Tuolumne Stanislaus IRWM - Project Worksheet

Name of Project: Regional Water Conservation, Education and Rebate Program

Project Proponent: Tuolumne County Resource Conservation District

Project Contact: Lindsay Mattos

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Project Location: (Include County(ies), City(ies), and Latitude and Longitude if applicable.)

Region-wide: All of Tuolumne County including the City of Sonora, the Stanislaus River watershed along Highway 4 and the Copperopolis area in Calaveras County including the City of Angels.

Watershed(s) where project will be located:

Upper Tuolumne and Stanislaus River and Little John Creek Watersheds.

Theme: (Give a one or two sentence sales pitch for your project.)

This project builds on the existing water conservation programs developed by the water providers in the region by significantly expanding the scope of those conservation efforts and integrating a regional one-on-one approach to individual residents and business owners.

Brief Project Description: (Insert a summary description including goals and objectives.)

This project would provide a suite of program elements that will promote high-efficiency technologies and best water conservation practices that improve indoor and outdoor water use efficiency throughout the Upper Tuolumne and Stanislaus watersheds, and provide cash rebates to residents and businesses that implement various water saving practices including installation of rain barrels, rain gardens, high efficiency toilets, urinals and washers, and laundry to landscape irrigation.

The primary goal is to expand and coordinate existing water conservation education and rebate programs offered by the various water providers, PG&E and others by hiring a part-time Regional Water Conservation Coordinator to work with the various water providers, local jurisdictions, residents, and business owners. Four specific program elements are proposed that will provide quantifiable and sustainable water savings including: 1) Regional Water Conservation coordination, 2) A regional program of Water Conservation Education and Outreach including workshops and use of infographics, flyers, PSA's, door hangers and tent cards for restaurants and hotels, bill stuffers, web site widgets, multi-media, etc., 3) a coordinated and integrated rebate program including cash rebates for residential and commercial/industrial High-Efficiency Toilets and Urinals, High Efficiency-Washers, Rain Barrel rainwater harvesters, rain gardens, weather based smart irrigation devices, laundry to landscape irrigation systems; and commercial kitchen pre-rinse sprayers; and 4) A Housecall program of providing free water use evaluations, water saving devices and leak detection tablets to households including those that do not qualify for DAC assistance.

The project will ensure that the same story is being told region-wide, that the same level of rebates are available for all within the region, and that there is a centralized location that residents and business owners can contact regarding water conservation programs. The IRWM

Region will become a full partner with the DWR/ACWA Save our Water program and the EPA Water Sense program and utilize standardized materials and branding.

The key deliverables of the project will be:

1. A series of conservation workshops to be held in various locations throughout the entire region;
2. A locally relevant published version of the "Slow It, Spread It, Sink It" Educational materials for household stormwater management developed by The Santa Cruz and Southern Sonoma County RCD's';
3. A regional IRWM Water Conservation Web site and Water Conservation Phone Hotline;
4. Various newspaper articles, advertisements, and brochures related to water conservation available to the public and on the website;
5. A "storefront" for a Water Conservation office in downtown Sonora where residents and business owners from throughout the region can come to learn about water conservation projects. (The office is in a heavily traveled tourist area as well)
6. Provision of free leak detection tablets, showerheads, and aerators.
7. Possible provision of free water-wise housecalls for residents that would include home water-use survey that helps identify opportunities where they can conserve, and installation of free showerheads and aerators.
8. Provision of free conservation door hangers or table cards for every motel room in the Region;
9. Comprehensive Rebate Program for residential and commercial installation of various water saving BMP's and appliances.

Project Benefits: (Brief descriptions of the various benefits your project will have. All categories may not be applicable.)

Water Supply and Distribution: (*Benefits include avoided water supply purchase costs, including those for environmental purposes, avoided costs of water supply projects, avoided water shortage costs, avoided operations and maintenance costs, or water revenue from water sales to another purveyor or third party.*)

Overall this project will save approximately 10,000,000 gallons per year or 430 Acre-feet of water over the life of the project – which is about ½ the capacity of Phoenix Lake Reservoir.

The rain barrel/cistern and rain garden programs will effectively address long-term drought preparedness by promoting water reuse through rainwater harvesting, which will reduce overall potable demand and contribute to sustainable water supply and reliability during water shortages.

The old inefficient toilets currently use between 2.22 and 3.72 gallons per flush (gpf) more than high efficiency toilers (HET). The old urinals use between 1.0 and 4.5 gpf more than high efficiency urinals (HEU). Regular washers require nearly double the volume of water per load compared to high efficiency washers. The increased use of water for flushing toilets and urinals and washing clothes generates more wastewater flows to the wastewater treatment plants and private on-site waste water treatment (septic tanks) and ultimately the surface and ground waters of the Region.

The high-efficiency toilet fixtures, washing machines, showerheads, and other water saving devices will reduce indoor water use, and therefore lower the volume of wastewater discharges to WWTPs and private on-site waste water treatment (septic tanks) and the surface and groundwater waters of the Region. This volumetric reduction

will result in avoided wastewater treatment costs and increase the longevity of on-site systems .

Water Quality: (Benefits may include, reduced costs of protecting, restoring, or enhancing beneficial uses, avoided water quality project costs; avoided water treatment costs; avoided wastewater treatment costs; and water supply benefits caused by water quality improvements (if not already captured as a water supply benefit), and willingness to pay for water quality improvements for drinking water, impaired water bodies and sensitive habitats.)

Without the Water-Efficient Landscape Education and Water-Efficient Landscape Rebate Programs, water providers and private wells will continue to provide the same volumes of water for landscape irrigation. Without these improvements, landscape irrigation systems will continue to use approximately 1.2 million gallons more water annually. This additional water use will increase the amount irrigation-based runoff. Runoff from over-watering landscapes currently runs into roadways and eventually into local surface waters. The runoff contains fertilizers and pesticides that have been applied to the landscapes, along with other pollutants including salts, pathogens, and fecal coliforms. The runoff eventually drains to the San Joaquin River and San Francisco Bay-Delta. Reductions in dry weather runoff pollution will result from water efficient landscaping, and irrigation equipment installation.

Ecosystem Improvement: (Ecosystem improvement includes habitat restoration, protection, or preservation, and enhancement of native fish and wildlife enhancement. Benefits measures for ecosystem improvement could include avoided costs, alternative cost of the same habitat improvement, and willingness to pay for recreation, aesthetics, or special-status species.)

Recreation and Public Access: (Recreation and public access benefits should be documented on a with-and-without-project basis. With- and without-project conditions could include the types and quality of recreational activities, amount of use such as visitor days in each activity, and value per unit of use such as unit day values.)

Power Cost Savings and Power Production: (Power cost savings and power production benefits should be based on market value of power. Document the quantity and the unit value of the power saved or produced. Include information on when the savings or production would occur (time of year, time of day), change in capacity, or other factors that influence the cost savings or production benefit.)

Installation of water efficient fixtures and appliances will lead directly to a lower volume of water needing to be pumped and/or heated and therefore a decrease in the amount of power necessary to pump and heat that water. Power consumption for these tasks will likely decrease between 20% and 50% depending on the type of fixture or appliance being replaced.

Other: (In general, cost savings or willingness to pay for goods and services.)

Cost and Schedule:

All Anticipated Project Costs:

Labor	$	604,120.00
Expenses	$	119,860.00
Materials (Rebate Program)	$	459,000.00
TOTAL PROJECT COST	**$**	**1,182,980.00**
Match	$	237,000.00
Grant Request	$	945,980.00

Potential Sources of Project Funding: *(Including internal funding.)* TCRCD Administrative funds, DWR Grant Funding, Local Match, Possible leveraging of this program to acquire additional grant funds from other sources.

Potential Sources of Local Match: (Local match requirement for Proposition 84 IRWM Grant Program is 25% unless project qualifies for a Disadvantaged Communities Waiver.)

RCD Director Time, Existing Water Agency Water Conservation Programs, Public Participant expenditures associated with purchase of water efficient appliances and devices. Match is expected to be approximately 20% primarily from rebate participants.

Earliest Start Date: June 1, 2014

Project Schedule: (Please include a start and completion date for each project stage.)

Conceptual: Complete

Planning: June 1, 2014 through June 2015

Environmental : *(CEQA/NEPA)* Not APPLICABLE. This project is not a "Project" pursuant to CEQA and therefore no environmental review is required.

Permitting: NOT APPLICABLE

Design: NOT APPLICABLE

Construction/Implementation: Throughout entire project life

Project Timing and Phasing: (If the proposed project(s) is part of a multi-phased project complex, provide a description that demonstrates that the proposal can operate on a standalone basis, i.e., can be fully functional without implementation of the subsequent projects.)

This project is ready to implement upon funding and is not part of a multi-phased project.

Completed Work: (A description of the work that has been completed or is expected to be completed prior to the grant award date. For example, if CEQA/NEPA and other environmental compliance efforts have been completed discuss the environmental determination made by the lead agency and the documents that were filed.)

Initial program design, program research and resource contacts have been completed.

Please check each objective, priority, or preference that the proposed project meets. Descriptions will be detailed in the "Purpose and Need" section that follows.

T-S IRWM Primary Objectives:

X_ Improve water supply sources and/or distribution within DAC and urban areas that have declining water quantity/quality or other water system reliability issues (e.g. fire-flow, contamination, etc.)

X_ Reduce the negative impacts of storm water, urban runoff, and nuisance water.

_ Reduce contamination in groundwater, natural streams, raw water conveyance systems, and reservoirs.

_ Improve infrastructure: to meet wastewater discharge or disposal requirements and deliver drinking water that meets drinking water standards and customer expectations.

_ Improve watershed health in support of increased water yield and ecosystem function.

_ Improve the condition and ecosystem function of meadows.

_ Assist in the protection and recovery of sensitive, special status, threatened, culturally sensitive, and endangered native aquatic and other water dependent species in the region.

_ Identify, preserve and promote the regeneration and restoration of wetlands, vernal pools, and native plant riparian habitat; and reduce invasive species.

_ Reduce the risk of localized flooding in urban areas.

_ Increase renewable energy production for water management.

X_ Improve energy efficiency and reliability of surface water conveyance systems.

X_ Increase current and future water use efficiency (WUE) by both municipal (residential and commercial) and agricultural end users.

_ Develop sufficient reliable and affordable water supplies to meet regional demands of existing and projected water supply needs under a multiyear drought now and into the future.

_ Improve integrated land use and natural resource planning to support watershed management actions that restore, sustain and enhance watershed functions.

Proposition 84 Program Preferences:

X_ Includes Regional Projects/Programs.

X_ Integrate water management within hydrologic region.

_ Effectively resolve significant water related conflicts within or between regions.

X_ Contribute to attainment or one or more objectives to CALFED.

_ Address critical water supply/quality needs of DAC.

_ Effectively integrate water management with land use planning.

_ Flood Management -projects that provide multiple benefits.

Proposition 84 Program Statewide Priorities:

Drought preparedness:

X_ Promote water conservation, conjunctive use, reuse and recycling.

X_ Improve Landscape and Agricultural Irrigation Efficiencies.

X_ Achieve a Long-Term Reduction of Water Use.

_ Efficient ground water basin management.

_ Establish System Interties.

Use and reuse water more efficiently:

X_ Increase urban and agricultural water use efficiency measures such as conservation and recycling.

X_ Capture, store, treat and use storm water runoff (such as percolation to usable aquifers, underground storage beneath parks, small surface basins, domestic storm water capture systems or the creation of catch basis or sumps downhill of development or projects outlined in PRC §30916 - Coastal Conservancy.)

X_ Incorporate and implement low impact development (LID) design features, techniques and practices to reduce or eliminate storm water runoff.

Climate change response actions:

_ Advance and expand conjunctive management of multiple water supply sources.

_ Water management system modifications that address anticipated climate change impacts, such as rising sea level, and which may include modifications, or relocations of intakes or outfalls.

_ Establish migration corridors, re-establish stream flood-plain hydrologic continuity, re-introduce anadromous fish populations to upper watersheds, and enhance and protect upper watershed forests and meadow systems.

X_ Reduce water demand and wastewater loads and may reduce energy demands & Green House Gas emissions, including water use efficiency, recycling, water system energy efficiency, and reuse of runoff.

Expand environmental stewardship:

_ Proposals that contain projects that practice, promote, improve and expand environmental stewardship to protect and enhance the environment by improving watersheds, floodplains and Instream functions and to sustain water and flood management ecosystems.

Practice integrated flood management:

X_ Proposals that contain projects that practice, integrated flood management to provide multiple benefits including; better emergency preparedness and response, improved flood protection, more sustainable flood and water management systems, enhanced flood plain ecosystems and Low Impact Development techniques that store and infiltrate runoff while protecting groundwater.

Protect surface water and groundwater quality:

_ Protect and restore surface water and groundwater quality to safeguard public and environmental health and secure water supplies for beneficial uses.

_ Salt/Nutrient management planning as a component of the IRWM Plan.

Improve tribal water & natural resources:

X_(PERHAPS) Projects that include the development and/or implementation of Tribal consultation, collaboration, and access to funding for water programs and projects to better sustain Tribal water and natural resources.

Ensure equitable distribution of benefits:

X_ Projects that increase the participation of small and disadvantaged communities in the IRWM process.

X_ Develop multi-benefit projects with consideration of affected disadvantaged communities and vulnerable populations.

_ Projects that address critical water supply or water quality needs of Disadvantaged Communities within the Region.

Cal Fed Primary Objectives:

_ Ecosystem quality

X_ Water supply

_ Water quality

_ Levee system integrity

Strength of Project

Purpose and Need: (A description of the purpose and need of the Proposal Project and how it addresses the adopted IRWM Plan's goals and objectives, Proposition 84 Program Preferences and Proposition 84 Program Statewide Priorities.)

The purpose of the Regional Water Conservation and Education Program is to improve water use efficiency, provide drought relief benefits, and improve long-term water supply reliability to the Tuolumne-Stanislaus Region. This project addresses the region's need for long-term drought planning, and other strains on regional water supplies. Recent legislation, namely SB X7-7, mandates the implementation of water efficiency measures regardless of cost-effectiveness. This Regional Water Conservation and Education Program's focus is on both indoor and outdoor water conservation for households and small businesses and will support the conservation component of each agency's Future Water Supply Plan and their UWMPs, is consistent with the Statewide MOU's Best Management Practices and the Tuolumne-Stanislaus IRWM Plan, and will support meeting the Governor's water conservation goal of 20 percent reduction by 2020 (SB X7-7).

While water use has declined dramatically in the region over the last few years, a significant reason for the decline can be attributed to the poor economy and cooler weather. To the extent that the economy rebounds, there is a significant concern that water use will increase in the future, driving local water suppliers to need to acquire additional new supplies.

Without this project potable water demand will increase, water supply reliability will be reduced in the region, and strains on regional water supplies will continue. Recent dry years, water supply shortages and increasing demands upon water and wastewater infrastructure have increased the need to emphasize regional and local water conservation planning, technologies,

and practices. This Project directly addresses these regional needs. Also, education is essential to transforming the industry and consumer perceptions and preferences in the design and maintenance of urban/suburban and rural landscapes. Education is also critical to addressing established water use behaviors. A consistent, well-defined and regional approach to enhancing individual water-efficient behaviors, incentivizing installation of highly efficient appliances and devices, and sustainable landscapes will increase effectiveness and accelerate implementation.

Integrated Elements of Project: (A description of synergies or linkages between projects that result in added value or require coordinated implementation or operation. Integration can be with current projects that are being implemented, proposed projects, existing projects, etc.)

The primary purpose of this project is Regional "integration" of water conservation activities. It is expected that all of the water providers (and others) within the region will desire to expand their conservation programs through this effort. The Regional Water Conservation Coordinator position is being developed within this request specifically to create these linkages and coordinate implementation of the various currently independent and underfunded water conservation programs.

The educational component including workshops, flyers, publications and brochures will be designed to not only provide the regional water conservation message, but can also incorporate locally significant issues.

Existing Data and Studies: (A brief discussion of the data that have been collected and studies that have been performed that support the project(s) site location, feasibility, and technical methods.)

Numerous assessments regarding the effectiveness of rebate, give-away, and education programs have been completed throughout the country that show the effectiveness of these kinds of programs.

The "Slow It, Spread It, Sink It" Program has proven successful in Santa Cruz, Sonoma and other Counties throughout the state and materials are readily available for use.

Successful laundry to landscape, toilet, washing machine, rain barrel and rain garden rebate programs are prevalent in California including those implemented in Counties of Napa, Sonoma, Alameda, Solano, Santa Cruz, San Mateo and Santa Clara. Both TUD and CCWD currently have high efficiency toilet rebate programs. Up to date lists of qualifying toilets, urinals, washing machines and other devices are available through EPA and other sources.

California Department of Water Resources and the Association of California Water Agencies operate "Save Our Water", a statewide program aimed at helping Californians reduce their everyday water use. Resources such as brochures are readily available for use by this program.

Santa Clara Valley Water District, Regional Water Providers Consortium in the northwest, and the US EPA all run very comprehensive water conservation web sites that can be used as models.

Retail companies such as Niagara Conservation Corporation and are a premier resource for water and energy conservation products including showerheads, pre-rinse sprayers, aerators and leak detection tablets. Products are readily available

Regional Water Districts currently have conservation programs in place. Specifically, TUD and CCVWD have formalized programs outlined in their UWMP's. Only a portion of these programs have been implemented due to lack of local funding for support.

Readiness to Proceed

Please describe the readiness to proceed of the proposed project for each category.

1. Status of California Environmental Quality Act (CEQA):

This is not a “Project” pursuant to CEQA.

2. Status of National Environmental Policy Act (NEPA):

Not Applicable

3. Status of local, state, and federal permitting requirements:

Not Applicable. Should permits be required from the County of Cities for installation of any appliances or water saving improvements, permitting will be the responsibility of the participant.

4. Capacity of proponent to carry out the proposed project:

TCRCD has the capacity to carry out this project.

5. Feasibility analysis for the proposed project:

No formal feasibility analysis has been completed.

6. Status of necessary engineering, designs, blueprints, and work plans:

Contracting to install efficiency measures will be the responsibility of the participant.

7. Status of necessary authority and approvals to implement the proposed project:

The TCRCD Board of Directors will need to pass a resolution authorizing submittal of the proposal – this has not been done yet.

8. Status of matching funds for proposed project:

Most matching funds will come from the participants on a case by case basis. Each participating Water Agency will need to determine how much, if any, of their existing water conservation program can be used for match for this project.