

## Residential and Non-Functional CII Grass Replacement Program

WaterSMART: Water and Energy Efficiency Grants for Fiscal Year 2022 Funding Opportunity Announcement No. R22AS00023

# Applicant: West Basin Municipal Water District 17140 S. Avalon Boulevard Carson, CA 90746

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#### **Table of Contents**

Title Page	1
Table of Contents	2
Mandatory Federal Forms	3
Section 1: Technical Proposal and Evaluation Criteria	4
1.1: Executive Summary	4
1.2: Technical Project Description	6
1.3: Evaluation Criteria	9
Section 2: Project Budget	
2.1: Funding Plan	27
2.2 Budget Proposal	28
2.3: Budget Narrative	30
Section 3: Environmental and Cultural Resources Compliance	31
Section 4: Required Permits or Approvals	32
Section 5: Letters of Support	32
Section 6: Official Resolutions	32
Section 7: Unique Entity Identifier and System for Award Management	32

## **Exhibits**

- A. Letters of Support
- B. Example of GIS Project Mapping
- C. Cooperative Agreement: Metropolitan Water District of Southern California

## Mandatory Federal Forms

The following forms are included with this grant application:

- SF-424 Application for Federal Assistance
- SF-424A Budget Information
- SF-424B Assurances

## Section 1: Technical Proposal and Evaluation Criteria

## 1.1: Executive Summary

Proposal Date: November 1, 2021

Applicant Name: West Basin Municipal Water District

Applicant Category: A

Location: Carson, Los Angeles County, California

Project Summary: West Basin Municipal Water District (West Basin) is a Category A applicant (Water District) and is located in Southern California, and in partnership with the United States Bureau of Reclamation (Reclamation), will implement a proven project that helps meet the goals of Reclamation that are listed in the Funding Opportunity Announcement (FOA). West Basin's Residential and Non-functional CII Grass Replacement project will remove 300,000 square feet (ft²) of grass in the service area with projected water savings of 1,215 acre-feet over the useful life of the project. This project will help conserve scarce imported water, energy, and help reduce greenhouse gases (GHG) by removing grass in residential and non-functional commercial, industrial, and institutional (CII) sites across the service area. Additionally, West Basin will provide design assistance to CII sites to ensure the increased water saving and stormwater capture elements of removing grass in these larger sites are maximized. From West Basin's prior experience with a similar project, West Basin is estimating a completion time of two years, or less. Historically, funding is expended at approximately 150,000 ft² or more per year through the Grass Replacement application process.

<u>Project Length:</u> The proposed project is designed to be completed within two years. With a start date of July 1, 2022, the program would have a completion date of July 1, 2024.

Federal Facility: The proposed project is not located on a Federal facility.

## 4.2 Project Location

The West Basin service area consists of 17 cities and unincorporated areas throughout the western portion of Los Angeles County. The project will be implemented at several locations throughout the service area. West Basin's headquarters are located at the following, Latitude: 33.827820 N and Longitude: -118.272346 W and the project will be implemented near these coordinates. A list of the cities serviced by West Basin are included under Figure 1 below. The West Basin service area map relative to the County of Los Angeles and the State of California is included under Figure 2.

Figure 1

	nicipal Water District Service Area
City of Carson	City of Lomita
City of Culver City	City of Manhattan Beach
City of El Segundo	City of Palos Verdes Estates
City of Gardena	City of Rancho Palos Verdes
City of Hawthorne	City of Redondo Beach
City of Hermosa Beach	City of Rolling Hills
City of Inglewood	City of Rolling Hills Estates
City of Lawndale	City of West Hollywood
City of Malibu	Unincorporated portions of Los Angeles County

Figure 2



#### 1.2: Technical Project Description

The goal of this program is to convert 300,000 ft<sup>2</sup> of water thirsty and unsustainable turf to more sustainable climate appropriate landscapes that conserve water, help to direct water into the groundwater table, conserve energy, reduce runoff water pollution and reduce GHG. West Basin is estimating that a minimum of 200 sites will be converted with project completions. This is using an average site size of 1,500 square feet. Due to the nature of this project, non-functional turf in the CII sector will also be targeted for replacement. Utilizing this project funding for the eligible CII sector will maximize the water and energy savings associated with larger projects. Design assistance will be offered to CII sites interested in participating the rebate process to overcome any additional barriers in implementing projects. Design assistance will focus on plant selection and placement, inclusion of a stormwater capture element, and irrigation recommendations.

## **Participation Process**

West Basin will leverage its partnership with MWD and the regional turf removal program through its conservation partnership agreement to add funding to MWD's existing \$2 per ft<sup>2</sup> rebate program. West Basin will leverage MWD's existing vendor and rebate administration program as a cost share for this project. This is an efficient and streamlined strategy to provide the additional \$1 per ft<sup>2</sup> rebate for a total rebate of \$3 per ft<sup>2</sup> in Fiscal Years 2022-23 and 2023-24.

Commercial design assistance will allow potential participants to receive custom design plans for their projects prior to beginning their rebate process. Designs will address climate-appropriate plant placement, inclusion of a stormwater capture element, and estimate the full eligible potential for grass removal. Recommendations for addressing irrigation adjustments and upgrades through the regional rebate program will also be discussed with site managers. Rebate application limits for the CII sector are up to 50,000 ft<sup>2</sup>, which enhances the opportunity for larger landscape sites such as commercial buildings, schools, and city medians among other eligible sites to participate in the grass replacement process.

Applicants will apply directly on the MWD SoCalWaterSmart website to begin the rebate application process. MWD's vendor will review the application, including the potential square footage, and submitted garden designs to approve the residential application. The resident is also required to submit pre-construction photos. Access to pre-construction photos will provide the opportunity for West Basin staff to verify the existing grass areas that were existing and removed through this project.

Once the customer meets all the requirements, MWD's vendor (EGIA) will approve the application and provide the applicant with a confirmation number and approval to begin their project. Applicants are given 120 days to complete their grass replacement project.

In certain cases, MWD and EGIA will request West Basin to provide an extension to a project, which West Basin will review and grant on a case-by-case basis. The goal is to assist the resident in achieving their garden transformation, within a timely period.

The applicant will provide this information to MWD's rebate vendor in order to close-out the garden project and issue the resident the rebate check. West Basin will provide tracking for each project as it progresses on the SoCalWaterSmart website.

Following are twelve (12) detailed Tasks that will be implemented to successfully complete the project.

- Task 1 Reclamation/West Basin Scope of Work completed and agreement executed. West Basin staff will with Reclamation to provide the needed signed documents in order to execute the project agreement.
- Task 2 West Basin staff will develop and finalize the participation procedures.
   The procedures will provide detailed instructions to residents and CII customers on how to participate in the program.
- Task 3 Provide MWD with Contract Exhibit to provide additional \$1 ft². West Basin has experience with providing MWD with the required agreement exhibits. For this project, staff will provide a signed agreement to MWD instructing them to provide Reclamation's \$1ft² for a total of 300,000 ft² for a total of \$300,000. MWD will add this funding to their current \$2 ft², and provide residents and CII customers in West Basin's service area with a \$3 ft² rebate.
- Task 4 Marketing Material Designed (including Reclamation's logo) and printed. The conservation staff will work closely with the Public Information Team to develop the appropriate marketing materials. A complete task list and schedule has been provided in the "Readiness to Proceed" section of the application. Staff will develop an effective brand and message to motivate the public to participate in the program. There is high Spanish speaking community located within West Basin's Disadvantaged Communities (DAC), therefore the materials will be in both English and Spanish. Special messaging will target the removal of "Nonfunctional" turf. Especially grass areas of businesses, medians and home owner associations that is not utilized for any functional purposes.
- Task 5 Issue RFP and hire the Landscape Design Consultant. West Basin has hired past landscape designers to assist with designing low water use landscapes utilizing ocean friendly watershed principles. Staff will ensure that the designs meet MWD's requirements in order to qualify for the \$3 ft<sup>2</sup> rebate.

- Task 6 Implement Program Promotion. West Basin will coordinate with its partner the South Bay Environmental Services Center (SBESC), its eight water retailers, 17 cities, L.A. County Board of Supervisors and other stakeholders, to launch and promote the program.
- Task 7 Provide Landscape Design Assistance. West Basin will issue a Request
  - for Proposals (RFP) to hire a qualified landscape design company utilizing a competitive bid process. West Basin will utilize a panel to interview and score the proposals. West Basin will provide a contract and scope of work to the designer. West Basin will work closely to attend meetings and preapprove landscape designs to ensure they meet MWD's requirements and the California watershed principles.



- Task 8 West Basin and the SBESC will assist residents and CII customers with understanding and applying for the program. In 2021, West Basin initiated an additional resource to assist the public called West Basin Chats. These are 10minute virtual presentations where residents can learn more about West Basin's programs and ask the professionals questions. West Basin will develop chats for this project.
- Task 9 Conduct program process and impact evaluation. West Basin will
  monitor the program process and impacts throughout the project and report. It will
  communicate and seek approval from Reclamation to make any needed changes
  that will increase the success of the program.
- Task 10 Submit draft program evaluation to Reclamation for review. West Basin
  will submit and evaluation template that it will utilize throughout the project. The
  evaluation will cover such areas as program effectiveness, marketing, customer
  acceptance, etc.
- Task 11 Submit semi-annual reporting and deliverables to Reclamation. West Basin staff has experience with submitting semi-annual and deliverables to Reclamation for prior projects.
- Task 12 Final reporting and deliverables sent to Reclamation. West Basin will submit a final report and deliverables to Reclamation at the end of the project.

#### 1.3: Evaluation Criteria

## Evaluation Criterion A – Quantifiable Water Savings

#### **Estimated Water Savings**

The amount of estimated water savings is a total of 40 acre-feet (equivalent to 13,200,000 gallons) saved per year, or 1,215 acre-feet over the 30-year useful life of the sustainable landscape.

Total Water Savings										
Gallons Saved Per Year / Sq. Ft.	Total Square Feet	Total Annual Gallons Saved	Total Annual Acre Feet	30-Year Life						
44	300,000	13,200,000	40 AF	1,215 AF						

West Basin used the Maximum Applied Water Allowance (MAWA) Calculation developed for the Model Water Efficiency Landscape Ordinance that is located on the Department of Water Resource's website to develop the 44 gallons per year, per square-foot estimation. This water savings estimate is in line with those savings found on a regional level, which states: "Metropolitan Water District of Southern California looked at their regional turf removal program and found water savings of approximately 44 to 49 gallons per day per ft²."

To learn more about the water savings potential calculations, please visit the following DWR link: <a href="https://water.ca.gov/-/media/DWR-Website/Web-Pages/Programs/Water-Use-And-Efficiency/Urban-Water-Use-Efficiency/MWELO-Files/MWELO-Guidebook/C--Landscape-Irrigation-Water-Budget-Overview.pdf">https://water.ca.gov/-/media/DWR-Website/Web-Pages/Programs/Water-Use-And-Efficiency/Urban-Water-Use-Efficiency/MWELO-Files/MWELO-Guidebook/C--Landscape-Irrigation-Water-Budget-Overview.pdf</a>

To learn more about the water savings potential calculations as determined by Metropolitan Water District, please visit the following link: https://www.usbr.gov/lc/socal/reports/MWDturfreduction.pdf

ETo = Reference Evaporation (inches per year)

0.7 = ET Adjustment Factor

LA = Landscape Area (Square Feet)

0.62 = Conversion Factor (to gallons per square foot)

0.3 = Runoff Factor (30% of water applied is assumed to run off the landscape)

MAWA = ETo (0.7)(LA)(0.62)(0.3)

The assumptions made to justify the water usage are listed as follows:

West Basin is estimating that most people overwater their landscapes by two or three times the amount that the landscape requires. But to be conservative, West Basin is estimating the following two scenarios for one square foot of turf:

#### Scenario 1:

 50% of the population is watering at 100% of ET, or at the annual water needs of cool season turf.

```
MAWA = (ETo) x (0.62) x [(0.7 x LA) + (0.3 x LA)]

MAWA = (50.1) x (0.62) x [(1.0 x 1ft<sup>2</sup>) + (0.3 x 1ft<sup>2</sup>)]

MAWA = (31.06) x (1.3)

MAWA = 40.38 gallons per year / sq. foot
```

#### Scenario 2:

The other 50% is watering at 125% of the watering needs.

```
MAWA = (ETo) x (0.62) x [(0.7 \times LA) + (0.3 \times LA)]
MAWA = (50.1) x (0.62) x [(1.25 \times 1ft^2) + (0.3 \times 1ft^2)]
MAWA = (31.06) x (1.55)
MAWA = 48.14 gallons per year / sq. foot
```

## Average of both Scenarios:

- 1. MAWA = 40.38 gallons per year / sq. foot
- 2. MAWA = 48.14 gallons per year / sq. foot

```
40.38 + 48.14 = 88.52 / 2 = 44.26 gallons per year / sq. foot
```

Therefore, West Basin is estimating that it will save 44 gallons per year / per square foot by having the public remove their high-water using turf. By removing the turf, the owner may replace it with the plant choices listed on Metropolitan's turf removal website. Through this process, irrigation upgrades and use of stormwater capture elements maximize the water savings potential available through these turf replacement projects.

#### Current losses

This project will help conserve imported water supplies from Northern California along the State Water Project and also the Colorado River via Metropolitan Water District pipelines and aqueducts. Metropolitan provides supplemental supply sources of water for domestic and municipal uses to its member agencies.

Current losses that are being used is the amount of increased supply reliability of the Colorado River as managed through Metropolitan will allow programs that are funded and

implemented, including: farm and irrigation district conservation programs, improved reservoir system operations, land management programs, and water transfers arrangements with agricultural water districts in southern California, entities in Arizona and Nevada that use Colorado River water, and the U.S. Department of the Interior, Bureau of Reclamation.

The known benefits associated with where the current losses are going is that the water conserved through this project will lessen the demand from both the Colorado River and State Water Project as described above. Both of these systems support additional habitat for species within their regions.

## **Estimated Water Savings**

West Basin is using calculations from the DWR Model Water Efficiency Landscape Ordinance (MWELO) Guidebook, page 26 of the following link: <a href="https://water.ca.gov/-/media/DWR-Website/Web-Pages/Programs/Water-Use-And-Efficiency/Urban-Water-Use-Efficiency/MWELO-Files/MWELO-Guidebook/C--Landscape-Irrigation-Water-Budget-Overview.pdf">https://water.ca.gov/-/media/DWR-Website/Web-Pages/Programs/Water-Use-And-Efficiency/Urban-Water-Use-Efficiency/MWELO-Files/MWELO-Guidebook/C--Landscape-Irrigation-Water-Budget-Overview.pdf</a>

Example 1: Residential No Special Landscape Project in Santa Monica, CA

 $MAWA = (ETo) \times (0.62) \times [(ETAF \times LA) + ((1 - ETAF) \times SLA)]$ 

MAWA - Maximum Applied Water Allowance (gallons per year)

ETo=Reference Evapotranspiration of 44.2 For City of Santa Monica (annual Eto in inches per year)

0.62 = Conversion factor (to gallons)

0.55 = ET Adjustment Factor for residential projects (ETAF)

LA = Landscape Area 2,600 square feet for this project

SLA = Special Landscape Area: 0 square feet for this project

MAWA =  $(44.2 \text{ inches}) (0.62) \times [(0.55 \times 2,600) + ((1-0.55) \times 0)]$ 

MAWA = 39,188 gallons per year

 $ETWU = (ETo)(0.62)((SF \times PF/IE) + SLA)$ 

ETWU = Estimated Total Water Use (gallons per year) and must be less than MAWA

ETo=Reference Evapotranspiration of 44.2 For City of Santa Monica (annual Eto in inches per year)

0.62 = Conversion factor (to gallons)

PF = Plant Factor from WUCOLS

SF = Hydrozone Area 2,600 square feet

IE = Irrigation Efficiency 0.75 for sprinklers and 0.81 for drip

SLA = Special Landscape Area: 0 square feet for this project

## Type of Improvement: Benefit Quantification and Performance Measure

For this turf removal project, below are the annual water savings estimates:

ETo = Reference Evaporation (inches per year)

0.7 = ET Adjustment Factor

LA = Landscape Area (Square Feet)

0.62 = Conversion Factor (to gallons per square foot)

0.3 = Runoff Factor (30% of water applied is assumed to run off the landscape)

MAWA = ETo (0.7)(LA)(0.62)(0.3)

For assumptions made to justify the water usage, West Basin is estimating that most people overwater their landscapes by 2 or 3 times the amount that the landscape requires. But to be conservative, West Basin is estimating the following 2 scenarios: for 1 square foot of turf:

#### Scenario 1:

50% of the population is watering at 100% of ET, or at the annual water needs of cool season turf.

 $MAWA = (ETo) \times (0.62) \times [(0.7 \times LA) + (0.3 \times LA)]$ 

MAWA =  $(50.1) \times (0.62) \times [(1.0 \times 1 \text{ft}^2) + (0.3 \times 1 \text{ft}^2)]$ 

 $MAWA = (31.06) \times (1.3)$ 

MAWA = 40.38 gallons per year / sq. foot

#### Scenario 2:

The other 50% is watering at 125% of the watering needs.

 $MAWA = (ETo) \times (0.62) \times [(0.7 \times LA) + (0.3 \times LA)]$ 

MAWA =  $(50.1) \times (0.62) \times [(1.25 \times 1ft2) + (0.3 \times 1ft2)]$ 

 $MAWA = (31.06) \times (1.55)$ 

MAWA = 48.14 gallons per year / sq. foot

## Average of both Scenarios:

- 1. MAWA = 40.38 gallons per year / sq. foot
- 2. MAWA = 48.14 gallons per year / sq. foot

40.38 + 48.14 = 88.52 / 2 = 44.26 gallons per year / sq. foot

Therefore, West Basin is estimating that it will save 44 gallons per year/per square foot by having the public remove their high-water using turf. By removing the turf, the owner may replace it with the plant choices listed on Metropolitan's turf removal website.

Through this process, irrigation upgrades and use of stormwater capture elements maximize the water savings potential available through these turf replacement projects.

- a. Approximately 40 AF (or 13,200,000 gallons) of water will be saved per year, or 1,215 AF over the 30-year useful life of the sustainable landscape with 300,000 ft<sup>2</sup> of turf installed.
- b. Historical water consumption data is not available for this type of program. However, various studies have referenced the water use savings used to calculate the total for this project. In Southern California it is estimated at approximately 44 to 49 gallons per day per ft².
- c. Site audits will be performed before applicants are accepted into the program. The applicants will be asked to submit a minimum of five (5) color photos prior to being accepted into the rebate program. This will show the area prior to beginning the landscape project and allow staff to visually confirm the existence of grass in the area. Through the pre-approval process residents may be asked to take additional photos of their grass if there is not enough detail provided in their initial pictures. Applicants will be asked to submit a landscape design prior to the start of their project which will outline the climate appropriate plants, stormwater capture elements, total square footage considered for replacement, and irrigation plans.
- d. The actual water savings will be verified through the confirmation of the total square footage installed at the end of the program. This will allow staff to calculate the water savings achieved through the effective removal of grass in the service area. A percentage of projects will be verified and inspected through the rebate process allowing full measurements of the converted sites to be measured and confirmed. Pictures of completed projects will be available for review with the respective square footage measurements for all sites. Additional information on water savings verification is provided under the Performance Measures section of this application.

## Evaluation Criterion B - Renewable Energy

## Sub-criterion No. B.2: Increasing Energy Efficiency in Water Management

The Climate Registry published a report in October 15, 2013 titled, "Energy and Greenhouse Gas Emissions in Water." The report states the following, "nearly twenty percent of California's electricity and more than thirty percent of non-power plant natural gas is used for water-related purposes: for collection, production, transport, treatment and delivery of water to end users; during the consumption and use of water; and for collection, treatment, and disposal or reuse of wastewater. Water is also critical to energy development: cooling, drilling, pump storage, hydropower, and bioenergy.

It is not a surprise that California's water sector substantial quantities energy. Historically, Californians have routinely transported millions of gallons of water throughout the state, over hundreds of miles and thousands of feet of elevation, from point of origin to point of use. We have always known that our water systems use a lot of energy, but it was only after the Energy Commission quantified the magnitude of the energy intensity of the state's water supplies that we began to focus in earnest on a need to change our approach to management and use of water.





In 2005, the California Energy Commission estimated that 19 percent of the state's electric requirements and 32 percent of non-power plant natural gas consumption are related in some way to water. In 2010, studies conducted on behalf of the California Public Utilities Commission (CPUC) found that water and wastewater operations alone account for nearly eight percent of California's electricity requirements, a 60 percent increase over the Energy Commission's initial estimate."

## **Quantifiable Energy Savings**

On September 30, 2013, the Metropolitan Water District of Southern California provided

a Final Project Report to Reclamation for its California Friendly Turf Replacement Incentive Program. Metropolitan's California Friendly Turf Replacement Incentive program reduced an estimated 5,490 acre-feet of imported water, which is pumped from the Colorado River through the Colorado River Aqueduct and from the Bay-Delta through the State Water Project.

According to recent statewide studies prepared for the California Public Utilities Commission, the average energy intensity of water delivered by Metropolitan to its member agencies is 2,473 kWh/AF. In addition, the range of energy intensity to distribute supplies to end users is between 45-1,574 kWh per million gallons, or 138 - 4,830 kWh per acre foot.



Based on the energy intensity data in the Commission's studies, the program resulted in energy savings due to reduced demand for water imported from the Colorado River and State Water Project. Figure 3 below shows the energy savings.

Figure 3

Water Savings	Energy Intensity Range kWh/AF	Estimated Energy Savings Range
5,490 AF/year	2,611 – 7,303	14,224,390 – 40,093,470 kWh

The benefit of this energy savings is further enhanced by timing. Irrigation demands within Metropolitan's service area are highest during the warmer months. Historic reference evapotranspiration during July is nearly three times higher than the low in January. The project's estimated water and energy savings will primarily occur during the warmer months when demands are high, resources are constrained, and reservoirs are lower.

## West Basin Energy Savings

Based on Metropolitan's energy assumptions, West Basin is estimating that it will save the following through its project:

Water Savings	Energy Intensity Range kWh/AF	Estimated Energy Savings Range
40 AF/year	2,611 – 7,303	104,440 – 292,120 kWh

The energy efficiency improvement will offset the impacts of climate change. By utilizing the <a href="https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator">www.epa.gov/energy/greenhouse-gas-equivalencies-calculator</a>, West Basin estimates that it will reduce 207 Metric Tons of Carbon Dioxide (CO2) Equivalent through its Grass Replacement project.

In addition to conserving energy from transporting and treating potable water, the project will also reduce carbon emissions from the weekly mowing of turf grass. "Estimates vary from 16 billion to 41 billion pounds of CO2 being emitted from lawn mowers every year. Another estimate is that every gallon of gasoline burned by lawnmowers emits 20 pounds of CO2. According to the EPA, one gas lawn mower emits 89 pounds of CO2 and 34 pounds of other pollutants per year." Therefore, West Basin anticipates additional CO2 reductions from eliminating the need to mow grass every week.

## **Proposed Program Schedule**

Description	Time Frame
<ul> <li>Program Administration</li> <li>Task 1: Reclamation/West Basin scope of work completed and agreement executed</li> <li>Task 2: Participation procedures developed</li> <li>Task 3: Provide MWD with Contract Exhibit to provide additional \$1ft<sup>2</sup></li> <li>Task 4: Marketing Material Designed (including Reclamation's logo) and printed (see separate detailed marketing schedule below)</li> <li>Task 5: Issue RFP and hire the Landscape Design Consultant</li> </ul>	Months 1 – 2
Task 6: Implement Program Promotion	Months 3 - 21
<ul> <li>Task 7: Provide Landscape Design Assistance</li> <li>Task 8: Assist Customers with Applying for Rebate</li> </ul>	Months 3 – 23
<ul> <li>Task 9: Conduct Program process and impact evaluation</li> <li>Task 10: Submit draft Program evaluation to Reclamation for review</li> </ul>	Months 16 - 23
<ul> <li>Task 11: Submit semi-annual reporting and deliverables to Reclamation</li> </ul>	Months 6 – 24
<ul> <li>Task 12: Final reporting and deliverables sent to Reclamation</li> </ul>	Month 24

## Year One

Timeline	Q1				Q2			Q3		Q4		
	M1	M2	M 3	M 4	M 5	M 6	M 7	M8	M 9	M1 0	M1 1	M1 2
Task 1 - 5: Program Administration	х	х	х	x	X	x	x	x	х	х	x	х
Task 4: Marketing / Promotion			х	х	Х	Х	X	×	Х	x	×	х
Task 6: Design Assistance			Х	Х	Х	Х	Х	х	х	x	×	Х
Task 8: Rebate Incentive			х	х	Х	Х	Х	X	x	х	×	х
Task 9: Program Evaluation						х						Х
Task 11: Program Reporting						X						х

#### Year Two

Timeline	Q1				Q2			Q3		Q4			
Year Two	M 1 3	M1 4	M1 5	M1 6	M1 7	M1 8	M1 9	M2 0	M2 1	M2 2	M2 3	M2 4	
Task 1 - 5: Program Administration	×	х	х	X	X	x	x	x	х	х	x	×	
Task 4: Marketing / Promotion	х	x	×	x	х	X	x	×	x	х			
Task 6: Design Assistance			×	x	х	x	х	х	х	Х			
Task 8: Rebate Incentive			×	×	x	х	x	×	×	x	×	X	
Task 9: Program Evaluation						х						х	
Task 11: Program Reporting						Х						X	
Task 12: Final Reports												×	

#### Evaluation Criterion C - Sustainability Benefits

## **Enhancing Drought Resiliency**

In addition to the separate WaterSMART Environmental Water Resources Projects NOFO, this NOFO places a priority on projects that enhance drought resiliency, through this section and other sections above, consistent with the SECURE Water Act. Please provide information regarding how the project will enhance drought resilience by benefitting the water supply and ecosystem, including the following:

1. This project addresses many of the issues contained in Reclamations SECURE Water Act, Section 9503(c) - Reclamation Climate Changes and Water 2016. The report states that "west-wide climate risks to water supplies are expected and that natural runoff will continue to reflect the continuing changes to the climate." This was evident in 2019-2021, where the snowfall in the Sierra Mountains melted quickly and the much of the water was absorbed by the dry soil and plants, causing

lower than expected runoff. This impacted the storage reservoirs of Lake Powell and Lake Mead greatly. This project will help conserve imported water, thus leaving more water in storage.

- The water conserved through this project will help keep water in the reservoirs for a longer time.
- 3. Species will not be affected by this project. This project will help with the small and endangered butterfly native to the Palo Verdes Peninsula in southwest Los Angeles County, California. Participating residents from this area will be removing water-thirsty grass and replacing it with native and drought tolerant plants which could help provide a home and feeding area for these butterflies.
- 4. Other ecosystem benefits: During the last 10 years, the water industry has formed a closer and more collaborative relationship with environmental groups, such as the Tree People, Surfrider Foundation, Watershed organizations and others, and incorporated watershed principles into landscape classes and turf removal programs. MWD and West Bain teach residents to view their home and landscape as a watershed. The idea is to develop a landscape that can capture and infiltrate as much water as possible, thus reducing the amount of runoff. For example, MWD's turf removal program requires that the resident incorporate a watershed feature, such as a rain barrel, rain gardens, swales or dry creek beds. These features will be a part of this program and will help to reduce the amount of runoff pollution that enters the rivers and the ocean.





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5. Yes, this project will result in more efficient management of the water supply. By reducing the amount of non-functional turf, West Basin and Reclamation are conserving water and reducing the need for greater amounts of imported water. This helps the western region by allowing the conserved water to be used in Nevada and Arizona where water supplies are extremely low.

## Other Project Benefits

This project in aligned to help meet the goals of "Combating the Climate Crisis: E.O. 14008: Tackling the Climate Crisis at Home and Abroad." Following is an excerpt from the Executive Order where it mentions conserving our nations waters.

"Sec. 216. Conserving Our Nation's Lands and Waters. (a) The Secretary of the Interior, in consultation with the Secretary of Agriculture, the Secretary of Commerce, the Chair of the Council on Environmental Quality, and the heads of other relevant agencies, shall submit a report to the Task Force within 90 days of the date of this order recommending steps that the United States should take, working with State, local, Tribal, and territorial governments, agricultural and forest landowners, fishermen, and other key stakeholders, to achieve the goal of conserving at least 30 percent of our lands and waters by 2030. (i) The Secretary of the Interior, the Secretary of Agriculture, the Secretary of Commerce, through the Administrator of the National Oceanic and Atmospheric Administration, and the Chair of the Council on Environmental Quality shall, as appropriate, solicit input from State, local, Tribal, and territorial officials, agricultural and forest landowners, fishermen, and other key stakeholders in identifying strategies that will encourage broad participation in the goal of conserving 30 percent of our lands and waters by 2030."

This project contributes to increasing climate resiliency. Due to climate change and current droughts, the water supplies in the western United States are extremely low. By removing water-thirsty grass and better managing landscape water use, West Basin and Reclamation are investing in long-term water savings.

This proposed project will strengthen water supply sustainability to increase resilience to climate change. Milder wetter winters are forecasted in the Western states reducing the amount of snow pack and storage. Therefore, more effective water conservation programs are needed to protect the limited and decreasing amounts of water. This project will target residential and non-functional CII grass. Design and rebate assistance will be provided to residents to assist them with removing their grass and installing water efficient landscapes.

The project is estimated to result in lower greenhouse gas emissions and saved as shown below:

Water Savings	Energy Intensity Range kWh/AF	Estimated Energy Savings Range
40 AF/year	2,611 - 7,303	104,440 - 292,120 kWh

- Utilizing the <u>www.epa.gov/energy/greenhouse-gas-equivalencies-calculator</u>, West Basin estimates that it will reduce 207 Metric Tons of Carbon Dioxide (CO2) Equivalent through its Grass Replacement project.
- In addition to conserving energy from transporting and treating potable water, the project will also reduce carbon emissions from the weekly mowing of turf grass.
- "Estimates vary from 16 billion to 41 billion pounds of CO2 being emitted from lawn mowers every year. Another estimate is that every gallon of gasoline burned by lawnmowers emits 20 pounds of CO2. According to the EPA, one gas lawn mower emits 89 pounds of CO2 and 34 pounds of other pollutants per year."

## **Disadvantaged or Underserved Communities**

West Basin's project directly serves and benefits areas of disadvantaged communities within West Basin's service area. West Basin has utilized the Cal-EPA's Enviroscreen's 3.0 map overlaid over West Basin's service area. "The Office of Environmental Health Hazard Assessment (OEHHA) is releasing draft CalEnviroScreen 4.0, the latest iteration of the California Communities Environmental Health Screening Tool. This version of CalEnviroScreen incorporates the most recent publicly available data for all indicators and improves in the way some indicators are calculated to better reflect environmental conditions or a population's vulnerability to environmental pollutants." West Basin is prepared to integrate the most current and up-to-date data sets as made available through updated versions of this screening tool.

For more information on the latest CalEnviroScreen 4.0 data please visit: https://oehha.ca.gov/calenviroscreen/report/calenviroscreen-40

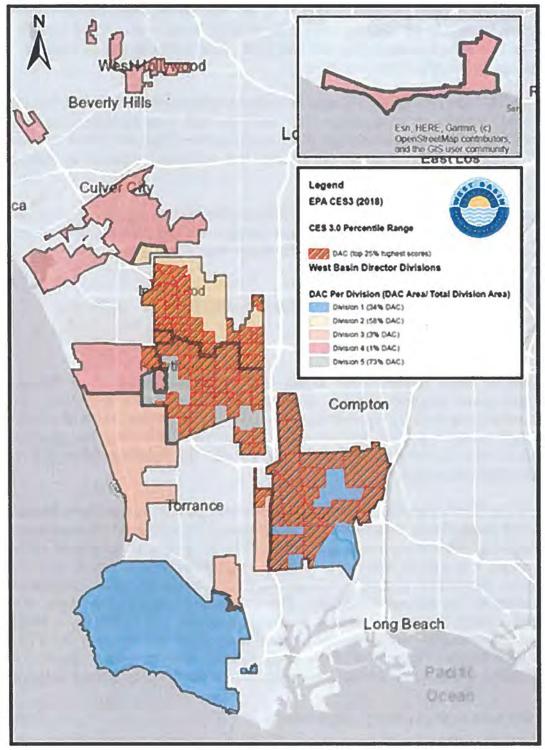
In 2020, West Basin in collaboration with O' Cain Consulting Inc. published a West Basin Potential DAC Programs report. This report aimed to develop a suite of programs for West Basin's DAC area for residential and commercial sectors. This report identified turf replacement ranked highly as a program to expand and implement in the service area.

This project and its resources will directly benefit residents and CII sites within the DAC communities as identified by the census tracts. The design consultant will be able to work directly with the public to develop water conserving landscape designs and help them through the rebate process. There is a large Spanish speaking community within West Basin's service area, especially in the DAC communities, therefore as part of its marketing strategies, West Basin will also develop effective collateral in Spanish targeting the DAC communities.

## **Disadvantaged Community Definition**

There are several cities and Los Angeles County Unincorporated areas within West Basin's service that are near the 100 percent statewide annual median household income. Therefore, it is estimated that there are many residents living below this median.

This project and resources will also reach these areas. As described above, West Basin provided information on the Cal-Enviroscreen 3.0. The EPA uses a point ranking system that is comprised on different factors such as pollution, education and other factors. West Basin has several cities and Los Angeles County unincorporated areas that have scored high enough to be considered underserved communities. The resources provided through this project will help residents and businesses in these designated census tracts greatly.



#### Other Benefits

The project will address water and energy sustainability in other ways by assisting states and water users in complying with interstate compacts. The Metropolitan Water District of Southern California has Colorado River Compacts with several states, and West Basin is a Member Agency that purchases water from Metropolitan. Water conservation projects help to leave water in Lake Mead that can help other western states who can be cut back if the lake drops below certain thresholds.

The project has multiple benefits, it will help the single family, multi-family, commercial, industrial and institutional sectors conserve outdoor water use. It will also help the environment by reducing energy, runoff and CO2. It can provide peaceful garden areas where residents and the public can enjoy.

This project will benefit a larger initiative to address sustainability as part of West Basin's over-arching mission of increasing water reliability and sustainability. This project is mentioned in both West Basin's Urban Water Management Plan and Water Conservation Study. The Conservation Study recommends turf removal programs as high priority project.

The project can help to prevent a water-related conflict by having an indirect benefit. By reducing the need for imported water, this project will help Metropolitan reduce the amount of water needed from the Colorado River, thus helping to reduce tensions over areas that would take more water.

## Evaluation Criterion E – Planning and Implementation

## Sub criterion E.1 - Project Planning

As detailed in West Basin's 2021 Water Shortage Contingency Plan, "West Basin continues its water reliability strategy of increasing local control over its water supplies within its service territory by maximizing water use efficiency, the use of recycled water, and through public outreach and education programs." This proposed project helps support this vision to increase water reliability through the implementation of increased water use efficiency programs.

In 2020, West Basin completed a data study that was partially funded by a Reclamation WaterSmart grant. West Basin hired an experienced data focused consultant to assist West Basin with developing a data study. The 2018-2019 data study project focused on several areas, it analyzed West Basin's prior program activity, it utilized land use and demographic information to develop temperature maps to identify where program activity has occurred for the various measures. The data study indicates that there is a great potential to conserve water in outdoor landscapes. Page 120 of the study shows that there are over 15,000 single family parcels that could be targeted for the Grass Replacement Project. Page 135 of the study recommends programs targeting the CII and multi-family parcels that are likely to have the most significant outdoor water use and

therefore could benefit from large landscape programs. The study recommends targeting programs to the high priority customers that have been identified in the heat maps. If awarded funding, West Basin will be utilizing its data study for targeting purposes.

West Basin's 2020 Urban Water Management Plan can be found at the following link: https://www.westbasin.org/wp-content/uploads/2021/08/West-Basin-2020-Urban-Water-Management-Plan.pdf

West Basin's 2021 Water Shortage Contingency Plan can be found at the following link: <a href="https://www.westbasin.org/wp-content/uploads/2021/06/WBMWD-2021-WSCP">https://www.westbasin.org/wp-content/uploads/2021/06/WBMWD-2021-WSCP</a> Final 2021-06-30.pdf

West Basin's data study can be found on its web site at the following link: https://www.westbasin.org/wp-content/uploads/2020/07/WUE-Data-Study.pdf

#### Sub criterion E.2 - Readiness to Proceed

Metropolitan is currently operating their regional rebate program. Upon award consideration and notification, West Basin will instruct Metropolitan to provide Reclamation's additional \$1 ft<sup>2</sup>, once the agreement is executed. Upon notification, West Basin will also issue a Request for Proposals to hire the landscape design consultant that will help produce the custom landscape designs.

The Program's implementation plan and schedule will be driven by the Program's stated tasks as described in the Technical Program Description. Each task's requirement will occur according to the Program schedule.

Once award notifications are issued, West Basin will be ready to proceed with the project.

#### Application Review Information

No new policies or administrative actions are required to implement the project.

#### Proposed Program Schedule

Desci	ription	Timeframe
Progra	am Administration  Task 1: Reclamation/West Basin scope of work completed and agreement executed  Task 2: Participation procedures developed  Task 3: Provide MWD with Contract Exhibit to provide additional \$1ft²  Task 4: Marketing Material Designed (including Reclamation's logo) and printed (see separate detailed marketing schedule below)	Months 1 – 2

•	Task 5: Issue RFP and hire the Landscape Design Consultant	
	Task 6: Implement Program Promotion	Months 3 - 21
	Task 7: Provide Landscape Design Assistance Task 8: Assist Customers with Applying for Rebate	Months 3 – 23
	Task 9: Conduct Program process and impact evaluation Task 10: Submit draft Program evaluation to Reclamation for review	Months 16 - 23
*	Task 11: Submit semi-annual reporting and deliverables to Reclamation	Months 6 – 24
	Task 12: Final reporting and deliverables sent to Reclamation	Month 24

Timeline	Q1				Q2			Q3	, ,	Q4		
	M1	M2	M 3	M 4	M 5	M 6	M 7	M8	M 9	M1 0	M1 1	M1 2
Task 1 - 5: Program Administration	х	х	х	Х	х	x	х	×	х	х	х	х
Task 4: Marketing / Promotion			X	Х	X	X	Х	X	х	Х	x	Х
Task 6: Design Assistance			Х	Х	X	X	Х	X	x	х	х	Х
Task 8: Rebate Incentive			х	Х	X	Х	X	×	х	х	x	Х
Task 9: Program Evaluation			lt I			X						Х
Task 11: Program Reporting						х						х

## Schedule of Marketing/Promotion

Marketing	J	Α	S	0	N	D	J	F	M	Α	M	J	J	Α	S	0	N	D	J	F	М	Α	M	J
Promotion	2 0 2 2												2 0 2 3						2 0 2 4					
Social Media																					9			
Paid Media								ì																
Direct Marketing																								
Website																								
Earned Media																T								
Brand Kits																								
eNewsletters								T																

#### Evaluation Criterion F - Collaboration

This project does promote and encourage collaboration among parties in a way that helps increase the sustainability of the water supply. West Basin recently polled its eight (8) water retailers and 78% expressed interest in offering the turf replacement program. West Basin holds a Quarterly Partner meeting with its water retailers and municipalities to share information and collaborate on programs. West Basin has a positive relationship with its water retailers and cities and they assist West Basin with promoting programs. Both West Basin's conservation team and its Public Information Officer work with their fellow contacts and collaborate on promotion and outreach.

West Basin also has a long-standing partnership with the South Bay Cities Council of Governments (SBCCOG) / South Bay Environmental Services Center (SBESC), where they promote West Basin's programs. The SBCCOG is comprised of sixteen (16) cities located in West Basin's 17 city service area.

Local city officials sit on the Board of the SBCCOG and the staff are active in supporting the cities, West Basin and other partners. The SBESC represents West Basin at city tabling events and provide residents with water conservation program information. They assist West Basin with coordinating short on-line Grass Replacement Chats where residents can ask West Basin how to participate in the various programs.

This project will increase future water conservation improvements. The project will target Non-functional turf for CII and residential turf. The water industry has anecdotal evidence that 2-3 residents will also remove their grass after seeing a neighbor convert their landscape.

Attached under the Exhibits section are eight letters of support for West Basin's proposed program.

## Evaluation Criterion G - Additional Non-Federal Funding

The proposed project will provide non-Federal funding in excess of 50 percent of the project costs. The percentage of non-Federal funding provided is used in the following calculation:

Non-Federal Funding Total Project Cost

\$760,341.60 \$1,145,341.60 = 66%

#### Evaluation Criterion H - Nexus to Reclamation

Not applicable.

#### Performance Measures

## Landscape Irrigation Measures: Turf Removal

West Basin will work closely with its eight water retailers to conduct a pre and post water analysis for a minimum of 10% of the participants. An analysis will be conduced on all the turf removed utilizing historical data, amount of water savings, and the amount of water needed for the new landscape. Typically, turf grass landscapes can use over 100% of ET, or the amount of water needed to keep the plant material alive. A new landscape utilizing drought tolerant plants and drip irrigation can cut water use down by over 75%. West Basin will analyze a certain percentage of sites to calculate the pre and post water use, and extrapolate the average to sites with similar size and characteristics. A final report will provide the anticipated water savings for the project.

## Pre-project Estimations of Baseline Data

The pre-project water usage will consider the variations in water usage caused by the 2020 pandemic and the 2019-21 drought. A 5–10-year water use average will be used to develop an accurate baseline to compare post-project water usage.

## Post-project Method for Quantifying Benefits of Turf Removal

Participant water use data before and after participating in the Project will be used to determine changes in water use associated with the landscape improvements. West Basin will work with its water retailers to obtain post water usage. The analysis will also weather-normalize the pre-and post-retrofit water use data and adjust for the pandemic year.

## Section 2: Project Budget

## 2.1: Funding Plan

## **Total Project Cost**

SOURCE	AMOUNT
Costs to be reimbursed with the requested Federal Funding	\$385,000
Cost to be paid by the applicant	\$160,341.60
Value of third-party contributions	\$600,000
TOTAL PROJECT COST	\$1,145,341.60

## 2.2 Budget Proposal

## **Reclamation Funding Request**

West Basin is seeking \$385,000 in federal funding to implement this project. This represents a 34% funding request of the entire project cost. The West Basin and third-party contributions of \$760,341.60 present a 66% cost-share of the total project cost.

Reclamation's cost share will help fund the following project components:

Grass Replacement – Provides \$1to remove 300,000 ft² of grass	\$300,000
Design Assistance	\$60,000
Marketing	\$25,000
Total	\$385,000

West Basin will leverage Metropolitan's existing regional rebate program to add Reclamations additional \$1 ft². West Basin and Reclamation will also benefit from Metropolitan's existing program and vendor, avoiding the development of a new rebate program. West Basin will also provide an estimated 100 residents and 20 Commercial, Industrial and Institutional (CII) sites with design assistance. From prior cost estimates, West Basin is estimating a cost of \$1,000 per design. The total cost of the design assistance is \$120,000, which West Basin will fund 50%. West Basin will contribute

\$60,000 over the two-year project term and will budget \$30,000 in the FY 2021-22 budget and \$30,000 in the FY 2022-23 budget.

The design assistance component is extremely important and will assist CII sites with removing non-functional turf and installing a water-saving landscape.

West Basin will assist with funding the marketing component of this project. West Basin has provided a detailed marketing plan and schedule below that indicates the total cost to be \$85,000 over a two-year period. West Basin is requesting \$25,000 from Reclamation and West Basin will budget for the remaining \$60,000. West Basin has identified effective strategies that it will use to effectively promote this project and increase participation. West Basin will budget \$30,000 in FY 2022-23 and \$30,000 in FY 2023-2024.

#### West Basin Cost-share

Salary and Wages	\$27,805.44
Fringe Benefits	\$12,536.16
Design Assistance	\$60,000
Marketing	\$60,000
	\$160,341.60

West Basin's Water Policy and Resources Analyst II will be managing and implementing this project. Salary, wages and fringe benefits have been included in the budget as an inkind cost share. West Basin will budget \$120,000 over a two-year period to assist with the cost of the design assistance and the marketing. West Basin will issue a competitive "Request for Proposals" to hire a qualified design company to assist the CII and residential customers with developing appropriate low water use landscapes. West Basin will also budget \$60,000 or \$30,000 per year to develop effective marketing strategies and collateral materials in order to motivate the public to remove their water-thirsty grass and install climate-appropriate landscapes.

## Metropolitan Water District - Third-Party Contribution

Grass Replacement – Provides \$2 ft2 x 300,000 ft2	\$600,000

MWD will provide \$2 per square foot x 300,000 ft<sup>2</sup>, for a total of \$600,000. West Basin has two long-term funding agreements with MWD where they indicate a  $$2 \text{ ft}^2$ incentive.}$ 

	Compu	itation				
Budget item description	\$/Unit	Quantity	Applicant funding	Reclamati on funding	Total cost	
SALARIES AND WAGES						
Jenyffer Vasquez (Water Policy & Resources Analyst II)	\$44.5 6	624 hrs	\$27,805.44		\$27,805.44	
FRINGE BENEFITS		1 4 7 4 7	L WEST		A BOOK IN IN	
Jenyffer Vasquez (Water Policy & Resources Analyst II)	\$20.0 9	624 hrs	\$12,536.16		\$12.536.16	
TRAVEL			\$0	\$0	\$0	
EQUIPMENT						
Item A – Turf Removal Incentive	\$1/ft <sup>2</sup>	300,000 ft <sup>2</sup>		\$300,000	\$300,000	
SUPPLIES/MATERIALS						
CONTRACTUAL / CONSTRUCTION						
Marketing		200	\$60,000	\$25,000	\$85,000	
Design Assistance	120	\$1,000	\$60,000	\$60,000	\$120,000	
ThirdParty Contribution						
Contributor A – MWD	\$2/ft <sup>2</sup>	300,000ft <sup>2</sup>	\$600,0000		\$600,000	
OTHER			\$0	\$0	\$0	
TOTAL DIRECT COSTS			\$760,341.6 0	\$385,000	\$1,145,341. 60	
INDIRECT COSTS	N/A					
Type of rate	N/A	Percentag e	\$base		\$	
TOTAL ESTIMATED PROJECT COSTS			\$760,341.6 0	\$385,000	\$1,145,341. 60	

## 2.3: Budget Narrative

## Salaries and Wages

Jenyffer Vasquez, Water Policy and Resources Analyst II is the Program Manager who will manage and coordinate this Program. The budget for Ms. Vasquez's salary and wages is \$27,805.44. This cost is based on an estimated 624 hours of time devoted to

the management of this Program at a rate of \$44.56/hour. The management includes time to administer the program, assemble and submit the quarterly reports and the final report. There are no proposed salary increases included in the budget.

#### Fringe Benefits

The fringe benefits for the Program Manager are an estimated \$6,323 based on 166 hours of time devoted to the management of this program at a rate of \$38.09. Fringe benefits include vacation, sick, holiday, FICA expense, Medicare expense, education reimbursement, PERS, life insurance, disability insurance, health insurance, dental insurance, worker's compensation insurance, and out-of-pocket expenses. Fringe benefits are calculated at a rate of 89% for the benefit factor.

#### Travel

There are no travel expenses anticipated for this Program.

## Equipment

The cost for the turf incentives are placed in this category because it seemed the most appropriate. The cost for each rebate is \$3.00 per square foot for a maximum program amount of 300,000 ft². This equates to \$900,000 total. West Basin in conjunction with its partner, Metropolitan Water District, will pay for \$600,000, or \$2.00 per ft² of this total, while Reclamation will pay the remaining \$300,000, or \$1.00 per ft².

## Materials and Supplies

No materials are needed for this Program.

## Section 3: Environmental and Cultural Resources Compliance

#### **Environmental and Cultural Resource Considerations**

No major construction is anticipated at sites that will be re-landscaped for this project through the Grass Replacement rebate process. Through the design process plant material will focus on California-friendly use which is beneficial habitat to butterflies, hummingbirds, bees, and other pollinators.

West Basin is not 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.

There are no impacts anticipated to wetlands or other surface waters from the proposed project.

West Basin is a wholesale water agency and does not operate any direct water system.

The proposed project will not result in any modification of or effects to, individual features of an irrigation system (e.g., headgates, canals, or flumes).

There are no buildings, structures, or features in the irrigation district listed or eligible for listing on the National Register of Historic Places?

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

The proposed project will not have a disproportionately high or adverse effect on low income or minority populations? The project hopes to consider additional outreach to this group about the beneficial program elements described in this project.

The proposed project will not limit access to and ceremonial use of Indian sacred sites or result in other impacts on tribal lands.

The proposed project will not contribute to the introduction, continued existence, or spread of noxious weeds or non-native invasive species known to occur in the area. Special considerations will be taken during the landscape design stage of this program to exclude all noxious weeds or non-native invasive species known to occur in the area.

## Section 4: Required Permits or Approvals

West Basin does not anticipate that permits will be required for the proposed Residential and Non-Functional CII Grass Replacement Program. This is due to the fact that all turf replacement will be installed in and around previously landscaped areas. Modifications will be installed on residential, commercial, industrial and institutional (CII) property and will therefore not require advanced permits or specialty approvals. All project-related approvals will be handled by the Metropolitan Water District through their regional SoCalWaterSmart Rebate Program and will be executed in a timely and efficient manner.

## Section 5: Letters of Support

West Basin has included eight support letters as Exhibits to this application. These demonstrate the interest and need for this project. There are no letters of partnership, West Basin has two long-term standing agreements with the Metropolitan Water District that allows West Basin to add the grant's additional \$1 per ft<sup>2</sup> to Metropolitan's existing Regional Turf Removal Rebate Program.

#### Section 6: Official Resolutions

West Basin staff has submitted an Action Item Board memo for the November 16, 2021 Water Policy and Resources Committee and Board Meeting to request the West Basin Board of Directors to approve an official Resolution granting the West Basin General Manager to enter into a contract with Reclamation and accept funding and all contract requirements. The signed Resolution will be provided to Reclamation prior to the 30-day deadline from when the grant proposal was due.

## Section 7: Unique Entity Identifier and System for Award Management

West Basin Municipal Water District is registered in the System for Award Management (SAM) and has included its unique identifier number in the application. The Unique Entity Identifier (UEI) is: EJ2DKZCCBC71.

#### **Exhibits**

- A. Letters of Support
- B. Example of GIS Project Mapping
- C. Cooperative Agreement: Metropolitan Water District of Southern California



## Exhibit A

Letters of Support



October 5, 2021
Bureau of Reclamation
Financial Assistance Operations
Attn: NOFO Team
P.O. Box 25007, MS 84-27133
Denver, CO 80225

Re: In support of West Basin Municipal Water District's Grant Application for an Outdoor Landscape Water Use Efficiency Program

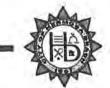
The City of El Segundo's Water Division is pleased to support West Basin Municipal Water District (West Basin) in their efforts to implement an Outdoor Landscape Water Use Efficiency Program. As a stakeholder located in the project area, we encourage the Bureau of Reclamation (Reclamation) to support and award this project to help conserve water and energy and help reduce the need for imported water.

West Basin has demonstrated decades of commitment to local supply reliability as evidenced through its progressive water use efficiency program. West Basin's ability to leverage grant funds with local funds has proven to be a successful model. These grant funds will be put to good use within the West Basin service area enabling many residents and businesses to remove their water-wasting turf and replace it with landscapes that not only conserve water, but also reduce energy, provide habitat for local species, capture stormwater for groundwater infiltration, and reduce stormwater runoff that flows into local storm drains and out to the Santa Monica Bay.

The benefits this project will provide to Reclamation demonstrate that the grant funds will be wisely spent in the area where most water use occurs, outside on water-wasting turf. This project will ensure water reliability in the West Basin service area by utilizing local supplies instead of precious and costly imported water. We strongly encourage Reclamation to support and award this important project during these times of severe drought, which has dramatically reduced water supplies throughout the state of California.

Sincerely,

Anthony Esparza
City of El Segundo
Water Division Supervisor
aesparza@elsegundo.org



# City of Hermosa Beach

Civic Center, 1315 Valley Drive, Hermosa Beach, CA 90254-3885

October 7, 2021

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

Re: In support of West Basin Municipal Water District's Grant Application for an Outdoor Landscape Water Use Efficiency Program

The City of Hermosa Beach is pleased to support West Basin Municipal Water District (West Basin) in their efforts to implement an Outdoor Landscape Water Use Efficiency Program. As a stakeholder located in the project area, we encourage the Bureau of Reclamation (Reclamation) to support and award this project to help conserve water and energy and help reduce the need for imported water.

West Basin has demonstrated decades of commitment to local supply reliability as evidenced through its progressive water use efficiency program. West Basin's ability to leverage grant funds with local funds has proven to be a successful model. These grant funds will be put to good use within the West Basin service area enabling many residents and businesses to remove their water-wasting turf and replace it with landscapes that not only conserve water, but also reduce energy, provide habitat for local species, capture stormwater for groundwater infiltration, and reduce stormwater runoff that flows into local storm drains and out to the Santa Monica Bay.

The benefits this project will provide to Reclamation demonstrate that the grant funds will be wisely spent in the area where most water use occurs, outside on water-wasting turf. This project will ensure water reliability in the West Basin service area by utilizing local supplies instead of precious and costly imported water. We strongly encourage Reclamation to support and award this important project during these times of severe drought, which has dramatically reduced water supplies throughout the state of California.

Sincerely,

Douglas Krauss

Environmental Programs Manager



# Inglewood

# California

Public Works Department
ONE MANCHESTER BOULEVARD / INGLEWOOD, CA. 90301 / P.O. BOX 6500 / INGLEWOOD, CA. 90312
Telephone (310) 412-5333 / Fax (310) 412-5552
www.cityofinglewood.org

LOUIS A. ATWELL, P.E.
ASSISTANT CITY MANAGER/PUBLIC WORKS DIRECTOR

October 7, 2021

Bureau of Reclamation Financial Assistance Operations Attn: NOFO Team P.O. Box 25007, MS 84-27133 Denver, Colorado 80225

Re: In support of West Basin Municipal Water District's Grant Application for an Outdoor Landscape Water Use Efficiency Program

City of Inglewood is pleased to support West Basin Municipal Water District (West Basin) in their efforts to implement an Outdoor Landscape Water Use Efficiency Program. As a stakeholder located in the project area, we encourage the Bureau of Reclamation (Reclamation) to support and award this project to help conserve water and energy and help reduce the need for imported water.

West Basin has demonstrated decades of commitment to local supply reliability as evidenced through its progressive water use efficiency program. West Basin's ability to leverage grant funds with local funds has proven to be a successful model. These grant funds will be put to good use within the West Basin service area enabling many residents and businesses to remove their water-wasting turf and replace it with landscapes that not only conserve water, but also reduce energy, provide habitat for local species, capture stormwater for groundwater infiltration, and reduce stormwater runoff that flows into local storm drains and out to the Santa Monica Bay.

The benefits this project will provide to Reclamation demonstrate that the grant funds will be wisely spent in the area where most water use occurs, outside on water-wasting turf. This project will ensure water reliability in the West Basin service area by utilizing local supplies instead of precious and costly imported water. We strongly encourage Reclamation to support and award this important project during these times of severe drought, which has dramatically reduced water supplies throughout the State of California.

Sincerely

Louis A. Atwell, P.E.

Assistant City Manager/Public Works Director



October 27, 2021

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

## Re: In support of West Basin Municipal Water District's Grant Application for an Outdoor Landscape Water Use Efficiency Program

The City of Lawndale is pleased to support West Basin Municipal Water District (West Basin) in their efforts to implement an Outdoor Landscape Water Use Efficiency Program. As a stakeholder located in the project area, we encourage the Bureau of Reclamation (Reclamation) to support and award this project to help conserve water and energy and help reduce the need for imported water.

West Basin has demonstrated decades of commitment to local supply reliability as evidenced through its progressive water use efficiency program. West Basin's ability to leverage grant funds with local funds has proven to be a successful model. These grant funds will be put to good use within the West Basin service area enabling many residents and businesses to remove their water-wasting turf and replace it with landscapes that not only conserve water, but also reduce energy, provide habitat for local species, capture stormwater for groundwater infiltration, and reduce stormwater runoff that flows into local storm drains and out to the Santa Monica Bay.

The benefits this project will provide to Reclamation demonstrate that the grant funds will be wisely spent in the area where most water use occurs, outside on water-wasting turf. This project will ensure water reliability in the West Basin service area by utilizing local supplies instead of precious and costly imported water. We strongly encourage Reclamation to support and award this important project during these times of severe drought, which has dramatically reduced water supplies throughout the state of California.

Am len len

Kevin M. Chun City Manager



Public Works Department Engineering Services Division 415 Diamond Street Redondo Beach, California 90277 www.redondo.org

tel: 310 318-0661 fax: 310 374-4828

October 20, 2021

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

Re: Support Letter - West Basin Municipal Water District's Grant Application for an Outdoor Landscape Water Use Efficiency Program

The City of Redondo Beach is pleased to support West Basin Municipal Water District in their efforts to implement an Outdoor Landscape Water Use Efficiency Program. As a stakeholder located in the project area, we encourage the Bureau of Reclamation to support and award this project to help conserve water and energy and help reduce the need for imported water.

West Basin has demonstrated decades of commitment to local supply reliability as evidenced through its progressive water use efficiency program. West Basin's ability to leverage grant funds with local funds has proven to be a successful model. These grant funds will be put to good use within the West Basin service area enabling many residents and businesses to remove their water-wasting turf and replace it with landscapes that not only conserve water, but also reduce energy, provide habitat for local species, capture stormwater for groundwater infiltration, and reduce stormwater runoff that flows into local storm drains and out to the Santa Monica Bay.

The benefits this project will provide to Reclamation demonstrate that the grant funds will be wisely spent in the area where most water use occurs, outside on water-wasting turf. This project will ensure water reliability in the West Basin service area by utilizing local supplies instead of precious and costly imported water. We strongly encourage Reclamation to support and award this important project during these times of severe drought, which has dramatically reduced water supplies throughout the state of California.

Sincerely

Andrew S. Winje, PE

City Engineer

Cc: Ted Semaan, City of Redondo Beach, Public Work Director Geraldine Trivedi, City of Redondo Beach Civil Engineer



CITY OF West Hollywood

CITY HALL 8300 SANTA MONICA BLVD. WEST HOLLYWOOD, CA 90069-6216 TEL: (323) 848-6460 FAX: (323) 848-6562

TTY: For hearing impaired (323) 848-6496

#### ETTY COUNCIL

LAUREN MEISTER
Mayor

SEPI SHYNE Mayor Pro Tempore

John D'Amico
Councilmember

John M. Erickson Councilmember

Lindsey P. Horvath Councilmember October 12, 2021
Bureau of Reclamation
Financial Assistance Operations
Attn: NOFO Team

P.O. Box 25007, MS 84-27133

Denver, CO 80225

Re: In support of West Basin Municipal Water District's Grant Application for an Outdoor Landscape Water Use Efficiency Program

The City of West Hollywood is pleased to support West Basin Municipal Water District (West Basin) in their efforts to implement an Outdoor Landscape Water Use Efficiency Program. As a stakeholder located in the project area, we encourage the Bureau of Reclamation (Reclamation) to support and award this project to help conserve water and energy and help reduce the need for imported water.

West Basin has demonstrated decades of commitment to local supply reliability as evidenced through its progressive water use efficiency program. West Basin's ability to leverage grant funds with local funds has proven to be a successful model. These grant funds will be put to good use within the West Basin service area enabling many residents and businesses to remove their waterwasting turf and replace it with landscapes that not only conserve water, but also reduce energy, provide habitat for local species, capture stormwater for groundwater infiltration, and reduce stormwater runoff that flows into local storm drains and out to the Santa Monica Bay.

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important project during these times of severe drought, which has dramatically reduced water supplies throughout the state of California.

Sincerely,

Lauren Meister

Mayor





Office of the General Manager

October 11, 2021

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

In support of West Basin Municipal Water District's
Grant Application for an Outdoor Landscape Water Use Efficiency Program

The Metropolitan Water District of southern California is pleased to support West Basin Municipal Water District (West Basin) in their efforts to implement an Outdoor Landscape Water Use Efficiency Program. As a stakeholder located in the project area, we encourage the Bureau of Reclamation (Reclamation) to support and award this project to help conserve water and energy and help reduce the need for imported water.

West Basin has demonstrated decades of commitment to local supply reliability as evidenced through its progressive water use efficiency program. West Basin's ability to leverage grant funds with local funds has proven to be a successful model. These grant funds will be put to good use within the West Basin service area enabling many residents and businesses to remove their water-wasting turf and replace it with landscapes that not only conserve water, but also reduce energy, provide habitat for local species, capture stormwater for groundwater infiltration, and reduce stormwater runoff that flows into local storm drains and out to the Santa Monica Bay.

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Sincerely,

William P. McDonnell

William P. McDonnell Manager, Water Efficiency



2355 Crenshaw Blvd., #125 Torrance, CA 90501 (310) 371-7222 sbccog@southbaycitles.org www.southbaycitles.org

October 5, 2021 Bureau of Reclamation Financial Assistance Operations Attn: NOFO Team P.O. Box 25007, MS 84-27133 Denver, CO 80225

Re: In support of West Basin Municipal Water District's Grant Application for an Outdoor Landscape Water Use Efficiency Program

The South Bay Cities Council of Governments is pleased to support West Basin Municipal Water District (West Basin) in their efforts to implement an Outdoor Landscape Water Use Efficiency Program. As a stakeholder located in the project area, we encourage the Bureau of Reclamation (Reclamation) to support and award this project to help conserve water and energy and help reduce the need for imported water.

West Basin has demonstrated decades of commitment to local supply reliability as evidenced through its progressive water use efficiency program. West Basin's ability to leverage grant funds with local funds has proven to be a successful model. These grant funds will be put to good use within the West Basin service area enabling many residents and businesses to remove their water-wasting turf and replace it with landscapes that not only conserve water, but also reduce energy, provide habitat for local species, capture stormwater for groundwater infiltration, and reduce stormwater runoff that flows into local storm drains and out to the Santa Monica Bay.

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Sincerely,

Jacki Bacharach

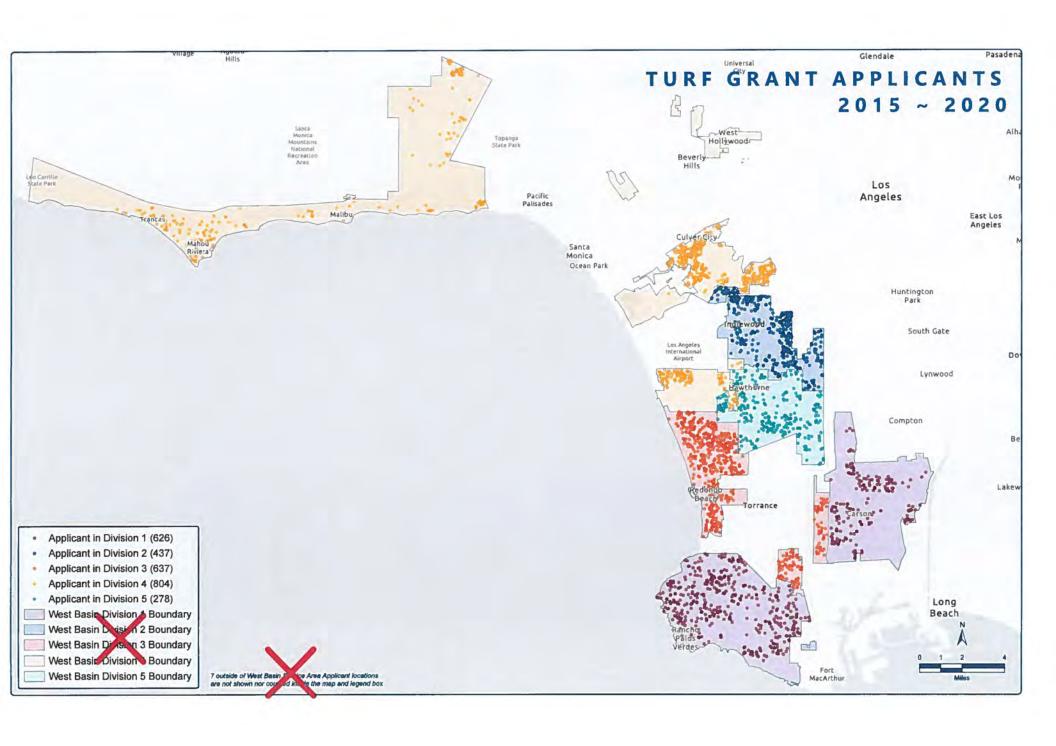
Executive Director

South Bay Cities Council of Governments



# Exhibit B

Example of GIS Project Mapping





# Exhibit C

# Cooperative Agreement with the Metropolitan Water District of Southern California

#### Residential Addendum 20

# WATER CONSERVATION FUNDING AGREEMENT BETWEEN

#### THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

#### AND

West Basin Municipal Water District Agreement No. 70040

The Metropolitan Water District of Southern California (Metropolitan or MWD) issues addenda to provide the West Basin Municipal Water District (Member Agency) with updates or changes to the residential incentive program (Residential Program) that occur after the start of this agreement. This addendum is effective July 1, 2020, and supersedes previous addenda, exhibits, and forms under this agreement.

Each Party represents that it is represented by legal counsel, that it has reviewed this Agreement and agrees that:

- a. This Agreement is legally enforceable;
- Payments made by Metropolitan to Agency pursuant to this Agreement are a legal use of Metropolitan's funds; and
  - Metropolitan may legally recover the costs incurred by Metropolitan pursuant to this Agreement in the water rates charged to its Member Agencies, including Agency

This addendum makes the following specific changes:

- This addendum covers a two-year period beginning Fiscal Year 2020/21 through Fiscal Year 2021/22.
- Adds a rebate for a hose bib irrigation controller
- Chronology of Addenda (Pages 4, 5, 6 and 7) List of all past addenda including issue date and authorization for program changes in each addendum.
- Residential Incentive List (Pages 8 and 9) List of devices and other incentives in the Regional Residential Program and eligible incentives in the MWD-Funded/Member Agency Administered Program.
- Regional Incentives Not Allowed in Member Agency's Service Area (Page 10) This form provides
  the option to the Member Agency to not allow Metropolitan's regional incentives in their service
  area. If applicable, Member Agency must check each specific device not allowed, sign, date, and
  return this form to Metropolitan. Selections are effective for the entire period of this addendum.
- Member Agency Regional Supplemental Funding Authorization Devices (Pages 11 and 12) This
  form allows Member Agency to authorize supplemental funding for device incentives through the
  Regional Program. To provide supplemental incentive funding, Member Agency must complete,
  sign, date, and return the form to Metropolitan.

- Member Agency Supplemental Funding Authorization Turf Replacement Program (Page 13) –
  This form allows Member Agency to authorize supplemental funding for turf replacement program
  incentives through the Regional Program. To provide supplemental incentive funding, Member
  Agency must complete, sign, date, and return the form to Metropolitan.
- 6. Member Agencies Using Metropolitan's Regional Vendor Devices Fully Funded by Member Agency (Pages 14 and 15) – This form allows Member Agencies enrolled in the Regional Program to have the option to use Metropolitan's Regional vendor to administer rebates (only those listed on the Residential Incentives list) in the event Metropolitan funding is exhausted before June 30, 2022. Member Agency must pay associated administrative fees. Member Agency must complete, sign, date, and return the form to Metropolitan.
- 7. Member Agencies Using Metropolitan's Regional Vendor Turf Replacement Program Fully Funded by Member Agency (Page 16) This form allows Member Agencies enrolled in the Regional Program to have the option to use Metropolitan's Regional vendor to administer rebates for turf replacement program in the event Metropolitan funding is committed before June 30, 2022. Member Agency must pay associated administrative fees. Member Agency must complete, sign, date, and return the form to Metropolitan.
- 8. Accept or Forfeit Allocated Funds for MWD-Funded/Member Agency Administered Incentive Program (Pages 17 and 18) – This form provides the total Member Agency allocated funds for the MWD-Funded/Member Agency Administered Incentive Program for Fiscal Year 2020/21 and Fiscal Year 2021/22 for device-based projects, customized with documented water savings projects, customized with non-documented water savings projects, and customized with non-documented water savings projects for disadvantaged communities. Member Agency must select Option 1, 2, or 3, by checking the appropriate box, sign, date, and return this form to Metropolitan by August 31, 2020.
- 9. Member Agency Administered Project Pre-Approval Request (Page 19) This form allows Member Agency to submit a device-based, customized with documented water savings or customized with non-documented water savings project to Metropolitan for pre-approval. Member Agency must submit supporting documentation for water savings estimate for customized with documented water savings project. If Member Agency has a previously approved customized with documented water savings project, Member Agency must still resubmit documentation for water savings estimate. For customized with non-documented water savings, Member Agency must describe project and its benefits to the region. Member Agency must complete, sign, date, and return each form to Metropolitan with sufficient time for Metropolitan to review/approve project and for Member Agency to complete project within the two-year budget cycle and prior to submitting any invoices for reimbursement.
- 10. Member Agency Disadvantaged Communities Project Pre-Approval Request (Page 20) This form allows Member Agency to submit a disadvantaged communities project to Metropolitan for preapproval. Member Agency must submit this form, including how disadvantaged communities would be identified and targeted as well as a full description of project. Member Agency can use its entire allocation for disadvantaged communities. Project cannot be for premium high-efficiency toilet rebates in pre-1994 multi-family properties. Member Agency must complete, sign, date, and return each form to Metropolitan with sufficient time for Metropolitan to review/approve project and for Member Agency to complete project within the two-year budget cycle and prior to submitting any invoices for reimbursement.

- Requirements for Incentive Reimbursement MWD–Funded/Member Agency Administered Incentive Program (Pages 21, 22 and 23) – A description of reporting, inspection, invoicing, database and payment processing requirements for the MWD-Funded/Member Agency Administered Incentive Program.
- 12. Submitting Invoices and Supporting Databases Specific data and specific invoice templates are required in order to process invoices. To allow for cost effective invoice processing, where possible, Member Agency should submit invoices that are no less than \$10,000. Member Agency must submit invoices by the 20<sup>th</sup> of the month in order to be placed on the current month's water bill. When submitting an invoice, Member Agency must also submit a database using the format set by Metropolitan. Invoice and database must only be submitted by email to: maconservation@mwdh2o.com.
- 13. Guidelines for Turf Replacement (Pages 24, 25 and 26) A description of guidelines, requirements and eligibility for turf replacement incentives.
- 14. Guidelines for Member Agencies Administering a Local Turf Replacement Program with Regional Funding (Pages 27, 28 and 29) Member agencies choosing to run their own turf replacement programs with regional funding will have to at a minimum meet the requirements of the regional program, will have to provide additional information via the SoCalWaterSmart dashboard and will have to perform inspections.
- 15. Turf Replacement Additional Requirements Request (Pages 30 and 31) Member Agency or its retail agency may customize the turf replacement application requirements for its service area in the regional program subject to approval by Metropolitan. Metropolitan retains the sole discretion to determine if Member Agency's additional requirements are allowable. If Member Agency wishes to request additional requirements, they must provide the required information, sign, date, and return this form to Metropolitan.
- Sample Invoices (Pages 32 and 33) Member Agency must use the Metropolitan provided template invoices (sample attached). Metropolitan will provide an electronic version upon request.
- 17. Payment Processing through Water Bill Metropolitan will issue credits or debits to Member Agency on the Member Agency's monthly water bill for Metropolitan payments due to Member Agency or to obtain reimbursement from Member Agency for payments due to Metropolitan.

Alice Webb-Cole

Agreement Administrator

Alice Webb Cole

May 2020

Attachments

## Residential Incentive List (Page 1 of 2)

	Regional Residential Program	Metropolitan Incentive*
1	High Efficiency Clothes Washer (HECW) (Must be CEE tier one or better)	\$85
2	Premium High-Efficiency Toilet (PHET) 4 liter (single-family)	\$40
3	Rotating Nozzles (For Pop-up Spray Heads - Minimum 30 per home)	\$2
	Weather Based Irrigation Controller (WBIC)	
4	- WBIC - Less than one irrigated acre	\$80
5	- WBIC – One irrigated acre or largerEligible WBIC can have a maximum of 11 inactive stations per controller	\$35 per station
	Soil Moisture Sensor System (SMSS)	
6	- SMSS – Less than one irrigated acre	\$80
7	- SMSS – One irrigated acre or larger Eligible SMSS can have a maximum of 11 inactive stations per controller	\$35 per station
8	Hose Bib Irrigation Controller	\$35 each
9	Rain Barrel (max 2 per home)	\$35 per barre
10	Cistern (200-500 gallons)	\$250
11	Cistern (501-999 gallons)	\$300
12	Cistern (1000+ gallons)	\$350
13	Turf Replacement (max 5,000 square feet)	\$2 per sq./ft.
	Other Incentives Eligible in MWD-Funded/Member Agency Administered Incentive Program	
	Residential Outdoor Surveys	Ÿ
14	<ul> <li>Irrigation Evaluation (w/o timer) – Member agency provides the customer the findings of the evaluation, makes recommendations on improvements to the irrigation system and provides a watering schedule.</li> </ul>	\$8
15	<ul> <li>Irrigation Evaluation (with timer) – Member agency provides the customer the findings of the evaluation and provides recommended irrigation schedule.</li> </ul>	\$18

# Residential Incentive List (Page 2 of 2)

Eligible in MWD-Funded/Member Agency Administered Incentive Program	Incentive*
Customized with Documented Water Savings Projects     Projects that result in water savings through customized site improvements.     Metropolitan funding is limited to \$195 per acre-foot of estimated water savings based on project life and up to one-half of the eligible project costs.	\$195 per acre-foot
Customized with Non-Documented Water Savings Projects     For agencies with an annual allocation greater than \$50,000, up to 25 percent of their allocation may be used towards projects that provide value to the region but the water savings may be difficult to measure.      For agencies with an annual allocation less than \$50,000, agency may choose to use its entire allocation towards projects that provide value to the region but the water savings may be difficult to measure.	Up to amount approved by Metropolitan fo project
Disadvantaged Communities - Customized with Non-Documented Water Savings Projects  Agencies may use the entire allocation for projects in disadvantaged communities.  These projects must provide value to the disadvantaged community, but the water savings do not have to be quantifiable.	Up to amount approved by Metropolitan fo project
Large Landscape Surveys (minimum 1 acre)  Member Agency's landscape survey program shall contain the following elements for each survey site: 1) Irrigation system evaluation; 2) Development of a water budget and irrigation schedule; and 3) Survey report provided on-site to the recipient or consumer.  Incentives are limited to the full cost of the survey; no restriction on application for additional landscape device rebates.	\$200 per acre
* Incentives are subject to the following:  • Effective July 1, 2020, unless stated otherwise above  • Paid on a first come, first served basis  • Subject to available funding  • Limited to the cost of the device when applicable	
	<ul> <li>Projects that result in water savings through customized site improvements.         Metropolitan funding is limited to \$195 per acre-foot of estimated water savings based on project life and up to one-half of the eligible project costs.</li> <li>Customized with Non-Documented Water Savings Projects</li> <li>For agencies with an annual allocation greater than \$50,000, up to 25 percent of their allocation may be used towards projects that provide value to the region but the water savings may be difficult to measure.</li> <li>For agencies with an annual allocation less than \$50,000, agency may choose to use its entire allocation towards projects that provide value to the region but the water savings may be difficult to measure.</li> <li>Disadvantaged Communities - Customized with Non-Documented Water Savings Projects</li> <li>Agencies may use the entire allocation for projects in disadvantaged communities. These projects must provide value to the disadvantaged community, but the water savings do not have to be quantifiable.</li> <li>Large Landscape Surveys (minimum 1 acre)</li> <li>Member Agency's landscape survey program shall contain the following elements for each survey site: 1) Irrigation system evaluation; 2) Development of a water budget and irrigation schedule; and 3) Survey report provided on-site to the recipient or consumer.</li> <li>Incentives are limited to the full cost of the survey; no restriction on application for additional landscape device rebates.</li> <li>* Incentives are subject to the following:</li> <li>Effective July 1, 2020, unless stated otherwise above</li> <li>Paid on a first come, first served basis</li> <li>Subject to available funding</li> </ul>

## Requirements for Incentive Reimbursement

MWD-Funded/Member Agency Administered Incentive Program (Page 3 of 3)

8. The database must include the data fields in the order shown below for the invoice to be processed, where applicable. Metropolitan will provide an Excel spreadsheet with dropdowns to Member Agency upon request. For customized with documented water savings projects, customized with non-documented water savings projects, and customized with non-documented water savings in disadvantaged communities' projects Member Agency should coordinate database requirements with Metropolitan on a case-by-case basis.

#### Required Database Fields for invoice payment:

- a) Performing Member agency
- b) Performing Retail agency
- c) Credit Member agency
- d) Credit Retail agency
  - e) Payee
  - f) Install Address
  - g) Apartment/Unit
  - h) Installation City
- i) Installation Zip code
- j) Measure (Device)
- k) Brand
- 1) Model
  - m) Rebate Paid Date
- n) Stations
  - o) Acres
  - p) QUS (Quantity)
  - q) Metropolitan Amount
- r) USBR Amount
- s) DWR Amount
- t) Invoice Number
- u) Agreement Number
- Metropolitan shall provide payment to Member Agency by means of a credit on their monthly water bill from Metropolitan. Member Agency shall be solely responsible for any incentive payments to consumer or other applicable third parties.

## Guidelines for Turf Replacement Program (Page 1 of 3)

#### Residential Turf Replacement Program Guidelines:

Project must have a minimum of 250 square feet of turf removed, or if the entire yard is less than 250 square feet, all turf must be removed.

Maximum of 5,000 square feet of turf eligible per home for funding per fiscal year.

Limit of 1 application per home per year.

Consumer to provide a simple landscape plan showing intended transformation including the required storm water feature. Approval of the application does not indicate approval of landscape plan or chosen storm water feature. Approval of the landscape will occur during post-construction review.

Completed project area must be covered by at least three (3) plants per 100 square feet.

The converted area must be designed to capture rainfall through infiltration or on-site storage for reuse. Infiltration and rainwater capture has to be achieved using one of the following techniques: rain gardens, rock gardens, dry river beds, rain barrels, cisterns, berms, swales, or grades.

Selected method should allow infiltration or capture of runoff and not channel to impervious surfaces and must meet all local and regional requirements. Project must include at least one of the following components, whichever is most desirable or feasible for project area:

Rain Gardens – a rain garden is a planted depression or a hole filled with a loose, permeable soil mix that allows rainwater runoff from impervious urban areas, like roofs, driveways, walkways, parking lots, and compacted lawn areas the opportunity to be absorbed. Rainwater collects in the soil mix and ponding area and eventually seeps into surrounding soils over time. Plants are distributed throughout the garden. This reduces rain runoff by allowing storm water to soak into the ground (as opposed to flowing into storm drains and surface waters which causes erosion, water pollution, flooding, and diminished groundwater).

**Rock Gardens** – a rock garden is a shallow depression filled with 1-3 inch diameter gravel. Rainwater is stored in the space between the stones and eventually percolates into the soil. Plants are distributed throughout the rock garden and there is no ponding area.

Dry River Beds - a dry river bed or dry stream is an area designed to slow heavy flows from rainfall and correct erosion problems. It is made up of a shallow swale lined with stone substantial enough to withstand a serious downpour. Large chunks of stone are used to slow the speed of storm water and to prevent erosion. In a garden, the careful placement of water-worn stone, or river slicks, along a swale is aesthetically pleasing and also provides an ideal place for plants.

Swales – swales are shallow ditches that have gently sloping sides. In a vegetated swale native perennial grasses are planted along the bottom and sides of the swale to slow runoff, filter sediments, and remove excess nutrients. A swale relies on gravity to move water and is designed to direct the water where you want it to go, such as flower or vegetable gardens, to limit runoff and to trap silt and pollutants in surface runoff. In order for the water to gravity flow it is recommended that there be a minimum 2 percent slope from beginning to end. Organic mulch should not be placed around any plants installed in the bottom or sides of the swale.

## Guidelines for Turf Replacement Program (Page 2 of 3)

Berms – berms are mounds of earth with sloping sides that are located between areas of approximately the same elevation. Berms are constructed to direct or redirect water in order to keep water from flowing off the property.

Grades – grades are surface grading of an area so that water collects and flows to a lower elevation away from the water collection site. Regardless of surface characteristics, when planning to add a grade for surface drainage, slope is the most important consideration. For efficient drainage, paved surfaces are recommended to have a minimum 1-percent slope. Turf or landscaped areas are recommended to have a minimum slope of 2 percent.

Rain Barrel/Cisterns — rain barrels and cisterns are storage tanks that capture runoff water from downspouts from a non-permeable catchment area such as a rooftop. Cisterns are a larger version of rain barrels, with a larger capacity for rainwater collection and storage. Rain barrels and cisterns must be connected to properly installed rain gutters and downspouts. In order for the rain barrel/cistern to quality as a rainwater capture feature, the property must have existing gutters around the full perimeter of the roof and existing downspouts for adequate water collection. In the case of a partially flat roof, gutters and downspouts must be throughout all pitched areas in order to qualify. Rain barrels and cisterns must be properly installed and meet all local and regional requirements. Existing rain barrels and cisterns qualify provided they have been properly installed and provide water to the project

A three-inch-deep ring of mulch must surround all plants. Acceptable forms of organic mulch include shredded bark, bark nuggets or wood chips. Organic mulch should not be placed around any plants installed in the bottom or sides of a vegetated swale. Therefore, the vegetated swale area is exempt from this requirement.

No bare soil is allowed. The use of organic materials is recommended as a groundcover for any bare spaces within the project area. Mulch or another permeable hardscape must cover any other bare spaces within the project area.

Irrigation modification or conversion required for all projects:

- Convert over-head sprays to drip, micro-spray, bubblers, or rotating nozzles; whichever is applicable; or
- · Cap sprinkler heads or remove irrigation equipment and hand-water
- No overhead spray sprinklers are allowed in the completed project

No synthetic turf is allowed

No plants that appear to be turf are allowed

No plants categorized as invasive are allowed

Areas which have already been converted are not eligible

Receipts will be requested, but not required

Consumer has 180 days to complete project

## Guidelines for Turf Replacement Program (Page 3 of 3)

Consumers are responsible for complying with all applicable laws, codes, policies, covenants, conditions and restrictions.

### **Program Recommendations**

- Installation of a smart controller is recommended
- A recommended plant list will be provided

# Turf Replacement Program Additional Requirements Request Using Metropolitan's Regional Vendor (Page 1 of 2)

Member Agency	Retail Agency	
Start Date	Start Date:	_

#### **Member Agency Customization**

Metropolitan's minimum requirements are specified in Guidelines for Turf Replacement Program. Member Agency or its retail agency may add additional requirements for turf replacement applications in their service area subject to approval by Metropolitan. Metropolitan retains the sole discretion to determine if Member Agency's additional requirements are allowable in the regional program. Member agency is responsible for inspection of any additional requirements.

Please use the table below to describe the additional requirements. The *Text for Application* column is for the **exact wording** that Member Agency requests to appear on the online application for the given requirement. Two examples are given at the top of the chart.

	Requirement	Description	Text for Application	Changed from Previous Form
Sample 1	Plant type / coverage requirement	Member Agency requires at least 80 percent of the converted area to be living plant material.	"Applicants are required to have at least 80 percent of the area where turf was removed replanted with drought tolerant plants."	
Sample 2	Recycled Water Usage gets lower rebate	CII sites using recycled water are ineligible for full rebates.	"Applicants are required to disclose whether the site currently uses recycled water; sites using recycled water are eligible for reduced rebates."	
1				
2				
3				
4				
5				

# Turf Replacement Program Additional Requirements Request Using Metropolitan's Regional Vendor (Page 2 of 2)

	ncy has additional requirements, Member Agency rd. Member Agency will have 30 days to complet	[ - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -
	With the second	
	r Agency will perform online approvals	
Membe	r Agency will not perform online approvals	
for the period d	Metropolitan, this Turf Replacement Additional Re lesignated by the Member Agency/Retail Agency etropolitan and implemented by Metropolitan's v	above, or until a new request is
shall become et	ent Additional Requirements Request forms receive ffective on the first day of the following month ur ia will not be applied retroactively.	그는 점점 마리 시간 시간 그리고 그리고 살아왔다. 이 이 가지 않는 것이 되었다. 그리고 살아 있는 것이 없는 것이 없는 것이 없는 것이다.
	mber Agency becomes responsible for certifying requirements listed above and certifies that the mber Agency.	
Member Agend		
Autho	rizing Signature General Manager / Designee	Date
Metropolitan		
Use Only:	Date received	Approved by
	Date sent to vendor	Authorization No.
Comments:		

# Sample Residential Turf Replacement Invoice

Member	Turf Replacement					
Agency Logo	<b>Conservation Credit Invoice Residential</b>					
Bill To: Metropo send to:	olitan Water Dist					
			Invoice N			
			Activity P	eriod		
			Agreeme	nt Number		
Member Agency Retail Agency						
		(a)	(b)	(c)	(d)	
Member Agency / Retail Agency	No. of Applications	Total Sq. Ft.	Metropolitan Incentive	Total Metropolitan Incentive Amount (a)*(b)	Percentage of applicants on this invoice that were inspected	
			\$2.00			
	4	Ponuesta	ed total credit	ć		
COMMENTS:		Requeste	total credit	<b>y</b>	78.9	
				V 13 1 1 1		
l,			, Genera	al Manager or design	ee	
of of the Turf Replace	ement Program h	ave been m	, certify t et and all turf rep	that to be reimburse placement projects h	d for incentives the terms have been completed.	
	e inspections of				tion process. Metropolitan ified, Member Agency must	



#### Commercial Addendum 20

# WATER CONSERVATION FUNDING AGREEMENT BETWEEN

## THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

#### AND

West Basin Municipal Water District Agreement No. 66663

The Metropolitan Water District of Southern California (Metropolitan or MWD) issues Addenda to provide the West Basin Municipal Water District (Member Agency) with updates or changes to the commercial incentive program (Commercial Program) that occur after the start of this agreement. This addendum is effective July 1, 2020, and supersedes previous addenda, exhibits, and forms under this agreement.

Each Party represents that it is represented by legal counsel, that it has reviewed this Agreement and agrees that:

- a. This Agreement is legally enforceable;
- Payments made by Metropolitan to Agency pursuant to this Agreement are a legal use of Metropolitan's funds; and

Metropolitan may legally recover the costs incurred by Metropolitan pursuant to this Agreement in the water rates charged to its Member Agencies, including Agency.

This addendum makes the following specific changes:

- This addendum covers a two-year period beginning Fiscal Year 2020/21 through Fiscal Year 2021/22
- · Adds a rebate for a hose bib irrigation controller
- Chronology of Addenda (Pages 5, 6, 7 and 8) List of all past addenda including issue date and authorization for program changes in each addendum.
- Commercial Incentive List (Pages 9, 10 and 11) List of devices and other incentives in the Regional Commercial Program and eligible incentives in the MWD-Funded/Member Agency Administered Program.
- Regional Incentives Not Allowed in Member Agency's Service Area (Page 12) This form provides
  the option to the Member Agency to not allow Metropolitan's regional incentives in their service
  area. If applicable, Member Agency must check each specific device not allowed, sign, date, and
  return this form to Metropolitan. Selections are effective for the entire period of this addendum.

- 4. Regional Incentives for Sites Using Recycled Water Not Allowed in Member Agency's Service Area (Page 13) This form is for Member Agency to indicate whether consumers using recycled water are allowed to receive conservation incentives within Member Agency's service area. Member Agency must check each specific program and indicate what is allowed, sign, date, and return this form to Metropolitan. If this form is not received by Metropolitan by July 31, 2020, then consumers using recycled water will not be paid conservation incentives.
- Member Agency Regional Supplemental Funding Authorization Devices (Pages 14, 15 and 16) –
  This form allows Member Agency to authorize supplemental funding for device incentives through
  the Regional Program. To provide supplemental incentive funding, Member Agency must complete,
  sign, date, and return the form to Metropolitan.
- 6. Member Agency Supplemental Funding Authorization Turf Replacement Program (Page 17) This form allows Member Agency to authorize supplemental funding for turf replacement incentives through the Regional Program. To provide supplemental incentive funding, Member Agency must complete, sign, date, and return the form to Metropolitan
- 7. Member Agencies Using Metropolitan's Regional Vendor Devices Fully Funded by Member Agency (Pages 18 and 19) This form allows Member Agencies enrolled in the Regional Program to have the option to use Metropolitan's Regional vendor to administer rebates (only those listed on the Commercial Incentives list) in the event Metropolitan funding is exhausted before June 30, 2022. Member Agency must pay associated administrative fees. Member Agency must complete, sign, date, and return the form to Metropolitan.
- 8. Member Agencies Using Metropolitan's Regional Vendor Turf Replacement Program Fully Funded by Member Agency (Page 20) This form allows Member Agencies enrolled in the Regional Program to have the option to use Metropolitan's Regional vendor to administer rebates for turf replacement in the event Metropolitan funding is committed before the end of June 30, 2022. Member Agency must pay associated administrative fees. Member Agency must complete, sign, date, and return the form to Metropolitan.
- 9. Accept or Forfeit Allocated Funds for MWD-Funded/Member Agency Administered Incentive Program (Pages 21 and 22) – This form provides the total Member Agency allocated funds for the MWD-Funded/Member Agency Administered Incentive Program for Fiscal Year 2020/21 and Fiscal Year 2021/22 for device-based projects, customized with documented water savings projects, customized with non-documented water savings projects, and customized with non-documented water savings projects for disadvantaged communities. Member Agency must select Option 1, 2, or 3, by checking the appropriate box, sign, date and return this form to Metropolitan by August 31, 2020.

- 10. Member Agency Administered Project Pre-Approval Request (Page 23) This form allows Member Agency to submit a device-based, customized with documented water savings, or customized with non-documented water savings project to Metropolitan for pre-approval. Member Agency must submit supporting documentation for water savings estimate for customized with documented water savings project. If Member Agency has a previously approved customized with documented water savings project, Member Agency must still resubmit documentation for water savings estimate. For customized with non-documented water savings, Member Agency must describe project and its benefits to the region. Member Agency must complete, sign, date, and return each form to Metropolitan with sufficient time for Metropolitan to review/approve project and for Member Agency to complete project within the two-year budget cycle and prior to submitting any invoices for reimbursement.
- 11. Member Agency Disadvantaged Communities Project Pre-Approval Request (Page 24) This form allows Member Agency to submit a disadvantaged communities project to Metropolitan for pre-approval. Member Agency must submit this form, including how disadvantaged communities would be identified and targeted as well as a full description of project. Member Agency can use its entire allocation for disadvantaged communities. Project cannot be for premium high-efficiency toilet rebates in pre-1994 multi-family properties. Member Agency must complete, sign, date, and return each form to Metropolitan with sufficient time for Metropolitan to review/approve project and for Member Agency to complete project within the two-year budget cycle and prior to submitting any invoices for reimbursement.
- Requirements for Incentive Reimbursement MWD–Funded/Member Agency Administered Incentive Program (Pages 25, 26, 27, 28 and 29) – A description of reporting, inspection, invoicing and payment processing requirements for the MWD-Funded/Member Agency Administered Incentive Program.
- 13. Submitting Invoices and Supporting Databases Specific data and specific invoice templates are required in order to process invoices. To allow for cost effective invoice processing, where possible, Member Agency should submit invoices that are no less than \$10,000. Member Agency must submit invoices by the 20<sup>th</sup> of the month in order to be placed on the current month's water bill. When submitting an invoice, Member Agency must also submit a database using the format set by Metropolitan. Invoice and database must only be submitted by email to: maconservation@mwdh2o.com.
- Guidelines for Turf Replacement (Pages 30, 31, and 32) A description of guidelines, requirements, and eligibility for turf replacement incentives.
- 15. Guidelines for Member Agencies Administering a Local Turf Replacement Program with Regional Funding (Page 33) Member agencies choosing to run their own turf replacement programs with regional funding will have to at a minimum meet the requirements of the regional program and will have to provide additional information via the SoCalWaterSmart dashboard.
- 16. Turf Replacement Additional Requirements Request (Pages 34 and 35) Member Agency or its retail agency may customize the turf replacement application requirements for its service area in the regional program subject to approval by Metropolitan. Metropolitan retains the sole discretion to determine if Member Agency's additional requirements are allowable. If Member Agency wishes to request additional requirements, they must provide the required information, sign, date, and return this form to Metropolitan.

- 17. Member Agency Supplemental Funding Authorization for Water Savings Incentive Program (Page 36) – Metropolitan has a pay-for-performance program, titled Water Savings Incentive Program, that provides incentives directly to commercial, industrial, institutional, agricultural, and large landscape consumers. Member Agencies may choose to provide supplemental funding for Metropolitan's Water Savings Incentive Program. To provide supplemental funding for Water Savings Incentive Program within Member Agency's service area Member Agency must complete, sign, date, and return the form to Metropolitan.
- Sample Invoices (Pages 37 and 38) Member Agency must use the Metropolitan provided template invoices (sample attached). Metropolitan will provide an electronic version upon request.
- 19. Payment Processing through Water Bill Metropolitan will issue credits or debits to Member Agency on the Member Agency's monthly water bill for Metropolitan payments due to Member Agency or to obtain reimbursement from Member Agency for payments due to Metropolitan.

Bill McDonnell

Agreement Administrator

May 2020

Attachments

# Cll Incentive List (Pg. 1 of 3)

Ш	Regional CII Program	Metropolitan Incentive*
1	Plumbing Flow Control Valve Minimum 10 required.	\$5 per valve
2	Laminar Flow Restrictors Minimum 10 required.	\$10 per restrictor
3	Commercial Premium High Efficiency Toilet (4-Liter)  Rebates are for matching bowls and complete flushometer valves (valve "kits" are ineligible)	\$40
4	Multi-Family Premium High Efficiency Toilet (4-Liter)	\$40
5	Zero Water Urinals (ZWU) ZWU units must replace existing urinals flushing at 1.5 gpf or greater.	\$200
6	Ultra-Low Water Urinal (ULWU)  Rebates are for matching bowls and complete flushometer valves (valve "kits" are ineligible). Must flush at < 0.125 gpf, and must replace existing urinals flushing at 1.5 gpf or greater.	\$200
	WBIC and CCIC: Upgrades to existing equipment that enable functionality as a WBIC/CCIC may qualify for incentives provided they meet program terms and conditions.	
7	Weather-Based Irrigation Controller (WBIC) —Eligible WBIC can have a maximum of 11 inactive stations per controller	\$35 per station
8	Central Computer Irrigation Controller (CCIC) Eligible CCIC can have a maximum of 11 inactive stations per controller	\$35 per station
9	Soil Moisture Sensor System (SMSS) Eligible SMSS can have a maximum of 11 inactive stations per controller	\$35 per station
10	Hose Bib Irrigation Controller	\$35 each
11	Large Rotary Nozzles Minimum 8 sets (2 each) per site.	\$13 per set
12	Rotating Nozzles For Pop-up Spray Heads - Minimum 30 units per site	\$2 per nozzle
13	In-Stem Flow Regulator Minimum 25 units per site.	\$1 per regulator
14	pH-Cooling Tower Controller (pH-CTC)	\$1,750
15	Cooling Tower Conductivity Controller (CTCC)	\$625
16	Dry Vacuum Pump Maximum 2 Horsepower (HP) motor.	\$125 per 0.5 HP

# CII Incentive List (Pg. 2 of 3)

	Regional CII Program	Metropolitan Incentive*
17	Connectionless Food Steamers	\$485 per compartment
18	Ice-Making Machines	\$1,000
19	Turf Replacement (max 50,000 sq. ft. per site)	\$2.00 per sq. ft
	Additional Regional Programs	
Π	Public Agency Landscape Program	
20	Weather-Based or Central Computer Irrigation Controller, Soil Moisture Sensor System Eligible WBIC can have a maximum of 11 inactive stations per controller	\$55 per station
21	Large Rotary Nozzles Minimum 8 sets per application	\$13 per set
22	Rotating Nozzles For pop-up spray heads. Minimum 30 nozzles per site.	\$3 per nozzle
	Other Incentives Eligible in MWD-Funded/Member Agency Administered Program	
23	Large Landscape Surveys (minimum 1 acre)  Member Agency's landscape survey program shall contain the following elements for each survey site: 1) Irrigation system evaluation; 2) Development of a water budget and irrigation schedule; and 3) Survey report provided on-site to the recipient or consumer.  Incentives are limited to the full cost of the survey; no restriction on application for additional landscape device rebates.	\$200 per acre
24	Multi-Family Residential Sub-Metering Sub-metering existing individual dwelling units within existing multifamily properties.	\$100 per unit
25	Customized with Documented Water Savings Projects  Projects that result in water savings through customized site improvements. Metropolitan funding is limited to \$195 per acre-foot of estimated water savings based on project life and up to one-half of the eligible project costs.	\$195 per acre-foot

# CII Incentive List (Pg. 3 of 3)

26	Customized with Non-Documented Water Savings Projects:  • For agencies with an annual allocation greater than \$50,000, up to 25 percent of their allocation may be used towards projects that provide value to the region but the water savings may be difficult to measure.	Up to project cost approved by Metropolitan for			
	For agencies with an annual allocation less than \$50,000, agency may choose to use its entire allocation towards projects that provide value to the region but the water savings may be difficult to measure.    Metropoly product to the region but the water   Provide value to the region but the region but the water   Provide v				
27	Disadvantaged Communities - Customized with Non-Documented Water Savings Projects  • Agencies may use the entire allocation for projects in disadvantaged communities.  These projects must provide value to the disadvantaged community, but the water savings do not have to be quantifiable.	Up to amount approved by Metropolitan for project			
	* Incentives are subject to the following:  • Effective July 1, 2020, unless stated otherwise above  • Paid on a first come, first served basis  • Subject to available funding  • Limited to the cost of the device when applicable  • Must be a Metropolitan-approved device				

# Member Agency Supplemental Funding Authorization Turf Replacement Program

Regio	onal Incentive	Metropolitan Incentive	Member Agency Incentive	Retail Agency Incentive	Total Incentive
Turf Replacem	ent (max 50,000 sq. ft.)	\$2 per sq. ft.	\$	\$	\$
Check Box to	STOP any or all	Supplemental Fund	ing, sign form, and sul	bmit to Metropoli	an.
Member Agen	icy		Retail Agency		
Turf Replacer		\$	Turf Replacement		-
		\$	Add/Subtract Add	·	
Total Authori Start Date	zea runaing	>	Total Authorized F	unding \$_	_
End Date:	-		Start Date: End Date:	-	-
Lina Data	-		Eliu Date.		_
¹If t	this is not the first form	n this fiscal year, indi	cate amount of funding	g being added or s	ubtracted
Each form su No funds will this form. Su effective on a applied retro Member Age authorization Member Agen	Ibmitted shall include I be carried over from upplemental funding f the first day of the fol pactively. ency is obligated to pa in is in effect. By signia	the total authorizati prior forms. Retail / orms received by Me lowing month unless y supplemental fund ng, Member Agency	cropolitan and implement on of the Agency for the Agency supplemental fetropolitan by the 20 <sup>th</sup> a later Start Date is spling for any on-line coragrees to these terms	he specified time produced time produced to the specified of a month shall be pecified. Incentive manitments made to see the s	period. The recorded on Decome The will not be
Metropolitan Use Only:					
Jac Jilly.	Date received		Approved by		
	Date sent to vendor		Authorization No.		
Comments:					

## Guidelines for Turf Replacement Program (Page 2 of 3)

**Berms** – berms are mounds of earth with sloping sides that are located between areas of approximately the same elevation. Berms are constructed to direct or redirect water in order to keep water from flowing off the property.

**Grades** - grades are surface grading of an area so that water collects and flows to a lower elevation away from the water collection site. Regardless of surface characteristics, when planning to add a grade for surface drainage, slope is the most important consideration. For efficient drainage, paved surfaces are recommended to have a minimum 1-percent slope. Turf or landscaped areas are recommended to have a minimum slope of 2 percent.

Rain Barrel/Cisterns – rain barrels and cisterns are storage tanks that capture runoff water from downspouts from a non-permeable catchment area such as a rooftop. Cisterns are a larger version of rain barrels, with a larger capacity for rainwater collection and storage. Rain barrels and cisterns must be connected to properly installed rain gutters and downspouts. In order for the rain barrel/cistern to qualify as a rainwater capture feature, the property must have existing gutters around the full perimeter of the roof and existing downspouts for adequate water collection. In the case of a partially flat roof, gutters and downspouts must be throughout all pitched areas in order to qualify. Rain barrels and cisterns must be properly installed and meet all local and regional requirements. Existing rain barrels and cisterns qualify provided they have been properly installed and provide water to the project.

A three-inch-deep ring of mulch must surround all plants. Acceptable forms of organic mulch include shredded bark, bark nuggets or wood chips. Organic mulch should not be placed around any plants installed in the bottom or sides of a vegetated swale. Therefore, the vegetated swale area is exempt from this requirement.

No bare soil is allowed. The use of organic materials is recommended as a groundcover for any bare spaces within the project area. Mulch or another permeable hardscape must cover any other bare spaces within the project area.

Irrigation modification or conversion required for all projects:

- Convert over-head sprays to drip, micro-spray, bubblers, or rotating nozzles; whichever is applicable; or
- · Cap sprinkler heads or remove irrigation equipment and hand-water
- No overhead spray sprinklers are allowed in the completed project

No synthetic turf is allowed

No plants that appear to be turf are allowed

No plants categorized as invasive are allowed

Areas which have already been converted are not eligible

Receipts will be requested, but not required

Consumer has 180 days to complete project

## Guidelines for Turf Replacement Program (Page 3 of 3)

Consumers are responsible for complying with all applicable laws, codes, policies, covenants, conditions and restrictions.

Proposed project areas irrigated with recycled water are eligible unless barred by member agency.

#### **Program Recommendations**

- Installation of a smart controller is recommended
- · A recommended plant list will be provided