OUTDOOR RESIDENTIAL WATER EFFICIENCY PROGRAM

WaterSMART: Water and Energy Efficiency Grants for FY 2020 and 2021

FOA: BOR-DO-21-F001

September 17, 2020

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<thead>
<tr>
<th>Acronym</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>AF</td>
<td>Acre-feet</td>
</tr>
<tr>
<td>AFY</td>
<td>Acre-feet per year</td>
</tr>
<tr>
<td>BMP</td>
<td>Best Management Practices</td>
</tr>
<tr>
<td>CEQA</td>
<td>California Environmental Quality Act</td>
</tr>
<tr>
<td>EPA</td>
<td>U.S. Environmental Protection Agency</td>
</tr>
<tr>
<td>IRWMP</td>
<td>Integrated Regional Water Management Plan</td>
</tr>
<tr>
<td>MNWD</td>
<td>Moulton Niguel Water District</td>
</tr>
<tr>
<td>NEPA</td>
<td>National Environmental Policy Act</td>
</tr>
<tr>
<td>UCR</td>
<td>University of California, Riverside</td>
</tr>
<tr>
<td>UWMP</td>
<td>Urban Water Management Plan</td>
</tr>
</tbody>
</table>
Date: September 17, 2020

Applicant: Moulton Niguel Water District

Applicant City, County, State: Laguna Niguel, Orange County California

Project Location: The project is located at various locations throughout the District’s service area, within the cities of Aliso Viejo, Laguna Niguel, Laguna Hills, Mission Viejo, San Juan Capistrano and Dana Point, none of which are located on a Federal facility.

Project Name: Outdoor Residential Water Efficiency Program

Project Duration: 24 months

Estimated Project Completion (mm/yy): October 30, 2022

Funding Group: Tier 1

Grant Funding Requested: $400,000

Local Matching Funds: $1,502,944

Project Summary:

The proposed project will:

1. Provide convenient, outdoor water use efficiency programs that utilizes a customized approach to maximize water savings.
2. Inspire customers to reduce landscape irrigation demands through participation in the transformation of traditional lawns to watershed friendly gardens.
3. Utilize technology to improve residential water use.

The proposed project will allow MNWD to save an estimated 159.33 AF of water and an estimated 341,691 kWh in avoided energy costs annually. These improvements support Reclamations objectives to leverage local funds and resources to conserve and use water more efficiently, improves energy efficiency, and provides ecological benefits by using watershed friendly, native plants.

This project is not located on a Federal facility.
1.2 PROJECT LOCATION

The following map is of the District’s service area, within which residential properties may participate in the proposed project.
1.3  TECHNICAL PROJECT DESCRIPTION

1.3.1  Background
Established in 1960, the District provides water, recycled water, and wastewater service to more than 170,000 people within a 37 square mile service area located within the southern portion of Orange County. The District service area includes the cities of Aliso Viejo, Laguna Niguel, Laguna Hills, Mission Viejo, San Juan Capistrano, and Dana Point.

All of the potable water supply for the District is imported from the Metropolitan Water District of southern California (MWD) via its wholesale supplier, the Municipal Water District of Orange County (MWDOC). The imported water is treated at the Diemer Filtration Plant or at the Baker Water Treatment Plant and delivered to the District through three dedicated pipelines. The District operates and maintains approximately 663 miles of potable water distribution pipelines. In addition, the District has 26 steel tank reservoirs and two pre-stressed concrete operational storage reservoirs for a total potable water storage capacity within the District of approximately 70 million gallons. The District owns capacity rights in several adjoining water agencies’ reservoirs and pipelines such as El Toro Water District R-6 Reservoir; Santa Margarita Water District (SMWD) Upper Chiquita Reservoir; Joint Transmission Main (a joint powers agreement between the District and other water agencies); Eastern Transmission Main jointly owned by the District and the City of San Juan Capistrano; and the South County Pipeline, which conveys water from the AMP to several south county water agencies. The District also operates 22 pump stations to pump water from lower pressure zones to the higher-pressure zones and 20 pressure reducing stations and flow control facilities to convey water from high to low zones. 100 percent of the potable water demand is met with imported water. On average, approximately 43 percent of the imported water has been from the State Water Project and 57 percent has been from the Colorado River Aqueduct. The San Juan Basin Authority has water rights for approximately 10,000 AFY, and the District is a member of the San Juan Basin Authority; however, due to the brackish water quality and the very limited supply, the District has not been able to utilize any of this water.

In addition to water facilities, the District maintains approximately 504 miles of wastewater collection pipelines. The District’s wastewater system has 16 lift stations that pump wastewater over the ridge lines to the various treatment plants for treatment and recycling. The District participates in the South Orange County Wastewater Authority (SOCWA), a joint powers agency comprised of ten governmental agencies, which operates three regional treatment plants which the District owns capacity in and two ocean outfalls. The District also owns a fourth wastewater treatment plant, Plant 3A, which is operated by SMWD by agreement. It is the policy of the District to promote the use of recycled water to provide for the conservation and reuse of all water resources, and to utilize this resource for any approved purpose to the maximum extent possible under the laws of the State of California. In 1974, the District became one of the first water providers in Orange County to deliver recycled water for irrigation use. The District owns two Advanced Wastewater Treatment (AWT) facilities providing expansive recycled water service for landscaping. The District has constructed approximately 140 miles of recycled water distribution pipelines with five pre-stressed concrete and six steel storage reservoirs to service the recycled water system. The District operates 10
recycled-water pump stations. In addition, the District owns 1,000 acre-feet of capacity rights in the Upper Oso recycled water reservoir, owned by Santa Margarita Water District. The projected annual demand of the recycled water system will be approximately 8,000-acre feet per year over the next few years. Tertiary treated wastewater that would otherwise be sent to the ocean is treated and recycled. Recycled water currently meets 23 percent of the District’s overall demand. Currently, approximately 50 percent of dedicated irrigation meters are served with recycled water and about two-thirds of all dedicated irrigation water use is met with recycled water.

The climate of the District’s service area is characterized by mild, dry summers and winters with temperatures ranging from an average of 55 degrees Fahrenheit in January to 73 degrees Fahrenheit in August, and occasional interruptions of periods of hot weather and strong winter storms. Rainfall averages 14 inches annually.

**Water Use by Customer Type**

There are currently 55,030 potable and recycled customer connections to the District water distribution system. All of the connections in the District system are metered, and it is anticipated that approximately 1,000 more connections will be added to the system by 2035. The majority of the water demand is residential and accounts for approximately 60 percent of the total water demand. Commercial/industrial/institutional (CII) use, including dedicated landscape, consumes about 40 percent of the system water supply. There is no water supply for agricultural use, with the exception of water used by commercial nursery operations, which are accounted for in the commercial sector use figures.

<table>
<thead>
<tr>
<th>Use Type</th>
<th>Actual 2010</th>
<th>Actual 2015</th>
<th>Projected 2020</th>
<th>Projected 2025</th>
<th>Projected 2030</th>
<th>Projected 2035</th>
<th>Projected 2040</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single Family</td>
<td>17,589</td>
<td>16,426</td>
<td>16,737</td>
<td>16,454</td>
<td>16,221</td>
<td>16,241</td>
<td>16,296</td>
</tr>
<tr>
<td>Multi-Family</td>
<td>2,600</td>
<td>2,218</td>
<td>2,656</td>
<td>3,031</td>
<td>2,997</td>
<td>3,000</td>
<td>3,008</td>
</tr>
<tr>
<td>Commercial</td>
<td>2,678</td>
<td>2,450</td>
<td>2,537</td>
<td>2,517</td>
<td>2,482</td>
<td>2,485</td>
<td>2,494</td>
</tr>
<tr>
<td>Irrigation</td>
<td>3,201</td>
<td>3,641</td>
<td>3,933</td>
<td>1,949</td>
<td>1,787</td>
<td>1,801</td>
<td>1,839</td>
</tr>
<tr>
<td>Real Losses</td>
<td>2,369</td>
<td>1,700</td>
<td>1,727</td>
<td>1,542</td>
<td>1,478</td>
<td>1,447</td>
<td>1,420</td>
</tr>
<tr>
<td>Apparent Losses</td>
<td>183</td>
<td>196</td>
<td>178</td>
<td>175</td>
<td>175</td>
<td>175</td>
<td>175</td>
</tr>
<tr>
<td>Total</td>
<td>28,437</td>
<td>26,618</td>
<td>27,786</td>
<td>25,850</td>
<td>25,319</td>
<td>25,331</td>
<td>25,850</td>
</tr>
</tbody>
</table>

Residential use accounts for approximately 60 percent of the total water demand, with only 10% used by multi-family properties.

**Outdoor Water Conservation**

MNWD started its outdoor water conservation program with pilot Direct Install Turf Replacement Program and the direct installation of smart irrigation controllers (WBICs) in 2017. The pilot Direct Install Turf Replacement Program targeted three households in Spring of 2017 and launched a full-scale residential program in late Fall of 2017 offering the program
for two years. From December 2017 to November 2018, 161 applications were received, and 53,596 square-feet of turf removed.

The smart irrigation controller direct installation program received 2,000 applications and resulted in the installation of over 1,300 smarter timers in just two years, and helped the District achieve a major milestone of having adoption of outdoor water savings devices outpace that of indoor water savings devices.

The proposed project is focused on the increasing outdoor water use efficiency for single-family residences using grant funds to increase participation rates in these programs and continue them.

### 1.3.2 Detailed Scope of Work

The MNWD Outdoor Residential Water Efficiency Program will offer rebates to residential customers who participate in the Naturescape Turf-to-Native Garden Program and/or the Smart Timer Direct Installation Program. The following scope of work details the process by which the direct install rebates are administered.

**Naturescape Turf-to-Native Garden Program**

A unique and customer-friendly approach that provides customers with landscape design assistance, professional turf removal services, and direct installation of a watershed-friendly landscape filled with California native plants. MNWD will provide an instant rebate upon installation based on the square footage of turf replaced with sustainable landscaping

**Sustainable Landscaping Workshop**

All NatureScape program participants must attend the District’s Sustainable Landscaping Workshop prior to applying for the program. This workshop provides customers with a foundational understanding of the multiple benefits achieved with watershed-friendly landscapes and California native plants. Providing this critical information early in the landscape transformation process helps the customer understand the plant and maintenance needs of these landscapes and helps them make informed decisions about landscape and irrigation design for their new landscape. This foundational element is the first of several education elements that have been incorporated into the program.

**Pre-Qualifying Irrigation and Site Assessment (Free to Customer)**

*Pre-Qualifying Site Assessment* to confirm the Customer Property satisfies the minimum eligibility requirements of the program and to determine whether removal and conversion of the landscape is possible given the existing condition of the Customer’s irrigation system and property.

Customer Completion of Application and program eligibility review by MNWD.

Within 3 business days, Contractor to contact the applicant and schedule the Pre-Qualifying Site Assessment.
Audit appointments will be entered into a Cloud-based scheduler shared by the Contractor and MNWD.

The Contractor will ensure the Customer has signed and the Participation Agreement prior to performing services.

**Site Assessment**

Designer will measure the areas of turf that will be removed to determine Customer’s maximum turf replacement incentive. Customer and Contractor will sign a form attesting to approved square footage.

Contractor will take photographs of Customer’s front landscape and irrigation system. Designer will record the existing landscape types of the two adjacent neighbors to the right, two adjacent neighbors to the left, and the neighbors directly across the street as a means of tracking a multiplier or carryover effect associated with the program. For example, during the pilot offering of the program, neighbors elected to also remove their turf without support by District funds after a property completed the work.

Contractor will note the type and condition of the existing irrigation system. Any irrigation or site issues (e.g. mixed zones, broken heads, damaged solenoids, leaks) will be documented in the audit report. Designer will use audit findings in combination with criteria developed by the District to determine whether the applicant is eligible to proceed to the Landscape Consultation and Design portion of the Program. All data gathered during the Pre-Qualifying Site Assessment will be entered into a cloud-based database and will include an overall assessment of the customer’s turf replacement area.

During the assessment, the Contractor also performs an evaluation of slope and drainage patterns of the site, and takes note of intrusive tree roots, and invasive plants and weeds. All of these features are identified as early as possible to circumvent potential issues with the direct installation later in the process.

**Results of Assessment**

If Customer fails to pass the Pre-Qualifying Site Assessment, Contractor must notify MNWD within three (3) business days. MNWD will subsequently cancel Customer’s application. Customers that fail the Pre-Qualifying Site Assessment may reapply for the Program after they have repaired the irrigation system and the site issues identified in the audit. If an applicant fails two Pre-Qualifying Site Assessments, they will not be eligible for future participation in this Program.

Upon passing the Pre-Qualifying Site Assessment, Contractor will collect Customer’s portion of the design fee as a non-refundable deposit. Contractor shall share with MNWD an image of the Customer’s deposit check, or alternative proof of transaction, if the dollar amount is transferred digitally. The non-refundable deposit is applied toward the Customer’s Landscape Consultation and Design cost.
**Landscape Design Consultant (50% Customer Discount)**

Following a successful Pre-Qualifying Site Assessment, Customer and Contractor will discuss potential landscape layouts including, but not limited to turf removal method, grading, hydro-zoning, mulch type, plant type, contouring for rain and hardscape. This consultation may vary significantly depending on the prior knowledge and research conducted by the Customer.

Contractor will design a new low water use landscape so that when mature, at least 75% of the rebated portions of the landscape will consist of plants material. Minimum plant requirements are necessary to promote ecological and environmental benefits. Contractor shall incorporate principles and elements of watershed wise design into the Customer’s landscape design.

Landscape designs must have an average plant factor of 0.3 or less and may only include moderate, low, and very low water use plants, as specified by the Water use Classification of Landscape Species list available at [http://ucanr.edu/sites/WUCOLS/](http://ucanr.edu/sites/WUCOLS/). The Program does not allow for fescue or Bermuda grass, or any invasive species. Native plants are preferred.

Contractor shall schedule an appointment with the Customer to deliver the final landscape design and collect Customers’ down-payment toward their total project costs. Contractor shall furnish Customer with a detailed, itemized invoice for plant and landscape materials and labor.

Contractor shall obtain Customer signature on Contractor’s Turf Removal and Landscape Installation contract prior to the commencement of turf removal.

Contractor shall provide the District with a copy of the final, approved design, customer invoice, signed Turf Removal and Landscape Installation contract, and proof of down-payment.

**Turf Removal Requirements ($2 per square foot instant rebate)**

Contractor shall perform turf removal services.

Contractor will bring all necessary equipment and agreed upon materials to the Customer’s Property at the scheduled time of Turf Removal.

Contractor will perform the Turf Removal using one of the MNWD-approved methods agreed upon with the Customer; these include: sheet mulching/composting, sod cutting, or herbicides. Any other method will need to be approved by MNWD prior to commencement of Turf Removal.

Dump fees and permit requirements are solely the responsibility of the Customer.

**Landscape installation**

Contractor will perform landscape installation services.
Contractor will bring all necessary equipment and agreed upon materials to the customer Property at the scheduled time of the Landscape Installation.

Contractor will install the new landscape with Customer in attendance.

Contractor shall adhere to the following requirements:

Program only provides funding for the removal of turf grass. No funding is provided for the removal of existing trees, shrubs, or other plant material. At their own expense, Customer may elect to remove other non-turf plant media.

Contractor shall furnish all needed equipment/materials to perform the Landscape Installation.

Landscape Installation must be completed within 14 days of Customer’s turf removal date. Contractor will grade the site and install new plants with much and applicable hardscapes.

Newly converted landscapes must have an average plant factor of 0.3 and may only include moderate, low and very low water use plants, as specified by the Water Use Classification of Landscape Species list available at [http://ucanr.edu/sites/WUCOLS/](http://ucanr.edu/sites/WUCOLS/). California native plants are preferred. The Project does not allow for fescue or Bermuda grass, or any invasive species.

Turf grass may not be replaced with artificial or synthetic turf.

Irrigation for the new landscape should include drip, high efficiency nozzles, or hand watering.

All exposed soil surfaces must be covered with mulch, organic material, rock, or decomposed granite.

Turf removal and Landscape Installation must be completed within 90 days of application approval. Extensions may be granted on a case-by-case basis by MNWD in its discretion.

Should an applicant withdraw from the project after commencement of Turf Removal, but prior to completion of the Landscape Installation, the applicant will be subject to Contractor’s and/or Subcontractor’s terms of withdrawal, as applicable, and as set forth in the Customer Participation Agreement, which may include remuneration for materials and labor. In no event shall NMWD be responsible for any such payments.

Contractor will provide Customer, or Customer’s legal representative, a copy of ALL manufacturers’ warranty documentation for devices installed at the Customer property.

Contractor will provide Customer, or Customer’s legal representative, a local or toll free the phone number for technical assistance and will respond to every call within 48 business hours. Each call, and the resolution of said matter, will be documented in the database. Contractor will establish and provide a toll-free telephones number for
responses to Customer participation, scheduling of installations, and questions. MNWD will publish this number on its website and in marketing materials. This number to remain active at least 9 months after the new landscape is installed under the Program.

Upon completion of landscape installation, Contractor shall collect the remaining portion of the Customer’s total project costs.

Contractor shall provide the District proof of completion of the project and a copy of the receipt showing full payment by the Customer.

Post-Installation Site Visit
The Contractor will provide a one-hour follow-up visit to Customer at the Customer’s property to answer questions approximately 90 days after completion of the Landscape Installation. During the post-installation site visit, Contractor will take photographs of Customer’s new landscape. Contractor will record the existing landscape types of the two adjacent neighbors to the right, two adjacent neighbors to the left, and the neighbors directly across the street as a means to track a multiplier or carryover effect associated with the Program.

Contractor will provide training to Customer on how to establish and maintain the new landscape including but not limited to, watering frequency, station run time, and establishment timeline. After training, Contractor will obtain Customer’s signature on a liability waiver, recognizing completion of the Turf Replacement Project and acknowledging that Customer received education about the new landscape.

Contractor will furnish the District with Program materials, photos, and data collected.

Cost Summary
Under the NatureScape program, customers pay a flat rate for turf removal and installation based on the square footage of their total project size. The instant rebate is based on the amount of turf replaced with qualifying materials. In most cases, the total project size exceeds the amount of turf replaced. For example, the average amount of turf replaced is 911 square feet and the average project size is 1290 square feet. Average project costs are enumerated below for both the District and the Customer.

<table>
<thead>
<tr>
<th>District’s Responsibility of Program Costs (Based on average turf removal &amp; project size)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Program Components</strong></td>
</tr>
<tr>
<td>Pre-Qualifying Assessment</td>
</tr>
<tr>
<td>Custom Landscape Design</td>
</tr>
<tr>
<td>Customer Support Fee</td>
</tr>
<tr>
<td>Turf Removal Incentive</td>
</tr>
<tr>
<td><strong>Total</strong></td>
</tr>
</tbody>
</table>
### Customer Responsibility of Program Costs
(Based on average turf removal & project size)

<table>
<thead>
<tr>
<th>Program Components</th>
<th>Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-Qualifying Assessment</td>
<td>FREE</td>
</tr>
<tr>
<td>Custom Landscape Design</td>
<td>$ 425.00</td>
</tr>
<tr>
<td>Turf Removal</td>
<td>$ 2,070.00</td>
</tr>
<tr>
<td>Plants and Materials</td>
<td>$ 2,750.00</td>
</tr>
<tr>
<td>Installation Labor</td>
<td>$ 3,932.00</td>
</tr>
<tr>
<td>Post-Installation Site Visit</td>
<td>$ 175.00</td>
</tr>
<tr>
<td>Applied Turf Removal Incentive (At $2 per square foot)</td>
<td>($2,580.00)</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$ 6,772.00</strong></td>
</tr>
</tbody>
</table>

**Project Management, Data Collection, Organization and Accessibility**

The consultant will maintain a cloud-based workflow management system of all applications to track the application process, state of the irrigation system, and site at time of inspection, photos signed participation agreement, design consultation service, design approval by MNWD, collection of non-refundable deposit and final payment, turf removal, new drought tolerant landscape installation, follow up visit and all associated project photos. The applicable MNWD staff will have access to said information. The system will have the capability to be utilized by MNWD staff for internally processed turf replacement projects as well. The database and all of its components shall become property of MNWD.

The selected consultant shall provide project management that includes coordinating all appointments with customers and contractor(s), tracking and managing projects, and verifying contractors’ licenses, bonding, and insurance.

**Smart Timer Direct Installation Program**

Provides residential customers with a pre-installation site assessment, up to two free smart timers, and free professional installation. Customers receive a one-year service warranty and a four-year parts warranty to ensure their device is working properly. Additionally, customers have access to a dedicated assistance line with Rachio, the Program’s smart timer vendor, to troubleshoot technical issues or irrigation scheduling questions.

**Inventory Management**

The selected contractor will purchase inventory for all devices proposed (e.g. smart controllers, outdoor enclosures, wireless flow sensors, etc.) and hold stock at the facility.
**Pre-installation Assessment**

The installation Contractor will inspect and assess the service location to confirm the site and irrigation system satisfies the minimum eligibility requirements of the Program prior to the installation of the smart timer. The Customer’s irrigation system should be in adequate working condition and the WiFi signal to the exiting controller(s) must be of sufficient strength for the Installation Contractor to proceed with the Smart Timer installation. The Customer will have 60 days to make the necessary repairs and contact the Installation Contractor for a follow-up appointment.

- **Installation of the Smart Timers**
  The Installation Contractor will bring up to two approved Smart Timers to the Customer’s service address at the scheduled time of the pre-installation assessment. Upon successfully passing the pre-installation assessment, the Installation Contractor will install the Smart Timer(s) with the customer in attendance.

If the Smart Timer is outdoors, an enclosure will be provided by the Installation Contractor, if necessary.

The Rachio Generation 3 controller will be installed at each pre-screened location. This smart timer uses Rachio’s Weather Intelligence™ Plus to accurately adjust irrigation scheduling for different micro-climates by combining data from national weather stations, more than 270,000 personal weather stations, satellite data, radar data, and more to provide hyper local forecasting that is accurate to the location of each given controller. This controller is able to skip watering schedules or adjust watering durations in accordance with the weather. In addition to allowing the user to enter zone characteristic (e.g. vegetation, soil type, sun exposure, nozzle types/precipitation rate or slope), the Rachio 3 controller employs methods to suggest proper plant and/or soil types based on the controller location, improving the user experience.

Installation Contractor will provide training to the customer on how to program and maintain their new Smart Timer(s).

- **Status Verification, Post-Installation Performance Tracking**
  Status verification and post-installation performance tracking will be entered into a cloud-based database.

- **Post-installation Performance Tracking**
  Status of 1st new Smart Timer (active or not active)
  Irrigation Schedule Type of 1st Smart Timer
  Weekly watering amount (in minutes) for 1st Smart Timer (average)
  Date 1st Timer was replaced (if needed)
Status of 2nd new smart Timer (Active or Not active)

Irrigation Schedule Type of 2nd Smart Timer

Weekly watering amount (in minutes) for 2nd Smart Timer (average)

Date 2nd Timer was replaced (if needed)

- *Customer Web Portal*
  The Rachio web portal is designed to facilitate the process of verifying their eligibility and providing them the ability to adjust scheduling and communicate

MNWD prompts targeted residents to adopt improved watering habits.

**Past Working relationship with Reclamation**

The District has received multiple grant awards. The following table summarizes previous grant awards:

<table>
<thead>
<tr>
<th>Grant Program</th>
<th>Agreement No.</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>WaterSMART Water and Energy Efficiency Grant FY2015</td>
<td>R15AP00128</td>
<td>Completed September 2017</td>
</tr>
<tr>
<td>WaterSMART Water and Energy Efficiency Grant FY2018</td>
<td>R18AP00172</td>
<td>Completed December 2019</td>
</tr>
<tr>
<td>WaterSMART Water and Energy Efficiency Grant FY2019</td>
<td>R19AP00134</td>
<td>In Progress, on schedule</td>
</tr>
</tbody>
</table>

**1.4 EVALUATION CRITERIA**

**1.4.1 Evaluation Criterion A - Quantifiable Water Savings**

*Describe the amount of estimated water savings.*

<table>
<thead>
<tr>
<th>Conservation Incentive</th>
<th>Estimated Quantity</th>
<th>Water Savings (AFY)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NatureScape Direct Install</td>
<td>108,642 SF removed</td>
<td>15.33</td>
</tr>
<tr>
<td>Smart Timer Direct Install</td>
<td>1,200 Units</td>
<td>144.0</td>
</tr>
<tr>
<td><strong>Total Water Savings</strong></td>
<td></td>
<td><strong>159.33</strong></td>
</tr>
</tbody>
</table>

*Describe current losses:*

The proposed project is focused on reducing water use and water waste through passive conservation, meaning the customer will not have to actively change their water use habits...
daily, but will instead conserve water effortlessly by installing landscaping and/or smart timer controllers to reduce the amount of water used and use water more efficiently for outdoor water use.

According to industry information, it is estimated that an average of 60 percent of a household’s water use is used outside, and that 50 percent of that can be reduced by installing a smart timer for managing watering traditional landscapes, resulting in an overall reduction of 30 percent per participant. This water savings is primarily associated with the complexity of water zones, micro-climate conditions, and plant type and limitations with the current irrigation timer to adapt to these conditions, which frequently results in overwatering. When overwatered, this water runs off the yards and into the storm drains, taking fertilizers, and pesticides with it, polluting waterways and environments downstream with increased concentrations.

Similarly, removal of lawn turf and installation of drought tolerant, California native plants has also been shown to reduce outdoor water use by 50 percent, according to actual District participation data 12 months post-installation for previous participants. Traditional lawns have a plant factor of two to three times greater than native, drought tolerant plants that will be installed under this program, which is the basis for this savings. NatureScape goes one step further by primarily installing California native plants, which have significantly lower water demand than even the standard palette of drought tolerant plants; additionally, these plants require less water in the summer months, which provides peak shaving benefits. See below chart showing season plant water needs with the x-axis indicating inches of plant water need.

![Seasonal Plant Water Needs](image)

The conserved water will reduce the amount of imported water required for at least 10 years (project average useful life), and will likely persist well beyond 10 years when installed by a professional due to the ease of maintenance and lowered water bills enjoyed by the customers.
Describe the support/documentation of estimated water savings:

The water savings were calculated using two sources: 1) The University of California at Riverside School of Public Policy to evaluate water savings associated with past water conservation programs and estimated savings for future programs based on customer interest under the Water Conservation Study Phases I and II Reports in 2016 and 2017, respectively, and 2) using an MNWD created software that is able to view real time savings of water conservation programs by comparing pre-and post-installation water use by participating residential customers.

More detailed description is discussed for each water conservation measure.

NatureScape Turf-to-Native Garden Program:

How has the estimated average annual water savings that will result from the project been determined?

The estimated annual savings for turf removal is 45.7 gallons per ft². The water savings for turf removal was calculated by the University of California at Riverside School of Public Policy in a Water Conservation Study completed for the District in March 2016. The Phase I Summary Report states, “The turf removal rebate program has produced savings of about 25-35% of total household water consumption, pays for itself in about 14 years, and is financially equivalent to purchasing water at about $950 per acre-foot.”

UC Riverside analyzed data from turf removal participants for a 90-month period, October 2007 through March 2015. The analysis included data on water use, prices, biophysical characteristics, and socioeconomic and demographic characteristics of the residential household. MNWD assembled records that included information on; monthly pricing, monthly water use, household size, irrigated area, monthly reference ET and dates that any water use restrictions were implement. Multiple conservation programs were analyzed in this study, therefore, to estimate the effect on water use for each program, a method called “difference-in-differences (DID) was used. Customers who participated in just one program over a three-year period, were used to estimate a baseline of water use (pre-participation) in year 1 and an estimate of post-participation usage in year 3. For each of these households, neighbors who did not participate in any new program during the same time period, same climate zones, and census block-groups were used as control groups for determining water savings. This method creates a natural experiment to produce more precise estimates.

What is the total surface area of the turf to be removed and what is the estimated average annual turf consumptive use rate per unit area?

Based on participation from 2017 – 2019, the average area of turf expected to be removed per applicant is 911 square feet. Based on the budget and costs associated with the NatureScape program, it is estimated 120 turf removal and replacement projects will be completed, for a total area of approximately 109,320 square feet of turf removed.
Was historical water consumption data evaluated to estimate average annual turf consumptive use per unit area? If so, did the evaluation include a weather adjustment component?

Yes, as noted previously, historical data from 2007 through March 2015 was evaluated and the evaluation did include an adjustment for periods of water use restrictions.

Will site audits be performed before applicants are accepted into the program?

NatureScape Direct Install Turf Replacement applicants are required to complete the following steps to be approved for the program:

1. **Attend a Landscape Workshop**
   Moulton Niguel Water District hosts **FREE** virtual or in-person landscape workshops to help customers reimagine their outdoor landscape and transform thirsty lawns into beautiful, California native landscapes. The virtual landscape workshops are interactive and informative, with a focus on landscapes that are sustainable to the Orange County climate.

   **Topics include:**
   - Taking a watershed approach to landscape design
   - Building healthy soil and selecting regional native plants
   - Evaluating and designing your site into a sustainable landscape
   - Using rainwater as a resource
   - Learning how your landscape can help protect local creeks and beaches

2. **Complete an application**

3. **Pre-Qualification Assessment**
   The area(s) of turf that will be removed to determine Customer’s maximum turf replacement incentive will be assessed during the pre-qualification assessment. The Customer and Contractor will sign a form attesting to approved square footage. The Contractor will take photographs of Customer’s front landscape and irrigation system. The existing landscape types of the two adjacent neighbors to the right, two adjacent neighbors to the left, and the neighbors directly across the street will also be recorded as a means of tracking a multiplier or carryover effect associated with the program.

   The type and condition of the existing irrigation system will be noted and any irrigation or site issues (e.g. mixed zones, broken heads, damaged solenoids, leaks) will be documented in the audit report. The audit findings in combination with the following criteria developed by the District to determine whether the applicant is eligible to proceed to the Landscape Consultation and Design portion of the Program.
Program eligibility Criteria:

i. Applicant must be a residential customer of the District in good financial standing. (No delinquencies on District bills in the last 12 months.)

ii. Applicant must own the home located at the service address requesting turf replacement.

iii. Applicant must not have received a prior rebate for turf removal for the front yard and may not currently have synthetic turf in the front yard.

iv. Applicant must have a minimum of 250 square feet of irrigated turf grass in the front yard to participate (subject to change by District).

v. Turf may be living or dead at the time of application, however, bare earth areas with no sign of turf are ineligible. Turf grass must still be in place at the time of application for the rebate to be approved. Projects that are underway or already completed prior to submittal of the program application are not eligible.

vi. District funding for the Turf Removal and Landscape Installation components of the Program is capped at 3,000 square feet of turf replacement per service address. Applicant is responsible for the remaining portion of total project costs.

vii. The turf replacement program is specifically intended for front yards; however, side and backyards may also be included in the turf replacement program project area, as long as the total project size does not exceed the maximum square footage requirements and Customer converts their front yard as well.

viii. At the time of application, Applicant shall submit photos of turf in front yard (and side or backyard, if applicable). Additionally, Applicant shall submit a photo of their existing irrigation controller which clearly identifies the make and model of their device. Photos must be taken recently and provide an accurate depiction of site conditions.

ix. Applicant must consent to modify their existing irrigation system controller before the end of the project period, if necessary, to provide appropriate irrigation for the new landscape through the addition of a smart irrigation controller.

x. If Applicant receives $600 or more of program benefits (e.g. Pre-Qualifying Assessment, District’s portion of Landscape Consultation and Design fees, and Turf Replacement Incentive), Applicant will be required to sign and submit an IRS W9 tax form.

All data gathered during the Pre-Qualifying Site Assessment will be entered into a cloud-based database and will include an overall assessment of the customer’s turf replacement area.

How will actual water savings be verified upon completion of the project?

As a direct install program that includes landscape design, the water savings are more consistent. A Post-Installation Site Visit and education on the care and upkeep of the plants will be scheduled free to the customer 90 days after landscape installation.

The District tracks water savings using a software system that uses the following data and formulas to calculate the savings.
1) Read in the master invoices file that has all NatureScape applications.

2) Filter out applications that do not have a work completion date yet.

3) Calculate: Difference from budget = budget - water usage

   Percentage of budget used – (water usage/budget) * 100 (rounded up to decimals).

4) Pre-installation average usage/percentage of budget used for each month before installation date (A1)

5) Post-installation average usage/percentage of budget used for each month after installation date (B1)


SMART IRRIGATION CONTROLLERS:

How have average annual water annual water savings estimates been determined?

The water savings for the Smart Timer Direct Install Program were derived from actual program data from a previous smart timer program operated by MNWD from 2016-2018 that utilized professional installation services.

To calculate water savings, MNWD created custom software that generates real time savings of water conservation programs by comparing pre-and post-installation water use by participating residential customers.

The program evaluation software system uses the following data and formulas to calculate the savings:

1) Read in the master invoices file that has all NatureScape applications.

2) Filter out applications that do not have a work completion date yet.

3) Calculate: Difference from budget = budget - water usage

   Percentage of budget used – (water usage/budget) * 100 (rounded up to decimals).

4) Pre-installation average usage/percentage of budget used for each month before installation date (A1)

5) Post-installation average usage/percentage of budget used for each month after installation date (B1)

Was historical water consumption data evaluated to estimate the percent reduction in water demand per unit area of irrigated landscape? Did the evaluation include a weather adjustment component?

Yes, actual historical water consumption data was used to estimate both the volumetric reduction in water demand per unit area of irrigated landscape and to evaluate efficiency increases experienced by program participants. MNWD operated a smart timer direct installation program from 2016-2018; water savings from this program was used to inform water savings estimates for the project being submitted to USBR.

Each residential customer in the MNWD service area receives a monthly water budget calculated based on the number of people in the household and the amount landscaped area on their property. This budget varies seasonally and geographically due to fluctuations in evapotranspiration over the year and across the service area. In addition to volumetric analysis, MNWD’s water savings tool evaluates the customer’s water consumption as a percent of budget prior to installation and post-installation. Percent use of budget is a measure of efficiency and incorporates weather data, since budgets are calculated using real time, local evapotranspiration data.

What types of devices will be installed and what quantity of each?

The only device that will be installed is Rachio 3 model smart timer controller. Enclosures for outdoor installation will also be installed.

The device installed will be either the 8-station or 16-station unit, and up to 2 controllers will be installed at residential properties.

It is estimated that 900 controllers will be installed over the project term. The actual quantity may vary due to the type of unit (8-station or 16-station) installed under the budget, since the 8-station unit is slightly less expensive.

Will the devices be installed through a rebate or direct-install program?

The devices will be installed through a direct-install program, with the typical customer receiving an instant rebate of $523.92; this amount is the average cost of the device(s), plus installation. Given the cost-effectiveness of the program, MNWD is able to cover the entire cost of the device(s) including installation labor, with no out of pocket expense for the customer.

Will site audits be performed before and after installation?

Yes. A pre-installation assessment shall be performed to determine whether the proper installation and operation of the start timer(s) is/are possible at each service location, including verification of WiFi signal strength, condition of the irrigation system, including wiring and valves, active/inactive stations, irrigation types (e.g. rotors, spray heads, drip) vegetation type (e.g. grass, shrubs, native plants), and other details as necessary to ensure the successful installation and programming of the smart timer(s). The customer must also be present.
If there are deficiencies noted at the property, the contractor will note the deficiencies and provide to the customer to help them make corrections.

Upon confirmation on adequate conditions to complete the installation, the contractor will schedule an installation appointment, at which the customer must be present to facilitate training and connection to the customer’s WiFi.

All data gathered during the pre-installation assessment will be entered into the cloud-based database and will include an overall assessment of the customer’s irrigation system.

The contractor will also provide the District a mechanism for the District to monitor the status (e.g. active or non-active) and irrigation scheduled details of all new and replacement Smart Timers installed through the program.

Pre-installation Assessment details will be as follows:

- **a)** Date of pre-installation assessment
- **b)** Number of irrigation zones
- **c)** Number of mixed plant zones
- **d)** Mixed sprinkler heads present (True/False)
- **e)** Presence of Isolation Valve (True/False)
- **f)** Number of active irrigation valves
- **g)** Solenoids in good condition (True/False)
- **h)** Predominant sprinkler type (e.g. spray, rotating, drip)
- **i)** Predominant landscape type (grass, shrubs, mixed, drought tolerant, CA natives)
- **j)** Predominant soil type
- **k)** Overall irrigation system assessment (1 to 5, poor to excellent)
- **l)** Weekly watering amount in minutes for 1st existing controller
- **m)** Weekly watering amount in minutes for 2nd existing controller, if necessary
- **n)** Assessment of WiFi signal strength
- **o)** Total landscaped area in square feet (provided by District)
- **p)** Location and contact information for property owner

Post-installation performance tracking details:

- **a)** Status of 1st new smart timer (active or not active)
- **b)** Irrigation Schedule Type of 1st new Smart Timer
- **c)** Weekly watering amount (in minutes) for 1st new Smart Timer (on average)
- **d)** Date 1st Smart Timer was replaced (if needed)
- **e)** Status of 2nd new Smart Timer (Active or Not Active), if installed
  - i. Weekly watering amount in minutes, on average
  - ii. Date 2nd Smart Timer was replaced (if needed)
- **f)** Program Charges and Invoice Tracking for Smart Timer installation
- **g)** Post-installation site visit will only be performed if the customer reports a problem with the Smart Timer. Since this is a direct install program using a professional contractor, no post-installation site audit verifying installation is necessary.
How will actual water savings be verified upon completion of the project?

The Rachio Smart Timer includes a two-prong, cloud-based management solution: 1) the custom-built water savings tool described above, and 2) Rachio’s Insights Platform. Together, these service as an integrated solution that brings efficiency to redemption management, electronic scheduling, verification of installation and provides aggregated irrigation data and analytics to help inform conservation strategies, customer engagement campaigns, and measure program efficacy.

The Insights Platform aggregates configuration, schedule, and weather data for all devices in the MNWD service area, irrespective of whether they were subsidized by the utility. The platform will be configured so that MNWD can group controllers by distribution method (program) and contrast those controllers against those purchased organically through retail channels. Insights does not allow MNWD to view the exact location of any given controller and provides no access to personally identifiable information.

The data used to monitor performance and water savings includes:

- **Controller status**: View the status of controllers in the service area and gain insight into how controllers are responding to seasonal changes or weather events such as rain.

- **Scheduling and Zone Configuration**: Understand how users have programmed their schedules (i.e. state time, duration, and frequency) as well as the configuration of their zones, including information such as vegetation type, nozzle type, soil, etc.

- **Engagement**: Use Rachio’s segmentation and filtering abilities to inform customers via email and/or in-app messaging campaigns. These are aimed at changing the irrigation behavior of existing Rachio users and are designed to be educational and prescriptive.

These data will be compared with historical data to calculate water savings associated with the installation of the Rachio 3 Smart Timer Irrigation Controller.

1.4.2 Evaluation Criterion B—Water Supply Reliability

Specific water reliability concerns. Please address the following:

Explain and provide detail of the specific issue(s) in the area that is impacting water reliability, such as shortages due to drought, increased demand, or reduced deliveries. Will the project directly address a heightened competition for finite water supplies and over-allocation (e.g., population growth)?

California, water supply sustainability has been an increasing concern as the region water utility districts work to manage water demands versus environmental impacts.

On January 17, 2014, California Governor Edmund G. Brown Jr. declared a State of Emergency and directed state officials to take all necessary actions to prepare for the drought...
conditions and called upon every Californian to conserve water. As water supplies continued to diminish, the Governor’s office called on all water agencies to implement drought measures to reduce water demands and the Department of Water Resources reduced SWP allocations for southern California contractors to zero on January 31, 2014, and then 5% for 2014. Water resources remained very low throughout the entire State with DWR restricting SWP suppliers to 15-20 percent of their requested allotments until the drought ended in April of 2017 due to the recent heavy precipitation across the state. This presented a new problem of landslides and flooding as severe storms swept through the area, resulting in a new declared emergency for severe storms.

California has faced many droughts and strong precipitation cycles, and portions of the District are also plagued by severe, high temperature onshore winds known as the Santa Ana Winds. During periods of drought, the water shortages and the restrictions on imported water have a very serious impact on the communities the District serves, since all of the potable water is from imported sources. The District’s reliance on imported water also increases the impact of a drought on the region since the District has no alternate water supply source such as groundwater or local surface water to reduce the need for imported water. Therefore, any effort to reduce the District’s water demand will also benefit other communities that rely on imported water sources. The District has 28 storage reservoirs to help mitigate the impact of water shortages, however, these resources can only sustain the water supply for approximately 24 days. District water conservation programs have had the most significant impact toward reducing overall demand. To date, the District has reduced water demand from a high of 36,670 acre-feet per year in 2007, to a current demand of 22,628 acre-feet per year—representing a 38 percent reduction in water use and an equal increase in available water supply for the imported sources.

Additionally, the current climate changes causing increased temperature, longer drought conditions, and smaller snowpacks are increasing the occurrence of wildfires in California, which increases the need for water to attack fires in the region.

**Describe how the project will address the water reliability concern.**

Using Reclamation funds, the District will be able to continue its outdoor water conservation programs. The best source for increasing water supply reliability is through passive water conservation measures. Similar to indoor water conservation efforts (e.g. low-flow toilets, HE washers, and nozzles), promoting and incentivizing outdoor water conservation that customers do not have to actively think about and implement are the most effective water conservation measures and permanent changes from high water consumption landscapes and practices (non-smart timers) to direct install low water use landscapes and smart timers provide the easiest and most effective method to increase customer participation and achieve long-term water savings, translating into increased local and regional water reliability.

Reducing the District’s water demand directly reduces demands on imported water. This improves reliability for the greater region served by SWP and Colorado River water sources, providing more water to recharge groundwater supplies, maintain instream flows, and meet water demands for other agencies.
Indicate the quantity of conserved water that will be used for the intended purpose.

It is estimated that more than 159.33 acre-feet of water will be conserved annually by those participating in this project, with exponential increases as neighbors recognize the benefits of the programs and opt to replace their own landscaping and/or water controllers in the future.

The conserved water will be used to reduce demands on imported water supplies, year over year, with an estimated 10-year savings of more than 1,593 acre-feet of water; and reduces the need for increasing water purchases from Reclamation and/or SWP during period of drought.

While immediate savings is important for tracking project performance, long-term savings are more significant for water reliability planning. The long-term savings under these programs allows the District to prepare budgets for purchasing imported water in the future, manage storage supplies to maintain water supplies now and into the future, and forecast needed capital projects and maintenance.

Will the project make water available to achieve multiple benefits or to benefit multiple water users?

- Will the project benefit multiple sectors and/or users (e.g., agricultural, municipal and industrial, environmental, recreation, or others)?

Eligible participants are located within the District’s service area, which serves municipal residents. Water runoff from traditional landscapes are known sources of pollution to the creeks and waterways, therefore, eliminating water runoff through replacing turf with low water use landscapes and/or installing the Rachio 3 smart timer will benefit the environment, and recreational fishing and swimming.

100 percent of the potable water demand is met with imported water. On average, approximately 43 percent of the imported water has been from the State Water Project and 57 percent has been from the Colorado River Aqueduct. The San Juan Basin Authority has water rights for approximately 10,000 AFY, and the District is a member of the San Juan Basin Authority; however, due to the brackish water quality and the very limited supply, the District has not been able to utilize any of this water. These imported water supplies also serve water to other agencies for agricultural, municipal, industrial, environmental, and recreational purposes. Any water saved that reduces the District’s demand for these imported water supplies provides more water for other state water project and Colorado River Aqueduct water users, benefiting multiple water users and the environment.
• **Will the project benefit species (e.g., federally threatened or endangered, a federally recognized candidate species, a state listed species, or a species of particular recreational, or economic importance)?** Please describe the relationship of the species to the water supply, and whether the species is adversely affected by a Reclamation project.

The entire water supply for the District is imported from the California State Water Project and the Colorado River Aqueduct. Therefore, any reduction in water consumption would ultimately benefit the endangered species affected by either the California State Water Project or the Colorado River Aqueduct. Projects that reduce demand on imported water supplies are key for enhancing the Delta, the most significant infrastructure problem in California.

Additionally, California native plants are the larval food source and nectar source for many endemic insects and pollinators. Installing CA natives provides multiple benefits to the local ecology by providing food sources to endemic insects and pollinators.

• **Will the project benefit a larger initiative to address water reliability?**

The California Urban Water Agencies (CUWA) defines Water Supply Reliability as, “The ability to meet water demands consistently.” Being dependent on imported water to provide potable water services to more than 170,000 people, plus business, schools, etc. requires that the District consider reliability in all project planning. When water resources are finite as they are by restricted water rights and dependence upon imported sources, implementation of all projects that improve reliability and help the District to consistently meet water demands is essential. The proposed outdoor water conservation programs will provide long-term, passive water conservation that will reduce water demands, and allow improved water reliability naturally. Given the 20+ years of drought experienced by the Colorado River Basin and the increasing demand for Colorado River water from increasing populations over the same duration, each water conservation effort by individual users will have an additional benefit to address water reliability for the Colorado River Basin as well as the Delta (State Water Project).

• **Will the project benefit Indian tribes, rural, or economically disadvantaged communities?**

The District’s service area does not directly provide water to Indian tribes, rural or economically disadvantaged communities; however, there are portions of the cities whose residents do meet the definition of economically disadvantaged. Furthermore, multiple small, private mutual water companies also rely on the water from State Water Project and the Colorado River, so any water conserved that lessens the demands for imported water from these sources in turn makes more water available to other communities, including rural and economically disadvantaged.
Describe how the project will help to achieve these multiple benefits.

The conserved water will offset the purchase of imported water supplies.

Does the project promote and encourage collaboration among parties in a way that helps increase the reliability of the water supply?

Is there widespread support for the project?

UC Riverside developed an online household-level customer survey that targeted all ~47,000 single-family residential customers. The survey used UCR’s Qualtrics survey software. The survey had two main parts, 1) posed general questions to investigate the types of indoor and outdoor water conservation strategies MNWD customers had adopted recently, when those decisions were made, and which factors drove those decisions; and 2) focused on a “choice experiment” to investigate how specific program attributes affect the likelihood of customer participation in a turf rebate program. This basic approach is to describe the hypothetical policy and then pose a question to the respondent that gauges their support for the policy. By asking different customers how they feel about similar policies but with different attributes, we can gauge how changing those attributes will affect support for the policy. For example, one focus of the survey was to investigate the effect of rebate level on turf program participation and the amount of turf that would be removed. In this case, UCR randomly assigned participants different rebate levels and investigate how rebate levels influenced whether the respondent indicated they would participate in the program, and, if so, how much turf they would propose to remove.

Based on the results of the UCR survey, participation rates increase with the increases when the amount of the rebate increases and, that at $2/SF, 57 percent of respondents’ state they would be willing to participate. Current participation levels in the turf removal program provided by MWDOC shows less than 5% participation. Therefore, there is a great deal of support for the rebate programs. Furthermore, MNWD initiated the direct installation of both turf replacement and smart timer WBIÉ installation from 2017-2019 and experienced a significant increase in participation versus participation under the standard rebate method.

The Orange County Coastkeeper non-profit organization is also supportive of the project, as noted by the letter of support included with this application. The Coastkeepers maintain a demonstration garden and hosts monthly plant share events where locals can share plants and gain free advice on gardening issues, and also offers a SmartScape Program that assists property owners with planting and maintaining native landscapes through online videos and workshops. This project aligns with the objectives and education outreach offered by the Coastkeepers and they will also inform participants of the MNWD rebate programs, helping to spread the word and increase participation.

What is the significance of the collaboration/support?

The District staff worked collaboratively with UC Riverside to analysis, study, and develop the direct install outdoor water conservation programs. Through this collaboration, MNWD was
able to create more effective outdoor residential water conservation incentive programs and determine how much to invest in these incentive programs to make them cost effective and increase residential customer participation rates.

- **Is the possibility of future water conservation improvements by other water users enhanced by completion of this project?**
  The NatureScape program site assessments are structured to include photographing the two neighbors across from and next to participating properties before and after the completion of the turf replacement project. This is done because studies have shown a carryover affect from this type of program. By documenting the pre- and post-installation of nearby properties, the District will be able to track the multiplying effect of this program.

- **Will the project help to prevent a water-related crisis or conflict? Is there frequently tension or litigation over water in the basin?**
  Water rights for this region are well defined; therefore, the potential for conflict, tensions, and litigation are already mitigated. MNWD’s water supply is 100% imported from SWP and from the Colorado River, 43 percent and 57 percent respectively. Each of these sources of water are carefully and strictly managed, so while tensions over supply may arise, these water sources are already managed to balance water-related issues. This project will help reduce tensions over water used by “southern California”, a common concern by entities and communities outside of southern California.

- **Describe the roles of any partners in the process.**
  The primary partners in this project are the residential property owners, without which there would not be a project. The UCR surveys show direct installation is the most cost-effective method, with the highest potential for customer participation. The property owners are partners in the sense that they are agreeing to complete the direct installation at their properties, they agree to allow data to be collected to be used to calculate water savings, and they agree to not remove the installed landscaping and/or smart timer and to maintain it for a period of no less than 5 years. These participants are also financial partners, providing 65% of the contractor installation cost, on average.

  Additionally, enthusiasm for NatureScape gardens and California native plants in particular, led MNWD to launch the Calscape Nursery Program, a regional partnership with Metropolitan Water District, the California Native Plant Society, and 15 water agencies across the Orange County and Long Beach areas. In recognition of the multiple benefits provided by California native plants, the Calscape Nursery Program seeks to provide residents with greater access to these special plants at local nurseries.

  Based on survey feedback from nurseries across the state, MNWD developed a program that provides nurseries with professional training on the care and maintenance of native plants in a nursery setting and the opportunity to register their nursery and native plant inventory on Calscape.org, a native plant database. In exchange for registering and taking the training, nurseries receive free digital and point-of-sale marketing materials to help them advertise the
availability of native plants at their location. Additionally, the watershed friendly plants are sourced from these registered, local nurseries.

Will the project address water supply reliability in other ways not described above? Not applicable.

1.4.3 Evaluation Criterion C—Implementing Hydropower

The proposed project does not include the implementation of hydropower; therefore, the questions associated with this criterion are not applicable.

1.4.4 Evaluation Criterion D—Complementing On-Farm Irrigation Improvements

The proposed project does not include improvements that complement on-farm irrigation improvements; therefore, the questions associated with this criterion are not applicable.

1.4.5 Evaluation Criterion E—Department of the Interior and Bureau of Reclamation Priorities

Department Priorities

1. Creating a conservation stewardship legacy second only to Teddy Roosevelt

a. Utilize science to identify best practices to manage land and water resources and adapt to changes in the environment;

Native plants evolved in our climate over millennia and have been resilient to changes in climate over time. They have also co-evolved with several beneficial insects that rely on these plants as a pollen/nectar source and a food source for their young. Removing turf and replacing with plants that are native to a particular climatic region ensures long-term adaptability of a homeowner’s garden.

As it relates to the smart timer program, the direct installation program harnesses the power of Rachio’s weather intelligence system which uses real time weather data to adjust watering schedules as needed. The District’s practice is to utilize a “Flex” schedule, which is the most adaptive and responsive to change in weather.

2. Utilizing our natural resources

a. Ensure American Energy is available to meet our security and economic needs;

The importation of water is extremely energy intensive. “Energy Down the Drain: The Hidden Costs of California’s Water Supply,” by the National Resources Defense Council indicates that the amount of energy used to deliver water from the State Water Project to Southern California over the Tehachapi Mountains is equivalent to one-third of the total average household electric use in the region. This does not include the energy required to import water to Southern California from the Colorado River Aqueduct, and any reduction in water loss and overall consumption would reduce the overall energy consumption from system operations.
An energy intensity study by the University of California, Santa Barbara, estimated that approximately 3,000 kilowatt-hours (kWh) per acre foot of water is required to convey water from the State Water Project to West Basin Municipal Water District, and approximately 2,000 kWh per acre foot is required to convey water from the Colorado River Aqueduct. Historically, approximately 43 percent has been imported from the State Water Project and 57 percent from the Colorado River Aqueduct to meet the District’s water demands. In addition, the distribution of potable water throughout the District’s system requires approximately 149 kWh per acre foot of potable water. For an average year noted above, it requires 2579 kWh/acre foot of energy.

Implementation of this project could eliminate the need to purchase 159 AFY of potable water, which would result in an estimated savings of 318,000 kWh for importing water and 23,691 kWh distributing the potable throughout the District; for a total estimated energy savings of 341,691 kWh.

Reclamation Priorities

1. **Increase Water Supplies, Storage, and Reliability under WIIN and other Authorities**

   The proposed project will increase water supplies and improve water reliability by conserving water using outdoor water conservation measures that encourages our communities to lessen water use for irrigation purposes. Thus, lessening the impacts of periods of drought upon the water supply in support of the SECURE Water Amendments Act of 2014, which includes planning for or addressing the impact of drought.

3. **Leverage Science and Technology to Improve Water Supply Reliability to Communities**

   MNWD commissioned the UC Riverside School of Public Policy to complete an Analysis of Water Conservation Drivers for Effective Water Management. This report covers activities with the following deliverables:

   I. Statistical model, dataset, and results identifying main drivers of water conservation program participation by single-family residential customers within the MNWD service area.
   II. Statistical model, dataset, and results identifying main drivers of water use by single-family residential customers within MNWD service area.
   III. Impact of water conservation programs on residential single-family home water usage and bills.
   IV. Aggregate impact of individual water conservation programs on agency water demand and revenues.
   V. Comparison of conservation program revenue effects.
   VI. Summary report and presentation slides.

   The project comprised of the two outdoor water conservation programs was designed to be direct install programs at the rebate levels as a result of this research.
1.4.6 Evaluation Criterion F—Implementation and Results

1.4.6.1 Subcriterion F.1—Project Planning

Does the applicant have a Water Conservation Plan and/or System Optimization Review (SOR) in place?

Provide the following information regarding project planning:

(1) Identify any district-wide, or system-wide, planning that provides support for the proposed project. This could include a Water Conservation Plan, SOR, Drought Contingency Plan or other planning efforts done to determine the priority of this project in relation to other potential projects.

Multiple plans have either been developed directly by or for MNWD, or MNWD has been a stakeholder in the development of regional plans that address water supplies, water reliability, and water quality. The District self-certifies water conservation planning has been completed both locally and as regional partner. Summaries of these plans are included below:

- The MNWD 2015 Urban Water Management Plan (UWMP) provides the framework for managing the water supplies and includes water conservation actions. This plan is updated every five years, and the 2020 UWMP is currently being drafted.
- The MNWD Long-Range Water Reliability Plan that was developed in December 2014. This plan was created to address water supply and system challenges, quantify water supply and system reliability needs, identify potential projects to meet those needs, and develop an adaptive strategy for implementation.
- The Reclamation Colorado River Basin Study identifies water use efficiency as a priority and states, “municipal and industrial providers in the metropolitan areas that receive Colorado River water will continue to increase water use efficiency and reuse.”
- 2015 Metropolitan Water District of Southern California Integrated Water Resources plan, a regional plan that addresses long-range water supply planning, water supply reliability, understanding changing needs, and determining how individual actions can cost-effectively address challenges for member agencies.
- UC Riverside School of Public Policy completed a Water Conservation Study for the District in 2016 with an update in 2017. This study analyzed water conservation drivers for effective water management, current District water conservation programs, and surveyed customers to determine the most beneficial conservation programs and policies for the District.

(2) Describe how the project conforms to and meets the goals of any applicable planning efforts and identify any aspect of the project that implements a feature of an existing water plan(s).

The proposed project conforms to and meets the goals of the noted planning documents as follows:

- **MNWD 2015 Urban Water Management Plan** – BMPs G: Plant Low-Water Demand

- **MNWD Long-Range Water Reliability Plan:** Objective to Optimize Water Reliability and minimize water shortages.

- **Colorado River Basin Water Supply and Demand Study:** Municipal service area outdoor landscaping conservation measures to achieve a water savings of at least 15% to reduce demand.

- **2015 Metropolitan Water District of Southern California Integrated Water Resources plan:** Pursue water conservation savings through increased emphasis on outdoor water-use efficiency using incentives, outreach/education, and other programs.

- **UC Riverside School of Public Policy completed a Water Conservation Study:** Implementation of direct install programs for outdoor water use efficiency to increase residential participation and increase water savings by using professional contractors by providing a consistent product and ensuring proper installation.

### 1.4.6.2 Subcriterion F.2—Performance Measures

Provide a brief summary describing the performance measure that will be used to quantify actual benefits upon completion of the project (e.g., water saved or better managed, energy generated or saved).

The District tracks water savings using a software system that uses the following data and formulas to calculate the savings.

- Calculate: Difference from budget = budget - water usage
  
  Percentage of budget used = \((\frac{{\text{water usage}}}{\text{budget}}) \times 100\) (rounded up to decimals).

- Pre-installation average usage/percentage of budget used for each month before installation date by conservation type \(A_1\)

- Post-installation average usage/percentage of budget used for each month after installation date \(B_1\)

- \(6)\) Average Water Savings per bill period = \(A_1 - B_1\)
1.4.6.3 Subcriterion F.3— Readiness to Proceed

### Table 1. Project Schedule Major Milestone Summary*

<table>
<thead>
<tr>
<th>Milestone/Activity</th>
<th>Planned Start Date</th>
<th>Planned Completion Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Procurement: NatureScape Program</td>
<td>N/A</td>
<td>Completed Aug. 2020</td>
</tr>
<tr>
<td>Procurement: Smart Timer Program</td>
<td>2017 (original agreement)</td>
<td>2019 New agreement</td>
</tr>
<tr>
<td>Environmental Review: CEQA NOE filing</td>
<td>October 1, 2020</td>
<td>November 1, 2020</td>
</tr>
<tr>
<td>Smart Timer Direct Install</td>
<td>November 1, 2020</td>
<td>October 30, 2022</td>
</tr>
<tr>
<td>NatureScape Turf Replacement Direct Install</td>
<td>November 1, 2020</td>
<td>October 30, 2022</td>
</tr>
<tr>
<td>Water Savings Analysis</td>
<td>December 1, 2021</td>
<td>October 30, 2022</td>
</tr>
</tbody>
</table>

*Actual start dates are flexible for the direct install programs and can be adjusted to comply with a grant award.

- **Describe any permits that will be required.**
  
  Not applicable.

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

  Landscape design is performed for each residential property approved for the turf rebate program. This design is completed after a site assessment is completed to verify the condition of the irrigation. The following design requirements will be included in each NatureScape Turf replacement Design:

  1. The contractor will design a new, low water use landscape so that when mature, at least 75% of the rebated portions of the landscape will consist of plant material. Minimum plant requirements are necessary to promote ecological and environmental benefits. Principles and elements of water shed wise design will be incorporated into the residential property landscape design.

  2. Landscape Designs must have an average plant factor of 0.3 or less and may only include moderate, low, and very low water use plants, as specified by the Water Use Classification of Landscape Species list available at [http://ucanr.edu/sites/WUCOLS/](http://ucanr.edu/sites/WUCOLS/); neither fescue or Bermuda grass or any invasive species are permitted. Native plants are preferred.

- **Describe any new policies or administrative actions required to implement the project.**

  No new policies or administrative actions are required to implement the project. The policies and administrative actions were established in 2017 with the implementation of the program.
1.4.7 Evaluation Criterion G— Nexus to Reclamation Project Activities
Is the proposed project connected to Reclamation project activities? If so, how? Please consider the following:

○ Does the applicant receive Reclamation project water?

The District receives approximately 57% of its water supply from the Colorado River Basin imported from the Metropolitan Water District of southern California (MWDOC) via its wholesale supplier, the Municipal Water District of Orange County (MWDOC). Any increase in water reliability and greater availability in overall water supply resulting from water use efficiency and conservation efforts would also help Reclamation in meeting the federal Indian trust responsibility, a legally enforceable fiduciary obligation on the part of the United States to protect tribal treaty rights, lands, assets, and resources, to the tribes.

○ Is the project on Reclamation project lands or involving Reclamation facilities?

The project itself does not directly involve Reclamation project lands or Reclamation facilities, but the proposed project would increase the availability of the overall water supply through improvements in water use efficiency and conservation and ultimately benefit the Colorado River Basin.

○ Is the project in the same basin as a Reclamation project or activity?

Not applicable.

○ Will the proposed work contribute water to a basin where a Reclamation project is located?

Not applicable.

○ Will the project benefit any tribe(s)?

MNWD is not aware of any tribes that would benefit from this project.

1.4.8 Evaluation Criterion H— Additional Non-Federal Funding

<table>
<thead>
<tr>
<th>Funding Source</th>
<th>Amount</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Federal Funding Requested</td>
<td>$400,000.00</td>
<td>21%</td>
</tr>
<tr>
<td>Third-Party Share: (customers)</td>
<td>$812,640.00</td>
<td>43%</td>
</tr>
<tr>
<td>MNWD cost share</td>
<td>$668,304</td>
<td>36%</td>
</tr>
<tr>
<td>Non-Federal total</td>
<td>$1,480,944</td>
<td>79%</td>
</tr>
</tbody>
</table>

Total Non-Federal Cost = $1,480,944
Total Project Cost = $1,880,944
Total Non-federal Funding Percentage: 79%
2 PROJECT BUDGET

2.1 Funding Plan and Letters of Commitment

No other federal funds have been received as of the date of this proposal.

Applicant share of the non-Reclamation funds have been committed and secured as of the date of this application submittal.

Table 1: Total Project Cost Table

<table>
<thead>
<tr>
<th>SOURCE</th>
<th>AMOUNT</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Costs to be reimbursed with the requested Federal</td>
<td>$400,000</td>
</tr>
<tr>
<td>2. Costs to be paid by the applicant</td>
<td>$668,304</td>
</tr>
<tr>
<td>3. Other: Participant Share</td>
<td>$812,640</td>
</tr>
<tr>
<td>Non-Federal Subtotal</td>
<td>$1,480,944</td>
</tr>
<tr>
<td>TOTAL PROJECT FUNDING</td>
<td>$1,880,944</td>
</tr>
</tbody>
</table>

2.2 Budget Proposal

<table>
<thead>
<tr>
<th>BUDGET ITEM DESCRIPTION</th>
<th>COMPUTATION</th>
<th>Quantity Type</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$/Unit</td>
<td>QTY</td>
<td></td>
</tr>
<tr>
<td>Salaries and Wages</td>
<td>N/A</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fringe Benefits</td>
<td>N/A</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Travel</td>
<td>N/A</td>
<td></td>
<td>$0</td>
</tr>
<tr>
<td>Equipment</td>
<td>N/A</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Supplies and Materials</td>
<td>N/A</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contractual/Construction</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NatureScape Direct Install</td>
<td>$10,427</td>
<td>120 EA</td>
<td>$1,251,240</td>
</tr>
<tr>
<td>Smart Timer Direct Install</td>
<td>$523.92</td>
<td>1,200 EA</td>
<td>$628,704</td>
</tr>
<tr>
<td>Environmental and Regulatory Compliance</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reclamation Environmental Review</td>
<td>$1,000</td>
<td>1 LS</td>
<td>$1,000</td>
</tr>
<tr>
<td><strong>Total Direct Costs</strong></td>
<td></td>
<td></td>
<td>$1,880,944</td>
</tr>
<tr>
<td>Indirect Costs:</td>
<td></td>
<td></td>
<td>0</td>
</tr>
<tr>
<td><strong>TOTAL ESTIMATED PROJECT COSTS</strong></td>
<td></td>
<td></td>
<td>$1,880,944</td>
</tr>
</tbody>
</table>
2.3 Budget Narrative

Salaries and Wages

Not applicable.

Fringe Benefits

Not applicable.

Travel

Staff serving the MNWD are local, so no travel required.

Equipment

Not applicable.

Materials and Supplies

None

Contractual/Construction

The following costs show a detailed breakdown of the costs for the NatureScape Direct install program, as per the agreement with the Contractor and based on average turf removal project of 911 SF. Actual costs may vary, depending on the size of the turf removal projects.

<table>
<thead>
<tr>
<th>NatureScape Direct Install Contractor</th>
<th>Unit Cost</th>
<th>QTY</th>
<th>Unit Type</th>
<th>Total Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-Qualifying Assessment</td>
<td>$ 400.00</td>
<td>120</td>
<td>ea</td>
<td>$ 48,000.00</td>
</tr>
<tr>
<td>Custom Landscape Design</td>
<td>$ 825.00</td>
<td>120</td>
<td>ea</td>
<td>$ 102,000.00</td>
</tr>
<tr>
<td>Turf Removal</td>
<td>$2,070.00</td>
<td>120</td>
<td>ea</td>
<td>$ 248,400.00</td>
</tr>
<tr>
<td>customer education support fee</td>
<td>$ 250.00</td>
<td>120</td>
<td>ea</td>
<td>$ 30,000.00</td>
</tr>
<tr>
<td>Plants and Materials</td>
<td>$2,750.00</td>
<td>120</td>
<td>ea</td>
<td>$ 330,000.00</td>
</tr>
<tr>
<td>Installation Labor</td>
<td>$3,932.00</td>
<td>120</td>
<td>ea</td>
<td>$ 471,840.00</td>
</tr>
<tr>
<td>Post-installation visit</td>
<td>$ 175.00</td>
<td>120</td>
<td>ea</td>
<td>$ 21,000.00</td>
</tr>
<tr>
<td><strong>subtotal</strong></td>
<td></td>
<td></td>
<td></td>
<td><strong>$ 1,251,240.00</strong></td>
</tr>
</tbody>
</table>

Smart Timer Direct Install

The costs included in the budget proposal represent the average cost of the smart timer installation, including all materials, the controller, installation, pre-qualifying assessment, and post-installation follow up.

Applicants are permitted to install up to two controllers, either 8-zone or 16-zone. The proposal assumes 1,200 controllers will be installed during a 24-month period.
Environmental and Regulatory Compliance Costs

• The cost incurred by Reclamation to determine the level of environmental compliance required for the project and review of environmental compliance documents prepared by a consultant.

It is presumed that Reclamation’s environmental compliance review will be minimal since the work will be completed on existing infrastructure and may qualify for a categorical exclusion. $1,000 has been allocated for this task, subject to revision by Reclamation if grant funds are awarded.

• The cost incurred to prepare any necessary environmental compliance documents or reports

The project will be exempt under CEQA and is expected to qualify for a categorical exclusion under NEPA. Therefore, it is anticipated that the environmental review required of Reclamation staff will be minimal, and the nominal fee of $1,000 included in the budget reflects this assumption. It is requested that Reclamation advise the District of any changes to this assumption and/or budget amount.

• The cost incurred by the recipient in acquiring any required approvals or permits, or in implementing any required mitigation measures

Not applicable.

Other Expenses:  Not applicable.

Indirect Costs:  Not applicable.
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.

The proposed project is a government administrative program. Any ground disturbing activity will be limited to and occur only on residential, customer owned properties, and will be limited to improvements to existing front yard landscaping and replacement of irrigation controllers.

No known impacts to air quality, animal habitat, water quality, or biological resources are related to the proposed activities.

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?

No, it is not anticipated that any species would 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 Clean Water Act (CWA) jurisdiction as “Waters of the United States?” If so, please describe and estimate any impacts the proposed project may have.

No, there are no wetlands or other surface waters inside the project boundaries that potentially fall under CWA jurisdiction as “waters of the United States.”

When was the water delivery system constructed?

The proposed work will not be completed on the water delivery system; therefore, this is not applicable.

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 project will not result in any modifications or effects to individual features of an irrigation system with headgates, canals, or flumes.
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.

No buildings, structures, or features associated with the proposed project are listed or eligible for listing on the National Register of Historic Places.

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

  There are no known archaeological sites that would be affected by the proposed project.

Will the proposed project have a disproportionately high and adverse effect on low income or minority populations?

The proposed project will have no impact on low or minority populations. The proposed improvements are intended to offer customer incentives to help them achieve water savings.

The project could actually benefit all populations, with the greatest benefit to low/fixed income or minority populations, by improving water management and reducing water waste, which reduces the need for the District to seek more expensive imported water supplies and increase water rates.

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

The proposed project will not limit access to, or ceremonial use of Indian sacred sites or result in other impacts on tribal lands as the infrastructure to be improved are not located within such areas.

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?

No, the proposed project specifically prohibits the use of invasive species and will likely reduce the presence of invasive species located on residential properties as customers remove existing lawn turf and plants to convert their landscaping to a watershed friendly design. As a result, the spread of non-native invasive species may be reduced.

4 Required Permits or Approvals

No permits or approvals from outside agencies are required for the proposed project.
5  Letters of Support

- Congressman Harley Rouda
- Orange County Coastkeeper, a non-profit organization,  [www.Coastkeeper.org](http://www.Coastkeeper.org)

6  Official Resolution

An unexecuted resolution is included with the application under Appendix B. The resolution was presented to the Moulton Niguel Water District Board of Directors on August 13, 2020 authorizing the general manager to submit grant applications to and execute an agreement with Reclamation for the implement of the proposed project. The resolution agrees to use the funds identified in this funding plan for the proposed project.
7 References


“MNWD Long-Range Water Reliability Plan”, December 2014
Appendix A

Letters of Support
The Honorable Brenda Burman  
Commissioner  
U.S. Bureau of Reclamation  
1849 C Street NW  
Washington, DC 20240

Dear Commissioner Burman:

I write to express my support for the Moulton Niguel Water District’s Fiscal Year 2021 U.S. Bureau of Reclamation WaterSMART Grants: Water and Energy Efficiency application. If awarded, this grant would support its NatureScape and Smart Timer Direct Install programs.

Located in south Orange County, the Moulton Niguel Water District serves more than 170,000 customers, including my constituents in Laguna Niguel and Aliso Viejo, California. The District previously succeeded in securing a grant from the Bureau, which it leveraged to convert its meters to a new Advanced Meter Infrastructure system. Further grant funding from the Bureau would allow the District to continue improving water and energy efficiency in the communities it serves.

It is my understanding that this grant funding would support the District’s direct-install Turf-to-Native Garden Program, known as NatureScape, to help customers replace turf with a native, low water-use landscape. Through this program, participants receive a free pre-qualification landscape and irrigation assessment, discounts on design fees, plus $2 per square foot of turf that is replaced. The grant would also support the Smart Timer Direct Install program, which provides up to two smart irrigation controllers to customers and the installation of the devices at a customer’s house for free.

I ask that you give the Moulton Niguel Water District’s application full and fair consideration consistent with applicable laws, rules, and regulations. Thank you for your attention to this matter.

Sincerely,

Harley Rouda  
Member of Congress
September 16, 2020

U.S. Bureau of Reclamation
Attn: Mr. Darren Olson
Denver Federal Center
Bldg. 56, Rm. 1000
6th Avenue and Kipling Street
Denver, CO 80225

RE: Support for Moulton Niguel Water District’s U.S. Bureau of Reclamation WaterSMART Water and Energy Efficiency Grant Application

Dear Mr. Olson,

On behalf of Orange County Coastkeeper, we would like to express our enthusiastic support for Moulton Niguel Water District’s U.S. Bureau of Reclamation Water Smart Water and Energy Efficiency application for its Naturescape and the Smart Timer Direct Install Programs.

Located in South Orange County, Moulton Niguel Water District is dedicated to serving its customers and the environment with reliable, economical, high quality water, wastewater, and recycled water services. The District previously succeeded in seeking a grant from the Bureau and used the grant funding to convert the District’s meters to a new Advanced Meter Infrastructure system.

This year the Moulton Niguel Water District is requesting a grant for $500,000 in grant funds for a direct-install Turf-to-Native Garden Program that will help customers in our area replace turf with a native, low water-use landscape. NatureScape participants receive a free pre-qualification landscape and irrigation assessment, 50% off design fees, plus $2 per square foot of turf that is replaced. The Smart timer direct install program provides up to two smart irrigation controllers to customers and the installation of the devices at a customers house for free.

As stewards for our local environmental resources, Orange County Coastkeeper is proud to support the District’s U.S. Bureau of Reclamation Water Smart Water and Energy Efficiency Grant application.

If you have any questions, please feel free to contact me at (714) 850-1965 or garry@coastkeeper.org.

Sincerely,

Garry Brown
President & CEO
Orange County Coastkeeper
Appendix B

Authorizing Resolution
RESOLUTION NO. 20-09

A RESOLUTION OF THE BOARD OF DIRECTORS OF
MOULTON NIGUEL WATER DISTRICT
AUTHORIZING THE GENERAL MANAGER, OR DESIGNEE, TO APPLY FOR,
RECEIVE, AND ENTER INTO A COOPERATIVE AGREEMENT, AND
ADMINISTER A GRANT THE 2021 BUREAU OF RECLAMATION WATER AND
ENERGY EFFICIENCY GRANT

BE IT RESOLVED, by the Moulton Niguel Water District (“District) Board of Directors (“Board”) that the District General Manager or his/her designee is hereby authorized and directed to sign and file, for and on behalf of the District, a Water Smart Water and Energy Efficiency Grant Application (“Application”) for a grant from the U.S. Bureau of Reclamation (“Reclamation”) in the amount not to exceed $500,000; and

BE IT RESOLVED, the District General Manager, or his/her designee, is hereby authorized to acknowledge and approve of the Application and the information submitted for consideration, and is further authorized to certify that the District has and will provide the amount of funding and/or in-kind contributions specified in the funding plan; and

BE IT RESOLVED, that the Board hereby agrees and further does authorize the General Manager, or his/her designee, to certify that the District has and will comply with all statutory and regulatory requirements related to any grant funds, and

BE IT FURTHER RESOLVED, that the General Manager, or his/her designee, is hereby authorized to negotiate and execute a grant and any amendments or change orders thereto on behalf of the District and will work with Reclamation to meet established deadlines for entering into a cooperative agreement and to comply with any and all other Reclamation requirements.

APPROVED, SIGNED and ADOPTED this 13th day of August, 2020.

MOULTON NIGUEL WATER DISTRICT

[Signature]
President/Vice President
MOULTON NIGUEL WATER DISTRICT
and the Board of Directors thereof

[Signature]
Secretary/Assistant Secretary
MOULTON NIGUEL WATER DISTRICT
and the Board of Directors thereof
I, PAIGE GULCK, Secretary of the Board of Directors of the MOULTON NIGUEL WATER DISTRICT, do hereby certify that the foregoing Resolution was duly adopted by the Board of Directors of said District at a regular meeting of said Board held on the 13th day of August, 2020 that it was so adopted by the following vote:

AYES: CAVE, FIORE, FROELICH, JENNINGS, KURTZ, MOORHEAD, PROBOLSKY
NOES: 
ABSTAIN: 
ABSENT: 

Paige Gulck, Secretary
MOULTON NIGUEL WATER DISTRICT
and of the Board of Directors thereof
2021 USBR WaterSMART: Water and Energy Efficiency Grant
MNWD Outdoor Residential Water Efficiency Program

Additional Congressional Districts

CA-045
CA-049
Good Afternoon:

I have attached a letter in support of the Moulton Niguel Water District’s (MNWD) Fiscal Year 2021 U.S. Bureau of Reclamation WaterSMART Grants: Water and Energy Efficiency application. A copy of this letter has also been provided directly to MNWD.

Thank you for your assistance, and please let me know if you need additional information. My cell is 202-262-7314.

Sincerely,

Lauren Barich
Field Representative/Special Projects Director
Office of Representative Harley Rouda
Phone: 714.960.6483

[Contact information]
The Honorable Brenda Burman  
Commissioner  
U.S. Bureau of Reclamation  
1849 C Street NW  
Washington, DC 20240  

Dear Commissioner Burman:  

I write to express my support for the Moulton Niguel Water District’s Fiscal Year 2021 U.S. Bureau of Reclamation WaterSMART Grants: Water and Energy Efficiency application. If awarded, this grant would support its Naturescape and Smart Timer Direct Install programs.  

Located in south Orange County, the Moulton Niguel Water District serves more than 170,000 customers, including my constituents in Laguna Niguel and Aliso Viejo, California. The District previously succeeded in securing a grant from the Bureau, which it leveraged to convert its meters to a new Advanced Meter Infrastructure system. Further grant funding from the Bureau would allow the District to continue improving water and energy efficiency in the communities it serves.  

It is my understanding that this grant funding would support the District’s direct-install Turf-to-Native Garden Program, known as NatureScape, to help customers replace turf with a native, low water-use landscape. Through this program, participants receive a free pre-qualification landscape and irrigation assessment, discounts on design fees, plus $2 per square foot of turf that is replaced. The grant would also support the Smart Timer Direct Install program, which provides up to two smart irrigation controllers to customers and the installation of the devices at a customer’s house for free.  

I ask that you give the Moulton Niguel Water District’s application full and fair consideration consistent with applicable laws, rules, and regulations. Thank you for your attention to this matter.  

Sincerely,  

Harley Rouda  
Member of Congress