Sequoias to the Sloughs (S2S) Watershed Working Group

Technical Proposal

Funding Opportunity No. R23AS00362

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Applicant:

Tulare Basin Watershed Partnership (TBWP)

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Executive Summary

Tulare Basin Watershed Partnership (TBWP) is a 501 C (3) non-profit organization incorporated in 2008 and headquartered in Fresno, Fresno County, California. The proposal includes the following goals as achievable outcomes:

- Development and professionally facilitated operation of a diverse stakeholder watershed working group focused on the *Sequoias to the Sloughs* (S2S) Initiative for the Deer Creek and Tule River Watersheds
- Establishment of a multi-agency and non-governmental Technical and Regulatory Advisory Committee (TRAC) to support the watershed working group
- Development and adoption of a TRAC-supported and stakeholder-agreed-upon integrated and comprehensive Watershed Improvement and Protection Implementation Plan

Location

The Sequoias to the Sloughs (S2S) Working Group's project area includes the Tule River and adjoining Deer Creek watersheds in eastern Tulare County, California. It includes the headwater regions originating within the Sequoia National Forest and adjoining Tule River Indian Reservation and flows downstream into the historic Tulare Lake Basin on the valley floor towards Kings County and the traditional lands of the Tachi-Yokut Tribe. All the sparsely populated communities within the project area are classified as disadvantaged under the Justice40 Initiative, including federally and non-federally recognized tribes.

Partners

The Project Team consists of the Tulare Basin Watershed Partnership (TBWP) of approximately ten professionals and organizations serving on the Board of Directors. The TBWP includes the Allensworth Progressive Association representing *Frontline Community* (as applied by the CA Department of Water Resources[1]) interests, researchers from the University of California, Merced (UCM), water experts with experience in water resources management, former federal Wildlife Biologists, and others[2]. Additional partner organizations include the Southern Sierra Integrated Regional Water Management (IRWM) Group[3], and the Central Valley Joint Venture[4] as the Project Team's Technical and Regulatory Advisory Committee (TRAC). Our longstanding partner, Ag Innovations Network, provides facilitative support for the Project Team.

Watershed Concerns

With the watersheds being situated within the southern Sierra Nevada region, there are a sizable number of challenges related to watershed health, water quality, and reliable supplies of this critically significant resource, as well as its multi-beneficial uses related to proneness to catastrophic fires and flooding on the valley floor – as well as prolonged drought. Drought, bark beetle infestation, and high-intensity fires in the forested upper watersheds over the last 20 years have taken their toll on a cumulative basis, covering a much broader landscape in the hundreds of thousands of acres. Downstream exposures and impacts affect disadvantaged *Frontline Communities* that rely on an

[1] CA Water Plan Update 2023
[2] http://www.tularebasinwatershedpartnership.org/leadership-and-team.html
[3] http://www.southernsierrarwmg.org/
[4] https://www.centralvalleyjointventure.org/

agricultural-based economy. This includes significant impacts by the unprecedented widespread flooding events of 2023 that were not only a risk to public safety – but also shut down the agricultural economic engine for the region for weeks on end, costing hundreds of millions of dollars in revenue and salaries.

Other concerns include improved drinking water quality and availability, and finally, assessing and addressing the impacts of land subsidence on critical water conveyance infrastructure, including the Friant-Kern Canal under the U.S. Bureau of Reclamation's Central Valley Project[5].

The proposal's imperative is that a comprehensive and integrated approach to watersheds and water resources management for multi-beneficial uses is undertaken to address the whipsaw impact of extreme climatic events from severe drought with catastrophic fires, to severe flooding that affects our region on a socio-economic and environmental basis.

How Project May Alleviate Concerns

Convening, organizing and then engaging a truly diverse group of stakeholders to develop an agreed-upon plan at a whole watershed level is the first major step towards alleviating these challenges on an integrated and comprehensive basis. Identifying challenges, through a watershed baseline assessment, as well as a partner and stakeholder SWOT (Strengths, Weaknesses, Opportunities and Threats) analysis sets the next stage for establishing fully resourced mitigation measures that contribute towards a more effective and efficient water resources management approach that is sustainable, resilient, and drives towards regional self-sufficiency in the face of extreme variability due to climate change.

Length of Time

Based upon the award and executed agreement date of September 30, 2025, the project will commence on October 1, 2025, and successfully close out by September 30, 2028.

Project Location

The S2S Working Group's geographical planning area encompasses 1,003 square miles of the following HUC 10 sub-watersheds:

- Tule River, North Fork – 1803000602 at 98 square miles
- Tule River, Middle Fork – 1803000601 at 110 square miles
- Tule River, South Fork – 1803000603 at 124 square miles
- Tule River, Upper – 1803000607 at 82 square miles
- Tule River, Lower – 1803000610 at 69 square miles

  Total: 483 square miles

- Deer Creek, Upper – 1803000501 at 70 square miles
- Deer Creek, Middle – 1803000504 at 119 square miles
- Deer Creek, Lower – 1803000509 at 231 square miles

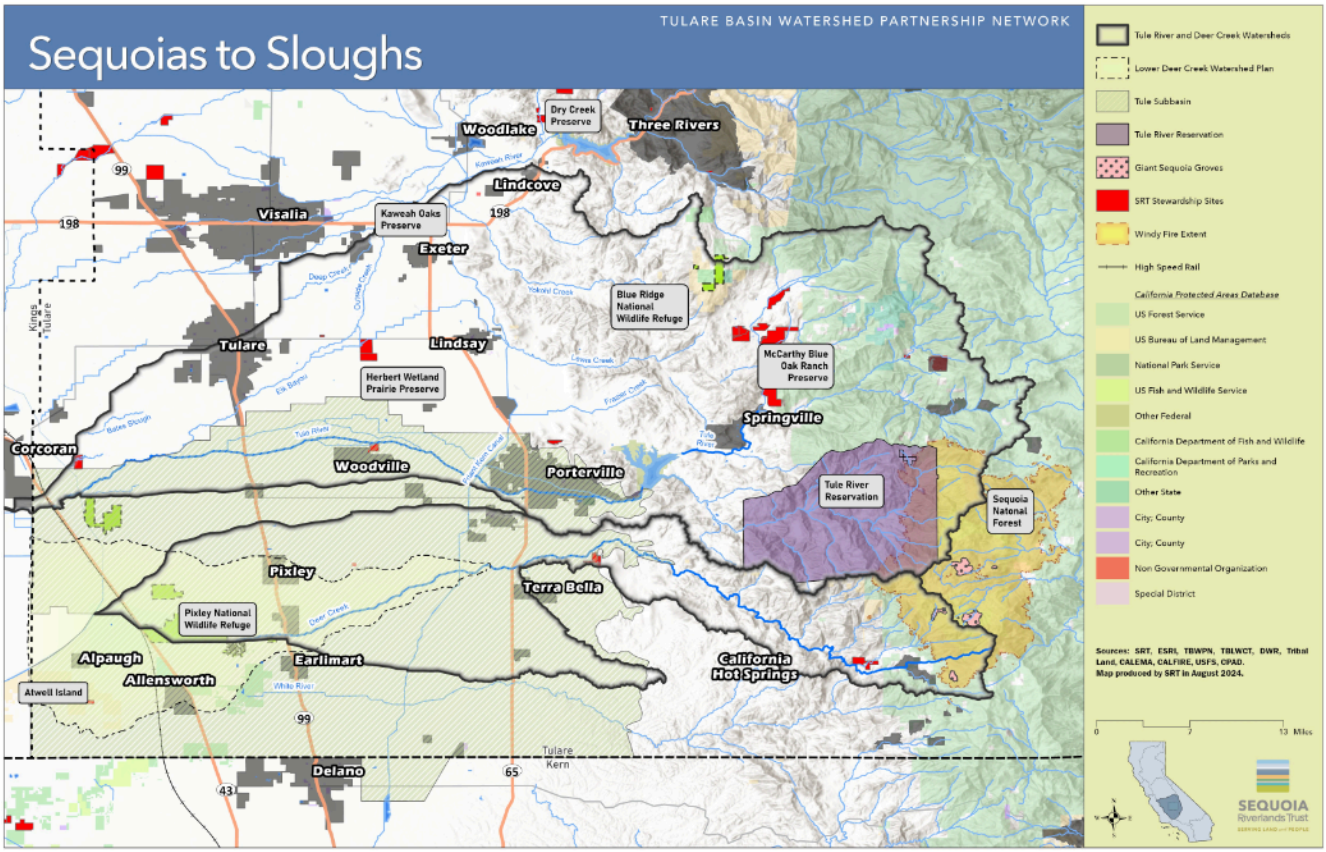
  Total: 420 square miles

[5] https://friantwater.org/subsidence

Incorporated communities include the city of Porterville in the lower Sierra Nevada foothills in the upper Tule River. The Tule River Indian Tribe's Reservation is situated on the south fork of the Tule River. The city of Corcoran is situated in the westernmost extent of the lower Tule River, which is also the traditional land of the Tachi-Yokut Tribe on the Santa Rosa Rancheria. In addition to the federal government's Justice40 Initiative, all ten (10) identified rural communities are *Frontline*, classified as DUCs (Disadvantaged Unincorporated Communities) based upon the state of California's CalEnviroScreen 4.0[6].

Frontline Communities include the historic African American-founded town of Allensworth, as well as Pixley and Alpaugh, to name a few. There are several irrigation districts under the Friant Water Authority[7] that rely upon the Bureau of Reclamation's Central Valley Project (CVP). Groundwater Sustainability Agencies (GSAs) under the state of California's Sustainable Groundwater Management Act known as SGMA are a more recent stakeholder that are now engaged in securing surface water for recharging over-drafted groundwater basins.[8]

Important wildlife refuges such Pixley[9] National Wildlife Refuge operated by the U.S. Fish and Wildlife Service rely upon CVP surface water under the CVP Improvement Act of 1992. Atwell Island, operated by the U.S. Bureau of Land Management is important wildlife habitat to sustain as well[10].



[6] https://experience.arcgis.com/experience/11d2f52282a54ceebcac7428e6184203/page/CalEnviroScreen-4_0/
[7] https://friantwater.org/
[8] https://sgma.water.ca.gov/portal/
[9] https://www.fws.gov/refuge/pixley
[10] https://www.blm.gov/visit/atwell-recreation-area

Applicant Category

As an existing watershed group, TBWP is seeking funding within Tasks A and B to develop additional capacity and the capability in which to build off its broad portfolio of accomplishments spanning more than 15 years – and to further build a relevant, viable, and implementable watershed protection and enhancement plan for its Sequoias to the Sloughs (S2S) Initiative[11]. The funding requested will provide the ability to support the ambition in a realistic manner to increase the focus, pace, depth, breadth, and scale of this initiative over 36 months.

Eligibility of Applicant

The Tulare Basin Watershed Partnership (TBWP) was incorporated in 2007 as a 501 C (3) and currently has an Executive Director with nearly twenty-five years of experience working with State and Federal agencies and others on statewide and regional initiatives, including the CalFed Bay-Delta Program from 2001-2010 for the upper San Joaquin River hydrologic region in California and other significant watershed-related undertakings. The TBWP has a long and stellar history of pioneering successful and innovative watershed initiatives performed with its own existing talent pool. This has included natural resource management experts, water managers, professionals in biology and botany, including those formerly with the U.S. BLM, as well as research institutions such as the University of California (UC), Merced's Sierra Nevada Research Institute (SNRI)[12] and UC's Agriculture and Natural Resources program (ANR)[13]. The *Frontline* disadvantaged unincorporated communities (DUCs) are well served through the leadership and experiences of the Allensworth Progressive Association[14]. Additionally, the Partnership includes the Sequoia Riverlands Trust,[15] which is involved in land conservation programs. The TBWP is currently engaged under a sub-award agreement with the Lower Tule Sub-basin with its seven Groundwater Sustainability Agencies and the underlying irrigation districts as funded to provide outreach and planning through the California Department of Conservation (DOC) and their Multi-benefit Land Repurposing Program (MLRP)[16]. More recently, the TBWP has been highly active in reaching out to further engage the Tule River Indian Tribe[17] with their new Forester and Chief Hydrologist; engaged in consultations with the Tachi-Yokut Tribal leaders,[18] and most recently the new Sequoia National Forest Supervisor and their Tribal Liaison[19]. Interactions with Tribes have been mindful of the White House's Guidance for Federal Departments and Agencies on Indigenous Knowledge[20]. The TBWP intends to use this funding to continue to build and deepen the foundations laid with these relationships. Other statements of qualification can be provided as needed.

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[11] https://www.tularebasinwatershednetwork.org/sequoia-to-the-sloughs-project
[12] https://snri.ucmerced.edu/
[13] https://ucanr.edu/
[14] https://www.allensworthpa.org/
[15] https://sequoiariverlands.org/
[16] https://tule-mlrp.org/
[17] https://tulerivertribe-nsn.gov/
[18] https://www.tachi-yokut-nsn.gov/
[19] https://www.fs.usda.gov/main/sequoia/home
[20] https://www.whitehouse.gov/wp-content/uploads/2022/12/OSTP-CEQ-IK-Guidance.pdf

Project Description

The Context and Our Approach

Our approach, guided by the proven collaboration methods and deep expertise in developing and enabling effective action-oriented networks and multi-stakeholder groups, will focus on leveraging a strong existing region-wide collaborative network, The Tulare Basin Watershed Partnership (TBWP), to achieve targeted and essential outcomes in perhaps the most vulnerable watershed – top to bottom -- in the San Joaquin Valley, and arguably in the Central Valley overall. Within the past 5 years alone, the region and watershed have survived a profound array of climate-amplified disasters: an extended once-in-a-1,000-year drought; near-annual (and currently burning) wildfires that have killed and/or threatened the southern-most sequoia groves, including approximately 20 percent of the Tule River Tribes' sequoias; extremely damaging post-fire floods and erosion that put downstream communities and water supply at risk, increasing heat and aridity, and large-scale and prolonged inundation of farms and habitat in the Tulare Lake bed with a surface area rivaling Lake Tahoe; and critically-overdrafted groundwater aquifers that will require massive repurposing of agricultural lands and impacts to agricultural communities. The cumulative ecological, hydrologic, and socio-economic damage is staggering and would have seemed unthinkable even ten years ago.

The collective restoration, conservation, stewardship, innovation, and effort required to foster a more sustainable, resilient, and even regenerative approach and watershed is massive and much needed. The awareness of what is needed and the readiness to act boldly is there. It all begins with a shared agenda and a powerful restoration plan. We will anchor our work by re-establishing a stronger presence and integration of local Tribes, specifically the Tule River Indians and Tachi-Yokuts, in planning, decision-making, and the on-the-ground work.

The TBWP's robust Charter, extensive track record of knowledge creation and collaboration around critical restoration and conservation solutions, relationships, and deep expertise enables it to provide a strong, and perhaps unparalleled, foundation for convening a diverse set of local, regional, State and Federal stakeholders and experts from the headwaters to the groundwater.

We draw on the best of collective impact and systems change methods and tools, practical science, and actionable data, as well as the persistent, caring, and day-to-day hard work of engaging, coordinating, and tapping the collective intelligence and passion to crystallize and advance powerful solutions that would otherwise be impossible.

Task A Watershed Group Development

Our first tasks will be to reassess the stakeholders given recent challenges, staffing changes, and government planning, as well as (re-)engage select parties to map out the stakeholders in our target watersheds.

We have been intensively coordinating and collaborating with many stakeholders -- conservation and equity groups, growers, water managers, and academic and agency allies throughout this watershed,

inclusive of its groundwater basin, since 2007, and more intensively since 2020. We've only been challenged in engaging forest service leaders due to the near-endless string of wildfires they have been battling with limited staff. We already have stakeholder assessments and relationships, so would primarily need to update and selectively expand that assessment to include disadvantaged communities and a much-expanded set of growers we have worked to build relationships with over the past few years, as well as "rethink" the assessments, and potential roles, now with a greater Tribal perspective as they become primary partners.

We will conduct up to fifteen (15) interviews with key stakeholders where there's been historical disadvantage or under-representation in watershed work, where there are key gaps in knowledge, and/or where we want to increase readiness for collaboration. These interviews will also inform workshops, communications, the overall "Working Group" (TWG), and the Technical & Regulatory Advisory Committee (TRAC) membership. We assume, from our previous work, that The Working Group (TWG) will include representatives from:

- U.S. Bureau of Reclamation Region 10 – South-Central California Office (Historically engaged with)
- Tule River Tribe
- Tachi Yokut Tribe - Santa Rosa Rancheria
- Allensworth Progressive Association
- Self-Help Enterprises
- Tule Subbasin GSAs connected to the Tule River and Deer Creek:
    - Pixley ID/GSA
    - Lower Tule River ID/GSA
    - Eastern Tule GSA
    - Tri-county GSA
    - Alpaugh GSA
- Flood Management Districts
- Southern Sierra IRWM as a key participant well representing the upper watershed areas
- Tulare County
- Towns of Porterville, Alpaugh, Earlimart, Pixley, Terra Bella and others
- District Conservationist NRCS offices of Tulare and Kings County
- Numerous growers, dairy farmers, and landowners
- Tulare County and Excelsior-Kings County Resource Conservation Districts
- UC Merced (Existing Board representation and further expanded)
- Sequoia Riverlands Trust (Existing Board representation)
- Tule Land and Water Conservation Trust
- The Nature Conservancy
- CA Audubon
- Pixley National Wildlife Refuge
- Atwell Island
- Sierra Nevada Conservancy
- CA Dept. of Conservation (MLRP and SALC)

- Jet Propulsion Labs (JPL) / NASA-Ames / UCLA (Potential)

Here is a description of the specific organizations and entities we have been working with in the watershed and their role in the proposed project:

- **Allensworth Progressive Association (APA)** – As a long-standing member of the Partnership, APA has always and consistently provided representation and leadership "at the table," advocating on behalf of the ubiquitous *Frontline Communities* that confront significant challenges every day on a socio-economic, environmental basis. For this proposal, they are the assurers of what Justice40's mandate is, and will provide the foundation for community engagement at the grassroots level. They have a long record of credibly performing outreach and engaging other disadvantaged unincorporated communities (DUCs), while providing critical leadership for those communities. APA can enlist community-based organizations (CBOs), such as environmental justice, economic justice advocacy groups, and support for BIPOC and migrant farmworkers when it comes to diversity, equity, and inclusion. They have historically provided the assurances, guarantees and safeguards that a broad, diverse representation of these historically underserved stakeholders remain at the table.
- **Tule River Tribe** – The Tribe has a reservation and stewards their section of the Tule River watershed. They are particularly interested in reducing the threats to their Tribal lands, including their forested areas of Sequoia stands, from catastrophic wildfire, drought/heat, floods, and decreased snowpack. They are reintroducing beaver, and their findings will help gauge further expansion beyond the reservation. We have had a long-standing relationship related to watershed conditions and water supply sustainability for the South Fork of the Tule River, which is the primary source of water for domestic and agricultural uses. The goal is to carry forward past significant watershed and water resource management investments and integrate with the S2S project on a whole watershed conditions assessment and implementation plan.
- **Central Valley Joint Venture** – CVJV is an organization managed by the U.S. Fish and Wildlife Service on a multi-agency and NGO basis that has been in existence for 35 years. During the last several years they have expanded their involvement into the Tulare Lake Basin region, and they are seen as a resource pool of expertise in which to be the basis of the TRAC.
- **Sequoia National Forest** – has a new Forest Supervisor. We will continue to re-establish the engagement of Sequoia National Forest as well as their Tribal Liaison with the TBWP overall, and specifically as it relates to this proposal.
- **Sequoia Riverlands Trust** – is a long-standing member of the TBWP, and their representative as the Executive Director serves on the Partnership's Executive Leadership. As a land trust they are focused on conservation easements, fee title,s and other ways in which to acquire, conserve and/or preserve important land that has intrinsic value and benefits, whether natural lands, forest, riverine, rangelands, or agricultural lands.
- **Lower Tule Sub-basin Groundwater Sustainability Agencies (GSAs)** – TBWP has been working for two years with six GSAs under the MLRP (Multi-benefit Land Repurposing Program) as funded through the CA Department of Conservation under a sub-award agreement for planning and outreach. Their role in participating is to utilize the activities and intended goals as a basis for identifying multi-beneficial opportunities directed towards an integrated whole watershed

approach with multi-beneficial uses for socio-economic, environmental, and other benefits, including floodwater management and groundwater re-charge to alleviate land subsidence and other detrimental impacts.

Organizing the group will also include developing clear roles and responsibilities, as well as a structure and timeline for participation. TWG will be formally organized, with clear roles for leadership and participation. Ag Innovations is very experienced in developing groups with clear expectations, structures, and rules. We codify these organizational requirements into a draft charter. The charter will be reviewed by the newly formed TWG as a draft before the first meeting and then approved in the first meeting. We will also spend time in the first meeting, ensuring that the team has clear communication protocols and ways to share information.

An outreach and engagement plan will be developed, including key messages to be shared consistently among partners and over time, which will build shared awareness, understanding and support, and avenues for two-way communication and input on our work. The plan will include both targeted stakeholders/groups and broader public outreach.

We will organize, facilitate, and document the outcomes of ten TWG meetings. We anticipate each meeting to be up to 2.5 hours in length to foster an integrated watershed vision, understand concerns and vulnerabilities/risks, develop goals and objectives, and turn priorities into objectives and projects. We will conduct TWG meetings every quarter with enough time between meetings for the TRAC to develop information to build a shared understanding for TWG and help it make informed decisions.

The proposed content and sequence of meetings is as follows:

A. Field Tour of Watershed (6-hr day; design 1/2 of meeting, 1/2 by experts)
B. Review & build agreement on charter elements
C. Share and refine concerns and interests, themes/insights from interviews; identify overlapping interests/common ground
D. Share and build understanding on current assessments (whole or partial), plans, maps, data, resources
E. Develop shared watershed priorities, barriers
F. Develop a prioritized set of goals to support priorities, based upon agreed to criteria
G. Learn about existing challenges & related solutions and actions to inform objectives
H. Identify management objectives, indicators, and targets for each goal
I. Identify possible projects to meet objectives
J. Finalize watershed plan and share with stakeholders via webinars

TWG meetings will alternate with TRAC meetings. Every other TWG meeting with be in person, starting with a day-long watershed tour led by hydrologists, biologists, and Tribal experts to give all a shared sense of the watershed and to 'connect the dots' throughout. We expect quarterly meetings with the last meeting scheduled for the middle of year three to finalize and approve the final watershed plan. The TWG will strive to reach consensus on project priorities, plans, and projects. However, if the group cannot reach consensus, we will document agreements and disagreements, so that the TRAC can provide technical or scientific advice to help resolve differences.

Task B Watershed Restoration Planning

Watershed restoration planning will be developed by the TRAC, including anyone who has information or planning responsibility for the watershed area. The TRAC itself, with support from Ag Innovations will collate information, analyze data, and write the watershed plan. They will have water quantity and quality information from UC Merced and other sources, as well as habitat information from the conservation groups and GIS resources available.

The TRAC will begin the watershed planning process by developing a list of watershed concerns and issues. This list will be refined and updated through the data gathering and analysis task and will guide the watershed plan document. Once the key issue areas are identified, the TRAC will lead the process of collecting and reviewing relevant documents and data, and coordinate with the team to identify available technical resources. It is anticipated that these resources will include but are not limited to existing planning documents, existing natural resources monitoring efforts and related data, scientific literature, and climate change projections for the watershed. Relevant data for the planning effort will be gathered and inventoried with appropriate metadata; these data are anticipated to include vegetation mapping, land use, species habitat mapping, water quality, hydrology, and sediment discharge, among others. When data are necessary to document and track priority issues identified by TWG, but are not available or under development, they will be documented in a data gaps summary to be included in the watershed plan. Addressing important data gaps may be a subsequent project for TWG.

After technical resources have been gathered and documented, this information will be analyzed, visualized, and described. This work will be led by the TRAC with ongoing feedback from the broader team. We will be engaging the GIS and local conservation and resource expertise in processing and analyzing geospatial (GIS) data to capture, integrate, and harmonize the latest data and insights on vulnerabilities, high-value habitat and ag lands, DAC needs and opportunities, as well as identify potential trends and interconnections. UC Merced and The Nature Conservancy's GIS and decision-support tool (aka the SHINY application) will provide a wealth of data layers even though they may be repurposed for a higher-resolution GIS map. Unique and essential to this effort will be the careful integration of historic Tribal land uses for the Tule River and Tachi Yokut Tribes, which have been long erased from planning and resource management documents and plans, to reintegrate them into the fabric of the landscape and community. GIS expertise from within the TBWP (i.e., Sequoia Riverlands Trust) will work with the TRAC to visualize these findings in meaningful and actionable ways for the stakeholders.

The watershed plan document will present a summary of the issues in the watershed and identify priorities for advancing restoration that meets the goals of TWG. The issues and concerns identified in the preliminary technical task will be contextualized with the data and technical materials synthesized. The TRAC will work iteratively with TWG to ensure complexities and nuances of their concerns are fully investigated and that additional data/information needs are tracked in the plan document. Given the extensive local knowledge and broader expertise of the existing Partnership and stakeholders to be engaged, recent projects and plans (e.g., draft Lower Tule River Conservation Plan) and current efforts like the Tule Subbasin MLRP, will identify a set of high potential projects to be further assessed and designed later.

The TRAC will also work with the group to generate a list of conceptual restoration project ideas that stem from the issues in the watershed and findings from the data analysis. The TRAC will prepare a draft watershed plan and submit it to the group for one round of consolidated comments, work with the group to discuss their feedback, and then complete the final version of the watershed plan. The finalization of this document will be a list of recommended conceptual restoration concepts to be advanced by the group in subsequent phases of this effort.

Section E.1 Evaluation Criteria

E.1.1. Evaluation Criterion A—Watershed Group Diversity and Geographic Scope

E.1.1.1. Sub-criterion No. A1. Watershed Group Diversity

Tulare Basin Watershed Partnership prides itself on assuring the maximum amount of diverse stakeholder interests are engaged in their programs and projects, and has historically utilized professional facilitation services to assure a "level playing field." Relationship development to build trust is a core tenant, as well as a consensus decision-making process based upon the best data available and "ground truthing." With our independent facilitator, Ag Innovations, the applicant may be the grantee and Project Manager. However, the Project Manager must subordinate themselves and play by the same ground rules. With that premise as the foundation programmatically, it is essential that there is the widest breadth of stakeholder involvement. In this case, as noted specifically above, it is the intent to engage landowners, county and city government, tribal communities, disadvantaged/underserved communities, irrigation districts and others as specifically listed under Task A – Watershed Group Development. Others who will be invited to participate or be a resource on a consultative basis include the following who also have State or regional planning responsibilities or expertise that can and must be utilized:

- **Sequoia National Forest (SNF) Supervisors Office** and the current Forest Plan Update, as well as further developing a formalized relationship with the new Supervisor and their staff, including the Tribal Liaison. Two sessions were conducted with the Forest Supervisor and Tribal Liaison on August 30th to share and invite their participation despite all the fires currently underway this season within SNF that severely hampered the ability to engage with them earlier. However, both the Supervisor and the Tribal Liaison were very receptive, and in fact, the Tribal Liaison provided a map (see Exhibit B in section E.1.1.2. Sub-criterion No. A2. Geographic Scope below) of where tribal communities exist, whether federally recognized or not, and has offered to work on Tribal

outreach and engagement. This map, though not delineated for the watersheds within the project area, clearly illustrates the ability to work with not just the two major Tribes, but where other Tribal entities within or adjoining as identified can participate as well.

- **California Association of Resource Conservation Districts (CARCD)** and the multi-agency/NGO Joint Forestry Committee and Tribal Liaison. Communications regarding their direct engagement are currently underway. This is expected to continue to progress in a way that supports the efforts to engage all stakeholder interests as a part of this project as proposed.
- **Central Valley Flood Protection Board** in which to tie into their Flood Protection Plan Update process of 2024, including their legal authority to include the Tulare Lake Basin, which is currently excluded due to lack of resources. On-going discussions of collaboration to incorporate the Basin into their next plan are underway, and the TBWP participates in their plan update process.
- **CA State Water Resources Control Board (SWRCB)** in which to tie into their Triennial Workplan Update that includes the Tulare Basin Watershed Partnership.
- **CA Department of Water Resources** in consultation with their recently adopted CA Water Plan Update 2023, which includes Resource Management Strategies, Water Equity, and the Tulare Basin Hydrological Regional Report. Additionally, for the Groundwater Sustainability Program under the Sustainable Groundwater Management Act (SGMA) and their Integrated Regional Water Management Program (IRWMP).
- **Tulare and Kings County Farm Bureaus** representing agriculture's ongoing challenges, including as it relates to MLRP under the CA Department of Conservation and SGMA under the CA Department of Water Resources.
- **Friant Water Authority** in which to consult on their U.S. Bureau of Reclamation long-term contracts under the Central Valley Project for Class I, Class II, and 215 water allocations, as well as challenges to their surface water conveyance system via the Friant-Kern Canal and intertie connections.
- **Lower Tule Sub-basin** and the six Groundwater Sustainability Agencies (GSAs) within.
- **Sequoia Riverlands Trust** for their involvement with the CA Department of Conservation's SALC, Sustainable Agricultural Lands Conservation Program.
- **Native American Fish and Wildlife Society** for Indigenous Knowledge applications and practices, field observations, and including what is known as cultural burning.

E.1.1.2. Sub-criterion No. A2. Geographic Scope

The Sequoias to the Sloughs (S2S) watershed project includes two sparsely populated watersheds of the Tule River at 483 square miles and Deer Creek at 420 square miles in which their headwaters originate within the western slopes of the southern Sierra Nevada in the Sequoia National Forest or the Tule Indian Reservation. Sub-watershed designations are at the HUC 10 level, of which there are five for the Tule River and three for Deer Creek. These are logical units in which to work from the headwaters to the confluence to the historic Tulare Lake and average approximately 125 square miles. Communities, landowners, and others within these sub-watersheds should be able to relate to them and be fairly acquainted with what they perceive to be the challenges and opportunities in which to share. See Exhibit A and Exhibit B below.

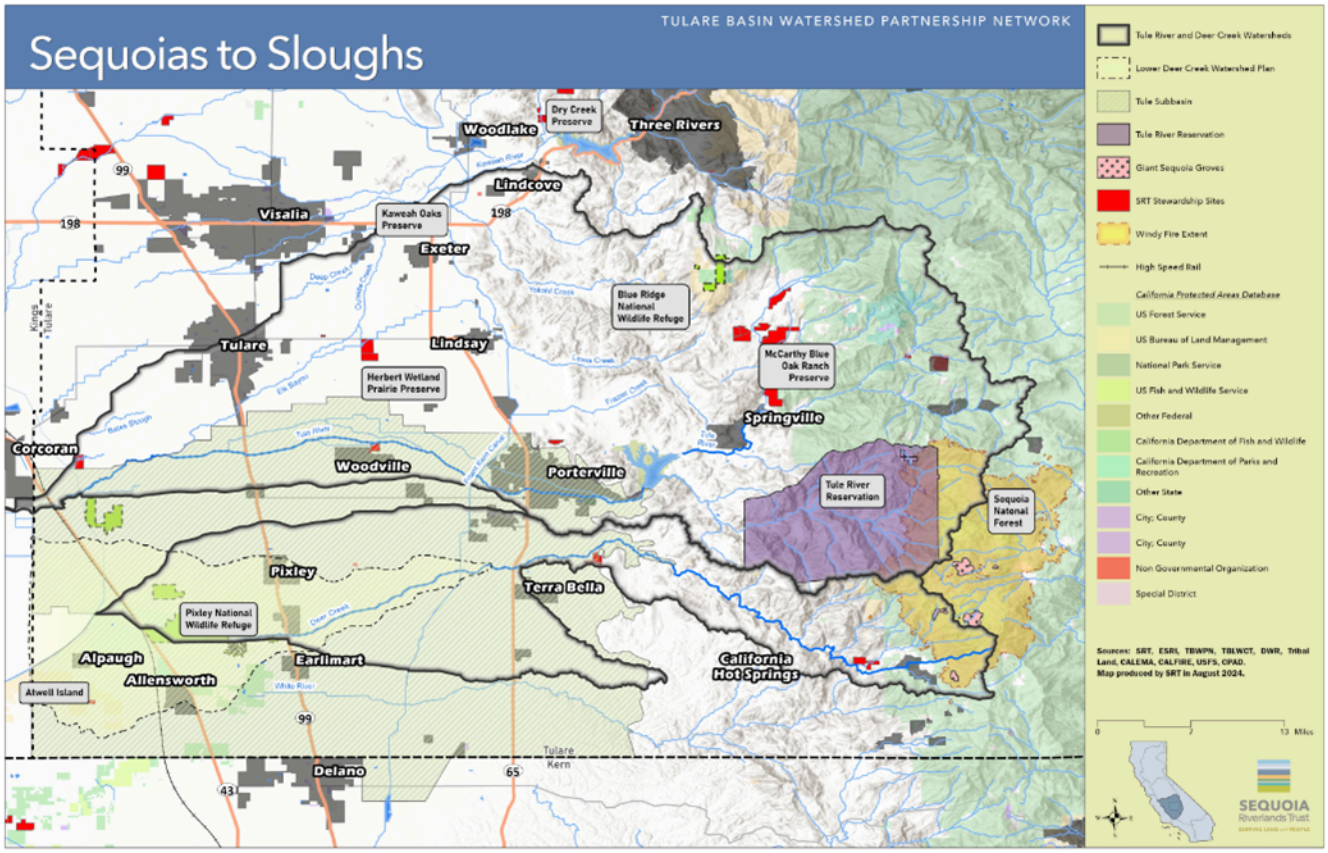

Exhibit A – Map of Tule River and Deer Creek Watershed Delineations and Significant Features. *(Courtesy of Logan Robertson Huecker, PhD and Executive Director, Sequoia Riverlands Trust and Tulare Watershed Partnership's Executive Leadership)*

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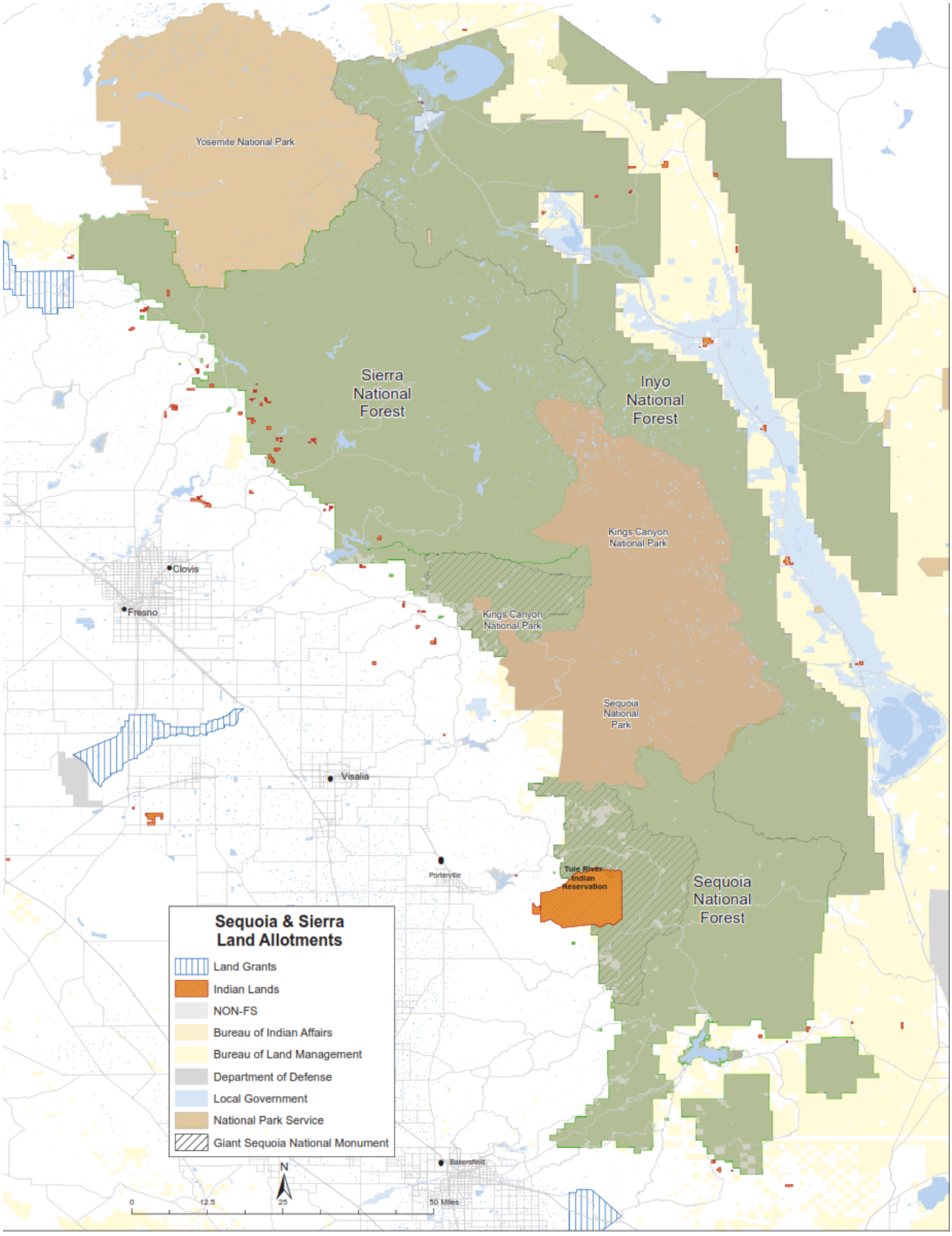
Exhibit B – U.S. Forest Service Map of Tribal Allotments and Other Land Ownership Designations
(Courtesy of William Garfield, Tribal Liaison and Tony Edwards, Supervisor of Sequoia National Forest)



E.1.2. Evaluation Criterion B— Developing Strategies to Address Critical Watershed Needs

E.1.2.1. Sub-criterion No. B1. Critical Watershed Needs or Issues

Critical watershed needs have historically been driven by the high demand for important natural resources focused primarily on water – where every drop counts, and where a farmer from the region once famously said, *"That we are all chasing after the same molecule."* With the enactment in 2014 by the state of California of the Sustainable Groundwater Management Act known as SGMA[21], severely over-drafted groundwater basins must achieve an overall surface to groundwater balance by 2040. Additional constraints of how water is effectively and efficiently managed, and utilized for the benefit of everyone in the Tulare Basin are in a state of flux on a socio-economic and environmental basis. Other interventions and their enforcement are in the works, including the litigious lay of the land and political landscape, primarily focused on this finite resource and the increasing variability of its availability. Thus, it has increased the potential for further societal and economic disruptions. Water is what fuels a multi-billion-dollar economy primarily dependent upon agriculture, timber, and tourism. Within the Tulare Basin, it is the source of an abundant and clean supply on average of 2,400,00 acre-feet per year. The value of the water flowing off the western slopes of these southern Sierra Nevada watersheds, such as Tule River and Deer Creek, under this proposal is immeasurable and invaluable. They go well beyond its commodity value of cost per acre-feet – striving to continuously support the 5th largest economy in the world, the state of California.

Unfortunately, over the last 25 years this resource, which fuels the regional and state-wide economy, has been severely stressed in unprecedented ways never imagined. And now its abundance and highest quality that could be available on a sustainable basis, has been and is now further challenged in a multitude of ways.

The prolonged drought, along with the Bark Beetle infestation and the resultant tree mortality of millions of trees covering the upper watershed project area and well beyond, started to manifest itself in 2012. Soon, it was not long before the watersheds on a broad landscaped basis were a tinderbox waiting for lightning or, sadly an arsonist to strike. It became a race against time within these two watersheds.

Unfortunately, the Windy Fire of 2021[22] struck the Tule River Watershed and destroyed 100,000 acres of this important watershed, including killing an estimated twenty percent of the Giant Sequoias sacred to the Tule River Indian Tribe on their ancestral lands.

Downstream within the Tule River and Deer Creek watersheds, the combined tolls of devastating wildfire and historic droughts and flooding have created great challenges to the frontline communities that are dependent upon a thriving agricultural-based economy for their livelihood. In 2023, an endless series of storms moved in from the Pacific Ocean, riding upon what is known as an Atmospheric River. The consequences were historic and unprecedented for the state of California and

[21] https://sgma.water.ca.gov/portal/
[22] https://wildfiretoday.com/2021/12/12/photos-and-video-from-the-windy-fire-in-sequoia-national-forest/

the San Joaquin Valley. For the Tulare Lake Basin it became the return of the *Phantom Lake*[23], or as the Tachi Yokut Tribe says, the return of *Pa'ashi,* the Mother and Creator of who they are as a people and who gave them everything. By the time the rains subsided and the runoff from the melting snowpacks coursed their way to the valley floor primarily as unmanageable floodwaters, the amount of surface water coverage of the Tulare Basin's landscape was the size of Lake Tahoe. The displacement of people living in the two watersheds and the impact to the agricultural-based economy is immeasurable. The impact is still being felt today.

Finally, as noted earlier, the state of California's intervention and mandate with the enactment of SGMA, and the challenges and need to take meaningful action under SGMA has spiraled nearly out of control. The time to bring all parties as stakeholders together to address these challenges is now and with a sense of urgency. According to JPL-NASA Ames and the California Institute of Technology under the GRACE Program,[24] the Central Valley and more specifically, the Tulare Lake Hydrologic Region within the San Joaquin Valley, is the fourth most groundwater-stressed area of the world.

Thus, the imperative of this proposal is to address as best as possible, on a consensus-built basis, a pathway forward within a watershed management framework. One in which to assess, model, and develop a regionally agreed-upon comprehensive and integrated Implementation Plan on a mutually beneficial basis for all stakeholders.

E.1.2.2. Sub-criterion No. B2. Project Benefits

The establishment under the Partnership of The Working Group (TWG) along with the Technical and Regulatory Advisory Committee (TRAC) for the Sequoias to the Sloughs (S2S) Initiative will create an overarching theme and watershed framework in which to operate. Bringing everyone to the table with a common purpose, professionally facilitated, will create an environment conducive to promoting trust, fairness, equity, and inclusion for the mutual benefit of all stakeholders.

Secondly, the stage will be set in which all parties collaboratively will be able to identify, analyze, discuss, and recommend potential actions that will address the various challenges on a consensus-building basis as discussed previously in E.1.2.1. Thirdly, with the TRAC, the goal is to recruit the best expertise and provide them as a resource to The Working Group.

Finally, the fourth benefit of the project will be the ability to link and integrate existing programs and initiatives relevant to addressing the stressors impacting the S2S and other watersheds without needing to "reinvent the wheel." This will provide increased capacity, technical and regulatory and other essential capabilities, and increase the effectiveness and efficiencies within the TWG. This will result in a better, well-integrated and comprehensive Watershed Protection and Enhancement Implementation Plan than otherwise would have occurred.

The benefits of an adopted Watershed Protection and Enhancement Implementation Plan addressing areas of concern would include the following:

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[23] https://www.nytimes.com/2023/06/25/us/california-storms-tulare-lake.html

[24] https://www.jpl.nasa.gov/news/study-third-of-big-groundwater-basins-in-distress

Upper Watershed Post-Fire Recovery and Protection

In addition to on-going prevention work, it is imperative that the Watershed Implementation Plan would integrate and utilize the plans of the Sierra National Forest and Tule Indian Tribes forestlands. An analysis of current conditions and resources on a post-fire basis utilizing USGS Debris Flow Analysis Web Portal[25] and USGS/USFS's BAER[26] (Burned Area Emergency Response) Analyses will need to be quantified and prioritized. Upper watershed conditions set the stage for downstream benefits related to water quality and quantity as well as to better manage potential floodwaters. Additionally, the benefits of how natural events are triggered will allow *Frontline Communities* to better understand their underlying dynamics

Drought and Floods Variability, Intensity, and Impacts

The sharing of information regarding that there is no "normal" when it comes to climate and weather conditions. "Average" temperature or precipitation only smooths out historical data of actual climatic or weather events – such as "above average" temperature or the "100-year" flood event. Understanding what drought and flooding mean, and the actions that will need to be taken as mitigation measures, will be a beneficial outcome and an integral part of the Implementation Plan. It is expected, as noted in the prior section E1.1.1, that the agencies and others that will be participating will be able to map out a schema that provides the best roadmap in which to move forward on a sustainable basis.

Water Quality and Quantity, Integration and Management

The benefits of the project with respect to the common denominator that all stakeholders must understand is that the quality and availability of water drive everything from a socio-economic and environmental basis. The successful convening of disparate stakeholders and facilitating their interactions to develop a consensus-built and adopted integrated and comprehensive Watershed Implementation Plan is the greatest benefit. It will set the stage for years in which, as a sustained Working Group, they will continue to address the multiplicity of challenges that the region will face well into the future.

Tribal, Cultural, and Social

The proposal is also focused on maximum engagement that includes the two federally recognized tribes, and other tribal entities such as the Native American Fish and Wildlife Society. The goal is that the project benefits them by giving them access to decision-making opportunities regarding their ancestral lands and influence over the stewardship of the natural lands. Secondly, the region is richly diverse, with a multitude of ethnicities and the cultural values that they carry with them. Being able to embrace and engage them through this project is an intended goal as well. Finally, there are communities such as the historic *Frontline Community* of Allensworth, a symbol of past racial, environmental, economic, and other social injustices, that will be able to chart their future well-being through this project as proposed.

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[25] https://landslides.usgs.gov/hazards/postfire_debrisflow/#:~:text=The%20USGS%20conducts%20post-fire%20debris-flow%20hazard%20assessments%20for,may%20occur%20in%20response%20to%20a%20design%20storm.

[26] https://www.fs.usda.gov/naturalresources/watershed/burnedareas.shtml

E.1.3. Evaluation Criterion C—Readiness to Proceed

On the next four pages is Exhibit C, a preliminary project schedule that shares tasks, subtasks, roles, and timeline, indicating a readiness to proceed on the project as an existing watershed organization.

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E.1.4. Evaluation Criterion D—Presidential and Department of the Interior Priorities

E.1.4.1. Climate Change

The Central Valley of California, and the Tulare Lake Basin specifically, has always been known for being a dry semi-arid region with an average rainfall of 10 inches on the valley floor in which water stress has played an increasing role since the Gold Rush era of the 1850s. With the introduction of large-scale agriculture, more people moved into the state with the intent to homestead and farm their land. Agricultural demand for water within the basin is at about 85%, with 3-acre feet of water required for every acre of permanent crops grown. Thus, with an evapotranspiration (ET) rate of three to one, demand has always exceeded supply, and has been augmented by using groundwater or exporting water through the California State Water Project (SWP) and the federal Central Valley Project (CVP). This is the regional baseline that climate change plays and the challenge at hand that this project proposal is trying to address with mitigation measures to act upon as the outcome.

The Climate and Economic Justice Screening Tool clearly demonstrates the level of poverty, education, health, and other factors at the 90 percentile and above. The screening tool for Tract Number: 06107004400 for the town of Earlimart in Tulare County on the valley floor within our project area was indicated as disadvantaged with a low income ranking of 95. The Tule River Tribe and surrounding area under Tract Number: 06107002700 shows a fire risk of 93. Unfortunately, they are still recovering on the last fire that swept through and destroyed 19,000 acres of forestland and killed 20% of their Giant Sequoias.

Environmental deterioration that includes the number, frequency and magnitude of fires that emit millions of tons of GHG emissions of CO2e which contributes an ever-increasing rise in temperature and much of the area shows as being in the 90th percentile and above. The project as proposed is addressing the impact of tree mortality and high intensity fires on a broad landscape basis and how these impaired watersheds can be restored, protected, and enhanced. Unfortunately, a number of these communities are trying to recover from fires that have already swept through. Using the tool confirms the level of flood risks for the *Frontline Communities* that we will be engaging with. Communities have already faced the reality of unmanageable and significant flooding in 2023 and are working towards recovery. The *Frontline* African American community of Allensworth and surrounding area under Tract Number: 06107001400 are ranked in the 93rd percentile.

Ironically, for the tracts analyzed with the screening tool for “Expected agriculture loss rate” – there is no information associated with that measurement. The goal is to develop an implementable plan of action to redress the historic impacts of not managing our natural resources on a sustainable basis, and now facing the need to meet those challenges head-on.

Sustainability in the face of climate change is a formidable challenge. The resiliency of the natural environment, agriculture as the economic engine for the region, and the societal challenges that include diversity, equity, and inclusion are an integral part of addressing the mandate of Justice40. The indices from the screening tool clearly demonstrate that there is a great disparity within the project area as proposed that needs to be addressed – and a long way to go towards regional self-sufficiency.

E.1.4.2. Benefits to Disadvantaged, Underserved, and Tribal Communities

Within the existing Tulare Basin Watershed Partnership has been a longstanding Board of Director representative from the Allensworth Progressive Association (APA), a historically marginalized community, established under the leadership of former Colonel Allen Allensworth. In 1908, the town was founded as the first in California to be financed and governed by African Americans. Today, as a partner, the APA plays an especially important and invaluable role within TBWP and is an integral part of our proposal. While providing important leadership, they are also representative of what it is to be a *Frontline Community* facing major challenges in the face of climate change and the impacts of drought and flooding. Their ability to reach out to other communities and provide strong leadership with common experiences is one of the greatest benefits that will be available through this project.

Both the Tule River and Tachi-Yokut tribes are an essential part of this undertaking. As described earlier, both tribes have experienced historic injustices and have been underserved for decades. However, they have been very resilient in the face of great adversity. Their active engagement and participation are vital to the success of this project's outcomes. The Tule River tribal lands are situated in the forested headwater region of the upper watershed. And, the Tachi-Yokut tribe is situated down near the shores of the historic Tulare Lake, first known to them as Pa'ashi. The project thus covers both Tribes' traditional lands. There is an opportunity within this proposed project to broadly apply Indigenous Knowledge within the project boundary areas. Tachi-Yokuts have envisioned the permanent return of Pa'ashi, and the Tule River Tribe is the steward of important stands of Giant Sequoias with a need for regeneration due to the Windy Fire of 2021 killing 20% of those stands. There is an abundance of benefits and opportunities for sharing how they believe these traditional lands should be approached with cultural sensitivity, and opportunities to work together to steward these lands for generations to come.

CENTRAL VALLEY JOINT VENTURE

Conserving Bird Habitat in California's Central Valley

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September 3, 2024

RE: Participation as a Technical and Regulatory Advisory Committee (TRAC) for Tulare Basin Watershed Partnership's – Sequoia to the Sloughs (S2) Working Group Proposal

To Whom It May Concern,

On behalf of the Central Valley Joint Venture (CVJV), I am writing in support of Tulare Basin Watershed Partnership's – *Sequoia to the Sloughs (S2) Working Group* Proposal. CVJV is a partnership of 20 public and private entities comprised of government agencies (including the Bureau of Reclamation), science and conservation organizations, and one regulated utility provider. Our mission is to work collaboratively to protect, restore, and enhance habitats for birds, in accordance with conservation actions identified in the CVJV Implementation Plan (Plan). The Plan provides a cohesive vision for bird conservation in the Central Valley within the context of the entire Pacific Flyway and sets quantitative habitat objectives based on best available science to ensure sustainable populations of migrant and resident birds in the Central Valley, including the Tulare Basin and tributary watersheds. Habitats of focus include wetlands, riparian forests, grasslands, oak savannah, and Sierra meadows. Most recently, we have re-established the CVJV Tulare Basin Working Group to engage in one of the most important hydrologic regions of the state of California that includes Pixley and Kern National Wildlife Refuges that relies upon water supplied under the Central Valley Project Improvement Act of 1992 (CVPIA 92). The goals and collaborative approach of the S2 Working Group proposal are aligned with and promote our core conservation objectives for the Tulare Basin provided in the CVJV Plan.

There have been a series of devastating fire and flooding events that have created unprecedented impacts affecting public safety in respect to *Frontline Communities* that are disadvantaged and under-resourced. The future risk to those communities and the environment includes ongoing exposure to potentially greater natural disasters. Planning, developing, and managing implementable mitigation measures and multi-benefit solutions is vital, and we see a role for CVJV as a TRAC, providing valuable expertise from a governmental and non-governmental perspective through our diverse membership. To this end, the CVJV Tulare Basin Working Group can be available on an as needed basis to help provide technical guidance and support to the S2 Working Group.

Taking an integrated whole watershed approach that includes community engagement as a working framework that can develop the capacity, capabilities and effectiveness focused on the mitigation, enhancement and protection of our shared conservation interests is important. An abundant, reliable, sustainable supply of water – quantitatively and qualitatively for multi-beneficial use – is the common denominator that we all share as an imperative. Bringing all stakeholders including Tribal, underserved communities, water agencies, landowners and others to the table and developing a comprehensive plan of action is that first critical step that this proposal has as its goal.

Sincerely,

James Cogswell
CVJV Coordinator

cc: Central Valley Joint Venture Board

August 31, 2024

RE: Support and Participation in the Tulare Basin Watershed Partnership's – Sequoias to the Sloughs (S2S) Working Group Proposal

To Whom It May Concern,

On behalf of the Southern Sierra Regional Water Management Group (SSRWMG), I write in support of Tulare Basin Watershed Partnership's – *Sequoias to the Sloughs (S2S) Working Group* Proposal. Since 2008, our organization, with over 15 agency and NGO members and over 110 stakeholders, operated under the California Department of Water Resources (DWR) IRWM Program. Our mission is to work collaboratively to protect, restore, and enhance the upper watersheds of the southern Sierra Nevada Region including the headwaters and foothills of the Tulare Lake hydrologic region, including the upper Tule River and Deer Creek watersheds. Under TBWP's S2S proposal, the primary objective is to integrate interests and projects in these two adjoining watersheds and facilitate a working group integrating upper and lower watershed stakeholder interests. These are crucial first steps creating a model for other watersheds that flow into the historic Tulare Lake.

A series of devastating fires, including the Pier Fire of 2017, Windy Fire of 2021 – and currently the Coffee Pot Fire devastated Sequoia Groves, other forested areas and created impacts to the public safety within the Wildland-Urban Interface of these two watersheds. Estimates in one area of the Tule River Indian Reservation are that over 20% of the Sequoias on the Reservation died. Even after meadow restoration, raising the water table, fires impacted the projects that our RWMG implemented. Subsequent flooding created historic downstream impacts on public safety and water quality in *Frontline Communities*, disadvantaged and under-resourced. These events magnified natural disaster risks to these communities. Planning, developing, and managing implementable mitigation and adaptation measures is vital, and we envision our organization as a key resource in the collaboration, contributing to stakeholder involvement and project integration and implementation.

This integrated, whole watershed approach to natural resources management-including a community engagement framework-can develop the capacity, effectiveness and support focused on disaster mitigation, and resource enhancement and protection. A healthy watershed is a source of clean, abundant, reliable, sustainable water supply providing conjunctive use opportunities for communities. Facilitating stakeholder involvement including Tribal, underserved communities, water agencies and others and developing a comprehensive, specific action plan to implement is the TBWP's first critical step. We greatly anticipate participating and assisting with this process and projects.

Sincerely,

Bobby Kamansky

Bobby Kamansky, Regional Water Management Group Coordinator