

US EPA ARCHIVE DOCUMENT



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION IX  
75 Hawthorne Street  
San Francisco, CA 94105

December 23, 2005

William K. Dickinson  
Superintendent  
Lake Mead National Recreation Area  
c/o SCOP EIS Project Manager  
PBS&J  
2270 Corporate Circle, Suite 100  
Henderson, NV 89074-6382

Subject: Draft Environmental Impact Statement (DEIS) for Clean Water Coalition  
Systems Conveyance and Operations Program, Lake Mead National  
Recreation Area (CEQ# 20050405)

Dear Mr. Dickinson:

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 Section 309 of the Clean Air Act. Our comments are provided in accordance with the EPA-specific extension to the comment deadline date from December 6, 2005 to December 23, 2005 granted by Michael Boyles, Environmental Compliance Specialist, Lake Mead National Recreation Area (telephone conversation with e-mail confirmation between Laura Fujii and Michael Boyles, November 2, 2005).

Based on our review, we have rated the proposed project as Environmental Concerns – Insufficient Information (EC-2). A *Summary of EPA Rating Definitions* is enclosed. While we support the effort to address water quality issues in Las Vegas Wash, Las Vegas Bay, and Lake Mead; we have concerns with full disclosure of mitigation for water and air quality effects. We recommend further disclosure in the Final Environmental Impact Statement (FEIS) of specific wastewater discharge permit requirements, water and air quality mitigation commitments, and measures to preserve and enhance Las Vegas Wash. Of specific interest are measures that will be taken if contaminated or poor quality groundwater is intercepted during construction. These measures should be described in the FEIS.

EPA also advocates measures that will ensure a long-term sustainable balance between water supply and demand. Maintaining water quality and reducing water pollution are vital actions because they extend the useful life of water supplies and reduce treatment costs. Water conservation, reuse, recycling, and wastewater source reduction are additional means to increase the reliability of the scarce and limited water supply. The

FEIS should provide additional information on specific measures being taken to conserve, reuse, and recycle water and to reduce wastewater production. Please see the enclosed Detailed Comments.

EPA appreciates the opportunity to review this DEIS. We are available to discuss our Detailed Comments. When the FEIS is released for public review, please send two copies to the address above (mail code: CED-2). If you have questions, please contact me at 415-972-3988, 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/ by Nancy Levin for

Duane James, Manager  
Environmental Review Office  
Communities and Ecosystems Division

Enclosures:  
Summary of EPA Rating Definitions  
Detailed Comments

cc: Michael Boyles, National Park Service  
Anthony Vigil, Bureau of Reclamation

**EPA DETAILED COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT FOR CLEAN WATER COALITION SYSTEMS CONVEYANCE AND OPERATIONS PROGRAM, DECEMBER 23, 2005**

**Water Resources**

**Wastewater Discharge Requirements.** The proposed relocation of the wastewater discharge point from Las Vegas Wash to Boulder Basin will remove the discharge from Las Vegas Wash Total Maximum Daily Load (TMDL) and Las Vegas Bay wastewater discharge requirements. Although the Draft Environmental Impact Statement (DEIS) states that the effluent discharge in Boulder Basin will meet Nevada Division of Environmental Protection (NDEP) requirements, it does not provide information regarding these requirements.

***Recommendations:***

The Final EIS (FEIS) should provide specific information on both the current National Pollutant Discharge Elimination System (NPDES) wastewater discharge requirements for Las Vegas Wash and Las Vegas Bay and future requirements for discharge points in Boulder Basin. The FEIS should describe the differences in permitting requirements for the new discharge location, and describe any increase in pollutant loadings (e.g., ammonia, inorganic nitrogen, phosphorus) that may occur in Lake Mead as a result of these changes. We recommend the FEIS provide a general description of the NPDES process, how requirements are developed, and how they are applied and enforced. For instance, describe whether “mixing zones” will be allowed at the new discharge point to meet drinking water quality standards.

**Treatment of Contaminated Groundwater.** Contaminated groundwater could be encountered during construction of the pipeline. The DEIS states that contaminated groundwater would be handled in accordance with NDEP requirements (pps. ES-6, 4-25). However, it does not describe these requirements or the mitigation measures that would be implemented if contaminated groundwater is encountered.

***Recommendation:***

The FEIS should provide information on actions that will be taken if contaminated or poor quality groundwater is intercepted. Of specific interest are the measures that will be implemented to address perchlorate and high salinity contamination.

**The Las Vegas Water Cycle: Ensuring a Long-Term Sustainable Balance Between Water Supply and Demand.** A goal of the Clean Water Coalition Systems Conveyance and Operations Program (SCOP) is to accommodate the projected growth in wastewater flow. Concurrently, the Colorado River Basin is experiencing severe drought and the Southern Nevada Water Authority (SNWA) is seeking additional water supply sources. As stated in the DEIS, water supply, water quality, and wastewater generation are all part of the Las Vegas water cycle (p.1-8). As a single interdependent system, the Las Vegas water cycle should be managed holistically to ensure a sustainable balance between

supply and demand and to maximize the beneficial use of the limited water supply. Aggressive water conservation, water reuse, water recycling, and efforts to maintain and enhance water quality can significantly extend the useful life of water and reduce treatment costs.

***Recommendations:***

The FEIS should include specific information on water conservation efforts; and wastewater reuse, recycling, and source reduction. We recommend implementation of measures to reduce wastewater generation, such as reducing impervious cover and over-watering of landscapes, an acknowledged problem (p. 3-20).

**Return Flow Credits.** An issue of concern is the effect of the SCOP on the calculation of return flow credits. Treated effluent, which is part of the diverted flow that is not consumptively used and returned to the Lower Colorado River System via Lake Mead, earns return flow credits. The DEIS states that return flow credits are important to Nevada because water usage in the state cannot be sustained without return flow credits (p. 1-8).

***Recommendation:***

The FEIS should provide information on how return flow credits are calculated, how they are used, and why they are so critical for sustainable water usage in Nevada. Include an evaluation of the influence of return flow credits on efforts to maximize water use efficiencies, conservation, reuse, and recycling.

**Cumulative Impacts to Water Quality.** The Lower Colorado River, of which Lake Mead is a key storage component, is an essential water supply for California, Arizona, Nevada, and Mexico. Declining water quality is already a significant concern with major efforts underway to address salinity and contaminants such as perchlorate. Therefore, discharges into Lake Mead and the Lower Colorado River need to be carefully analyzed regarding their cumulative effects on water quality of the entire system.

***Recommendation:***

FEIS should provide a cumulative impact analysis of potential impacts to Lower Colorado River water quality from cumulative wastewater discharges from Lake Mead and other downstream major discharge sources.

**Preservation and Enhancement of Las Vegas Wash**

**Increased Concentrations of Contaminants in Flows.** The SCOP would continue to discharge a minimum of 30 million gallons per day (mgd) of effluent flow into Las Vegas Wash. Together with 20 mgd of base flow; the total flow in Las Vegas Wash is expected to be at least 50 mgd (p. 4-27). While the DEIS states this flow is sufficient to sustain the wetlands and riparian vegetation in Las Vegas Wash, the reduction in flow would result in higher concentrations of substances such as perchlorate, total dissolved solids, and

selenium. The DEIS states that monitoring agencies will address this contamination as needed.

***Recommendation:***

The FEIS should describe the specific mitigation measures that monitoring agencies would take if increased contaminants in Las Vegas Wash flows become an issue. Of specific interest are measures that would address selenium, which bioaccumulates and can cause deformities in birds at very low concentrations.

**Las Vegas Wash Enhancements.** Las Vegas Wash is a valuable regional resource providing important wildlife habitat, recreational opportunities, and ecological services such as nutrient and sediment removal. Much effort is going into the development of the Wetlands Park and construction of erosion control structures. The SCOP would continue minimal discharges into Las Vegas Wash. However, the DEIS does not address the potential need for additional flows to enhance wetland and riparian habitat, or state whether reduced effluent flows lessen the need, funds, or reason to construct erosion control structures.

***Recommendations:***

The FEIS should describe in more detail the criteria used to determine the 30 mgd effluent flows for the Las Vegas Wash. Evaluate the need and potential for additional flows to enhance wetland and riparian habitat. For instance, describe the proposed Adaptive Management Plan (AMP) process for developing wastewater allocation criteria between Las Vegas Wash and Boulder Basin.

The FEIS should state whether the reduction in effluent flows into Las Vegas Wash modify plans or reduce funding for the construction of erosion control structures and bank protection measures.

**Air Quality**

**Mitigation for Exceedances of Air Quality Standards.** Air quality modeling indicates that the National Ambient Air Quality Standards (NAAQS) for Nitrogen Oxides (NO<sub>x</sub>) and volatile organic compounds (VOC) will be exceeded due to construction emissions (p. 4-94). The DEIS states that these potential exceedances would be eliminated if construction vehicles use diesel engines that meet the 2007 diesel-engine emission standards (pps. 4-94, 5-15).

***Recommendation:***

A commitment to use construction vehicles with diesel engines that meet the 2007 diesel-engine emission standards should be made in the FEIS.

## General Comments

**Section 7 Endangered Species Act Consultation.** The DEIS describes the Endangered Species Act (ESA) Section 7 Consultation process. However, it does not describe Section 7 ESA consultation for the SCOP.

***Recommendation:***

The FEIS should include information on Section 7 ESA Consultation for the SCOP. Describe the status of consultation and any project recommendations made by U.S. Fish and Wildlife Service (FWS). State whether the FWS concurs with the conclusions made in the DEIS regarding the potential impacts to razorback sucker populations (p. 4-57) and other threatened and endangered species.

**Public Participation in the Adaptive Management Plan.** The proposed program includes development and implementation of an AMP. The AMP would refine program operations and develop more specific allocation, monitoring, and management criteria (pps. 2-28, 4-46).

***Recommendation:***

The FEIS should describe how the AMP would ensure coordination and full participation of local, state, and federal agencies; tribes; and the public.