

Greywater and Rain Water Advancement Project

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Technical Proposal and Evaluation Criteria

EXECUTIVE SUMMARY

Date: January 13, 2017

Applicant Name: West Basin Municipal Water District

Project Name: “*West Basin Municipal Water District’s Greywater and Rain Water Advancement Project.*”

City, County and State: City of Carson, Los Angeles County, California

West Basin Municipal Water District (West Basin) is submitting this grant application for the Proposed Project entitled “*West Basin Municipal Water District’s Greywater and Rain Water Advancement Project*” (Project) in response to the United States Bureau of Reclamation’s (Reclamation’s) Fiscal Year 2016 Funding Opportunity Announcement (FOA) No. BOR-DO-17-F011 WaterSmart Grants: Small-Scale Water Efficiency Project for Fiscal Year 2017. The focus of this Project aims to improve water use efficiency both locally and regionally as well as aims to meet the criteria set forth in Section C.3 Eligible Projects – Landscape Irrigation Measures by providing residents with the technical resources and incentives needed to advance the necessary capture of additional water supplies (greywater and rain water). These supplies are expected to offset demand for imported, potable supply. Funds from Reclamation to implement this Project will help meet mutual state and Federal goals of making more efficient use of current water supplies that are imported to Southern California through the Lower Colorado River basin system. The goal of the Project is to install 250 greywater systems, 250 rain barrels and 25 cisterns.

West Basin is estimating that the Project will be completed within two years. The expected completion date is October 2018.

This Project is not located at a federal facility.

BACKGROUND DATA

Geographic Location and Map- West Basin is located in the South Bay Region of Southwest Los Angeles County and the North Santa Monica Bay Area, see Figure 1. West Basin’s service area includes the following cities: Carson, Culver City, El Segundo, Gardena, Hawthorne, Hermosa Beach, Inglewood, Lawndale, Lomita, Malibu, Manhattan Beach, Palos Verdes Estates, Rancho Palos Verdes, Redondo Beach, Rolling Hills, Rolling Hills Estates and West Hollywood.



Figure 1. West Basin service area relative to the County of Los Angeles and the State of California.

Table 1. West Basin's Water Portfolio

Source	Amount
Imported water supply	108,000 AFY
Recycled water supply	34,000 AFY
Groundwater supply	34,000 AFY
Brackish groundwater	57 AFY
Total	176,057 AFY

Sources and Quantity of Water Supply – West Basin's sources of water supply includes imported water, groundwater, brackish groundwater and recycled water. It imports water through the southern California regional wholesaler, Metropolitan Water District of Southern California (MWD). MWD imports water via both the State Water Project from the Bay-Delta and the Colorado River Aqueduct. Table 1 summarizes West Basin's

water portfolio (5-year average).

Current Water Uses- West Basin's water use is for municipal, irrigation, and industrial purposes. The irrigated water use is for outdoor irrigation with very little agricultural irrigation. West Basin's service area is highly urbanized (83%), approximately 0.5% agricultural lands and the balance (16.5%) comprised of open space habitat.

West Basin, as the water wholesaler, does not own any of the potable water distribution lines. MWD owns the imported water supply distribution system which is the backbone system for southern California. Local water purveyors own the potable water distribution system that provides a mix of both imported water supplies and groundwater supplies. West Basin has 43 imported water connections to the MWD backbone system.

Current and Projected Water Demand- West Basin provides water to both retail and wholesale customers. Current (2015) and projected demands are provided in Table 2.

Table 2 – West Basin's Water Demand

	2015	2020	2025	2030	2035	2040
Potable and Raw Water Demand	106,259	99,426	100,154	100,173	100,413	99,991
Recycled Water Demand	29,110	38,894	44,135	44,135	44,135	44,135
Total Demand	135,369	138,320	144,289	144,308	144,548	144,126

Source: West Basin MWD 2015 Urban Water Management Plan, Table 3-6.

Potential Shortfalls in Water Supply- Southern California is vulnerable to potential shortfalls in water supply for various reasons. Plausible scenarios include: unplanned interruptions resulting from levee failure or pipeline rupture, natural disasters (earthquakes), hydrology (low rainfall), and homeland security concerns (terrorist acts).

The loss of any one of the three major sources of imported supply (California, Colorado River or Los Angeles Aqueducts) would place additional and unendurable stress on the entities dependent on these supplies. Should a situation arise where the aqueducts are unable to meet the demand, southern California will need to rely heavily on either surface storage (i.e., Diamond Valley Lake) or on groundwater supplies, and supplemented with conservation. SWP deliveries throughout California could also be temporarily or permanently reduced by up to 100 percent under stringent environmental restrictions.

Major Crops and Total Acres Served- The entire South Coast Region is nearly all urban, comprised of residential, commercial, and industrial. That said there is less than half a percent of agricultural uses/land in West Basin's service area.

Water Delivery System- West Basin is comprised of 9 member agencies. Each of these agencies operates and maintains their own water delivery system that is comprised of potable water distribution system pipeline, groundwater wells and pumping facilities. West Basin owns and operates the non-potable, recycled water transmission lines.

Past Working Relationships with Reclamation- West Basin has completed six (6) conservation-related programs that have been funded through Reclamation's past grant programs. They include:

- **Green Garden Program** (August 2007 – December 2010): This program was a 4-step program designed to provide residents with information and free irrigation devices to develop a water-efficient landscape that not only looks beautiful, but also conserves water and reduces water runoff.
- **Local Water Use Efficiency Plans** (June 2008 – December 2011): West Basin assisted its water purveyors in developing their own local water conservation master plans.
- **Commercial, Industrial and Institutional Program** (June 2007 – December 2012): This innovative program provided businesses and facilities with incentives, resources, and technical assistance to install water efficient equipment.
- **ET Controller Installation Program** (September 2008 – September 2012): This project involved the installation of evapotranspiration (ET) irrigation controllers for urban landscapes that were one acre or greater in size.
- **Complete Restroom Retrofit Program, Phase II** (September 2010 – December 2012): The program replaced water-wasting devices with high-efficiency toilets (HET), high-efficiency urinals (HEU), and self-closing low-flow sensor faucets (faucets) to maximize water and energy savings.
- **Landscape Irrigation Efficiency Program** (October 2011 – October 2014): The program provides landscape surveys and high-efficiency irrigation nozzles to residents and the Commercial, Industrial and Institutional (CII) sector throughout West Basin's service area, saving a projected 1,478 AF over the life of the devices at a total program cost of \$378,195.

The following two (2) programs are currently underway.

- **Regional Landscape Water Use Efficiency (WUE) Program** (September 2015 – December 2017): The project will assist West Basin's member agencies to better improve regional water management practices by converting a total of 450,000 square feet of grass turf with water conserving landscape alternatives.
- **Water Use Efficiency Master Plan** (October 2015 – June 2017): The project will update the 2010 Water Use Efficiency Master Plan (2016 Plan) to include water conservation measures through 2020.

PROJECT DESCRIPTION

This Project will reduce outdoor water use through the implementing of greywater systems, rain barrels and cisterns via incentives and resources to residents. The Project will address the following problems and needs:

- Help meet Reclamation's goal of conserving and using outdoor water more efficiently and reducing the demand on the Lower Colorado River basin;
- Help meet West Basin's goal of reducing the amount of imported water it purchases from the Metropolitan Water District;
- Support California's mandatory reductions and provide innovative conservation measures in order to sustain and exceed conservation efforts; and

- Assist areas that are not meeting the mandatory water reduction requirements with a new and alternative approach.

Over the years, West Basin has been a leader in creating and implementing effective and successful water conservation programs. By partnering with Reclamation, the Department of Water Resources (DWR), MWD, local cities, water agencies, and environmental groups, West Basin has been able to implement cost-effective water conservation programs by developing cost-sharing agreements that have reduced costs for all involved partners.



West Basin has been successful in developing and implementing educational programs, as evidenced with ongoing greywater advancement classes and distribution of over 3,000 rain barrels. In 2015, West Basin piloted a successful Greywater Program.

All three classes were filled with residents who had an interest in utilizing greywater as an outdoor water source and as a way to reduce using imported water to irrigate their landscapes. Since the original pilot in 2015, five successful classes were held in 2016, and in 2017, West basin is hoping to partner with Reclamation to develop a technical program that will assist residents in actualizing these changes by installing simple greywater systems, rain barrels and cisterns.



West Basin staff has experience with implementing these measures and through this collaboration with Reclamation, West Basin will be able to create and complete a comprehensive program that will utilize greywater and rain water as the first source of outdoor water use. West Basin is currently in the process of updating its 2010 Water Conservation Master Plan, which has been successfully implemented over the last five years. In addition, the West Basin Board of Directors is in full support of utilizing innovative tools as a way to conserve water. These measures are included in West Basin's 2015 Urban Water Management Plan and will also be included in West Basin's Water Conservation Master Plan Update for 2016-17, which is currently under development.

In late 2015, MWD launched a new rebate for larger residential cisterns that can collect 200 gallons or more. Through West Basin's water conservation program and MWD's regional rebate program, the public has demonstrated that they are more than ready to implement new and innovative ways to conserve water using these outdoor measures.

West Basin will implement a two-step process, as described below. West Basin will fund and implement Step 1, resulting in an up-to-date database of residents who will be invited to participate in the Project. The informational symposiums will teach residents about the current plumbing codes and how to install a simple gravity-type greywater system, and rainwater capture through rain barrels and cisterns. Under the current California plumbing codes, this type of system does not require a permit, but residents will need to follow state and local guidelines. With support from Reclamation, West Basin will develop marketing materials for these events, and aim to have at least 50 attendees

at each workshop. This Project will result in the implementation of Step 2, which will provide installation workshops and greywater and rain water system rebates.

The Project will include the following tasks:

Task 1: Procure Qualified Greywater Vendor

Over the last several years, West Basin has worked with a local non-profit organization called Greywater Action. This organization is a collaborative of educators who teach residents and tradespeople about affordable and simple household water systems that dramatically reduce water use and foster sustainable cultures of water. Through hands-on workshops and presentations, they have led thousands of people through greywater system design and construction, and work with policymakers and water districts to develop codes and incentives for greywater and rainwater harvesting. For this Project, West Basin will issue a Request for Proposals (RFP) to hire this type of organization through a competitive bid process. The selected vendor will implement tasks 2 and 3 of this Project.

Task 2: Implement Voucher Issuance Process and Provide Rebate Information

Modeled after the City of Pasadena’s successful greywater program, West Basin will initiate a market transformation project by working with local landscape irrigation suppliers to provide the devices needed for a greywater system. Through this Project, West Basin will work with local irrigation supply warehouses to provide the parts. West Basin will enter into agreements with these companies to accept the residential vouchers that will be redeemed by West Basin.

Reclamation’s cost-share will be used to provide a greywater equipment voucher and technical resources to customers who are installing laundry-to-landscape greywater systems in their homes. In order to receive the voucher, a resident will complete a participation form and will agree to install their greywater system within 90 days. If the system is not installed within 90 days, the voucher will expire. The Project will also inform residents about the current rain barrel and cistern rebates and provide instructions on how to apply for the rebates.

Shown to the right is an example of the voucher that is currently being used by the Pasadena Water and Power. West Basin will develop a similar voucher for its Project. It is estimated that a “do-it” yourself gravity-fed greywater kit can cost around \$200. As a way to increase customer ownership and Project accountability, participants will be required to pay approximately half the cost of the greywater system parts. The voucher will provide \$100 and the customer will pay for the remaining amount, estimated to be \$100.



Task 3: Provide Technical Assistance (On-site System Installation Guidance)

Once the resident has purchased their greywater system parts, they will be given 90 days to install their system. During the 90 day period, they will have an opportunity to schedule a free one-hour site visit at their home with a professional greywater installer. From the City of Pasadena’s experience, this component is crucial to the success of the Project. By receiving guidance from a professional greywater installer, residents will receive the helpful information to assist them with their greywater system installation, and to ensure that the L2L system has been installed and is operating correctly.

Task 4: Evaluate Project Effectiveness

West Basin will hire a third party vendor to review, evaluate and provide recommendations on the Project effectiveness and improvements that could be made. West Basin will provide a comprehensive report to Reclamation showing the effectiveness of the Project and the water savings achieved.

EVALUATION CRITERIA

Evaluation Criterion A—Planning Efforts Supporting the Project (35 points)

Describe how your project is supported by an existing planning effort.

- *Does the proposed project implement a goal or address a need or problem identified in the existing planning effort?*
This Project does address West Basin’s conservation goals as identified in the current 2015 Urban Water Management Plan. Through program such as this, West Basin will achieve its goal of increasing conservation as part of its water supply portfolio from 15% to 17%.
- *Explain how the proposed project has been determined as a priority in the existing planning effort as opposed to other potential projects/measures.*
This Project is one of many that will help West Basin achieve its conservation goals. Our philosophy is a one size fits all approach doesn’t work for everyone, so we must implement several different types of programs in order for residents and businesses to implement what is feasible for them to achieve water savings.

Evaluation Criterion B—Project Benefits (35 points)

- *Describe the expected benefits and outcomes of implementing the proposed project.*
 - *What are the benefits to the applicant’s water supply delivery system?*
The benefits to the water supply delivery system is the reduction in potable water demand at the sites that install greywater, rain barrel or cistern systems in their homes. Installation of greywater systems will reduce customers’ need to irrigate their outdoor landscape with potable water since they will be using laundry water and rain water instead. It is estimated that the installation of the installation of 250 greywater systems, 250 rain barrels and 25 cisterns will save **257.71 AF over the life of the devices.**

Measure	# of Devices	AF / Year / Device	Annual Savings (AF/Year)	Useful Device Life	Total AF / Device Life
Greywater System	250	.0727*	18.17	14	254.38
Rain Barrel	250	.0019**	.475	5	2.375
Cistern	25	.0076**	.19	5	.95
Total			18.83		257.71

* Source - A 2009 UCLA report on greywater use calculated average household laundry water use to be 21 GPCD, while another recent (2013) study from the Greywater Action group indicates that customers who install greywater systems alongside other conservation measures average of 23 GPCD in water savings. Because this Program will involve multiple conservation strategies, West Basin is using the average of these two studies, and calculates greywater systems as saving 22 GPCD. Residents per Household estimate is based on West Basin’s 2010-2015 Urban Water Management Plan.

**Source - According to MWD’s 2015 Water Savings Values

**Source - According to MWD’s 2015 Water Savings Values

Greywater System Savings

$$(22 \text{ GPCD}) \times (2.95 \text{ Residents/Device}) \times (365 \text{ days/year}) \times (250 \text{ devices}) = 18.17 \text{ AF/year}$$

$$(325,851 \text{ gal/AF})$$

Rain Barrel Savings

$$(0.0019 \text{ AF/year}) \times (250 \text{ devices}) = 0.475 \text{ AF/year}$$

Cistern Savings	
$(0.0076 \text{ AF/year}) \times (25 \text{ devices}) = \mathbf{0.19 \text{ AF/year}}$	
<ul style="list-style-type: none"> ○ <i>Extent to which the proposed project improves overall water supply reliability</i> This program improves overall water supply reliability because of the water savings attributed to reduced outdoor irrigation (257.71 AF) increasing the diversity of the water supply portfolio, and allowing potable water be used for indoor purposes. 	
<ul style="list-style-type: none"> ○ <i>The expected scope of positive impact from the proposed project</i> Positive impacts include: the environment (improved water quality from reduced runoff due to rain water kept onsite for landscape irrigation), local and regional water supply (increasing supply diversity), customer's water bills (reducing water purchases), increased conservation awareness and economic benefits to the local companies that sell these devices. 	
<ul style="list-style-type: none"> ○ <i>Extent to which the proposed project will increase collaboration and information sharing among water managers in the region</i> The results of this Project will be made available to other water districts so that they may implement a similar program, similar to how this Project is based on Pasadena Water and Power's successful program. The data will be available upon request. 	
<ul style="list-style-type: none"> ○ <i>Any anticipated positive impacts/benefits to local sectors and economies (e.g., agriculture, environment, recreation, tourism)</i> Positive impacts to local sectors and economies include the environment (reduced runoff due to rain water kept onsite for landscape irrigation) and the economic benefits to the local companies that sell these devices. 	

Evaluation Criterion C—Project Implementation (15 points)

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

The schedule with anticipated milestone completion dates for the Project is shown below.

Milestone/Task/Activity	Planned Start Date	Planned Completion Date
Reclamation Announces Award	March 2017	
Task 1: Procure Qualified Greywater Vendor	June 2017	August 2017
<i>Issue RFP</i>		
<i>Contract Greywater Vendor</i>		
Task 2: Implement Voucher Issuance Process and Provide Rebate Information	September 2017	October 2018
<i>Develop voucher system</i>	September 2017	December 2017
<i>Work with local landscape irrigation companies to order greywater system parts</i>	September 2017	December 2017
<i>Implement voucher system</i>	January 2018	December 2018
Task 3: Provide Technical Assistance	December 2017	December 2018
Task 4: Evaluate Project Effectiveness	December 2017	December 2018

- *Describe any permits that will be required, along with the process for obtaining permits.*
No permits will be required as this Project is a water conservation project in which devices will be installed on residential property.

- *Identify and describe any engineering or design work performed specifically in support of the proposed project.*
No engineering or design work is required as this is a water conservation projects in which devices will be installed on residential sites by the homeowner.
- *Describe any new policies or administrative actions required to implement the project.*
There are no new policies or administrative actions required to implement the Project.

Evaluation Criterion D—Nexus to Reclamation (15 points)

Describe the nexus between the proposed project and a Reclamation project or activity, including:

- *How is the proposed project connected to a Reclamation project or activity?*
The Project is not directly connected to a Reclamation project or activity. The Project does, however, reduce imported water demand for imported water from Reclamation facilities in the Colorado River basin via the Colorado River Aqueduct.
- *Will the project help Reclamation meet trust responsibilities to any tribe(s)?*
Not applicable.
- *Does the applicant receive Reclamation project water?*
Yes, West Basin does receive about half of its imported water supplies from the Colorado River via Metropolitan Water District of Southern California.
- *Is the project on Reclamation project lands or involving Reclamation facilities?*
No, the Project is not on Reclamation lands or involving Reclamation facilities.
- *Is the project in the same basin as a Reclamation project or activity?*
No, the Project is not in the same basin as a Reclamation project or activity.
- *Will the proposed work contribute water to a basin where a Reclamation project is located?*
Yes, the Project will leave water in the imported water supply locations which includes the Colorado River Aqueduct, which is managed by Reclamation.

ENVIRONMENTAL AND CULTURAL RESOURCES COMPLIANCE

- *Will the proposed project impact the surrounding environment (e.g., soil [dust], air, water [quality and quantity], animal habitat)? Please briefly describe all earth-disturbing work and any work that will affect the air, water, or animal habitat in the project area. Please also explain the impacts of such work on the surrounding environment and any steps that could be taken to minimize the impacts.*
No. This Project will not disturb habitats or access points as installations will take place on developed, residential properties. However, West Basin will research each of its 17 cities to identify if there are any regulations or additional guidelines dealing with the use of greywater.
- *Are you aware of any species listed or proposed to be listed as a Federal threatened or endangered species, or designated critical habitat in the project area? If so, would they be affected by any activities associated with the proposed project?*
No. There are no endangered or threatened species located within or around the program area, and no activities associated with the program will affect endangered or threatened species.
- *Are there wetlands or other surface waters inside the project boundaries that potentially fall under Clean Water Act (CWA) jurisdiction as “Waters of the United States?” If so, please describe and estimate any impacts the proposed project may have.*
No. The Project’s devices will not be installed within any wetlands or surface waters.
- *When was the water delivery system constructed?*
The water delivery system was constructed in the early 1940s via the Metropolitan Water District for imported water and even earlier for the groundwater pumping infrastructure.

<ul style="list-style-type: none"> • <i>Will the proposed project result in any modification of or effects to, individual features of an irrigation system (e.g., headgates, canals, or flumes)?</i> <p>No. The Proposed Project is a water conservation program and will not have any modifications to an irrigation system.</p>
<ul style="list-style-type: none"> • <i>Are any buildings, structures, or features in the irrigation district listed or eligible for listing on the National Register of Historic Places?</i> <p>No. The Proposed Project is a water conservation program and will have no impact on the National Register of Historic Places.</p>
<ul style="list-style-type: none"> • <i>Are there any known archeological sites in the proposed project area?</i> <p>No. The device installations through this Project will only occur on residential property.</p>
<ul style="list-style-type: none"> • <i>Will the proposed project have a disproportionately high and adverse effect on low income or minority populations?</i> <p>No. On the contrary, this Project can help the disadvantaged community within West Basin's service area reduce their water usage and their water bills by receiving free water conservation devices through this Project.</p>
<ul style="list-style-type: none"> • <i>Will the proposed project limit access to and ceremonial use of Indian sacred sites or result in other impacts on tribal lands?</i> <p>No. The Project will not impact Indian sacred sites or tribal lands as this is a water conservation project taking place on residential properties.</p>
<ul style="list-style-type: none"> • <i>Will the proposed project contribute to the introduction, continued existence, or spread of noxious weeds or non-native invasive species known to occur in the area?</i> <p>No. The 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.</p>

REQUIRED PERMITS AND APPROVALS

No permits are required for this Project.

OFFICIAL RESOLUTION

The official Board-adopted Resolution will be submitted following the January 23, 2017 Board meeting.

PROJECT BUDGET

Funding Plan and Letters of Commitment

The non-Federal share will be obtained through Metropolitan Water District via their existing rebate incentive program, through West Basin's in-kind staff time and budgeted funds and the customer portion for the greywater parts. The \$100 voucher for the greywater parts will cover approximately 50% of the cost of the greywater system, therefore the other 50% will be provided from the customer. Metropolitan Water District will not provide a letter of commitment; however, what is provided in Exhibit A is the Member Agency agreement between West Basin and Metropolitan to access the rebates for the devices included in this program. West Basin is confident that that the residents who receive a \$100 voucher will install an L2L system and provide their receipts to show their portion of the non-Federal share was spent.

(1) How will you make your contribution to the cost share requirement.

This Program will leverage funds from MWD through their regional rebate program and the member agency agreement between MWD and West Basin for the devices, as well as West Basin cash and in-kind administrative services, which will be proposed as part of this Project's cost-share requirement. Funds for this Program are available from both entities.

G. Other Costs – Other costs include marketing, coordination with the South Bay Cities Council of Governments and working with the local irrigation supply distributors to coordinate the voucher system.

Description	Computation	Cost
EGIA: Rain Barrel Rebates	(250 rebates x \$35 each)	\$ 8,750
EGIA: Cistern Rebates	(25 rebates x \$300 each)	\$ 7,500
EGIA: Rebate Administration	(275 rebates x \$5 each)	\$ 1,375
Marketing		\$ 5,000
Develop Training Manual		\$ 3,000
SBCCOG Coordinate 4 Large Symposiums	(\$1,080 x 4 symposiums)	\$ 4,320
SBCCOG Coordination (In-Kind)	(\$1,080 x 10 classes)	\$10,800
Greywater Voucher (Reclamation)	(\$100 per voucher x 250 residents)	\$25,000
Greywater Voucher (Resident)	(\$100 per voucher x 250 residents)	\$25,000
TOTAL OTHER COSTS		\$90,745

H. Indirect Costs – No Indirect costs are associated with this Project.

I. Total Costs – The total amount of the Project costs is \$148,008, \$78,008 (53%) to be provided by the non-Federal share and \$70,000 (47%) to be provided by Reclamation).

UNIQUE ENTITY IDENTIFIER AND SYSTEM FOR AWARD MANAGEMENT

West Basin is registered in the System for Award Management (SAM) and their unique identifier is: WEST BASIN MUNICIPAL WATER DISTRICT / 005382940 / 5Y9Y8. The Periodic Update Requirement Date for the registration is 27-DEC-17.

EXHIBIT A

Residential Addendum 17B

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 August 1, 2016, and supersedes previous addenda, exhibits, and forms under this agreement.

This addendum makes the following specific changes:

- Revises Accept or Forfeit Allocated Funds form to reflect that MWD funded/Member Agency Administered Incentive Program funds can be used for turf removal.
 - Revises the date for returning the Accept or Forfeit Allocated Funds form from July 31, 2016 to August 31, 2016.
 - Removes Multi-Family Sub-Metering and adds it to CII Program
 - Removes United States Department of the Interior Grant Agreement No. R14AP00055, Landscape Irrigation Efficiency Pilot Program
1. **Chronology of Addenda** (Page 3, 4 & 5) – List of all past addenda including issue date and authorization for program changes in each addendum.
 2. **Residential Incentive List** (Page 6 & 7) – List of devices and other incentives in the Regional Residential Program and eligible incentives in the MWD-Funded/Member Agency Administered Program.
 3. **Accept or Forfeit Allocated Funds for MWD-Funded/Member Agency Administered Incentive Program** (Page 8) – This form provides the total Member Agency allocated funds for the MWD-Funded/Member Agency Administered Incentive Program for Fiscal Year 2016/17 for device-based and custom projects. 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, 2016.
 4. **Member Agency Regional Supplemental Funding Authorization** (Page 9 & 10) – 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.
 5. **Requirements for Incentive Reimbursement MWD-Funded/Member Agency Administered Incentive Program** (Page 11, 12, & 13) – A description of reporting, inspection, invoicing and payment processing requirements for the MWD-Funded/Member Agency Administered Incentive

Residential Incentive List (Pg. 1 of 2)

	Regional Residential Program	Metropolitan Incentive*
1	High Efficiency Clothes Washer (HECW) (Beginning July 1, 2015 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 larger	\$35 per station
	Soil Moisture Sensor System (SMSS)	
6	- SMSS Less than one irrigated acre	\$80
7	- SMSS One irrigated acre or larger	\$35 per station
8	Rain Barrel (max 2 per home) effective August 1, 2016 thru December 31, 2016	\$75 per barrel
9	Rain Barrel (max 2 per home) effective January 1, 2017	\$35 per barrel
9	Cistern (200-500 gallons)	\$250
10	Cistern (501-999 gallons)	\$300
11	Cistern (1000+ gallons)	\$350
12	Turf Removal (max \$6,000 per home) effective for Wait Listed Customers only, which includes applications received from July 9, 2015 through November 11, 2015	\$2 per sq. ft.
	Other Incentives Eligible in MWD-Funded/Member Agency Administered Incentive Program	Metropolitan Incentive*
	Residential Surveys	
13	- Single-Family Indoor Survey - Member agency provides on-site visit, written survey for the customer listing recommendations on improvements, and review of findings report with customer. Survey can be combined with either irrigation evaluation (w/o timer) or irrigation evaluation (with timer), but not both.	\$12.50
14	- 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.	\$8
15	- Irrigation Evaluation (with timer) - Member agency provides the customer the findings of the evaluation and provides recommended irrigation schedule.	\$18
16	Turf Removal	\$0.30 per Sq. Ft