TStan Watershed Resilience Plan

Tuolumne County Resource Conservation District

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Executive Summary

Date: September 3, 2024

Applicant: Tuolumne County Resource Conservation District

City, County, State**:** Sonora, Tuolumne County, California

The Tuolumne County Resource Conservation District on behalf of the Tuolumne – Stanislaus Integrated Regional Water Managment Collaborative (TStan) will update their existing regional water management plan with the goal of increasing water supply sustainability through investments in local infrastructure. The TStan collaboration includes local special districts, tribes, federal agencies, and non-governmental organizations that collectively work on issues of water quality and supply, integration of water and land use management, resource stewardship and ecosystem protection. The focus of the plan update will be water reliability and cooperation between stakeholders to stretch and secure our limited local water for present and future generations. The plan covers approximately 2,700 square miles on the western slope of the Sierra Nevada and encompasses the Upper Tuolumne River, Upper Stanislaus River and Upper Rock Creek-French Camp Slough watershed. The region includes all of Tuolumne County, the southern portion of Calaveras County, and southwestern Alpine County.

Length of Time and Completion Date: October 2025 – September 2028

Federal Facility or Federal Land: The proposed project will include planning in the Upper Tuolumne River and Upper Stanislaus River watersheds which are home to Yosemite National Park, Stanislaus National Forest, and property managed by Bureau of Reclamation, Bureau of Land Management, and Army Corp of Engineers. The largest federal ownership in our project area is the US Forest Service and they are active members in the collaborative, sending a representative to each meeting and participating in subcommittee work.

Project Location

The proposed project covers approximately 2,700 square miles and encompasses the Upper Tuolumne River, Upper Stanislaus River and Upper Rock Creek-French Camp Slough watersheds. The region spans a portion of the western slope of the Sierra Nevada, rising from the lower Sierra foothills to the crest of the Sierra Nevada (a range of about 1,000 to 13,000 feet in elevation). The region includes all of Tuolumne County, the southern portion of Calaveras County, and southwestern Alpine County. There are numerous alpine lakes and human-made reservoirs throughout the watershed, including Lake Don Pedro at the end of the Upper Tuolumne River and New Melones Reservoir at the end of the Upper Stanislaus River. The Region is a sparsely populated area with a total population of about 70,000 consisting of communities situated in the foothills such as Sonora, Angels Camp, Murphys, Groveland, and surrounding towns.

United States Geological Survey (USGS) Hydrologic Unit Codes (HUC):

Region 18 California

Sub Region 1804: San Joaquin: The San Joaquin River Basin

Cataloging Units – 18040009 Upper Tuolumne

18040010 Upper Stanislaus

18040051 Rock Creek – French Camp Slough

Application Category

The proposed project is applying under the Existing Watershed Group Category. The Tuolumne – Stanislaus Integrated Regional Water Management Collaborative (TStan) formed in August 2007 and was officially approved as an Integrated Regional Water Management region by the California Department of Water Resources in 2009. The initial regional plan was developed through grant funding and was completed in 2013. The regional collaborative meets monthly and utilizes a consensus-based decision-making process. There are currently 19 active members of the collaborative whose common interest is water management. Members include water and sanitary districts, community services districts, tribes, county government, federal agencies, community action agencies, environmental interest groups, and non-governmental organizations.

After completion of the regional plan, the TStan has continued to actively collaborate in the development of regional projects, seek grant funding for member projects that support the goals of the regional plan, and develop regional decision support tools and shared information.

The collaborative would like to update the regional plan that is the basis of its work and is seeking grant funding to help support that process. The region has been supporting the administration of the collaborative since 2013 through financial contributions from member organizations. The process of updating the regional plan is a large undertaking and is anticipated to require expertise from outside its membership. The collaborative is interested in utilizing modeling to help inform its plan update and decisions on how to identify and prioritize watershed projects.

Eligibility of Applicant

The Tuolumne County Resource Conservation District (TCRCD) as a fiscal sponsor of an Existing Watershed Group is eligible to receive an award as an "Existing Watershed Group". The TCRCD is a California Special District governed by Division 9 of the California Public Resource Code and as such is eligible as a local special district. The proposed project is located in California which is eligible under this funding opportunity.

The TCRCD has been a member of the TStan Region since the development of the Tuolumne – Stanislaus Integrated Regional Water Management Plan in 2009. Since 2013 the TCRCD has provided administration to the TStan Region including general administration of the collaborative, grant writing, grant administration, and project management. The district is continuing in that role in this project proposal.

Project Description

The proposed project is the update of the Tuolumne – Stanislaus Integrated Regional Water Management Plan (TStan Regional Plan) with the goal of increasing water supply sustainability through investments in local infrastructure. The current regional plan was completed and adopted in 2013. The document was revisited and revised in 2017 to meet state guidelines. Since the 2013 adoption, the TStan collaborative utilized its regional water management plan to support the development of over 50 projects, 20 of which it has secured grant funding to implement, resulting in close to $22 million in grant funding for the region. The plan is now over a decade old and needs an update so it can continue to guide and support regional watershed management. The collaborative group that formed to develop the regional plan in 2007 is still active. This group includes many of the original agencies and organizations, and desires to continue the collaborative work that supports this region.

The focus of the plan update will be increased water reliability and cooperation between stakeholders to stretch and secure our limited local water for present and future generations.

The Upper Stanislaus and Upper Tuolumne River watersheds are critical water sources relied upon by river ecosystems, millions of people, hundreds of thousands of acres of farmland, and those receiving hydroelectric power throughout California. Within the Tuolumne-Stanislaus (TStan) Region surface water resources are the primary source of potable water for residents. At the same time 98% of these water supplies are exported to users outside the Region. In addition to the limited amount of water available locally, the surface water conveyance systems in the TStan Region consist of aging pipelines, canals, ditches, and flumes, many of which were built during the Gold Rush in the second half of the 1800s. The TStan Regional Plan provides a framework to improve collective understanding. This framework outlines high-priority actions to collaboratively address the many major water-related challenges and needs within the Region. These issues include water quality, local water supply reliability, better integration of water and land use management, resource stewardship and ecosystem protection. The array of goals, objectives, selected resource management strategies, and prioritized projects of this Plan represent a collective view of how to improve integrated water management throughout the Region.

The proposed project will address Task Area B Watershed Restoration Planning for the WaterSMART Cooperative Watershed Management Program Phase I grant. For the proposed project the Tuolumne County Resource Conservation District (TCRCD), who has supported the TStan Region since 2013, will collaborate with the members of the Region to complete the following tasks:

- Working with watershed group members, landowners, Federal agencies, and state or local governments to determine how the watersheds can be improved.
- Interviewing watershed group members and stakeholders to gain an idea of projects that would improve the watersheds.
- Reviewing watershed-specific best management practices established by Federal, state, and local government agencies
- Performing an analysis of the regional watersheds to identify and prioritize watershed management projects.
- Conducting mapping and other technical analyses, including obtaining data, performing modeling or developing goals and objectives for the regional plan.
- Updating an existing watershed restoration plan. (Tuolumne – Stanislaus Integrated Regional Water Management Plan)

The Tuolumne County Resource Conservation District (TCRCD) on behalf of the Tuolumne – Stanislaus Integrated Regional Water Management Collaborative (TStan) will update their existing regional water management plan with the goal of increasing water supply sustainability through investments in local infrastructure. The proposed project will start with the TCRCD

working in collaboration with the TStan Region stakeholders to update the existing Tuolumne – Stanislaus Integrated Regional Water Management Plan. This process will start with several meetings of the watershed collaborative where the members can review the current plan and develop and outline the update process. Members will break the plan into sections and form subcommittees to focus on the sections during the update process. This method proved effective during the 2017 update. The TCRCD will also outreach to stakeholders who are not currently members of the collaborative and invite them into the plan update process.

The next step will be determining the types of analysis and data required to update the plan. For the region to remain competitive for State funding opportunities, it is critical that the plan incorporates climate and carbon analysis and demonstrates that proposed projects are carbon neutral or even carbon negative. There have been significant advances in both technology and available data since the plan was completed in 2013. It is the desire of the collaborative to use the best available information and analysis in its decision-making. It is anticipated that the TCRCD and TStan will work with a consultant like Vibrant Planet in this step of the project. Vibrant Planet is a public benefit corporation focused on supporting vibrant landscapes, clean water, abundant biodiversity and safer communities by creating a common operating picture that helps teams and leaders build enduring resilience. Vibrant Planet has created a modeling tool that is going to offer local analysis for select projects. The focus of the current modeling tool is analyzing the benefits of fire fuel treatment, an analysis of great value in this region considering the alarming mass of dense, overgrown forests and woodlands. This group has confirmed willingness to incorporate watershed improvement project results into their model to quantify carbon impacts results.

The benefit to incorporating climate change modeling into the update of the watershed plan is the ability to quantify the potential impact that restoration projects can have on water supply, water quality, ecosystem and habitat vulnerability, hydropower and local water conveyance infrastructure. At both the federal and state level the increasing impact of climate change is a high priority. Therefore it is imperative for the TStan Region to also incorporate climate change analysis into its planning process.

Simultaneously, the TCRCD will work with TStan members to interview stakeholders including landowners, Federal agencies, and state and local governments to gain feedback on the regional plan and determine the ways in which the watershed can be improved. During this process, the TCRCD will start formulating a list of watershed projects that can be prioritized by the collaborative and incorporated into the plan update.

Once the modeling, data analysis, and interviews are complete the TCRCD will begin drafting the plan update. The draft will be reviewed by the TStan collaborative and their feedback

incorporated. Once the regional plan is finalized, and the TStan collaborative will begin the required process of notifying the public of revisions. The completed project will be an updated Tuolumne – Stanislaus Integrated Regional Water Management Plan. The completed plan will include goals and objectives, resource management strategies, technical analysis, modeling, mapping, and prioritized watershed management projects.

The Tuolumne County Resource Conservation District and the Tuolumne – Stanislaus Integrated Regional Water Management Collaborative have not previously received a CWMP Phase I grant.

Evaluation Criteria

Evaluation Criterion A—Watershed Group Diversity and Geographic Scope

The formation of the TStan Region and its watershed plan was initiated through the efforts of Tuolumne Utilities District (TUD) in 2007 and is currently supported by numerous interest groups, federal and local agencies as well as non-governmental organizations. Members currently involved in the TStan Region are:

- Amador-Tuolumne Community Action Agency (Public Interest/Disadvantage Community)
- Calaveras County Water District (Retail, Wholesale, & Ag Water/Sewer/Hydropower/ Groundwater Management)
- Central Sierra Audubon Society (Environmental NGO)
- Central Sierra Environmental Resource Center (Environmental NGO)
- City of Angels Camp (Water/Sewer/Stormwater/Flood/ Land Use)
- City of Sonora (Stormwater/Flood Control/Land Use)
- County of Tuolumne (Land Use/Groundwater/ Stormwater/Flood Control)
- Groveland Community Services District (Water/Sewer/Recycled Water/Fire Protection/ Parks)
- Murphys Sanitary District (Water/Sewer)
- Tuolumne Band of Me-Wuk Indians (Tribe/Fire Protection/Land and Resource Management)
- Tuolumne County Resource Conservation District (Agriculture, Land and Resource Management)
- Tuolumne Group of the Sierra Club (Environmental NGO)
- Tuolumne River Trust (Environmental NGO)
- Tuolumne Utilities District (Water/Sewer)
- Twain Harte Community Services District (Water/Sewer/Fire Protection/Parks)
- Union Public Utility District (Water)

- United States Forest Service, Stanislaus National Forest (Federal Land and Resource Management)
- Utica Power Authority (Water Wholesaler/Hydroelectric Power Generation)

The majority of the Region's population (approximately 70,000) reside in the foothill elevations below 3,000ft. Major communities include Sonora, Twain Harte, Copper Cove, Copperopolis, Angels Camp, Murphys, and Groveland. Many of the Region's communities have been identified by state agencies as Disadvantaged Communities and have an income less than $56,982. The Region is also home to two federally recognized Me-Wuk tribes, and federally managed national forest and national park lands represent over two thirds of the lands in the Region.

The Tuolumne – Stanislaus Region is an established Integrated Regional Water Management (IRWM) region approved by the California Department of Water Resources IRWM program. This watershed region is made up of 3 watersheds which are each considered small to medium sub-basin sized watersheds (approximate 8-digit USGS HUC), 18040009 Upper Tuolumne, 18040010 Upper Stanislaus, 18040051 Rock Creek – French Camp Slough.

Sub-criterion No. A1. Watershed Group Diversity

The TStan Region currently has a diverse array of stakeholders across the three watersheds that actively participate in the regional collaborative. Current members and the type of organization and responsibilities they have are listed above. When the regional collaborative formed in 2007 and worked on developing the regional plan the goals were to;

- Promote collaboration through activities that result in quantifiable ecosystem restoration and improved water supply and water quality benefits occurring in an integrated, cost and time efficient manner.
- Integrate activities, which will increase environmental education and stewardship, reduce conflicts and litigation potential, and through interregional stewardship and cooperation, increase understanding and participation in export water proposals as they relate to beneficial uses in the area of origin.

The current members of the TStan Region (listed above in *Watershed Group Diversity and Geographic Scope*) are active participants and have an agreed upon charter that governs their involvement in the collaborative. Members must regularly attend meetings, maintain a representative and alternate that is appointed to the collaborative, complete a course in ethics prior participating, and provide financial contributions to the administration of the collaborative. For this reason, all of the members of the TStan collaborative are considered active. It is acknowledged that this level of participation is difficult for some organizations to meet, and the collaborative has outlined a process for organizations to participate and

collaborate in projects through sponsorship by an active member. All the collaborative's meetings are also publicly noticed and follow the California Brown Act which governs and safeguards the public participation of public agencies.

The membership has acknowledged for many years that there are stakeholders which are missing from the collaborative process and has continued to reach out to those organizations to encourage their participation. Some of these organizations are interested in the process but lack the capacity to participate and are on the mailing list for all meeting notices and materials. The proposed project members will reach out to those stakeholders and invite them into the planning process and at minimum attempt to interview a representative. The following are the some stakeholders which are currently not actively participating in the collaborative that will be invited to the revision process;

- Oakdale Irrigation District (Export Water User/Hydroelectric Power)
- South San Joaquin Irrigation District (Export Water User/Hydroelectric Power)
- City and County of San Francisco (Export Water User/Hydroelectric Power)
- Bureau of Reclamation (Water/Land and Resource Management)
- Bureau of Land Management (Land and Resource Management)
- Yosemite National Park (Land and Resource Management)
- Pacific Gas & Electric (Hydroelectric Power Generation)
- Calaveras County (Land Use/ Groundwater/ Stormwater and Flood Control)
- Chicken Ranch Band of Me-Wuk Indians of California (Tribe)
- Tuolumne County Farm Bureau (Agriculture)
- Calaveras County Resource Conservation District (Agriculture and Resource Management)
- Calaveras County Farm Bureau (Agriculture)
- Alpine Watershed Group (Resource Management)
- California Department of Fish and Wildlife (Resource Management)
- California Department of Water Resources (Resource Management)
- State Water Resources Control Board/ Regional WRCB (Resource Management)
- Sierra Nevada Conservancy (Resource Management)
- University of California Cooperative Extension (Resource Education)

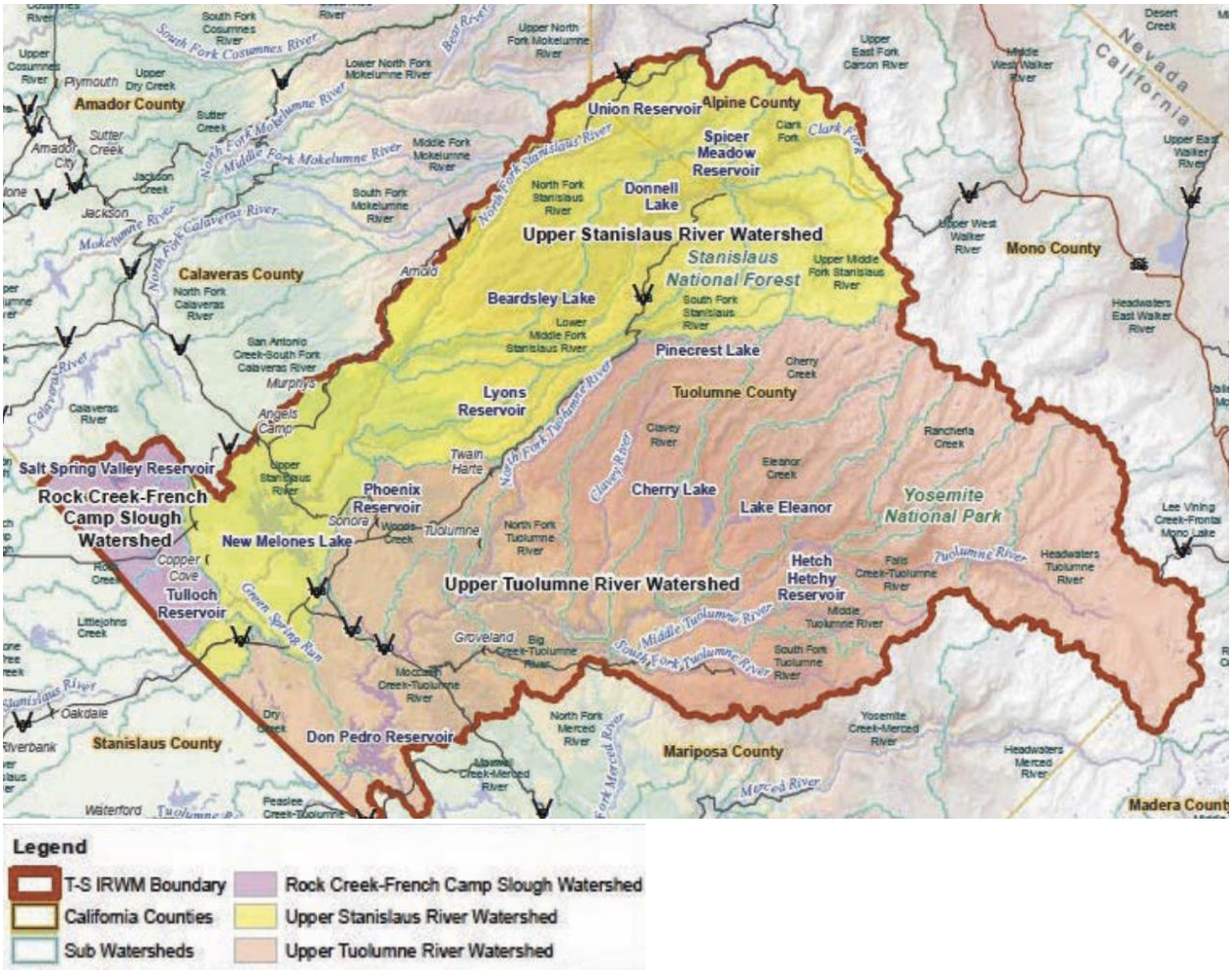
In April of 2014 the Tuolumne-Stanislaus Integrated Regional Water Management Authority was formed, and its Board of Directors became the Regional Water Management Group or Governing Board for the TStan Region. The Board of Directors is made up of local public agencies from within the Region whose common interest is water management. The Board of the Authority meets monthly and relies on the recommendations of the Watershed Advisory Committee (WAC). The WAC also meets monthly and its members are interested stakeholders

who are in good standing with the WAC Charter and the By-laws of the Board. Many of the WAC members from the original Planning Grant Committee, which created the original TStan regional plan, are still actively involved. The members listed above, in Watershed Group Diversity and Geographic Scope, are all members of the Board of Directors or the Watershed Advisory Committee. The Watershed Advisory Committee is open to any interested stakeholder and continues to use a consensus-based approach to decision making. The region formed the Joint Powers Authority to apply for and administer state grants on the region's behalf. This structure allowed for the region to apply for large infrastructure grants on behalf of a group of its members without a single member being burdened by the liability of a large state grant agreement. It has been a successful structure for the region and has allowed them to secure almost $22 million in state funding. It has also given them the sustaining structure to weather the policy and agenda changes of state agencies and to maintain it's mission of implementing the Tuolumne-Stanislaus Integrated Regional Water Management Plan. In recent years, the Integrated Regional Water Management program within the Department of Water Resources has been overshadowed by other programs and some of the state's other regional collaboratives have stopped meeting regularly or even disbanded.

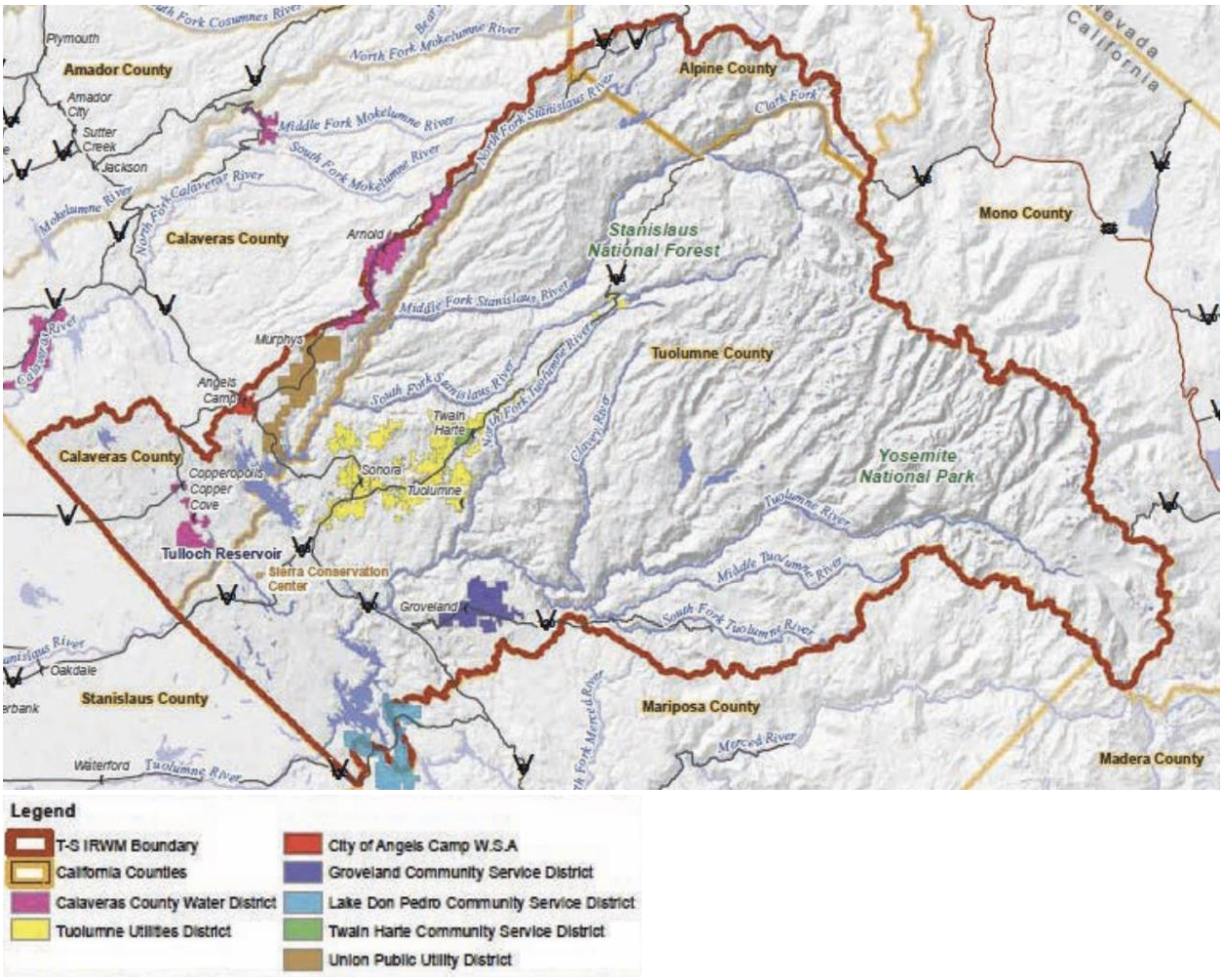
Sub-criterion No. A2. Geographic Scope

The proposed project includes three small to medium-sized watersheds in its scope, the Upper Stanislaus River, Upper Tuolumne River and the Upper Rock Creek – French Camp Slough watersheds. Upon consideration of numerous factors, including but not limited to watershed boundaries, agency service areas, and physical landscape characteristics, region boundaries were established that encompass approximately 2,700 square miles, spanning the western slope of the Sierra Nevada, rising from the lower Sierra foothills to the crest of the Sierra Nevada. The Tuolumne – Stanislaus Integrated Regional Water Management Region was created through the Department of Water Resources (DWR) Integrated Regional Water Management Program and as such had to apply to DWR for approval of its regional boundaries. It is noted that the western boundary of the region stops at the political boundaries of Calaveras and Tuolumne counties, this was a part of the regional approval process with DWR. The majority of the three watersheds fall within the boundary of the Tuolumne – Stanislaus Region. Three maps are included that depict geographic boundaries, stakeholder groups and membership of the watershed group. The project area was chosen because it is the boundaries of the Tuolumne-Stanislaus region and the boundaries were established in 2009. The current regional watershed plan covers this area.

Watershed Map



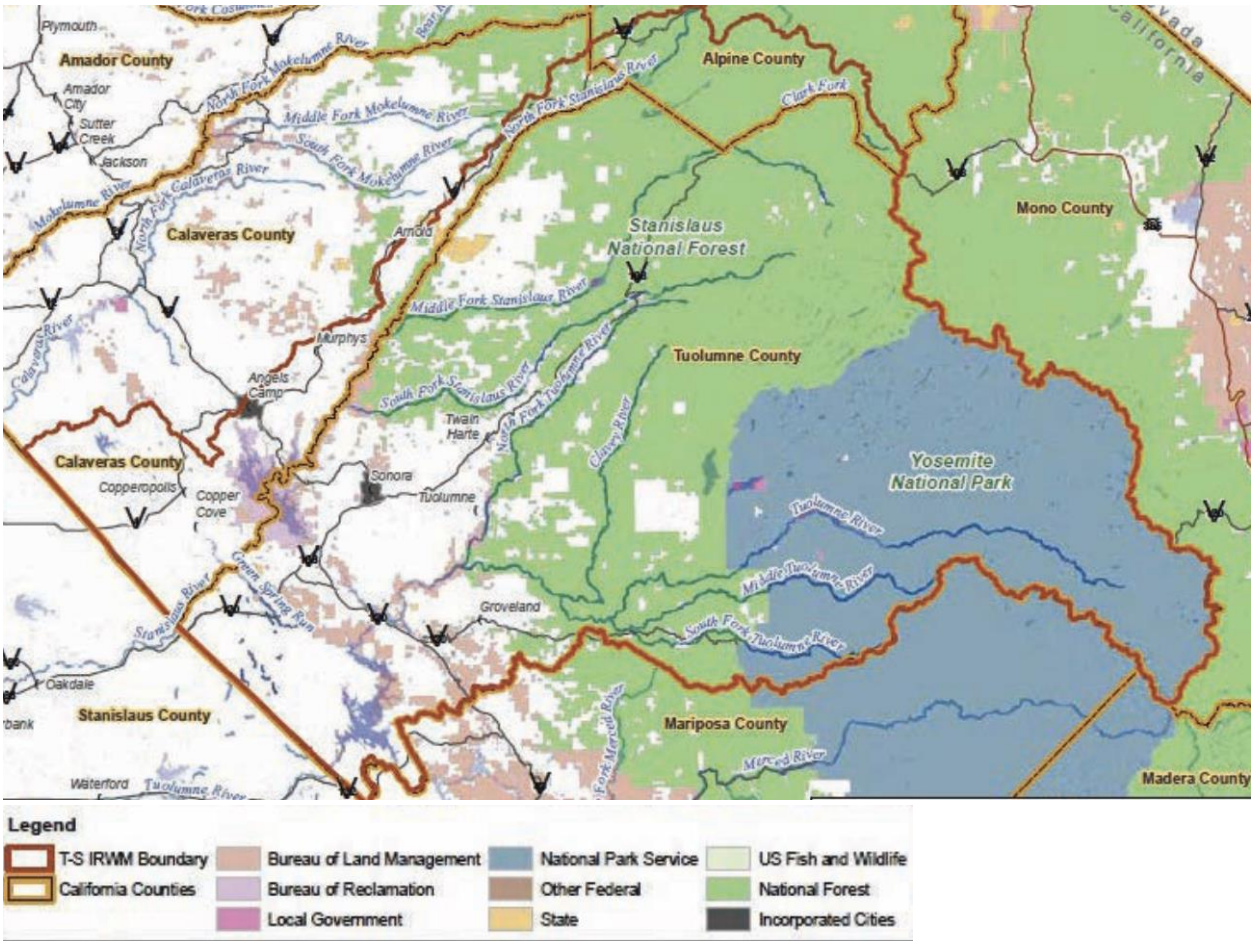
Map of Local Water Agencies



Legend

- T-S IRWM Boundary
- California Counties
- Calaveras County Water District
- Tuolumne Utilities District
- City of Angels Camp W.S.A
- Groveland Community Service District
- Lake Don Pedro Community Service District
- Twain Harte Community Service District
- Union Public Utility District

Map of Land Management Agencies



Evaluation Criterion B— Developing Strategies to Address Critical Watershed Needs

Sub-criterion No. B1. Critical Watershed Needs or Issues

The critical needs and challenges for the TStan Region were identified by the Region's stakeholders during the development of the regional plan and include the following:

- Efficient Use and Distribution of Water
- Reliable and Affordable Water Supply
- Meeting Water Quality
- Resource Stewardship and Ecosystem Needs
- Stormwater Capacity
- Climate Change

The watershed needs and challenges serve as the foundational baseline for much of the regional plan and were used to develop the plan objectives and project selection criteria to develop and prioritize programs, projects, and/or actions. The process to evaluate and identify critical needs was completed in 2013 and has been identified by the TStan Collaborative as one of the most important reasons for a plan update.

Efficient Use and Distribution of Water - Limited surface water and groundwater supplies in some portions of the Region, coupled with recent California regulatory mandates have created a growing need to increase the Region's municipal (residential and commercial) water use efficiency (WUE). Implementation of water use efficiency measures throughout the Region has historically been difficult due to the relatively low marginal cost of most water sources, coupled with the disadvantaged community status of most of the communities served in the TStan region. Local agency funding to implement water use efficiency is severely constrained.

Reliable and Affordable Water Supply – Water supply reliability within the region is a complex issue and there is a need to develop reliable and affordable water supplies to support existing residents as well as accommodate future land use development and population growth. Many residents in the region are supplied by agencies that are reliant on water supplied contractually from senior water right holders from outside the region. Most of the surface water supplies are also linked to hydroelectric generation projects which have specific in-stream flow and/or reservoir level requirements which can limit water available for municipal supply. There is also a portion of the population that are served by individual domestic groundwater wells which are subject to water quality and reliability issues. Reliability issues also arise from the historic water supply systems that continue to serve the region. Water conveyance infrastructure is predominantly made up of earthen ditches, wooden flumes, and unlined canals that present

both a reliability and contamination concern. Another important factor in increasing local water supply reliability is addressing issues related to the availability and quality of local groundwater resources. The region does not have a well-defined basin, but rather, the majority of available groundwater is found in fractured rock at varying depths and is distributed throughout the region. As a result, predicting the safe yield of such water sources is very difficult and data on existing supplies is largely unavailable.

Meeting Water Quality - Non-point sources of pollution are thought to be impacting surface and groundwater water quality and can affect many uses including drinking water quality. Non-point sources in the region include various activities, such as: failing septic systems, pesticide/herbicide/fertilizer use, sediment discharge, oils and greases, agriculture and forest use, recreation, urban runoff and historic mining activities. Erosion and sedimentation of streams and lakes contribute to negative impacts to downstream water quality and riparian ecosystems and can also result in higher drinking water treatment costs.

Resource Stewardship and Ecosystem Needs – The health of the region's meadows, riparian systems and forests is an important factor in the quality and availability of water resources. The need to reduce fuel loads, fire hazards and sediment loads as a part of the strategy to maintain resilient forests has been identified by the region. Additionally, the existing composition and density of vegetation on forested lands may be causing excessive losses from evapotranspiration and sublimation as noted in recent research by the Sierra Nevada Research Institute (UC Merced). The region has also identified the need to protect special aquatic features such as springs, seeps, vernal pools, fens, bogs, and riparian areas to maintain ecosystem function.

Stormwater Capacity - Management and containment of localized flooding of creeks and tributaries, particularly in urban areas such as Sonora, and along some local roadways has been a challenge and many stormwater conveyance systems within the Region are in need of improvements to reduce the potential for catastrophic flooding.

Climate Change - Climate change in these predominately snow-fed watersheds could have significant impacts on the timing and magnitude of runoff, leading to less predictable water supplies as well as complicating compliance with existing requirements for instream fisheries flows and recreational use. New sources of supply, storage, and other major projects could help meet competing needs for supply and mitigate decreased supply reliability, but will require significant capital investments, which will be difficult to afford by the Region's limited customer base and many disadvantaged communities. Climate change as it affects the region has not been thoroughly addressed and is one of the reasons that the regional collaborative desires to implement the proposed project.

Sub-criterion No. B2. Project Benefits

The TStan Region faces an array of challenges in watershed restoration and management, as outlined above, and the Tuolumne-Stanislaus Integrated Regional Water Management Plan is the most effective way to address those challenges. The plan was the first regional watershed management plan of its kind in these watersheds and provided a framework to improve collective understanding and take high-priority actions to collaboratively address the many water-related challenges, needs and conflicts. Stakeholders formulated meaningful and relevant objectives and projects and need to update their existing plan to continue the valuable work being accomplished in this region.

An updated watershed plan for the Tuolumne–Stanislaus Region will allow the collaborative to continue implementing projects that address the critical needs of the three upper watersheds. The primary benefit of an updated regional plan is collaborative regional planning for the changing needs of the three watersheds. Benefits from implementation of multi-benefit, regionally focused projects may include enhanced water supply reliability, improved water quality, improved habitat quality, improved infrastructure function and efficiency and actions to adapt to climate change and reduce greenhouse emissions. One of the most important aspects of the development of or updating of a plan is the process to ensure that the public and interested stakeholders are involved in the planning process. The proposed project will ensure that the TStan collaborative has the capacity to have a robust stakeholder involvement process.

Evaluation Criterion C—Readiness to Proceed

Milestone / Task	Responsible Party	Start Date	Completion Date
Outlining Plan Update Process			
Collaborative Member Meetings	TCRCD	October 2025	January 2026
Stakeholder Outreach	TCRCD	November 2025	December 2026
Committees Formed for Review	TCRCD/Members	October 2025	June 2026
Analysis of Watersheds			
Data Collection	Consultant	January 2026	December 2026
Analysis/Modeling	Consultant	March 2026	March 2027
Stakeholder Interviews	TCRCD	January 2026	December 2026
List of Potential Projects	TCRCD	January 2026	March 2027
Drafting Watershed Plan Update			
Prioritizing Projects for Plan	TCRCD/Members	April 2027	June 2027
Drafting Plan	TCRCD	April 2027	November 2027
Review of Plan by Collaborative	Members	November 2027	January 2028
Incorporate Feedback	TCRCD	November 2027	February 2028
Regional Watershed Plan			
Final Draft of Plan	TCRCD	March 2028	April 2028
Public Review of Plan	TCRCD/Members	April 2028	May 2028
Address Public Comments	TCRCD	May 2028	June 2028
Public Hearing/Plan Adoption	TStan Members	July 2028	August 2028

Outlining Plan Update Process:

- Meetings of the watershed collaborative where the members can review the current plan and develop and outline the update process.

- TCRCD will also outreach to stakeholders who are not currently members of the collaborative and invite them into the plan update process.
- Members will break the plan into sections and create subcommittees to focus on specific sections.

Analysis of Watersheds:

- Determine the types of analysis and data required to update the plan. It is anticipated that the TCRCD and TStan will work with a consultant in this step of the project.
- Data collected will be used in modeling and analysis of the region which informs the plan update. This task will be the consultant's responsibility to complete.
- TCRCD will work with TStan members to interview stakeholders including landowners, Federal agencies, and state and local governments to gain feedback on the regional plan and determine the ways in which the watershed can be improved.
- TCRCD will start formulating a list of watershed projects that can be prioritized by the collaborative and incorporated into the plan update.

Drafting Watershed Plan Update

- TCRCD will work with TStan members to review potential projects for inclusion in the updated plan and prioritize those projects utilizing modeling and analysis produced during the analysis portion of the project.
- Once the modeling, data analysis, and interviews are complete the TCRCD will begin drafting the plan update. This process is anticipated to take approximately 4 to 8 months.
- A completed draft of the plan will be reviewed by the TStan collaborative and their feedback incorporated by TCRCD.

Regional Watershed Plan

- TCRCD will produce a final draft of the updated plan.
- A public notice will be posted for the final draft, and a public meeting will be held to provide an opportunity for the comment.
- The committee will address any public comments that are received during the review period.
- The TStan Board of Directors will hold a public hearing for the update plan which is the final task of the proposed project.

The regional watershed plan is a public document and as such has a process laid out for public notice of revisions which the TCRCD will follow once the plan is in its final draft. The completed project will be an updated Tuolumne – Stanislaus Integrated Regional Water Management Plan. The completed plan will include goals and objectives, resource management strategies, technical analysis, modeling, mapping, and prioritized watershed management projects.

Evaluation Criterion D—Presidential and Department of the Interior Priorities

Climate Change

Climate change has a significant potential to increase the variability of seasonal runoff and affect water supply and quality in the three watershed that are a part of the proposed project. Due to the recent drought years in California, communities have faced challenges including the loss of agricultural production and jobs, depletion of groundwater basins, widespread tree death, and impacts to fish and wildlife. The Upper Stanislaus and Upper Tuolumne watersheds combined equal approximately 70% of the San Joaquin River's annual flow and contribute significant amounts of water for Delta water quality and outflows. This means that the climate change impacts to the region are impacting California's water quality and supply reliability at a significant scale and make the objectives and projects developed in the regional plan an important part of the State's tools in addressing climate change.

Climate change has the potential to have significant impacts on the region. Water demand, water supply, water quality, hydropower, and ecosystem and habitat vulnerability are all areas likely to be affected in some way due to climate change. The major river systems in the region are fed primarily by snowmelt. Expected changes in snowpack levels and increased temperatures could impact primary water sources, which will lead to decreased hydropower production, impair water quality, and increase wildlife risk.

Benefits to Disadvantaged, Underserved, and Tribal Communities

Utilizing the White House Council on Environmental Quality's interactive Climate and Economic Justice Screening Tool to determine the Disadvantage and Underserved Communities for the project area. The following table depicts the communities in the region as defined by the tool which are disadvantaged.

Community	Number	Identified as Disadvantaged?
Jamestown, Stent, Chicken Ranch, Tuttletown	06109005100	Yes, Federally Recognized Tribe

Columbia, Cedar Ridge	06109002100	Yes
Sonora	06109001200	Yes
Tuolumne	06109003200	Partially, Federally Recognized Tribe

All of the communities within the Tuolumne – Stanislaus Region, three upper watersheds, have risks for economic loss to building value resulting from natural hazards each year in the 80-90th percentile and are almost entirely in the 90th percentile for projected wildfire risk. These two risk factors are a significant reason why the proposed project is needed for our watersheds. Updating the watershed planning document that coordinates projects is essential to agencies and organizations addressing the risks posed by climate change.

The proposed project will produce a regional watershed restoration plan with a range of benefits for all the communities in the region including those that as disadvantaged. Potential benefits from implementation of multi-benefit, regionally focused projects may include enhanced water supply reliability, improved water quality, improved habitat quality, improved infrastructure function and efficiency and actions to adapt to climate change and reduce greenhouse emissions. The TStan plan will specifically address the needs of disadvantaged, underserved, and tribal communities and prioritize projects that address those needs.

There are two Federally Recognized Tribes within the region the Tuolumne Band of Me-Wuk and the Chicken Ranch Rancheria of Me-Wuk Indians of California. The Tuolumne Band is a long standing and active member of the TStan Collaborative, has participated in planning and developing projects, and has been a member of several grant funded projects in collaboration with the region. The Chicken Ranch tribe has been an active participant in the past and has collaborated on projects with the region but does not have the staff capacity presently to participate actively in the regional collaborative. The TCRCD will invite the Chicken Ranch tribe to participate in the plan update process and interview staff during the outreach process.