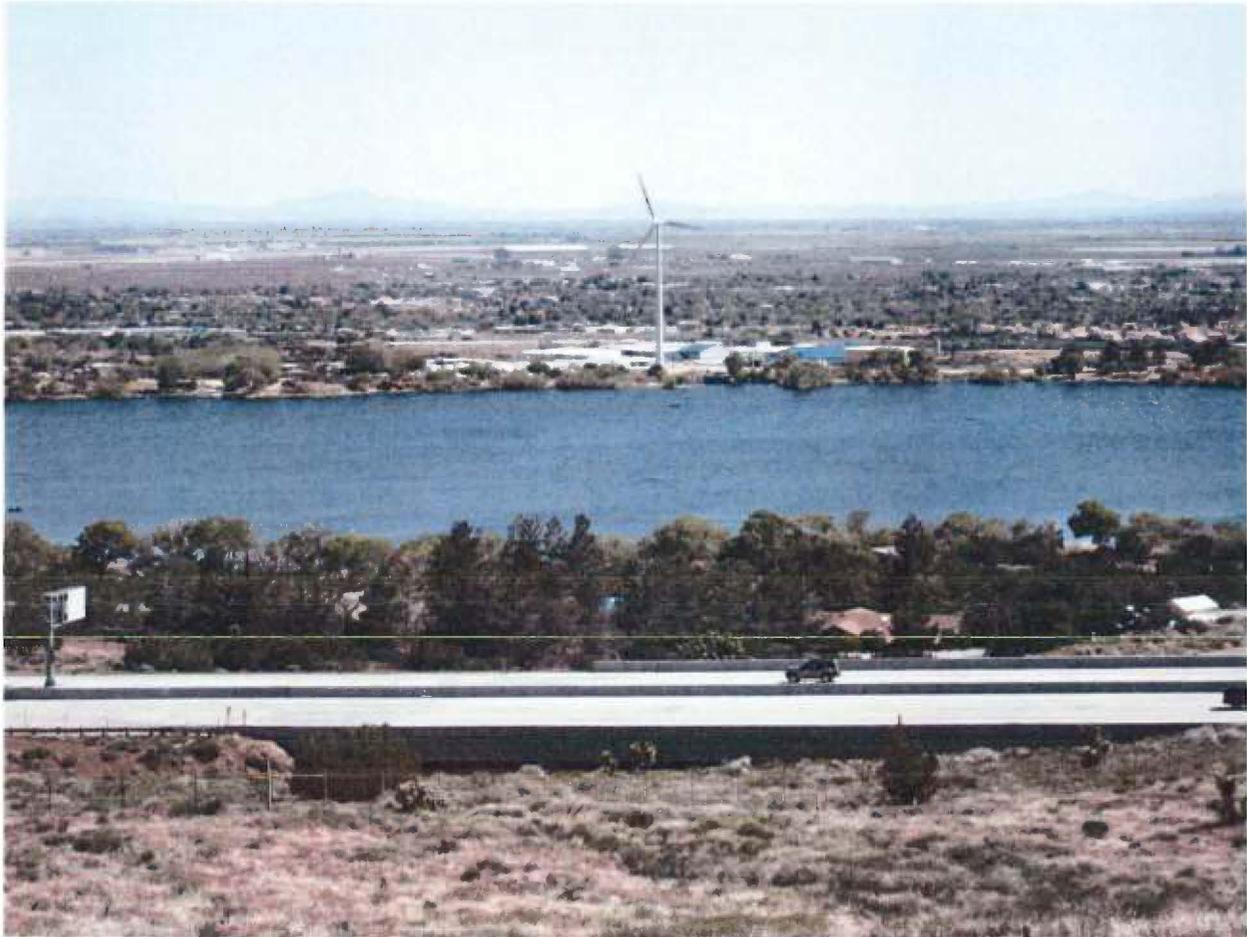


Funding Opportunity Announcement No. BOR-DO-17-F011

**WaterSMART Grants:
Small-Scale Water Efficiency
Projects for Fiscal Year 2017**

PALMDALE WATER DISTRICT

Landscape Water Use Efficiency Project



**January 12, 2017
Palmdale, California
Los Angeles County**



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TABLE OF CONTENTS

1.0 Executive Summary.....	1
2.0 Reclamation Relationship.....	1
3.0 Background Data.....	1
4.0 Project Description.....	3
4.1 Problem and Needs.....	3
4.2 How Project Addresses Problems and Needs.....	4
4.2.1 Demand Management.....	4
4.2.2 Plan to Reduce Water Use.....	5
4.2.3 Foundational DMMs.....	5
4.2.3.1 Water Waste Prevention Ordinances and Prohibition.....	5
4.2.3.2 Metering.....	5
4.2.3.3 Conservation Pricing.....	6
4.2.3.4 Public Education and Outreach.....	6
4.2.3.5 Programs to Assess and manage distribution system real loss.....	6
4.2.3.6 Water Conservation Program Coordination and staffing support....	6
4.2.4 Other DMMs.....	6
4.2.4.1 Rebate Programs.....	6
4.3 Identify the Expected Outcome.....	7
5.0 Environmental and Cultural Resources Compliance.....	8
6.0 Required Permits and Approvals.....	8
7.0 Project Budget.....	9
7.1 Budget Proposal.....	9
7.2 Budget Narrative.....	10
7.2.1 Salaries and Wages.....	10
7.2.2 Fringe Benefits.....	10
7.2.3 Travel.....	10
7.2.4 Equipment.....	10
7.2.5 Materials and Supplies.....	10
7.2.6 Contractual.....	10
7.2.7 Environmental and Regulatory Compliance Costs.....	10
7.2.8 Other Expenses.....	10
7.2.9 Indirect Costs.....	10
7.2.10 Total Costs.....	11
8.0 Evaluation Criteria.....	11
8.1 Evaluation Criteria A – Planning Efforts Supporting the Project.....	11
8.2 Evaluation Criteria B – Project Benefits.....	11
8.3 Evaluation Criteria C – Project Implementation.....	12
8.4 Evaluation Criteria D – Nexus to Reclamation.....	13
9.0 Resolution.....	14

1.0 EXECUTIVE SUMMARY

Date: January 11, 2017

Applicant: Palmdale Water District

Location: Palmdale, Los Angeles County, California

The Palmdale Water District will expand its existing residential turf replacement program. For 2017, the program will provide incentives to replace approximately 75,000 square feet of turf with water-efficient landscaping, which is expected to result in annual water savings of 11 acre-feet. The conserved water will go to beneficial uses within the District's service area. It is expected that 68 residential customers would be able to replace their turf with water efficient landscaping.

In 2016, the District had more than 200 applications from residential customers for replacement of turf with more water efficient landscaping. Unfortunately, due to budget limitations the District was only able to fund projects for 22 customers.

2.0 RECLAMATION RELATIONSHIP

The federal project most likely affected would be the Central Valley Project (CVP) of California. By implementing this Landscape Water Use Efficiency Project demand on diversions from imports outside of the Antelope Valley could be reduced.

3.0 BACKGROUND DATA

PWD provides water services to the City of Palmdale and unincorporated areas in Los Angeles County. The water system currently includes seven main pressure zones. Within these zones, there are approximately 414 miles of pipelines ranging in diameter from 4 inches to 42 inches, 21 storage reservoirs with an approximate total storage capacity of 50 million gallons (MG), 17 booster pump stations, and 23 active groundwater wells.

The water system has 27,000 connections for the PWD service area with a population of 120,000.

The District serves a combination of residential, commercial, and industrial users, with essentially no agriculture. The District's current water delivery system provided approximately 23,000 acre-feet each year in 2013 and 2014.

Table 1 provides a water demand projection for the District's service area, based on a preliminary draft version of District's Water Master Plan, which is currently being updated. By 2040, demand is projected to be 31,100 acre-feet per year. A land use analysis indicates that demand will be 44,600 acre-feet per year under build-out conditions.

Figure 1 – General Location of the Palmdale Water District in Los Angeles County.



Table 1: Projected Water Demands for Palmdale Water District Service Area

Year	Annual Average Demand (AF/yr)
2015	24,809
2020	25,900
2030	28,500
2040	31,100
2050	33,873
2060	36,892
2070	40,181
2080	43,764
<i>Buildout</i>	<i>44,600</i>

4.0 PROJECT DESCRIPTION

4.1 Problems and Needs

California is now in its sixth consecutive year of a drought. In April 2014 Governor Edmund J. Brown's issued an emergency declaration requiring that all state agencies that distribute funding for projects that impact water resources, including groundwater resources, will require recipients of future financial assistance to have appropriate conservation and efficiency programs in place.

The District's existing water supply is acquired from a State Water Project allocation via the California Aqueduct, local surface water from Littlerock Reservoir, and groundwater. However, the groundwater basin has been in an overdraft condition (i.e., pumping greater than natural recharge) since approximately 1930. As a result, the groundwater basin adjudication process was completed in December 2015.

To determine the future water demands several assumptions were made as follows:

- from adjudication of the Antelope Valley Groundwater Basin the District would receive a groundwater right of 7,200 acre-feet/year beginning with an effective date of 2022.
- District would receive an average allocation of 58% of its 21,300 acre-feet /year Table A allocation from the State Water Project which would amount to 12,354 acre-feet/year; and
- 4,000 acre-feet/year of local surface water would be available in Littlerock Reservoir

Based on these assumptions future water supply deficits would likely occur during these time frames.

- a water supply deficit could start by 2021.

- by 2040, it is estimated that the deficit will reach approximately 7,500 acre-feet/year.
- by 2067, this deficit would reach approximately 15,600 acre-feet/year; and
- At build-out (2080) the deficit would reach 21,600 acre-feet/year.

In dry years, when the State Water Project allocation is less than 58% of Table A allocation, these deficits would be much larger without long-term water supply storage such as with groundwater banking.

4.2 How Project Addresses the Problem and Needs

4.2.1 Demand Management

This section describes the Demand Management Measures (DMM) that the District is currently implementing, and plans to implement in order to meet its urban water use reduction targets.

Recent legislation significantly revised the California Urban Water Management Plan (UWMP) Act to simplify and clarify the DMM reporting requirements for the 2015 UWMP cycle. Since the District is a member of the California Urban Water Conservation Council (CUWCC) it may continue to submit its annual reports as required by Section 6.2 of the Memorandum of Understanding Regarding Urban Water Conservation in California in order to comply with this section of the UWMP Act.

The District recognizes that conserving water is an integral component of a responsible water management strategy. The District has a uniquely low water use for a high desert area, located in the South Lahontan Hydrologic Region. Based on data reported in the 2010 UWMPs, the South Lahontan Hydrologic Region had a population-weighted baseline 5-year average water use of 258 gpcd with an average population-weighted 2020 target of 207 gpcd. With a 2015 gpcd of 124 gallons, the District's water use is significantly lower than the rest of the South Lahontan Hydrologic Region. The District has achieved its goals largely by focusing on system performance, rate increases and a community culture of conservation and small landscapes. It will maintain this level of demand, and possibly reduce demand even further, by continuing to implement the CUWCC Best Management Practices.

For the purposes of the District's UWMP the DMMs were categorized as "Foundational" and "Other." Foundational DMMs, listed below, are those DMMs that the UWMP Act and Water Code specifically mention for retail water suppliers such as PWD:

1. Water waste prevention ordinances

2. Metering
3. Conservation Pricing
4. Public Education and Outreach
5. Programs to assess and manage distribution system real loss
6. Water conservation program coordination and staff support

Activities outside of the Foundational DMMs that encourage less water use in the District's service area fall in the "Other" category.

4.2.2 Plan to Reduce Water Use

The District currently has a water conservation program and will continue to expand this program over the next five years. The District is dedicated to water conservation as a vital part of its water supply portfolio. The District has implemented water conservation programs over the last few decades, including classroom education programs, public outreach, and various rebate programs. The District will continue to provide these programs as part of its conservation efforts on a yearly basis.

4.2.3 Foundational DMMs

This section describes the District's plan to achieve the water use reductions necessary to meet the per capita water use targets, consistent with the California Water Conservation Act of 2009.

4.2.3.1 Water Waste Prevention Ordinances and Prohibition

In 2001 the District's Board of Directors adopted the Waste of Water Policy, which outlines actions to be taken by the District to prevent and address waste and unreasonable use of water, including penalties for violations. In December 2009, the Board of Directors adopted and approved Resolution No. 09-19 declaring water conservation regulations, with the intent to meet the water use reduction goals of 20 percent by 2020 and ensure adequate water supply for human consumption, sanitation, and fire protection.

4.2.3.2 Metering

The District is fully metered; all customers have metered accounts. The District is in the process of changing older and outdated meters with new efficient meters to ensure more accurate reading and data capture. This is considered a water conservation initiative, in addition to a financial best management practice.

4.2.3.3 *Conservation Pricing*

The District uses a tiered approach for water pricing. The most recent September 17th 2014 Proposition 218 process redistributed the old Tier 1 pricing into a new two-tier approach. Tier 1 now is a customer's Indoor allocation for use of all residential activities inside the home. Tier 2 is a customer's Outdoor water allocation. Pricing varies between the two Tiers. Tier 1 is the least expensive while Tier 2 water increases in price due to increased water usage for irrigation. Four (4) additional tiers remain, with the cost per unit increasing progressively at each tier.

4.2.3.4 *Public Education and Outreach*

The District has school education programs in place that provide educational materials and instructional assistance. This program is intended to reach the youngest water users and emphasize the need to engage them in water conservation.

To provide District customers with the tools to maintain water conservation goals, public education efforts have included, radio spots, TV public service announcements, bill inserts, newsletters, press releases, rebate programs including Cash 4 Grass and some indoor high efficiency appliances, booths at local events, parades, public speaking engagements, and school interaction. The District is committed to providing its customers with the education and tools to maintain their low use, all of which can be found on the District's website at: <http://www.palmdalewater.org/conservation/> .

4.2.3.5 *Programs to assess and manage distribution system real loss*

The District regularly checks and evaluates the mainline piping system to detect leaks.

4.2.3.6 *Water conservation program coordination and staffing support*

Water conservation activities include significant public outreach efforts as described earlier. In addition, there are two full-time conservation staff members with a moderate budget.

4.2.4 Other DMMs

4.2.4.1 *Rebate Programs*

The District started several rebate programs for customers in the later part of 2009. The District began to give customers rebates as credits on their water bills if they

filled out an application after buying the rebated product and returning the original receipt and a copy of the water bill to the District. The District implements a number of different rebate programs to encourage water conservation:

1. High Efficiency Toilet (HET) Rebate Program: The District started an HET rebate program in 2009 for residential and commercial customers. The rebate amount for this program is a credit on their water bill of \$60.00 per toilet installed. If a customer replaces an Ultra-Low-Flush toilet (ULFT) with an HET, the rebate amount will consist of \$30.00.
2. High Efficiency Washing Machines Rebate Program: The District currently has a washing machine rebate program for its customers who wish to purchase a water efficient washing machine with a water factor of 5.0 or less. The rebate amount for this program is a credit on the customer's account of \$100.00 per washer bought.
3. Cash for Grass: The District has been working with the City of Palmdale, the local high school, local elementary schools, and residential customers to substitute grass on large landscape areas by implementing the cash for grass program. This program encourages the replacement of grass with "water-smart" landscaping to conserve water.

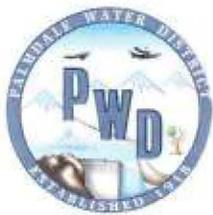
Rebate programs were previously available for sprinkler devices and systems, but the District is moving away from incentivizing any outdoor irrigation and no longer offers those programs.

4.3 Identify the expected outcomes

The District will continue to implement the DMMs described in this section. These programs, taken together, will help the District to maintain progress on meeting the 20x2020 water use targets through the continuation of existing methods of conservation that have been proven successful to date.

Using 2016 as a benchmark, the District provided funds to 22 residential customers to replace 24,000 square feet of turf. This represents an average of 1,100 square feet per residential landowner. For 2017, with the District's budget of \$75,000 plus \$75,000 from the WaterSMART program, a total of \$150,000 would be available for turf replacement. Assuming \$2.00 per square foot, a total of 75,000 square feet could be replaced. Using the 2016 numbers of 1,100 square feet per residential home owner, a total 68 customers could be funded to replace their turf.

On the following page, the procedure used by the District is presented.



PALMDALE WATER DISTRICT Turf Replacement Program

Palmdale Water District is offering owners a cash rebate of up to \$3,000.00 per household, for demonstrating consistent water conservation savings. This rebate is ONLY to be used to replace outdoor turf for front or back yards, with water-wise landscaping, regardless of your yard condition. Water savings will be determined by calculating the average of the highest water usage months from the years 2013-2014 (June-October) as compared to the average desired reduction found from the same months in the year 2015. The calculations of rebates are as follows:

Rebate amounts will be calculated by how much the household has conserved to determine the amount per square foot the applicant will receive. For example:

- ❖ 10-19.9% savings = \$0.50 per square foot.
- ❖ 20-29.9% savings = \$1.00 per square foot.
- ❖ 30-39.9% savings = \$1.50 per square foot.
- ❖ 40% and above = \$2.00 per square foot (maximum capped rebate of \$3,000.00 per household).

Once PWD has received the application, a representative will visit and conduct a property inspection to measure the turf area. No appointments are necessary unless the property is gated or locked off from access. An application approval letter will be sent to you by mail. Once you have received the approval letter please sign and return the letter within 10 business days to continue your participation in the Cash for Grass Program. Please keep in mind that Funding is limited. Applications will be processed on a first come first serve basis. There are no waiting lists and PWD will not consider incomplete applications. For more information about the Cash for Grass Program or questions about terms and conditions, please call Palmdale Water District's Water Conservation line at (661) 456-1099.

5.0 ENVIRONMENTAL AND CULTURAL RESOURCES COMPLIANCE

None affected

6.0 REQUIRED PERMITS OR APPROVALS

None required

7.0 PROJECT BUDGET

The Palmdale Water District will contribute cash of \$75,000 for the project. The project would help meet the District's water conservation goals as mandated by the State of California.

Table 1 Summary of Non-Federal and Federal Funding Sources

Funding Sources	Amount
Non-Federal	
1. Palmdale Water District (Cash)	\$75,000
Non-Federal Total	\$75,000
Other Federal Entities	
Other Federal Entities	\$ 0
Requested Reclamation Funding	\$75,000

7.1 Budget Proposal

Table 2.—Sample Budget Proposal Format

BUDGET ITEM DESCRIPTION	COMPUTATION		Quantity Type	TOTAL COST
	\$/Unit	Quantity		
Salaries and Wages				
Employee 1	Not applicable			\$ 0
Fringe Benefits				
Full-Time Employees	Not applicable			\$ 0
Equipment				
Item A	Not applicable			\$ 0
Supplies and Materials				
Item A	Not applicable			\$ 0
Contractual/Construction				
Estimate of 68 home owners	\$ 2 per square foot	75,000	Sq. Ft.	\$150,000
Other				
Other				\$
TOTAL DIRECT COSTS				\$150,000
Indirect Costs				
Type of rate	Not applicable			\$ 0
TOTAL ESTIMATED PROJECT COSTS				\$150,000

7.2 Budget Narrative

7.2.1 Salaries and Wages

Answer: Not applicable

7.2.2 Fringe Benefits

Answer: Not applicable

7.2.3 Travel

Answer: Not applicable

7.2.4 Equipment

Answer: Not applicable

7.2.5 Materials and Supplies

Answer: Not applicable

7.2.6 Contractual

Answer: Each home owner will be required to fill out an application as presented in Section 4 of this WaterSMART application. Each homeowner will be reimbursed based on the square footage of turf replacement and the present condition of the lawn. The following guidelines are used to determine the amount of reimbursement.

Scale of Rebate Amount

- (A) \$2.00 SF, healthiest grass
- (B) \$1.50 SF, green-slight yellow spot
- (C) \$1.00 SF, green/yellow spot
- (D) \$0.50 SF yellow living grass
- (E) \$ none dead grass

7.2.7 Environmental and Regulatory Compliance Costs

Answer: Not applicable

7.2.8 Other Expenses

Answer: Not applicable

7.2.9 Indirect Costs

Answer: Not applicable

7.2.10 Total Costs

Answer: \$150,000

8.0 EVALUATION CRITERIA

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

Does the proposed project implement a goal or address a need or problem identified in the existing planning effort?

Answer: The proposed Landscape Water Efficiency Project would meet the turf replacement component of the District's water demand reduction program as described in Section 4 of this WaterSMART application

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

Answer: In 2009 the State of California passed the California Water Conservation Act of 2009 that directed water agencies to meet reductions in per capita water use targets. In December 2009, the Board of Directors adopted and approved Resolution No. 09-19 declaring water conservation regulations, with the intent to meet the water use reduction goals of 20 percent by 2020 and ensure adequate water supply for human consumption, sanitation, and fire protection. This Landscape Water Efficiency Project is part of the effort by the District to reduce per capita water use in its service area.

8.2 Evaluation Criterion B—Project Benefits (35 points)

What are the benefits to the applicant's water supply delivery system?

Answer: Benefits include less water deliveries through the District's water treatment plant, reduce requirements for pumping energy and overall increase in water efficiency.

Extent to which the proposed project improves overall water supply reliability

Answer: Benefits include stretching existing supplies to meet future water demands and improving overall water supply reliability.

The expected scope of positive impact from the proposed project (e.g., local, sub-basin, basin)

Answer: Project would benefit the Antelope Valley of Los Angeles County. The area has a population of 400,000 with an annual rainfall of only 6 inches per year. Therefore, water conserving activities are critical to the growth of the region.

Extent to which the proposed project will increase collaboration and information sharing among water managers in the region

Answer: No direct collaboration is needed to carry out this Landscape Water Use Efficiency Project. However, the District does meet frequently other water agencies and water conservation is frequently a topic of discussion. The opportunity to inform other agencies of the District's success will most certainly take place.

Any anticipated positive impacts/benefits to local sectors and economies (e.g., agriculture, environment, recreation, tourism)

Answer: The project would provide increased water supply to an area with very limited water supplies. Increased water supply would most directly affect the economy of the area. The area has been designated as an economically distressed area by the State of California. A more reliable water supply would attract new business.

8.3 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.

Answer: Project would extend from January 1, 2017 to December 31, 2017 which corresponds to the District calendar year budget. Applicants are free to apply for the turf replacement program at any point during that time frame.

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

Answer: None required

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

Answer: None required

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

Answer: None required.

8.4 Evaluation Criterion D—Nexus to Reclamation (15 points)

How is the proposed project connected to a Reclamation project or activity?

Answer: Project would contribute indirectly to the Central Valley Project in that it would reduce demands on transbasin diversions from California's Central Valley.

Will the project help Reclamation meet trust responsibilities to any tribe(s)?

Answer: No.

Does the applicant receive Reclamation project water?

Answer: No.

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

Answer: No.

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

Answer: No.

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

Answer: Project would contribute indirectly to the Central Valley Project in that it would reduce demands on transbasin diversions from California's Central Valley.

9.0 OFFICIAL RESOLUTION

The Board of Directors approved a resolution on January 11, 2017. See resolution on next page.

**RESOLUTION No. 17-3
A RESOLUTION OF THE BOARD OF DIRECTORS
OF THE PALMDALE WATER DISTRICT
APPROVING THE DISTRICT'S GRANT APPLICATION FOR A
LANDSCAPE WATER USE EFFICIENCY PROJECT FOR
THE U.S. BUREAU OF RECLAMATION'S
WATERSMART GRANTS SMALL SCALE WATER EFFICIENCY
PROJECTS FOR FISCAL YEAR 2017**

WHEREAS, the United States Department of Interior, Bureau of Reclamation (the "Bureau") has established the WaterSMART: Small-Scale Water Efficiency Projects Program for 2017 (the "WaterSMART Program") to provide funding opportunities for entities seeking new water supplies using water efficiency technology;

WHEREAS, the Palmdale Water District has need for funding to complete a Landscape Water Use Efficiency Project to meet future municipal and industrial water needs;

WHEREAS, the WaterSMART Program requires at least 50 percent non-Federal cost share funding and/or in-kind contribution from applicants and the Board finds the District has the capability of funding its required share of the Project under its current Budget for 2017.

NOW THEREFORE, THE BOARD OF DIRECTORS OF THE PALMDALE WATER DISTRICT DOES HEREBY RESOLVE AS FOLLOWS:

SECTION 1. Funding for the Landscape Water Use Efficiency Project (the "Project") under the WaterSMART Grant Program meets the objectives of Strategic Initiative # 1 – Water Resource Reliability.

SECTION 2. If selected for a WaterSMART Grant, up to 50% (\$75,000) of the total project costs of \$150,000 through monetary contribution shall be committed for funding the District's proportionate share of the Project, as may be required by the Bureau of Reclamation under the WaterSMART Grant Program, and the District will work with the Bureau to meet established deadlines for entering into an agreement to commit such funds.

PASSED, APPROVED AND ADOPTED THIS 11th day of January 2017.



Robert Alvarado, President
Board of Directors
Palmdale Water District



Vincent Dino, Vice President
Board of Directors
Palmdale Water District



Aleshire & Wynder, LLP
District Legal Counsel