

WaterSMART Small-Scale Water Efficiency Projects for Fiscal Year 2022

Funding Opportunity Number: R22AS00195

Turf Removal Incentive Program

Carmichael, CA

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Carmichael Water District

7837 Fair Oaks Blvd
Carmichael, CA 95608

Project Manager:

Chris Nelson

chris@carmichaelwd.org

916-483-2452

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Mandatory Federal Forms

SF-424, SF-424A, SF-424D, and SF-LLL were submitted via grants.gov.

Technical Proposal and Evaluation Criteria

Executive Summary

Carmichael Water District (CWD), located 8 miles east of Sacramento in Northern California, is requesting funds to support outdoor water conservation through turf removal and replacement with water-efficient landscaping. CWD will leverage funding to increase existing water use efficiency programs offered to commercial, institutional, and residential water users. CWD will offer \$2.00 per square foot of lawn removed resulting in a savings of 37 gallons of water per square foot per year. Cost sharing with Reclamation would expand water efficiency program capacity; incentivize increased participation in water efficiency programs, and thereby save water while providing climate benefits. The project supports the planning efforts of the 2018 American River Basin Integrated Regional Water Management Plan and meets objectives of the CWD 2020 Urban Water Management Plan.

Length of Time and Estimated Completion Date

The length of time to complete the proposed Program is two years, with an expected start date of March 2023 (anticipated award date) and completion date of March 2025.

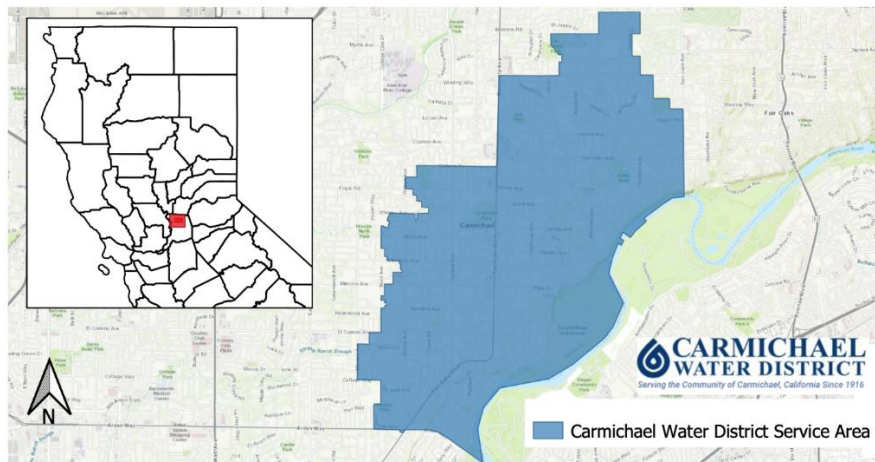
Whether Or Not the Project Is Located on a Federal Facility

The Turf Removal Incentive Program is not located on a Federal facility.

Project Location

CWD is located in Northern California within Sacramento County approximately 8 miles east of the City of Sacramento. Turf conversions associated with the program will take place at various participant's properties within the boundaries of CWD's service area (see Figure 1).

Figure 1: Carmichael Water District Water Service Area



Technical Project Description

Water intense turf grasses are the historical foundation of California landscaping with over half of urban water deliveries consumed by landscape irrigation. Climate driven drought conditions, among other catalysts, are pushing CWD customers to seek alternatives to traditional turf grass landscapes. In response, CWD is seeking funding to enhance the District's existing water efficiency program to deliver additional incentives for water conservation through landscape and irrigation conversions to commercial, institutional, and residential customers. The Turf Removal Incentive Program (Program) is a water conservation program designed to transform high water use turf intensive landscapes, to water-efficient landscaping through turf removal and replacement with low-water use plants, drought-tolerant plants, and mulch application to reduce irrigation water demand.

Irrigation intensive turf grass will be removed and replaced by water-efficient landscaping, including drought tolerant plants, California native plants, mulch, and limited permeable hardscaping, requiring less than half the water needed by traditional lawns. Irrigation systems within the converted area must be upgraded to a low-flow system or be disconnected to employ hand watering. The application of mulch saves water by reducing evaporative losses, cooling soil, and controlling weeds and encourages infiltration, prevents storm water runoff and erosion, and can provide a barrier to some diseases that stress plants and increase water requirements.

If this program receives funding, commercial, institutional, and residential landscapes will be eligible for \$2.00 per square foot of converted landscape, resulting in 50,000 square feet of commercial/institutional turf removed and 50,000 square feet of residential landscapes converted during the grant funded period. This even distribution of program funding will allow for an equitable participation among CWD's customer classes. The water savings for this turf removed is estimated at 55.5 million gallons (170 acre-feet) over the lifetime of these landscapes, assuming a 15-year life. This water saving has the potential to increase overtime as the new water efficient landscapes become established and irrigation requirements are reduced.

Although CWD's has experienced success with the current water efficiency program, including water wise house calls, high-efficiency sprinkler head conversions, and free water efficient fixtures, customer demand for a turf removal program is high. In fact, it is one of the most frequently requested programs. Both CWD field and office staff receive weekly inquiries and requests for such programs. CWD has already generated great interest from one of its top institutional irrigation users, Carmichael Recreation and Park District (CRPD), with a proposed program to convert over 15,000 square feet of non-functional turf grass. One major hurdle for CRPD in initiating the program is a lack of funding to support the landscape conversion. This grant would allow CWD to incentivize landscape transformation programs like CRPD's as well as others.

Program participation will be bolstered through a robust public outreach campaign targeting potential participants through social media posts, a dedicated webpage on CWD's website, and CWD's newsletter "The Flow" which reaches over 11,000 customer accounts. CWD will leverage

existing partnerships and promote the program through community organizations such as the Chamber of Commerce, Regional Water Authority, and the CRPD. Through a schedule of presentations, CWD's Public Information Officer (PIO) will also present information about the program directly to Neighborhood Associations and special interest groups. The PIO will also work with local broadcast and print media outlets to send out updated program information and offer interviews to promote the water conservation program.

Participation in the Program begins with the submission of an application by a property owner, property manager, or authorized contractor. The participant will be required to include the following information, as applicable: conversion area measurement; existing irrigation equipment; new irrigation equipment (if applicable); site plan; meter/account information; water source; landscape material; and site photographs depicting conversion area and existing irrigation equipment. The area that will receive a rebate must be 100% permeable to air and water. Upon implementation of the measure, CWD staff will perform an onsite validation inspection. Program performance will be based on an evaluation of water use before and after the landscape improvements at selected implementation sites.

Evaluation Criteria

E.1.1. Evaluation Criterion A—Project Benefits (35 points) Up to **35 points** may be awarded based upon evaluation of the benefits that are expected to result from implementing the proposed project. This criterion considers a variety of project benefits, including the significance of the anticipated water management benefits and the public benefits of the project. This criterion prioritizes projects that modernize existing infrastructure to address water reliability concerns, including making water available for multiple beneficial uses and resolving water related conflict in the region.

Benefits to the Category A Applicant's Water Delivery System: Describe the expected benefits to the Category A applicant's water delivery system. Address the following:

- **Clearly explain the anticipated water management benefits to the Category A applicant's water supply delivery system and water customers.**

CWD needs to implement the Program to increase water supply reliability in its service area through increased water conservation by reducing irrigation demands on potable water supplies, including surface water and groundwater. In CWD's service area, the majority of daily water consumption is applied to lawns and landscaping with about 30% of applied water lost due to overwatering runoff and evaporation. The projected benefits of implementing the Program include 55.5 million gallons of water conserved over the 15-year life of the Program improvements, which will reduce the District's demands on surface water derived from the American River and the demands on pumping groundwater from the North Basin. The Program will provide financial benefits to customers by offering rebates to participants who convert high water use turf to water efficient landscapes with the additional benefit of lower water bills due to reduced water consumption. Customers who otherwise may not be able to afford landscape conversions will be able to leverage funding offered through the program.

A reduction in the treated water supply demand will reduce the demand on CWD's delivery system including water treatment and pumping facilities while simultaneously decreasing water loss due to system leakage. CWD has a network of pipelines ranging from 2 to 14 inches in diameter throughout the system to provide reliable water service. The majority of these pipelines were constructed in the early 1950's using surplus steel following World War II. These steel pipelines have been in the ground for 70 years and are reaching the end of their useful life. Program related reductions in demand, combined with an aggressive Capital Improvement Program, will address leak driven system water losses in CWD's ageing infrastructure.

- **Explain the significance of the anticipated water management benefits for the Category A applicant's water delivery system and customers. Consider:**

- *Are customers not currently getting their full water right at certain times of year?*
Over the past decade, climate change driven drought conditions have severely affected CWD's surface water supplies through State Water Resources Control Board (Board) curtailment orders in 2014/2015 and most recently in 2021. The SWRCB's curtailment orders resulted in a 100% reduction in surface water supply for CWD during the highest water demand periods of May through October. Implementing the turf replacement program will help offset the supply impacts on CWD and reduce the amount of needed purchased water replacement supply.
- *Does this project have the potential to prevent lawsuits or water calls?*
Due to the scope of the Turf Removal Incentive Program, CWD does not anticipate any impacts associated with lawsuits or water calls.
- *What are the consequences of not making the improvement?*
Water conservation has long been a critical component of CWD's water supply portfolio. In absence of evolving and additional water conservation programs offered to customers, the participation levels would decrease thus resulting in a reduction in this vital supply. Additionally, continued excessive water use on turf landscapes will continue to strain CWD's production capacity especially during peak demand, as this is typically the time customers are irrigating their landscapes.
- *Are customer water restrictions currently required?*
In May of 2021, the State Water Resources Control Board (SWRCB) notified CWD to stop diversions of water from the American River under the District's water right licenses and permit. In response to the SWRCB's curtailment notice and associated impacts, the District's Board of Directors declared a Water Shortage Emergency Condition. As part of the declaration, CWD is currently requiring up to

a 15% reduction in water use per stage 2 of the CWD's Water Shortage Contingency Plan (WSCP). The plan serves as a guide for the District in responding to water supply shortages and responding to regional and statewide impacts from drought conditions while maintaining water quality, safe operating conditions, and fire flow capability. Restrictions currently in place range from a general prohibition on wasteful practices to a prescribed three (3) days a week per an Odd/Even watering schedule. Prohibitions are enforced through education/outreach programs and established fines for repetitive violations.

- *Other significant concerns that support the need for the project.*

CWD does not offer turf removal incentives while many neighboring water suppliers do. This Program would support and increase the capacity of turf removal programs in the Sacramento region by expanding incentive opportunities to previously unreached residents and businesses.

Additionally this program supports the California Department of Finance's 2022/2023 FY Budget Change Proposal (BCP) which specifically calls for funding to support turf removal. Within the proposal it is stated "Many water suppliers across California encourage and support turf replacement as an effective action to make water conservation a way of life. The current drought gives the State, local agencies, and the public an opportunity to eliminate ornamental turf grass, a glaring example of inefficient water use."

Broader Benefits: Describe the broader benefits that are expected to occur as a result of the project. Consider: Will the project improve broader water supply reliability at sub-basin or basin scale?

- **Will the proposed project increase collaboration and information sharing among water managers in the region? Please explain.**

The proposed Program will increase collaboration and information sharing among water managers in the region by sharing data and results from the Program with Reclamation, The Regional Water Authority (RWA), and other water agencies in the Sacramento region. The District will provide valuable data to Reclamation and RWA who have worked together previously on grants to implement larger regional water conservation programs. The Program success will encourage other water districts or agencies that are smaller than the larger regional agencies to implement similar programs for their customers, thereby adding to the impact of water conservation practices and further aligning water efficiency program incentives.

The District has a cooperative working relationship with members of the RWA, which is comprised of twenty-two neighboring agencies, including CWD, that oversee groundwater in the North Basin as part of a RWA's sister agency the Sacramento Groundwater Authority (SGA). In addition, the District is a member of the RWA Water

Efficiency Program, which is comprised of 21 water districts, Cities, County, and special districts, that meet at least quarterly to share water management projects that meet the water conservation goals of the local watersheds, including the American River Watershed. The results of this Program will be shared with the members of RWA.

The proposed Program promotes collaboration within the conservation programs administered by CWD through creating partnerships with its customers, such as Neighborhood Associations; to save water, learn about water efficient landscaping, and ways to save money on irrigation practices. CWD has a history of implementing successful water efficiency programs with Neighborhood Associations such as the Blue Thumb water efficiency outreach program that offered a series of four community workshops and a complete conversion of a winning participant's landscape to a high efficiency drip irrigation system.

The Program also builds upon the District's established relationship with environmental organizations that were formed through previous collaborative water conservation projects that both reduced nonpoint source pollution from entering local waterways and included habitat restoration. An example was the American River Habitat Restoration Project which received recognition from the Sacramento Environmental Commission (SEC) for CWD's environmental stewardship. The restoration project culminated with the reconnection of an upstream riparian habitat that had been separated from the primary American River channel by freefall discharge from a 65-year old culvert. These cohesive relationships aid in promoting the benefits of water efficient landscapes.

- **Will the proposed project positively impacts/benefit various sectors and economies within the applicable geographic area (e.g., impacts to agriculture, environment, recreation, and tourism)? Please explain.**

The American River Parkway is 23 miles in length and is designated both a State and National Wild and Scenic River. Bordering CWD's service area to the south, the American River Parkway receives approximately 8 million visitors annually and generates an estimated \$364,218,973 each year for the local Sacramento economy. A key draw to the American River Parkway is aquatic recreation including canoeing, kayaking, and rafting. During drought driven low river flows, participation in these activities are impacted due to shallow conditions that expose potential hazards to rafters and kayakers. Additionally, low flows have the potential to contribute to conditions that support the growth of toxic algae and increased turbidity levels. This Program will increase minimum instream flow through water conservation. Additionally, reduced demand of surface water as a result of water saving through the program will have the added benefit of improving the American River fish habitat providing additional supplies during critical spawning.

The Program is also of value to CWD's institutional customers such as parks and schools. One of the greatest maintenance expenses for parks and schools is landscape irrigation water. In CRPD's FY 2021-22 Work Plan, one of the Key Initiatives is to "Work with partners on exploring new ways to be sustainable in our daily practices". This Program

will aid the park district, as well as other landscape water users, in achieving that milestone by creating an opportunity to invest saved money in other public benefit projects.

- **Will the project complement work being done in coordination with NRCS in the area (e.g., the area with a direct connection to the districts water supply)? Please explain.** Although this Program has no direct link with NRCS in the area, the proposed Program does incentivize water conservation and contributes to drought resiliency, both of which are part of NRCS's WaterSMART Initiative.
- **Will the project help address drought conditions at the sub-basin or basin scale? Please explain.** *Please note, on-farm improvements themselves are not eligible activities for funding under this NOFO. This criterion is intended to focus on how the WaterSMART Grant project will complement ongoing or future on-farm improvements. NRCS will have a separate application process for the on-farm components of selected projects that may be undertaken in the future, separate of the WaterSMART Grant project.*

As groundwater management is critical to the Sacramento regional water reliability, proactive management decisions to ensure the North Basin's health led to the development of Water Accounting Framework in 1998 and the Water Forum Agreement in 2000. Forward thinking management strategies have advanced conjunctive use, and robust water conservation programs in the region resulting in stabilized and consistent groundwater levels while providing environmental benefits of preserving surface waters in our rivers. Although the proposed Program would not include on-farm efficiency work that is currently being completed or anticipated, water savings directly linked to the Program support groundwater management strategies and help address sub-basin drought conditions.

E.1.2. Evaluation Criterion B—Planning Efforts Supporting the Project (30 points) Up to **30 points** may be awarded based on the extent to which the proposed on-the-ground project is supported by an applicant's existing water management plan, water conservation plan, System Optimization Review, or identified as part of another planning effort led by the Category A applicant. This criterion prioritizes projects that are identified through local planning efforts and meet local needs.

Plan Development: Describe how your project is supported by an existing planning effort. Identify the planning effort and who developed it. If the planning effort was not developed by the Category A applicant, describe the Category A applicant's involvement in developing the planning effort.

The 2018 American River Basin Integrated Regional Water Management Plan (IRWMP) Update was prepared by the Regional Water Authority (RWA) with significant input from stakeholders in the American River Basin Region. CWD was an active participant in the IRWM process that

included coordinate stakeholder involvement in plan development, including water stakeholders, the public, disadvantaged communities and tribes. IRWM identifies major water and related resource management issues and their proposed solutions. It maximizes economic and societal benefits in an equitable manner, while maintaining the ecosystem critical to water resource sustainability.

Support for the Project: Describe to what extent the proposed project is supported by the identified plan. Address the following:

- **Is the project identified specifically in the planning effort?**

The IRWMP states, "All water suppliers should have proactive demand management policies that include both conservation and efficiency". Urban water use efficiency strategies such as turf replacement programs are referenced in the IRWM Plan in "Resource Management Strategies".

- **Explain whether the proposed project implement a goal or address a need or problem identified in the existing planning effort?**

The Program contributes to IRWM Plan Objectives in the following ways:

Objective 2: Increase water use efficiency. The Program is directly correlated with this objective as it promotes water use efficiency through the removal of high irrigation demanding turf.

Objective 3: Improve ability to reliably meet water needs during dry or emergency conditions. This Program is reducing water demands by removing turf, which is a high-water use plant. Removing turf and converting to water efficient landscapes, will reduce irrigation demands and therefore improve water reliability during dry conditions.

Objective 6: Improve protection of beneficial uses of surface water and groundwater. Turf removal results in reduced pesticide and fertilizer application while also lowering irrigation water runoff. This in turn improves storm water runoff quality, and decreases sources of groundwater contamination.

Objective 15: Increase awareness of the need for, benefits of, and practices for maintaining sustainable water resources. The outreach component of the Program will actively promote public awareness of the role water efficiency plays in water reliability.

Objective 18: Manage the Region's groundwater basins sustainably. By reducing overall water use, the Program will decrease the pumping of groundwater which will contribute to basin sustainability.

- **Explain how the proposed project has been determined as a priority in the existing planning effort as opposed to other potential projects/measures.**

The implementation of water use efficiency measures, such as turf removal, has been ranked as 6 out of 9 implementation strategies. It has been prioritized above other strategies such as an analysis of expanded regional conjunctive and increased capture of storm water runoff for infiltration/reuse.

CWD's budget prioritized the Program by allocating project funding in the Fiscal Year 2022/2023 Budget.

Additional planning that supports the program includes CWD's 2020 Urban Water Management Plan which states "In addition to ongoing water conservation commitments, the District will continue to evaluate the need for additional programs and actions necessary to achieve water use objectives in compliance with California Water Code Section 10609.20. Resources will be dedicated in the District's budget for demand management activities which will help comply with these future water use objectives."

E.1.3. Evaluation Criterion C—Implementation and Results (20 points) Up to **20 points** may be awarded based upon the extent to which the applicant is capable of proceeding with the proposed project upon entering into a financial assistance agreement. Applicants that describe a detailed 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 most points under this criterion.

- **Describe the implementation plan for the proposed project. Please include an estimated project schedule that shows the stages and duration of the proposed work, including major tasks, milestones, and dates.**

Program implementation will include the following five tasks described below:

Task 1 -Program Administration:

The Program Manager will manage implementation of the Program with the assistance of support personnel for the duration of the work.

Task 2 -Outreach and Promotion:

CWD will create in-house marketing and promotional material for the Program to generate interest and boost participation. The District website will present information regarding participation criteria, and provide access to application and supporting materials. CWD's social media platforms will promote the Program and provide updates. Targeted promotion to high landscape irrigation users may also be employed through bill inserts and letters. CWD will leverage existing collaboration with stakeholders including parks, schools, neighborhood associations, and community organizations, to actively promote the program. All promotional materials will acknowledge Reclamation's funding.

Task 3 – Site Inspections:

The turf conversion sites will receive a pre and post-conversion inspection. The pre-inspection will verify there is currently living turf on the proposed site and the square footage of turf eligible for participation. The post-inspection confirms that the total project area was converted to meet specified rules and requirements such as appropriate plant materials and installation of water efficient irrigation, if applicable.

Aspects of the pre-inspection process will include collecting participant contact information, existing turf condition, existing irrigation system condition, and proposed

conversion square footage. Additional information may include a site plan, conversion proposed irrigation upgrades, landscape material, and site photographs depicting existing landscape conditions.

CWD will perform a thorough in-person post- inspection to verify Program requirement compliance. During post- inspection, CWD personnel will:

- Walk the site with the property owner or authorized representative.
- Verify specific the conversion meets the water efficient landscape criteria.
- Measure the project area.
- Verify installation of water efficient irrigation if applicable.
- Promote CWD's other water efficiency programs and educational opportunities.

Task 4 – Rebate Incentive:

Over the 24-month period of the potential grant award, CWD proposes to facilitate the conversion of approximately 50,000 square feet of commercial/institutional turf and 50,000 square feet of residential turf to water efficient landscapes. CWD will provide a \$2 per square foot rebate for qualifying conversions.

District staff will estimate rebates by square footage measurements of proposed conversion areas, and staff will confirm rebates with final measurements. No participant will be rebated an amount higher than what is totaled as an eligible Program cost. To receive the Program rebate funds, the completed site conversion is required to be consistent with the intent of the Program. Additionally, the turf areas must remain in compliance with the conversion requirements for five years. If this requirement is violated, the participant may be required to refund all or a portion of rebate funds. This requirement is void upon transfer of ownership. Turf conversion area qualification criteria include:

- Mulch and/or approved groundcover shall be spread over non-planted areas to eliminate bare soil exposure.
- Site shall be free any invasive species.
- Conversion area must include the entirety of the irrigation zone(s), and must be converted to a low-flow irrigation system or be removed to facilitate hand watering.
- Ongoing conversions and completed conversions are not eligible. Site inspections are required prior to living turf removal.
- Conversions must comply with all applicable laws, codes, policies, covenants, and restrictions.

Task 5 – Grant Management and Reporting:

The program Manager will be the point of contact to negotiate, execute, and manage the Agreement with Reclamation. The program staff will prepare progress reports as necessary to comply with WaterSMART grant requirements, including submittal of Financial Reports and Program Performance reports, as well as Financial Reimbursement Requests using the online ASAP system through the System for Award Management

(SAM). Program Performance and Final Reports will be completed and evaluate water savings achieved by the Program.

Table 1: Turf Removal Incentive Program Project Schedule

Task/Milestone	Start Date	End Date
Task 1 -Program Administration	3/31/23	3/31/25
<ul style="list-style-type: none"> • Board of Directors approval for Program • Execute and manage the cooperative agreement with Reclamation • Finalize Program forms and complete attorney review 		
Task 2 -Outreach and Promotion	3/31/23	3/31/25
<ul style="list-style-type: none"> • Create in-house marketing and promotional material • Publish website promotional update • Stakeholders actively promote the program 		
Task 3 – Site Inspections	5/31/23	3/31/25
<ul style="list-style-type: none"> • Conduct pre and post-inspections 		
Task 4 – Rebate Incentive	6/1/23	3/31/25
<ul style="list-style-type: none"> • Coordinate with Financial Services Department • Process rebates as qualified 		
Task 5 – Grant Management and Reporting	3/31/23	3/31/25
<ul style="list-style-type: none"> • Prepare Program Performance Reports and Reimbursement Requests • Close program and prepare Final Report 		

- **Describe any permits that will be required, along with the process for obtaining such permits.**

No permits are required for this Program. Turf removal rebate application and program compliance will be administered by CWD staff.

- **Identify and describe any engineering or design work performed specifically in support of the proposed project.**

There is no engineering or design work required to support this Program.

- **Describe any new policies or administrative actions required to implement the project.** Final approval from the CWD District Board of Directors will be required prior to proceeding with the Program. No new District policies or administrative actions are anticipated.

- **Describe the timeline for completion of environmental and cultural resource compliance. Was the timeline for completion of environmental and cultural resource compliance discussed with the local Reclamation office?**

No environmental and cultural resource compliance is needed for the Turf Removal Incentive Program since each Program will take place on the participant’s property on previously developed land. A correspondence with the local Bureau of Reclamation office indicated the Program would likely be eligible for a categorical exclusion.

E.1.4. Evaluation Criterion D—Nexus to Reclamation (5 Points) Up to **5 points** may be awarded based on the extent that the proposal demonstrates a nexus between the proposed Program and a Reclamation Program or activity. Describe the nexus between the proposed Program and a Reclamation Program or activity, including:

- **Is the proposed project connected to a Reclamation project or activity? If so, how? Please consider the following:**

- *Does the applicant receive Reclamation project water?*
CWD does not have a direct water service, repayment, or O&M contract with Reclamation.
- *Is the project on Reclamation project lands or involving Reclamation facilities?* No, the Program is not on Reclamation land nor does it involve Reclamation facilities.
- *Is the project in the same basin as a Reclamation project or activity?*
This Program is linked to Reclamation Mid-Pacific Region facilities and activities at Folsom Reservoir as CWD has water rights to the American River which is downstream of Folsom Dam. The reduction of surface water and groundwater usage through additional water conservation has the potential to provide benefit to these facilities during drought conditions.
- *Will the proposed work contribute water to a basin where a Reclamation project is located?*
CWD's turf removal program will reduce demand for water, thereby reducing groundwater pumping in the North Basin and leaving more water in this aquifer. The proposed Program has the potential to save an estimated 22.2 million gallons of water from being extracted.

E.1.5. Evaluation Criterion E—Presidential and Department of the Interior Priorities (10 points) Up to **10 points** may be awarded based on the extent that the project demonstrates support for the Biden-Harris Administration's priorities, including E.O. 14008: *Tackling the Climate Crisis at Home and Abroad*, E.O. 13985: *Advancing Racial Equity and Support for Underserved Communities Through the Federal Government*, and the President's memorandum, *Tribal Consultation and Strengthening Nation-to Nation Relationships*. Points will be allocated based on the degree to which the project supports the priorities listed, and whether the connection to the priority(ies) is well supported in the application. **Without repeating benefits already described in previous criteria, describe in detail how the proposed project supports a priority(ies) below.**

E.1.5.1. Sub-criterion No. E1. Climate Change Points will be awarded based on the extent the project will reduce climate pollution; increase resilience to the impacts of climate change; protect public health; and conserve our lands, waters, oceans, and biodiversity. Address the following as relevant to your project.

Combating the Climate Crisis E.O. 14008: *Tackling the Climate Crisis at Home and Abroad*, focuses on increasing resilience to climate change and supporting climate- resilient development. For additional information on the impacts of climate change throughout the western United States, see: <https://www.usbr.gov/climate/secure/docs/2021secure/2021SECUREREport.pdf>. Please describe how the project will address climate change, including:

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

In 2006, the California Legislature passed the California Global Warming Solutions Act of 2006 [Assembly Bill 32 (AB 32)], which created a comprehensive, multi-year program to reduce greenhouse gas emissions in California. AB 32 required the California Air Resources Board to develop a Scoping Plan that describes the approach California will take to reduce GHGs to achieve the goal of reducing emissions. The 2017 Scoping Plan states “since the greatest energy consumption related to water is from delivery to end uses, the potential for energy savings also resides with water end users, where water conservation and efficiency play an important role”. The Turf Removal Incentive Program directly addresses this through the reduction of 55.5 million gallons of water treated, pumped, delivered and consumed for turf irrigation over a 15-year lifetime.

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

The projects resulting annual decrease of 55.5 million gallons of potable water demonstrates how water supply reliability with the reduction of irrigation demands. As this project reduces water demand, it effectively reduces all resource inputs from the District. Resource input reductions including reductions in personnel time, equipment replacement costs, transportation of chlorine and other chemicals that requires transport and burning of fossil fuels, pumping costs including electrical demands, and the list goes on. Effectively water conservation results in energy conservation that alleviates greenhouse gases that attribute to the acceleration and magnitude of impacts of climate change.

E.1.5.2. Sub-criterion No. E2. Disadvantaged or Underserved Communities Points will be awarded based on the extent to which the Project serves economically disadvantaged or underserved communities in rural or urban areas.

- **Will the proposed project serve or benefit a disadvantaged or historically underserved community? Benefits can include, but are not limited to, public health and safety by addressing water quality, new water supplies, or economic growth opportunities.**

The Program provides benefits to disadvantaged communities through improved water quality, and water supply reliability. The turf removal will reduce the amount of pesticides used therefor reducing the effects of stormwater pollution. Additionally, the reduced

dependence on water for turf irrigation will contribute to CWD's overall water supply reliability. The Program has the potential to provide positive monetary benefits to low income and minority populations by incentivizing water conservation Program implementation, which, after installation, will potentially decrease the costs to that population. Furthermore, school and park participation and the resultant water cost savings will allow the schools and parks to invest additional funds into serving disadvantaged and historically underserved members of our community.

- **Please describe in detail how the community is disadvantaged based on a combination of variables that may include:**
 - **Low income, high and/or persistent poverty**
 - **High unemployment and underemployment**
 - **Racial and ethnic residential segregation, particularly where the segregation stems from discrimination by government entities** ○ **Linguistic isolation**
 - **High housing cost burden and substandard housing**
 - **Distressed neighborhoods** ○ **High transportation cost burden and/or low transportation access** ○ **Disproportionate environmental stressor burden and high cumulative impacts**
 - **Limited water and sanitation access and affordability**
 - **Disproportionate impacts from climate change**
 - **High energy cost burden and low energy access** ○ **Jobs lost through energy transition**
 - **Access to healthcare**

According to the California Department of Resources Disadvantage Community Mapping tool, CWD serves a population of approximate 7,000 whose median housed income is between \$28,335 and \$39,338. Additional data shows 8.9% of Carmichael, CA residents had an income below the poverty level in 2019, which was 32.2% less than the poverty level of 11.8% across the entire state of California.

- **If the proposed project is providing benefits to an underserved community, provide sufficient information to demonstrate that the community meets the underserved definition in E.O. 13985, which includes populations sharing a particular characteristic, as well as geographic communities, that have been systematically denied a full opportunity to participate in aspects of economic, social, and civic life.**

The project provides indirect benefits to underserved communities under the definition in E.O. 13985.

E.1.5.3. Sub-criterion No. E.3. Tribal Benefits Points will be awarded based on the extent to which the Project will honor the Federal government's commitments to Tribal Nations.

- **Does the proposed project directly serve and/or benefit a Tribe? Will the project improve water management for a Tribe?**

The Program does not directly serve a Tribe.

- **Does the proposed project support Tribal resilience to climate change and drought impacts or provide other Tribal benefits such as improved public health and safety by addressing water quality, new water supplies, or economic growth opportunities?**

The Program is not directly linked to any climate change or drought related Tribal benefits.

Overlap or Duplication of Effort Statement

There is no overlap between the proposed Program and any other active or anticipated proposals or Programs in terms of activities, costs, or commitment of key personnel. The proposed Program does not in any way duplicate any proposal or project that has been or will be submitted for funding consideration to any other Federal or non-Federal potential funding source.

Project Budget

The project budget includes: (1) Funding plan and letters of funding commitment (2) Budget proposal (3) Budget narrative

Funding Plan and Letters of Funding Commitment

CWD will fund all non-Reclamation Program costs. CWD annually allocates budget for the existing water efficiency programs, and this annual budget allocation will fund CWD’s cost share for the Turf Removal Incentive Program. CWD’s FY 22/23 and FY 23/24 budget will fund the District’s non-federal share of Program costs, which are funded by CWD operating and general funds. CWD does not anticipate any project costs to be incurred prior to the project start date.

Budget Proposal

Table 1 - Summary of Non-Federal and Federal Funding Sources

FUNDING SOURCES	AMOUNT
Non-Federal Entities	
1. Carmichael Water District	\$125,000.00
Non-Federal Subtotal	\$125,000.00
REQUESTED RECLAMATION FUNDING	\$100,000.00

Table 2 - Total Project Cost Table

SOURCE	AMOUNT
Costs to be reimbursed with the requested Federal Funding	\$100,000.00
Costs to be paid by the applicant	\$125,000.00
Value of third-party contributions	\$0.00
Total Project Cost	\$225,000.00

Table 3 – Budget Proposal

BUDGET ITEM DESCRIPTION	COMPUTATION		Quantity Type	TOTALCOST
	\$/Unit	Quantity		
Salaries and Wages				
Employee 1	Not applicable			\$0
Fringe Benefits				
Full-Time Employees	Not applicable			\$0
Part-Time Employees	\$22	800	Hours	\$17,600
Equipment				
Item A	Not applicable			\$0
Supplies and Materials				
Outreach Direct Mailer	\$2,500	2 Mailing	Each	\$5,000
Contractual/Construction				
Turf Removal Incentive	\$2 SF	100,000	SF	\$200,000
Third-Party In-Kind Contributions				
Contributor A	Not applicable			\$0
Other				
NEPA CE	\$2,400			\$2,400
TOTAL DIRECT COSTS				\$225,000
Indirect Costs				
Type of rate	Not applicable			\$0
TOTAL ESTIMATED PROJECT COSTS				\$225,000

Budget Narrative

If awarded, CWD will use its own budget to cover the cost of incentives paid to customers. CWD is aware of the administrative commitment associated with the Program, including staff time and salaries, and will cover those cost through its own budget with the exception of a part-time Intern. This will facilitate the greatest water savings per grant funding received.

Salaries and Wages

Program Manager

CWD's Public Information Officer, Chris Nelson is the Program Manager for the Project whose cost are covered by CWD's fiscal year budgets. A total of 150 hours is estimated to manage and promote the Program over the allotted 2-year timeframe.

Water Efficiency Specialist

David John Flores will conduct the pre-project and post-project verification inspections at a total of 230 hours over the allocated 2-year timeframe. Associated cost are covered by CWD's fiscal year budgets.

Intern

A part-time temporary Intern, at a cost of \$22 per hour will spend 800 hours working on this program over the allotted 2-year timeframe. The intern report to the Program Manger and will be responsible for assisting in almost all clerical aspects of the Project:

- sending direct mailing marketing materials
- Field measurements
- Preparing paperwork for rebate prequalification
- Verifying applicant eligibility
- Accompanying the Water Efficiency Specialist during onsite inspections

Fringe Benefits

No fringe benefits are included in the project budget. Part-time staff do not receive fringe benefits.

Travel

There will be no travel expenses attributed to this grant.

Equipment

There will be no equipment purchases attributed to this grant.

Materials and Supplies

Cost for printing, duplication, and processing of two program informative direct mailers is included at a unit cost of \$2,500 each.

Contractual

Participants will be required to complete and sign a participation request/application form. Program participants will be granted \$2.00 per square foot of replaced turf.

Third-Party In-Kind Contributions

No Third-Party In-Kind Contributions are included in the project budget.

Environmental and Regulatory Compliance Costs

CWD estimates the cost of obtaining a NEPA Categorical Exemption (CE) to be approximately \$2,400 based on similar projects.

Other Expenses

Not applicable

Indirect Costs

There are no indirect cost attributed to this grant

Environmental and Cultural Resources

Compliance

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

- **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.**

No, the Turf Removal Incentive Program provides incentives for turf replacement and conversion to water efficient landscaping and should pose no adverse impact to the surrounding environment. The work will be performed on property that is considered already disturbed, and no further requirements are needed. It is anticipated that a Categorical Exclusion or Finding of No Significant Impacts under NEPA will be required given the nature of the Program that includes providing rebates for water conservation projects. A Categorical Exclusion seems appropriate since the Targeted Water Conservation Incentive Program will likely not have a significant effect on the human environment and, therefore, neither an environmental assessment nor an environmental impact statement would be required.

- **Are you 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?**

CWD is not aware of any species or proposed to be listed as a Federal threatened or endangered species, or designated critical habitat in the Program area. The Program will be implemented at specific properties in landscaped areas that are considered already disturbed that are not critical habitat and not considered to affect species listed or proposed to be listed as a Federal endangered or threatened species.

- **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.**

There are no wetlands or other surface water inside the proposed Program area that fall under Clean Water Act jurisdiction as “Waters of the United States”. The Program will be implemented on turf lawn area that is actively irrigated and are considered already disturbed.

- **When was the water delivery system constructed?**

The origin of Carmichael Water District (District) dates to July 3, 1915 when the Carmichael Colonies Improvement Club appointed a committee to investigate the possible formation of an irrigation district to address the growing water needs of the Carmichael Colony. The water delivery system has been expanded and developed since 1915.

- **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.**

No, the Turf Removal Incentive Program will not result in any modification of or effects to, individual features of an irrigation system.

- **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 your local Reclamation office or the State Historic Preservation Office can assist in answering this question.**

CWD is not aware of any buildings, structures, or features in the Program area listed or eligible for listing on the National Register of Historic Places. The Turf Removal Incentive Program will be implemented at specific properties in landscaped areas that are considered already disturbed.

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

There are no known archeological sites in the proposed Program area. The Turf Removal Incentive Program will be implemented at specific properties in landscaped areas that are considered already disturbed.

Required Permits or Approvals

There are no required permits anticipated for the Turf Removal Incentive Program. All Program-related applications and approvals will be administered by CWD. Final approval from the CWD Board of Directors will be required prior to proceeding with the Turf Removal Incentive Program.

Letters of Support for the Project

CWD received letters of support from the Regional Water Authority, Carmichael Recreation and Park District, and the Carmichael Chamber of Commerce. The Regional Water Authority is a joint powers authority representing two dozen water providers and affiliates in the greater Sacramento region. The Carmichael Recreation and Park District's boundaries include a population of approximately 52,000 residents and features 13 park sites; 11 fully developed parks, a 36-acre community, a botanical garden that is nearly 50 years old, and a 17-acre nature area. The Carmichael Chamber of Commerce began on January 9, 1948 continues to connect business with the community of Carmichael, CA. All Letter were submitted via grants.gov.



April 20, 2022

Sean Bigley, Chair
Dan York, Vice Chair

Robin Graber
Water Resources and Planning Office
Bureau of Reclamation
P.O. Box 25007
Denver, CO 80225

Members

California American Water
Carmichael Water District
Citrus Heights Water District
Del Paso Manor Water District
El Dorado Irrigation District
Elk Grove Water District
Fair Oaks Water District
Folsom, City of
Golden State Water Company
Lincoln, City of
Orange Vale Water Company
Placer County Water Agency
Rancho Murieta Community Services District
Roseville, City of
Sacramento, City of
Sacramento County Water Agency
Sacramento Suburban Water District
San Juan Water District
West Sacramento, City of
Yuba City, City of

Associates

County of Placer
El Dorado County Water Agency
Sacramento Area Flood Control Agency
Sacramento Municipal Utility District
Sacramento Regional County Sanitation District

Dear Ms. Graber,


The Regional Water Authority (RWA) is pleased to offer support of the Carmichael Water District's Turf Removal Incentive Program application to the WaterSMART Small-Scale Water Efficiency Projects for Fiscal Year 2022 (Funding Opportunity Number: R22AS00195).

The Carmichael Water District has been a continuous and active participant in the RWA's Regional Water Efficiency Program for several decades. Programs like the Carmichael Water District's Turf Removal Incentive Program are being implemented across our region to increase water efficiency and water resiliency with the goal of mitigating the impacts of climate change including frequent drought. This proposed program would support and increase the capacity of turf removal programs in the region by expanding incentive opportunities to previously unreached residents and businesses.

Focusing on reducing outdoor water use is critical for our collective water future. In the Sacramento region, most of the water we use daily goes on lawns and landscaping and about 30% of that is lost due to overwatering and evaporation. Furthermore, water use doubles or triples in our region during the hot and dry summer months. Replacing thirsty turf grass with low water use/native plants and efficient irrigation reduces overall customer water use while still providing a beautiful and healthy landscape to maintain our region's quality of life.

Therefore, the RWA enthusiastically supports the Carmichael Water District bringing this important water efficiency and resiliency program to fruition and encourages the Bureau of Reclamation to support the District with federal funding for this critical program.

Sincerely,


James Peifer
Executive Director
Regional Water Authority



5750 Grant Avenue • Carmichael, California 95608-3744
(916) 485-5322 • (916) 485-0805 fax • www.carmichaelpark.com

Date: April 21, 2022
To: Cathy Lee, General Manager
Subject: Carmichael Recreation and Park District support for WaterSMART Grant

Dear Ms. Lee,

On behalf of the Carmichael Recreation and Park District (CRPD), we wanted you and the Board at the Carmichael Water District to know that we are fully supportive of the application you will be submitting for the WaterSMART grant.

Over the last several years CRPD has taken the use of water to another level of conservation. We track our monthly use by park and have worked to be more sustainable when it comes to our landscaping projects. In our FY 2021-22 Work Plan, one of the milestones in our Key Initiatives is to "Work with partners on exploring new ways to be sustainable in our daily practices". Supporting the Carmichael Water District in your grant application is a way to do just that!

The CRPD is committed to maintaining safe and playable turf areas in our 13 parks, while also working to relandscape underutilized passive turf areas to save water. At our April 2022 meeting, the information above was discussed and our Advisory Board of Directors is supportive of the Carmichael Water District's application for the WaterSMART grant. We look forward to partnering with you and participating in the funding opportunities once you receive the grant.

Sincerely,

A handwritten signature in black ink that reads "Mike Blondino". The signature is written in a cursive, flowing style.

Mike Blondino
District Administrator
Carmichael Recreation and Park District

A handwritten signature in black ink that reads "Joyce Carroll". The signature is written in a cursive, flowing style.

Joyce Carroll
Chair, Advisory Board of Directors
Carmichael Recreation and Park District



Date: 4/27/2022

To: Cathy Lee, General Manager

Subject: Letter of Support for Funding Carmichael Water District's Turf Removal Incentive Program grant application for the United States Department of the Interior, Bureau of Reclamation's WaterSMART Small-Scale Water Efficiency Projects for Fiscal Year 2022

Dear Ms. Lee:

We understand that Carmichael Water District (District) is submitting a WaterSMART Grants: Small-Scale Water Efficiency Projects grant application for consideration by the United States Bureau of Reclamation for Fiscal Year 2022.

This grant would help fund the District's Turf Removal Incentive Program, as part of its long-term goal of water conservation, water supply reliability, and efficient water management. The District has been providing reliable, safe drinking water to its customers in Carmichael, CA since 1916. The Carmichael Chamber of Commerce fully supports the Project and the District's efforts to enhance water use efficiency and local water supply reliability. The two-year targeted landscape improvement program offers rebates to promote water conservation through the transformation of high-water-use turf grass to water-efficient landscapes.

The Turf Removal Incentive Program will provide financial incentives to business and residential members of the community of Carmichael, resulting in reductions in potable water use and increased water efficiency.

If you have any questions or need additional information regarding our support of this project, please do not hesitate to contact me at 916-481-1002 or execdir@carmichaelchamber.com.

Sincerely,

Julie DePrada-Schott
Executive Director
Carmichael Chamber of Commerce

CARMICHAEL WATER DISTRICT

RESOLUTION 04192022-01

**A RESOLUTION COMMITTING THE CARMICHAEL WATER DISTRICT TO THE
FINANCIAL AND LEGAL OBLIGATIONS ASSOCIATED WITH THE RECEIPT OF A
FINANCIAL ASSISTANCE AWARD UNDER BUREAU OF RECLAMATION NOTICE OF
FUNDING OPPORTUNITY No. R22AS00195**

WHEREAS, the District intends to leverage money and resources by cost sharing with Reclamation on Drought Resiliency Projects that will conserve and promote efficiently water use and sustainability; and

WHEREAS, the District plans to implement a turf removal program to increase water conservation management; and

WHEREAS, the proposed turf removal program will better prepare the District and its customers to address the impacts of drought; and

WHEREAS, the District continues to proactively identify water efficiency programs through drought planning, in advance of emergency actions; and

WHEREAS, the District is committed to fulfilling the financial and legal obligations associated with the receipt of a financial assistance award under Bureau of Reclamation Notice of Funding Opportunity No. R22AS00195.

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

1. Cathy Lee, General Manager is hereby authorized the legal authority to enter into an agreement on behalf of Carmichael Water District with the Bureau of Reclamation for the WaterSMART Small-Scale Water Efficiency Projects Notification of Funding Opportunity (NOFO) No. R22AS00195.
2. The Board of Directors supports the Carmichael Water District application for submittal.
3. The Carmichael Water District has the capability to provide the amount of funding contributions specified in the funding plan of \$125,000.
4. Carmichael Water District will work with Reclamation to meet established deadlines for entering into a grant or cooperative agreement.

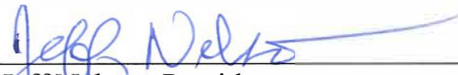
PASSED AND ADOPTED by the Board of Directors by the following vote:

Mark Emmerson	Aye	<input checked="" type="checkbox"/>	Nay	<input type="checkbox"/>	Absent	<input type="checkbox"/>	Abstain	<input type="checkbox"/>
Jeff Nelson	Aye	<input checked="" type="checkbox"/>	Nay	<input type="checkbox"/>	Absent	<input type="checkbox"/>	Abstain	<input type="checkbox"/>
Ron Greenwood	Aye	<input checked="" type="checkbox"/>	Nay	<input type="checkbox"/>	Absent	<input type="checkbox"/>	Abstain	<input type="checkbox"/>
Paul Selsky	Aye	<input checked="" type="checkbox"/>	Nay	<input type="checkbox"/>	Absent	<input type="checkbox"/>	Abstain	<input type="checkbox"/>
Ron Davis	Aye	<input checked="" type="checkbox"/>	Nay	<input type="checkbox"/>	Absent	<input type="checkbox"/>	Abstain	<input type="checkbox"/>

Board Totals: **Ayes:** 5 **Nays:** **Absent:** **Abstain:**

Passed Unanimously:
Motion Carried:
Motion Not Carried:

Signed after its passage this 19st day of April 2022:



Jeff Nelson, President
Board of Directors

ATTEST: 

Cathy Lee, Secretary