



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**  
**REGION IX**  
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October 9, 2007

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Subject: Draft Environmental Impact Statement for Carryover Storage and San  
Vicente Dam Raise (CSP) Project, San Diego County, CA (CEQ#  
20070363)

The U.S. Environmental Protection Agency (EPA) has reviewed the above-referenced document pursuant to the National Environmental Policy Act (NEPA), Council on Environmental Quality (CEQ) regulations (40 CFR Parts 1500-1508), and our NEPA review authority under Section 309 of the Clean Air Act. Our detailed comments are enclosed.

Based on our review, we have rated the DEIS as Environmental Concerns – Insufficient Information (EC-2) (see enclosed “*Summary of Rating Definitions*”) due to the need for additional information regarding the Purpose and Need, compensatory mitigation sites for waters of the United States, a commitment to the efficient use of the emergency and new carryover storage, and mitigation measures for identified adverse air and noise impacts.

EPA specifically recommends the final environmental impact statement (FEIS) clarify why the purpose and need is “water storage reliability” versus “water supply reliability.” We recommend the FEIS provide a description of compensatory mitigation sites for unavoidable impacts to waters of the United States; disclosure and aggressive implementation of demand-side management and water conservation practices, including appropriate pricing, to ensure the most efficient use of the new storage and water supply; and evaluation of innovative mitigation measures to minimize the identified adverse air and noise impacts. We also recommend the FEIS evaluate the overall energy use of each alternative from water source to treatment, and consider the use of some of the stored water for downstream beneficial uses within San Vicente Creek.

We appreciate the opportunity to review this DEIS. When the FEIS is released for public review, please send two (2) hard copies to the address above (mail code: CED-2). If you have any questions, please contact me at (415) 972-3846 or Laura Fujii, the lead reviewer for this project. Laura can be reached at (415) 972-3852 or [fujii.laura@epa.gov](mailto:fujii.laura@epa.gov).

Sincerely,

/s/

Nova Blazej, Manager  
Environmental Review Office

Enclosure:  
Summary of EPA Rating Definitions  
Detailed Comments

cc: Kelley Gage, San Diego County Water Authority

**EPA DETAILED DEIS COMMENTS CARRYOVER STORAGE AND SAN VICENTE DAM  
RAISE (CSP) PROJECT, SAN DIEGO COUNTY, CA, OCTOBER 9, 2007**

**Purpose and Need**

*Clarify why the purpose and need is “water storage reliability” versus “water supply reliability.”* The DEIS states that there is an immediate need for 100,000 acre-feet (af) of carryover storage to ensure the San Diego County Water Authority (SDCWA) is able to meet the daily needs of each of their member agencies (p. 1-7). SDCWA wishes to increase their water storage reliability by year 2011 for enhanced reliability (e.g., provide water in drought); increased operational flexibility; and better management of water supplies to allow for additional deliveries from the State Water Project and the Colorado River (p. 1-10). Therefore, the Purpose and Need, and associated alternatives analysis, are based upon the need for “water storage reliability,” and not “water supply reliability,” as described in the draft environmental impact statement (DEIS). While it is apparent that additional storage is desired by SDCWA, there is little data provided to demonstrate why additional storage is necessary and not non-structural approaches, such as water transfers, water conservation or reuse, which could also help SDCWA meet the daily needs of their member agencies.

***Recommendation:***

We recommend the Final Environmental Impact Statement (FEIS) clarify why the purpose and need is “water storage reliability,” and not “water supply reliability,” by providing data demonstrating why additional storage is necessary to meet SDCWA reliability goals versus non-structural approaches. For example, the FEIS should provide a summary of the data supporting the SDCWA Regional Water Facilities Master Plan and Urban Water Management Plan conclusion that there is an immediate need for 100,000 af of storage.

**Impacts to Waters of the United States and Section 404 of the Clean Water Act**

*Describe in detail compensatory mitigation sites for unavoidable impacts to waters of the United States.* The DEIS states direct permanent impacts to wetlands/vegetated waters and unvegetated waters will be mitigated by a combination of off-site wetlands creation in the SDCWA’s planned mitigation banks or at other appropriate locations. EPA is not aware of established or developing SDCWA mitigation banks. Mitigation banks located outside of the watershed where the impacts occur may not be suitable for compensatory mitigation for the project impacts because they may have a limited geographic area they serve or may not be appropriate to compensate for the class of wetlands being affected by the proposed project.

***Recommendation:***

We recommend the FEIS provide detailed information on proposed compensatory mitigation sites, including a description of other mitigation options and sites investigated.

***Correct the description of submerged aquatic vegetation to state they are regulated under Section 404 of the Clean Water Act.*** The DEIS describes the waters of the United States regulated by the US Corps of Engineers (Corps) pursuant to Section 404 of the Clean Water Act. Due to fluctuations in the reservoir level, the Corps determined submerged aquatic vegetation does not meet the definition of “vegetated shallows” in the 404(b)(1) Guidelines. The DEIS incorrectly states submerged aquatic vegetation is not regulated under Section 404 of the Clean Water Act (CWA) (p.3.6-5). Although submerged aquatic vegetation may not be characterized as vegetated shallows, and therefore not identified as a special aquatic site, it is still regulated under Section 404 of the CWA as waters of the United States.

***Recommendation:***

We recommend the FEIS correctly identify submerged aquatic vegetation as regulated under Section 404 of the CWA as waters of the United States (40 CFR Part 230.3(s)(4)).

**Water Use Efficiency**

***Disclose and implement water use efficiency measures to maximize beneficial use of the new storage and water supply.*** The approved and permitted Emergency Storage Project (ESP) and proposed Carryover Storage Project (CSP) Proposed Action would raise San Vicente Dam by a total of 117 feet and provide an additional 152,100 af of water storage. EPA advocates maximizing the efficient use of developed water supplies through demand-management, conservation, and recycling; reduction of water pollution which extends the “useful life” of water; promotion of multiple beneficial uses (for example, productive agriculture and wildlife habitat); and implementation of appropriate pricing (e.g., beneficiaries pay).

***Recommendation:***

We recommend the FEIS include full disclosure and aggressive implementation of demand-side management, water conservation, water quality protection, and appropriate pricing to ensure the most efficient use of the new storage and water supply.

**Air Quality Effects**

***Implement all feasible mitigation measures to address adverse air quality impacts.*** Construction-related emissions of the Proposed Action would cause significant exceedences of the daily thresholds for carbon monoxide (CO), oxides of nitrogen (NO<sub>x</sub>), particulate matter less than 10 microns in diameter (PM<sub>10</sub>), and particulate matter less than 2.5 microns in diameter (PM<sub>2.5</sub>) (pps. 3.5-14 to 3.5-15). Standard construction practices and dust control Best Management Practices would be implemented. However, even with these measures, the adverse air quality impacts would not be reduced below significant threshold values (p. 3.5-22). The DEIS concludes that are no additional feasible mitigation measures available to reduce these impacts. Thus, direct and cumulative air quality impacts would be significant and unmitigable. The construction-related emissions would end upon completion of the project. However, the construction period is anticipated to take 18 months, 24 hours a day, 7 days a week (p. 2-19).

***Recommendation:***

EPA recommends evaluation and aggressive implementation of all feasible mitigation measures to address exceedences of air quality standards. Additional mitigation measures to explore include purchasing offset credits, redistributing material hauling and disposal routes to minimize haulage miles, scheduling and sequencing work to reduce significant overlaps with other activities that contribute to air quality emissions, using electrical power for all stationary equipment, using the most recent pollution control equipment for all off-road equipment, using windbreaks to prevent accidental dust pollution, limiting vehicular paths and stabilization of these temporary roads, and minimizing unnecessary vehicular and machinery activities.

**Noise Effects**

***Implement all feasible mitigation measures to address adverse noise impacts.*** The DEIS concludes that there would be significant and unmitigable construction-related noise impacts from the Proposed Action from the quarry batch plant, if it cannot be located at the on-site Marina Quarry Option, from blasting for tunneling operations, and from construction traffic along Vigilante Road and Moreno Avenue. These activities would exceed the 45 A-weighted decibel equivalent sound level (dBA Leq) exterior noise standard for residential uses and the 3 decibel (dB) significance threshold for increased traffic noise (pps. 3.11- 12 to -17). Although these noise impacts would cease upon completion of construction, construction could take up to 18 months, 24 hours per day, 7 days per week (p. 2-19).

***Recommendation:***

We recommend the FEIS evaluate temporary sound barriers, equipment modifications, and blasting and peak construction traffic schedules that avoid nighttime hours as potential mitigation measures to reduce the identified significant noise impacts. For example, evaluate the feasibility of providing temporary internal and external sound barriers for the most affected residences, using electrically powered or quieter equipment during nighttime hours, and scheduling peak construction traffic and blasting activity during daytime hours.

**Energy Use**

***Provide an evaluation of the overall energy use (energy intensity) of each alternative.***

The use and transportation of water from source to tap can use considerable amounts of energy. Therefore, water supply decisions can affect energy use. The cost and amount of energy use is especially true for Southern California which receives water imported over long distances. Due to the air quality impacts of energy production, high costs, and water management constraints of energy use for water supply, we recommend the energy implications of water supply planning be considered. We commend the description and evaluation of the energy required to construct and operate each alternative (p. 8-43). Additional insight on measures to further reduce energy use and costs may be obtained by examining the overall energy associated with the use of the water—diverting water from the water source (e.g., surface water diversions, groundwater pumping, desalination), conveyance, treatment, distribution, end use, and wastewater treatment.

***Recommendation:***

We recommend the FEIS include an evaluation of the energy intensity required for each alternative. Energy intensity is defined as the total amount of energy required to use a specific amount of water in a specific location. It takes into account each site-specific step in the water supply-use-disposal cycle—diverting water from the water source, conveyance, treatment, distribution, end use, and wastewater treatment.

**San Vicente Creek**

***Describe historical and current downstream biological resources, flows, and water quality. Consider releasing water for downstream beneficial uses.*** San Vicente Creek continues south downstream of the existing dam to the San Diego River. The DEIS states that the City of San Diego does not routinely release water into San Vicente Creek, although water has spilled over the spillway five times in the last 60 years. The raised dam would increase the storage capacity in the reservoir and further reduce the potential for spills, resulting in 46 percent less flood flows than with the existing reservoir (pps. 3.17-17 and -18). The Proposed Action would not change existing reservoir management practices or downstream flows upon completion (p. 3.17-20). Currently, minimum stream flows that support biological communities and recharge groundwater downstream of the dam are derived from seasonal rainfall and runoff.

***Recommendation:***

We recommend the FEIS describe the historical and current biological resources, flows, and water quality of San Vicente Creek downstream of the San Vicente Dam. We also recommend the FEIS explore the need for and feasibility of providing annual releases of water to enhance the downstream San Vicente Creek biological communities and beneficial uses.