

TSIRWMA: Revised 2020 Review of Objectives and Measurable Planning Targets

Objective:	Priority:	Anticipated Completion Date:	Measurable Planning Target:	Projects contributing to completion of target:
A Ensure water consumers have access to a clean and safe water supply within the region.	High	2022	Identify areas where water quality and water supply for basic health and sanitation needs are deficient.	Phoenix Lake Preservation and Restoration, GCSD Water Distribution System Evaluation Project
		2022	Prioritize corrective actions to meet the needs identified in A.1.	GCSD Water Distribution System Evaluation Project
B Improve water supply infrastructure wherever it is deteriorating or and causing water quality and or system reliability issues, prioritizing DACs and populated areas. (e.g. fireflow, contamination, etc.).	High	2022	Determine which water distribution systems have water supply infrastructure deficiencies, and evaluate options to remedy the issues.	Phoenix Lake Preservation and Restoration, GCSD Water Distribution System Evaluation Project, GCSD Groveland/BOF Waterline, GCSD Big Creek Clearwell Project, GCSD Water and Sewer Mast Plan Updates, THCS Million Gallon Tank #2 Restoration Project
		2035	Improve deficient water supply infrastructure and/or distribution in DAC and/or urban communities within the planning horizon.	GCSD Big Creek Clearwell Project, GCSD Downtown Water Distribution System Replacement Project, GCSD Relocation of AWS Water Treatment, THCS Million Gallon Tank #2 Restoration Project
		2035	Promote fire protection storage/conveyance at all community water systems.	GCSD Downtown Water Distribution System Replacement Project, GCSD Emergency Generator Project, THCS Raw Water Fire Draft Point
C Reduce contamination in our natural water resources (groundwater and surface water) as well as in our infrastructure (water conveyance and storage systems).	High	2025 2028	Inventory and prioritize drainage and erosion concerns concerns on existing existing roads. Reduce erosion from roads at five (5) least three (3) high priority, hydrologically-connected segments every roads in the next five (5) years.	Phoenix Lake Preservation and Restoration, Sierra Pines Water Treatment Plant, Phoenix Bypass Ditch Pipeline, BAER roads assessment in Donnell Fire area. Additional HCS surveys as part of Donnell Salvage NEPA. Most needed work accomplished as part of salvage sale. In Rim Fire area, Timber General Order permit with Water Board requires monitoring of erosion sites, with focus on roads. Inventory of road erosion issues within Rim footprint as well as tracking of treatments. Culvert replacements on Granite Creek, Granite Creek Tributary, and Reynolds Creek funded by SNC and WCB.
		2025 2030	Identify and prioritize areas for extension of collection system and providing wastewater treatment to areas that are currently deficient. Onsite Waste Treatment Systems (OWTS).	Sonora Regional Wastewater Treatment Plant Proposal, THCS Sherwood Forest OWTS Conversion Analysis
		2025 2030	Onsite Waste Treatment Systems (OWTS). Correct five (5) areas where failing septic systems or other wastewater facilities are contaminating surface water and/or groundwater by 2025 2030 including implementation of prioritized extensions/corrections within the planning horizon.	GCSD BOF Sewer Lift Station Project

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		2025 2030	Strategically monitor selected waters to locate bacterial and other toxic contamination (such as mercury and contamination caused by failing septic systems) and develop plans to reduce contaminants. Monitoring to occur at least annually. Prioritize contaminants and areas of treatment.	
		2025 2030	Coordinate with Counties to determine level of compliance with the Statewide Septic Systems Policy for contamination by OWTS systems, particularly those adjacent to 303(d) listed water bodies by 2025 2030.	
		2025 2035	Evaluate the impact of stormwater, runoff, and onsite wastewater treatment systems on raw water conveyance and/or storage.	
D				
Improve wastewater infrastructure to meet discharge and disposal requirements and to reduce sanitary sewer overflows.	Medium	2035 2025	All wastewater treatment plant discharges comply with NPDES/WDR permits by 2020 2025. Reduction of treated effluent discharges to surface waters is the desired goal where cost effective within the planning horizon.	Sonora Regional Wastewater Treatment Plant Proposal, GCSD Waste Water Treatment Plant Updates
		2022 2025	Identify areas of excessive sanitary sewer collection system inflow and infiltration, and reduce where insufficient capacity exists.	THCSD Inflow/Infiltration Identification and Reduction Project
		2035 2025	Reduce annual wastewater collection system preventable spill events.	
E				
Enhance watershed health and resiliency to increase sustainable water yield, ecosystem function, and recreational opportunities.	High	2035 2024	Identify priority areas for improved water yield, water quality watershed protection, and/or ecosystem function by 2019 2024. and implement Implement 5 projects within the Planning Horizon planning horizon.	Stanislaus National Forest Upper South Fork Stanislaus River Watershed Restoration and Water Quality Enhancement Project
		2035	Prioritize areas for fuels management treatments and increase the pace and scale of fuels management activities across the Region to reduce fuel loading by 30% within the planning horizon.	YSS and SERAL Project, GCSD Shaded Fuel Break Proposal
F				
Improve the condition, and ecosystem function, and value of meadows, forests, and rangelands.	Medium	2035	Summarize, synthesize, and prioritize available meadow information and identify high priority meadows for restoration.	Stanislaus National Forest Rim Fire Restoration Program, Rim Meadow Assessment was completed in 2014. Identified STF meadow restoration needs are entered in Watershed Improvement Tracking (WIT) database. This covers all 4 districts (not just Rim specific). Spreadsheet version was created for FS Regional Office in 2018 and has some prioritization.

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		2035	Restore ecosystem function to at least one meadow per year beginning in 2017 2025 and continuing within the planning horizon.	Stanislaus National Forest Upper South Fork Stanislaus River Watershed Restoration and Water Quality Enhancement Project, 2017: Wilson Meadow, Upper Cherry Creek Meadow, Lower Cherry Creek Meadow, Lower Fahey Meadow, 2N55 Meadow; 2018: Montgomery Meadow, Wet Meadow Springs, Thompson, Meadow 1751, Walton Cain Spring, Rackerby Jack Spring; 2019: Reynolds Meadows, Bloomer, Bluff, Groundhog, Middle Three, and Upper Three Meadows; 2020: Indian Springs
		2035	Coordinate with the Yosemite Stanislaus Solutions Collaborative and agencies to identify forest and/or rangeland priority projects.	SERAL being developed in collaboration with YSS.
G Assist in the protection and recovery of native aquatic and other water dependent species; prioritizing sensitive special status, threatened and endangered, rare and unique, and culturally sensitive species.	Supporting	2035 2030	Coordinate with state, federal, and tribal governments; and non-governmental organizations to identify sites with at-risk species where threats can be corrected or reduced.	2015: Shell Meadow - Yosemite toad; 2016: Coyote Meadow - Yosemite toad; 2019: Bloomer, Bluff, Groundhog, Upper Three and Middle Three Meadows - Yosemite toad.
		2035	Implement corrective projects at 5 sites within the planning horizon.	
		2035	Maintain the continued presence of species such as Yosemite Toad, Foothill Yellow Legged Frog, Sierra Nevada Yellow-Legged Frog, Western Pond Turtle, and habitat for the California Red-legged frog as evaluated through projects to restore critical habitat.	USFS Upper South Fork Stanislaus River Watershed Restoration - Yosemite toad habitat meadow restorations - completed as IRWM project through DWR implementation grant.
		2035	Support projects that maintain the continued presence of hardhead, Chinook salmon, and steelhead in the Tuolumne and Stanislaus Rivers.	
H Restore, preserve, and promote the regeneration of wetlands, springs, fens, vernal pools, and native riparian communities, and reduce invasive species.	Supporting	2025 2028	Complete an inventory and prioritization of areas of at-risk riparian plant habitat.	Rim Springs assessment and Rim Meadows Assessment completed in 2014.
		2025 2030	Inventory and locate at least three (3) examples of riparian sites with invasive plant species by 2025 2030.	SNC noxious weeds grant to identify and treat weed populations (uncertain if any riparian sites) in 2020-2024. NDRC (HUD grant) also has noxious weed eradication component.

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		2035 2030	Reduce invasive infestations such as himalayan blackberry, bull thistle, mullein, and star thistle at 5 sites within the planning horizon.	Weed treatments at Wilson Meadow, Upper, Middle, and Lower Cherry Creek Meadows, Met Meadow.
		2025 2035	Restore 4 acres of springs and riparian habitat by 2016 2030, and an additional additional 16 10 acres by 2025 2035.	Restoration of 8 springs in Rim Fire area in 2017, totaling 3.25 acres. Aspen stand release at four sites in Rim (Cottonwood Meadow, Jawbone Quarry North, Jawbone Quarry North 2, Jawbone Quarry South), totaling approximately 17 acres.
		2035	Complete a baseline inventory of wetland habitat within IRWM boundaries within planning horizon.	
I Reduce the risk of localized flooding, and improve stormwater management and retention.	Supporting	2025	Complete an assessment to identify substandard drainage structures and improvements needed to reduce risk of structural failure.	GCSW Waste Water Treatment Plant Flume Project
		2017 2030	Evaluate and identify appropriate stormwater BMPs for application throughout the region by 2017 2030.	TSIRWMA Stormwater BMP Handbook Appendix, TSIRWMA Stormwater Project Identification Tool (SPIT)
		2035	Coordinate with the area agencies Local Hazard Mitigation Plan updates to improve regional flood management by addressing preparedness, response, and post flood actions throughout the planning horizon in accordance with Stormwater chapter of IRWMP.	Tuolumne County Multi-Jurisdiction Hazard Mitigation Plan, GCSW Waste Water Emergency Action Plan
		2025 2035	Evaluate feasibility of permeable surfaces and other innovative projects to attenuate flood events in up to 3 locations by 2025 2035 and implementation within the planning horizon	TSIRWMA Stormwater Project Identification Tool (SPIT)
		2025 2035	Support 5 stormwater retention projects for water reuse and/or energy projects.	Twain Harte Community Stormwater Enhancement Project Proposal
		Ongoing	Support jurisdictional agencies to develop and improve implementation of stormwater best management practices by conducting annual coordination meetings.	TSIRWMA Stormwater Project Identification Tool (SPIT)
J Improve energy efficiency of water/wastewater systems.	Supporting	2022 2025	Identify alternative energy sources such as wind, solar, biomass, or; hydroelectric to improve water management efficiency efficiency by 2022 2025.	
		2027	Strategically upgrade infrastructure to improve energy efficiency and reduce GHG emissions of water/wastewater systems by 2027.	
		2025 2030	Implement 2 local cost effective renewable water energy related energy water projects by 2025 2030.	

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K Improve water supply efficiency and reliability of man-made conveyance systems.	Medium	2025 2030	Identify and complete 6 high priority capital improvement projects (i.e. ditch lining, pipe replacements, controls, diversions, storage, etc.) to water conveyance systems.	TUD's Annual Ditch Maintenance Program, Phoenix Lake Preservation and Restoration, Sierra Pines Water Treatment Plant, GCSO Downtown Groveland BOF water line project, Big Creek-Second Garrotte Clearwell Project, GCSO Tank Mixer Project
		2035 2030	Reduce water loss in man-made water conveyance systems to 10-20% within the planning horizon.	GCSO Remote Read Project
L Increase water conservation strategies and water use efficiency (WUE) by both municipal (residential and commercial) and agricultural end users.	Medium	2022 2025	Implement at least one water recycling and one water reuse project by 2022 2025.	
		2035 2030	Meet water use efficiency GPCD targets identified in UWMPs.	
		2035 2030	Increase regional water reuse by utilizing new technologies by x%??.	GCSO Remote Read Project, TCRCO Regional Water Conservation Program
		2035 2030	Improve interagency collaboration to cost-effectively deliver WUE programs.	
M Develop sufficient reliable and affordable water supplies and infrastructure to meet regional demands of existing and projected water supply needs including multiyear drought and climate change.	High	2022	Identify supply sources (both groundwater and surface water); that are vulnerable to contamination, climate change, and/or interruption from human or nature caused effects.	TUD Tank Consolidation Project
		2025	Identify potential conjunctive use projects that may improve in-region supply reliability by 2025	
		2025 2030	Evaluate opportunities for multi-agency water supply facilities and interties.	
		2022 2030	Evaluate the potential opportunities and challenges presented by new storage facilities options that may improve the reliability of existing supplies and projected water supply needs by 2022 2030.	
		2035	Develop diversified water supply portfolios during the planning horizon.	THCSO Water Supply Reliability Wells Project
		2025 2035	Evaluate potential to re-operate existing facilities to increase supply availability and reliability.	
N Integrate land use and natural resource planning to support watershed protection actions that restore, sustain, and enhance watershed functions.	Medium	2035 2025	Assess where there are deficiencies and/or opportunities currently in the integration of an all lands planning approach to support watershed protection actions.	

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O Assess, plan, and prepare for natural disaster impacts that affect watersheds and water resources.	Medium	2024 2030 2022 2025	Prioritize and implement corrective actions identified in M.I. (the assessment) by 2024 2030. Develop a process to communicate with all resource management agencies operating projects within the IRWM region.	
P Protect and preserve tribal watershed values and water use.	Supporting	2035 2030 Ongoing Ongoing	Identify opportunities to improve interagency coordination on land use, resource planning, and resource management. Work collaboratively to support tribal watershed values in regional planning efforts. Coordinate and communicate to achieve effective tribal participation.	