

## SUMMARY

This Review, the 2005 Review, Water Quality Standards for Salinity, Colorado River System (Review), is a review of the water quality standards for salinity for the Colorado River. It summarizes the Colorado River Basin Salinity Control Program (Program) and its proposed plan of implementation for continued salinity control. Economic damages due to elevated salinity levels have been significantly reduced through the Program at very modest costs. In Arizona, California and Nevada, economic damages have been reduced to about \$300 million per year, accomplished at a funding level of about \$24 million per year from federal sources and \$10 million from Colorado River Basin state funds. The Program is a unique cooperative watershed effort between several federal agencies and seven states designated to meet national, international and state water quality objectives.

Section 303 of the Clean Water Act requires that water quality standards be reviewed from time to time, but at least once during each three-year period. Accordingly, the seven-state Colorado River Basin Salinity Control Forum (Forum) has reviewed the existing state-adopted and United States Environmental Protection Agency (USEPA)-approved water quality standards for salinity consisting of numeric criteria and a plan of implementation for salinity control for the Colorado River System. Since the issuance of the 2002 Review, the United States Bureau of Reclamation (Reclamation) has enhanced a new model to analyze the Colorado River System, including salinity. The model has been used to make new salinity projections for this Review. The Forum's recommendations as found in this report will be submitted to each of the Colorado River Basin states for consideration as each state proceeds with its three-year water quality review process.

The Forum recommends no change in the numeric salinity criteria at the three stations located on the lower main stem of the Colorado River. The numeric criteria at these stations will remain:

<u>Station</u>	<u>Salinity in mg/L<sup>1</sup></u>
Below Hoover Dam	723
Below Parker Dam	747
At Imperial Dam	879

The plan of implementation as set forth in this Review is designed to meet the objective of maintaining the salinity concentrations at or below the numeric criteria while the Colorado River Basin states continue to develop their compact-apportioned waters. The Forum recommends that the plan of implementation described in this Review be carried out. The plan of implementation includes:

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<sup>1</sup>Flow-weighted average annual salinity.

- 1 Completion of Reclamation, United States Bureau of Land Management (BLM), and United States Department of Agriculture (USDA) salinity control measures to the extent that each unit remains viable and appropriately cost-effective.
2. Implementation of the Forum's recommended and adopted policies for effluent limitations, principally under the National Pollutant Discharge Elimination System (NPDES) permit program established by Section 402 of the Clean Water Act as amended. The implemented policies (included in Appendix A of this Review) are the following:
  - Policy for Implementation of Colorado River Salinity Standards Through the NPDES Permit Program;
  - NPDES Permit Program for Implementation of Colorado River Salinity Standards;
  - Policy for Use of Brackish and/or Saline Waters for Industrial Purposes;
  - Policy for Implementation of the Colorado River Salinity Standards Through the NPDES Permit Program for Intercepted Ground Water; and
  - Policy for Implementation of the Colorado River Salinity Standards Through the NPDES Permit Program for Fish Hatcheries.
3. Implementation of nonpoint source management plans developed by the states and approved by USEPA.

Item 1 of the plan listed above is to be implemented by federal agencies in conjunction with state, local, and private participants. The Forum works jointly with federal agencies on developing measures to be implemented. The Forum also urges the United States Congress (Congress) to ensure that the funds necessary to successfully fulfill this plan of implementation are appropriated as needed. Items 2 and 3 above are primarily implemented by each of the Colorado River Basin states.

The probability of exceeding the numeric criteria is low as determined by Reclamation with the use of its computer model. The low probability of exceedance was an important factor in the Forum's decision that the plan of implementation is acceptable and that the numeric criteria does not need to be changed.

The plan of implementation is designed to control enough salt to maintain the numeric criteria under a long-term mean water supply of 15 million acre-feet per year. It is recognized that the river system is subject to highly variable flows. Consequently, salinity will vary from year to year and may temporarily exceed the adopted numeric criteria in some years and remain well below the criteria in others.