

**LAKE DON PEDRO COMMUNITY SERVICES DISTRICT  
2015 IRWM Implementation Grant Proposal**

**PROGRAM PREFERENCES**

Projects in this Proposal have multiple benefits that address the goal of the Human Right to Water Policy and meet the IRWM Program Preferences as described below. This Proposal also benefits DACs and meets DWRs definition of addressing a critical water supply or water quality need of a DAC as summarized below and described in further detail in Attachment 7.

**The Human Right to Water Policy**

The Proposal addresses the goal of furthering the Human Right to Water Policy by improving infrastructure needed to ensure an adequate drinking water supply

- Improving infrastructure needed to ensure an adequate drinking water supply
- Improving the affordability of drinking water delivered to disadvantaged areas

The projects in this proposal further the Human Right to Water in multiple ways. All three projects, the Drought Emergency Groundwater Supply Wells Project, the Regional Water Use Efficiency Program, and the Service Line Replacement Project improve the affordability of drinking water delivered to disadvantaged areas. A large portion of the Yosemite-Mariposa Integrated Regional Water Management Plan region is disadvantaged, and the specific disadvantaged communities within the proposal service area, include Lake Don Pedro Community Services District (LDPCSD), Mariposa, Midpines, Cathey’s Valley, Coulterville and Greeley Hill.

The Drought Emergency Groundwater Supply Wells Project and the Service Line Replacement Project both will provide and improve the infrastructure needed to ensure adequate drinking water supply. The Drought Emergency Groundwater Supply Well Project will provide groundwater as a drinking water source and the Service Line Replacement Project will minimize water distribution system losses. These two projects will help to avoid the need for LDPCSD to truck in water from Lake McClure to the LDPCSD water treatment plant at a cost of about \$28,555 per truck per month which supplies enough water to meet 5% of the LDPCSD winter water demand (Binkley Associates, Inc. 2014). Therefore, the Drought Emergency Groundwater Supply Well Project and the Service Line Replacement Project will provide LDPCSD with a more affordable and reliable long-term water supply.

The water conserved by the Regional Water Use Efficiency Program enhances the water supply reliability of the LDPCSD and Mariposa County and gives customers the means to reduce water use and thereby reduce their water bills – improving water affordability.

**Project 1. Drought Emergency Groundwater Supply Wells**

**EFFECTIVELY RESOLVE SIGNIFICANT WATER-RELATED CONFLICTS WITHIN OR BETWEEN REGIONS**

The multi-year, statewide drought has reduced the availability of water which has increased competition for water supplies across Mariposa County and Tuolumne County, where the LDPCSD is located, and in the downstream San Joaquin Valley. Many small, community water systems within the Yosemite-Mariposa Region had adequate access to water supply until this year, when competition for limited water supplies coupled with record low snowfall put the largest reservoir, Lake McClure on the brink of reaching deadpool and making water unavailable for municipal, agricultural, or environmental uses. This project will supply 70% of LDPCSD’s water supply in dry years by using groundwater, making surface water from Lake McClure available for release to downstream users and fish habitat.

**STATEWIDE PRIORITIES**

This Project addresses the following Statewide Priorities:

- Drought preparedness: This project improves supply reliability by providing a reliable groundwater supply.
- Expand environmental stewardship: This project will make surface water available for additional instream fishery flows in the Merced River.
- Ensure equitable distribution of benefits: This project will ensure that the DAC within LDPCSD has an affordable and reliable source of water.

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## BREADTH AND MAGNITUDE OF PROGRAM PREFERENCE AND STATEWIDE PRIORITIES ACHIEVED

For the above preference and statewide priorities, the level of certainty for meeting these preferences is high since this project is a groundwater well project, which is a type of project that is commonly implemented and well-documented. The project will benefit all of LDPCSD directly, and will also contribute to resolving the larger Yosemite-Mariposa Region's water supply issues.

### Project 2. Regional Water Use Efficiency Program

#### INCLUDE REGIONAL PROJECTS/PROGRAMS

The Regional Water Use Efficiency Program is broad-reaching and will result in water savings in the service areas of LDPCSD and Mariposa County as a whole. The program will initially focus on the District's service area, and later expand to the remainder of Mariposa County.

#### EFFECTIVELY RESOLVE SIGNIFICANT WATER-RELATED CONFLICTS WITHIN OR BETWEEN REGIONS

The ongoing drought has drastically decreased the Region's water supply, including within the Program area. Mandatory conservation and overuse penalties may occur in the near future. By reducing water demand, this Program relieves local water supply pressure and eases potential conflicts over limited local water supplies.

#### STATEWIDE PRIORITIES

This Project addresses the following Statewide Priorities:

- Drought preparedness: This Program directly addresses drought preparedness by achieving an immediate, yet long-term reduction in water use, by up to 36 acre-feet per year (AFY), which enhances water supply reliability and the ability to meet demands during drought conditions.
- Use and reuse water more efficiently: This Program directly focuses on increased water use efficiency by providing free indoor water saving devices and rebates for high-efficiency toilets and laundry to landscape (graywater) irrigation kits
- Climate change response actions: Reducing indoor and outdoor water demands will improve local water supply reliability, which is threatened by more severe and frequent droughts given climate change. Demand reductions also result in reduced energy consumption and greenhouse gas emissions related to water production and transport.
- Expand environmental stewardship: Improving outdoor water use efficiency and reducing irrigation runoff helps improve regional watershed health. Additionally, the education and outreach component will promote environmental stewardship by local residents. Moreover this Program will make additional water available for instream fishery flows in the Merced River.
- Protect surface water and groundwater quality: Urban runoff from irrigation impacts water quality by transporting and concentrating pollutants. Reducing irrigation demands and the resultant runoff volume can help protect water quality.
- Ensure equitable distribution of benefits: By reducing water demands, water supplies can be freed up to improve reliability of access to safe, clean, affordable water for all. Furthermore, prior to this Program the portion of LDPCSD in Mariposa County did not have access to water use efficiency programs such as conservation rebates; this Program will benefit all customers of LDPCSD, as well as Mariposa County.

## BREADTH AND MAGNITUDE OF PROGRAM PREFERENCES AND STATEWIDE PRIORITIES ACHIEVED

The certainty of achieving the above preferences is high assuming funding is made available for implementation. Water savings achieved by implementing programs similar to the Regional Water Use Efficiency Program are well documented. The project will benefit all of LDPCSD and Mariposa County directly, and will also contribute to resolving the larger Yosemite-Mariposa Region's water supply issues.

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### **Project 3. Service Line Replacement Project**

#### **EFFECTIVELY RESOLVE SIGNIFICANT WATER-RELATED CONFLICTS WITHIN OR BETWEEN REGIONS**

The multi-year, statewide drought has reduced the availability of an increased competition for water supplies across Mariposa County and Tuolumne County, where the LDPCSD is located, and in the downstream San Joaquin Valley. Many small, community water systems within the Yosemite-Mariposa Region had adequate access to water supply until this year, when competition for limited water supplies coupled with record low snowfall put the largest reservoir, Lake McClure on the brink of reaching deadpool and making water unavailable for municipal, agricultural, or environmental uses. This project will significantly reduce distribution system leakage and therefore improve water supply reliability for LDPCSD service area, thereby contributing to resolving the significant water-related conflicts in the Yosemite-Mariposa Region.

#### **STATEWIDE PRIORITIES**

This Project addresses the following Statewide Priorities:

- Drought preparedness: This project improves supply reliability by reducing distribution system inefficiencies and replacing leaking service lines for the entire LDPCSD, saving an estimated 69 AFY.
- Use and reuse water more efficiently: This project replaces LDPCSD's active service lines, which are severely leaking and at the end of their life. This project will save an estimated 69 AFY, thereby increasing local water supply reliability.
- Climate change response actions: Improving local water supply reliability is crucial in preparing for and adapting to climate change. The project will enable LDPCSD to reduce its water demand, thereby reducing the amount of water that would need to be pumped from Lake McClure or groundwater and treated, saving energy and reducing greenhouse gas emissions.
- Expand environmental stewardship: The project will make additional instream flows available in the Merced River.
- Ensure equitable distribution of benefits: This project will ensure that the DAC within LDPCSD has an affordable and reliable source of water. By reducing water demands, water supplies can be freed up to improve reliability of access to safe, clean, affordable water for all. This project will help avoid the need for pumping in water at an exorbitant cost to the community.

#### **BREADTH AND MAGNITUDE OF PROGRAM PREFERENCE AND STATEWIDE PRIORITIES ACHIEVED**

There have been multiple studies documenting the feasibility and effectiveness of this type of project. The certainty of achieving the above preferences is high assuming funding is made available for implementation. The project will benefit all of LDPCSD directly, and will also contribute to resolving the larger Yosemite-Mariposa Region's water supply issues.