

# STATE OF COLORADO

## COLORADO WATER CONSERVATION BOARD

Department of Natural Resources

721 State Centennial Building

1313 Sherman Street

Denver, Colorado 80203

Phone: (303) 866-3441



January 7, 1988

Roy Romer  
Governor  
J. William McDonald  
Director  
David W. Walker  
Deputy Director


Senator Ted Strickland  
President of the Senate  
Colorado General Assembly  
State Capitol  
Denver, CO 80203

Representative Carl B. Bledsoe  
Speaker of the House of Representatives  
Colorado General Assembly  
State Capitol  
Denver, CO 80203

Gentlemen:

As required by section 37-60-122 (1)(a), CRS, please find enclosed the annual report from the Colorado Water Conservation Board. In addition to the projects recommended therein for authorization, the Board will act on two or three additional projects at its January 28-29 meeting. I will advise you of the Board's actions at that time by subsequent letter.

Sincerely,

  
J. William McDonald  
Director

JWM/gl

Enclosure: as stated

cc: Secretary of the Senate  
Chief Clerk of the House  
Members, Senate Committee on Agriculture, Natural Resources,  
and Energy  
Members, House Committee on Agriculture, Livestock, and  
Natural Resources  
Members, Colorado Water Conservation Board  
Executive Director, Colorado Water Resources and  
Power Development Authority  
Director, Legislative Council

2515E-2

1988 ANNUAL REPORT TO THE  
COLORADO GENERAL ASSEMBLY  
FROM THE  
COLORADO WATER CONSERVATION BOARD  
January, 1988

Introduction

Section 37-60-122 (1)(a), CRS, directs the Colorado Water Conservation Board to submit an annual report to the General Assembly. The purpose of this annual report is twofold.

First, section 37-60-122 (1)(a), CRS, directs the Board to report on the proposed facilities which the Board recommends be constructed with moneys appropriated or otherwise credited to the construction fund created pursuant to section 37-60-121 (1), CRS. Section 37-60-122 (1)(a) also directs that the Board's report include suggested priorities for the funding of such proposed facilities.

Second, section 37-60-121 (1)(c), CRS, directs the Board to apprise the General Assembly of the steps taken to comply with the criteria set forth in section 37-60-121 (1)(b), CRS. In consideration of making expenditures from the construction fund, the Board is to be guided by the subject criteria.

Projects Recommended for Authorization

At its December 10-11, 1987, regular meeting, the Board voted to recommend that five projects be authorized, subject to the terms of financing set forth in Table 1. Brief summaries of each proposed project are enclosed.

Recommended Amendments to Towaoc Pipeline Project Authorization

The Board was authorized by section 1(1) and (4) of chapter 230, Session Laws of Colorado 1986, to pay for and construct the Towaoc pipeline project. The project will deliver the Ute Mountain Ute Indian Tribe's allocation of domestic water from the federal Dolores Project to the Tribe's reservation. State funding of this project on a non-reimbursable basis is a component of the Colorado Ute Indian Water Rights Final Settlement Agreement of December, 1986.

The design of the project has been completed and the pipeline's routing selected. While much of the pipeline can be laid in existing public rights-of-way, portions of the pipeline will require easements across private property.

While the Board will endeavor to acquire the necessary easements on a negotiated basis within the limits of the relevant statutory requirements for the appraisal of real property interests to be purchased by a state agency, it is conceivable that negotiations may not be successful in all instances. Therefore, the Board respectfully recommends that section 1(4) of chapter 230 be amended to give it the power of condemnation for this one project in order that the state can meet its obligations under the water rights settlement with the Tribe.

The Board also recommends that section 1(4) be amended to make it clear, as has always been intended, that the Board is authorized to convey title to the pipeline and the easements acquired by the Board for the pipeline route to the Tribe upon completion of construction of the project. Section 1(4) is presently silent on this matter, which leads to unnecessary ambiguity.

#### Compliance with Construction Fund Criteria

Since the adoption in 1981 of the criteria set forth in section 37-60-121 (1)(b), CRS, actions taken by the Board concerning the construction fund program have been in compliance with those criteria. In particular, the Board has taken the following steps:

1. About two-thirds of the Board's cost of the projects recommended since the adoption of the subject criteria have been for projects which will increase the beneficial consumptive use of Colorado's compact entitlements.
2. No applications for domestic water treatment and distribution systems or flood control projects have been accepted by the Board since March, 1981.
3. All feasibility studies initiated by the Board include the information required by criteria (IX).

#### Additional Activities Under the Construction Fund

The General Assembly has directed, and the Board has recently completed, two specific activities with construction fund monies.

First, S.B. 5 (1985) created a new section 37-60-115(3), CRS, concerning ground water investigations to be undertaken by the Board. In 1987, the Board recommended, and the General Assembly authorized, expenditure of \$100,000 for a cooperative study of groundwater in the Denver Basin. An initial deep well was drilled at Castle Pines in cooperation with the U.S. Geological Survey and the Castle Pines Metropolitan District.

Research analysis is being conducted by Colorado State University and will be completed in October, 1988. The investigation appears to be benefitting from high quality core samples and will include comparative analyses with a second test hole drilled nearby. Results are expected to increase scientific information on the specific yield of aquifers in the Denver Basin.

The second activity was directed by H.B. 1011 (1986), codified at section 37-60-115(4), CRS. It involved compilation of an inventory of potential dam and reservoir sites in the state. The inventory was prepared by obtaining information from federal, state, and local water entities and the State Engineer's water rights tabulation. A draft of the inventory is now being circulated among the contributors for correction and additions. As directed, the inventory is on a computerized retrieval system and can be continuously updated.

Section 37-60-115(4) also requires the Board to identify and report annually to the General Assembly on any potential reservoir sites which may be encroached upon by incompatible land uses. To accomplish this and to refine and update the initial inventory, the Board requests that it be authorized to make further expenditures from the construction fund for this purpose. The authorization to make expenditures originally contained in H.B. 1011 has expired.

Administrative Expenditures During FY 86-87

The following expenditures of construction fund moneys were made during FY 86-87 pursuant to section 37-60-121 (4)(a), CRS, which moneys were appropriated by the long bill for FY 86-87.

Personal Services, Operating and Travel	\$565,203
Capital	9,703
Legal Services	<u>17,838</u>
Total	\$592,744

Status of Construction Fund

The cumulative status of the construction fund from its inception through December 31, 1987, is as shown in Table 2. The negative balance which would result from authorization of proposed projects in 1988 is of major concern to the Board. Although income to the fund from repayments, interest on monies in the fund, and federal mineral leasing payments provides several million dollars annually, and while there is usually a one or two year time lag between legislative authorization and actual construction, it is clear that the Board's project construction program cannot continue at its present level of about \$10-20 million of new project authorizations each year

without new appropriations to the construction fund. No appropriations have been made since 1982, although H.B. 1340 (1986), as amended by H.B. 1158 (1987), appropriated \$12.5 million over a three year period commencing on July 1, 1989.

The Board will be considering the implications of these circumstances and will provide further analysis and recommendations in the future.

gl

Encls: Table 1  
Table 2  
Project Summaries

Table 1

COLORADO WATER CONSERVATION BOARD  
RECOMMENDED PROJECTS  
for 1988

<u>Priority</u>	<u>Project Name</u>	<u>Location (County)</u>	<u>Total Cost</u>	<u>Board Cost</u>	<u>Repayment Period (yrs.)</u>	<u>Annual Interest Rate</u>	<u>Annual Payment</u>	<u>Total Repayment</u>
1	Continental Dam and Santa Maria Dam (a)	Hinsdale Mineral	\$ 193,000	\$ 193,000	30	5%	\$ 12,554.65	\$ 376,639.50
2	Plateau Creek Pipeline	Mesa	16,775,000	8,000,000	30	5%	520,400.00	15,612,000.00
3	McCall Lake	Larimer Boulder	435,000	217,500	10	5%	28,166.25	281,662.50
4	Ish Reservoir	Boulder	72,000	36,000	20	5%	2,888.64	57,772.80
5	R.C. Pipe Siphon	Moffat	<u>40,000</u>	<u>16,050</u>	40	5%	<u>935.40</u>	<u>37,416.00</u>
			<u>\$17,776,000</u>	<u>\$8,723,550</u>			<u>\$581,922.99</u>	<u>\$16,874,832.30</u>

(a) The Board recommends that the rehabilitation of these two reservoirs, both of which are owned by the same company and both of which are "pre-compact" reservoirs under the Rio Grande Compact, be viewed as a single project with the first priority as among the projects to be authorized in 1988.

Table 2

STATUS OF CWCB CONSTRUCTION FUND  
(from inception thru 12/31/87)

<u>Total Appropriations and Revenues</u>		\$146,208,573 <sup>a/</sup>
<u>Less Transfers</u>		
Water Resources & Power Development Authority	\$30,099,000	
Reserved Rights Fund	5,000,000	
Colorado Water Resources Research Institute	130,000	
		-\$ 35,229,000
NET FUNDS AVAILABLE		\$110,979,573
<u>Less Expenditures and Obligations</u>		
Authorized Projects and Feasibility Studies	\$108,135,212 <sup>b/</sup>	
Emergency disaster projects	915,000 <sup>c/</sup>	
Administrative expenses	<u>2,466,308<sup>d/</sup></u>	
		-\$111,516,520
SUB-TOTAL		-\$ 536,947
<u>Less Proposed Projects for 1988</u>	\$ 8,496,550	-\$ 8,496,550
FINAL BALANCE (deficit)		-\$ 9,033,497

[Footnotes attached]

0069-06

Notes to Table 2

a/	Revenue Sharing	\$ 300,000
	General Fund	600,000
	Oil Shale Trust Fund	3,300,000
	Sales & Use Tax (SB 537, 1980)	28,000,000
	Tax Relief (SB 149, 1981)	40,000,000
	Tax Relief (HB 1617, 1982)	10,000,000
	Mineral Lease Payments	32,940,312 ✓
	Interest (as of 11/30/87)	21,065,334
	Repayments	<u>10,002,927 -</u>
		\$146,208,573

b/ This sum includes expenditures for already completed feasibility studies and projects, contract encumbrances for projects currently under construction and the sums authorized for projects on which construction has yet to be initiated.

c/ This sum is the amount which has been expended on project construction pursuant to disaster emergency proclamations by the Governor. The projects involved met the criteria governing the construction fund, although they had not been authorized by the General Assembly.

d/ Personal services, travel, operating, and legal services expenses for administering the program have been appropriated from the construction fund in recent years. This figure reflects costs through June 30, 1987, not December 31, 1987.

0069-7



COLORADO WATER CONSERVATION BOARD

Continental and Santa Maria Dams Rehabilitation Project  
Santa Maria Reservoir Company

December, 1987

A. CONTINENTAL DAM

Introduction

The Continental Dam and Reservoir are located on North Clear Creek, a tributary of the Rio Grande River, about 12 miles southwest of Creed. The reservoir was constructed in 1925. It has a decreed capacity of 26,716 acre-feet. Water from this reservoir serves agricultural acreage in the San Luis Valley.

Problem

The State Engineer has restricted storage in Continental Reservoir to 15,000 acre-feet due to concern over embankment integrity at higher levels of storage, which concern was prompted by excessive leakage in the embankment. As a result of this restriction, the owners of the reservoir had a feasibility study prepared by Hydro-Triad, Ltd., a Denver consulting engineer, to determine how to have the restriction lifted. That study has now been completed and is the basis for the recommendation on this dam.

Proposed Repairs

The feasibility study examined four alternate solutions to the embankment leakage problem. The recommended alternative is to remove the upstream face of the dam embankment where the leakage paths have been identified and replace this area with an imperious material (clay or plastic material). The total estimated cost of these repairs is \$193,000.

Proposed Financing

The owner has requested, and the Board recommends because of the importance of this reservoir under the Rio Grande Compact, a 100 percent loan:

CWCB loan at 5% interest	\$193,000
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Under this financing arrangement, the company will have to pay the CWCB \$12,554.65 per year for 30 years, for a total repayment of \$376,639.50.

## B. SANTA MARIA DAM

### Introduction

The Santa Maria Reservoir is an off-channel storage facility located about nine miles southwest of Creede. The reservoir is filled primarily by diversions out of North Clear Creek. The reservoir has a decreed capacity of 43,825 acre-feet. It is used to provide irrigation water, including groundwater recharge, to agricultural users in the San Luis Valley.

### Problem

Storage in Santa Maria Reservoir is currently restricted to 32,000 acre-feet by the State Engineer. This restriction was imposed due to excessive leakage in the right abutment area of the dam when storage exceeded 32,000 acre-feet. In an effort to remove any storage restriction on the reservoir, the owners had a feasibility study prepared by Hydro-Triad, Ltd., a Denver consulting engineering firm. That study is the basis for the recommendation for this dam.

### Proposed Repairs

The feasibility study examined four alternate solutions to the seepage problem at Santa Maria Dam. The consultant has recommended the alternate which would remove a 2,500 square yard area of the upstream embankment facing and replace it with an impervious lining (either clay or plastic) and grout the existing structure as necessary. The total estimated cost of these repairs is \$261,000.

### Proposed Financing

The owner has requested, and the Board recommends because of the importance of this reservoir under the Rio Grande Compact, a 100 percent loan:

CWCB loan at 5% interest	\$261,000
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Under this financing arrangement, the company will have to pay the CWCB \$16,798.05 per year for 30 years, for a total repayment of \$509,341.50.

## C. RECOMMENDATION

It is recommended that rehabilitation of these two dams be authorized by the General Assembly as a single project in the aggregate amount of \$454,000, subject to the terms of the proposed financing set forth above and subject to the company demonstrating to the Board's satisfaction that it can meet its repayment obligation.

CARLSON, HAMMOND & PADDOCK  
ATTORNEYS AT LAW

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PAULA C. PHILLIPS  
MONTGOMERY WRAY WITTEN  
TOD J. SMITH

November 30, 1987

RECEIVED  
NOV 30 1987  
COLORADO  
COMMUNICATIONS

Mr. Nick Ioannides  
Colorado Water Conservation Board  
1313 Sherman Street  
Denver, Colorado 80203

Re: Santa Maria Reservoir Company

Dear Nick:

• • • •

1. Continental and Santa Maria Reservoirs are both "pre-Compact" reservoirs. There are very important advantages under the terms of the Rio Grande Compact which attach to that status. Storage in pre-Compact reservoirs is not subject to any of the constraints of Articles VI, VII and VIII. This is a tremendous advantage for the entire Rio Grande Valley and for the State of Colorado. Post-compact reservoirs are generally subject to those Articles, and the storage made in such reservoirs may, under certain conditions of supply, be held for the benefit of Texas and New Mexico, if allowed at all.

Santa Maria Reservoir and Continental Reservoir are free of those insidious burdens. It is a simple fact that pre-Compact storage is unique, and has special value for the entire State. For Colorado to lose capacity from a pre-Compact reservoir is to lose something that as a practical matter can not be recovered by building new reservoirs. Since the legislature directed that the CWCB was to attach importance in the ranking of its funding recommendations to projects which will increase use of Compact entitled waters, the Company believes that the Santa Maria and Continental rehabilitations will therefore clearly rank in the highest priority under this heading.

2. Santa Maria Reservoir Company is a party to the agreements with the State Engineer, the San Luis Valley Irrigation District, and the Rio Grande Water Users Association regarding the use of pre-Compact reservoirs for storage of Rio Grande waters in aid of minimizing over-deliveries under the Rio Grande Compact. I am enclosing copies of those agreements.

You will recall that in the funding of the Rio Grande Reservoir Project, W.W. Wheeler & Associates calculated that by implementation of this program of storage in aid of minimizing compact over-deliveries, over 25,000 acre feet of water, on the average in the study period, had been saved for Colorado by the use of Rio Grande Reservoir in the program. We have not yet obtained the comparable calculation for Santa Maria and Continental Reservoirs, but we expect that volume to exceed 10,000 a.f. per year over the same study period. It is important to note that under this program, the owners of the Santa Maria and Continental Reservoirs have in fact provided substantial storage space for the benefit of the State of Colorado and all the other water users on the Rio Grande River.

It is my understanding (and this point remains to be confirmed at the annual meeting of the Santa Maria Reservoir Company which will occur next week) that the Company is not requesting a grant from the CWCB. But in the circumstances, where the Company is making water available for beneficial use in Colorado for many persons beyond its stockholders, the Company expects to request from the CWCB a loan for the costs of the whole project. In light of the benefits to a very broad class of users of water, who will be benefitted by the rehabilitation and who are not stockholders in the Company, we hope that you can give this approach favorable consideration.

Please call if you have questions, or if I can provide further information.

Yours sincerely,

  
John U. Carlson

JUC:ab

Enclosures

cc: Board of Directors

Barry Nelson

L. Ruth Clark

COLORADO WATER CONSERVATION BOARD

Plateau Creek Pipeline  
Ute Water Conservancy District

December, 1987

Introduction

The Ute Water Conservancy District (UWCD) furnishes treated water to essentially all of the Grand Valley with the exception of the City of Grand Junction. Over the past several years, the Colorado Water Conservation Board has provided matching funds for several improvements to the UWCD water system. These improvements included new storage tank construction, transmission line construction, and expansion of the water treatment plant. In keeping with their capital improvement program, the UWCD is once again asking for financial assistance from the CWCB.

Problem

The UWCD is concerned about the reliability of its 18.6 mile Plateau Creek water transmission line, which transports raw water from the Lower Molina Powerplant tailrace to its water treatment plant about 4 miles northeast of Palisade. This pipeline lies in or adjacent to Plateau Creek for practically its entire length. The above normal flows of the last several years have caused several sections of the pipe to be exposed.

The UWCD has had a feasibility study done by Western Engineers, Inc., of Grand Junction to determine the best solution to the problem. That study is the basis for the recommendation for this project.

Proposed Project

Western Engineers, Inc. investigated six alternative solutions to the UWCD transmission line problem. The alternate recommended by the consultant is to construct a larger pipeline in phases to replace the existing pipeline. The estimated cost for the recommended project is \$16,775,000.

Proposed Financing

The proposed financing for this project is as follows:

Ute Water Conservancy District (Bond Issue)	\$ 8,775,000
CWCB Loan at 5% interest	<u>8,000,000</u>
Total	\$16,775,000

Under this financing arrangement, the UWCD would have to repay the CWCB \$520,400 per year for 30 years, for a total repayment of \$15,612,000.

Recommendation

It is recommended that this project be authorized by the General Assembly in the amount of \$8,000,000, subject to the terms of the proposed financing specified above and subject to the UWCD demonstrating to the Board's satisfaction that it can meet its repayment obligation.

FMA/mla

Colorado Water Conservation Board

McCall Lake Dam Project  
City of Longmont

December, 1987

Introduction

McCall Lake is located four miles west of Longmont in Boulder County. It is a raw water storage reservoir which is owned by the City of Longmont. The reservoir has a capacity of 506 acre-feet. Releases from this facility are primarily used to irrigate city owned parks.

Problem

The State Engineer has advised the City of several deficiencies which need to be corrected. The principal deficiencies are: (1) erosion of the embankment, (2) erosion of the spillway, and (3) non-operable outlet works. These problems have all been addressed in a feasibility study prepared by Rocky Mountain Consultants, Inc. of Longmont, which study is the basis of the recommendation for this project.

Proposed Project

The consulting engineer's recommendation is to reconstruct 1,800 feet of the upstream face embankment, replace the existing spillway, replace the existing outlet works, extend the existing toe drain to a new outlet location, and construct a new diversion structure on the outlet ditch from the reservoir. The total estimated cost of this project is \$435,000.

Proposed Financing

The financing proposed for this project is as follows:

City of Longmont	\$217,500
CWCB loan at 5% interest	<u>217,500</u>
Total	\$435,000

Under this financing arrangement, Longmont would have to repay the CWCB \$28,166.25 per year for 10 years, for a total repayment of \$281,662.50.

Recommendation

It is recommended that this project be authorized by the General Assembly in the amount of \$217,500, subject to the terms of the proposed financing set forth above and subject to the city demonstrating to the Board's satisfaction that it can meet its repayment obligation.

/bj



COLORADO WATER CONSERVATION BOARD

Ish Reservoir Project  
Ish Reservoir Company

December, 1987

Introduction

Ish Reservoir is located in Boulder and Larimer Counties, approximately 4 miles north of Longmont. It is owned by the Ish Reservoir Company. It has a storage capacity of 7,000 acre-feet. The reservoir provides supplemental irrigation water for 15,500 acres of land in Boulder, Larimer, and Weld Counties.

Problem

The State Engineer has advised the company that it must diligently pursue the correction of downstream seepage problems or face storage restrictions. To avoid such restrictions, the company had a feasibility study prepared to address the problem. That study was performed by Rocky Mountain Consultants, Inc., of Longmont. It is the basis for the recommendation on this project.

Proposed Project

The recommended solution to the seepage problem at Ish Reservoir is to construct a perforated pipe drain along the toe of the dam embankment with an outlet pipe to an existing natural watercourse. The total estimated cost of the project is \$72,000.

Proposed Financing

Ish Reservoir Company (Private Loan)	\$36,000
CWCB Loan at 5% interest	<u>\$36,000</u>
Total	\$72,000

Under the proposed financing arrangement, the company would have to pay the CWCB \$2,888.64 per year for 20 years, for a total repayment of \$57,772.80.

Recommendation

It is recommended that this project be authorized by the General Assembly in the amount of \$36,000, subject to the proposed terms of the financing set forth above and subject to the company demonstrating to the Board's satisfaction that it can meet its repayment obligation.

COLORADO WATER CONSERVATION BOARD

R.C. Siphon Project  
Wisconsin Ditch Company

December, 1987

Introduction

The Wisconsin Ditch Company irrigates 1,040 acres in the valley of Fortification Creek about six miles north of Craig. The east lateral of their ditch serves 471 acres east of Fortification Creek. The water for this acreage is conveyed across the creek by means of a flume.

Problem

The supports for this flume have been seriously undermined due to above normal flows in the creek during the last five years. This problem and a solution thereto has been addressed in a Resource Conservation & Development Plan which was prepared with the assistance of the U.S. Soil Conservation Service. That plan is the basis for the recommendation on this project.

Proposed Project

The best alternative solution for this project is to replace the existing flume over Fortification Creek with a buried reinforced concrete pipe siphon. The estimated cost of this project is \$40,000.

Proposed Financing

The financing for this project is proposed as follows:

Soil Conservation Service (RC&D Funds)	\$23,950.00
CWCB Loan at 5% interest	<u>16,050.00</u>
Total	\$40,000.00

Under this financing arrangement, the company would have to repay the CWCB \$935.40 per year for 40 years, for a total repayment of \$37,416.00.

Recommendation

It is recommended that this project be authorized by the General Assembly in the amount of \$16,050.00, subject to the terms of the proposed financing set forth above and subject to the company demonstrating to the Board's satisfaction that it can meet its repayment obligation.

JWM/mla

Colorado Water Conservation Board

DeWeese Dye Ditch Project

DeWeese Dye Ditch and Reservoir Company

February, 1987

Introduction

The DeWeese Dye Ditch and Reservoir Company (Company) has submitted on January 11, 1988 an application for State funding in the amount of \$106,000 on the subject project. The company serves irrigation water to 725 users who own 1,100 acres of land southwest of Canon City in Fremont County.

Proposed Project

In order to eliminate serious seepage losses in the existing open ditch the company needs to install about 3,000 feet of 42" corrugated metal pipe and 3,000 feet of 30" concrete ditch lining. The estimated total cost of this project is \$212,000 and the company has a commitment from the Agricultural Stabilization and Conservation Service (ASCS) for \$106,000.

Proposed Financing

DeWeese Dye Ditch and Reservoir Company (grant money from ASCS)	\$106,000
CWCB loan at 5 percent interest	<u>106,000</u>
Total	\$212,000

Under the proposed financing arrangement, the company would have to pay the CWCB \$6,177.68 per year for 40 years for a total repayment of \$247,107.20. The \$6,177.68 per year would be raised by the company through annual assessment of the shareholders.

Recommendation

The required feasibility study for this project is being prepared by the Soil Conservation Service (SCS) and the staff cannot evaluate the project at this time.

It is therefore recommended that the moneys for the project not be made available by the Board, until the Board has, in its sole discretion determined that the project is technically and financially feasible. The project is being recommended without Board review and a completed feasibility study to assure use of currently available matching funds.

If the project is found feasible by the Board, it is estimated that SCS will prepare drawings and specifications by the next construction season. Then the project may be bid and constructed before next winter. This will enable the company to have their rehabilitated project ready for next spring.

/bj

Colorado Water Conservation Board

Moonlight Lateral Project  
Montezuma Valley Irrigation Company

February, 1988

Introduction

The Montezuma Valley Irrigation Company (MVI) (Company) has submitted on February 17, 1988 an application for State funding in the amount of \$100,000. The Moonlight lateral provides irrigation water to about 957 acres of land about 12 miles northwest of the City of Cortez, in Montezuma County.

Problem

Irrigation water is presently by diverted from McPhee Reservoir at the newly constructed Great Cut Dike. From here water is carried in the MVI system about 1 1/2 miles where a portion is diverted into the Moonlight Lateral. The Lateral is experiencing excessive bank erosion and a major portion of the sediment is transported downstream into sprinkler systems, farm ditches, structures for water control, overnight storage ponds, and other farm irrigation systems creating operational problems. Problems are also created from seepage from the Moonlight Lateral which pick up salts as it travels through the soil profile. Salinity concentration of this water may be as high as 3,000 parts per million (mg/l).

Proposed Project

Soil Conservation Service (SCS) has studied the Moonlight Lateral project under its RC and D program. Five alternative plans were analyzed. The alternative that would install about 16,500 feet of concrete lined ditch and 13 structures to carry drainage water under the new lateral ditch at an estimated cost of about \$352,000 was the preferred alternative plan.

Proposed Financing

MVI has already spent about \$65,000 as part of its share for this project. Assuming that the cost of the project is as indicated above then the financing proposed for this project is as follows:

MVI cost share (already spent)	\$ 65,000
MVI cost share - additional	1,600
SCS funding (RC and D funds)	185,200
CWCB loan (to be paid by use charges)	<u>100,000</u>
Total	\$351,800

Under the proposed financing arrangement the Company will have to pay CWCB \$5,828 per year for 40 years for a total repayment of \$233,120.

Recommendation

The Board did not receive the application for timely review before the 1988 legislative session.

It is therefore recommended that the moneys for the project not be made available by the Board, until the Board has, in its sole discretion determined that the project is technically and financially feasible. The project is being recommended without Board review and an acceptable feasibility study to assure that SCS moneys, now available, could be used as matching funds.

With CWCB moneys available during this legislative session it is anticipated that construction of this project could take place in late summer or autumn of 1988.

/bj

Summary on Onion Valley Dam Project  
(Gould Reservoir)

Introduction

Onion Valley Dam is located about six miles south of Crawford and it is owned by the Fruitland Mesa Water Conservancy District. Water stored behind this dam provides irrigation water for 6,310 acres of land.

Problem and Proposed Project

In order to eliminate current water storage restrictions by the State Engineers' Office the owners of the Gould Reservoir must:

1. Repair the outlet works
2. Replace a walkway to the control tower.
3. Replace the primary and secondary turnout structures for the reservoir.

The estimated cost of this proposed project is \$310,000.

Proposed Financing

The requested financing by the owners is:

Fruitland Mesa Water	
Conservancy District	\$ 10,000
Colorado Water	
Conservation Board	<u>300,000</u>
	\$310,000

Under this plan the District would have to repay the State \$17,484 per year for 40 years for a total repayment of \$699,360.

If the District had to fund 50 percent of the entire cost of the financing for the project it would be:

Fruitland Mesa Water	
Conservancy District	\$155,000
Colorado Water	
Conservation Board	<u>155,000</u>
	\$310,000

This arrangement would require an annual payment from the District to the State of \$9,033.40 for a total repayment of \$561,336.

#### Recommendation

The Board did not receive the application for a timely review before the 1988 legislative session.

It is therefore recommended that funds for this project not be made available by the Board until the Board has, in its sole discretion, determined that the project is technically and financially feasible. The project is being recommended without a thorough Board review of a feasibility study.

/bj



Colorado Water Conservation Board

Lake Loveland Project  
Greeley-Loveland Irrigation Company

February, 1988

Introduction

The Greeley-Loveland Irrigation Company (Company) has requested that State Representative Tom Norton amend S.B. 30 to authorize a loan of \$250,000 from the CWCB Construction Fund to help them rehabilitate the subject project. The company serves about 300 irrigators and provides municipal supply for the City of Greeley, all in Larimer and Weld Counties. Loveland Lake is located in the northwest part of the City of Loveland.

Problem

The outlet works for Loveland Lake are installed in an outlet tunnel along Colorado Avenue. This outlet tunnel is in poor shape. Cavitation and progressive erosion downstream of the outlet gates have created a large cavern. This warrants rehabilitation of the tunnel and the outlet works in general. It is also apparent that the present spillway need to be enlarged to accommodate flood flows, as required by the State Engineer's Office (SEO) dam safety regulations.

Because of the above deficiencies, the SEO has imposed restriction of storage to 8 feet below the dam's crest and has limited use of the outlet work.

Proposed Project

The proposed project would involve stabilizing the outlet tunnel and refurbishing the outlet work for the system. No remedy for the spillway is proposed at this time. Because no feasibility study has yet been completed no detailed information is available for the proposed project.

Proposed Financing

Greeley-Loveland Irrigation Company	\$250,000
CWCB loan at 5 percent interest	<u>250,000</u>
Total	\$500,000

Under the proposed financing arrangement the company would have to pay CWCB \$14,570 per year for 40 years for a total repayment of \$582,800. The \$14,570 per year would be raised by the company through annual assessment of the irrigators and also from the City of Greeley.

Recommendation

No feasibility study has been prepared for this project. It is therefore recommended that the moneys for the project not be made available by the Board until the Board has in its sole discretion determined that the project is technically and financially feasible. Justification for authorizing a loan for the project in advance of a feasibility study and Board review derives from the serious deficiencies and potential hazard which demand remedy at the earliest possible time.

/bj

# STATE OF COLORADO

COLORADO WATER CONSERVATION BOARD  
Department of Natural Resources  
721 State Centennial Building  
1313 Sherman Street  
Denver, Colorado 80203  
Phone: (303) 866-3441



March 8, 1988

Roy Romer  
Governor  
J. William McDonald  
Director  
David W. Walker  
Deputy Director

Senator Ted Strickland  
President of the Senate  
Colorado General Assembly  
State Capitol  
Denver, CO 80203

Representative Carl B. Bledsoe  
Speaker of the House of Representatives  
Colorado General Assembly  
State Capitol  
Denver, CO 80203

Gentlemen:

In my previous letter of January 7, 1988, transmitting the annual report of the Colorado Water Conservation Board, I indicated that the Board would act on additional project recommendations at its January 28-29 meeting. Accordingly, I am advising you that the Board approved a recommendation that the Durango West Water Supply Project be authorized. The project description is enclosed.

Sincerely,

J. William McDonald  
Director

JWM/gl

Enclosure: as stated

cc: Secretary of the Senate  
Chief Clerk of the House  
Members, Senate Committee on Agriculture, Natural Resources,  
and Energy  
Members, House Committee on Agriculture, Livestock, and  
Natural Resources  
Members, Colorado Water Conservation Board  
Executive Director, Colorado Water Resources and  
Power Development Authority  
Director, Legislative Council

6345E

Summary of Proposed Amendments to SB 30

<u>Priority</u>	<u>Project</u>	<u>Board Loan</u> \$	<u>Repayment Period (Years)</u>	<u>Total Repayment</u> \$
6	✓ Lake Loveland Outlet Works	250,000**	40	582,800
	✓ DeWeese Dye Ditch	106,000**	40	247,107.20
	Moonlight Lateral	100,000*	40	233,120
	✓ Onion Valley Dam	300,000***	40	699,360
	or	155,000**	40	361,336

\* Based on 28.4% cost share by CWCB.

\*\* Based on 50.0% cost share by CWCB.

\*\*\* Based on 96.8% cost share by CWCB.

/bj

Colorado Water Conservation Board  
Durango West Water Supply Project  
Durango West Metro Districts 1 and 2

December, 1987

Introduction

Durango West is comprised of two metropolitan districts located seven miles west of Durango. District No. 1 includes an area of 112 acres contiguous to and south of U.S. Highway 160. District No. 2 includes an area of 1,093 acres contiguous to and north of the highway. The districts were formed in 1978 and 1979 as a means of providing streets and water and sanitation facilities to these housing developments.

Problem

The initial water supply for Durango West was two well fields. Over the past 10 years, most of the wells have experienced decreased production. As a result, Durango West currently experiences some water shortages during the summer months. At the present growth rate, there will be shortages during other times of the year by the year 1990. Durango West had a feasibility study prepared by Harris Water Engineering of Durango. That study is the basis for the recommendation for this project.

Proposed Project

The consulting engineer looked at nine alternative sources of new water supply for Durango West. The alternate recommended as the best source consists of a subsurface collection system along the La Plata River, a pump station (115 lift), 14,250 feet of eight inch transmission line, and

## Durango West Metropolitan District #2

P.O. Box 1092  
Durango, Colo. 81302

November 24, 1987

RECEIVED  
NOV 27 1987  
COLORADO WATER CONSERVATION BOARD

William McDonald, Director  
Colorado Water Conservation Board  
1313 Sherman Street  
Denver, CO 80203

Re: Durango West Water Supply Project

Dear Mr. McDonald:

Durango West Metropolitan District No. 2, in partnership with Durango West Metropolitan District No. 1, would like to thank you for the assistance that the CWCB provided in completing the feasibility study on the Durango West Water Supply Project. The draft of the feasibility study was provided to your office on November 16, 1987. We understand that the project will be considered at the CWCB meeting on December 10th; we will have representatives and our engineer at that meeting.

The purpose of this letter is to request that the CWCB fund 100 percent of the project, which is estimated to cost about \$800,000.00, plus about \$200,000.00 for a treatment plant. The reason for the request is that the two Metropolitan Districts cannot bond half of the \$800,000.00 plus the \$200,000.00 for the treatment plant. The Metropolitan Districts are being forced to construct a new sewage plant by the Health Department, which will require most of the bonding capability. The bond counsel, George K. Baum & Company, estimates that there will be about \$200,000.00 in unused bonding capability after financing the sewer plant. The Metropolitan Districts propose to use that capability to fund a water treatment plant.

The water supply and sewage facilities constructed by the original developers, and for which the Districts are still paying, are not adequate. The original developers are twice removed and litigation would be futile. District No. 1 has only enough water for in-house use, which results in once a week watering restrictions in the summer. District No. 2 has enough water for about 170 homes, but has 175 presently, and is growing by 10 to 15 homes per year; this water supply was installed after the original developers and cannot be increased.

The result is that Durango West cannot bond 50 percent of the \$800,000.00 and cannot construct the project, unless the CWCB would provide 100 percent. There are simply no other sources of financing.

William McDonald, Director  
November 24, 1987  
Page 2

Your consideration of this matter is greatly appreciated. The local CWCB representative, Susan Keck, and our state representative, Jim Dyer, have been briefed on the situation.

Sincerely,



Vic Blasi, President  
Metropolitan District No. 2

VB:bp

cc: Susan Keck, City Manager  
City Hall  
Cortez, CO 81321

Ken Gross, Manager  
Metropolitan District No. 1

# An Act

SENATE BILL NO. 30.

BY SENATORS Bishop, Allard, McCormick, DeNier, McCauley, Norton, Rizzuto, and Strickland;  
also REPRESENTATIVES D. Williams, Reeser, Masson, Entz, Ament, Berger, Anderson, Armstrong, Berry, Carpenter, Chlouber, Dambman, Fleming, McInnis, Neale, Owen, Tanner, Taylor-Little, Ulvang, and S. Williams.

CONCERNING PROJECTS FUNDED BY THE COLORADO WATER CONSERVATION BOARD CONSTRUCTION FUND, AND RELATING TO THE ACTIVITIES OF THE COLORADO WATER CONSERVATION BOARD IN CONNECTION THEREWITH.

Be it enacted by the General Assembly of the State of Colorado:

SECTION 1. Project authorization. (1) Pursuant to section 37-60-122 (1) (b), Colorado Revised Statutes, the Colorado water conservation board is hereby authorized to loan moneys to enable the construction of the following water resources projects:

<u>Priority</u>	<u>Project Name</u>	<u>Board Loan</u>	<u>Repayment Period (Years)</u>	<u>Total Repayment</u>
1	Continental and Santa Maria Dams Rehabilitation	\$ 454,000	30	\$ 885,981
2	Plateau Creek Pipeline	8,000,000	30	15,612,000
3	McCall Lake	217,500	10	281,663

Capital letters indicate new material added to existing statutes; dashes through words indicate deletions from existing statutes and such material not part of act.



4	Ish Reservoir	36,000	20	57,773
5	R.C. Pipe Siphon	16,050	40	37,416
6	Lake LoveLand Outlet Works*	250,000	40	582,800
7	Durango West Water Supply Project	408,000	40	951,130
8	Onion Valley Dam**	300,000	40	699,360
9	DeWeese Dye Ditch*	106,000	40	247,107
10	Moonlight Lateral*	<u>100,000</u>	40	<u>233,120</u>
	Totals	\$9,887,550		\$19,588,350

\*The moneys for this project shall not be made available by the board until the board has, in its sole discretion, determined that the project is technically and financially feasible.

\*\*The board may loan up to \$300,000 based on project sponsors' financial need. The moneys for this project shall not be made available by the board until the board has, in its sole discretion, determined that the project is technically and financially feasible.

(2) The Colorado water conservation board may make loans for the construction of each project specified in subsection (1) of this section from such moneys as are or may hereafter become available to the Colorado water conservation board construction fund, said loans to be in the amounts listed in said subsection (1) plus or minus such amounts, if any, as may be justified by reason of ordinary fluctuations in construction costs as indicated by the engineering cost indices applicable to the types of construction involved for such projects or as may be justified by reason of changes made in the plans for a project if those changes are required by final engineering drawings and specifications or by federal or state requirements. The board's loan for any project

specified in subsection (1) of this section shall not exceed fifty percent of the total cost of constructing a project; except that the board's loan for the Continental and Santa Maria Dams rehabilitation project shall be for one hundred percent of the total cost of constructing that project.

(3) Contracts entered into by the Colorado water conservation board pursuant to section 37-60-119 (2), Colorado Revised Statutes, for loans to enable the construction of the projects specified in subsection (1) of this section shall be subject to the repayment periods and total repayments set forth therein; except that total repayments shall be adjusted to reflect any changes in the amounts loaned by reason of subsection (2) of this section. Pursuant to section 37-60-120 (1), Colorado Revised Statutes, the board shall require terms and conditions in such contracts as will assure repayment of funds made available by it. Furthermore, the board shall not disperse any moneys for any loan authorized by subsection (1) of this section until it is satisfied, in its sole discretion, that the recipient of any such loan will be able to make repayment pursuant to the terms and conditions established by the board and by subsection (1) of this section.

SECTION 2. Additional authorizations. (1) Pursuant to section 37-60-122 (1) (b), Colorado Revised Statutes, the Colorado water conservation board is hereby authorized to loan moneys to the Orchard City Irrigation District, Grand Valley Water Users Association, Uncompangre Valley Water Users Association, Orchard Mesa Irrigation District, Overland Ditch and Reservoir Company, City of Fort Collins, North Poudre Irrigation District, and the Water Supply and Storage Company to enable each entity, if it chooses to do so, to repurchase from the United States bureau of reclamation, pursuant to section 5301 of the federal budget reconciliation act of 1987, the outstanding loans which each entity has with the bureau of reclamation.

(2) The total sum which the board may loan to all of the entities shall not exceed \$7.5 million. The board shall loan to each entity a minimum of fifty percent of the moneys for the repurchase of its loan or loans from the bureau of reclamation, or a lesser amount on a prorata basis with all entities if the total sum authorized is insufficient. The board may loan to an entity more than fifty percent of the moneys for the repurchase of its loan or loans if the board determines that this is necessary to make it financially possible for an entity to repurchase its loan or loans.

(3) Loans made by the board pursuant to this section shall bear interest at the rate of five percent per annum. Such loans shall have repayment periods of not more than forty years, with such repayment periods to be as short as possible

consistent with the financial resources of each entity.

(4) Contracts entered into by the board pursuant to section 37-60-119 (2), Colorado Revised Statutes, for the purposes of this section shall, pursuant to section 37-60-120 (1), Colorado Revised Statutes, contain such terms and conditions as will assure repayment of funds made available by it. Furthermore, the board shall not make any loan authorized by this section unless it is satisfied, in its sole discretion, that the recipient of any such loan will be able to make repayment pursuant to the terms and conditions established by the board and by this section.

SECTION 3. Section 1 (4) of chapter 230, Session Laws of Colorado 1986, is amended to read:

Section 1. Project authorizations. (4) The Colorado water conservation board is hereby authorized to contract directly with the Ute Mountain Ute tribe, without utilizing the procedures prescribed by article 92 of title 24 and part 14 of article 30 of title 24, Colorado Revised Statutes, for the design and construction of the Towaoc pipeline project so long as the board, in its sole discretion, finds that the required work can be satisfactorily performed. THE BOARD MAY ACQUIRE BY EMINENT DOMAIN ANY REAL PROPERTY OR INTERESTS THEREIN NEEDED FOR THE CONSTRUCTION OF THE TOWAOC PIPELINE PROJECT, INCLUDING, BUT NOT LIMITED TO, EASEMENTS AND RIGHTS-OF-WAY FOR THE PIPELINE. Notwithstanding the provisions of section 37-60-121 (1) (b) (IV), Colorado Revised Statutes, the total amount of the board's cost for the Towaoc pipeline project shall be nonreimbursable in recognition of the fact that the construction of the said project by the state is a component of the proposed settlement of the Ute Mountain Ute tribe's reserved water rights claims on certain tributaries of the San Juan river. UPON COMPLETION OF THE TOWAOC PIPELINE PROJECT, ALL RIGHT, TITLE, AND INTEREST IN AND TO THE PIPELINE SHALL BE CONVEYED BY THE BOARD TO THE UTE MOUNTAIN UTE TRIBE ON THE CONDITION THAT THE TRIBE ASSUME RESPONSIBILITY FOR ALL OPERATION, MAINTENANCE, AND REPLACEMENT COSTS FOR THE PIPELINE. The board may not proceed with the design and construction of the said project, nor expend any moneys therefor, until the attorney general certifies to the board that the Ute Mountain Ute tribe has entered into a binding settlement with the state which has been approved by the secretary of the interior and which will quantify and resolve all of the tribe's reserved water right claims in Colorado. Furthermore, before the board can proceed with the project, the tribe must have entered into a contract with the board by which the tribe agrees to assign to the board, in the event that the approved settlement is not fully consummated for any reason, one-half, but not to exceed six million dollars, of any damages which the tribe may obtain in

litigation against the United States.

SECTION 4. Section 1 (2) of chapter 32, Session Laws of Colorado 1987, is amended to read:

Section 1. Project authorizations. (2) The Colorado water conservation board may make loans for the construction of each project specified in subsection (1) of this section from such moneys as are or may hereafter become available to the Colorado water conservation board construction fund, said loans to be in the amounts listed in said subsection (1) plus or minus such amounts, if any, as may be justified by reason of ordinary fluctuations in construction costs as indicated by the engineering cost indices applicable to the types of construction involved for such projects or as may be justified by reason of changes made in the plans for a project if those changes are required by final engineering drawings and specifications or by federal or state requirements. The board's loan for any project specified in subsection (1) of this section shall not exceed fifty percent of the total cost of constructing a project, except for the Rio Grande Ditches and Drains project AND THE GURLEY RESERVOIR PROJECT, for which the board's loan may be for up to one hundred percent of that project's ~~total cost~~ THOSE PROJECTS' total cost, AND EXCEPT FOR THE LONE CABIN PROJECT, FOR WHICH THE BOARD'S LOAN MAY BE FOR UP TO EIGHTY PERCENT OF THAT PROJECT'S TOTAL COST.

SECTION 5. Section 1 (4) of chapter 281, Session Laws of Colorado 1985, is amended to read:

Section 1. Project authorizations. (4) The Colorado water conservation board is authorized to expend not more than one million dollars of the loan authorized in subsection (1) of this section to prepare feasibility reports on the various components of the San Miguel water conservancy district project -- phase 2; 2, INCLUDING INVESTIGATION OF PUMPBACK AND CONVENTIONAL HYDROPOWER FACILITIES IN THE SAN MIGUEL CANYON; except that any amount expended by the board on feasibility reports need not be repaid unless the portion of the project to which a report is addressed is in fact constructed. The moneys for construction of this project shall not be made available by the board until the board has, in its sole discretion, determined that the project or any portion thereof is technically and financially feasible.

SECTION 6. 37-60-115 (4), Colorado Revised Statutes, as amended, is amended BY THE ADDITION OF A NEW PARAGRAPH to read:

37-60-115. Water studies. (4) (e) The board is authorized to pay for the expenses of periodically updating and maintaining, and making the annual report concerning, the

inventory of potential dam and reservoir sites for which this section calls using moneys appropriated, allocated, or otherwise credited to the Colorado water conservation board construction fund.

SECTION 7. Expenditure authorization. The Colorado water conservation board is hereby authorized to expend not more than five thousand dollars for the fiscal year commencing July 1, 1988, from such moneys as are or may hereafter become available to the Colorado water conservation board construction fund for the purposes of updating and maintaining, and making the annual report concerning, the inventory of potential dam and reservoir sites for which section 37-60-115 (4), Colorado Revised Statutes, calls.

SECTION 8. 37-60-121 (4), Colorado Revised Statutes, as amended, is amended BY THE ADDITION OF A NEW PARAGRAPH to read:

37-60-121. Colorado water conservation board construction fund - creation of - nature of fund - funds for investigations - contributions - use for augmenting the general fund. (4) (c) The legal services expenses, including the expenses of legal counsel employed by the board with the consent of the attorney general pursuant to section 37-60-114, of negotiating and preparing contracts for the disbursement of moneys from the construction fund for the study, design, and construction of projects which are funded using moneys appropriated, allocated, or otherwise credited to the Colorado water conservation board construction fund may be paid from such moneys.

SECTION 9. Safety clause. The general assembly hereby

finds, determines, and declares that this act is necessary for the immediate preservation of the public peace, health, and safety.

*Ted L. Strickland*

Ted L. Strickland  
PRESIDENT OF  
THE SENATE

*Carl B. Bledsoe*

Carl B. Bledsoe  
SPEAKER OF THE HOUSE  
OF REPRESENTATIVES

*Joan M. Albi*

Joan M. Albi  
SECRETARY OF  
THE SENATE

*Lee C. Bahrych*

Lee C. Bahrych  
CHIEF CLERK OF THE HOUSE  
OF REPRESENTATIVES

APPROVED

*May 23, 1988 at 11:16 a.m.*

*Roy Romer*

Roy Romer  
GOVERNOR OF THE STATE OF COLORADO