

JUL 14 '80

United States Department of the Interior

~~---BUREAU OF RECLAMATION---~~
WATER AND POWER RESOURCES SERVICE
SOUTHWEST REGION

714 S. TYLER

AMARILLO, TEXAS 79101

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JUL 10 1980

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Memorandum

To: Regional Director, Region 6, U.S. Fish and Wildlife Service,
Lakewood, CO 80225

From: **FOR** Regional Director

Subject: Results of Mitigation Meeting on June 10, 1980--Closed Basin Division,
San Luis Valley Project, Colorado

Enclosed are lists of representatives invited to and those attending the subject meeting. By copy of this memorandum, agency representatives invited to the meeting are being apprised of the results. I view the meeting as being productive.

The meeting agenda suggested in my memorandum of May 29, 1980, was generally followed, excluding items Nos. 8 and 9, mitigation determinations. The morning session of the meeting mainly was devoted to presentations of current data analyses. Water and Power Resources Service (Water and Power) personnel described the extent of surface water across the project division area during the spring through fall period of 1979. A series of aerial photographs shows that the maximum surface water area during this period aggregates a total of about 4,000 acres within the project division. In presenting analysis results of the summer 1979 wetlands data (data package mailed March 14-17 to various agencies), Water and Power personnel indicated the lack of obvious correlations between infiltration rates and wetland types. The U.S. Geological Survey (USGS) representative explained the results of current water quality analyses and two-dimensional aquifer modeling, including a predictive water table drawdown map. Discussions in both the morning and afternoon sessions were prompted by the USGS representative's mention of estimated pumpage source amounts used in modeling. These discussions concerned the implication that after 54 years of project division operations, about 75 percent of the pumpage would consist of leakage from the confined aquifer. This 75 percent value was later (June 24) confirmed by the USGS representative to be the pumpage presently assigned in the aquifer model to evapotranspiration from the unconfined aquifer, rather than to leakage from the confined aquifer. The results of the Fish and Wildlife Service National Wetlands Inventory of 43,441 acres of total wetlands within the project division (1975 aerial photography) were compared to previous wetlands inventories. Wetland types and potential relationships to water table levels were discussed.

As surfaced at the meeting, available data analyses still do not provide a means to accurately quantify the effects of the project division on wildlife associated with wetlands. However, hydrological trends in the San Luis Valley, coupled with plan modifications since the 1972 authorization, show that the full development of Mishak National Wildlife Refuge (13,800 acres; 12,500 acre-feet of water per year) and the full delivery of 5,300 acre-feet of water per year to Alamosa National Wildlife Refuge would exceed mitigation requirements. Also, a mix of smaller mitigation features appears to be more beneficial than a mitigation plan which includes only Alamosa and Mishak National Wildlife Refuges. Constraints on the availability of water, energy, and funding were discussed.

Accordingly, during the afternoon meeting session, mitigation alternatives were proposed for study. These alternatives are also enclosed as a listing. Congressional concurrence would be required on any entirely new mitigation plan developed after reevaluation of effects. Consultation with the Colorado State Engineer would be useful in interpreting the legal feasibility of water exchanges or water-use changes incorporated in some of the proposed mitigation alternatives. This office will request such consultation.

The FWS representatives agreed to pursue reevaluation of project division effects and recommend mitigation measures. These findings would be documented in the planning-aid memorandum provided for in our joint Memorandum of Agreement No. 0-07-50-X0762D, which expires on September 30, 1980. Water and Power will continue on-going data collection programs relative to predicting the effects of the project division (e.g., wetlands and vegetation monitoring at long-term pump test site TW3-1) and will assist the FWS in its reevaluation.

I am appreciative of the contributions made at the meeting toward furthering the Closed Basin Division.

David G. Coleman

Enclosures

cc: Listed agencies and individuals on enclosure
(w/c enclosures)

List of Invitees and Receivers of Meeting Results for the June 10, 1980, Meeting
Closed Basin Division, San Luis Valley Project, Colorado

Colorado Field Office
U.S. Fish and Wildlife Service
330 South Garrison Street
Lakewood, CO 80226

Area Manager
U.S. Fish and Wildlife Service
1311 Federal Building
126 South State Street
Salt Lake City, UT 84138

Refuge Manager
U.S. Fish and Wildlife Service
Alamosa-Monte Vista National Wildlife Refuges
9383 El Rancho Lane
Alamosa, CO 81101

Mr. Monte Pascoe, Executive Director
Colorado Department of Natural Resources
718 State Centennial Building
1313 Sherman Street
Denver, CO 80203

Mr. Jack R. Grieb, Director
Colorado Division of Wildlife
6060 Broadway
Denver, CO 80216

Mr. J. William McDonald, Director
Colorado Water Conservation Board
823 State Centennial Building
1313 Sherman Street
Denver, CO 80203

Mr. Jeris A. Danielson, State Engineer
Colorado Division of Water Resources
818 State Centennial Building
1313 Sherman Street
Denver, CO 80203

Mr. Floyd Getz, Acting General Manager
Rio Grande Water Conservation District
Post Office Box 816
Alamosa, CO 81101

Mr. Robert S. Wham
Attorney-at-Law
1421 Court Place
Denver, CO 80202

Mr. Roger L. Williams
Regional Administrator
U.S. Environmental Protection
Agency, Region VIII
Attention: Mr. Dale Dodenahl/Mr. Bill Gise
1860 Lincoln Street, Suite 103
Denver, CO 80295

State Director, Colorado
Bureau of Land Management
Room 700, Colorado State Bank Building
1800 Broadway
Denver, CO 80202

District Manager
Bureau of Land Management
Canon City District Office
Post Office Box 311
Canon City, CO 81212

Area Resource Manager
Bureau of Land Management
1921 State Street
Alamosa, CO 81101

Pueblo Subdistrict Chief
U.S. Geological Survey, WRD
Post Office Box 1524
Pueblo, CO 81002

Proposed Mitigation Alternatives
Closed Basin Division, San Luis Valley Project, Colorado

Introduction

Mitigation alternatives were proposed at a State of Colorado and Federal interagency meeting on June 10, 1980, in Denver, Colorado. Depending upon reevaluation of the project division effects, portions of these or other alternatives would be proposed as a new mitigation plan to Congress in lieu of the full development of Mishak and Alamosa National Wildlife Refuges (NWR) as identified in House Document No. 91-369 and Public Law No. 92-514:

Mishak NWR--Establish a 13,800-acre refuge with project division water deliveries not to exceed 12,500 acre-feet per year (acre-ft/yr) on an exchange basis of surface water for ground water.

Alamosa NWR--Deliver project division water not to exceed 5,300 acre-ft/yr.

Proposed Alternatives (not an additive list)

1. Furnish project division water and/or funds for water deliveries to both Alamosa and Monte Vista NWR's. For example, Monte Vista NWR would benefit from "early" availability of water in latter February, either from Rio Grande diversions or from well pumping on the refuge. In the case of water diverted from the Rio Grande for Monte Vista NWR, such water would be accounted from the maximum allocation of 5,300 acre-ft/yr of project division water for Alamosa NWR. Assistance from the Colorado State Engineer would be required to interpret the legal feasibility of shifting portions of Alamosa NWR's allocation of project division water to Monte Vista NWR.
2. Establish a Mishak NWR of about 3,500 acres across the Mishak Lakes area. This area would be primarily for waterfowl production with minimum facilities (e.g., no refuge headquarters). Augmentation of surface water may be required at a rate of 1 to 1-1/2 feet of water per acre per year for pond areas. An exchange of surface water to the project division for ground water from the project division could be implemented.
3. Acquisition of a minimum of about 2,500 acres in the Russell Lakes area, about 9 miles west of the project division's Stage 5. This area would be managed for waterfowl by the State of Colorado.
4. Provide 450 acre-ft/yr of project division water to Blanca Wildlife Habitat Area as part of mitigation for project division effects. Such water would be accounted from the maximum allocation of 5,300 acre-ft/yr of project division water for Alamosa NWR. Blanca Wildlife Habitat Area also has the capability to use an additional 1,000 acre-ft/yr of project division water, again, as part of a mitigation plan for the effects of the entire project division.

5. Acquire in fee-title the Emperious tract of 2,040 acres, including 51 adjudicated artesian wells; develop this area as a refuge in Stage 1-2 for waterfowl production. Flow appropriations from well permits for these 51 wells aggregate about 4,210 acre-ft/yr; estimated open-flow for the wells presently aggregate about 1,570 acre-ft/yr. Assistance from the Colorado State Engineer would be required to interpret the legal feasibility of using artesian flows from the Emperious wells for waterfowl production.
6. Shift to mitigation purposes the funding and facilities allocated in the Definite Plan Report (November 1979) for wildlife enhancement in the Head Lake-San Luis Lake area.
7. Combinations of these or other proposed alternatives may be used to prepare a new mitigation plan once the effects of the project division are reevaluated.

Meeting on
 Closed Basin Division
 San Luis Valley Project, Colorado
 at the
 Engineering and Research Center
 Water and Power Resources Service
 Denver, Colorado

June 10, 1980

Meeting Attendees

<u>Name</u>	<u>Organization</u>
Jack Sanders	Water and Power Resources Service, Amarillo, TX
Warren Dunkin	Water and Power Resources Service, E&R Center, Denver, CO
John Schwarz	Bureau of Land Management
Rich Herbert	Bureau of Land Management, Colorado State Office
Ernie Gluesing	Bureau of Land Management, Colorado State Office
Bob Jacobsen	U. S. Fish and Wildlife Service, Salt Lake City, UT
Vern Helbig	U. S. Fish and Wildlife Service, Denver, CO
Guy Leonard	U. S. Geological Survey
Jeris A. Danielson	State Engineer - Colorado
Fred E. Daubert	Colorado Water Conservation Board
Pete Barrows	Colorado Division of Wildlife
Richard Hopper	Colorado Division of Wildlife
Norwin Smith	Colorado Division of Wildlife (Montrose, CO)
John Boudreaux	U. S. Fish and Wildlife Service, Denver, CO
Melvin T. Nail	U. S. Fish and Wildlife Service, Alamosa-Monte Vista Wildlife Refuges
Bill Seth	Water and Power Resources Service, Amarillo, TX
Herbert Ham	Water and Power Resources Service, Denver, CO
Jack N. Christopher	Water and Power Resources Service, E&R Center, Denver, CO
Don Prichard	Bureau of Land Management
Ray J. Winger	Water and Power Resources Service, E&R Center, Denver, CO
Clay Bridges	Bureau of Land Management
Jerry Hughes	U. S. Geological Survey
Robert S. Wham	Rio Grande Water Conservation District
Fred Pinkney	Water and Power Resources Service, Amarillo, TX
Dan Carter	Water and Power Resources Service, Amarillo, TX
Arthur Roybal	U. S. Fish and Wildlife Service