California WATER COMMISSION

Water Storage Investment Program Concept Paper Form

Please complete the questions below and return your completed concept paper by email to cwc@water.ca.gov by 5:00 p.m. on March 31, 2016. Completed concept papers should not exceed four pages.

Contact Information

Contact Name: Dave Eggerton	
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Phone Number: (209) 754-3543	
Agency/Organization Name: Calaveras County Water District	
Agency Type (select one):	☐ Public Agency ☐ Nonprofit Organization ☒ Public Utility ☐ Tribe ☐ Mutual Water Company ☐ Local Joint Powers Authority ☐ Other:

Project Information

Project Name: Historic Blagen Mill Pond Restoration Project	
Project Type:	☐ CALFED Surface Storage ☐ Groundwater Storage ☐ Groundwater Contamination Prevention or Remediation ☐ Conjunctive Use ☐ Reservoir Reoperation ☒ Local Surface Storage ☒ Regional Surface Storage ☐Other:
Estimated Project Cost: $1,200,000	
Estimated WSIP Funding Request: $600,000	

Please describe your project, including location, water source, facilities, and operations:

The Blagen Mill Pond and adjacent White Pines Lake are the sole source of storage supply for Calaveras County Water District's (CCWD) Sheep Ranch community; a small, isolated, and severely disadvantaged community in central Calaveras County. The current Blagen Mill Pond and White Pines Lake were constructed in 1977 at the site of the historic Blagen Lumber Mill near Arnold, CA, for recreational and aesthetic purposes of a proposed development (**Latitude:** 38.2662195 **Longitude:** -120.3414917 **Elevation:** 3,892 ft). The property was eventually turned over to CCWD when the development was no longer feasible, and the current uses are primarily recreation and water supply. The Lake and surrounding areas are part of a very popular park with several amenities that are used by thousands of tourists and residents throughout the year.

The water supply source is San Antonio Creek, tributary to the Calaveras River, which is tributary and within the boundary of the San Joaquin River Hydrologic Region. Facilities include a dam and concrete spillway with controls holding back White Pines Lake. Immediately upstream and adjacent to White Pines Lake is the approximately 25 acre-foot Blagen Mill Pond, connected by a concrete spillway and channel with independent flashboard structures, the site of the proposed project.

Due to several above average rain events, the Blagen Mill Pond is now heavily silted-in with significantly reduced storage capacity, and is now heavily vegetated with willows and other plants. The proposed

project dredging of approximately 50,000-60,000 cubic yards from the pond's interior is expected to restore about 25 acre-feet of storage, a more than two-year supply for the Sheep Ranch community downstream.

Dredged sediments are to be trucked to an approved off-site disposal area. A new retention/detention basin is proposed at the head of the pond to catch sediment and debris during flood events. This basin would be located between the bridge crossing San Antonio Creek and the northernmost shoreline of the pond, in an area estimated to 200 feet by 100 feet with a depth of 4.5 feet. The basin would be dammed with a semicircular berm armored with rip-rap and drained by a concrete spillway, which would require the removal of willow trees and shrub vegetation around the shoreline. An abandoned canal, dating back to the site's historical use as a lumber mill, will be used as a temporary diversion ditch to allow water from upstream to flow unimpeded during construction. After restoration is complete, the ditch could be used for annual low-water diversion during the maintenance clean-out of the retention basin.

Specific restoration and construction procedures for the diversion ditch/canal are as follows:

- Removal of vegetative material.
- Excavation of the diversion ditch in the former canal footprint, through 7N08, and excavation of a new route that diverts from the canal and enters the pond.
- Installation of a culvert in 7N08 at the former canal crossing; culvert headwalls and canal bottom will be supported by 1 foot or more of rip-rap.

Per Water Code section 79753, the Commission may only fund the public benefits of water storage projects. Further, ecosystem improvements must make up 50% of the funded public benefits (Water Code section 79756(b)). What public benefits does your project provide? (select all that apply):

☐ Ecosystem Improvements ☒ Water Quality Improvements ☐ Flood Control
☒ Emergency Response ☒ Recreation

Please describe the magnitude of the public benefits and how the project will be operated to provide the public benefits:

Recreation - The project is located within a destination recreational area in close proximity to Big Trees State Park that is very popular with local and tourist users. The current status of the Blagen Mill Pond has become untenable, with public access being severely restricted due to overgrowth of plants and sedimentation, making it unusable for recreational purposes. Increasing accessibility for the public and including signage indicating the historical significance of the pond during the lumber mill operation period could significantly benefit the public recreational benefits. Improving access to information on cultural and ecological resources would also be an important component of the restoration project, and providing enhanced opportunities for wildlife viewing could easily be realized.

Ecosystem Improvements - The project is located in a riparian corridor and would likely displace some habitat. As a result, the project will likely need to provide significant mitigation to offset the disturbance. CCWD would work to ensure that habitat is restored within the vicinity at a minimum 2 to1 ratio with conservation easements attached, thereby establishing a larger ecosystem improvement.

Water Quality Improvements - The Blagen Mill Pond was originally intended as a sediment retention feature to protect White Pines Lake. As the siltation continually progresses, thus limiting the function of

the pond as a sedimentation barrier, deleterious water quality effects are likely to occur in White Pines Lake, the recreational centerpiece of the public park and an essential water supply for a severely disadvantaged community. Restoring that function is integral to ensuring that White Pines Lake is maintained for recreational and water supply benefits long-term.

Emergency Response – Restoration of Blagen Mill Pond would provide essential water supplies for firefighters to combat wildland fires throughout the county and region. Like Wilson Lake to the north, Blagen Mill Pond is strategically located at the southern perimeter of a vast area of the county that has no public water system infrastructure to support first responders. Both for air and ground response, dedicated supplies for fire suppression are essential for public health and safety. Wildfire risk in Calaveras County is among the highest in the entire state, threatening one of its most important headwater areas upstream of the Delta. What was learned in the recent 70,000-acre Butte Fire is that there is a desperate lack of surface water supplies to support air drops and tanker trucks in these emergency scenarios.

Water Code section 79752 requires that funded projects provide measurable improvements to the Delta ecosystem or to the tributaries of the Delta. Please describe how your project provides ecosystem improvements in the Delta or tributaries to the Delta:

The enhanced storage of this project has the ability to affect flow regimes in the tributaries to the Calaveras River, a larger tributary to the San Joaquin River in the Delta. Allowing for enhanced storage in high-elevation areas of the mountainous region improves the overall reliability and availability of inflows and supplies to the Delta in the face of future climate change. Additionally, when water shortages occur in the Sheep Ranch community, water must be trucked in from CCWD's Ebbetts Pass system on the Stanislaus River, another equally important tributary to the Delta and its ecosystem. This comes at a high greenhouse gas emission cost.

Water Code sections 79755 and 79757 require the Commission to make a finding that a project will advance the long-term objectives of restoring ecological health and improving water management for beneficial uses in the Delta prior to allocating funding for a project. Please describe how your project could help advance the long-term objectives of restoring ecological health and improving water management for beneficial uses in the Delta:

Providing enhanced regional water resource management options for the District and County which will directly impact the ability to ensure reduced impacts long-term to flows into the Delta.

Enhanced opportunities for fire suppression, of which Calaveras County is lacking, could reduce water quality impacts associated with wildfire. Many endangered species within the Delta ecosystem downstream are at a significant risk of deleterious water quality impacts associated with sediment, ash, and organic carbon loads attributed to these very common wildfire events. Events such as this are likely to become increasingly common in the face of climate change.

Managing our headwaters through enhanced upland storage areas for multiple benefits in the Sierra Nevada mountains is essential. The Sierra, Foothills and other forested areas of the state are the places of origin for more than two-thirds of the State's developed water supply via rain runoff and snowmelt. This opportunity, along with other similar small projects in the region, ensure a strong investment in the quality and quantity of water entering the Delta, with much wider impacts outside of the region.

Please describe any other benefits provided by your project, such as water supply reliability benefits, and the potential beneficiaries:

Sheep Ranch is a severely disadvantaged community in central Calaveras County with a full-time residential population of around 100 people. The Sheep Ranch community receives its water supply from a sole source- San Antonio Creek- which is tributary to the Calaveras River. Due to storage and treatment limitations, water shortages are unfortunately common. A state-mandated moratorium on new connections in the community has been in place for three years.

Due to the suite of water reliability issues affecting the residents of the small community of Sheep Ranch, CCWD has designated the Sheep Ranch water system as a high capital improvement priority, with several projects planned to increase water supply reliability, treatability, and regulatory compliance. This includes the Historic Blagen Mill Pond Restoration Project for the restoration of storage capacity in an upstream reservoir that would provide a two-year water supply for Sheep Ranch residents, along with various treatment and distribution capacity improvements necessary to protect the public health and welfare of this unique community. However, given very limited local funding and the wider public benefits of this project, access to state funding is essential for implementation.