

T-S IRWMA Project Submission Form

In order for a project to be eligible for grant funding the project proponent must be a member in good standing of the T-S IRWM Watershed Advisory Committee (WAC) and have adopted the T-S IRWM Plan.

Projects may be submitted by non-members with the sponsorship of a current member of the T-S IRWMA WAC, who is a member in good standing.

Any project submitted to the T-S IRWMA must entirely COMPLETE the Project Submission Form in order to be added to the T-S IRWM Plan. The T-S IRWMA Administrator may drop a project from consideration if the project's form is not complete.

Projects submitted to the T-S IRWMA must be physically located within the boundaries of the T-S IRWM Region.

Projects submitted to the T-S IRWM Authority are not a part of the T-S IRWM Plan or grant proposals until accepted by the Board of Directors of the Authority.

Project proponents are permitted to contact the media regarding their projects, but are PROHIBITED from commenting on the projects of other members.

For additional information or questions regarding the Project Submission Form please contact T-S IRWMA Administrator Lindsay Mattos at tsirwm@gmail.com.

For access to the T-S IRWM Plan visit: www.tstan-irwma.org

Name of Project *

Sonora Regional WWTP Improvements Project

Project Proponent *

Please specify whether your organization is a member or is being sponsored by a member in good standing.

Tuolumne Utilities District

Project Contact *

Please provide the contact person for your project, their phone number and email.

Erik Johnson, (209) 532-5536, ext. 520, ejohnson@tudwater.com

Revised Projects *

Is this project a revision or update of an existing project within the IRWM plan?

Yes

No

Project Location *

Include county(ies), city(ies), and latitude and longitude if applicable.

Tuolumne, 37 57'59.58"N, 120 23'16.83"W

Watershed(s) *

Please specify where project will be located.

Woods Creek

Updated Urban Water Management Plan (UWMP)

If you are an urban water supplier, do you have a compliant UWMP? Note: 2015 UWMPs are due to be submitted to DWR by July 1, 2016.

Yes

No

Labor Compliance Plan (Requirement for Prop 1 Funding)

Your organization has a Labor Compliance Plan or can develop a Labor Compliance Plan prior to implementation.

Yes

No

Contaminant Information

Does your project address any of the following contaminants?

- Nitrates
- Perchlorate
- Arsenic
- Selenium
- Hexavalent Chromium
- Mercury
- Uranium

California Conservation Corps (CCC)

Have you consulted CCC in regards to your project? Or a certified community conservation corps?

- Yes
- No

Project Description *

A summary description including goals and objectives.

Improvements to an existing wastewater treatment facility to ensure regulatory compliance with Waste Discharge Requirements issued by the California Regional Water Quality Control Board. Process improvements will allow for better treatment plant performance and reductions in biochemical oxygen demand and total suspended solids in the effluent. Specifically, the project involves constructing a new solids contact chamber and expansion of the chlorine contact chamber.

Project Physical Benefits *

Does your project address any of the following physical benefits? If so, please provide a brief description of the measurable accomplishments in the follow up questions.

- Water Supply
- Water Quality
- Ecosystem Improvement
- Energy Produced/Saved and Greenhouse Gases Avoided

Water Supply

Amount of water supply produced, saved, or recycled?

Effluent from the WWTP is used to irrigate lands used for agricultural purposes. On average approximately 1,600-2,000 acre-feet of reclaimed water is distributed on an annual basis. The amount of land that can be irrigated is restricted by agronomic loading rates and concentrations of salts and other constituents in the effluent. Improvements in the effluent water quality will allow the District to irrigate lands that may otherwise be served by groundwater or surface water supplies.

Water Quality

Types (constituents) and amounts of water quality improvement provided, and the amount of water treated or improved.

Expected reduction in average biochemical oxygen demand (BOD) of effluent from 30 mg/l to 15 mg/l. At an average daily flow of 1.2 mgd this translates to a reduction of approximately 150 lbs/day of BOD.

Expected reduction in average total suspended solids (TSS) concentration in effluent from 30 mg/l to 15 mg/l. At an average daily flow of 1.2 mgd this translates to a reduction of approximately 150 lbs/day of TSS.

Ecosystem Improvement

Types and amounts of environmental benefits provided, such as types of species and their numbers benefited, acreage of habitat or floodplain improved, restored or protected, amount of flow provided, or habitat units restored or protected. If a Habitat Evaluation Procedure has been performed, provide information from that analysis.

Treated wastewater effluent is used to irrigate approximately 620 acres of land. Water quality impacts are evaluated through quarterly sampling and monitoring of 16 monitoring wells. Improvements in the effluent quality could result in reductions of nitrate, total coliform, and total dissolved solids.

Energy and Greenhouse Gases

Amount of energy produced or saved, and amount of greenhouse gases that can be avoided.

Disadvantage Community (DAC)

Does the proposed project directly impact a disadvantage community? Is it within a Place, Tract or Block Group? or does your organization have a income survey to show DAC status? Please check all that apply. (For more information and map tool visit http://www.water.ca.gov/irwm/grants/resources_dac.cfm)

- DAC Place
- DAC Tract
- DAC Block Group
- Income Survey has been conducted.

Economically Distressed Areas (EDA)

Does the proposed project directly impact a Economically Distressed Area? Please check all that apply. (For more information visit <https://gis.water.ca.gov/app/edas/>)

- Rural County
- Unemployment - Place
- Unemployment - County
- Low Population Density - Block Group
- Low Population Density - Tract
- Low Population Density - Place
- Low Population Density - County
- Municipality - Block
- Municipality - Tract
- Municipality - Place

T-S IRWM Plan Objectives *

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

- Ensure water consumers have access to a clean and safe water supply within the region.
- Improve water supply infrastructure wherever it is deteriorating or causing water quality and system reliability issues, prioritizing DACs and populated areas. (e.g. fireflow, contamination, etc.).
- Reduce contamination in groundwater, surface water, water conveyance and storage systems.
- Improve wastewater infrastructure to meet discharge and disposal requirements and to reduce sanitary sewer overflows.
- Enhance watershed health and resiliency to increase sustainable water yield, ecosystem function and recreational opportunities.
- Improve the condition and ecosystem function and value of meadows, forests, and rangelands.
- Assist in the protection and recovery of native aquatic and other water dependent species, prioritizing sensitive special status, threatened and endangered, rare and unique, and culturally sensitive.
- Restore, preserve, and promote the regeneration of wetlands, springs, fens, vernal pools, and native riparian communities, and reduce invasive species.
- Reduce the risk of localized flooding, and improve stormwater management and retention.
- Improve energy efficiency of water/wastewater systems.
- Improve water supply efficiency and reliability of man-made conveyance systems.
- Increase water conservation strategies and water use efficiency (WUE) by both municipal (residential and commercial) and agricultural end users.
- Develop sufficient reliable and affordable water supplies and infrastructure to meet regional demands of existing and projected water supply needs including multi-year drought and climate change.

- Integrate land use and natural resource planning to support watershed protection actions that restore, sustain and enhance watershed functions.
- Assess, plan, and prepare for natural disaster impacts that affect watersheds and water resources.
- Protect and preserve tribal watershed values and water use.

Program Preferences

Please check each preference your project meets. (Proposition 1, 2016 IRWM Program Guidelines)

- Leverage Funds – Give priority to projects that leverage private, federal, or local funding or produce the greatest public benefit.
- Employ New and Innovative Technology or Practices – Give special consideration to projects that employ new or innovative technology or practices, including decision support tools that support the integration of multiple jurisdictions, including, but not limited to, water supply, flood control, land use, and sanitation.
- Implement IRWM Plans with Greater Watershed Coverage – Give priority to projects in IRWM Plans that cover the greater portion of the watershed.
- Multiple Benefits – Give special consideration to projects that achieve multiple benefits.

Proposition 1 Eligible Project Type

Please check the description your project meets. Must check at least one to be eligible for IRWM Prop 1 funding. (Proposition 1, 2016 IRWM Program Guidelines)

- Water reuse and recycling for non-potable reuse and direct and indirect potable reuse
- Water-use efficiency and water conservation
- Local and regional surface and underground water storage, including groundwater aquifer cleanup or recharge projects
- Regional water conveyance facilities that improve integration of separate water systems
- Watershed protection, restoration, and management projects, including projects that reduce the risk of wildfire or improve water supply reliability
- Conjunctive use of surface and groundwater storage facilities
- Water desalination projects
- Decision support tools to model regional water management strategies to account for climate change and other changes in regional demand and supply projections
- Improvement of water quality, including drinking water treatment and distribution, groundwater and aquifer remediation, matching water quality to water use, wastewater treatment, water pollution prevention, and management of urban and agricultural runoff
- Regional projects or programs as defined by the IRWM Planning Act (Water Code §10537)

Proposition 1 Eligible Project Type: Storm Water Resource Management

Please check the description your Storm Water project meets. (Proposition 1, 2016 IRWM Program Guidelines) *If your project is a Storm Water project for inclusion in the T-Stan Storm Water Project List please also complete the "T-Stan Storm Water Project Submission Form."

- Projects to reduce, manage, treat, or capture rainwater or stormwater
- Projects that provide multiple benefits such as water quality, water supply, flood control, or open space
- Decision support tools that evaluate the benefits and costs of multi-benefit stormwater projects
- Projects to implement a stormwater resource plan developed in accordance with Part 2.3 (commencing with Section 10560) of Division 6 including Water Code § 10562

Statewide Priorities: Make Conservation a California Way of Life

(For Statewide Priorities answer "yes" or "no" to whether your project meets any or part of the priority.) Building on current water conservation efforts and promoting the innovation of new systems for increased water conservation, Expand agricultural and urban water conservation and efficiency to exceed SB-X7-7 targets, Provide funding for conservation and efficiency, Increase water sector energy efficiency and greenhouse gas reduction capacity, Promote local urban conservation ordinances and programs.

- Yes
- No

Statewide Priorities: Increase Regional Self-Reliance and Integrated Water Management Across All Levels of Government

Ensure water security at the local level, where individual government efforts integrate into one combined regional commitment where the sum becomes greater than any single piece, Support and expand funding for Integrated Water Management planning and projects, Improve land use and water alignment, Provide assistance to disadvantaged communities, Encourage State focus on projects with multiple benefits, Increase the use of recycled water.

- Yes
- No

Statewide Priorities: Achieve the Co-Equal Goals for the Delta

This action is directed towards State and federal agencies; however, consideration will be afforded to eligible local or regional projects that also support achieving the co-equal goals providing a more reliable water supply for California and to protect, restore, and enhance the Delta ecosystem.

Yes

No

Statewide Priorities: Protect and Restore Important Ecosystems

Continue protecting and restoring the resiliency of our ecosystems to support fish and wildlife populations, improve water quality, and restore natural system functions, Restore key mountain meadow habitat, Manage headwaters for multiple benefits, Protect key habitat of the Salton Sea through local partnership, Restore coastal watersheds, Continue restoration efforts in the Lake Tahoe Basin, Continue restoration efforts in the Klamath Basin, Water for wetlands and waterfowl, Eliminate barriers to fish migration, Assess fish passage at large dams, Enhance water flows in stream systems statewide.

Yes

No

Statewide Priorities: Manage and Prepare for Dry Periods

Effectively manage water resources through all hydrologic conditions to reduce impacts of shortages and lessen costs of state response actions. Secure more reliable water supplies and consequently improve drought preparedness and make California's water system more resilient, Revise operations to respond to extreme conditions, Encourage healthy soils.

Yes

No

Statewide Priorities: Expand Water Storage Capacity and Improve Groundwater Management

Increase water storage for widespread public and environmental benefits, especially in increasingly dry years and better manage our groundwater to reduce overdraft, Provide essential data to enable Sustainable Groundwater Management, Support funding partnerships for storage projects, Improve Sustainable Groundwater Management, Support distributed groundwater storage, Increase statewide groundwater recharge, Accelerate clean-up of contaminated groundwater and prevent future contamination.

Yes

No

Statewide Priorities: Provide Safe Drinking Water for All Communities

Provide all Californians the right to safe, clean, affordable and accessible water adequate for human consumption, cooking, and sanitary purposes, Consolidate water quality programs, Provide funding assistance for vulnerable communities, Manage the supply status of community water systems. Additionally, as required by Water Code §10545, in areas that have nitrate, arsenic, perchlorate, or hexavalent chromium contamination, consideration will be given to grant proposals that included projects that help address the impacts caused by nitrate, arsenic, perchlorate, or hexavalent chromium contamination, including projects that provide safe drinking water to small disadvantaged communities.

Yes

No

Statewide Priorities: Increase Flood Protection

Collaboratively plan for integrated flood and water management systems, and implement flood projects that protect public safety, increase water supply reliability, conserve farmlands, and restore ecosystems, Improve access to emergency funds, Better coordinate flood response operations, Prioritize funding to reduce flood risk and improve flood response, Encourage flood projects that plan for climate change and achieve multiple benefits.

Yes

No

Statewide Priorities: Increase Operational and Regulatory Efficiency

This action is directed towards State and federal agencies; however, consideration will be afforded to eligible local or regional projects that also support increased operational of the State Water Project or Central Valley Project.

Yes

No

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, Program Preferences and Statewide Priorities. Additionally, if the proposed project is for Operations and Maintenance describe why grant funds would be necessary to finance the project.

The Sonora Regional WWTP was constructed in the late 1970's and despite various improvements over the years, it continues to employ conventional treatment technology that was standard for the time of construction. However, the population has grown and the regulations have become more stringent. The facility now has difficulty meeting its Waste Discharge Requirements. The effluent from the facility regularly exceeds permit requirements for biological oxygen demand and total suspended solids. Additionally, the anaerobic digestion processes are overloaded and it can be difficult to meet the State requirements for production of a Class B Biosolid. The plant also utilizes sodium hypochlorite for disinfection and the facilities are undersized for current and projected future flows. The facility is the only facility for receiving septage in the Tuolumne and Calaveras County areas.

The proposed project would incorporate various improvements to bring the plant into compliance with its Waste Discharge Requirements, improve biosolids digestion and dewatering, and better position the plant to handle spikes in loading from concentrated septage.

The project would address several IRWM Plan goals and objectives including:

- Reduce contamination in groundwater
- Improve infrastructure to meet wastewater discharge/disposal requirements
- Improve energy efficiency of wastewater system infrastructure

The project would address the following Statewide Program Priorities:

- Reuse water more efficiently
 - Protect Surface Water Quality and Groundwater Quality
-

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.

Improvements to the Sonora Regional WWTP will directly and/or indirectly benefit the Twain Harte Community Services, Tuolumne County, Jamestown Sanitary District, and all private septic systems in Tuolumne and Calaveras Counties. The project would also compliment efforts to sewer areas of Tuolumne County that have a high rate of septic system failure that contaminate Sullivan Creek and also Phoenix Lake, which is a water supply reservoir.

Funding from IRWM would supplement funding the District is seeking through the State Water Board Small Community Wastewater Grant Program.

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.

Significant data and study have been completed. The project is best described in the WWTP Performance Evaluation and the Alternatives Analysis conducted by Stantec. The characteristics of the wastewater influent and effluent have been analyzed and the performance of the various unit processes at the WWTP have been evaluated and Stantec is proposing adding a solids contact process to the plant, as well as, improvements in disinfection and solids handling.

Local Planning Documents *

Cite the local planning documents that support the proposed project.

The project is supported by:

Tuolumne County General Plan,

Tuolumne Utilities District Capital Improvement Plan,

TUD Regional WWTP and Disposal System Feasibility Study,

Tuolumne County Water Quality Plan

Readiness to Proceed: CEQA/NEPA/Permits *

Status of California Environmental Quality Act (CEQA)? Status of National Environmental Policy Act (NEPA)? Status of local, state, and federal permitting requirements?

CEQA and CEQA-Plus compliance is underway. A consultant is expected to complete the Initial Study this spring and the TUD Board to adopt the appropriate environmental document in late spring or early summer 2018.

Readiness to Proceed: Capacity *

Capacity of proponent to carry out the proposed project? Status of necessary authority and approvals to implement the proposed project?

The project does not require any amendments to the Waste Discharge Requirements for the WWTP as issued by the RWQCB. TUD could undertake the project on its own after complying with CEQA; however, grant funding is being pursued through the Small Community Wastewater Grant Program and the Environmental Review Unit at the State has project approval authority.

Readiness to Proceed: Feasibility/Design *

Feasibility analysis for the proposed project? Status of necessary engineering, designs, blueprints, and work plans?

The feasibility studies have been completed and preliminary cost estimates have been developed. The next steps in the project would be preliminary engineering reports and then design.

Cost and Schedule: Project Costs *

Please provide all anticipated project cost.

The estimated project costs are per Stantec's Alternatives Analysis Report March 2018. Costs include 25% contingencies, 10% engineering, and 10% construction management.

Secondary Treatment Improvements	\$8,303,000
Secondary Effluent Equalization	\$1,957,000
Disinfection Improvements	\$1,468,000
Solids Handling Improvements	\$3,688,000
Total Cost	\$15,416,000

Cost and Schedule: Matching Funds *

Potential Sources of Project Funding? (Including internal funding.) Potential Sources of Local Match? (Local match required unless project qualifies for a Disadvantaged Communities Waiver.)

We would seek a DAC waiver for this project. The State Water Board staff calculated the Median Household income within the project area as being \$48,515, which is below 80% of the Statewide MHI. Funding is being pursued through the Small Community Wastewater Grant program. Lastly, some District funds are available to contribute. Grant and internal funds would be available starting in 2019.

Cost and Schedule: Schedule *

Please include a start and completion date for each project stage. Project stages include: Earliest Start Date, Conceptual, Planning, Environmental, Permitting, Design, Construction/Implementation

Conceptual: Complete

Planning: Complete 6/18

Environmental: Complete 6/18

Permitting: Complete 12/18

Design: Complete 9/19

Construction: Summer 2020-Summer 2021

Cost and Schedule: 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.

TUD will divide the project into phases based upon available funding. Up to \$5 million could be available through the Small Community Wastewater Grant Program. If that funding were to be secured, TUD would move forward with the Secondary Treatment Improvements as a first phase.

Cost and Schedule: 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.

Plant Performance Evaluation Completed and filed with State Water Board

Alternatives Analysis Report Completed and filed with State Water Board

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