<b>Engineering Assistant</b>	\$44	1284	Hours	\$56,496
<b>Public Information Officer</b>	\$44	208	Hours	\$9,152
Fringe Benefits <sup>1</sup>				
AGM/Engineering Manager	\$39.20	832	Hours	\$32,614
Engineering Assistant	\$17.60	1284	Hours	\$22,598
Public Information Officer	\$17.60	208	Hours	\$3,661
Contractual				
Carollo <sup>(1)</sup>	\$2,400,000	1	Lump Sum	\$2,400,000
WSC	\$50,000	1	Lump Sum	\$50,000
<b>Total Estimated Project Costs</b>				\$2,656,058

Note 1: Based on detailed cost estimate of labor hours and rates for over 20 staff.

**Table 3. Total Project Cost Table** 

Source	Amount
Cost to be reimbursed with the requested Federal funding	\$1,000,000
Cost to be paid by the applicant <sup>(1)</sup>	\$1,656,058
Value of third-party contributions	
TOTAL project cost	\$2,656,058

Note 1: MWD submitted a SGM program grant application to DWR in December 2022 to fund this amount. If awarded, the DWR grant would reduce MWD's contribution.

#### 1.2 Budget Narrative

#### Personnel

Compensation and wages are shown in Table 3. The primary project manager is Adam Kanold, Assistant General Manager/ Engineering Manager. The project manager responsibilities include preparing subcontracts, managing subcontractors, stakeholder coordination, completing reports, and deliverables. The District estimates 832 hours of project management for the GAP over the length of the Project at a rate of \$98/hour or \$137/hour with fringe benefits.

The District's Engineering Assistant is responsible for supporting the project manager. It is estimated that the Engineering Assistant will spend approximately 1284 hours supporting GAP over the length of the Project at a rate of \$44/hour or \$62/hour with fringe benefits.

The District's Public Information Officer (PIO) will lead stakeholder engagement. It is estimated that the PIO will spend approximately 208 hours supporting the GAP over the length of the Project at a rate of \$44/hour or 62/hour with fringe benefits.

#### 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, employee assistance program, and deferred contributions. Rates and calculations are provided in the budget proposal.

#### Travel

Expenses for traveling for project supervision are not included.

#### Equipment

No equipment costs are anticipated for the Project.

#### **Supplies**

No supply costs are anticipated for the Project.

#### Contractual

Contract expenses include planning, feasibility study, public outreach, preliminary design, and environmental documentation. Costs estimates totaling \$2,450,000 were acquired from consultants selected through a competitive Request for Proposal process. The costs are based on experience with similar projects, recent bids, current and foreseeable regulatory requirements, and an understanding of the necessary project components. As the project progresses, the costs could vary from the estimates provided herein.

#### Construction

No construction costs are required for the project.

#### Other

No "other" expenses are anticipated.

#### **Indirect Costs**

Indirect cost rate has not been negotiated for the Project, and therefore not included in the Project budget.

#### **Total Costs**

The total eligible cost of the Project under this NOFO is \$2,656,058. Of this, MWD is committed to a cost share of \$1,656,058. Expenses will be covered directly by MWD and/or from other non-federal funding sources secured for the project.

We respectfully request \$1,000,000 from USBR under this NOFO. This represents 38% of the eligible Federal cost share.

