

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: Thomas J. Haglund
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Agency/Organization Name: Tuolumne Utilities District (TUD)
Agency Type (select one): <input checked="" type="checkbox"/> Public Agency <input type="checkbox"/> Nonprofit Organization <input type="checkbox"/> Public Utility <input type="checkbox"/> Tribe <input type="checkbox"/> Mutual Water Company <input type="checkbox"/> Local Joint Powers Authority <input type="checkbox"/> Other:

Project Information

Project Name: UPPER STRAWBERRY RESERVOIR
Project Type: <input type="checkbox"/> CALFED Surface Storage <input type="checkbox"/> Groundwater Storage <input type="checkbox"/> Groundwater Contamination Prevention or Remediation <input type="checkbox"/> Conjunctive Use <input type="checkbox"/> Reservoir Reoperation <input checked="" type="checkbox"/> Local Surface Storage <input type="checkbox"/> Regional Surface Storage <input type="checkbox"/> Other:
Estimated Project Cost: \$120 Million
Estimated WSIP Funding Request: \$60 Million
Please describe your project, including location, water source, facilities, and operations: Construct a 120 foot high dam for a nominal 6,000 acre-foot capacity reservoir located just above the existing Pinecrest Lake located two miles East of the town of Strawberry for recreation, ecosystem support, hydroelectric power generation and water supply. The source of water would come from the watershed above Pinecrest that normally produces on the order of 60,000 acre-feet of runoff. The project will include construction of a penstock diverting water from the new storage to a 500 kW powerhouse that conveys water to Pinecrest Lake.

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:

1. The project would add enough water storage to help eliminate the real potential of Tuolumne County running out of water, a situation that nearly occurred in 2014-2015.
2. A new Upper Strawberry reservoir will add a new Alpine lake and recreational area to support the Pinecrest Lake recreational area that already draws over 500,000 visitors annually to the Pinecrest lake recreation area. Roughly 90% of the visitors to Pinecrest are from the Bay Area or Central Valley.
3. The project will be operated by storing water above Pinecrest in order to provide more reliable ecosystem river flow, and storage to extend the recreational season at Pinecrest Lake.
4. The project will add roughly 1.8 million kWh/year hydro-electric power generation, displacing greenhouse gas emissions by adding additional hydroelectric peaking power generation capacity to the California power grid.

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 larger reservoir will allow a sustained minimum instream flow in the South Fork Stanislaus River enhancing the riparian and related river bed ecosystem including water quality along this reach of river enhancing the ecosystem to a tributary to the Delta. *In 1977 and again in 2014, in-stream flows were significantly reduced to protect the human population from running out of water.*

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:

The larger reservoir will allow a sustained minimum instream flow in the South Fork Stanislaus River enhancing the riparian and related river bed ecosystem including water quality along this reach of river enhancing the ecosystem to a tributary to the Delta. *In 1977 and again in 2014, in-stream flows were significantly reduced to protect the human population from running out of water.*

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

1. It is expected that climate change patterns will bring back the conditions of 2014-2015 perhaps with more amplitude. The proposed reservoir will create storage to help the region to weather through extended drought conditions experienced in 2014 and 2015. *Historically dry conditions persisted through the winter months of 2013 and early spring of 2014 with no guarantees of recovery. This would have left a population of 50,000 people out of water in the later part of 2014 had late spring showers not arrived.*
2. The proposed storage reservoir will provide multiple benefits by improving the water supply reliability for Tuolumne County, but at the same time will enhance the ecosystem of a tributary to the Delta, create new high quality and healthy recreation for visitors who travel from hundreds of miles away and provide economic benefits to Tuolumne County (*who's Median Household Income of \$47,982 is well below the State's average of \$61,933*) by creating more employment opportunities within the county.
3. The water from the proposed reservoir will provide improved water reliability for the City of Sonora that supports a major medical center and cancer treatment care facility that draws thousands of patients from surrounding counties.
4. Sonora is an international destination for travelers visiting both the National Forests but also, destinations including Yosemite National Park and surrounding historic Gold rush era towns of the Motherlode. The proposed reservoir will help ensure a reliable water source to keep this regional function of the Tuolumne County community vibrant.
5. The additional hydroelectric power generation of the project will add green energy (*and peaking power capacity*) to California's power grid directly offsetting power generated using carbon intensive fuels.