

Tuolumne Stanislaus IRWM - Project Worksheet

Name of Project: Westside Dam Rehabilitation
Project Proponent: Tuolumne Band of Me-Wuk Indians
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Project Location:

The project is located just east of the City of Tuolumne in Tuolumne County, CA at (37.958327, -120.243632). See map.

Watershed(s) where project will be located:

Tuolumne River

Brief Project Description:

The Tuolumne Log Pond dam (also known as Westside Log Pond and Westside Dam) was originally built in 1912 by the Pickering Lumber Company. The dam and subsequent pond was used by various companies for lumber milling operations until the last sawmill closed in the 1960's. When functional, the Westside Log Pond Dam holds 120 acre feet of water in the Westside Log Pond. The pond is filled by water from the Turnback Creek watershed. Historically, besides the industrial processes at the lumber mill, water in the pond was used for groundwater recharge of area wells, fire suppression by local fire departments, wildlife and vegetation habitat and limited recreation.

In 2004, the Tuolumne Band of Me-Wuk Indians (Tribe) acquired the former sawmill property including the dam and pond. Soon after, the CA Department of Water Resources—Division of Safety of Dams (DOSD) determined that the Westside Dam was not able to withstand a 4000 year flood event and needed to be rehabilitated. Consequently, DOSD has ordered that the stop logs in the dam be removed every year between October 15 and May 15 and no water is stored in the pond. Consequently, all of the water from the upper Turnback Creek watershed flows directly into Lake Don Pedro Reservoir. The pond is currently a mud bog with a creek flowing through it.

Unlike the previous project on Tribal Trust land that was submitted for IRWM drought funding, this project is on Tribal Fee land and is required to comply with State and local law including CEQA. Because CEQA and other permitting requirements on this project were completed several years ago, it is expected that the Tribal Council would also approve required revisions to CEQA and approve submitting this project for funding by the Department of Water Resources through the IRWM process.

Project Benefits:

Water Supply and Distribution:

Rehabilitating the Westside Dam and refilling the Westside Pond is expected to enhance groundwater recharge and provide for additional water supply stability to both Tribal and private wells in the area. According to the County Environmental Health Department, as of this writing, a residential well approximately 1/2 mile to the north of the pond and multiple residential wells on Apple Colony Road 1/2 mile to the southeast of the pond have failed.

Refilling the pond is expected to greatly enhance groundwater recharge and reduce current and future well failures.

Ecosystem Improvement:

Refilling the Westside Pond would benefit wildlife and improve riparian habitat for wildlife including: waterfowl, amphibians, mammals, and fish. Various plants that are culturally important to the Tribe and would also benefit from continuous water stored in the pond.

Recreation and Public Access:

The Tribe's plan for the Westside property continues to evolve. In 2009, because of the recession Tribal leadership halted all work on the golf course. Since that time, the Tribe has explored other uses for the property including: a public hiking/biking trail system, an RV park, an Outdoor Amphitheater, the golf course, and other ventures. At this time future uses of the property are still being explored. The potential for recreational opportunities continue to be a part of the planning process.

Power Cost Savings and Power Production:

The Tribe has explored installing large scale power (>3 MW) opportunities at the dam but it was determined to be infeasible due to cost and FERC licensing timelines. Small scale (<3MW) power generation may be an option that will continue to be explored.

Other:

Historically, CALFIRE and other fire agencies have used the Westside Pond for fire suppression (i.e. helicopter dipping, filling water tenders). Refilling the pond would allow for a stable and consistent water source for the fire suppression needs of the area.

Cost and Schedule:

All Anticipated Project Costs: \$3,500,000

Potential Sources of Project Funding: IRWM, Federal Grants, State Grants, Tribal Funding

Potential Sources of Local Match: Federal Grants, State Grants, Tribal Funding

Earliest Start Date: Summer 2015

Project Schedule:

Conceptual: 2007 – Summer 2015

Planning: Spring 2015 - Spring 2016

Environmental : *(CEQA/NEPA update)* Summer 2015-Spring 2017

Permitting: Summer 2015 – Summer 2016

Design: Initial design completed 2008. Final design fall 2015

Construction / Implementation: Spring 2016

Project Timing and Phasing: N/A

Completed Work: CEQA, NEPA, Army Corp of Engineers and CA Department of Fish and Game permitting, a dam safety and rehabilitation study and a subsequent preliminary reengineering and design plan were completed in 2009. The Department of Water Resources--Division of Safety of Dams (DOSD) gave tentative approvals of preliminary dam design/engineering in 2009. All of these permits are expected to have to be reviewed and updated.

T-S IRWM Primary Objectives:

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

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

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

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

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

_ Improve the condition and ecosystem function of meadows.

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

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

_ Reduce the risk of localized flooding in urban areas.

_ Increase renewable energy production for water management.

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

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

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

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

Proposition 84 Program Preferences:

_ Includes Regional Projects/Programs.

_ Integrate water management within hydrologic region.

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

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

_ Address critical water supply/quality needs of DAC.

_ Effectively integrate water management with land use planning.

Flood Management -projects that provide multiple benefits.

Proposition 84 Program Statewide Priorities:

Drought preparedness:

Promote water conservation, conjunctive use, reuse and recycling.

Improve Landscape and Agricultural Irrigation Efficiencies.

Achieve a Long-Term Reduction of Water Use.

Efficient ground water basin management.

Establish System Interties.

Use and reuse water more efficiently:

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

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

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

Climate change response actions:

Advance and expand conjunctive management of multiple water supply sources.

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

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

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

Expand environmental stewardship:

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

Practice integrated flood management:

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

Protect surface water and groundwater quality:

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

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

Improve tribal water & natural resources:

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

Ensure equitable distribution of benefits:

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

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

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

Cal Fed Primary Objectives:

Ecosystem quality

Water supply

Water quality

Levee system integrity

Strength of Project

Purpose and Need:

For about a decade the Westside Pond recharged the local aquifer and recharged area groundwater wells. Without this recharge, the static water levels in area wells are dropping and in several cases drying up. Rehabilitating the dam and refilling the pond is expecting to recharge the wells and return stability to the aquifer. Other project benefits include: wildlife and native vegetation enhancement, local water storage, fire suppression, recreation opportunities, and maintaining cultural vegetation.

Integrated Elements of Project:

CALFIRE and Tuolumne County Fire are in support of this project for fire protection purposes. The Tribe has also discussed the project and received support from Tuolumne County officials. Adjacent and area well owners are expected to support refilling the pond to help improve groundwater recharge. The Tribe and the Tuolumne County Transportation Council have drafted plans and completed studies on building a multi-use trail along the pond and through the property from Tuolumne City to Summerville High School.

Existing Data and Studies:

Condor Earth Technologies and Black and Veatch completed an analysis of the dam in 2009. Based on this analysis a preliminary dam design was engineered and approved by DOSD. All required studies as required by CEQA, NEPA, Army Corps of Engineers, and CA Department of Fish and Game were completed in 2009 but are likely to require updating and or revisions.

Readiness to Proceed

Status of California Environmental Quality Act (CEQA): Completed in 2009, but will need to be updated.

Status of National Environmental Policy Act (NEPA): Completed 2009 will need to be updated.

Status of local, state, and federal permitting requirements: Army Corp of Engineers and CA Department of Fish and Game permits will need to be updated. DWR—Division of Safety of Dams (DSOD) has tentatively approved the initial design and engineering for the dam.

Capacity of proponent to carry out the proposed project: The Tribe was prepared to do this project in the late 2000's but due to the recession, plans were put on hold. Most of the systems (and many of the staff) that were involved in the project then are available again today.

Feasibility analysis for the proposed project: Unknown

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

The Tribe is currently seeking bids for updating the dam design and engineering and is expecting to re-submit plans to DOSD by the end of the summer 2015.

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

The Tribal Administration and the Tuolumne Economic Development Authority Board continues to support the Dam Rehabilitation project and has authorized preliminary design and engineering work to again proceed on the dam project. It is expected that the Tribal Council will also approve the proposed project.

Status of matching funds for proposed project:

The Tribe has already completed much of the environmental and construction related permits required for the project. Additional Tribal in-kind funds are expected and a Tribal financial contribution may be possible. However, the Tribe is a Disadvantaged Community and a match may not be required.