

## **EXHIBIT 1**

### **FUNDING OPPORTUNITY FOR VOLUNTARY PARTICIPATION IN THE LOWER COLORADO RIVER BASIN CONSERVATION AND EFFICIENCY PROGRAM**



# United States Department of the Interior

BUREAU OF RECLAMATION  
P.O. Box 61470  
Boulder City, NV 89006-1470



IN REPLY REFER TO:

LCB-4000

2.2.4.23

VIA ELECTRONIC & OVERNIGHT MAIL

May 24, 2023

To: Interested Parties

Subject: Funding Opportunity for Voluntary Participation in the Lower Colorado River Basin  
Conservation and Efficiency Program

Greetings:

The purpose of this letter is to follow-up on the announcement by the Secretary of the Interior on September 22, 2022, of the Lower Colorado River Basin System Conservation and Efficiency Program (LC Conservation Program). The Department of the Interior (Department) previously established a first phase of LC Conservation Program for short-term system conservation contributions to Lake Mead, via letter dated October 12, 2022. The purpose of this letter is to request long-term durable system efficiency improvement project proposals that result in water conservation benefiting the lower Colorado River System and its water users.

The LC Conservation Program reflects the commitment made by the Department on August 16, 2022, to address the drought crisis with prompt and responsive actions and investments to ensure the entire Colorado River System (System) can function properly and support all who rely on it. Prolonged drought and low runoff conditions accelerated by climate change have led to historically low water levels in Lakes Powell and Mead. Over the last two decades, Department leaders have engaged with Basin partners on various drought response operations. Given that water levels may continue to decline, additional action is needed to protect the Colorado River System and prevent the reservoirs from falling to critically low elevations, threatening water deliveries and power production. The historic funding committed by the Biden-Harris Administration in the Inflation Reduction Act of August 16, 2022. Public Law 117-169, 136 Stat. 2053. Part 3- Drought Response and Preparedness, Sec 50233 Drought Mitigation In the Reclamation States provides \$4 billion specifically for water management and conservation efforts in the Colorado River Basin and other basins experiencing comparable levels of long-term drought.

The LC Conservation Program is intended to provide new opportunities to fund system conservation and efficiencies in the Lower Colorado River Basin that lead to durable long-term solutions for the Colorado River System. These opportunities shall result in additional volumes of water remaining in Lake Mead. To meet eligibility requirements, the proposal must:

- result in quantifiable, verifiable water savings in Lake Mead that is based on a consumptive use reduction and recent history of use, and/or
- add new water to the applicant's water supply enabling a consumptive use reduction of Colorado River water.
- be submitted by Colorado River water delivery contract or entitlement holders or Central Arizona Project water delivery contract or subcontract holders, including partnerships with such entities (in such cases the entitlement holder will still be the applicant).
- demonstrate viability for full implementation, including by demonstrating financial and technical capability of the entity for initial implementation and long-term Operations, Maintenance and Replacement (OM&R).
- provide for monitoring to ensure the proposed benefits to the system are realized.

Additionally, the Department will consider other factors in the proposal to create a complementary program of projects throughout the Lower Colorado River Basin, including but not limited to the following:

- Amount and duration of water savings for Lake Mead.
- Amount and duration of any other anticipated water savings.
- Cost effectiveness.
- Environmental benefits.
- Innovation in technology or program approach.
- Reducing dependency on Colorado River water.
- Benefits to disadvantaged communities, economic or otherwise.
- Previous participation in existing conservation programs and/or "Bucket 1" of the LC Conservation Program.
- Partnerships.
- Leveraging other sources of funding.
- Addressing the Bureau of Reclamation's legal and contractual obligations or supporting other government initiatives.
- Readiness to proceed and timeliness of benefits achieved.

If you are interested in participating in the LC Conservation Program Efficiency projects, submit your proposal electronically by July 19, 2023, to:

LC Conservation Program Team  
Email: [LCBEfficiency@usbr.gov](mailto:LCBEfficiency@usbr.gov)

To the extent permissible by applicable law all proposals will remain confidential until the plan agreements are executed, thus preserving the competitive nature of the selection process.

Should you have questions regarding the LC Conservation Program, or wish to discuss plan concepts, please contact [LCBEfficiency@usbr.gov](mailto:LCBEfficiency@usbr.gov). Individuals in the United States, who are deaf, deafblind, hard of hearing, or have a speech disability may dial 711 (TTY, TDD, or Tele-Braille) to access telecommunication relay services. Individuals outside the United States should use the relay services offered within their country to make international calls to the point-of-contact in the United States.

Sincerely,

**DAVID**  
**PALUMBO**

Digitally signed by  
DAVID PALUMBO  
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David Palumbo  
Deputy Commissioner for Operations  
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Enclosures (2)  
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cc: Continued from previous page.

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# **— BUREAU OF — RECLAMATION**

## **ENCLOSURE 1**

### **Requirements for Lower Basin System Conservation and Efficiency Project Proposals**

#### **A. Program Objectives**

The Lower Colorado River Basin System Conservation and Efficiency Program (LC Conservation Program) is intended to provide new opportunities for long-term durable system efficiency improvements that result in water conservation benefitting the Lower Colorado River System, and its water users. The Bureau of Reclamation is requesting proposals describing Lower Colorado River Basin long-term durable system efficiency projects that meet the following objectives:

- Results in quantifiable and verifiable reductions in consumptive use of Colorado River water having a recent history of use, resulting in additional volumes of water remaining in Lake Mead.
- Demonstrates viability for full implementation of the funded projects, including by demonstrating financial and technical capability of the entity for initial implementation and long-term Operations, Maintenance and Replacement (OM&R).
- Monitors implementation to ensure the proposed benefits to the system are realized.

#### **B. Eligible Projects**

Colorado River water delivery contract or entitlement holders and Central Arizona Project (CAP) water delivery contract or sub-contract holders, including partnerships with such entities, are eligible to apply. In the case of partnership proposals, the entitlement holder must be the applicant. The conserved Colorado River System water will not accrue to the benefit or use of any individual Colorado River water user.

Funding will be for project implementation, not OM&R. Project implementation can include planning and environmental compliance costs.

Projects must comply with all relevant laws, regulations and policies.

Types of projects that might be eligible include, *but are not limited to*:

- Projects that line canals, including projects that rehabilitate aging or functionally compromised water conveyance systems.
- Agricultural upgrades and innovations, whether in technology or management.
- Urban water efficiency projects.
- Non-functional turf replacement.
- Water storage projects that allow for operational flexibilities or capturing new sources of water i.e., re-regulating reservoirs or basins.
- New technology, or existing technology used in new ways.
- Creative approaches to water markets, auctions, and/or crop switching with verifiable water savings.

In addition to traditional projects, innovation is encouraged.

### **C. Proposal Requirements**

The LC Conservation Program proposals must include the following information:

- Project description.
- Location within the Colorado River Basin.
- The estimated amount of Colorado River System water to be conserved per year and over the life of the proposed plan.
  - Please describe how System water conserved is based on a recent history of use (not entitlement).
- Methodology for estimated consumptive use reduction and supporting information that documents the estimate.
- Description of how the proponent will verify and document the consumptive use reduction on an annual or more frequent basis, as appropriate.
- Amount of time required before system conservation begins to be stored in Lake Mead, and the duration of that benefit.
- Total amount of project cost.
- Project Budget.
- Estimated cost per acre-foot of conserved water (on either an annual basis or other proposed period of plan operation) and economic explanation of the proposed cost.
- Complete description of how the proposed plan will ensure that the amount of conserved water to remain in Lake Mead will not be ordered by other entitlement holder(s), for example, through third party consents or forbearance agreements.
- Any additional information deemed helpful to explain and aid understanding of the proposal.



- Please flag any trade secrets and financial information that should be kept private, should proposals be made available to the public.
- Please note whether you have previously participated in existing conservation programs and/or “Bucket 1” of the Lower Colorado Basin System Conservation and Efficiency Program.

Proposals should be submitted electronically to [LCBEfficiency@usbr.gov](mailto:LCBEfficiency@usbr.gov) no later than July 19, 2023.

## **D. Technical Proposal Considerations**

Address each of the applicable considerations and sub-considerations in the order presented to assist in the complete and accurate evaluation of the proposal. Proposals should clearly demonstrate how the project will accomplish the Program Objectives listed in Section A.

### **Consideration A – Quantifiable Water Savings**

#### **1) Describe the anticipated consumptive use reduction.**

For projects that will conserve Colorado River water, please state the estimated amount of water expected to be conserved in Lake Mead as a direct result of this project, and the quantification methodology.

- Please include a specific quantifiable water savings estimate.
- Please specify the anticipated savings in acre-feet per year to remain in Lake Mead as a result of this conservation. Include annual (acre-feet per year) as well as total savings. (Note: if cost-shared, also include the total amount of Colorado River water conserved in acre-feet.)
- Please specify the period of years for which the proposal will create annual system conservation in Lake Mead.

If savings are expressed as a range, please explain the basis for the variability.

#### **2) Describe whether this activity would impact any downstream users.**

#### **3) Describe how the reduction in consumptive use will be verified.**

Explain what documentation will be provided to Reclamation to verify the reduction in consumptive use on an annual or more frequent basis.

#### **4) Innovation in technology or project approach.**

If the project includes an innovation in technology or project approach, please explain the extent to which it is innovative and will advance knowledge to support other water conservation and system efficiency projects. Consider the following:

- Describe the impact of the proposed work on other water conservation and system efficiency projects and/or currently used technologies. The impact can be

measured by the promise of a solution, the problem being addressed, the likelihood for improving the efficiency of water use, and replicability within the Basin.

- b. Clearly state the problem being solved, how the proposed approach differs from current solutions, potential challenges that will be faced throughout the project, and mitigation strategies for these challenges.
- c. Describe prior research on the proposed technology or process and how this prior work supports the need for the proposed project.

**5) Reduces dependency on Colorado River water.**

If the project will increase the resilience of the Colorado River System through reduced dependence on the River as a source of supply, please explain how this will occur.

**Consideration B – Economic and Environmental Benefits**

**Sub-consideration B1- Cost Effectiveness**

The cost per acre-foot of water expected to be conserved in Lake Mead. Please use costs related to the entire Project, not just an individual phase to be constructed. Costs should be provided for the entire Project described in the proposal.

Reclamation will calculate the cost per acre-foot of water produced by the Project using information provided by the Project sponsor(s).

Please provide the following information for this calculation:

- (a) The total estimated construction costs, by year, for the Project (include all previous and planned work) as shown in Table 1.

**Table 1. Estimated Construction Costs by Year**

Calendar Year	Construction Cost
1.	
2.	
3.	
4.	
5.	

Calendar Year	Construction Cost
6.	
7.	
8.	
9.	
10.	

- (b) The total estimated or actual costs to plan and design the Project.

- (c) The year the Project will begin to conserve water.
- (d) The projected life (in years) that the project is expected to last.
- (e) The projected time (in years) that the project is expected to conserve water in Lake Mead. Note: The time the project is expected to conserve water should be measured from the time the Project starts conserving water until water is no longer committed to being conserved in Lake Mead.
- (f) Please specify the anticipated savings in acre-feet per year to remain in Lake Mead upon completion of the Project. Include annual (acre-feet per year) as well as total savings. This volume of water must correspond to the costs provided above. If costs are only provided for a portion of the project, then only the water produced by that same portion or phase of the project will be considered.

### **Sub-consideration No. B2—Environmental Benefits**

Does the project provide environmental benefits (for example, ecosystem benefits or benefits to habitat or species), or is it a single purpose activity?

- If the project provides one or both benefits, please describe.
- Provide a qualitative discussion of the economic impact of these benefits.
- Will the project provide water or habitat for Federally listed threatened or endangered species? If so, how?

### **Consideration C – Disadvantaged Communities**

EO 14008 and EO 13985 affirm the advancement of environmental justice and equity for all through the development and funding of programs to invest in disadvantaged or underserved communities. Does the project provide benefits to at least one disadvantaged community? If so, explain and discuss to what extent the project serves disadvantaged communities, and would advance the goal set in EO 14008 for the President's historic Justice40 Initiative that 40% of the overall benefits of certain federal investments flow to such communities. Geographically defined disadvantaged communities should be identified using the Climate and Economic Justice Screening Tool (CEJST) available at <https://screeningtool.geoplatform.gov/>.<sup>1</sup>

The CEJST, established pursuant to EO 14008, is a geospatial mapping tool that identifies areas across the nation where communities are faced with significant burdens. These burdens are organized into eight categories: climate change, energy, health, housing, legacy pollution, transportation, water and wastewater, and workforce development.

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<sup>1</sup> See M-23-09 for additional information on identifying disadvantaged communities (which may also be geographically dispersed not just geographically defined, and which include Federally Recognized Tribal entities, whether or not they have land).

Each burden is ranked using percentage thresholds or yes/no indicators and based on this methodology, communities are considered disadvantaged: if it is in a census tract that is (1) at or above the threshold for one or more environmental, climate, or other burdens, and (2) at or above the threshold for an associated socioeconomic burden. In addition, a census tract that is completely surrounded by disadvantaged communities and is at or above the 50% percentile for low income is also considered disadvantaged. Federally Recognized Tribes, including Alaska Native Villages, are also considered disadvantaged communities.

If the project benefits disadvantaged communities as identified by the CEJST or geographically dispersed disadvantaged communities, please describe in detail how this project benefits those communities. Benefits can include, but are not limited to, economic growth opportunities and public health and safety.

#### **Consideration D – Cost-sharing/Partnerships/Obligations**

The extent to which the proposed project demonstrates collaborative partnerships and leverages other funding sources. Reclamation will evaluate the benefits of projects based on the cost per acre-foot of system water generated and on the non-federal share of the cost (after excluding the federal funds provided from all sources), while seeking economic parity in investments as appropriate.

- Projects are encouraged to leverage multiple sources of funding through self-funding or in partnership with others (stakeholders, Federal agencies, and/or state agencies).
  - Projects are encouraged to be developed in partnership with other community members, such as Tribes, water users, power contractors, non-governmental organizations, industry, and other stakeholders.
1. **Please describe the partnerships involved in the proposal.** Does the project promote collaborative partnerships to address system conservation? Explain.
  2. **If the project includes cost-sharing, please indicate the federal vs. non-federal portion of the costs.**
  3. **Does the project help address Bureau of Reclamation's legal and contractual obligations, or support other governmental initiatives?**
    - a. Beyond the water conserved in Lake Mead, does the project help fulfill any of Reclamation's legal or contractual obligations such as providing water for Tribes, water rights settlements, river restoration, minimum flows, court orders, or other obligations? Explain.
    - b. Does the project implement a regional or state water plan or an integrated resource management plan? Explain.

#### **Consideration E – Readiness to Proceed**

The extent to which the proposed project is capable of proceeding upon entering into an agreement. Applications that include a detailed project implementation plan (e.g., estimated

project schedule that shows the stages and duration of the proposed work, including major tasks, milestones, and dates) will receive the greatest consideration under this element.

1. Identify and provide a summary description of the tasks necessary to complete the project. This section should focus on a summary of the major tasks to be accomplished as part of the project.
2. Describe any permits or other administrative approvals that will be required, along with the process for obtaining such.
3. Identify and describe any engineering or design work performed specifically in support of the proposed project.
4. Please also include an estimated project schedule that shows the stages and duration of the proposed work, including major tasks, milestones, and dates. Milestones may include, but are not limited to, the following: complete environmental and cultural compliance; mobilization; begin construction/installation; construction/installation (50% complete); and construction/installation (100% complete).
5. Timing for implementation.
6. Indicate whether your project can be phased, replicated elsewhere, or scaled depending on available funding.

## **E. Federal Award Information**

**E.1 Water Contracts Information:** Participants will be required to execute a System Conservation Implementation Agreement (SCIA) with Reclamation containing terms and conditions for the design, implementation, monitoring, evaluation of the LC Conservation Program plan, and compensation to the entitlement holder proposing the plan, and setting forth the obligations of the parties. By entering into a SCIA, the participant grants access to Reclamation to perform periodic on-site inspections of the system conservation project. Participants must be in compliance with all applicable Federal, State, and local environmental, cultural, and paleontological resource protection laws and regulations throughout the term of the SCIA. Reclamation's annual *Colorado River Accounting and Water Use Report: Arizona, California, and Nevada* will serve as the basis for documenting the amount of system conservation achieved under the LC Conservation Program.

### **E.2 Financial Assistance Agreement Information:**

#### **E.2.1. Register with the System for Award Management (SAM)**

Register on the [www.SAM.gov](http://www.SAM.gov) website. The "Help" tab on the website contains User Guides and other information to assist you with registration. Grants.gov also provides detailed instructions. You can also contact the supporting Federal Service Desk for help registering in SAM. Once registered in SAM, entities must renew and revalidate their SAM registration at least once every 12 months from the date previously registered. Entities are strongly encouraged to revalidate their registration as often as needed to ensure their information is up to date and reflects changes that may have been made to the entity's IRS information.

**There is no cost to register with SAM.gov.** There are third-party vendors who will charge a fee in exchange for registering entities with SAM.gov; **please be aware you can register and request help for free.**

#### **E.2.2. Obtain a UEI Number**

You are required to register in SAM.gov prior to submitting a Federal award application and obtain a Unique Entity Identifier (UEI). A UEI will be assigned to entities upon registering with SAM.

Note: Reclamation will not make a Federal award to an applicant until the applicant has complied with all applicable UEI and SAM requirements and, if an applicant has not fully complied with the requirements by the time the Reclamation is ready to make an award, Reclamation may determine that the applicant is not qualified to receive a Federal award and use that determination as a basis for making a Federal award to another applicant.

#### **E.2.3. Administrative and National Policy Requirements**

See the “DOI Standard Terms and Conditions” at <https://www.doi.gov/grants/doi-standard-terms-and-conditions> for the administrative and national policy requirements applicable to Department of the Interior awards.

#### **E.2.4. Automated Standard Application for Payments Registration**

All applicants must also be registered with and willing to process all payments through the Department of Treasury Automated Standard Application for Payments (ASAP) system. All recipients with active financial assistance agreements with Reclamation must be enrolled in ASAP under the appropriate Agency Location Code(s) and the DUNS Number prior to the award of funds. If a recipient has multiple DUNS numbers, they must separately enroll within ASAP for each unique DUNS Number and/or Agency. All of the information on the enrollment process for recipients, including the enrollment initiation form, will be sent to you by ASAP staff if selected for award.

Note that if your entity is currently enrolled in the ASAP system with an agency other than Reclamation, you must enroll specifically with Reclamation in order to process payments.

## **F. Environmental Compliance Information**

### **F.1 Environmental and Cultural Resources Compliance**

All Projects being considered for award funding will require compliance with NEPA before any ground-disturbing activity may begin. Compliance with all applicable Federal, state, and local environmental, cultural, and paleontological resource protection laws and regulations is also required. These may include, but are not limited to, the CWA, ESA, NHPA; consultation with potentially affected Tribes; and consultation with the State Historic Preservation Office.

All projects must meet Reclamation requirements for NEPA compliance and will be

responsible for evaluating technical information and ensuring that natural resources, cultural, and socioeconomic concerns are appropriately addressed. Reclamation is solely responsible for determining the appropriate level of NEPA compliance. Further, Reclamation is responsible to ensure that findings under NEPA, and consultations, as appropriate, will support Reclamation's decision on whether to fund a project.

Where environmental or cultural resources compliance requires significant participation by Reclamation, some costs anticipated to be incurred by Reclamation may be added as a line item to the budget during development of the financial assistance agreement and cost shared accordingly. Any costs to the recipient associated with compliance will be identified during the process of developing a final project budget for inclusion in the financial assistance agreement. A portion of Reclamation's estimated cost to complete environmental and cultural compliance activities may be withheld from the initial obligation of Federal funding. After compliance activities are completed, any remaining Federal funding will be obligated to the Agreement.

**Note, if mitigation is required to lessen environmental impacts, the applicant may, at Reclamation's discretion, be required to report on progress and completion of these commitments. Reclamation will coordinate with the applicant to establish reporting requirements and intervals accordingly.**

*Under no circumstances may an applicant begin any ground-disturbing activities (e.g., grading, clearing, and other preliminary activities) on a Project before environmental and cultural resources compliance is complete, and Reclamation explicitly authorizes work to proceed. This pertains to all components of the proposed Project, including those that are part of the applicant's non-Federal cost share. Reclamation will provide a successful applicant with information once such compliance is complete. An applicant that proceeds before environmental and cultural resources compliance is complete may risk forfeiting Reclamation funding under this solicitation.*

## **F.2 Environmental and Cultural Resources Considerations**

To allow Reclamation to assess the probable environmental and cultural resources impacts and costs associated with each application, all applicants must respond to the following list of questions focusing on NEPA, ESA, and NHPA requirements. Applicants are to answer the following questions to the best of their knowledge. If any question is not applicable to the project, please explain why. The application should include the answers to the following questions.

- Will the proposed project impact the surrounding environment (e.g., soil [dust], air, water [quality and quantity], animal habitat)? Please briefly describe all earth-disturbing work and any work that will affect the air, water, or animal habitat in the project area. Please also explain the impacts of such work on the surrounding environment and any steps that could be taken to minimize the impacts.
- Is the applicant aware of any species listed or proposed to be listed as a Federal threatened or endangered species, or designated critical habitat in the project area? If so, would they be affected by any activities associated with the proposed project?

- Are there wetlands or other surface waters inside the project boundaries that potentially fall under CWA jurisdiction as “Waters of the United States?” If so, please describe and estimate any impacts the proposed project may have, and any proposed mitigation.
- If the project involves work on an existing asset, when was that asset constructed?
- Will the proposed project result in any modification of or effects to, individual features of an irrigation system (e.g., headgates, canals, or flumes)? If so, state when those features were constructed and describe the nature and timing of any extensive alterations or modifications to those features completed previously.
- Are any buildings, structures, or features in the irrigation district listed or eligible for listing on the National Register of Historic Places? A cultural resources specialist at the applicant’s local Reclamation office or the State Historic Preservation Office can assist in answering this question.
- Are there any known archeological sites in the proposed project area?
- Will the proposed project have a disproportionate and adverse effect on communities with environmental justice concerns?
- Will the proposed project limit access to and ceremonial use of Indian sacred sites or result in other impacts on tribal lands?
- Will the proposed project contribute to the introduction, continued existence, or spread of noxious weeds or non-native invasive species known to occur in the area?
- Will the proposed project contribute to the introduction, continued existence, or spread of noxious weeds or non-native invasive species known to occur in the area?

## **G. Project Proposal Template**

This template is suggested for the project proposal. If the application is done in a different format, all the requested information must still be provided.

### **Application Format and Length**

The total template (defined below) shall be limited to a maximum of 25 consecutively numbered pages. If the submission requires information that will exceed 25 pages, please contact the LCB Conservation Team at [LCBEfficiency@usbr.gov](mailto:LCBEfficiency@usbr.gov) to request an exemption to this requirement. The font shall be at least 12 points in size and easily readable. Page size shall be 8½ by 11 inches, including charts, maps, and drawings. Margins should be standard 1-inch margins. Oversized pages will not be accepted.

You may submit supplementary materials if needed.



Note: Please flag any trade secrets and financial information that should be kept private, should proposals be made available to the public.

## **Application Template**

Title of Proposed Activity:

Submitting Entity:

- Please note whether the Submitting Entity has previously participated in existing conservation programs and/or “Bucket 1” of the Lower Colorado Basin System Conservation and Efficiency Program.

Proposed Project Location:

Background: Provide a general description of the proposed activity as it relates to long-term system conservation and efficiency and the anticipated benefits to be realized by the Colorado River System.

- a. Technical Project Description: Describe the project in its entirety. This section shall have sufficient detail to permit a comprehensive evaluation of the proposal. Clearly indicate how the proposal will reduce demand on the Colorado River System.
- b. Conservation Description: Describe the amount of Colorado River System water to be conserved per year and over the life of the proposed project. Please describe how the system water conserved is based on a history of use (not entitlement). Provide an estimated cost per acre-foot of the conserved water (either on an annual basis or other proposed period of plan operation). Please include the following:
  1. The methodology for the estimated consumptive use reduction and an economic explanation of the proposed cost. Provide supporting information.
  2. Description of how the proponent will verify and document the consumptive use reduction on an annual or more frequent basis, as appropriate.
  3. The amount of time required before system conservation begins to be stored in Lake Mead, and the duration of that benefit.
  4. Complete description of how the proposed plan will ensure that the amount of conserved water to remain in Lake Mead will not be ordered by other entitlement holder(s), for example, through third party consents or forbearance agreements.
  5. Any additional information deemed helpful to explain and aid understanding of the proposal.
- c. Technical Proposal Considerations: Address each of the applicable considerations and sub-considerations in the order presented. See Section D. Technical Proposal Considerations for the information requested in response to the considerations and sub-considerations.

1. Consideration A – Quantifiable Water Savings
  2. Consideration B – Economic and Environmental Benefits
    - i. Sub-consideration B1 – Cost Effectiveness
    - ii. Sub-consideration B2 – Environmental Benefits
  3. Consideration C – Disadvantaged Communities
  4. Consideration D – Cost-sharing/Partnerships/Obligations
  5. Consideration E – Readiness to Proceed
- d. Environmental and Cultural Resources Considerations: Response to questions in Section F.2
- e. Financial Capability: Reclamation will execute a financial assistance agreement once Reclamation determines that there is sufficient evidence and likelihood that non-Federal funds will be available for initial implementation and long-term Operations, Maintenance and Replacement (OM&R). Please provide the following information:
1. The average annual operation and maintenance costs for the life of the Project. Please do not include periodic replacement costs in the operation and maintenance costs. Periodic replacement costs should be provided separately in response to Request (f) below. Note: This is an annual cost—not total cost.
  2. All estimated replacement costs by year as shown in Table 2. If there are multiple replacement costs in one year, or at the same interval, please total them and put them on one line with the estimated year or interval of the replacement.

**Table 2. Replacement Costs by Year**

Description of Replacement Requirement	Year	Cost
1.		
2.		
3.		
4.		
5.		
6.		
7.		

- f. Project Budget Description: Describe the proposed budget for the total project cost, and provide a budget table similar to the example below.
1. Please include a summary of the sources of all financial contributions and “in-kind” services to be applied toward the proposed activity. The budget proposal should include detailed information on the categories listed below, as seen in the example in Table 3. It is also strongly advised that applicants use the budget proposal format shown in Table 4 or a similar format that provides this information. If selected for award, successful applicants must submit detailed supporting documentation for all budgeted costs.

**Table 3. Budget Table Example**

Budget Item Description	Computation \$/UNIT	QUANTITY	Recipient FUNDING (if cost share)	Reclamation FUNDING	Total COST
<b>SALARIES AND WAGES</b>					
Supervisor	\$50/hr.	50	\$2,500	\$0	\$2,500
Labor	\$25/hr.	100	\$2,500	\$0	\$2,500
<b>FRINGE BENEFITS</b>	20%		\$1,000	\$0	\$1,000
<b>TRAVEL</b>				\$0	\$0
<b>EQUIPMENT USE</b>					
Pickups	\$.50/mi.	1000	\$500		\$500
<b>SUPPLIES/MATERIALS</b>					
Meters	\$1,500/ea	5		\$7,500	\$7,500
12" Open propeller flow meter	\$1,400/ea	2		\$2,800	\$2,800
<b>CONTRACTUAL</b>					
Engineering Consultant	\$5,000/LS	1	\$0	\$5,000	\$5,000
Environmental Mitigation	\$2,000/LS	1	\$0	\$2,000	\$2,000
<b>OTHER</b>					
Environment/Regulatory Compliance	\$2,000/LS	1	\$2,000	\$0	\$2,000
<b>TOTAL DIRECT COSTS</b>			\$8,500	\$17,300	\$25,800
<b>INDIRECT COST</b> (See attached rate approval)	35%		\$2,100	\$0	\$2,100
<b>TOTAL PROJECT COSTS</b>			\$10,600	\$17,300	\$27,900

**Table 4. Sample Budget Proposal Format**

Budget Item Description	Computation		Quantity Type	Recipient Funding (if cost shared)	Reclamation Funding	Total Cost
	\$/Unit	Quantity				
Salaries and Wages						
Employee 1						\$
Employee 2						\$
Employee 3						\$
Fringe Benefits						
Full-Time Employees						\$
Part-Time Employees						\$
Travel						
Trip 1						\$
Trip 2						\$
Equipment						
Item A						\$
Item B						\$
Supplies and Materials						
Item A						\$
Item B						\$
Contractual/Construction						
Contractor A						\$
Contractor B						\$
Other						
Other						\$
Total Direct Costs						\$
Indirect Costs						
Type of rate	percentage	\$base				\$
Total Estimated Project Costs						\$

**Enclosure 2**  
Eligible Lower Colorado Basin Entitlement Holders

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P.O. Box 1976  
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Timothy Williams  
Chairman  
Fort Mojave Indian Tribe  
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Amelia Flores  
Chairwoman  
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Commissioner  
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Phoenix, AZ 85007

Ty E. Gray  
Director  
Arizona Game and Fish Department  
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Managers  
Beattie Farms Southwest  
3025 Northwest Firwood Place  
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City Manager  
City of Bullhead City  
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Phoenix, AZ 85080-3020

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**Enclosure 2**  
Eligible Lower Colorado Basin Entitlement Holders

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Elston K. Grubaugh  
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**Enclosure 2**  
Eligible Lower Colorado Basin Entitlement Holders

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Chairwoman  
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Chairman  
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Kasey Velasquez  
Chairman  
White Mountain Apache Tribe  
P.O. Box 700  
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Calvin Johnson  
Chairman  
Tonto Apache Tribe  
Tonto Apache Tribe Reservation No. 30  
Payson, AZ 85541

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President  
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Prescott, AZ 86301

Robert Miguel  
Chairman  
Ak-Chin Indian Community  
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Governor  
Gila River Indian Community  
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Ned Norris Jr.  
Chairman  
Tohono O'odham Nation  
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## **EXHIBIT 2**

### **WRP4 EXPANSION PROJECT**



WATER  
RECLAMATION  
PLANT 4  
RECYCLED  
WATER  
IMPROVEMENT  
PROJECT  
Lower Colorado  
River Basin  
Conservation and  
Efficiency Program  
Proposal

9665 Chesapeake Drive | Suite 320

San Diego, California 92123

858.875.7400

[woodardcurran.com](http://woodardcurran.com)

0012329.04

**Coachella Valley  
Water District**

July 3, 2023

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**Title of Proposed Activity:** Water Reclamation Plant 4 Recycled Water Improvement Project

**Submitting Entity:** Coachella Valley Water District

**Previous Participation in Conservation Programs**

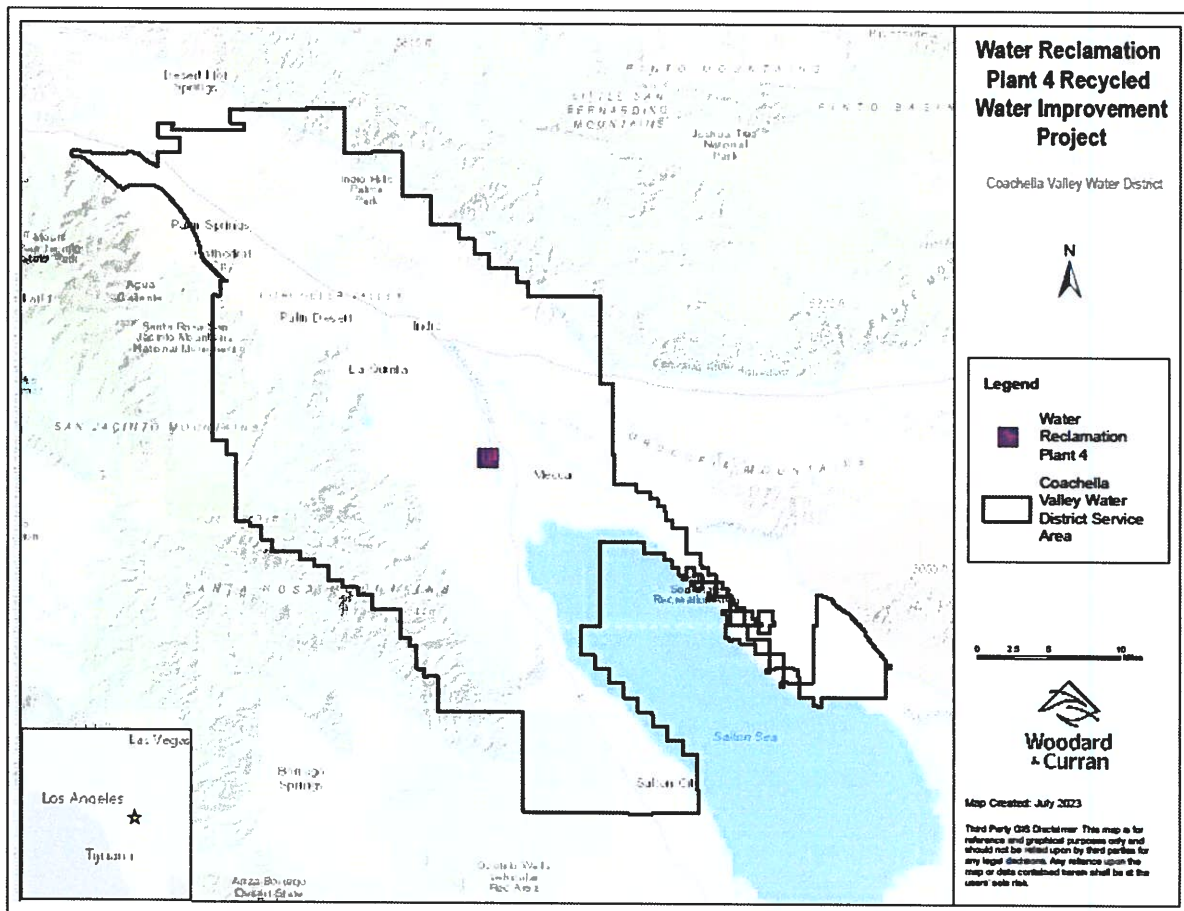
Coachella Valley Water District (CVWD) has previously been awarded a U.S. Bureau of Reclamation (Reclamation) WaterSMART Water and Energy Efficiency Grant (WEEG) and participated in "Bucket 1" of the Lower Colorado Basin System Conservation and Efficiency Program.

**Proposed Project Location**

The Water Reclamation Plant 4 (WRP-4) Recycled Water Improvement Project (Project) will be completed at the WRP-4 site in Thermal, California.

## BACKGROUND

The Coachella Valley Water District (CVWD) is located in the Coachella Valley mostly in Riverside County, California. The CVWD service area is approximately 130 miles east of Los Angeles and 140 miles northeast of San Diego. A map of CVWD's service area is included below in **Figure 1**.



**FIGURE 1 COACHELLA VALLEY WATER DISTRICT SERVICE AREA**

CVWD is responsible for seven water-related services in the Coachella Valley including domestic and stormwater. CVWD provides wastewater collection and treatment to a service area encompassing approximately 885 square miles of land and serving a population of about 300,000 people. CVWD relies on four sources of water to provide

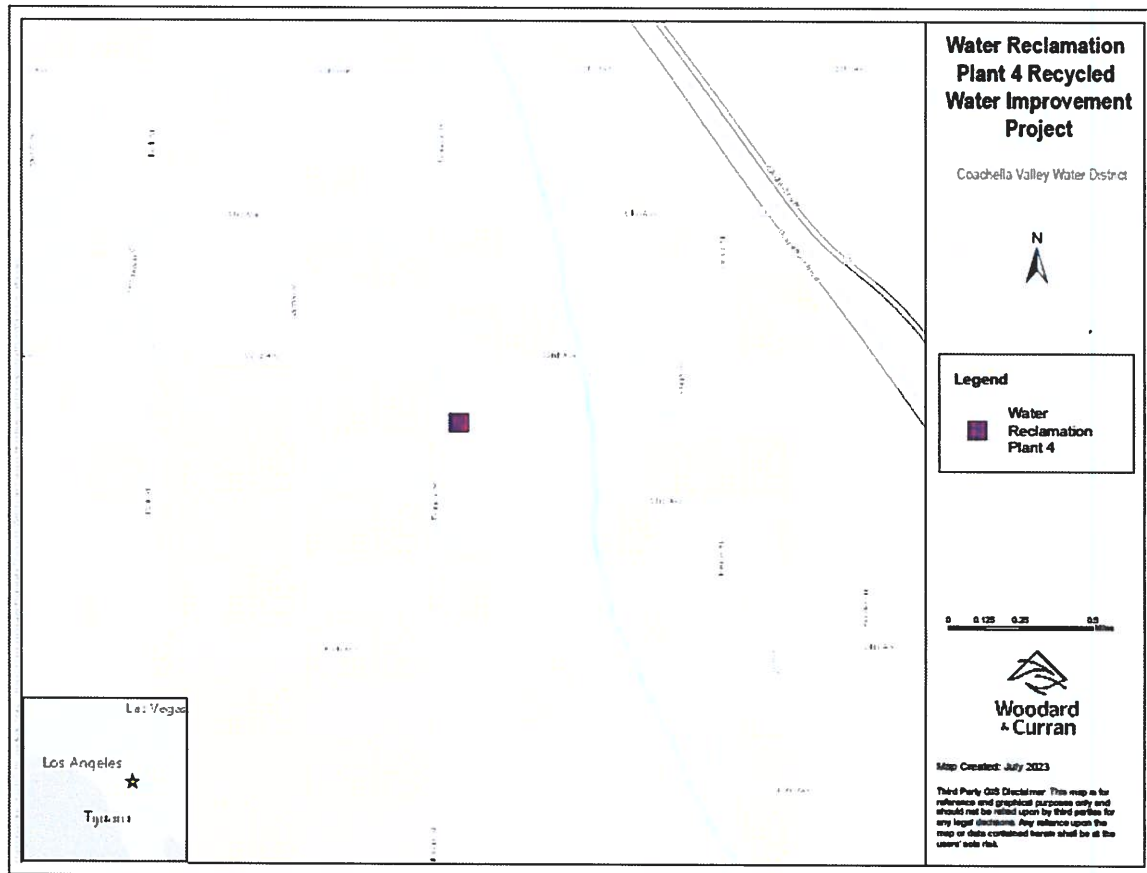
service to its customers: groundwater, recycled water, imported water from the State Water Project and the Colorado River via the Coachella Canal.

The Coachella Valley's farmland is among the largest crop-growing regions in the state, renowned for its dates, citrus, grapes, and bell peppers. More than 2/3 of local farmland is irrigated in part with Colorado River water delivered via the Coachella Canal (Canal), a branch of the All-American Canal. Via the 123-mile Canal and its underground water delivery system, CVWD delivers approximately 338,000 acre-feet annually of imported water to users.

Initially, water delivered from the canal was used exclusively by agriculture, however as residential growth moved into the eastern valley, other water users, primarily golf courses and homeowner associations, began using Colorado River water for large landscape irrigation. The use of canal water for non-potable purposes helps conserve the valley's groundwater supply for domestic use.

Water imported via the Coachella Canal is also used at two groundwater replenishment facilities that benefit the Coachella Valley's aquifer. CVWD also replenishes groundwater at two other groundwater replenishment sites with Colorado River water via the Colorado River Aqueduct. This water is State Water Project exchange water.

This project, a recycled water expansion at Water Reclamation Plant 4 (WRP-4) is intended to serve agricultural users in the vicinity of WRP-4 as well as other landscape irrigation customers. A map showing the WRP-4 project location is included below in **Figure 2**.



**FIGURE 2 WRP-4 RECYCLED WATER IMPROVEMENT PROJECT LOCATION**

The use of recycled water will allow for the conservation of local groundwater and imported Colorado River water, thereby protecting these sources. The project aligns with the Indio Subbasin Water Management Plan (2021), which is the latest update to the Sustainable Groundwater Management Act (SGMA) Alternative Plan approved by the California Department of Water Resources (DWR). The Project and CVWD's use of recycled water are consistent with the State's Recycled Water Policy and has multiple benefits including reducing pollutant discharges to receiving waters, conservation of local groundwater and imported Colorado River water, and sustainable groundwater management to avoid undesirable results (e.g., chronic lowering of groundwater levels, groundwater storage depletion, seawater intrusion, degraded water quality, land subsidence, and depletion of interconnected surface water).

The Project will design and construct a 1 million gallon per day (MGD) tertiary facility to deliver a blend of recycled water and Canal water to three large agricultural customers south of WRP-4 located on the downstream end of Irrigation Lateral 99.8-0.51 (approximately 480 acres). Treatment will consist of a 1 MGD packaged cloth disk filtration plant with onsite infrastructure expandable to 2.5 MGD. Customers currently irrigate using canal water, averaging Canal water usage ranging from 0.7 MGD to 2.7 MGD. Lateral 99.8-0.51 would be severed and redirected to a new reservoir serving a regulatory basin within WRP-4. Blended Canal and recycled water would be delivered to customers from this reservoir and will discharge into the downstream side of the severed lateral to a box stand located south of Avenue 64 on Fillmore Street.

The Project is being designed so that it may be expanded with the ultimate goal being zero discharge at this facility. There are two additional proposed phases that consist of the following: (1) construction of additional equipment to treat up to 2.5 MGD of tertiary treated water with onsite infrastructure expandable to 9.9 MGD and expanding the distribution system to serve 2.5 MGD; and (2) incorporating additional equipment to treat up to 9.9 MGD with no additional on-site infrastructure; however, it will require expansion of the distribution system to serve 10 MGD.

Once constructed, the Project will result in the production of 1 MGD or approximately 1,120 acre-feet per year (AFY) in available recycled water. The recycled water will replace Canal water that currently supplies irrigation customers around WRP-4. The Canal water that is saved will be stored in Lake Mead. The Project will meter the amount of recycled water that is delivered to confirm the anticipated savings. The Project will have a useful life of 30 years and will conserve approximately 33,600 AF in the Colorado River System.

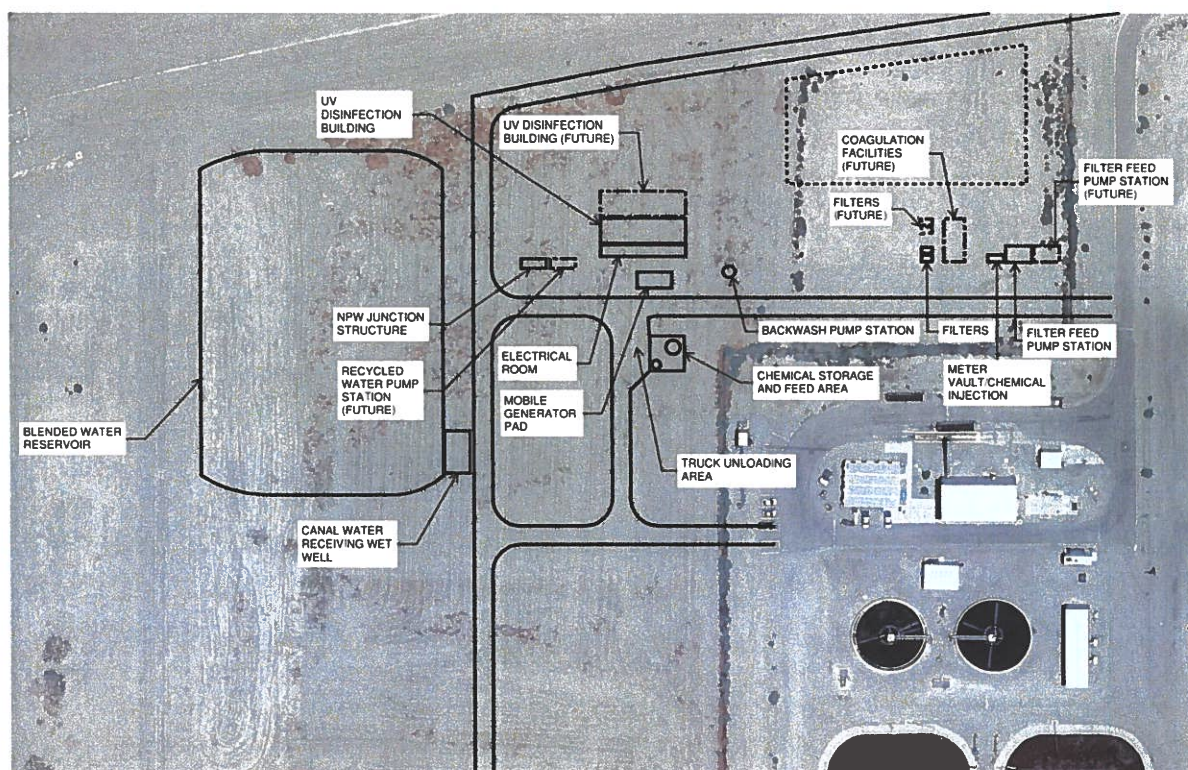
In 2022, CVWD engineering completed several alternatives analyses and the Project design and has begun environmental review. The proposed project is being designed so that the infrastructure is expandable over time as future customers are identified.

CVWD is requesting \$39,000,000 (\$39 M) from the Lower Colorado River Basin Conservation and Efficiency Program to fund the construction of the Project, which will result in a cost of \$1,161/AF.



## TECHNICAL PROJECT DESCRIPTION

The Project is currently at 30% design and an Environmental Impact Report is underway. The Project will construct a 1 MGD tertiary facility at the WRP-4 site and distribution pipelines to provide recycled water to three large agricultural CVWD customers in the vicinity of the WRP-4. The tertiary facility will include the construction of a new blended water reservoir, filter feed pump station, cloth disc filters, ultraviolet (UV) disinfection building, non-potable water (NPW) junction structure, chemical storage and feed, and electrical room. Each component is detailed further below and a preliminary site layout is included in **Figure 3**.



**FIGURE 3 PRELIMINARY SITE LAYOUT**

## BLENDED WATER RESERVOIR

The blended water reservoir will have a 5 MG storage bladder. Piping and valving will be connected to the NPW junction structure. The reservoir will also be connected to the Canal water receiving wet well through Lateral 99.8-0.51.

## FILTER FEED PUMP STATION

One duty pump and one standby pump will be installed, with 870 gallons per minute (GPM) capacity equaling 2.5 MGD total.

## CLOTH DISC FILTERS

One duty and one standby cloth disc filter unit will be installed with tank isolation valves, aluminum tank covers, and 2 backwash pumps. Each unit will have 2 discs. Currently available package units include membrane bioreactor, microfiltration, ultrafiltration, reverse osmosis systems. A system has not been selected yet, but that selection will be made in the planning process. The cloth disc filters will include free-standing tanks with backwash skid and control panels.

## UV DISINFECTION BUILDING

A UV concrete masonry unit (CMU) disinfection building will be constructed with one duty and one standby channel with 3 banks per channel and channel isolation gates. Building construction will include electrical and programmable logic controller (PLC) installation. The building will connect to filter effluent and the NPW junction structure.

## NPW JUNCTION STRUCTURE

The NPW junction structure construction will include motorized isolation gates, gravity connection to the downstream side of lateral 99.8-0.51, and an equalization pipe between the NPW junction structure and the blended water reservoir.

## CHEMICAL STORAGE AND FEED

Two storage tanks will be constructed, one for sodium hypochlorite and one for aluminum sulfate. The sodium hypochlorite tank will have a capacity of 1,740 gallons and have a 15-day storage and the aluminum sulfate tank will have a capacity of 735 gallons and 30-day storage. Each tank will have a peristaltic pump (one duty and one standby). Sodium hypochlorite doses will be used in the tertiary filters influent, UV disinfection, and the

NPW junction structure. Aluminum sulfate doses will be used at the upstream tertiary filters.

#### ELECTRICAL ROOM

A CMU MCC-1 electrical room will be attached to the UV disinfection building. The electrical room will have new variable-frequency drives (VFDs) and buckets for the pumps, filters, UV, and chemical systems. PLCs will be installed along with a fire suppression system and HVAC. The electrical room will also include a mobile generator.

## CONSERVATION DESCRIPTION

Once constructed the Project will provide recycled water in lieu of additional Canal or groundwater, reducing the need for further importing of Canal water from the Colorado River. The Project will result in a direct offset of Colorado River water. CVWD will ensure that the water is conserved through standard water service agreements with its customers, which will require the use of recycled water in lieu of water delivered via the Canal.

The Project will produce an estimated 1,120 AFY of recycled water, conserving 33,600 AF of Colorado River water over the 30-year useful life of the infrastructure. The Project will replace Canal water currently being delivered to irrigation customers around WRP-4 with newly produced recycled water. The Canal water saved will be stored in Lake Mead and metered to confirm water savings. This will result in a cost of \$1,161/AF. Water savings to Lake Mead can be realized as soon as 2029 when construction is slated to complete.

## TECHNICAL PROPOSAL CONSIDERATIONS

### CONSIDERATION A – QUANTIFIABLE WATER SAVINGS

Customers using Canal water for irrigation average usage ranging from 0.7 MGD to 2.7 MGD. Lateral 99.8-0.51 would be severed and redirected to a new reservoir serving a regulatory basin within WRP-4. Blended Canal and recycled water would be delivered to customers from this reservoir and will discharge into the downstream side of the severed lateral to a box stand located south of Avenue 64 on Fillmore Street. Once constructed, the Project will result in the production of 1 MGD or approximately 1,120 AFY in available recycled water.

The Project is expected to be operational in 2029 and have a 30-year useful life. The Project will produce an estimated 1,120 AFY of recycled water, conserving 33,600 AF between 2029 and 2059 in the Colorado River System. Water savings to Lake Mead can be realized as soon as 2029 when construction is slated to complete and recycled water deliveries will begin. Water savings in Lake Mead will continue for the useful life of the project.

Downstream users of the All-American Canal are not anticipated to be impacted as the water which would be used for irrigation will remain in Lake Mead.

Verification of these savings can be realized through metering. CVWD recycled water customers are metered, and meters are read on a monthly basis. Meter reads are recorded via CVWD's customer billing system.

The Project will mark the first time that CVWD will provide recycled water to non-golf course irrigation customers. The Project is also modular and can be expanded to accommodate future growth. Future phases of the Project may include the construction of additional equipment to treat up to 2.5 MGD of tertiary treated water with onsite infrastructure expandable to 9.9 MGD and expanding the distribution system to serve 2.5 MGD; and incorporating additional equipment to treat up to 9.9 MGD with no additional on-site infrastructure; however, it will require expansion of the distribution system to serve 10 MGD.

The Project increases the resilience of the Colorado River System through reduced dependence on the river as a supply as the WRP-4 recycled water produced will be used in lieu of Colorado River. This project will reduce in a direct exchange of demand from Colorado River water to recycled water.

## CONSIDERATION B – ECONOMIC AND ENVIRONMENTAL BENEFITS

### SUB-CONSIDERATION B1 - COST-EFFECTIVENESS

The Project will produce an estimated 1,120 AFY of recycled water, conserving 33,600 AF over the 30-year useful life of the infrastructure. This will result in a cost of \$1,161 AF. Water savings to Lake Mead can be realized as soon as 2029 when construction is slated to complete.

The total estimated construction cost is \$30 million. Construction is anticipated to take 36 months. The construction cost per year is shown in the following table. These costs do not include planning and design costs (described below).

Estimated cost by year:

Calendar Year	Construction Cost
2027	\$13,000,000
2028	\$13,000,000
2029	\$13,000,000

The total anticipated cost of planning and design is \$2,526,775. To date, \$1,554,726 has been incurred for planning and design work.

With an anticipated completion date of 2029, the Project is expected to begin conserving water in 2029. The Project is expected to be operational from 2029 and have a 30-year useful life. The Project will produce an estimated 1,120 AFY of recycled water, conserving 33,600 AF between 2029 and 2059. Water savings to Lake Mead can be realized as soon as 2029 when construction is slated to complete and will continue for the useful life of the project. The Project will produce an estimated 1,120 AFY of recycled water, meaning that over the 30-year useful life of the infrastructure 33,600 AF will remain in Lake Mead.

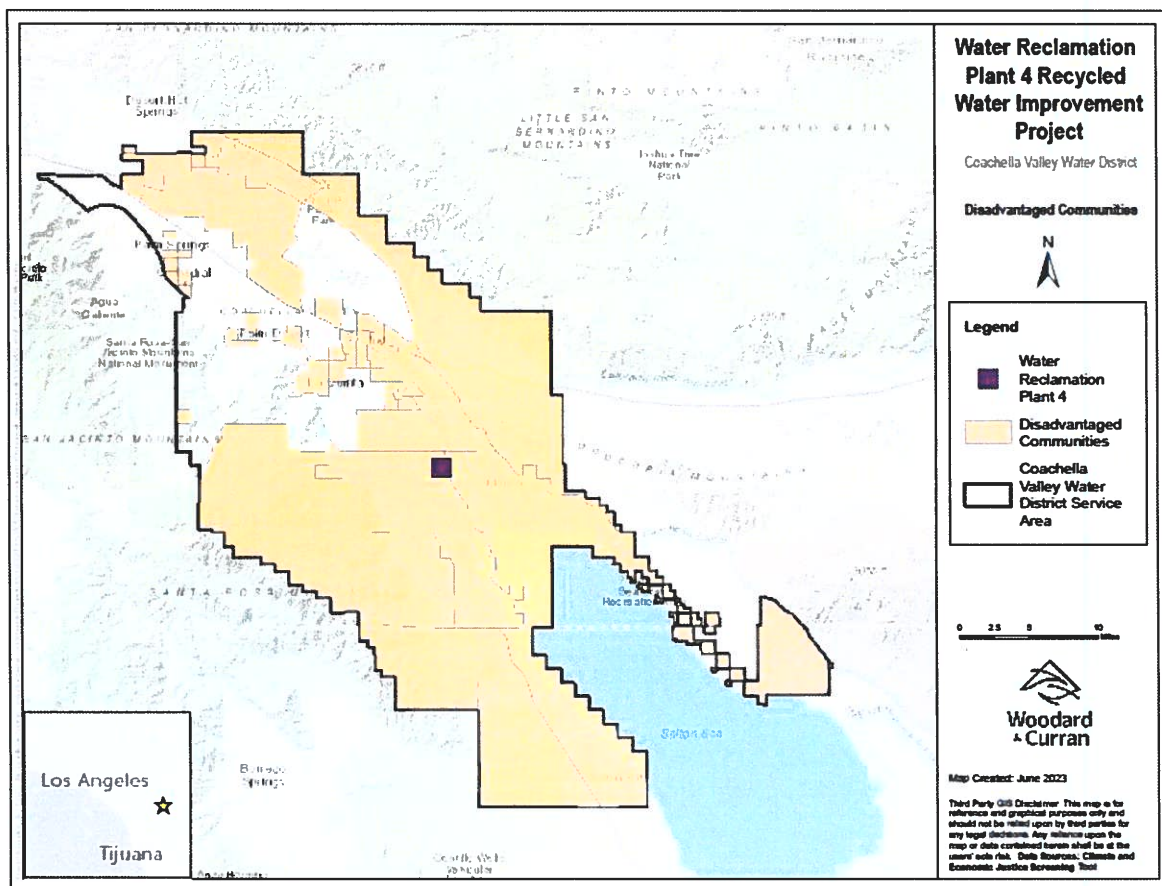
#### SUB-CONSIDERATION B2 - ENVIRONMENTAL BENEFITS

While environmental impacts and benefits are currently being analyzed via an Environmental Impact Report, the purpose of the Project is to reduce Colorado River water demand. The Project will reduce demand by producing recycled water for CVWD customer use instead. Reduced Colorado River water demand will allow for more storage into Lake Mead and less consumption from the Colorado River increasing the amount of water available along the river. This will result in riparian habitat benefits, increasing the availability of water to restore the natural flow and function of the river. The Colorado River is home to several endangered fish species, including the Colorado pikeminnow, humpback chub, bonytail chub, roundtail chub, and razorback sucker.



## CONSIDERATION C – DISADVANTAGED COMMUNITIES

President Biden’s Executive Order 14008, *Tackling the Climate Crisis at Home and Abroad*, executed January 27, 2021, and Executive Order 13985, *Advancing Racial Equity and Support for Underserved Communities Through the Federal Government*, executed January 20, 2021, support the funding of programs that advance environmental justice and equity by investing in disadvantaged or underserved communities (DACs).



Source: Layer Credits: Esri, HERE, Garmin

**FIGURE 4 CEJST DISADVANTAGED COMMUNITIES IN CVWD SERVICE AREA**

The Climate and Economic Justice Screening Tool (CEJST) identified the project area as disadvantaged. The following table demonstrates the impact in the eight identified categories:

<b>Category</b>	<b>Indicators</b>
Climate Change	Low income
Energy	Energy cost Low income
Health	Low income
Housing	Lack of indoor plumbing Low income
Legacy Pollution	Formerly used defense sites Low income
Transportation	Low income
Water and Wastewater	Low income
Workforce Development	Linguistic isolation Low median income Poverty Unemployment High school education

The Coachella Valley Regional Water Management Group (CVRWMG), of which CVWD is a founding member, and other organizations in the Coachella Valley have interacted and coordinated with DACs for many years as part of the State of California's Integrated Regional Water Management (IRWM) process. In 2007, the DAC Planning Group was formed regionally to track the progress of DAC programs under California's Safe Drinking

Water, Water Quality and Supply, Flood Control, River and Coastal Protection Bond Act of 2006 (Proposition 84). Since 2009, the CVRWGMG agencies have engaged in targeted outreach to DACs. The DAC Outreach Program was implemented in 2012 to improve DAC participation in the Coachella Valley IRWM process and has continued to evolve to this day. The 2018 Coachella Valley Integrated Regional Water Management/Stormwater Resource (IRWM/SWR) Plan and the 2020 Colorado River Funding Area (CRFA) Water Needs Assessment (Water Needs Assessment) summarize known water and wastewater needs of DACs and includes opportunities for future engagement and projects related to system consolidations, education, safe drinking water, and wastewater treatment.

CVWD together with stakeholders participating in CVWD's DAC Infrastructure Task Force, identified the need to expand on the 2014 demonstration project. Today, the Task Force focuses on identifying projects that will benefit the underserved communities within CVWD's service area showing the importance of DAC projects in the area.

The Project provides indirect benefits to DACs in the region by ensuring long-term sustainable water supplies, increasing agricultural resilience (and thus employment opportunities), and protecting water quality via advanced treatment. Receiving grant funding would help CVWD implement the project without putting a financial burden on the DACs within its service area.

#### CONSIDERATION D – COST-SHARING/PARTNERSHIPS/OBLIGATIONS

CVWD has used capital improvement funds to fund \$1,554,726 in design and planning work to date. CVWD expects to spend an additional \$972,049 on environmental and permitting work prior to the beginning of construction. There are no project partners identified to assist in supporting cost-share for this program and no other cost-share is anticipated. These funds are in addition to the \$39 million requested for construction of the Project.

The project aligns with the Indio Subbasin Water Management Plan (2021), which is the latest update to the SGMA Alternative Plan approved by DWR. The Project and CVWD's use of recycled water are consistent with the State of California's Recycled Water Policy and has multiple benefits including reducing pollutant discharges to receiving waters, conservation of local groundwater and imported Colorado River water, and sustainable groundwater management to avoid undesirable results (e.g., chronic lowering of



groundwater levels, groundwater storage depletion, seawater intrusion, degraded water quality, land subsidence, and depletion of interconnected surface water).

The project is also listed in the Coachella Valley Integrated Regional Water Management Program Project Database and is identified as a project to reduce water demand, increase supply, improve water quality, and practice resources stewardship.

#### CONSIDERATION E – READINESS TO PROCEED

In 2022, CVWD engineering completed several alternatives analyses and the Project design is at an appropriate level to begin environmental review. The proposed project is being designed so that the infrastructure is expandable over time as future recycled water customers are identified.

CVWD will retain a consultant to prepare an Environmental Impact Report (EIR) to fulfill California Environmental Quality Act (CEQA) requirements and respond to concerns. The consultant will prepare a Notice of Intent, draft and final EIR with technical appendices including Air Quality, Biological, Cultural Resources, and Hydrology. The draft EIR will be publicly available and once the public process is complete, the final EIR can be prepared and approved by the CVWD Board of Directors for filing. A Notice of Determination will be prepared and filed to the California State Clearinghouse. CVWD will ensure compliance with both the California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA).

CVWD submitted Wastewater Change Petition WW0093 to the California State Water Resources Control Board (SWRCB) in 2016. The request was to discontinue secondary effluent discharge from WRP-4 to the Coachella Valley Stormwater Channel to allow for the expansion of CVWD's recycled water program.

The Project is at the 30% design stage for plans and a preliminary design report. The environmental effort was recently kicked off. The design will not resume until the environmental review is complete.

The estimated schedule is as follows.

- December 2024 – Complete Environmental Review
- December 2025 – Complete Permit (Change Petition) Process

- December 2026 – Complete Design
- March 2027 – Complete Procurement Process
- July 2027 – Initiate Construction
- July 2028 – Construction (50%)
- July 2029 – Complete Construction (100%)

Phase 1 includes designing and constructing a 1.0 MGD tertiary facility to deliver a blend of recycled water and Canal water to three large agricultural customers south of WRP-4 located on the downstream end of Irrigation Lateral 99.8- 0.51 (approximately 480 acres). Treatment will consist of a 1.0 MGD packaged cloth disk filtration plant with onsite infrastructure expandable to 2.5 MGD. Currently the customers irrigate using Canal water. The average monthly Canal water usage ranges from 0.7 MGD to 2.7 MGD. Lateral 99.8-0.51 would be severed and redirected to a new reservoir serving as a regulatory basin within WRP-4. Blended Canal and recycled water would be delivered to customers from this reservoir and will discharge into the downstream side of the severed lateral to a box stand located south of Avenue 64 on Fillmore Street. The Project is being designed so that it may be expanded to eventually become a zero-discharge facility.

There are two additional proposed phases that consist of the following: (1) construction of additional equipment to treat up to 2.5 MGD of tertiary treated water with onsite infrastructure expandable to 9.9 MGD and expanding the distribution system to serve 2.5 MGD; and (2) incorporating additional equipment to treat up to 9.9 MGD with no additional on-site infrastructure; however, it will require expansion of the distribution system to serve 10 MGD. These phases would be considered at a later date and are not included in the \$39 million project cost.

## ENVIRONMENTAL AND CULTURAL RESOURCES CONSIDERATIONS

Environmental review is currently underway and will further study the impacts of the project. Answers to the questions provided in Enclosure 1 Section F.2 of the “Funding Opportunity for Voluntary Participation in the Lower Colorado River Basin Conservation and Efficiency Program” letter from Reclamation are included below.

*Question: Will the proposed project impact the surrounding environment (e.g., soil [dust], air, water [quality and quantity], animal habitat)? Please briefly describe all earthdisturbing work and any work that will affect the air, water, or animal habitat in the project area. Please also explain the impacts of such work on the surrounding environment and any steps that could be taken to minimize the impacts.*

The Project will result in the construction of several new facilities at the WRP-4 site and installation of new pipeline to provide the newly produced recycled water to the CVWD customers. Environmental review is underway to study full impacts and how to minimize any impacts, if any.

*Question: Is the applicant aware of any species listed or proposed to be listed as a Federal threatened or endangered species, or designated critical habitat in the project area? If so, would they be affected by any activities associated with the proposed project?*

The Coachella Valley fringe-toed lizard is a federally listed threatened species that has habitat in the project area. While it is not anticipated that the Project will affect the species, the environmental review is underway to determine how to minimize impacts, if any.

*Question: Are there wetlands or other surface waters inside the project boundaries that potentially fall under CWA jurisdiction as "Waters of the United States?" If so, please describe and estimate any impacts the proposed project may have, and any proposed mitigation.*

The Salton Sea falls under CWA jurisdiction as a "Water of the United States". The WRP-4 site currently discharges to the Salton Sea and discharge would be reduced with the implementation of the Project. Further analysis is being conducted in the environmental review process to better understand and minimize impacts.

*Question: If the project involves work on an existing asset, when was that asset constructed?*

Project work will occur at the WRP-4 site. WRP-4 was constructed in 1988.

*Question: Will the proposed project result in any modification of or effects to, individual features of an irrigation system (e.g., headgates, canals, or flumes)? If so, state when those features were constructed and describe the nature and timing of any extensive alterations or modifications to those features completed previously.*

The Project will sever the Lateral 99.8-0.51 connection and redirect to a new reservoir. Lateral 99.8-0.51 was constructed in 1953.

*Question: Are any buildings, structures, or features in the irrigation district listed or eligible for listing on the National Register of Historic Places? A cultural resources specialist at the applicant's local Reclamation office or the State Historic Preservation Office can assist in answering this question.*

This project will be implemented at the existing WRP-4 site, which is not currently known to have any building, structures, or features eligible for listing on the National Register of Historic Places. Environmental review is underway and will study the cultural resources impacts to ensure that no National Historic Places are disturbed.

*Question: Are there any known archeological sites in the proposed project area?*

There are no known archeological sites in the proposed project area. environmental review is underway to confirm that there are no sites in the proposed project area.

*Question: Will the proposed project have a disproportionate and adverse effect on communities with environmental justice concerns?*

This Project is not anticipated to have a disproportionate and adverse effect on communities with environmental justice concerns. Project work is taking place at the existing WRP-4 site. The Project will allow for increased conservation of surface and groundwater through the use of newly produced recycled water in lieu of surface or groundwater usage. Environmental review is underway and will confirm that there will be no disproportionate and adverse effects on communities with environmental justice concerns.

*Question: Will the proposed project limit access to and ceremonial use of Indian sacred sites or result in other impacts on Tribal lands?*

The Project is not anticipated to limit access and ceremonial use of Indian sacred sites or impact Tribal lands. Work is taking place at the existing WRP-4 site. The environmental review is underway and will confirm that Tribal access will not be affected.

*Question: Will the proposed project contribute to the introduction, continued existence, or spread of noxious weeds or non-native invasive species known to occur in the area?*

The Project is not anticipated to contribute to the introduction, continued existence or spread of noxious weeds or non-native invasive species known to occur in the area. Environmental review is underway and will confirm that the Project will not contribute to the introduction, continued existence, or spread of noxious weeds or non-native invasive species.

## FINANCIAL CAPABILITY

The average annual operation and maintenance cost for the life of the Project will be \$4.5 M.

Replacement costs are listed in the table below. Replacement frequency and the year of the first replacement of equipment are included along with the quantity, unit cost, and total cost of one replacement. Replacement costs throughout the life of the project are anticipated to total up to approximately \$2,939,333 based on replacement frequency.

<b>Description of Replacement Requirement</b>	<b>Frequency (Years)</b>	<b>Year</b>	<b>Quantity</b>	<b>Unit Cost</b>	<b>Cost</b>
Yard Piping – gates, valves, and meters	25	2054	1	\$35,000	\$35,000
Filter Pumps	15	2044	2	\$5,000	\$10,000
Recycled Water Pump Station	15	2044	3	\$5,000	\$15,000
MCC & Switchgear, Telemetry Components	25	2054	1	\$25,000	\$25,000
Backwash Pumps	15	2044	4	\$5,000	\$20,000
Cloth Disk Drive Units	15	2044	2	\$5,000	\$10,000
Cloth Disk	10	2039	14	\$1,500	\$21,000

Cloth Disk Seals	10	2039	28	\$850	\$23,800
UV Lamps (15,000 hrs per lamp)	2	2031	144	\$600	\$86,400
Ballast	15	2044	6	\$1,200	\$7,200
UV Sleeve	15	2044	144	\$300	\$43,200

## BUDGET DESCRIPTION

A budget table is included below delineating project costs for the WRP-4 Recycled Water Improvement Project.

<b>Budget Item Description</b>	<b>Reclamation Funding</b>	<b>Total Cost</b>
<b>Salaries &amp; Wages</b>	\$0	\$0
<b>Fringe Benefits</b>	\$0	\$0
<b>Travel</b>	\$0	\$0
<b>Equipment Use</b>	\$0	\$0
<b>Supplies/Materials</b>	\$17,529,800	\$17,529,800
Filter Feed Pump Station	\$220,200	\$220,200
Cloth Disk Filter	\$697,600	\$697,600
Backwash Pump Station	\$81,200	\$81,200
UV Facility	\$1,916,800	\$1,916,800
Recycled Water Pump Station	\$617,600	\$617,600
Electrical Building	\$482,300	\$482,300
Seasonal Storage Inlet & Outlet (Pond NIC)	\$193,200	\$193,200
Yard Piping	\$784,900	\$784,900
Electrical Systems (17%)	\$714,800	\$714,800
I&C Systems (8%)	\$337,100	\$337,100

Sitework	\$401,100	\$401,100
5.0 MG Bladder	\$1,230,300	\$1,230,300
Canal Connection Piping & Vault	\$2,060,700	\$2,060,700
New Distribution Pipeline	\$7,792,000	\$7,792,000
<b>Contractual</b>	\$21,470,200	\$21,470,200
Construction Contractor	\$21,470,200	\$21,470,200
<b>Other</b>		
<b>TOTAL DIRECT COSTS</b>	<b>\$39,000,000</b>	<b>\$39,000,000</b>

Construction of the Project will be fully funded by the Lower Colorado Conservation and Efficiency Program. Supplies and materials are anticipated to cost \$17,259,800. CVWD will select a construction contractor to carry out the work for the project with an anticipated cost of \$21,470,200, which would cover management of the project, project labor, and contingencies. The construction contractor will be selected in a competitive process consistent with CVWD procurement policy.

Project planning and design will be provided by CVWD, either through staff labor or from consultants. \$1,554,726 in planning and design costs have been incurred to date. Planning and design costs are expected to total up to \$2,526,775.



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**EXHIBIT 3**

**GOLF COURSE CONSERVATION PROGRAM**



# GOLF COURSE CONSERVATION PROGRAM

Lower Colorado  
River Basin  
Conservation and  
Efficiency Program  
Proposal

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0012329.04

**Coachella Valley  
Water District**

July 3, 2023

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**Title of Proposed Activity:** Golf Course Conservation Program

**Submitting Entity:** Coachella Valley Water District

**Previous Participation in Conservation Programs**

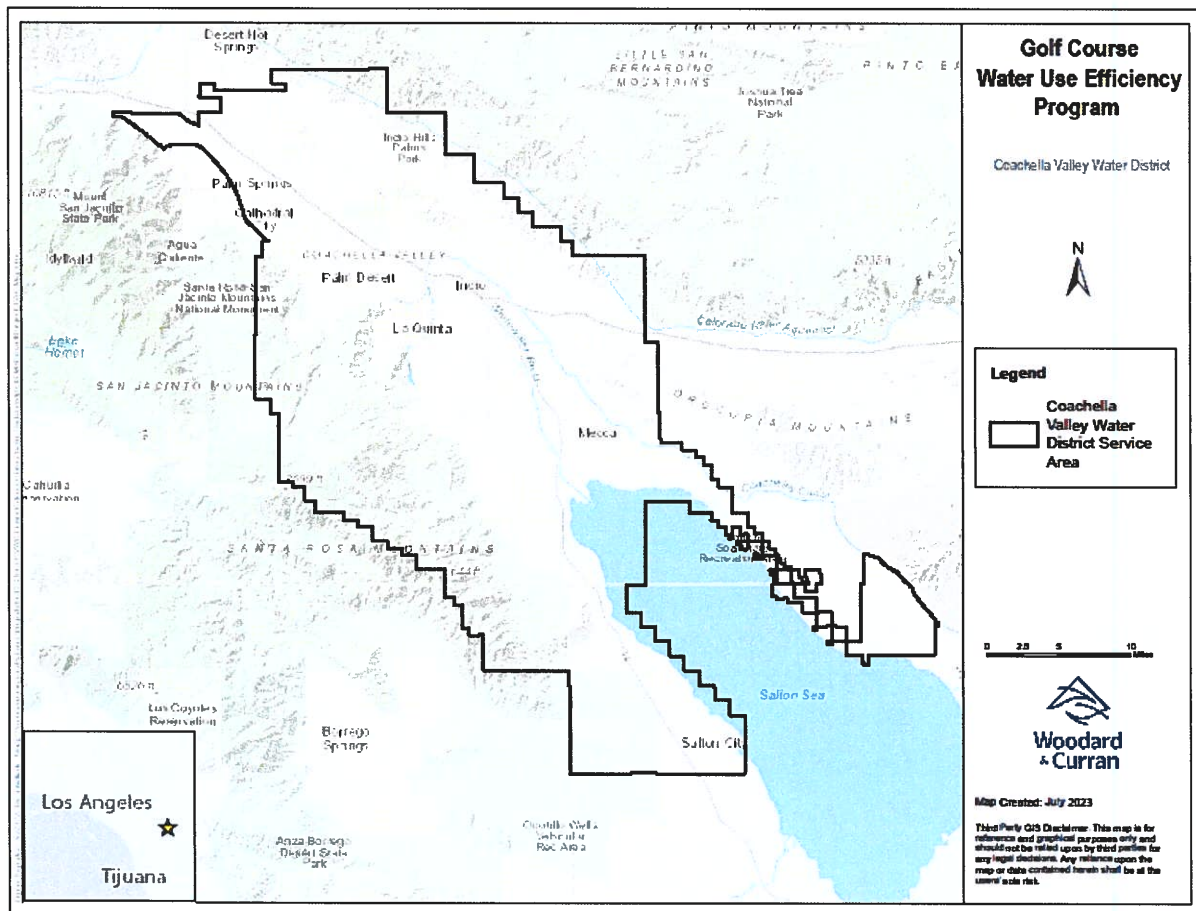
Coachella Valley Water District (CVWD) has previously been awarded a WaterSMART Water and Energy Efficiency Grant (WEEG) and participating in "Bucket 1" of the Lower Colorado Basin System Conservation and Efficiency Program for groundwater replenishment curtailment and agricultural conservation programs.

**Proposed Project Location**

The Golf Course Conservation Program (Project) will be completed in CVWD's service area.

## BACKGROUND

The Coachella Valley Water District (CVWD) is located in the Coachella Valley mostly in Riverside County, California. The CVWD service area is approximately 130 miles east of Los Angeles and 140 miles northeast of San Diego. A map of CVWD's service area is included below in **Figure 1**.



**FIGURE 1 COACHELLA VALLEY WATER DISTRICT SERVICE AREA**

CVWD is responsible for domestic water service to a service area encompassing approximately 1,000 square miles of land and serving a population of about 300,000 people. CVWD relies on four sources of water to provide service to its customers: groundwater, recycled water, imported water from the State Water Project and the Colorado River via the Coachella Canal.

Colorado River is water delivered via the Coachella Canal (Canal), a branch of the All-American Canal. Via the 123-mile Canal and its underground water delivery system,

CVWD delivers approximately 338,000 acre-feet (AF) annually of imported water to users.

Initially, water delivered from the canal was used exclusively by agriculture, however as residential growth moved into the eastern valley other water users, primarily golf courses and homeowner associations, began using Colorado River water for large landscape irrigation. The use of canal water for non-potable purposes helps conserve the valley's groundwater supply for domestic use.

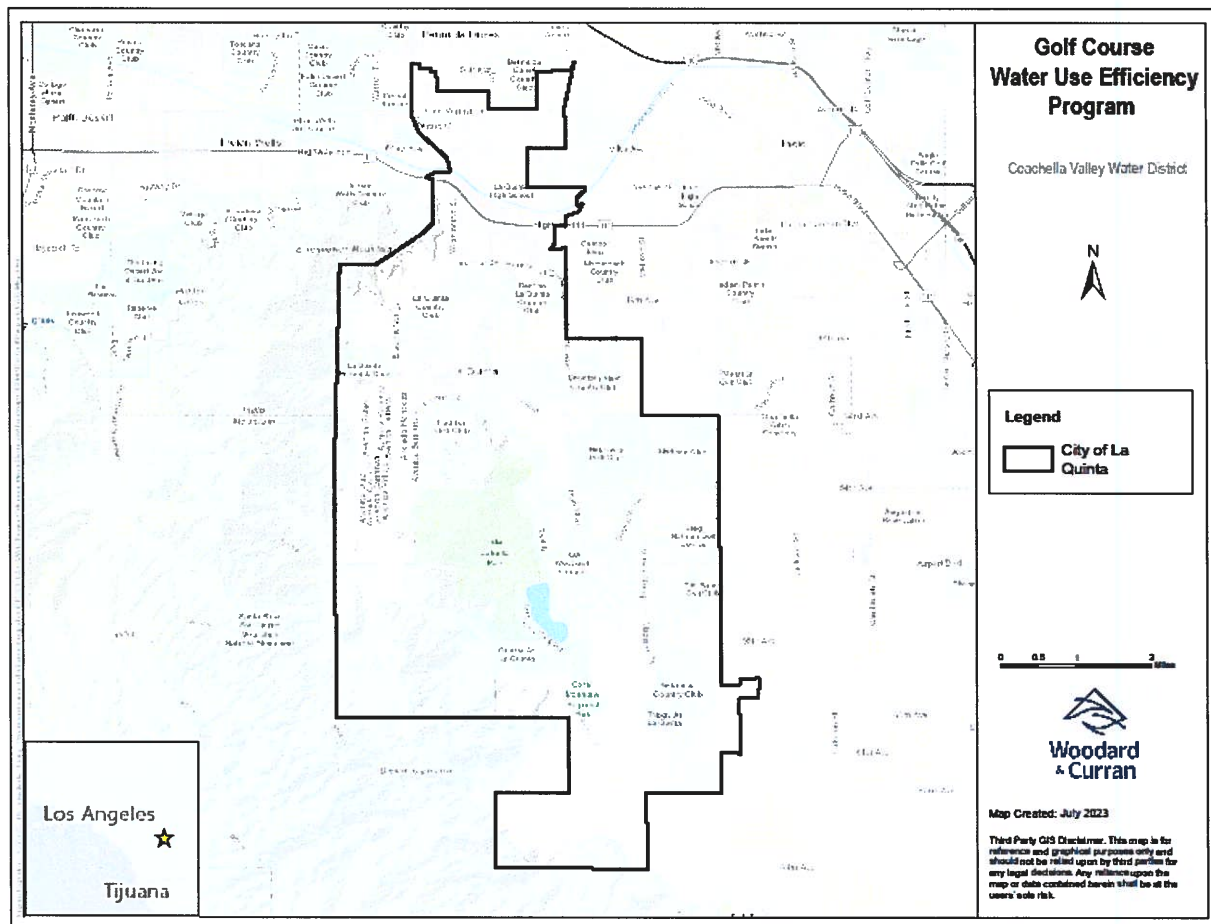
Water imported via the Coachella Canal is also used at two groundwater replenishment facilities that benefit the Coachella Valley's aquifer. CVWD also replenishes groundwater at two other groundwater replenishment sites with Colorado River water via the Colorado River Aqueduct. This water is State Water Project exchange water.

The 121 golf courses are an important part of the Coachella Valley and regional economy. Recognizing the nexus between water availability and long-term sustainability of the golf industry, the Southern California Golf Association and representatives of local golf course associations met with CVWD to form the Coachella Valley Golf and Water Task Force in 2013. The primary purpose of the Golf and Water Task Force is to reduce the amount of water used by golf courses in the Coachella Valley without negatively impacting the financial viability of the golf industry. One water-wise practice that has been implemented by the golf industry to reduce water use is removing turf and replacing turf with desert landscaping in non-play areas. This practice is an effective long-term strategy to reduce water use and falls in line with CVWD's goal of reducing golf course-related water use by 10% for existing courses and by 25% for new courses through increased conservation.

Recognizing that Coachella Valley golf courses have access to a variety of different water sources (groundwater, Colorado River water (CRW), and recycled water), project participants must use primarily CR water and not switch use to another source. CVWD would ensure the volume agreed on is retained in the Colorado River system through the reducing the specified volume on the water order. To incentivize project participation, CVWD would offer a \$2 per square foot (SF) as a turf replacement rebate. CVWD is also requesting \$0.30 per square foot to account for CVWD project administration and lost revenue. CVWD recognizes that a process will need to be set up in the event of the participant not being able to meet projected water savings.

Based on preliminary discussions with the golf industry, there appears to be an interest of up to 300 acre-ft/yr (AFY) of conservation efforts achieved primarily through a combination of turf removal and irrigation system upgrades. The participating golf courses will be required to ensure that the turf replacements and irrigation system

upgrades remain in place for 10 years, which would result in 3,000 AF saved over the life of the Project. CVWD would enter into private agreements with participating golf courses to ensure that conserved water will be stored in Lake Mead. Projects are anticipated to be completed mostly in the City of La Quinta, where most of the golf courses using Canal water are located. A map of the City of La Quinta is included in **Figure 2**.



**FIGURE 2 CITY OF LA QUINTA MAP**

CVWD is requesting \$9 million (M) from the Lower Colorado River Basin Conservation and Efficiency Program to fund the implementation of the Project, which represents \$8.6 M for the projects and approximately 5% contingency. At 3,000 AF saved over the life of the Project, the cost per AF saved is \$2,863.

## TECHNICAL PROJECT DESCRIPTION

The Project will fund rebates exclusively to golf courses using Colorado River water via the Canal to conserve water. The Project is primarily intended to incentivize the replacement of high-water consuming turf with low water-use desert-friendly landscaping, but CVWD will consider other conservation methods including irrigation upgrades. Recognizing that different conservation programs will yield different savings, a savings of 3.5 AFY to establish the basis for payment. Although savings of higher than 3.5 AFY have been used elsewhere, CVWD believes that 3.5 AFY is a feasible conservation target based on data from past golf course turf reduction programs and estimates that have been submitted to CVWD by local golf courses.

With a requested \$2.30/SF rebate for turf removal and 3.5 AFY of water savings over 10 years, it is estimated that the value of the conserved water would be \$2,863/AF. If the entire 300 AFY was generated through turf removal, this would be the equivalent of 85.7 acres (3.73 million SF). Realizing that it may be more difficult to apply the \$2.30/SF metric to irrigation system upgrades, the project applicant will use the unit value of \$2,490/AF for water conservation (equivalent of \$2/SF to participants, 3.5 AFY savings over 10 years) multiplied by the anticipated water savings over the 10-year period to calculate their reimbursement. For example, for a golf course planning to implement irrigation system upgrade that would demonstrate water savings of 50 AFY, they would be eligible to receive up to \$1.245 M (50 AFY x 10 years x \$2,490/AF). The interested party can then evaluate whether this cost contribution is sufficient to incentivize them to move forward with the project. Upon execution of the agreement between CVWD and the project participants, the turf replacement or other conservation project must be maintained in place for 10 years.

In all, CVWD will conserve 3,000 AF over the life of the project. CVWD meters water deliveries and will verify water savings through the life of the project through these meters.

## CONSERVATION DESCRIPTION

It is estimated that the Project will provide the water savings equivalent of 85.7 acres (3,733,714 SF) of turf removal at golf courses in the CVWD service area that use primarily Canal water. Based on data from local golf course turf replacement projects that have been completed and reported data to the Golf and Water Task Force, CVWD assumes a water savings of 3.5 AFY per acre of turf replaced. At 85.7 acres, the project would save 300 AFY. CVWD will require that turf replacement project remain in place for 10 years, which would accrue 3,000 AF of water saved throughout the life of the project. CVWD will



also consider other conservation means like irrigation upgrades, with the projects funded at the equivalent of \$2,490/AF.

Past CVWD projects have included irrigation system upgrades or sprinkler replacements as part of their programs. Irrigation savings related to irrigation system upgrades were estimated using values calculated from EPA's WaterSense Water Budget Tool (EPA, 2020) and estimated water savings based on research. CVWD found that weather-based irrigation controllers are estimated to save 0.96 AFY with a 1.4 acre range, soil moisture sensor irrigation controllers save an estimated 2.44 AFY with a 1.4 acre range, and drip irrigation system upgrades save an estimated 1.78 AFY with a 10.6 acre range. Sprinkler nozzle replacements were found to save an estimated 0.46 AFY per acre.

This will result in a cost of \$2,863/AF. Water savings to Lake Mead can be realized as soon as 2025 when implementation is slated to complete. Water will be committed to Lake Mead through private agreements with each of the participating golf courses.

## TECHNICAL PROPOSAL CONSIDERATIONS

### CONSIDERATION A – QUANTIFIABLE WATER SAVINGS

Golf courses that currently receive primarily Canal water will be paid at the equivalent of \$2.00/SF and 3.5 AFY per acre of water conserved over the 10-year project term. The Project will provide up 300 AFY, which would be committed to Lake Mead through private agreements between each of the golf courses and CVWD that would also require turf replacement or conservation projects to remain in place for 10 years. With a project useful life of 10 years, the Project would accrue a total of 3,000 AF of water savings over the life of the Project.

Water savings would be verified by metering water consumption at each of the golf courses both before and after implementation. Water deliveries to golf courses are currently metered and monitored by CVWD.

There are no anticipated downstream effect of this program.

The Project would continue CVWD's on-going conservation efforts to replace water consuming turf with desert-friendly landscaping and more efficient irrigation. While the Project is mainly geared towards turf replacement, CVWD will accept proposals for rebates for irrigation upgrades provided the projects can generate conserved water at \$2,490/AF. Irrigation upgrades often involve technological advances, which CVWD can monitor for effectiveness.

## CONSIDERATION B – ECONOMIC AND ENVIRONMENTAL BENEFITS

### SUB-CONSIDERATION B1 – COST-EFFECTIVENESS

The Project will reduce water use by 300 AFY, conserving 3,000 AF over the 10-year useful life of the infrastructure. This will result in a cost of \$2,863/AF. The estimated cost per year is included in the table below.

Estimated cost by year:

Calendar Year	Construction Cost
2025	\$9,000,000

Participating golf courses will be responsible for the planning and design costs of their projects.

With an anticipated completion date of 2025, the project is expected to begin conserving water in 2025. The Project is expected to be operational from 2025 and have a 10-year useful life. The project will conserve 3,000 AF of water between 2025 and 2035. Water savings to Lake Mead can be realized as soon as 2025 when construction is slated to complete and will continue for the useful life of the project.

### SUB-CONSIDERATION B2 – ENVIRONMENTAL BENEFITS

The purpose of the Project is to reduce Colorado River water demand. The Project will reduce demand by removing irrigated turf or providing irrigation upgrades that would decrease each golf course's demand. Reduced Colorado River water demand will allow for more storage into Lake Mead and less consumption from the Colorado River increasing the amount of water available along the river. This will result in riparian habitat benefits, increasing the availability of water to restore the natural flow and function of the river. The Colorado River is home to several endangered fish species, including the Colorado pikeminnow, humpback chub, bonytail chub, roundtail chub, and razorback sucker.

The project will likely result in increased planting of plants native to the Coachella Valley to replace the water-consuming turf. The increased planting of native plants will contribute to increased habitat for native species in the Coachella Valley such as the Coachella Valley fringe-toed lizard.

## CONSIDERATION C – DISADVANTAGED COMMUNITIES

President Biden's Executive Order 14008, *Tackling the Climate Crisis at Home and Abroad*, executed January 27, 2021, and Executive Order 13985, *Advancing Racial Equity and Support for Underserved Communities Through the Federal Government*, executed January 20, 2021, support the funding of programs that advance environmental justice and equity by investing in disadvantaged or underserved communities (DACs).

The Climate and Economic Justice Screening Tool (CEJST) identified the project area as disadvantaged. The following table demonstrates the impact in the eight identified categories:

Category	Indicators
Climate Change	Low income
Energy	Energy cost Low income
Health	Low income
Housing	Lack of indoor plumbing Low income
Legacy Pollution	Formerly used defense sites Low income
Transportation	Low income
Water and Wastewater	Low income
Workforce Development	Linguistic isolation Low median income Poverty

	Unemployment
	High school education

The Coachella Valley Regional Water Management Group (CVRWMG), of which CVWD is a founding member, and other organizations in the Coachella Valley have interacted and coordinated with DACs for many years as part of the State of California's Integrated Regional Water Management (IRWM) process. In 2007, the DAC Planning Group was formed regionally to track the progress of DAC programs under California's Safe Drinking Water, Water Quality and Supply, Flood Control, River and Coastal Protection Bond Act of 2006 (Proposition 84). Since 2009, the CVRWMG agencies have engaged in targeted outreach to DACs. The DAC Outreach Program was implemented in 2012 to improve DAC participation in the Coachella Valley IRWM process and has continued to evolve to this day. The 2018 Coachella Valley Integrated Regional Water Management/Stormwater Resource (IRWM/SWR) Plan and the 2020 Colorado River Funding Area (CRFA) Water Needs Assessment (Water Needs Assessment) summarize known water and wastewater needs of DACs and includes opportunities for future engagement and projects related to system consolidations, education, safe drinking water, and wastewater treatment.

CVWD together with stakeholders participating in CVWD's DAC Infrastructure Task Force, identified the need to expand on the 2014 demonstration project. Today, the Task Force focuses on identifying projects that will benefit the underserved communities within CVWD's service area showing the importance of DAC projects in the area.

A map showing the disadvantaged communities within La Quinta, California using CJEST data is included below in **Figure 3**. The golf courses that use primarily Colorado River water are located in La Quinta.

**FIGURE 3: CEJST DISADVANTAGED COMMUNITIES IN LA QUINTA, CALIFORNIA**

While this project is not identified in the master plan, it provides indirect benefits to DACs in the region by ensuring long-term sustainable water supplies, which is a benefit to the entire region.

## CONSIDERATION D – COST-SHARING/PARTNERSHIPS/OBLIGATIONS

CVWD understands that there is significant interest in a rebate program for water conservation from the golf courses. CVWD has received estimates from several golf courses with proposals for projects with both turf replacement and irrigation upgrade elements.

Golf courses will contribute their own planning and design for each individual project and CVWD will provide rebates for 3.5 AFY of water savings through either turf replacement

at \$2.00/SF removed or irrigation upgrades that would accrue to 3.5 AFY. Golf courses will also enter into private agreements with CVWD to ensure that projects remain in place for 10 years and that water saved will be committed to Lake Mead and not used for other purposes on the golf course.

## CONSIDERATION E – READINESS TO PROCEED

Minor design activity will likely be required prior to projects being ready for implementation and to receive rebates. Permits are not anticipated to be required since work will take place on golf course premises. CVWD will review project designs brought forward by participating golf courses and administer rebates for project implementation. It is expected that projects will be complete by the end of 2025 based on current estimates provided by interested golf courses. An estimated schedule is as follows:

- January 2024 – Golf Courses Finalize Project Design
- April 2024 – CVWD Approves Project Design
- June 2024 – CVWD Enters Agreements with Golf Courses
- September 2024 – Project Implementation Begins
- December 2025 – Project Completion

## ENVIRONMENTAL AND CULTURAL RESOURCES CONSIDERATIONS

Projects are not anticipated to trigger California Environmental Quality Act (CEQA) or National Environmental Policy Act (NEPA) requirements as the projects will take place on golf courses.

*Question: Will the proposed project impact the surrounding environment (e.g., soil [dust], air, water [quality and quantity], animal habitat)? Please briefly describe all earthdisturbing work and any work that will affect the air, water, or animal habitat in the project area. Please also explain the impacts of such work on the surrounding environment and any steps that could be taken to minimize the impacts.*

The Project is intended to replace turf on existing golf course sites with desert-friendly landscaping. Turf removal will result in minor earth-disturbing work which should not

affect the air, water, or animal habitat in the project area. The replacement turf will likely consist of native plants to the Coachella Valley.

*Question: Is the applicant aware of any species listed or proposed to be listed as a Federal threatened or endangered species, or designated critical habitat in the project area? If so, would they be affected by any activities associated with the proposed project?*

The Coachella Valley fringe-toed lizard is a federally listed threatened species that has habitat in the anticipated project areas. The Project is not anticipated to affect the species since projects would take place on existing golf courses and would not disturb any existing habitat.

*Question: Are there wetlands or other surface waters inside the project boundaries that potentially fall under CWA jurisdiction as "Waters of the United States?" If so, please describe and estimate any impacts the proposed project may have, and any proposed mitigation.*

There are no wetlands or surface waters within La Quinta, California that fall under the the CWA jurisdiction as a "Water of the United States"

*Question: If the project involves work on an existing asset, when was that asset constructed?*

Golf courses in La Quinta were constructed in a range of dates from the 1990s to the 2010s.

*Question: Will the proposed project result in any modification of or effects to, individual features of an irrigation system (e.g., headgates, canals, or flumes)? If so, state when those features were constructed and describe the nature and timing of any extensive alterations or modifications to those features completed previously.*

The Project will not result in any modifications of or effects to individual features of the Canal irrigation system. All modifications will be completed on private property systems.

*Question: Are any buildings, structures, or features in the irrigation district listed or eligible for listing on the National Register of Historic Places? A cultural resources specialist at the applicant's local Reclamation office or the State Historic Preservation Office can assist in answering this question.*

This project will be implemented at existing golf course sites which are not currently known to have any building, structures, or features eligible for listing on the National Register of Historic Places.

*Question: Are there any known archeological sites in the proposed project area?*

There are no known archeological sites in the proposed project area.

*Question: Will the proposed project have a disproportionate and adverse effect on communities with environmental justice concerns?*

This Project is not anticipated to have a disproportionate and adverse effect on communities with environmental justice concerns. Project work is taking place at existing golf courses. The Project will allow for increased conservation of surface and groundwater through water savings accrued by the turf replacement or irrigation system upgrades.

*Question: Will the proposed project limit access to and ceremonial use of Indian sacred sites or result in other impacts on Tribal lands?*

The Project is not anticipated to limit access and ceremonial use of Indian sacred sites or impact Tribal lands. Work is taking place at existing golf courses.

*Question: Will the proposed project contribute to the introduction, continued existence, or spread of noxious weeds or non-native invasive species known to occur in the area?*

The Project is not anticipated to contribute to the introduction, continued existence or spread of noxious weeds or non-native invasive species known to occur in the area. The Project will focus on planting desert-friendly landscaping, which is likely to introduce more native plants to the project area.

## FINANCIAL CAPABILITY

All operation and maintenance costs of the projects will be the responsibility of the golf courses. Golf courses currently incur these costs in maintaining turf and existing irrigation systems. Costs are expected to decrease as native landscaping or upgraded irrigation systems are installed. CVWD will ensure the system operation and maintenance is conducted via the private agreements rebate recipients will be required to sign.

According to the United States Golf Association:

*The specific preventive maintenance procedures and intervals vary from course to course depending on the type of irrigation equipment and its age. In general, an irrigation system preventive maintenance program involves the observation, adjustment and maintenance at regular intervals of sprinklers, valves, controllers and other components. The following activities typically form the foundation for a preventive maintenance program:*



- *Daily maintenance involves checking for wet and dry areas, monitoring the pump system and checking the central controller to ensure it is properly programmed.*
- *Weekly maintenance often includes observing sprinkler operation to make sure they are properly rotating and that there are no leaks or clogged nozzles.*
- *Less-frequent but important jobs include semiannual pump system maintenance and raising and leveling sprinklers. According to research at the Center for Irrigation Technology, simply raising and leveling sprinklers can improve playing conditions and result in as much as a 6 percent water savings.*

While participating golf courses are not known at this time, CVWD estimated O&M costs using FY 22-23 O&M costs from the City of La Quinta owned SilverRock Resort golf course. Since all the golf courses that are eligible for the rebates are in La Quinta, this is a reasonable approximation of expected O&M costs for the future participating golf courses. O&M costs include equipment repairs, facility repair and maintenance, and bank fees, totaling an annual cost of about \$130,000.

Turf replacements and irrigation upgrades are not anticipated to require any replacement cost over the life of the project. Therefore, there are no anticipated replacement costs for this Project. Any replacements would be the responsibility of the participating golf course.

## BUDGET DESCRIPTION

A budget table is included below delineating project costs for the Golf Course Conservation Program.

<b>Budget Item Description</b>	<b>Reclamation Funding</b>	<b>Total Cost</b>
<b>Salaries &amp; Wages</b>	\$0	\$0
<b>Fringe Benefits</b>	\$0	\$0
<b>Travel</b>	\$0	\$0
<b>Equipment Use</b>	\$0	\$0
<b>Supplies/Materials</b>	\$7,500,000	\$7,500,000
Turf Replacement and other equivalent conservation efforts	\$7,500,000	\$7,500,000
<b>Contractual</b>	\$0	\$0
<b>Other</b>	\$1,480,000	\$1,480,000
CVWD Program Administration Fee	\$1,120,000	\$1,120,000
Contingency	\$400,000	\$400,000
<b>TOTAL DIRECT COSTS</b>	<b>\$9,000,000</b>	<b>\$9,000,000</b>

Though CVWD will consider other conservation methods like irrigation upgrades, project implementation is intended to be mainly turf replacement to achieve the 300 AFY water savings. Turf replacement rebates will provide participating golf courses \$2/SF removed with an additional \$0.30/SF going to CVWD to account for CVWD project administration and lost revenue from reduced water demand. With a total anticipated water conservation approximately equivalent to 3,733,714 SF of turf removal, the rebates are expected to cost \$8.6 M. With a built-in contingency of approximately 5 percent, the requested dproject total is \$9 M. Individual project planning and design will be provided by the participating golf courses.



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