



Legislation Text

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SUBJECT: Department of Water Resources Proposition 1 Grant Awarded to the Merced Integrated Regional Water Management Authority, Which Includes a City of Merced Project for Surface Water Irrigation to Parks and Weather Based Irrigation Controllers

REPORT IN BRIEF

The Merced Integrated Regional Water Management Authority (MIRWMA) has agreed to accept on behalf of its member agencies a Department of Water Resources Proposition 1 Grant which includes a City of Merced project for Surface Water Irrigation to Parks and Weather Based Irrigation Controllers.

RECOMMENDATION

For Information Only.

AUTHORITY

Charter of the City of Merced, Section 200.

DISCUSSION

Proposition 1 Grant

Proposition 1 authorized \$510 Million in Integrated Regional Water Management (IRWM) grant funds for agencies throughout the State. The City of Merced (City) entered into a Joint Powers Agreement in May 2016 to form the Merced Integrated Regional Water Management Authority (MIRWMA). As a member agency of MIRWMA, the City is part of the San Joaquin River Funding Area which was allocated \$34 Million. Within the funding area, the IRWM Regions agreed to "Pre-Allocate" the \$34 million ensuring that each area received funding. The MIRWMA negotiated for \$3,007,883 worth of pre-allocated funding; this amount is consistent with past IRWM grant awards to the region. Currently we are in Round 1 of Proposition 1 funding, with at least two rounds anticipated.

On October 23, 2019, MIRWMA authorized via Resolution No. 2019-3 (attached) the execution and submission of a grant application to the Department of Water Resources (DWR) for the 2018 IRWM grant funding and authorized the Merced Irrigation District (MID) to administer the submission and implementation of the grant. MIRWMA submitted five projects for Round 1, including the Surface Water Irrigation to Parks & Weather Based Irrigation Controllers project specific to the City of Merced. The grant award totaled approximately \$2.33 million, with \$346,425 allocated to the City of Merced project.

Round 1 Projects:

Project Title	LPS	(a)	(b)	(c)	(d)
		Cost Share: N State Fund Source(s)	Requested Grant Amount	Other Cost Share	Total Cost
Park Irrigation with Surface Water	City of Livingston	\$187,381	\$172,619	\$0	\$360,000
Le Grand Canal near Black Rascal	MID	\$0	\$1,318,617	\$56,383	\$1,375,000
Merced LIDAR and Real Time Flood Control Modeling	MID	\$0	\$239,749	\$39,468	\$279,217
Rice Field Pilot Study Monitoring Well	MID	\$0	\$239,749	\$27,861	\$267,610
Surface Water Irrigation to Parks & Weather Based Irrigation Controllers	City of Merced	\$0	\$335,648	\$10,777	\$346,425
Grant Administration	MID	\$0	\$27,153	\$4	\$27,157
Proposed Total		\$187,381	\$2,333,535	\$134,493	\$2,655,413

At the time of the application, the grant match requirement was requested to be waived due to the Disadvantaged Community (DAC) designation. DWR had previously waived cost shares due to the DAC designation and it was assumed that this waiver would be afforded going forward. However, at the time of the award, MIRWMA was notified that the DAC designation would not be applied to this; therefore, each project has a minimal cost share.

The City’s total project cost is \$346,425, with a minimal in-kind cost share of \$10,777 (3%). The City expects to achieve the in-kind cost share in labor for engineering, design, and implementation of the project. As the administrator of the grant, MID will execute an agreement with DWR. The City of Merced will submit all invoices and requests for reimbursements directly to MID for submittal to DWR. Once the grant agreement is signed by MID and DWR, staff will bring a separate item back to Council authorizing the submission of invoices and accepting reimbursements from MID.

Surface Water Irrigation to Parks & Weather Based Irrigation Controllers

The City’s Surface Water Irrigation to Parks and Weather Based Irrigation Controllers project has two parts. The first part would take two City parks off municipal groundwater as their primary source of water and replace irrigation with surface water from MID. The City would work through a conjunctive use agreement with MID utilizing both City recycled water and MID surface water. Initially it would be somewhat of a pilot project and could be expanded in the future to other City parks as a water exchange/conjunctive use program.

The parks chosen (Joe Herb and the Sports Complex) were based on their proximity to existing MID infrastructure. Using surface water in lieu of groundwater, the City’s drinking water source, will offset 128 AFY (acre-feet per year) of groundwater that will remain in the Merced Groundwater Basin. Project implementation will include construction and installation of the system infrastructure to convey surface water from MID to the existing irrigation systems at the parks.

The second part of the project is for the purchase and installation of weather-based irrigation controllers with web interface for parks irrigation systems. The City currently uses Toro Sentinel Controllers, a weather-based irrigation controller, for some parks. The City began to use these controllers in 2011 and currently has about 100 units in the parks and maintenance districts. This powerful, yet simple-to-use controller software is ideal for large users such as cities as it allows a

user to control up to 999 field stations from a remote location with a desktop or laptop computer. The project will add 27 more units. The controllers can remotely shut off water, change irrigation times, days, and set alarms for stations if malfunctions occur such as power outages or extreme flows. Having this type of controller reduces manual labor and travel time from controller to controller and most importantly aids in water efficiency as the controller automatically adjusts for changes in weather. Implementation activities include making improvements to the irrigation systems to avoid water loss from malfunctioning valves, timers, sprinklers, and irrigation lines, and installing more weather-based irrigation controllers at parks.

The City is in a critically over-drafted groundwater basin. Any water savings directly supports efforts needed under the Sustainable Groundwater Management Act (SGMA). The project alternative would be for the City to continue using municipal groundwater for irrigation. Once the project is complete, the cost of water saved is estimated to be \$30,000 annually. This project was selected because its high conjunctive use potential between the City of Merced and MID, and thus helping to sustain Merced’s groundwater supply of potable water for potable uses (rather than irrigation).

Below is the breakdown of the City’s project budget:

Project Budget				
Proposal Title: Merced Region Prop 1 Round 1 IRWM Implementation Grant Proposal				
Project Title: Surface Water Irrigation to Parks & Weather Based Irrigation Controllers				
Category		Grant Amount	Other Cost Share	Total Cost
(a)	Project Administration	\$0	\$10,335	\$10,335
	Task 1 - Project Management	\$0	\$7,254	\$7,254
	Task 2 - Reporting	\$0	\$3,081	\$3,081
(b)	Land Purchase/Easement	\$0	\$0	\$0
	Task 3 - Land Purchase	N/A	N/A	N/A
(c)	Planning/Design/Engineering	\$8,187	\$442	\$8,629
	Task 4 - Feasibility Studies	N/A	N/A	N/A
	Task 5 - CEQA Documents	N/A	N/A	N/A
	Task 6 - Permitting	\$0	\$200	\$200
	Task 7 - Design	\$3,379	\$0	\$3,379
	Task 8 - Project Performance	\$4,809	\$242	\$5,051
(d)	Construction/Implementation	\$327,461	\$0	\$327,461
	Task 9 - Contract Services	\$1,622	\$0	\$1,622
	Task 10 - Construction Activities	\$1,067	\$0	\$1,067
	Task 11 - Construction/Installation	\$324,772	\$0	\$324,772
(e)	Grand Total	\$335,648	\$10,777	\$346,425
Note that numbers may not add due to rounding.				

History and Past Actions

At the May 2, 2016, meeting, Council approved the Joint Powers Agreement (JPA) with the County of Merced, City of Atwater, City of Livingston, Merced Irrigation District, and Stevinson Water District establishing the Merced Integrated Regional Water Management Authority (MIRWMA).

IMPACT ON CITY RESOURCES

The City will document and charge against the grant cost share requirement with in-kind staff time and labor used on this project from Engineering, IT, Water, and Parks personnel.

Each park pays for its water use which can be quite costly. The long-term use of surface water will allow for minimal use of City's municipal water except for domestic purposes providing an on-going long-term savings to parks.

ATTACHMENTS

1. Merced Integrated Regional Water Management Authority Joint Powers Agreement
2. Award Notification for Round 1 Proposition 1 IRWM Implementation Grant
3. Correspondence and MIRWMA Resolution No. 2019-3
4. Grant Agreement Template