

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: Dwayne Chisam
Email: dchisam@avek.org
Phone Number: 661 943 3201
Agency/Organization Name: Antelope Valley – East Kern Water Agency
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: Westside Enterprise Water Bank Project
Project Type: <input type="checkbox"/> CALFED Surface Storage <input checked="" type="checkbox"/> Groundwater Storage <input type="checkbox"/> Groundwater Contamination Prevention or Remediation <input type="checkbox"/> Conjunctive Use <input type="checkbox"/> Reservoir Reoperation <input type="checkbox"/> Local Surface Storage <input type="checkbox"/> Regional Surface Storage <input type="checkbox"/> Other:
Estimated Project Cost: \$130,000,000
Estimated WSIP Funding Request: \$65,000,000
Please describe your project, including location, water source, facilities, and operations: The project will be located in northeastern Los Angeles County south of the Kern County line and centered near Avenue B and 285 th St. West within an approximate 1,300 acre section of land. The project will be comprised of a groundwater storage and extraction facility that will store surface water from the State Water Project (SWP) conveyed via the California Aqueduct during wet weather years when SWP allocations exceed demands and will recover the stored water during dry and critical weather years when SWP allocations are low or disrupted. The project is planned for a storage capacity of up to 1,000,000 ac-ft with a recovery capacity of 200,000 ac-ft per year. The project is planned to be built in 4 phases with 250,000 ac-ft of storage and 50,000 ac-ft/yr recovery capacity each. Planned Project facilities include the following <ol style="list-style-type: none"> 1. Two new turnouts to the California Aqueduct with an estimated capacity of 150 cfs each that will be capable of taking water out and returning it back to the aqueduct, 2. 1,200 acres of recharge basins, 3. Three miles of bi-directional recharge and recovery transmission pipeline ranging in size from 36 to 60 inches in diameter to move water from and back to the aqueduct, 4. Three miles of recharge pipelines ranging in size from 12 to 48 inches in diameter, 5. Fifty groundwater extraction wells with estimated capacities of 2,500 gpm each, 6. Ten miles of well collection pipelines ranging in size from 12 to 48 inch, and 7. One pump station to lift recovered water back to the aqueduct. The water bank will operate as an enterprise bank with partnering agencies throughout the State

including both State and non-State Water supplies. The project is, by design, a high priority regional project supported by the Integrated Regional Water Management Group. It will store excess water for any entity in or outside of the region for later use. Transfer agreements will be established between the various participating State Water Project Contractors, so that water can be stored at the project site on behalf of any entity and later recovered and served to the entity either directly or through exchanges.

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:

The project will be operated as an enterprise water bank with partnering agencies throughout the State of California whose primary source of water is dependent on State Water Project supplies from the Delta that are conveyed via the California Aqueduct. Project operations would consist of recharging water during wet weather years when supplies are plentiful for both the Delta ecosystem and State Water Project supplies and the recovery of the banked water during dry years when state water supplies are low or disrupted. During dry weather years, the project would allow the applicant and its partnering agencies to rely primarily on the groundwater bank as their primary source of water which would result in an approximate 200,000 ac-ft per year of water that would be retained in the Delta to sustain the ecosystem. This water would also allow for additional outflows from the Delta that would improve the water quality by providing additional low salinity habitat for the smelt and other estuarine fishes.

This approximate 1,000,000 ac-ft of recharge water would also allow the applicant and its partnering agencies to use as emergency reserves for those periods of time when the State is unable to provide water necessary to sustain health and economic principles such as the current drought conditions the State has experienced for the past 5 plus years. Without these reserves, the public would be confronted with health and safety issues resulting from the lack of water.

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:

During wet weather years when water supplies are plentiful, the project would be operated to recharge the aquifer. During dry and critical weather years, reliance on the groundwater bank would reduce diversions from the Delta by as much as 200,000 ac-ft per year. This would result in additional outflow from the Delta, thereby improving the water quality for the Delta ecosystem and providing for additional low salinity habitat for the smelt and other estuarine fishes.

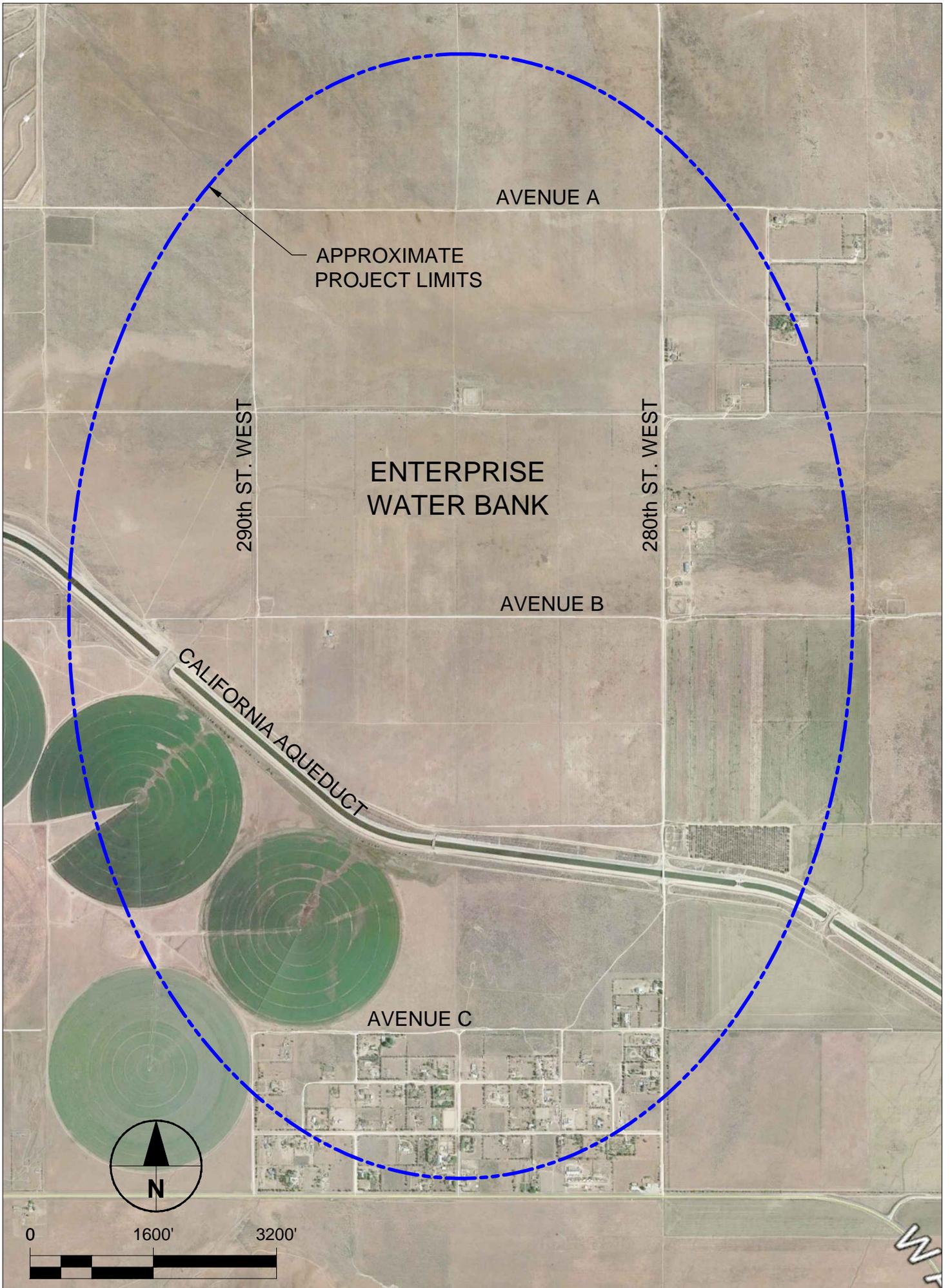
Water Code sections 79755 and 79757 require the Commission to make a finding that a project will advance the long-term objectives of restoring ecological health and improving water management for beneficial uses in the Delta prior to allocating funding for a project. Please describe how your project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

The additional approximate 1,000,000 ac-ft of water stored in the groundwater bank will reduce dependence on water from the Delta in dry and critical weather years. The project will reduce the future demand on the Delta watershed thus allowing for the water that would normally be used by State Water Contractors participating in the project to replenish natural wetlands and tributaries that support fish habitats.

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

The project improves the reliability of the water supply as the project creates an additional 1,000,000 ac-ft of water supply for use by residential, commercial, industrial, and agricultural users throughout the State. The project allows for the applicant and its partnering agencies to serve water to these customers during emergency drought conditions that without these supplies would result in economic and health and safety issues for the businesses and public. This project improves regional water self-reliance thus reducing the water demand off the delta during those periods when the Delta ecosystems depend on available water such as in drought conditions. Recharge operations will also temporarily replenish the local groundwater basin which was recently adjudicated and deemed as an over drafted basin. The project also maintains the open space / agricultural nature of the area. The over drafting of groundwater typically results in a decline of the groundwater quality. Complementary to the groundwater adjudication proceedings of a reductions in groundwater pumping, the addition of SWP water to the groundwater basin will have a positive impact on the groundwater quality.

Last saved by: CAMPBELLV (2016-03-08) Last Plotted: 2016-03-08
Filename: S:\A01\60479333 -AVEK SOLAR CEQA\900 WORKINGDOCS-CAD\03-SKETCHES\ENTERPRISE WB.DWG



AVENUE A

APPROXIMATE
PROJECT LIMITS

290th ST. WEST

ENTERPRISE
WATER BANK

280th ST. WEST

AVENUE B

CALIFORNIA AQUEDUCT

AVENUE C

