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STATE OF COLORADO

Send 6/15/82 file: 208 Clean Water Grant

COLORADO WATER CONSERVATION BOARD

Department of Natural Resources

823 State Centennial Building  
1313 Sherman Street  
Denver, Colorado 80203  
Phone: (303) 866-3441



Richard D. Lamm  
Governor

J. William McDonald  
Director

David W. Walker  
Deputy Director

QUARTERLY REPORT

on the

208 CLEAN WATER GRANT

for the

WATER QUALITY CONTROL DIVISION

of the

COLORADO DEPARTMENT OF HEALTH

prepared by the

COLORADO WATER CONSERVATION BOARD

June 14, 1982

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June 14, 1982

Mr. Gary Broetzman, Director  
Water Quality Control Division  
Department of Health  
4210 East 11th  
Denver, CO 80220

Subject: 208 Clean Water Grant

Dear Gary:

In accordance with the contract between our agencies concerning the above subject, I have attached a copy of our quarterly report and a tabulation of our "in-kind" expenses for January, February, and March, 1982.

If you have any questions, please feel free to give me or Dan Law a call.

Sincerely,

J. William McDonald  
Director

JWM/gl

Attachments

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208 Clean Water Grant  
Summary of January Through March Work Activities

Second quarter work activities under this contract have centered on Item I of the Clean Water Grant - Scope of Services. Item I directs the Water Conservation Board to review and analyze salt loading information from the Colorado River Basin in Colorado and identify conflicts or gaps that exist in that information. The attached memorandum, dated March 10, 1982, describes the organization of the salt loading inventory for the Colorado River Basin in Colorado. An attempt has been made to identify all available documentation of salinity source studies produced by various government agencies and institutions. Salt loading information has appeared primarily in the form of published reports. Contacts with Federal, State and local agencies involved with water quality management has lead to the development of a comprehensive collection of salt loading information.

Near the end of the second quarter, the emphasis of work activities shifted more toward the review and analysis of salt loading informtion. This process will continue on into the third quarters work activities. A special effort will be made to identify gaps or conflicts in the information. Ultimately, all salt loading information will be summarized and presented by subbasin in a final report.

Over the course of the second quarter, meetings with representatives of various government agencies and visits to agency libraries and resource centers have produced the following collection of literature containing salt loading information for Colorado sources. Other reports were considered and found not to contain useful information.

U.S. Bureau of Reclamation

Quality of Water - Colorado River Basin - Progress Report  
No. 10, January 1981  
Lower Gunnison Basin Unit, Feasibility Report and Proposed  
Draft EIS, October 1981  
Grand Valley Unit, Stage One Development - Special Report,  
September 1979  
Glenwood - Dotsero Springs Unit Plan of Study, March, 1980  
McElmo Creek Unit, Status Report, July 1981  
Paradox Valley Unit, Final Environmental Impact Statement,  
March 1979  
Salinity and Sediment Study - Upper Colorado River Basin,  
June 1975

U.S. Geological Survey

Water Resources of the Upper Colorado River Basin -  
Technical Report Professional Paper 441  
Water Resources Data for Colorado, Water Years 1969-80  
Analysis of Stream Quality in the Yampa River Basin,  
Colorado and Wyoming, April 1980

A Preliminary Evaluation of Groundwater Contribution to  
Salinity of Streams in the Upper Colorado River Basin in  
Colorado and Adjacent Parts of Wyoming and Utah, Draft  
Report 1979 (Report prepared in cooperation with the BLM)

U.S. Department of Agriculture

On-farm Program for Salinity Control - Final Report of the  
Grand Valley Unit, December, 1977 (Supplemental #1,  
March 1980)  
Potential for On-Farm Irrigation Improvements - Lower  
Gunnison Basin Unit, Salinity Control Study,  
September 1981  
Salinity Control Investigation for Mancos Valley - Plan of  
Work, November 1981

The following reports were based on a cooperative study by the  
U.S.D.A. and the Colorado Water Conservation Board:

Water and Related Land Resources - Colorado River Basin in  
Colorado, May 1965  
Water and Land Related Resources - Dolores River Basin,  
Colorado and Utah, September 1972  
Water and Land Related Resources - Yampa River Basin,  
Colorado and Wyoming, April 1969  
Water and Land Related Resources - Gunnison River Basin,  
Colorado, November 1962  
Water and Land Related Resources - White River Basin in  
Colorado, November 1966  
Water and Land Related Resources - San Juan River Basin in  
Arizona, Colorado, New Mexico, and Utah, June 1974

U.S. Bureau of Land Management

The Effects of Surface Disturbance on the Salinity of  
Public Lands in the Upper Colorado River Basin - 1977  
Status Report, February 1978  
Control of Salinity from Point Sources Yielding Groundwater  
Discharge and from Diffuse Surface Runoff in the Upper  
Colorado River Basin, 1978-79 Status Report, February 1980

Environmental Protection Agency

The Mineral Quality Problem in the Colorado River Basin,  
Appendix A-D and Summary Report, 1971

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Mineral Springs and Other Natural Point Sources of Saline  
Pollution in the Colorado River Basin, January 1967

Water Resources Council

The Nations Water Resources 1975-2000, Volume 4: Upper  
Colorado Region, December 1978  
Upper Colorado Region Comprehensive Framework Study, Main  
Report and Appendices V, X, XV, June 1971

Colorado River Basin Salinity Control Forum

Water Quality Standards for Salinity - Colorado River  
System, 1981 Triennial Review

Colorado Department of Local Affairs (in cooperation with  
regional planning commissions)

Water Quality Management Plan for District 10,  
September 1979  
Water Quality Management Plan for the San Juan Region,  
August 1979

Council of Governments

Areawide Water Quality Management Plan for Eagle, Grand,  
Jackson, Pitkin, Routt, and Summit Counties, Colorado  
(Northwest Colorado Council of Governments) Draft -  
December 1981  
Colorado West Area 208 Plan - Final Main Report (Colorado  
West Area Council of Governments) July 1979

Colorado Department of Health - Water Quality Control Division

Water Quality Management Plan, Colorado River Basin in  
Colorado, June 1975

The Colorado Soil Conservation Board is nearing the  
completion of a salinity control investigation in the Tongue  
Creek and Mancos Valley areas. It is anticipated that salt  
loading information from irrigated agriculture will be available  
for the final report.

Tentative arrangements to visit ongoing salinity control  
projects at Paradox and Grand Valley have been made. The trips  
will be coordinated with Bureau of Reclamation and Soil  
Conservation Service personnel and will take place during the  
third quarter.

DRS/gl

## COLORADO WATER CONSERVATION BOARD

J. William McDonald  
Director

TO: Dan Law

FROM: Dean Stindt *DES*

DATE: March 10, 1982

SUBJECT: Organization of Colorado Salt Loading  
Source Inventory for Colorado River Basin

The objective of the subject inventory is to identify those sources of salt loading to the Colorado River system that originate on lands within the State of Colorado. In order to allow for a more detailed analysis, the Colorado River Basin within the State will be divided into seven subbasins. The subbasins are as follows:

Yampa  
White  
Mainstem above Cameo Station  
Mainstem Cameo to state line  
Gunnison  
Dolores  
San Juan tributaries

All available documentation of salinity studies will be identified and considered for areas within each of the subbasins. The various technical reports, water resource investigations, and water quality management plans prepared by or for the federal, state, and local governments will be used to account for as much of total subbasin annual salt yield as possible.

The average annual salt yields from lands within Colorado will be determined using U.S.G.S. water quality and streamflow data from 1966-80. Portions of subbasin salt yields not accounted for in existing literature will be identified.

Sources of salt loading will be identified as natural point, natural diffuse, or manmade whenever the information is available.

DS:cs

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208 Clean Water Grant  
Matching "In-Kind" Expenses

January 1982 -

J. William McDonald: 6 Hours @ \$24.28 = \$146  
The major topics of work included review of salt loading report and preparation for the Forum's Work Group meeting in San Francisco. Total \$146

Daniel L. Law: 35 Hours @ \$18.12 = \$634  
The major topics of work included preparation for the salinity standards review before the Water Quality Control Commission, preparation for the Forum's Work Group meeting in San Francisco and supervision of grant person. Total \$634

Total January Expenses \$780

February 1982 -

J. William McDonald: 46 Hours @ \$24.28 = \$1117  
The major topics of work included the Forum's Work Group meeting in San Francisco and the amendments to P.L. 93-320. Travel Expenses = \$ 454  
Total \$1571

Daniel L. Law: 58 Hours @ \$18.12 = \$1051  
The major topics of work included the Forum's Work Group meeting in San Francisco, project review, quarterly report and supervision of grant person. Travel Expenses = \$ 472  
Total \$1523

Total February Expenses = \$3094

March 1982 -

J. William McDonald: 10 Hours @ \$24.28 = \$ 243  
The major topics of work included project review and amendments to P.L. 93-320. Total \$ 243

Daniel L. Law: 39 Hours @ \$18.12 = \$ 707  
The major topics of work included project review, amendments to P.L. 93-320, quarterly report and supervision of grant person. Total \$ 707

Total March Expenses = \$ 950



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"In-Kind" Expense Summary

January	\$ 780
February	\$3094
March	\$ 950
Total	<u>\$4824</u>

Previous "In-Kind" Expenses \$4702  
Total to Date \$9526