

STATE WATER RESOURCES CONTROL BOARD  
RESOLUTION NO. 2003 - 0029

APPROVING THE FINAL REPORT OF THE COLORADO RIVER BASIN SALINITY CONTROL FORUM TITLED "2002 REVIEW - WATER QUALITY STANDARDS FOR SALINITY - COLORADO RIVER SYSTEM" (2002 TRIENNIAL REVIEW) DATED OCTOBER, 2002

WHEREAS:

1. In 1975, the seven Colorado River Basin States, including California, established water quality standards (objectives) for salinity for the Colorado River.
2. Section 303 of the Federal Clean Water Act mandates that water quality standards be reviewed and revised, as necessary, at least once every three years.
3. The seven-state Colorado River Basin Salinity Control Forum (Forum) reviewed the 1975 state-adopted and U.S. Environmental Protection Agency (USEPA)-approved standards in 1978 and every three years thereafter and concluded that the existing salinity standards were adequate.
4. The Forum conducted a review in 2002 and adopted a report which updated the plan of implementation and reaffirmed the adequacy of existing numeric standards. The report is titled "2002 Review—Water Quality Standards for Salinity—Colorado River System" (2002 Triennial Review) dated October 2002.
5. The State Water Resources Control Board (SWRCB) held a Public Hearing on April 1, 2003 regarding the 2002 Triennial Review.

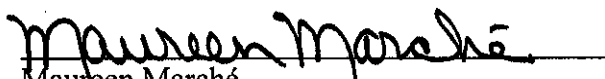
THEREFORE BE IT RESOLVED THAT:

The State Water Resources Control Board:

1. Approves the 2002 Triennial Review of the Colorado River salinity objectives and plan of implementation; and
2. Directs staff to submit the approved 2002 Triennial Review to USEPA pursuant to section 303 of the Federal Clean Water Act.

CERTIFICATION

The undersigned, Clerk to the Board, does hereby certify that the foregoing is a full, true, and correct copy of a resolution duly and regularly adopted at a meeting of the State Water Resources Control Board held on April 30, 2003.

  
Maureen Marché  
Clerk to the Board

## SUMMARY

This report is a review of the water quality standards for salinity for the Colorado River. It summarizes the Colorado River salinity control program and its proposed Plan of Implementation for continued salinity control. Economic damages due to elevated salinity levels have been significantly reduced through this program at very modest costs. In Arizona, California, and Nevada, economic damages have been reduced by \$300 million per year, accomplished at a federal funding level of less than \$20 million per year. The Salinity Control Program is a unique cooperative watershed effort between several federal agencies and seven states designed 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 Environmental Protection Agency (EPA)-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 1999 Review, the U.S. Bureau of Reclamation (Reclamation) has continued work on developing a new model to analyze the Colorado River System, including salinity. The model development is not yet completed, however, upon prior Review projections and current estimates by Reclamation, salinity control needs through 2020 are described herein. This 2002 Review updates funding and needed salinity control measures to be implemented. The Forum's recommendations are to be submitted to each of the Basin states for consideration at a public hearing prior to adoption.

The Forum recommends no change in the numeric salinity criteria at the three stations located on the lower mainstem 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 2002 Review is designed to meet the objective of maintaining the salinity concentrations at or below the numeric criteria while the Basin states continue to develop their compact-apportioned waters. The plan is based on maintaining the numeric criteria under a long-term mean water supply of 15 million acre-feet annually at Lee Ferry, the Compact Point. The Forum recommends that the Plan of Implementation described in this report be carried out. The Plan of Implementation includes:

---

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

1. Completion of Reclamation, U.S. Department of Agriculture, and Bureau of Land Management 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 B of this Review) are the following:
  - "Policy for Implementation of Colorado River Salinity Standards Through the NPDES Permit Program;"<sup>2</sup>
  - "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 EPA.

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 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 Basin states.

Major components of this Review's Plan of Implementation are the federal programs. Table 1 summarizes the salinity control measures in place by federal participants through 2001 (800,000 tons). Salinity control measures leading to the removal of an additional 1,000,000 tons per year of salt must be implemented by 2020 to meet the Program goal of approximately 1.8 million tons of salt-load reduction annually. The adopted Plan of Implementation requires federal appropriations to Reclamation of at least \$10.5 million and USDA of at least \$13.8 million annually. The federal programs are described in detail in Chapter 4 of this Review.

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

---

<sup>2</sup>The Policy for Implementation of Colorado River Salinity Standards Through the NPDES Permit Program was revised on October 30, 2002.

the Colorado 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.

**Table 1**  
**Colorado River Basin Salinity Control Program**  
**Plan of Implementation**  
**By 2020**  
 (Values in Tons of Salt Load Reduction Per Year)

AGENCY	MEASURES IN PLACE (2001)	POTENTIAL NEW MEASURES	TOTAL
<b>Bureau of Reclamation</b>	482,000	500,000	982,000
<b>U.S. Department of Agriculture</b>	318,000	437,000	755,000
<b>Bureau of Land Management<sup>3</sup></b>	_____	_____	_____
<b>Unidentified</b>	0	63,000	63,000
<b>TOTAL</b>	800,000	1,000,000	1,800,000

Salinity concentrations at the three stations on the Lower Colorado River in 2001 were:

Station	Salinity Concentration <sup>4</sup> in mg/L
Below Hoover Dam	587
Below Parker Dam	589
At Imperial Dam	681

Based on the data available, the Forum concludes that the measured salinity will not exceed the numeric criteria during the next three years. The Plan of Implementation adopted herein by the Forum provides for the control of about 1,800,000 tons of salt load reduction annually by the year 2020.

---

<sup>3</sup>BLM is required by P.L. 106-459 to submit a status report to Congress on its basinwide salinity control program. When this report is submitted, the salinity control target for BLM will be determined.

<sup>4</sup>Flow-weighted average data based on 1999 provisional records.

Should more water development projects be completed than are projected to occur before salinity control measures are identified or brought on line, temporary increases above the numeric criteria could result. However, these increases will be deemed in conformance with the standards if appropriate salinity control measures are included in the plan.

Increases above the criteria as a result of below normal annual river flows and/or low reservoir storage conditions will also be considered in conformance with the standards, provided that when river flows return to normal, and satisfactory reservoir conditions prevail, concentrations will then be at or below the criteria level.

The Forum has reviewed the impact of the program on projected salinities and finds that through the year 2020 the plan will control salinity levels so that, with long-term mean water supply conditions, salinity levels will be below the numeric criteria at the three stations. The salinity standards provide protection from long-term increases in economic damage to downstream users.

Because of the long lead-time required to conduct salinity studies; complete environmental and feasibility reports; implement; and achieve full salinity reduction effects at the lower Colorado River mainstem stations, continued funding is necessary for the recommended Plan of Implementation to proceed as set forth in this Review. Non-federal funds are available to cost-share with federal appropriations, and Basin irrigators stand ready with cost-share dollars to install salinity reducing measures.

