

P R O P O S E D

WATER QUALITY STANDARDS FOR SALINITY  
INCLUDING  
NUMERIC CRITERIA AND PLAN OF IMPLEMENTATION FOR SALINITY CONTROL

COLORADO RIVER SYSTEM

Prepared by  
Colorado River Basin Salinity Control Forum

June 1975

MEMBERS OF COLORADO RIVER BASIN SALINITY CONTROL FORUM

- ARIZONA: Clifford C. Tabor, Chairman, Arizona State Water Quality Control Council  
Wesley E. Steimer, Executive Director, Arizona Water Commission
- CALIFORNIA: W. Don Maughan, Vice Chairman, State Water Resources Control Board  
Myron B. Holburt, Chief Engineer, Colorado River Board of California
- COLORADO: E. B. Pugsley, Technical Secretary, Colorado Water Quality Control  
Commission, Colorado State Department of Health  
Laren D. Morrill, Deputy Director, Colorado Water Conservation Board  
Fitzhugh Scott III, Attorney-at-Law
- NEVADA: Ernest G. Gregory, Chief, Bureau of Environmental Health,  
State Department of Health  
Donald L. Paff, Administrator, Division of Colorado River Resources  
Roland D. Westergard, State Engineer, Division of Water Resources
- NEW MEXICO: Stephen E. Reynolds, State Engineer
- UTAH: Lynn M. Thatcher, Director, Bureau of Environmental Health,  
Utah State Division of Health  
Daniel F. Lawrence, Director, Division of Water Resources
- WYOMING: Arthur E. Williamsen, Director of Environmental Sanitation,  
State Department of Health and Social Services  
George L. Christopulos, State Engineer

CHAIRMAN OF FORUM:

Lynn M. Thatcher, Director,  
Bureau of Environmental Health,  
Utah State Division of Health

SECRETARY OF FORUM:

Mal Goslin, Executive Director,  
Upper Colorado River Commission

Weber State College

**LIBRARY**

Colorado River Basin  
Salinity Control Program.

and water quality  
standards for salinity.

TU  
224  
.cc  
c4

## SUMMARY

The Federal Water Pollution Control Act Amendments of 1972, PL 92-500, in Section 303 require the adoption of water quality standards applicable to interstate waters. Pursuant to that requirement, the Environmental Protection Agency on December 18, 1974, issued a regulation requiring the states of the Colorado River Basin to adopt water quality standards for salinity, consisting of numeric criteria and plan of implementation for salinity control. The standards are to be submitted for approval to the Environmental Protection Agency on or before October 18, 1975.

This report, prepared by the 7-State Colorado River Basin Salinity Control Forum, presents in a single document the water quality standards for salinity submitted for adoption by each of the states in the Basin. The standards are to be reviewed at 3-year intervals and modified, if appropriate.

Consistent with the regulation, the recommended flow-weighted average annual numeric salinity criteria for three locations in the lower main stem of the Colorado River System are as follows:

	<u>Salinity in mg/l</u>
Below Hoover Dam	723
Below Parker Dam	747
Imperial Dam	879

The plan of implementation comprises a number of federal and nonfederal projects and measures to maintain the flow-weighted average annual salinity in the lower main stem at or below the recommended numeric criteria through 1990, as the Basin States continue to develop their compact-apportioned waters. The principal components of the plan are as follows:

1. Prompt construction and operation of the initial four salinity control units authorized by Title II of PL 93-320, the Colorado River Basin Salinity Control Act.

2. Construction of the 12 other units listed in Title II of PL 93-320 or their equivalent after receipt of favorable planning reports.

3. The placing of effluent limitations, principally under the NPDES permit program provided for in Section 402 of PL 92-500 on industrial discharges.

4. The reformulation of previously authorized, but unconstructed, federal water projects to reduce the salt loading effect.

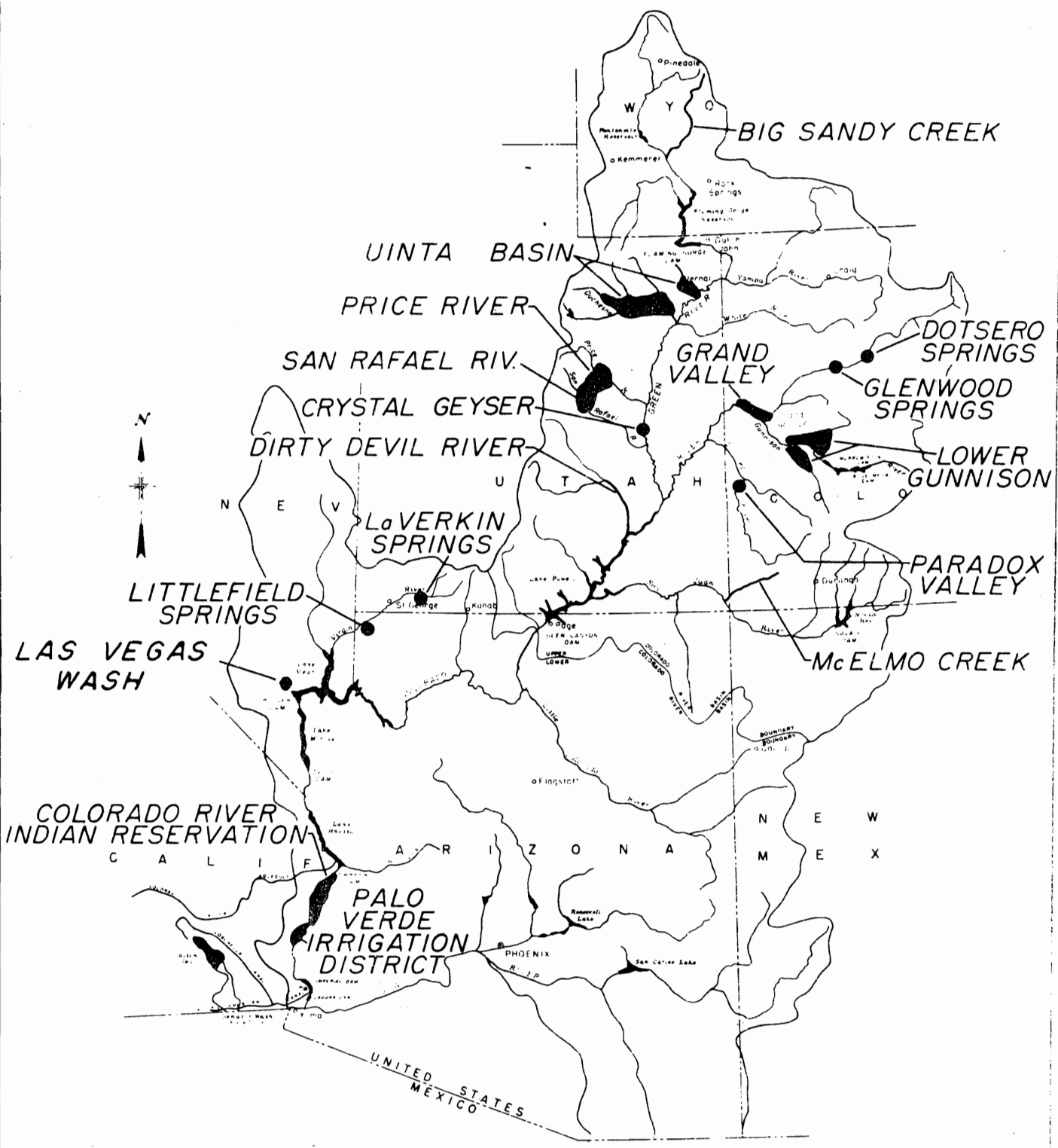
5. Use of saline water for industrial purposes whenever practical, programs by water users to cope with the river's high salinity, studies of means to minimize salinity in municipal discharges, and studies of future possible salinity control programs.

The report recognizes that many natural and man-made factors affect the river's salinity. Consequently, the actual salinity will vary above and below the recommended numeric criteria. However, under the assumptions of streamflow equivalent to the long-term average, a "moderate" rate of increase in water depletions and full implementation of needed salinity control measures, the average salinity can be maintained at or below 1972 levels during the study period of the next 15 years.

The federal regulations provide for temporary increases above the 1972 levels if control measures are included in the plan. Should

water development projects be completed before control measures are identified or brought on line, temporary increases above the criteria could result and these increases will be in conformance with the regulation. With completion of control projects, those now in the plan or those to be added subsequently, salinity would return to or below the criteria level.

Periodic increases above the criteria as a result of reservoir conditions or periods of below long-time average annual river flow also will be in conformance with the regulation. With satisfactory reservoir conditions and when river flows return to the long-time average annual flow or above, concentrations are expected to be at or below the criteria level.



LOCATION OF PROPOSED SALINITY CONTROL PROJECTS - COLORADO RIVER BASIN