

COLORADO WATER CONSERVATION BOARD
CONSTRUCTION FUND

ANNUAL REPORT
TO THE
61ST COLORADO GENERAL ASSEMBLY
FIRST REGULAR SESSION



Colorado Water Conservation Board
Department of Natural Resources

December 1, 1996

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Appendix A - Completed Projects


Appendix B - Data for Projects Completed in FY95-96

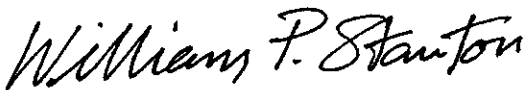
Appendix C - Data for Projects Recommended for New Authorizations in FY96-97

PREFACE

The CWCB Construction Fund is an important tool for providing low-interest loans to construct and repair water resources infrastructure in Colorado. The fund is primarily designed to help develop new water storage capacity and to capture lost storage through repairs and rehabilitation of existing structures.

This year, the Colorado Water Conservation Board will seek legislative authorization to provide spending authority totaling \$17.9 million. The 1997 Construction Fund bill includes authority to make low interest loans totaling \$11.0 million to fund 17 water development projects statewide, \$2.0 million for loan account transfers, and \$5.0 million in grants for 11 studies and projects. The grants include provisions for continued CWCB funding support for computerized systems and investigations that will enable the state to better plan and manage its water resources.


for Daries C. Lile, Director
Colorado Water Conservation Board


William P. Stanton, Chief
Project Planning and Construction Section

CWCB CONSTRUCTION FUND

ANNUAL REPORT to the 61st COLORADO GENERAL ASSEMBLY FIRST REGULAR SESSION

December 1, 1996

1.0 CWCB Overview

1.1 Mission

The Colorado Water Conservation Board was created by the Legislature in 1937 *"for the purpose of aiding in the protection and development of the waters of the state, for the benefit of the present and future inhabitants of the state."* [37-60-102, CRS]

The duty of the Colorado Water Conservation Board (CWCB) is *"to promote the conservation of the waters of the state of Colorado in order to secure the greatest utilization of such waters and the utmost prevention of floods."* [37-60-106(1), CRS]

1.2 Board Composition

The Colorado Water Conservation Board is a Type I agency within the Department of Natural Resources. The CWCB consists of fourteen members. The Governor appoints eight members from the state's major river basins and one member from the City and County of Denver. All of the appointees are subject to Senate confirmation and serve three year terms. The Executive Director of the Department of Natural Resources is an ex-officio, voting member. The Director of the CWCB, State Engineer, Attorney General, and the Director of the Division of Wildlife are ex-officio, non-voting members.

To the extent possible, appointments to the Board include persons experienced in water resource management, water project financing, engineering, planning, development of water projects, water law, and irrigated farming, or ranching. No more than five appointees can be members of the same political party.

14 CWCB Members

Eight Major River Basin Members

North Platte River	David E. Meyring
South Platte River	David L. Harrison
Arkansas River	Alan C. Hamel
Rio Grande	John A. C. Davey
San Miguel, Dolores, Animas, and San Juan Rivers	Janice C. Sheftel
Gunnison River	Ray H. Werner
Colorado River Mainstem	Richard Eric Kuhn, Chair
Yampa and White Rivers	David H. Smith

One Member from the City and County of Denver

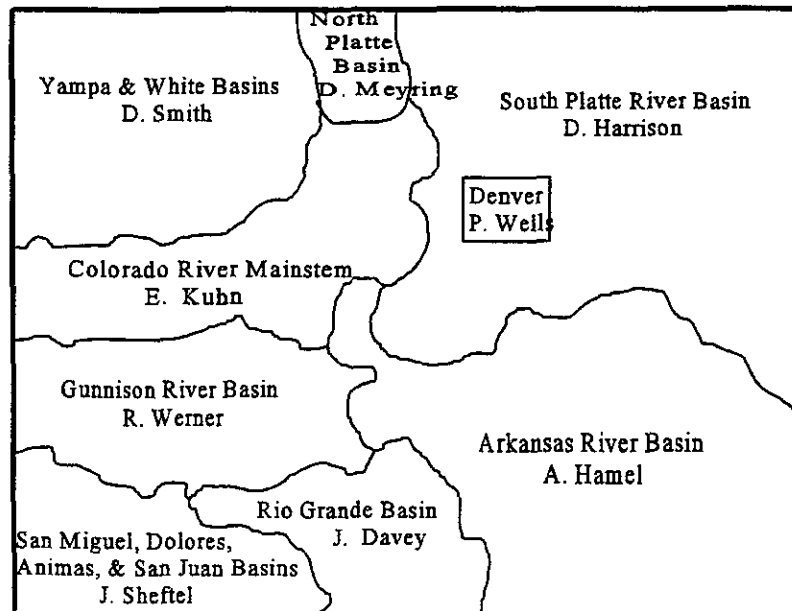
Patricia Wells

One Ex-Officio Voting Member

Executive Director, Dept. of Natural Resources	James S. Lochhead
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Four Ex-Officio Non-Voting Members

Director, CWCB	Daries C. Lile
State Engineer	Hal D. Simpson
State Attorney General	Gale A. Norton
Director, Division of Wildlife	John Mumma



1.3 Statutory Responsibilities

The CWCB's primary statutory duties and responsibilities are found under CRS, Title 37, Article 60, Water Conservation Board of Colorado, Sections 37-60-101 to 37-60-124, inclusive. Other statutory responsibilities are prescribed by the following:

CRS 24-65.1-202	Colorado Land Use Act - Criteria
CRS 24-65.1-302	Colorado Land Use Act - Functions
CRS 24-65.1-403	Colorado Land Use Act - Technical Assistance
CRS 25-8-104(2)	Colorado Water Quality Control Act
CRS 30-28-111	County Government - Planning and Building Codes
CRS 31-23-301	Municipal Government - Planning and Zoning
CRS 37-62-105	Upper Colorado River Compact
CRS 37-69-105	Arkansas River Compact
CRS 37-90-117	Colorado Groundwater Management Act
CRS 37-92-102(3)	Water Right Determination and Administration Act
CRS 37-95-106	Colo. Water Resources and Power Dev. Authority Act
CRS 37-95-107	Colo. Water Resources and Power Dev. Authority Act
CRS 37-96-103	State Projects Water Conservation in Landscaping Act
CRS 37-97-103	Water Metering Act

Furthermore, beginning in 1987 the Executive Director of the Department of Natural Resources (DNR) delegated to the Director of the CWCB the authority to administer his responsibilities under CRS, Title 36, Article 20, Weather Modification Act of 1972.

1.4 Customers

The Board's customers include the General Assembly, the Board members, the Board staff, other state agencies, cities and counties, water conservation and conservancy districts, water user groups, and the general public. The Board interacts with the following state agencies:

- Governor's Office
- DNR/Executive Director's Office
- DNR/Division of Water Resources
- DNR/Division of Wildlife
- DNR/Colorado Division of Parks and Outdoor Recreation
- DNR/Colorado Geologic Survey
- State Attorney General
- Colorado Department of Local Affairs
- Colorado Department of Transportation
- Colorado Department of Health

1.5 Business Services

The CWCB carries out most of its statutory responsibilities through the following major programs:

Water Project Construction Loan Program
Office of Water Conservation Demonstration Grant Program
Agricultural Efficiency Demonstration Grant Program
Interstate Streams Investigation Program
Floodplain Management Program
Instream Flow/Natural Lake Level Program

The CWCB also actively participates in the following federal programs:

Salinity Control Program
Endangered Fish and Recovery Implementation Programs
National Flood Insurance Program

1.6 Annual Report

In addition to providing information concerning the use and status of the Construction Fund, one of the purposes of this annual report is to comply with the various state statutes outlined below:

- Section 37-60-122 (1)(a), CRS, requires the Colorado Water Conservation Board (Board) to submit annually no later than December 1, a report to the General Assembly.
- Section 37-60-115 (4)(d), CRS, directs the Board to report annually on any potential reservoir sites which may be encroached upon by incompatible land uses. The initial dam site inventory required by section 37-60-115(4) was completed in 1988.
- Section 37-60-119 (3) directs the Board to report on the status of activity under the Water Management Demonstration Grants Program added in 1992 and on the results of any completed demonstrations.
- Section 37-60-121 (1)(c), CRS, directs the Board to apprise the General Assembly of steps taken to comply with criteria for making expenditures from the Construction Fund as set forth in section 37-60-121 (1)(b), CRS.
- 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.

2.0 Construction Fund

2.1 Fund Equity

Fund equity includes the sum of all outstanding project loans and the cash balance in the fund which has been invested by the State Treasurer. The total fund equity reported by the Colorado Financial Reporting System (COFRS) was \$185.1 million on June 30, 1996, the end of FY 95-96.

This included approximately \$96.0 million in outstanding loan principal receivable from borrowers with completed projects, \$20.4 million in cash funds reserved for projects authorized by the Legislature which are under contract or under construction, \$66.0 million in cash funds reserved in special accounts or for future projects authorized by the Legislature, and \$2.7 million in unreserved cash. The total "cash balance" on June 30, 1996, was \$89.0 million.

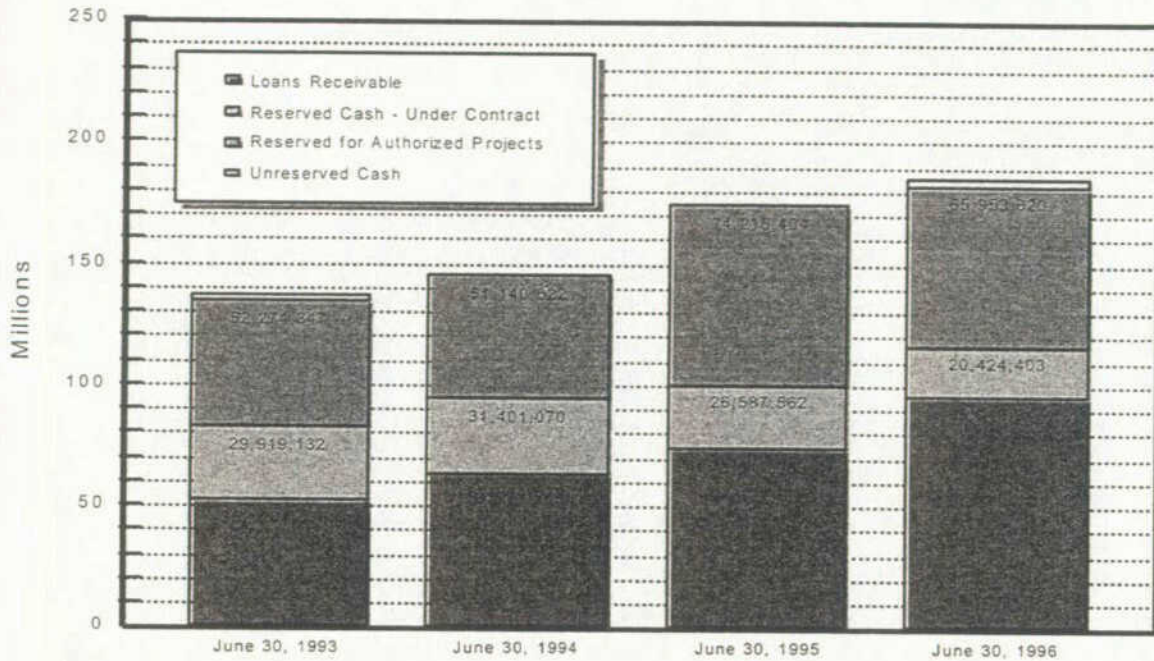
TABLE 1

**Colorado Water Conservation Board
Financial Statements FY 95-96**

Fund Equity	Actual June 30, 1995	Actual June 30, 1996
Outstanding Loans Receivable	73,642,953	96,049,917
Reserved for Authorized Projects - Under Contract	26,587,562	20,424,403
Reserved for Authorized Projects - Not Under Contract	74,215,404	65,953,620
Unreserved Cash or "Working Balance"	(490,674)	2,664,758
Total Fund Equity on June 30	\$173,955,245	\$185,092,698

Cash Reserved in Special Accounts	Actual June 30, 1995	Actual June 30, 1996
Emergency Infrastructure Repair Account	1,532,501	1,532,501
Small Projects Account	2,000,000	1,875,000
Arkansas River Augmentation Plan Loan Account	985,667	750,000
Wildlife Mitigation Account	5,799,580	4,670,436
Litigation Account	4,000,000	4,000,000
Publications Account	5,312	5,410
Total	\$14,323,059	\$12,833,347

Colorado Water Conservation Board
CONSTRUCTION FUND EQUITY



2.2 Projected Cash for New Projects in 1997

As a revolving cash fund, the CWCB Construction Fund has become a reliable source of funding for water resource development projects and studies each year.

The total amount projected from cash sources in FY 96-97 is \$12.45 million. This includes \$6.45 million in returned principal plus interest, \$3.20 million from Mineral Lease Fund distributions, and \$2.80 million from interest on the cash balance invested by the Colorado Treasurer.

The Board is recommending six projects for deauthorization in FY 96-97 totaling \$1.43 million. Unreserved cash at the beginning of the year was \$2.66 million. Administrative expenses from the fund are estimated at \$1.10 million. The balance in the Severance Tax Trust Fund Perpetual Base Account was \$3.58 million. Therefore, the unreserved cash available for new projects in 1997 is estimated to be approximately \$19.02 million.

2.3 Long-Term Projected Expenditures

In December 1993 the Board prepared its first Long-Term Financial Projection for the Construction Fund. The projection allows the Board to balance recommended expenditures against the projected revenue stream.

The long-term schedule of projected expenditures from the fund is based on the list of existing authorized appropriations and new projects identified in a statewide survey of water users initiated in 1993. The list of projected future projects is updated periodically through an aggressive marketing program.

Based on these projects, expenditures from the fund are projected to be \$213.9 million over the next ten years. Of this amount, approximately \$161.7 million is for reimbursable projects and \$52.2 million for non-reimbursable projects. The total is distributed as follows:

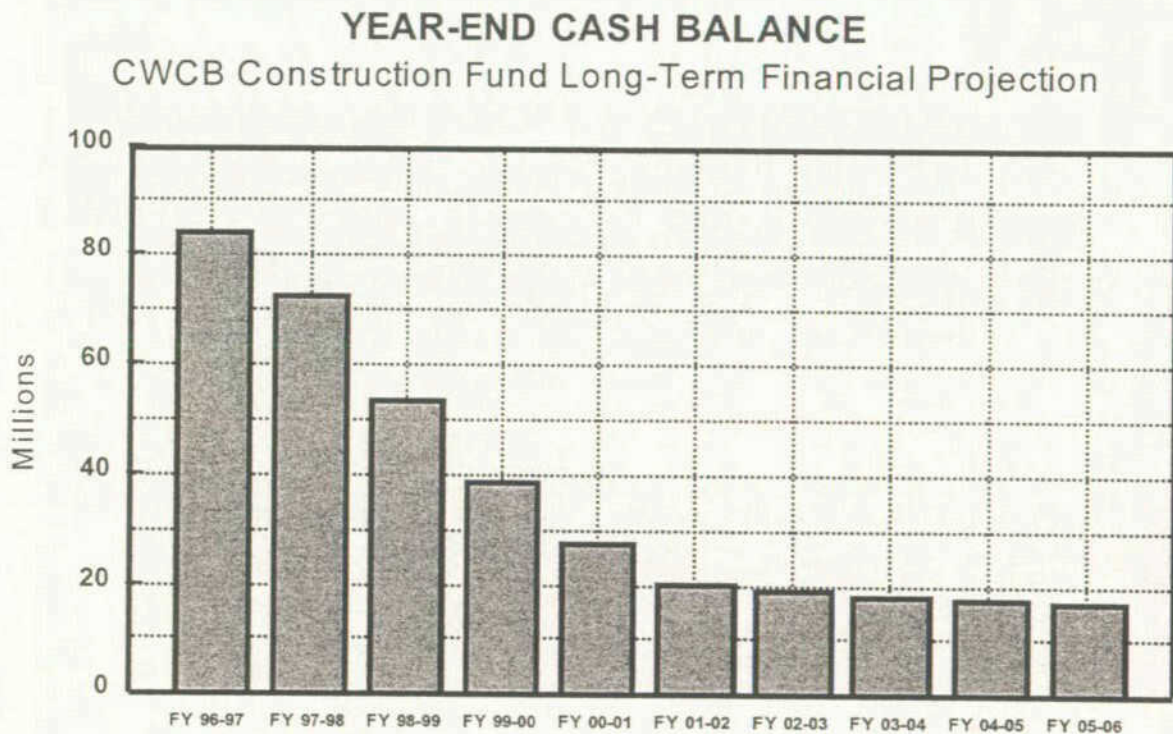
<u>Type of Expenditure</u>	<u>Millions</u>
New Storage Projects	\$ 72.2
Dam Rehabilitation	37.9
Water Resources Infrastructure	54.1
Water Management	18.4
Fish and Wildlife Mitigation	6.7
Information Management	10.8
Administration	<u>13.8</u>
Total	\$213.9

2.4 Long-Term Cash Sources

The long-term projection of cash sources is based on several conservative assumptions. New loans were assumed to be amortized at an average interest rate of 3.5-percent over 30 years. The Mineral Lease Fund cash was assumed to decrease by 5-percent per year. Interest from the State Treasurer was estimated to be 3.4-percent of the average cash balance of the Construction Fund and this reflects the effect of the 15-percent management fee pursuant to SB 92-26. Recovery on existing loans, which historically has been about 99-percent, was assumed to be 95-percent in the future. Based on the above assumptions, the existing cash sources to the fund are projected to be \$140.3 million over the next ten years.

2.5 Projected Cash Balance

With a starting balance of \$89.0 million in cash at the end of FY 1996 (reserved for authorized projects), projected cash sources over the next ten years of \$213.9 million, and projected expenditures over the next ten years of \$142.2 million, the year-end cash balance of the Construction Fund is expected to decline as shown below. This means that the money will have been invested in the water users statewide rather than in the state treasury. About the year 2001, the cash balance is projected to level out between \$18 and \$20 million.



2.6 Fish and Wildlife Resources Account

In 1987, HB 87-1158 created the Fish and Wildlife Resources Account, also known as the "Mitigation" Account, in the Construction Fund. Procedures for obtaining mitigation grant approval are found under section 37-60-122.2, CRS.

Non-reimbursable expenditures totaling \$1.68 million have been approved by the Board from the Mitigation Account for mitigation plans approved by the Division of Wildlife. These disbursements are listed below.

<u>Approved</u>	<u>Grantee - Project</u>	<u>County</u>	<u>Amount</u>
1989	Upper Yampa Water Cons. District - Stagecoach Reservoir	Routt	\$ 400,000
Mar 1990	Colorado River Water Cons. District - Wolford Mountain Reservoir	Grand	1,278,828
		Total	----- \$1,678,828

The balance in the Mitigation Account was \$4,670,436 on June 30, 1996.

2.7 Emergency Infrastructure Repair Account

In 1993 through HB 93-1273, the Legislature authorized the Board to set aside \$2.0 million of Construction Fund money in an account reserved for emergency repair of water resources infrastructure systems to avoid potential economic losses. The money in the account is continuously appropriated to the Board for immediate availability primarily for emergency repair of water storage systems or water distribution systems. The account is intended to provide flexibility for the Board to make funds available in a timely manner in situations similar to the emergency that developed at Sanchez Reservoir in 1992.

The Board approved 3 emergency loans in FY 94, 2 emergency loans in FY 95, and no emergency loans in FY 96. The balance in the Emergency Infrastructure Repair Account was \$1,532,501 on June 30, 1996.

Two additional emergency loans were approved by the Board at their November 1996 meeting. Considering all projects authorized by the board, as of January 1, 1997, there was \$1,040,000 available in the account.

The following projects have been authorized by the Board through the Emergency Infrastructure Repair Account.

<u>Date</u> <u>Approved</u>	<u>Borrower - Emergency</u>	<u>County</u>	<u>Approved</u> <u>Amount</u>	<u>Contract</u> <u>Amount</u>
Jul 1993	Summit Reservoir and Irrigation Company - Repair a slide on the Summit Reservoir Dam and Repair a portion of the Lost Canyon Ditch	Montezuma	\$ 60,000	\$ 33,000
Jan 1994	Windsor Canal and Reservoir Co. - Poudre Valley Canal Slide Repairs	Larimer	300,000	300,000
Feb 1994	Town of Rangely - Raw Water Intake Structure Repairs	Rio Blanco	34,000	34,000
Nov 1994	Castle Pines North Metro District - Rehabilitate Well A-1	Douglas	101,500	100,500
Nov 1995	City of Idaho Springs - Diversion Structure Repairs	Clear Creek	130,000	130,000
Nov 1996	Consolidated Extension Canal Co. - Siphon Rehabilitation	Las Animas	300,000	300,000
Nov 1996	Mancos Water Conservancy District - Feeder Ditch Slide Repair	Montezuma	62,500	62,500
		Totals	\$988,000	\$960,000

2.8 Small Project Loan Account

In 1994 through SB94-029, the General Assembly created the Small Project Loan Account. A total of \$2.0 million was set aside for loans of \$100,000 or less. The CWCB was empowered to authorize these loans at any time during the year without waiting to submit these projects for General Assembly approval during the legislative session.

There were five loans totaling \$281,700 from the Small Project Account approved by the Board in FY95-96. However, the total amount actually under contract, or \$210,000, was less than the total amount approved by the Board. A balance of \$1,875,000 was reported by COFRS to be in the account on June 30, 1996.

Two additional projects have been approved by the Board in the first half of FY96-97, so as of January 1, 1997, \$1,590,000 was available in the account.

<u>Date</u> <u>Approved</u>	<u>Borrower/Emergency</u>	<u>County</u>	<u>Approved</u> <u>Amount</u>	<u>Contract</u> <u>Amount</u>
Jul 1995	Caryl R. Carroll - D&D Wise Dam Rehab. (Additional)	Rio Blanco	\$ 25,000	\$ 25,000
Jan 1996	The Pagosa Springs Pipeline Co. - Raw Geothermal Water Pipeline	Archuleta	60,000	0
Jan 1996	South Platte Ditch Company - Diversion Structure Rehabilitation	Logan	100,000	100,000
Mar 1996	Bravo Ditch Company - Diversion Structure Rehabilitation	Logan	51,700	40,000
May 1996	Tremont Mutual Ditch Company - Diversion Structure Rehabilitation	Morgan	45,000	45,000
Sep 1996	Decker Lateral Company - Decker Lateral Lining Project	Weld	100,000	100,000
Nov 1996	Excelsior Irrigating Company - Ditch Rehabilitation	Pueblo	100,000	100,000
		Totals	----- \$481,700	----- \$410,000

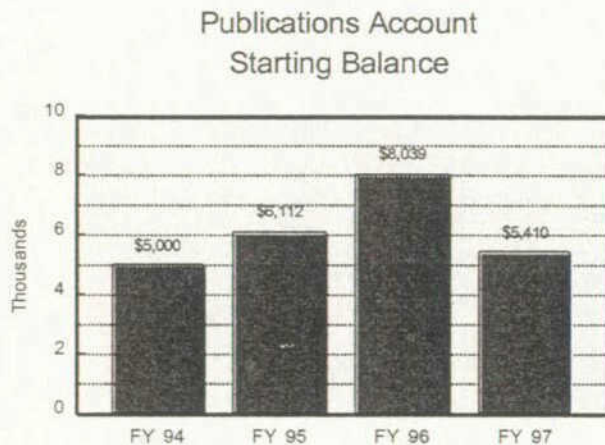
2.9 Publications Account

In 1994 through SB94-029, the General Assembly created the Publications Account within the Construction Fund. A starting balance of \$5,000 was transferred into the account. Fees were established by the Board to recover costs for disseminating data and to be able to recover costs for minor expenses such as photocopying. Revenue to the account is now derived mainly from the sale of board meeting notebooks.

In FY 95-96, the account was used to publish three documents related to the instream flow program, as listed below. The balance in the account was \$5,410 on June 30, 1996.

- Tabulation of Instream Flow Water Rights
- Statement of Basis and Purpose and Rules and Regulations concerning the Colorado Instream Flow and Natural Lake Level Program
- Development of Instream Flow Recommendations in Colorado using R2CROSS

The starting balance of the Publications Account since its creation in 1994 is shown below.



2.10 Arkansas River Augmentation Loan Account

HB 95-1155 created the Arkansas River Augmentation Loan Account in the Construction Fund. A total of \$1.5 million was transferred into the account. Distributions were made to the Lower Arkansas Water Management Association (LAWMA) in FY95-96 and these short term bridge loans have been fully repaid through the financing package to LAWMA in SB 96-124. The balance of the Arkansas River Augmentation Loan Account was \$1.5 million on June 30, 1996.

2.11 Litigation Account

Section 37-60-121 (2.5) (a), CRS, created the Litigation Account in the Construction Fund. Under certain conditions, the Board is authorized to expend up to \$4.0 million from the Litigation Account for litigation in support of water users whose water supply yield may be diminished as a result of conditions imposed by any federal agency on permits for existing reservoirs located on federal lands. No lawsuits have yet been determined to meet the criteria.

The Litigation Account is not to be confused with the Reserved Rights Litigation Fund created in the State Treasury by the General Assembly in 1982 through SB 82-087. Authority for that fund is found in the statutes at Section 37-60-121.1, CRS.

Any interest earned by the Litigation Account is credited equally between the Construction Fund and the Colorado Water Resources and Power Development Authority. The balance of the Litigation Account was \$4,000,000 on June 30, 1996.

2.12 Performance Audit Recommendations

In February 1993, the Office of the State Auditor completed its performance audit of the Colorado Water Conservation Board's Construction Fund as requested by the Department of Natural Resources. The audit was conducted pursuant to Section 2-3-103, CRS, which authorizes the State Auditor to conduct performance audits of state agencies. Seven recommendations were made in the areas of project planning, financial planning, and administration of the project approval process. A general overview of action taken in response to the performance audit recommendations is summarized in the following table.

TABLE 2, Performance Audit Recommendations

Rec. No.	Recommendation Summary	Progress as of June 30, 1996
1	Develop a formal, systematic program or process which provides a long- and short-term framework for the use of the Construction Fund. This process should include developing broad policy statements, establishing goals and implementation plans and developing performance measures.	Completed. The Board agreed to implement this recommendation by 12/93. The Board identified 5 long-term goals at its January 1993 meeting. The Board attended a retreat in October 1993 to develop a draft Long Range Plan. The Board's Long Range Plan was formally adopted on September 14, 1994.
2	Develop and implement an effective process for long-term financial planning of Construction Fund monies. This process should include establishing long-term funding needs, assessing current sources of funds, and projecting future funding requirements that may be needed to meet long-term goals.	Completed. The Board agreed to implement this recommendation by 12/93. The Board staff worked with DNR accounting to set up a better method of systematically reporting revenues. All accounts have been reconciled. A water user needs survey was completed in July 1993. A Long-Term Financial Projection for the Construction Fund was completed in December 1993.
3	Establish guidelines which include setting loan interest rates to reflect market interest rates. The Guidelines should be reflected in the projects that will be authorized during the upcoming legislative session.	Completed. The Board agreed to partially implement this recommendation by 7/93. The Board approved new "standard" interest rate guidelines at 2 basis points below the then 30-year Treasury Bond rate for 30 years at its May 6-7, 1993 meeting. A project evaluation matrix is being used on new projects.
4	Charge interest on cash disbursements made to project sponsors during the construction phase of projects. Interest charges could be added to the principal amount of the loan and financed over the term of the loan.	Completed. The Board agreed to implement this recommendation by 12/93. The Board adopted this new policy at its May meeting. The Construction Fund Guidelines have been revised to reflect the new policy. Contracts for future construction projects will require interest during construction.
5	Improve Board monitoring of projects by contacting project sponsors at least annually to determine if project sponsors plan to go ahead with the projects. Responses should be documented and reported to the General Assembly on an annual basis.	Ongoing. The Board agreed to implement this recommendation by 12/93. Letters are sent in March to the sponsors for all authorized but not yet constructed CWCB projects. The staff evaluates the status of the project and determines if it should be deauthorized.
6	Develop and implement procedures which would recover the Board's share of feasibility study costs for projects that are not constructed. Alternatives should be evaluated, including payback over a period of time.	Completed. The Board agreed to implement this recommendation by 10/93. The Board adopted a new policy at its May meeting that stated the Board's participation in feasibility study costs must generally be repaid whether the project is constructed or not. The Guidelines have been revised to reflect this policy.
7	Develop methods to demonstrate Board compliance with procedures it has established, including documentation of all Board reviews and approvals.	Completed. The Board agreed to implement this recommendation by 7/93. A project checklist was prepared by staff in July 1993.

3.0 Water Project Construction Loan Program

3.1 Eligible Projects

Under authority of Section 37-60-119 and 121, CRS, the monies in the Construction Fund are to be used for new storage projects which increase the beneficial consumptive use of Colorado's compact-entitled waters and for the repair and rehabilitation of existing storage and raw water delivery systems. The CWCB may recommend funding of the following types of water projects through this program:

- Construction of new reservoirs or enlargement of existing dams to enhance water supplies and develop Colorado's compact entitlement.
- Rehabilitation of existing dams to meet safety standards and to recover lost storage capacity.
- Repair or construction of water resources infrastructure for agricultural or municipal raw water supply systems including such facilities as diversion structures, canals, ditches, and pipelines.
- Improvements in water management to increase water use efficiency, to maintain or increase water supplies, or to increase beneficial consumptive use.
- Mitigation of impacts on fish and wildlife due to dam construction.
- Improvements in management of information about Colorado's water.

The costs of acquisition of land and water rights is generally not eligible for CWCB funding except as part of a project. The CWCB does not currently provide funding for municipal water treatment and distribution systems. Up to 5-percent of the Board's annual revenue may now be used to finance flood control projects.

The CWCB's financial participation in any single project is generally limited to a maximum of 75-percent of the total engineering and construction cost of the project. The CWCB may loan up to 50-percent of the cost of a feasibility study for a water project. The Board's feasibility study loan must be repaid whether a project is constructed or not.

3.2 Construction Fund Criteria

In 1981 the Legislature adopted criteria for the use of the Construction Fund as set forth in section 37-60-121 (1)(b), CRS. This criteria was changed in 1992 with the passage of SB 92- 87. 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. From 1981 through 1992, about two-thirds of the Board's cost of the projects recommended were for projects which were expected to increase the beneficial consumptive use of Colorado's compact entitlement.
2. From 1981 through 1994, no applications for flood control projects were accepted by the Board.
3. No applications for domestic water treatment and distribution systems have been accepted by the Board since March, 1981.
4. All feasibility studies initiated by the Board since the adoption of the criteria have included, to the extent deemed necessary: an evaluation of water rights; an evaluation of the engineering and economic feasibility of the project; and an evaluation of the economic, social, and environmental effects.

3.3 Interest Rate Policy

At the November Board meeting of each calendar year, the Board sets a standard 30-year lending rate for Construction Fund projects which are to be recommended to the General Assembly in the following year. The standard rate is 2-percent less than the average yield for 30-year U.S. Treasury Bonds for the preceding 12 months.

Lending rates are established for municipal, agricultural, and commercial projects. For municipal projects, lending rates are established for low, medium, and high income service areas based on median household income in the project sponsor's service area. Lending rates for agricultural projects are identical to municipal low income rates. Lending rates for commercial projects are identical to municipal high income rates.

For municipal low income areas, where median household income (MHI) is less than 80-percent of the statewide MHI, the lending rate will be 20-percent below the standard rate. For municipal medium income areas, where MHI is between 80 and 110-percent of the statewide MHI, the lending rate will be the standard rate. For municipal high income areas, where the MHI is more than 110-percent of the statewide MHI, the lending rate will be 10-percent above the standard rate.

For loans with maturities of 20 years or less, but more than 10 years, the rate may be reduced by one quarter of one percent below the 30-year rate for that category of lending. For loans with maturities of 10 years or less, the lending rate may be reduced by one half of one percent below the 30-year rate for that category.

At its November 1995 meeting, based on an average 30-year T-Bond yield of 7.25% for the preceding 12 month period, the Board adopted the following interest rate policy for loans recommended to the General Assembly in 1996.

30-Year Lending Rates for 1996

Type	Low	Standard	High
Municipal	4.25%	5.25%	5.75%
Agricultural	4.25%		
Commercial	5.75%		

At its November 1996 meeting, based on an average 30-year T-Bond yield of 6.62% for the preceding 12 month period, the Board adopted the following interest rate policy for loans recommended to the General Assembly in 1997.

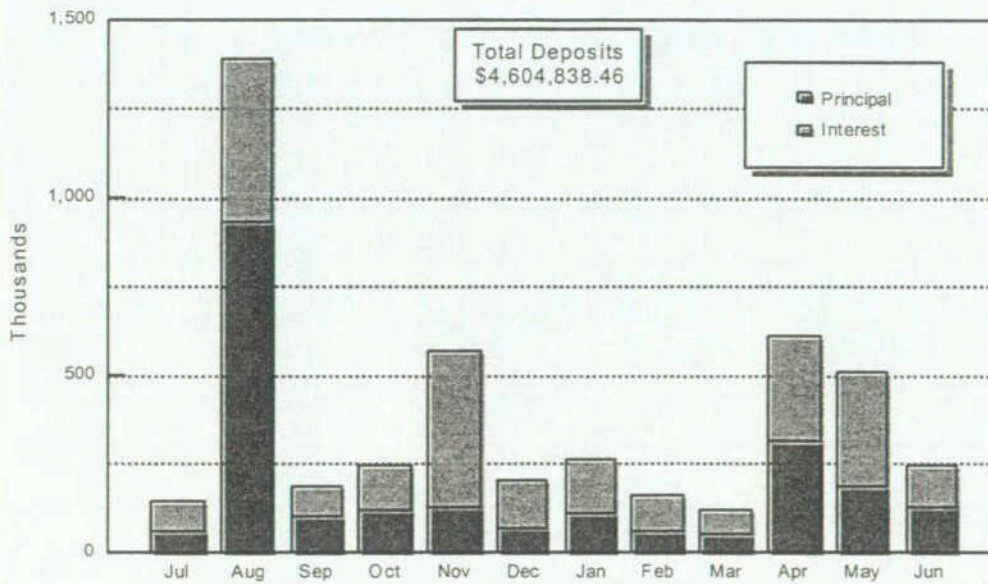
30-Year Lending Rates for 1997

Type	Low	Medium	High
Municipal	3.75%	4.75%	5.25%
Agricultural	3.75%		
Commercial	5.25%		

3.4 Loan Deposits

A total of \$4.6 million was received in loan deposits in FY 95-96. Of this amount, \$2.2 million was principal and \$2.4 million was interest. The following bar chart shows the monthly distribution of deposits.

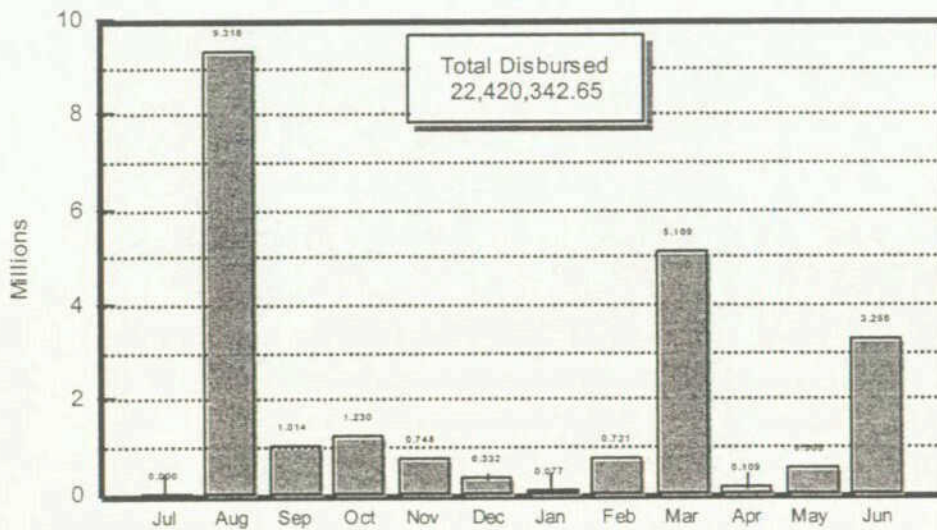
CWCB Construction Fund
Deposits in FY 1995-96



3.5 Loan Disbursements

A total of \$22.4 million in disbursements from the Construction Fund were made for construction projects, non-reimbursable projects, and investigations in FY 95-96. The following bar chart shows disbursements on a monthly basis. The Southern Pipeline Project accounted for \$8.5 million, the Wolford Mountain Reservoir project accounted for \$3.3 million, the LAWMA loan accounted for \$3.2 million, and the Morgan County Quality Water District loan accounted for \$3.0 million of the fiscal year total.

CWCB Construction Fund
Disbursements in FY 1995-96



3.6 Completed Construction Projects

The CWCB Construction Fund was established by the General Assembly in 1971 to provide low interest, long-term loans to water users for the development of water projects. The first project was completed in 1977. By the end of FY95-96, the fund provided over \$ 96.2 million in financing for over 137 water projects. A list of the completed projects is shown in Appendix A.

3.7 Projects Completed in FY95-96

Twelve construction projects representing over \$19.7 million in CWCB loans, as shown in the following table, were completed in FY 95-96. Additional details about these completed projects are located in Appendix B.

TABLE 3
Projects Completed in FY 95-96

<u>Borrower - Project</u>	<u>Authority</u>	<u>County</u>	<u>Water Div</u>	<u>Loan Amount</u>	<u>Date Completed</u>
Kings Row Homeowners Association - Irrigation System Improvements	SB 94-029	Eagle/Garfield	5	75,000	09/01/95
Military Park Reservoir Company - Military Park Res. Dam Rehabilitation	SB 94-029	Delta	4	30,000	10/15/95
Lloyd Ranch Limited Partnership - Rapid Creek Dams No. 1 & 2 Rehab.	HB 91-1006	Mesa	5	100,000	11/01/95
Ute Water Conservancy District - Colorado River Pumping Station	SB 88-30	Mesa	5	400,000	11/01/95
Caryl Carroll - DD&E Wise Dam Rehabilitation	HB 93-1273	Rio Blanco	6	50,000	11/01/95
Town of Silt - Raw Water Irrigation System	HB 95-1155	Garfield	5	400,000	11/01/95
Divide Canal and Reservoir Company - Worster Dam Rehabilitation	HB 93-1273	Larimer	1	665,000	06/15/96
Appleton ML 350 Ditch Co. - Rehabilitate Ditch	HB 95-1155	Mesa	5	53,000	06/18/96
Town of Erie - NCWCD Southern Pipeline & Connection	HB 93-1273	Weld	1	1,544,000	06/01/96
Rainbow Park Water Company - Rainbow Park Ditch Rehabilitation	SB 94-029	Fremont	2	65,000	06/01/96
South Platte Ditch Company - Diversion Structure Rehabilitation	Small Project Account	Logan	1	100,000	06/01/96
Colorado River Water Cons. District - Wolford Mountain Reservoir	HB 91-1006	Grand	5	16,256,000	06/01/96
			Total	19,738,000	

3.8 New Loan Projects Recommended For Authorization

Pursuant to Section 37-60-122(1) (b), CRS, the Colorado Water Conservation Board has recommended legislative authorization to provide loans totaling \$5.8 million to fund 15 water development projects statewide in 1997. These projects are listed in Table 4 in priority order as suggested by the Board. Each loan represents partial funding of the total cost of the projects. Additional details about these recommended projects may be found in Appendix C.

TABLE 4
Colorado Water Conservation Board
New Loan Projects Recommended for Authorization in 1997

Priority	Name	County	Loan Amount
1	Wood Lake Mutual Water & Irrig. Co. - Wood Lake Dam Rehabilitation	Weld	\$188,000
2	Summit Reservoir & Irrig. Co. - Summit Res. Dam & Canal Syst. Improvements*	Montezuma	\$600,000
3	Buffalo Mutual Irrigation Co. - Diversion Dam Rehabilitation	Prowers	\$250,000
4	Excelsior Irrigating Company - Excelsior Ditch Rehabilitation	Pueblo	\$230,000
5	Durkee Ditch Company - New Headgate and Pipeline	Delta	\$120,000
6	Agricultural Ditch & Reservoir Co. - Welch Ditch Pump and Pipeline*	Jefferson	\$300,000
7	Hawkeye Lateral Ditch Company - Ditch Rehabilitation	Mesa	\$143,000
8	Weldon Valley Ditch Company - Diversion Dam Rehabilitation	Weld	\$188,000
9	Pine River Irrigation District - Raw Water Supply System	La Plata	\$341,000
10	River Oaks on the Roaring Fork Property Owners Association - Raw Water Irrigation System*	Eagle	\$25,500
11	Upper Yampa Water Conservancy District - Stagecoach Reservoir Refinance*	Routt	\$2,000,000
12	Powderhorn Metro District I Utility Enterprise - Robbins Reservoir Rehabilitation	Mesa	\$525,000
13	Pinon Mesa Ranches - Diversion Structure, Raw Water Pipeline, and Storage*	La Plata	\$206,000

14	San Luis Valley Canal Company - Diversion Structure Rehabilitation	Rio Grande	\$188,000
15	Purgatoire River Water Conservancy District - Trinidad Project Refinance	Las Animas	\$500,000
	TOTAL		\$5,804,500

*Loan to refinance a water project wholly or partially completed.

3.9 Recommended Changes to Previous Loan Authorizations

The Board has recommended legislative authorization to provide additional loan expenditures totaling \$5.3 million to increase funding for two previously authorized water development projects. These projects are listed in Table 5, and additional details may be found in Appendix C.

TABLE 5
Colorado Water Conservation Board
Recommended Changes to Previous Loan Authorizations

Name	Auth. Bill and Year	Prior Authorization	Revised Authorization
City of Fort Collins and Larimer County - Dry Creek Flood Control Project	SB 96-153	\$500,000	\$920,000
Eagle Park Reservoir Company - Eagle Park Reservoir Rehabilitation	SB 96-153	\$3,125,000	\$8,000,000

The City of Fort Collins and Larimer County were originally authorized a loan in the amount of \$500,000 for a flood control project on Dry Creek. This recommendation would add \$420,000 to the loan project.

The Eagle Park Reservoir Company was originally authorized a loan in the amount of \$3,125,000 from last year's funds for the rehabilitation of Eagle Park Reservoir strategically located in the headwaters of the Eagle River. This recommendation would add \$4,875,000 to the loan project.

3.10 Loan Projects Recommended for Deauthorization

Authorized projects which show no activity may be deauthorized to allow new projects to proceed, especially those that may have a better chance of coming to fruition. If an appropriation has not been encumbered within two years after legislative approval, the Board staff will work with the project sponsor to determine if the project can go forward or if it should be deauthorized. After a project has been completed, the remaining unspent but still encumbered funds are deauthorized as soon as possible.

At its November 1996 meeting, the Board recommended 6 projects totaling \$1.43 million be deauthorized by the General Assembly in FY 96-97 as listed in Table 6 below.

TABLE 6
Colorado Water Conservation Board
Loan Projects Recommended for Deauthorization in FY 96-97

Name	Auth. Bill and Year	Amount Authorized	Amount Deauthorized	Amount Remaining
Meyering Livestock Co. - Hyannis Peak Reservoir	HB 83-1102	\$425,000	\$425,000	\$0
Redlands Water & Power Co. - Redlands Rehabilitation	SB 89-85	\$420,000	\$420,000	\$0
Bull Basin Res. & Irrig. Co. - Bull Basin Res. No. 2 Outlet Rehab.	SB 94-029	\$25,000	\$25,000	\$0
Lower Clear Creek Ditch Co. - Diversion Dam Rehabilitation	HB 95-1155	\$60,000	\$60,000	\$0
Colo. Agriculture Ditch Co. - Diversion Dam Rehabilitation	HB 95-1155	\$60,000	\$60,000	\$0
Buckeye Lateral Ditch Association - Ditch Rehabilitation	HB 95-1155	\$440,000	\$440,000	\$0
TOTALS		\$1,430,000	\$1,430,000	\$0

3.11 Restoration of Emergency Infrastructure Repair Loan Account Balance

The Board recommends a total of \$960,000 be transferred from unreserved cash in the Construction Fund to bring the balance in the Emergency Infrastructure Repair Loan Account back to \$2 million. Since its creation in 1993, the Board has authorized 7 loans with contract amounts totaling \$960,000 from the account for qualifying projects in Montezuma, Larimer, Rio Blanco, Douglas, Clear Creek, and Las Animas counties.

3.12 Salinity Control Program Loans

The Board recommends it be authorized to expend a cumulative total of \$1,000,000 from unreserved cash in the Colorado water conservation board construction fund for loans to participants in the Colorado river basin salinity control program. Such loans shall be at the terms and conditions the Board determines after review and approval of each potential participant's application. The loan amount shall not exceed 50% of the total cost of constructing any particular salinity control project.

3.13 Horse Creek Basin Loan Account

At the January 1997 meeting, the Board recommended the creation of the Horse Creek Basin Account in the Construction Fund. The account should have an initial balance of \$915,000. The Board recommended it be authorized to make loans from the account to borrowers in the Horse Creek basin for the purpose of acquiring water rights, with an initial loan for up to \$825,000 from the account to the Horse Creek Water Users Association.

4.0 Non-Reimbursable (Grant) Projects

From time to time over the years, the Board has recommended, and the General Assembly has approved, the use of the Construction Fund to support a number of non-reimbursable (grant) studies, investigations, and projects. This year the Board is recommending 11 non-reimbursable studies and projects totaling \$5.0 million. These grant recommendations are listed in Table 7 below.

Table 7
Colorado Water Conservation Board
1997 Grant Recommendations

Grantee - Project	County	Amount
CWCB and State Engineer - Colorado River Decision Support System	west slope	320,000
State Engineer - Satellite Monitoring System Maintenance	statewide	120,000
CWCB - Extreme Precipitation Study Continuation and Revisions to the NOAA Atlas	west slope	400,000
CWCB - Roaring Fork River Multi-objective Management Plan Continuation	Pitkin, Eagle, and Garfield	50,000
CWCB - Arkansas River Multi-objective Management Plan		50,000
CWCB - Statewide River Rehabilitation and Floodplain Management Needs Inventory	statewide	100,000
CWCB - Chatfield Reservoir Reallocation Study	Douglas	300,000
South Platte Lower River Group - Tamarack Project and Continuation of Demonstration Projects		300,000
US Fish and Wildlife Service - Grand Valley Water Management Project	Mesa	1,250,000
Colorado Division of Wildlife - Native Aquatic Species Facility	Rio Grande	2,000,000
State Engineer - Arkansas River Basin Well Pumping Study		100,000
	Total	4,990,000

4.1 Colorado River Compact Decision Support System

The Colorado Water Conservation Board recommends it be authorized to expend up to \$320,000 from the Construction Fund to manage the continuation of the design of a decision support system for the Colorado River basin including the development of the necessary databases, models and user tools; and to acquire, operate, and maintain the associated computer hardware and software.

The funds would be transferred to the Department of Natural Resources for allocation to the Colorado Water Conservation Board and the Division of Water Resources, for the fiscal year beginning July 1, 1997. The amounts authorized would be in addition to amounts authorized previously for CRDSS for contract years one, two, three, and four, and remain available for the designated purposes until the project is completed.

4.2 Satellite Monitoring System Maintenance

The Board recommends it be authorized to expend up to \$120,000 from the Construction Fund to continue its long-term commitment to the State Engineer's Office to rehabilitate and up-grade the existing Colorado Satellite Monitoring System established and operated pursuant to the section 37-80-102 (10), CRS. This request is for the fifth year of a ten year replacement program. The funds would be transferred to the Department of Natural Resources for allocation to the State Engineer for the fiscal year beginning July 1, 1997.

4.3 Continuation of the Extreme Precipitation Study and Revisions to the NOAA Atlas

The CWCB, in cooperation with the state engineer, recommends it be authorized to expend up to \$400,000 from the Construction Fund for the following purposes:

(A) up to \$300,000 to continue the extreme precipitation study authorized in SB 94-029 directing the State Engineer and CWCB to investigate available evidence of extreme precipitation in the mountains of Colorado to establish reasonable standards and criteria for the design and evaluation of reservoir spillways to safely pass a design flood event. The funds would be used to contract with a consultant or consultants to develop a state model based on the characteristics of 20 selected storms identified in the first phase of the project to predict extreme rainfall for any selected drainage basin above 5,000 feet elevation.

(B) up to \$100,000 in matching funds to cooperate with the National Oceanic and Atmospheric Agency (NOAA) to revise the NOAA Atlas precipitation maps for Colorado to include additional base data from 1960 through at least 1990 to improve the design of class III dams, the design of highway structures, and improve in the identification of hazardous floodplains.

4.4 Roaring Fork River Multi-objective Management Plan Continuation

The Board recommends it be authorized to expend a total of up to \$50,000 from the Construction Fund to continue the Roaring Fork River Multi-objective Management Plan previously authorized in SB 96-153 for the following purposes:

(A) to develop an overall master plan to manage streambank erosion, channel migration, sediment, debris, and minimum stream flows in the Aspen reach;

(B) to fully implement an existing master plan to manage channel stability, erosion, debris, and protection of irrigation facilities in the Carbondale reach;

(C) to develop a plan to manage public access for recreation and stream beautification in the Glenwood reach;

(D) to develop a plan to manage fishing, Ruedi reservoir release rates, flooding, and stream stability in the Fryingpan River reach;

(E) to develop a plan to manage erosion, sedimentation, flooding, and transbasin diversions in the upper tributaries; and

(F) to contract for services up to \$10,000 for advanced flood mitigation measures in the Roaring Fork River basin in cooperation with local governments and the Army Corps of Engineers in order to mitigate future flood losses.

4.5 Arkansas River Multi-objective Management Plan

The Board recommends it be authorized to expand the scope of work of the previously authorized Arkansas River Channel Restoration Study and to expend up to \$50,000 in additional funds from the Construction Fund to cooperate with and contract for services with the Colorado Department of Highways and/or the U. S. Geological Survey, or other contractors, and continue development of a multi-objective management plan for the Arkansas River for the stream reach extending from Pueblo to the Colorado-Kansas state line.

In addition to any previously authorized tasks, the funds would be authorized to perform the following additional tasks:

(A) groundwater analysis,

(B) collection of field data, and

(C) preparation of topographic and aerial mapping for a portion of the stream reach from Rocky Ford to John Martin Reservoir.

4.6 River Rehabilitation Floodplain Management Needs Inventory

The Board recommends it be authorized to expend up to \$100,000 from the Construction Fund to develop a scope of work and contract for services to conduct a statewide inventory of river channel rehabilitation and floodplain management needs. The findings of the needs assessment will be the basis for a proposal to determine the economic feasibility of establishing a statewide floodplain management and river channel rehabilitation program funded separately from the Colorado Water Conservation Board Construction Fund. The proposed program would represent a comprehensive approach and source of funds for local governments to better manage and address multi-objective river issues including floodplain management, flood hazard mitigation measures, streambank and channel erosion, maintenance of channel conveyance, and wildlife habitat areas.

4.7 Chatfield Reservoir Reallocation Study

The Board recommends it be authorized to expend up to \$300,000 from the Construction Fund to cooperate with the Army Corps of Engineers, the Urban Drainage and Flood Control District, interested local governments, and other water users, in a reconnaissance study to be conducted in 1997 for the potential reallocation of flood control storage space to municipal water supply storage in Chatfield Reservoir.

The purpose of this reconnaissance study would be to analyze existing and alternative operations of the Chatfield Reservoir individually and, to the extent necessary, systematically with the Cherry Creek and Bear Creek reservoirs, in order to determine the advisability of undertaking a more detailed and more expensive investigation concerning the feasibility of reallocating storage in the flood control pool of Chatfield reservoir, either permanently or on a seasonal basis, to the conservation pool for water supply purposes. The reconnaissance study will estimate potential changes to downstream flows and to reservoir pool elevations as well as the potential consequences to water supplies, flood damages, recreation opportunities, water quality, fish and wildlife habitat, and other resources.

Expenditure of the funds shall be contingent upon the Board receiving a commitment from the corps of engineers that these expenditures, and significant in-kind services provided through the board staff, along with any similar contributions by other non-federal participants, will be recognized and credited appropriately in the negotiated cost share agreement for funding and implementation of a formal feasibility study, should the Board and the Colorado Department of Natural Resources decide to proceed with that level of analysis.

4.8 Tamarack Project and Continuation of Demonstration Projects

The Board recommends it be authorized to expend a total of up to \$300,000 from the Colorado water conservation board construction fund to cooperate with the South Platte Lower River Group for the following purposes:

(A) up to \$240,000 for construction of the Tamarack groundwater recharge project to meet potential obligations toward a South Platte River basin endangered species recovery program, and

(B) up to \$60,000 for continuation of making grants for demonstration projects.

The amounts authorized would be in addition to amounts authorized previously for the South Platte Lower River Group, and remain available for the designated purposes until the projects are completed.

4.9 Grand Valley Water Management Project

To further the goals stated in section 37-60-122.2 (1) (a), CRS, notwithstanding the provisions of paragraphs (1)(b), (1)(c), (2)(b), (2)(c), and (4) of section 37-60-122.2, CRS, the Board recommended it be authorized to make a \$1,250,000 non-reimbursable grant to the U. S. Fish and Wildlife Service from the Fish and Wildlife Resources Account for Grand Valley Water Management Project proposed by the Recovery Program.

4.10 Native Aquatic Species Facility

To further the goals stated in section 37-60-122.2 (1) (a), CRS, notwithstanding the provisions of paragraphs (1)(b), (1)(c), (2)(b), (2)(c), and (4) of section 37-60-122.2, CRS, the Board recommended it be authorized to make a non-reimbursable \$2,000,000 grant to the Colorado Division of Wildlife from the Fish and Wildlife Resources Account for development and initial operation of a Native Aquatic Species Facility.

4.11 Arkansas River Well Pumping Measurement Study

At the January 1997 meeting, the Board recommended the CWCB and the State Engineer be authorized to expend up to \$100,000 for a study of well pumping measurements in the Arkansas River basin.

As a result of the litigation with Kansas in the Arkansas River basin, a controversy has arisen between the states concerning the proper technique to measure well pumping. Kansas' position is that only totalizing flow meters are appropriate. Colorado's position is that the power consumption coefficient (PCC) method is appropriate in certain situations and should be used since it is more efficient and less costly.

In order to provide information to the Special Master in Kansas v. Colorado on which to base his recommendation, Colorado offered to have the USGS evaluate both methods in the Arkansas River basin and report on the suitability of the PCC method for determining pumping taking into consideration how the pumping is assigned to user groups within the Hydrologic-Institutional Model. The study will be done through the USGS Cooperative Program. It is expected to take at least two years to accomplish and will require \$50,000 for the first year. The USGS cost share will be \$25,000, and \$25,000 will be used by the State Engineer to purchase and install meters on a randomly selected number of wells.

APPENDIX A

Completed Projects

Colorado Water Conservation Board
Water Project Construction Loan Program
Completed Projects

Borrower	Project Name	County	Div	Amount Loaned	Date Completed
Allenspark Water & San. District	Allenspark Water Project	Boulder	1	200001	10/01/77
Gray Lakes Reservoir Company	Lake Canal	Larimer	1	160,000	06/21/79
Cache La Poudre Reservoir Co.	Cache La Poudre (Timnath) Res. Rehab.	Larimer	1	880,000	07/02/79
Town of Rico	Rico Water Supply System	Dolores	7	80,000	09/14/79
City of Delta	Delta Water System	Delta	4	450,000	10/11/79
Town of Dove Creek	Dove Creek Water System	Dolores	7	400,000	02/15/80
Trinchera Irrigation Company	Trinchera Canal Lining	Costilla	3	251,689	05/28/80
Town of Hayden	Hayden Water Supply System	Routt	6	300,000	11/17/80
Beaver Park Water, Inc.	Irrigation System & Water Rights (1)	Fremont	2	1,500,000	01/07/81
Town of Limon	Limon Water Supply System	Lincoln	1	750,000	02/02/81
Town of Ridgeway	Ridgeway Water Supply System	Ouray	4	175,000	02/10/81
San Luis Valley Irrigation District	Rio Grande Res. Emerg. Interim Repair	Hinsdale	3	90,000	07/28/81
Upper Yampa WCD	Yamcolo Dam	Routt	6	1,500,000	10/09/81
Town of Eagle	Eagle Water System	Eagle	5	250,000	10/19/81
Ft. Morgan Reservoir & Irrig. District	Fort Morgan Diversion Dam	Morgan	1	19,000	11/01/81
Lower Latham Ditch Company	Lower Latham Canal	Weld	1	20,000	11/01/81
Farmers Irrig. Ditch & Reservoir Co.	Diversion Dam and Canal	Larimer	1	109,000	02/01/82
Big Thompson Ditch Company	Div. Dam, Ditch, Pipeline, & Irrig. System	Larimer	1	193,170	02/01/82
Henrylyn Irrigation District	Prospect Dam Repairs	Weld	1	653,000	07/29/82
Town of Walden	Walden Water Supply System	Jackson	6	450,000	07/29/82
Ute Water Conservancy District	Pipeline and Storage Tank	Mesa	5	985,000	08/16/82
Beaver Park Water, Inc.	Brush Hollow Dam Rehab. & Canals (2)	Fremont	2	350,000	09/04/82
Winter Park Water & San. District	Winter Park Water Supply System	Grand	5	900,000	09/10/82
Terrace Irrigation Company	Terrace Reservoir Dam Outlet Rehab.	Conejos	3	608,600	09/22/82
Farmers Extension Ditch Company	Highland Lake Lateral 1	Weld	1	150,000	10/02/82
Town of Silt	Silt Water Supply System	Garfield	5	300,000	11/18/82
Town of Nunn	Nunn Water Supply System	Weld	1	209,000	11/18/82
City of Morrison	Morrison Water Supply System	Jefferson	1	350,000	02/28/83
Town of Hudson	Hudson Water Supply System	Weld	1	217,000	03/09/83
Town of Hotchkiss	Hotchkiss Water Supply System	Delta	4	60,000	03/31/83
City of Rifle	Rifle Water Supply System	Garfield	5	300,000	03/31/83
Farmers Irrigation Ditch Company	Diversion Dam	Larimer	1	63,000	04/11/83
Henrylyn Irrigation District	Horsecreek Dam Repairs	Adams/Weld	1	260,000	06/30/83
Mancos Water Conservancy District	Jackson Gulch Diversion Dam Repair	Montezuma	7	81,362	07/01/83
Blue River Water District	Blue River Domestic Water Supply	Summit	5	1,200,000	07/26/83
Brook Forest Water District	Maxwell Cr. Dam & Raw Water Pipeline	Jefferson	1	164,500	08/09/83
Town of Rangely	Rangley Water Supply System	Rio Blanco	6	150,000	08/03/83
City of Trinidad	Trinidad Water Supply System	Las Animas	2	465,000	08/17/83
Kelton Heights Water & San. District	Bancroft Water Delivery System	Jefferson	1	441,306	08/29/83
Beaver Park Water, Inc.	Irrig. System, Ditch Lining, & Pipeline (3)	Fremont	2	276,750	09/02/83
Cedar Mesa Ditch & Reservoir Co.	Cedar Mesa Reservoir Dam Spillway	Delta	4	12,000	10/17/83
Farmers Extension Ditch Company	Highland Lake Lateral 2	Weld	1	220,000	01/24/84
Town of Palisade	Cabin Reservoir Dam Reconstruction	Mesa	5	1,000,000	03/07/84
City of Canon City	Canon City Water System	Fremont	2	231,000	03/26/84
Brook Forest Water District	Maxwell Creek Dam, II	Jefferson	1	130,500	03/29/84
Ute Water Conservancy District	Water Supply System	Mesa	5	7,987,500	04/18/84
Town of Fruita	Fruita Water Supply System, I	Mesa	5	214,700	05/03/84
Town of Parachute	Parachute Water Supply System	Garfield	5	250,000	05/03/84
Sedgwick-Sand Draws WCD	Sedgwick-Sand Draws Land Acquisition	Sedgwick	1	33,000	05/08/84
San Luis Valley Irrigation District	Rio Grande Reservoir Enlargement	Hinsdale	3	515,000	06/18/84
Basalt Water Supply System	Town of Basalt	Eagle	5	226,975	07/01/84
Starkville Water Supply System	Town of Starkville	Las Animas	2	200,000	09/06/84

Borrower	Project Name	County	Div	Amount Loaned	Date Completed
Beeman Irrigation Company	Beeman Diversion Dam Improvement	Weld	1	92,512	09/28/84
Town of Manitou Springs	Manitou Spgs Water Supply System	El Paso	2	1,200,000	10/17/84
Kern Reservoir and Ditch Company	Kern Reservoir Dam Repairs	Weld	1	123,000	10/29/84
Town of Fruita	Fruita Water Supply System, II	Mesa	5	607,864	12/02/84
Ridges Metro District	Ridges Water Supply & Irrig. System	Mesa	5	1,916,092	12/02/84
Town of Wellington	Wellington Water Supply System	Larimer	1	1,140,000	12/19/84
North Poudre Irrigation Company	Fossil Creek Reservoir Dam Rehab.	Larimer	1	1,331,704	04/17/85
Paradox Valley Water Cons. District	Buckeye Res. Dam Rehabilitation	Montrose	4	100,000	08/15/85
City of Louisville	Harper Lake Dam	Boulder	1	1,588,271	10/28/85
Larkspur Homeowners Association	Larkspur Water System	Douglas	1	219,000	12/10/85
Town of Granby	Granby Water Supply System	Grand	5	405,000	12/17/85
Farmers Extension Ditch Company	Highland Lake Lateral	Weld	1	177,500	06/01/86
Town of Basalt	Basalt Water Supply Storage Tank	Eagle	5	221,107	07/01/86
Handy Ditch Company	Hertha Reservoir Dam Enlargement	Larimer	1	363,450	07/01/86
Farmers Extension Ditch Company	Highland Lake Lateral 3	Weld	1	177,500	08/18/86
Farmers Extension Ditch Company	Highland Lake Lateral 5	Weld	1	230,000	09/01/86
Beaver Park Water, Inc.	Irrig. Syst., Pipeline, & Ditch Lining (4)	Fremont	2	125,000	03/01/87
North Poudre Irrigation Company	North Poudre Dam #15 Rehabilitation	Larimer	1	1,152,908	05/11/87
Farmers Extension Ditch Company	Highland Lake Lateral 6	Weld	1	300,000	01/06/88
Stewart Ditch and Reservoir Co.	Stewart Ditch	Delta	4	157,133	01/29/88
Paradox Valley Water Cons. District	Buckeye Reservoir	Montrose	4	150,000	03/24/88
Grandview Irrigation Ditch Company	Grandview Siphon	Fremont	2	195,279	09/22/88
Overland Ditch Company	Overland Res. Dam Rehabilitation	Delta	4	850,000	11/30/88
San Luis Valley Irrigation District Rio	Grande Res. Dam Outlet Rehab.	Hinsdale	3	526,087	12/07/88
Grand Valley Water Users	Repurchase of USBR Loan	Mesa	5	100,000	12/31/88
Dolores Water Conservancy District	Cortez Water Supply Pipeline	Montezuma	7	1,244,142	01/03/89
Uncompahgre Valley WUA	Repurchase of USBR Loan	Delta/Mont.	4	2,060,805	05/01/89
Overland Ditch and Reservoir Co.	Repurchase of USBR Loan	Delta	4	541,947	06/01/89
North Poudre Irrigation Company	Repurchase of USBR Loan	Larimer	1	164,321	06/05/89
Fuchs Ranches	Fuchs Dam Spillway	Rio Grande	3	59,120	07/28/89
Orchard Mesa Irrigation Company	Repurchase of USBR Loan	Mesa	5	762,771	08/01/89
City of Ft. Collins	Repurchase of USBR Loan	Larimer	1	2,425,343	09/01/89
Orchard City Irrigation Company	Repurchase of USBR Loan	Delta	4	48,935	09/01/89
Ish Reservoir Company	Ish Dam Repairs	Boulder	1	17,000	11/15/89
Farmers Extension Ditch Company	Highland Lake Lateral 7	Weld	1	350,000	12/06/89
Summit Reservoir and Irrigation Co.	Summit Dam Repairs	Montezuma	7	26,383	03/14/90
North Poudre Irrigation Company	Clark Lake Dam Rehabilitation	Larimer	1	404,502	05/17/90
Beaver Park Water, Inc.	Irrigation System & Ditch Lining (5)	Fremont	2	125,000	07/09/90
City of Grand Junction	Juniata Pipeline	Mesa	4	195,930	08/25/90
Upper Yampa Water Cons. District	Stagecoach Reservoir Dam	Routt	6	7,900,000	09/19/90
Highline-Buzzard Ditch Company	Irrigation Pipeline	Mesa	5	65,000	11/16/90
Michigan River Conservancy District	Meadow Creek Dam	Jackson	6	1,103,200	02/21/91
Santa Maria Reservoir Company	Continental Reservoir Rehabilitation	Hinsdale	3	96,500	04/06/91
Santa Maria Reservoir Company	Santa Maria Reservoir Rehabilitation	Mineral	3	357,500	04/06/91
Bauer Lake Water Company	Bauer Res. No. 1 Dam Improvements	Montezuma	7	80,851	05/06/91
Lone Cabin Ditch and Reservoir Co.	Lone Cabin Reservoir Dam Repair	Delta	4	92,700	06/24/91
Windsor Reservoir Company	Douglas Dam Spillway and Repairs	Larimer	1	752,000	06/25/91
Town of Morrison	Morrison Consolidated Ditch	Jefferson	1	80,000	07/10/91
City of Greeley	Comanche Dam Rehabilitation	Larimer	1	1,100,000	10/15/91
Farmers Water Development Co.	Gurley Dam Repairs	San Miguel	4	828,401	11/07/91
Fruitland Irrigation Company	Onion Valley Dam Repairs	Delta/Mt/Gu	4	168,549	12/03/91
Coon Creek Reservoir & Ditch Co.	Coon Creek Res. No. 1 & 2 Dam Repairs	Mesa	5	55,000	04/09/92
Handy Ditch Company	Handy (Welch) Reservoir Dam Repairs	Larimer	1	304,000	05/01/92
North Poudre Irrigation Company	North Poudre Dam #2 Rehabilitation	Larimer	1	340,551	05/08/92
City of Longmont	McCall Lake Spillway and Repairs	Boulder	1	214,454	05/12/92
Lookout Mountain Water District	Upper Beaver Brook No. 3A Res. Enlarg.	Clear Creek	1	600,000	07/18/92
City of Greeley	Barnes Meadow Dam Spillway & Repairs	Larimer	1	313,424	09/18/92

Borrower	Project Name	County	Div	Amount Loaned	Date Completed
Colorado Water Conservation Board	Union Avenue Boat Chute	Arapahoe	1	1,328,000	05/21/93
Sanchez Ditch and Reservoir Co.	Sanchez Dam Repairs, Phase 1	Costilla	3	200,000	07/01/93
Clinton Ditch & Reservoir Company	Clinton Reservoir (Municipal Portion)	Summit	5	615,000	08/13/93
Clinton Ditch & Reservoir Company	Clinton Reservoir (Ski Area Note)	Summit	5	4,120,000	08/13/93
Conejos Water Conservancy District	Platoro Reservoir Purchase	Conejos	3	450,000	10/01/93
Sedgewick Sands Draw WCD	Phase II & III Flood Control Project	Sedgwick	1	130,027	11/01/93
Elmwood Lateral Ditch Company	Elmwood Lateral Ditch Rehabilitation	Mesa	5	80,000	09/01/94
Trinchera Irrigation Company	Mountain Home Reservoir Rehabilitation	Costilla	3	611,478	09/15/94
Summit Reservoir and Ditch Co.	Summit Reservoir Dam and Ditch Repair	Montezuma	7	33,000	11/01/94
Windsor Reservoir and Canal Co.	Poudre Valley Canal Slide Repair	Larimer	1	300,000	12/01/94
Town of Rangely	Rangely Raw Water Intake Rehab.	Rio Blanco	6	34,000	01/10/95
Town of Monument	Monument Well No. 2 Replacement	El Paso	2	94,000	02/01/95
Terrace Irrigation Company	Alamosa Creek Canals and Laterals	Conejos	3	1,650,000	04/15/95
Town of Erie	Erie Flood Control Levee	Weld	1	498,512	05/01/95
New Cache La Poudre Irrig. Co.	Diversion Structure Replacement	Larimer	1	450,000	05/01/95
Loloff Lateral Ditch Company	Loloff Lateral Ditch Replacement	Weld	1	71,500	05/01/95
North Poudre Irrigation Company	North Poudre Res. 5 & 6 Rehabilitation	Larimer	1	1,761,096	06/01/95
Hay-Bretherton Ditch Company	Lower Hay-Bretherton Ditch Lining	Rio Blanco	6	20,000	06/01/95
Castle Pines North Metro District	Well A-3 Rehabilitation	Douglas	2	100,500	06/30/95
Kings Row Homeowners Association	Irrigation System Improvements	Eagle/Garf.	5	75,000	09/01/95
Military Park Reservoir Company	Military Park Reservoir Dam Rehab.	Delta	4	29,516	10/15/95
Lloyd Ranch Limited Partnership	Rapid Creek Dams No. 1 & 2 Rehab.	Mesa	5	100,000	11/01/95
Ute Water Conservancy District	Colorado River Pumping Station	Mesa	5	400,000	11/01/95
Caryl Carroll	DD&E Wise Dam Rehabilitation	Rio Blanco	6	50,000	11/01/95
Town of Silt	Raw Water Irrigation System	Garfield	5	400,000	11/01/95
Divide Canal and Reservoir Company	Worster Dam Rehabilitation	Larimer	1	665,000	06/15/96
Appleton ML 350 Ditch Co., Inc.	Ditch Rehabilitation	Mesa	5	53,000	06/18/96
Town of Erie	NCWCD Southern Pipeline & Conn.	Weld	1	1,544,000	06/01/96
Rainbow Park Water Company	Rainbow Park Ditch Rehabilitation	Fremont	2	65,000	06/01/96
South Platte Ditch Company	Diversion Structure Rehabilitation	Logan	1	100,000	06/01/96
Colo. River Water Conservation Dist.	Wolford Mountain Reservoir	Grand	5	16,256,000	06/01/96
TOTAL	137 Projects			\$95,595,418	

APPENDIX B

Data for Projects Completed in FY95-96

KINGSROW HOMEOWNER'S ASSOCIATION OUTSIDE IRRIGATION SYSTEM



Kingsrow Homeowner's Diversion Structure/Division Box

Project Description

This underground irrigation system for a subdivision of homes near Carbondale was completed by Evergreen Sprinkler Co. of Carbondale, Colorado September 1, 1995. The schedule was delayed several months due to the unavailability of the special "rock saw" used in cutting the pipeline trenches. The project is a metered system allowing all excess water not used by the irrigation system to be diverted for downstream use.

Project Data

Sponsor: Kings Row Homeowners Assoc. **County:** Garfield **Source:** Spring Park Reservoir

Terms of Loan: \$75,000 @ 4.75% for 20 years **Substantial Completion:** Sept. 1, 1995.

Design Engineer: Natural Resource Conservation Service - Glenwood Springs Office.

Construction Contractor: Evergreen Sprinkler Company - Carbondale, Colorado

Design Criteria: 14,000 ft. of PVC pipe from 2" to 8"
 49 Homeowner Taps

Annual Volume of Water Delivered by the Project: 80 ac.ft

MILITARY PARK RESERVOIR REHABILITATION



Military Park Reservoir Breached Dam

Project Description

The project consisted of the replacement of the earth fill dams outlet works including a precast outlet structure, 12" PVC outlet pipe and reinstalled gate assembly. The dam was breached in late 1994 for the necessary construction and not completed until mid-October 1995 due to lingering snowpack on the Grand Mesa.

Project Data

Sponsor: Military Park Reservoir Co. **County:** Delta **River:** Off-Stream Grand Mesa

Terms of Loan: \$30,000 @ 4.0 % for 30 years **Substantial Completion:** Oct. 15, 1995

Design Engineer: Ed Currier, P.E. - Grand Junction, Colorado

Construction Contractor: Colorado West Contracting, Inc. - Grand Junction, Colorado

Design Criteria: 12 inch PVC outlet pipe
 1,200 cu.yd. of embankment material

Annual Volume of Water Removed from Restriction by the Project: 232 acre-feet

RAPID CREEK DAMS #1 & #2 REHABILITATION



Rapid Creek Dam #2 Upstream Face and Outlet Intake

Project Description

The project was the rehabilitation of the Rapid Creek Dams #1 and #2 on the Grand Mesa. The project commenced by Walker Construction Co. of Collbran, Colorado in late fall 1994. The project consisted of replacing the outlet works of both reservoirs including headgates, pipes, weirs and parshall flumes. The crest of dam #2 was also raised and the upstream face lined with riprap.

Project Data

Sponsor: Lloyd Ranch Limited Partnership **County:** Mesa **River:** Rapid Creek

Terms of Loan: \$100,000 @ 5% for 20 years **Substantial Completion:** Nov, 1, 1995

Design Engineer: Zancanella and Associates, Inc. - Glenwood Springs, Colorado

Construction Contractor: Walker Construction Co., Inc. - Collbran, Colorado

Design Criteria: 15 inch ductile iron pipe outlet
 1,100 cu.yd. of riprap
 hydraulic lift headgate

Annual Volume of Water Removed from Restriction by the Project: 600 acre-feet

COLORADO RIVER PUMP STATION



Automatic Trash Rack at Pump Station Intake

Project Description

This pump station rehabilitation project pumps water from the Colorado River used by the Ute Water Conservancy District as an emergency water supply during the summer months and as a supplemental blended source during the winter months. The project included rebuilding pumps, installation of pumps, valves, gates, an automated debris/trash rack, and a telemetry/computer control system. The project commenced in February and was completed November 1, 1995.

Project Data

Sponsor: Ute Water Conservancy District **County:** Mesa **River:** Colorado

Terms of Loan: \$400,000 @ 5% for 30 years **Substantial Completion:** Nov. 1, 1995.

Design Engineer: Montgomery Watson Engineers, Inc. - Boise, Idaho

Construction Contractor: Continental West Constructors - Avon, Colorado

Design Criteria: Rebuild 3/200 hp pumps - Reconstruct Intake
1 automatic trash rack and rake
1 automated telemetry control system

Annual Volume of Water Delivered by the Project: 6,700 ac.ft.

DD&E WISE DAM REHABILITATION



DD&E Wise New Downstream Face and Outlet Pipe

Project Description

This dam rehabilitation project involved the reconstruction of the downstream face of the dam including additional embankment material to widen the downstream slope and provide additional structural stability. The outlet pipe was also lengthened and the downstream channel improved. The project experienced several delays due to a lack of interested qualified contractors.

Project Data

Sponsor: Caryl Carol

County: Rio Blanco

River: Milk Creek

Terms of Loan: \$50,000 @ 2.0% for 20 years **Substantial Compl:** Nov. 1, 1995
\$25,000 @ 3.75% for 20 years

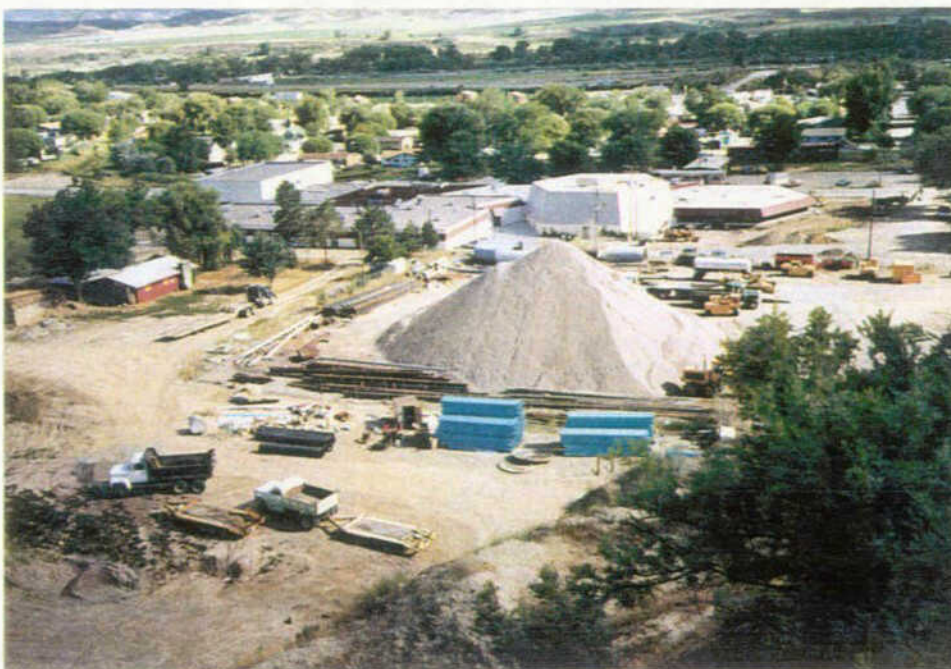
Design Engineer: WestWater Engineers, Inc. - Grand Junction, Colorado

Construction Contractor: Gene Clapper Construction - Meeker, Colorado

Design Criteria: 15 inch CMP outlet pipe
 2,880 cu.yd. of embankment material
 70 lineal feet of new outlet channel

Annual Volume of Water Removed from Restriction by the Project: 250 acre-feet

TOWN OF SILT OUTSIDE IRRIGATION SYSTEM



Construction Contractor Staging Area

Project Description

This underground irrigation system consisted of the installation of a pipeline throughout the Town of Silt in order to irrigate individual home lawns with raw water rather than treated water. The project will reduce the load on the Town's treatment plant and is more economical than constructing additional treatment capacity.

Project Data

Sponsor: Town of Silt

County: Garfield

River: Colorado

Terms of Loan: \$400,000 @ 4% for 30 years **Substantial Completion:** Nov. 1, 1995.

Design Engineer: Jerome Gamba & Associates, Inc. - Glenwood Springs, Colorado

Construction Contractor: Lyle States Construction, Inc. - Grand Junction, Colorado

Design Criteria: Approx. 8.5 miles of PVC pipe.
 3 pump stations

Annual Volume of Water Delivered by the Project: 160 ac.ft.

DIVIDE CANAL & RESERVOIR CO.- WORSTER DAM REHABILITATION PROJECT



Upstream Face and Outlet Excavation of Worster Dam

Project Description

The dam rehabilitation and stabilization project involved reconstructing the inlet structure of the outlet works, lining the existing outlet pipe, and installing a geosynthetic membrane along the upstream face of the dam to prevent seepage through the structure. Construction commenced September 1, 1995 and was completed utilizing a seven-day construction work week.

Project Data

Sponsor: Divide Canal and Reservoir Co. **County:** Larimer **River:** Sheep Creek

Terms of Loan: \$665,000 @ 4% for 30 years **Substantial Completion:** June 15, 1996

Design Engineer: Woodward-Clyde Engineering Consultants - Denver, Colorado

Construction Contractor: D.H. Blattner & Sons, Inc. - Avon, Minnesota

Design Criteria: 48 inch dia. High Density Polyethylene Outlet Pipe Liner
 100,000 sq.ft. of Geosynthetic Upstream Face Liner

Annual Volume of Water Delivered by the Project: 3,400 ac.ft.

APPLETON ML350 DITCH CO. - REHAB. OF THE APPLETON ML350 LATERAL



Typical 48" Standpipe Field Turnout along the Appleton Ditch

Project Description

The project consisted of replacing an open channel irrigation ditch with an underground pipeline. The project was designed by the Natural Resource Conservation Service, Grand Junction office as part of the salinity control program. The construction contract was awarded to Clayco Construction Company of Grand Junction, Colorado November 1, 1995.

Project Data

Sponsor: Appleton ML 350 Ditch Company **County:** Mesa **River:** Colorado River

Terms of Loan: \$53,000 @ 4% for 30 yrs. **Substantial Completion Date:** June 18, 1996

Design Engineer: U.S. Natural Resource Conservation Service - Grand Junction Office

Construction Contractor: Clayco Construction, Inc. - Grand Junction, Colorado

Design Criteria: Pipe Capacity = 4.27 cfs
 Approx. 10,000 linear feet of PVC pipe, 15" - 4" dia.
 New Headgate Structure along the Grand Valley Canal

Annual Volume of Water Delivered by the Project: 1,700 acre feet

TOWN OF ERIE - SOUTHERN SUPPLY LINE CONNECTING PIPELINE



Raw Water Inlet Control Vault at the Erie Water Treatment Plant

Project Description

This project is an extension of the Northern Colorado Water Conservancy District's Southern Pipeline Project. The extension pipeline will provide high quality western slope water to the Town of Erie for their municipal use. Construction commenced January 8, 1996 by ERS Construction, Inc. of Sedalia, Colorado. The project will provide Erie with the first consumptive water from the Southern Supply Pipeline Project.

Project Data

Sponsor: Town of Erie **County:** Weld **River:** Colorado Big Thompson Project

Terms of Loan: \$1,544,000 @ 2% for 40 yrs **Substantial Completion Date:** June 1, 1996

Design Engineer: Black and Veatch, Inc. - Denver, Colorado

Construction Contractor: ERS Construction, Inc. - Sedalia, Colorado

Design Criteria: Flow Capacity = 1.03 mgd or 1.6 cfs
 8 in. Diameter - Ductile Iron Pipe

Annual Volume of Water Delivered by the Project: 580 ac. ft.

RAINBOW PARK WATER CO. - RAINBOW PARK DITCH REHAB. PROJECT



Trench Excavation and Pipeline Placement along the Rainbow Park Ditch

Project Description

The project consisted of replacing 3.5 miles of open channel irrigation ditch with an underground pipeline. The project was designed by the Natural Resource Conservation Service, Canon City office and the construction contract awarded to Patch Construction Company of Florence, Colorado February 10, 1996. Construction commenced in late February and was completed June 1, 1996.

Project Data

Sponsor: Rainbow Park Water Company **County:** Fremont **River:** Arkansas River

Terms of Loan: \$64,919 @ 4% for 30 yrs. **Substantial Completion Date:** June 1, 1996

Design Engineer: Natural Resource Conservation Service - Canon City Office

Construction Contractor: Patch Construction Company - Florence, Colorado

Design Criteria: Approx. 18,000 linear feet of PVC pipe, 15" - 8" dia.
 Pipe Capacity = 3.0 cfs

Annual Volume of Water Delivered by the Project: 600 ac.ft.

SOUTH PLATTE DITCH COMPANY-DIVERSION STRUCTURE REHABILITATION



The Diversion Structure at the South Platte Ditch, Looking Downstream

Project Description

Damaged during the 1995 South Platte River flood, this diversion structure rehabilitation project is located 5 miles southwest of Merino, CO. The new structure is founded on sheet piling and utilizes pneumatic crest gates, offset vertically, to prevent sand from entering the ditch from the river. Construction commenced in early March 1996 and the project was operational by late May 1996.

Project Data

Sponsor: South Platte Ditch Company **County:** Logan **River:** South Platte River

Terms of Loan: \$100,000 @ 4.25% for 30 yrs. **Substantial Completion Date:** June 1, 1996

Design Engineer: Jack Odor, P.E. - Ft. Morgan, Colorado

Construction Contractor: Dorn Ready Mix Corp. - Ft. Morgan, Colorado

Design Criteria: Ditch Capacity = 137.5 cfs
 River Gate = 4 ft. x 20 ft.
 Ditch Gate = 4 ft. x 16 ft.
 Obermeyer Hydro Inc. pneumatically operated crest gates

Annual Volume of Water Delivered by the Project: 14,000 ac.ft.

COLO. RIVER WATER CONSER. DIST.- WOLFORD MOUNTAIN RESERVOIR



Looking West Into the Reservoir from the Dam's Outlet Tower Bridge

Project Description

The project consisted of the construction of a new earth-filled dam which impounds a reservoir of 66,000 acre-feet with an annual yield of 28,000 acre-feet. Major work elements of the project included over 1,700,000 cubic yards of dam and spillway excavation, 1,000,000 cubic yards of fill in the dam and placing over 34,000 cubic yards of concrete for the outlet works and spillway. The project also included the re-alignment of U.S. Highway 140 around the reservoir limits. The project commenced in August 1993 and was fully operational on June 1, 1996.

Project Data

Sponsor: Colo. River Water Conser. Dist. **County:** Grand **River:** Muddy Creek

Terms of Loan: \$16,255,724 @ 5% for 25 yrs. **Substantial Completion:** June 1, 1996

Design Engineer: Boyle Engineering Corporation - Lakewood, Colorado

Construction Contractor: D.H. Blattner and Sons, Inc. - Avon, Minnesota

Design Criteria: Dam Height = 135 feet
 Crest Elevation = 7,500 ft.
 Reservoir Capacity = 66,000 ac.ft.

Annual Volume of Water Delivered by the Project: 28,000 ac.ft. annual yield

APPENDIX C

Data for Projects Recommended for New Authorizations in FY96-97

Water Project Construction Loan Program - Project Data

Borrower: Purgatoire River Water Conservancy District

Project Name: Trinidad Project Refinance **Project Type:** Refinance

County: Las Animas **Drainage Basin:** Purgatoire **Water Source:**

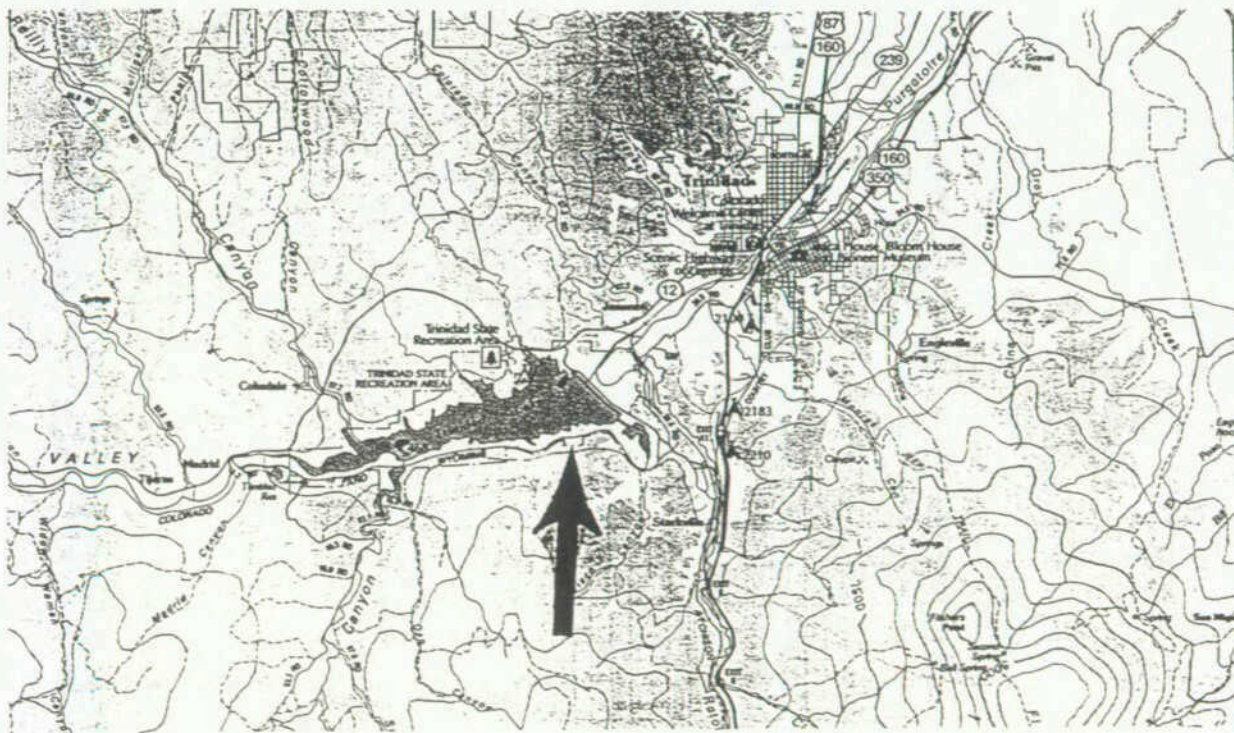
Total Project Cost: \$1,500,000 **Funding Sources:** District and CWCB

Type of Borrower: Agricultural **Median Household Income:** NA

CWCB Loan: \$500,000 **Interest Rate:** 3.75 % **Term:** 30 years

Annual Volume of Water Delivered by the Project: 20,000 acre-feet

Trinidad Dam and Lake are located on the upper Purgatoire River, a tributary of the Arkansas River, about 6 miles southwest of Trinidad. The Corps of Engineers owns and operates the reservoir with major responsibilities for flood control. The Bureau of Reclamation administers a contract with the Purgatoire River Water Conservancy District which manages the irrigation capacity of the reservoir. Trinidad Lake has a total capacity of about 126,000 acre-feet of which 20,000 acre-feet are for irrigation use by the district. The district is requesting a 40-year Construction Fund loan of up to \$1.5 million in order to retire the District's existing indebtedness to the Bureau of Reclamation for irrigation capacity in the Trinidad Reservoir Project.



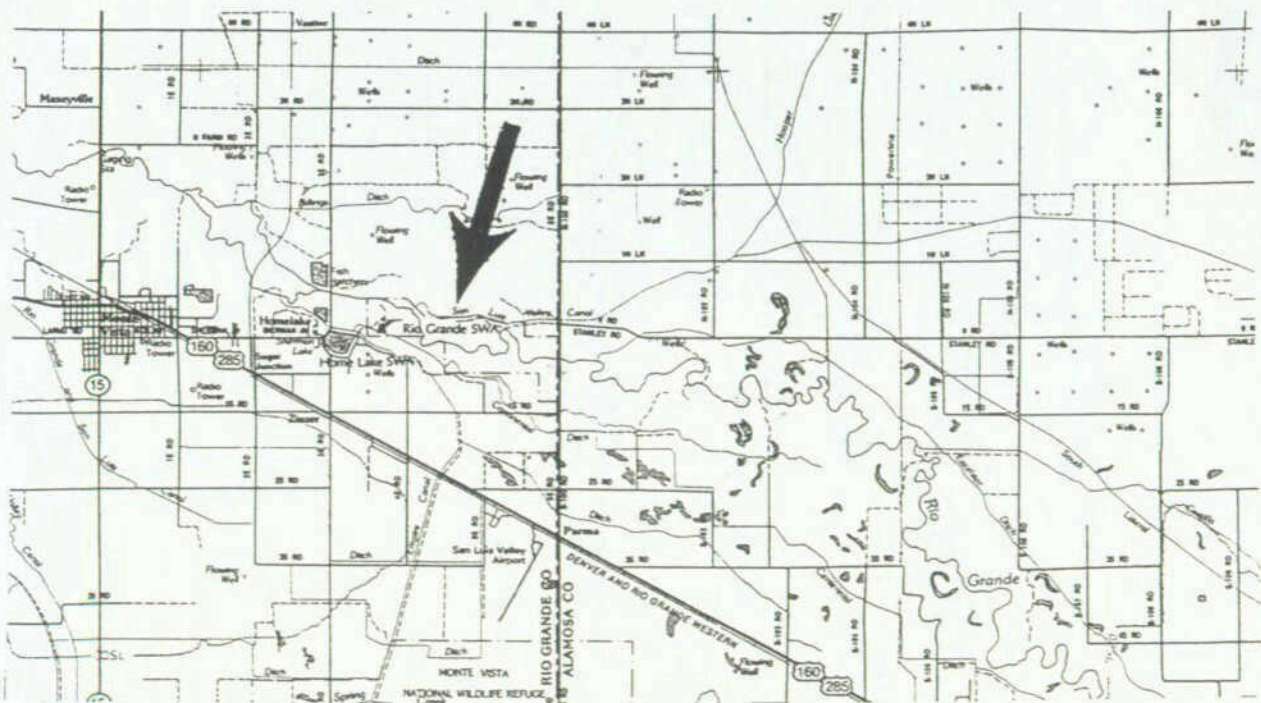
Location Map

Water Project Construction Loan Program - Project Data

Borrower:	San Luis Valley Canal Company		
Project Name:	Diversion Dam Rehabilitation		Project Type: Infrastructure
County:	Rio Grande	Drainage Basin: Rio Grande	Water Source: Rio Grande
Total Project Cost:	\$250,000	Funding Sources: Company, NRCS, and CWCB	
Type of Borrower:	Agricultural	Median Household Income:	NA
CWCB Loan:	\$188,000	Interest Rate: 3.75 %	Term: 30 years

Annual Volume of Water Delivered by the Project: 22,000 af

The San Luis Valley Canal diverts water from the Rio Grande River approximately 3 miles east of Monte Vista. A total of 11,000 acres are served by the canal, all for irrigation of agricultural land in Alamosa County. To prevent flood waters from flowing down the canal, two concrete check structures have been located on the canal within 1.5 miles downstream of the diversion. These check structures are about 80 years old and in poor condition. If they fail during a flood, much of the canal could be destroyed, and project lands will be flooded. The company plans to reconstruct the upstream check structure in the Fall of 1997. A draft feasibility study and preliminary engineering design work has been completed by the NRCS Alamosa Office. The total cost of the project is estimated at \$250,000. Funding will consist of a \$188,000 loan from the CWCB (75%), and \$62,000 (25%) from a special assessment of stockholders.



Location Map

Water Project Construction Loan Program - Project Data

Borrower: City of Fort Collins and Larimer County

Project Name: Dry Creek Flood Control Project **Project Type:** Floodplain

County: Larimer **Drainage Basin:** South Platte **Water Source:** Dry Creek

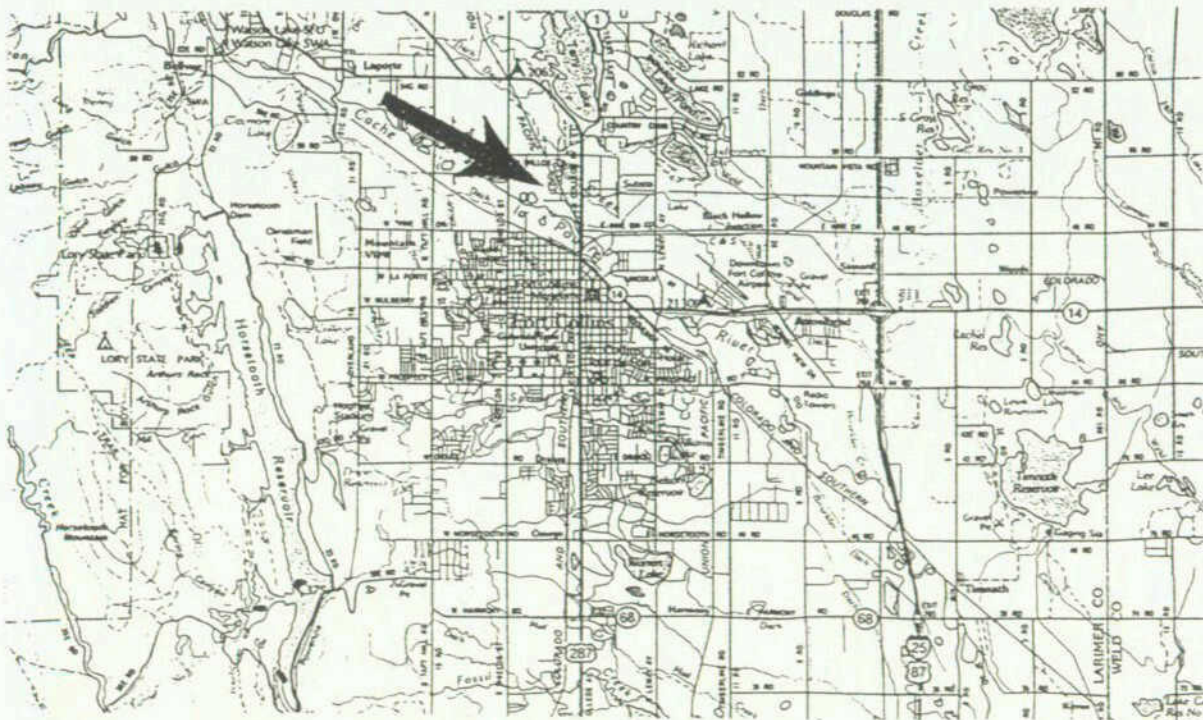
Total Project Cost: \$2,500,000 **Funding Sources:** City, County, and CWCB

Type of Borrower: Municipal **Median Household Income:** Between 80% and 110%

CWCB Loan: \$420,000 **Interest Rate:** 4.25% **Term:** 30 years

Annual Volume of Water Delivered by the Project: NA

The City of Fort Collins and Larimer County are proposing the Dry Creek Flood Control project to lessen the frequency and severity of flooding, decrease predicted flood damages, promote economic development, create public open space and parks for recreation, and enhance and restore natural areas. The project consists of the construction of a grass-lined earthen diversion channel from a point near the intersection of Dry Creek and Willow Lane directly south to the Cache La Poudre River. The existing 100-year flood damages and losses are estimated at \$8,712,000. The project will provide protection to approximately 828 residential and commercial structures in the 100-year floodplain. The City of Ft. Collins and Larimer County has a 1996 authorization for \$500,000 for the project. The current request for an additional \$420,000 in 1997 is to complete the loan financing package requested from the state.



Location Map

Water Project Construction Loan Program - Project Data

Borrower: Eagle Park Reservoir Company

Project Name: Eagle Park Reservoir Rehabilitation

County: Eagle **Drainage Basin:** Colorado **Water Source:** Eagle River

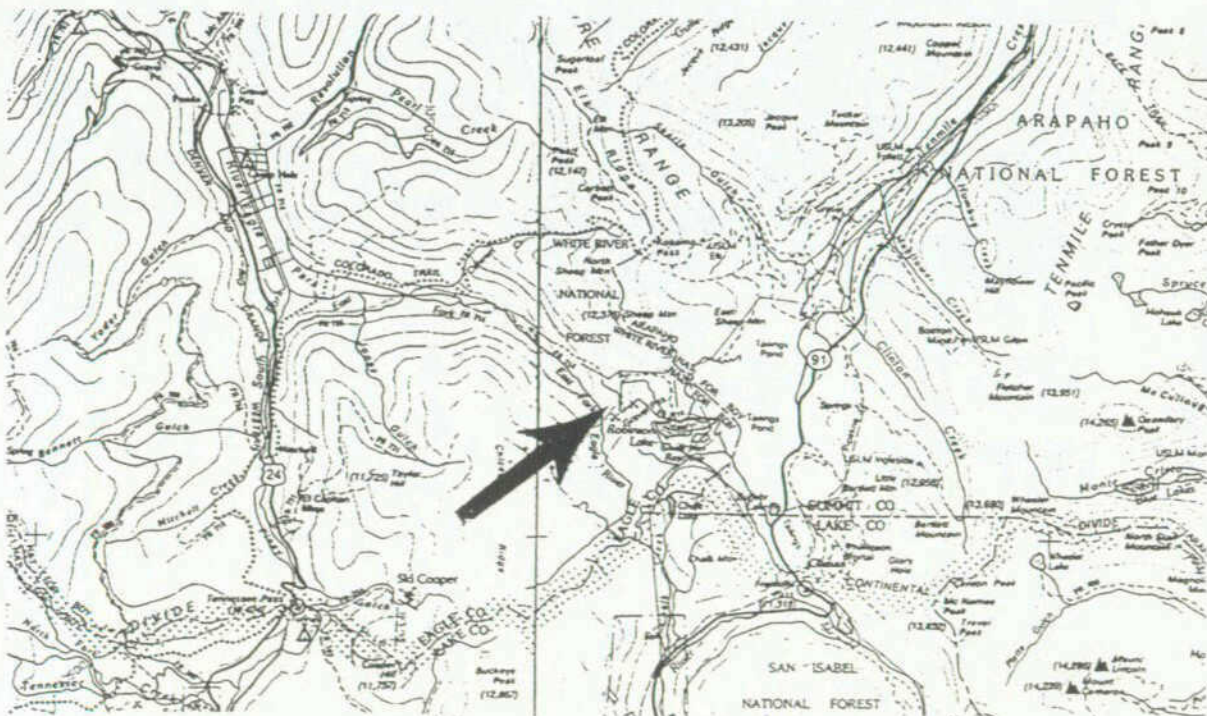
Total Project Cost: \$11,500,000 **Funding Sources:** Company and CWCB

Type of Borrower: Municipal **Median Household Income:** Between 80% and 110%

CWCB Loan: \$4,875,000 **Interest Rate:** 5.43 % **Term:** 30 years

Annual Volume of Water Delivered by the Project: 2,000 acre-feet

The Eagle Park Reservoir Company (composed of Eagle County, the Eagle River Water and Sanitation District, the Upper Eagle Regional Water Authority, and Vail Associates) is proposing to purchase a rehabilitated mine tailings reservoir at the Climax Mine near the summit of Fremont Pass at the headwaters of the Eagle River. The reclaimed reservoir will have a capacity of about 3,000 acre-feet. The total cost for acquisition of the reservoir site from Cyprus Climax Metals company is \$11,500,000. The applicant has a 1996 conditional authorization for \$3,125,000 for this project and is requesting an additional \$4,875,000 authorization in 1997 for a total of \$8,000,000 in Construction Fund financing.



Location Map

Water Project Construction Loan Program - Project Data

Borrower: The Wood Lake Mutual Water and Irrigation Company

Project Name: Wood Lake Dam Rehabilitation **Project Type:** Dam Rehab

County: Weld **Drainage Basin:** Cache La Poudre **Water Source:** Eaton Canal

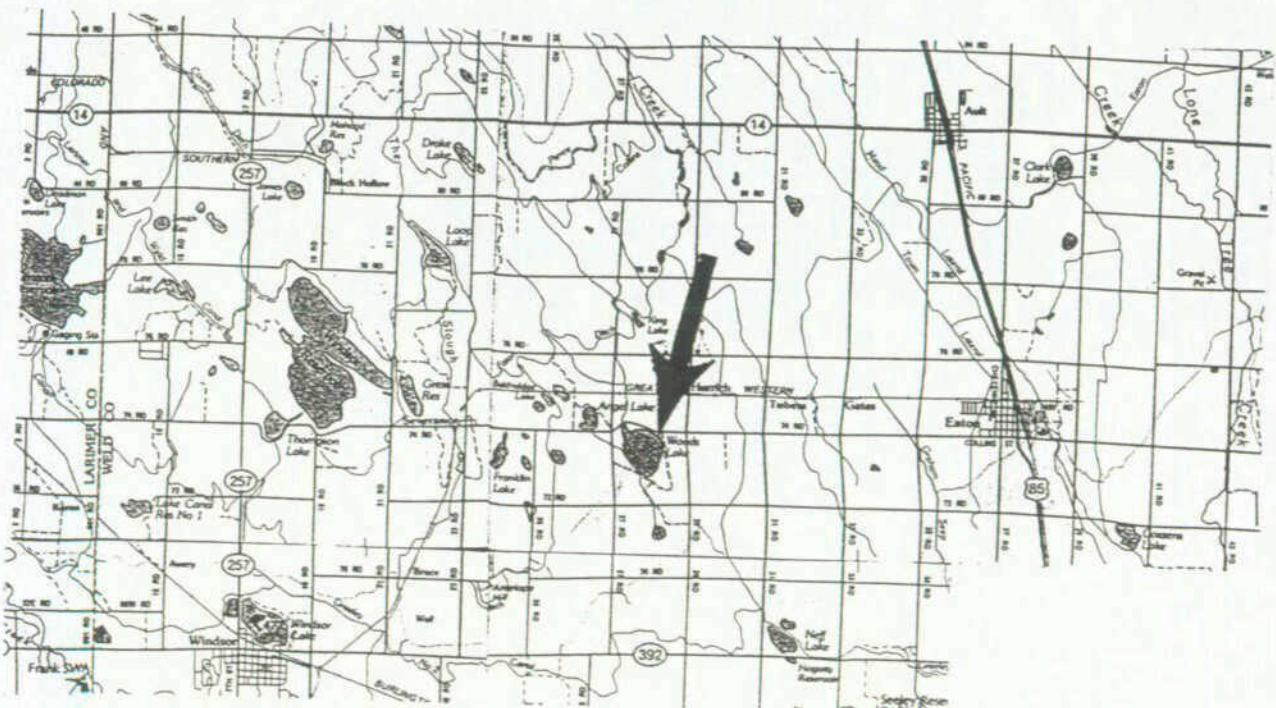
Total Project Cost: \$250,000 **Funding Sources:** Company and CWCB

Type of Borrower: Agricultural **Median Household Income:** NA

CWCB Loan: \$188,000 **Interest Rate:** 3.75% **Term:** 30 years

Annual Volume of Water Delivered by the Project: 3,100 acre-feet

Wood Lake is located 5 miles west of Eaton. The 40 foot wide emergency spillway is inadequate. The embankment, constructed of low density silt, has a high phreatic surface. The Wood Lake Mutual Water and Irrigation Company plans to widen the spillway to 150 feet and rehabilitate the dam. They are requesting a loan in the amount of \$188,000. This is 75% of the estimated total project cost of \$250,000.



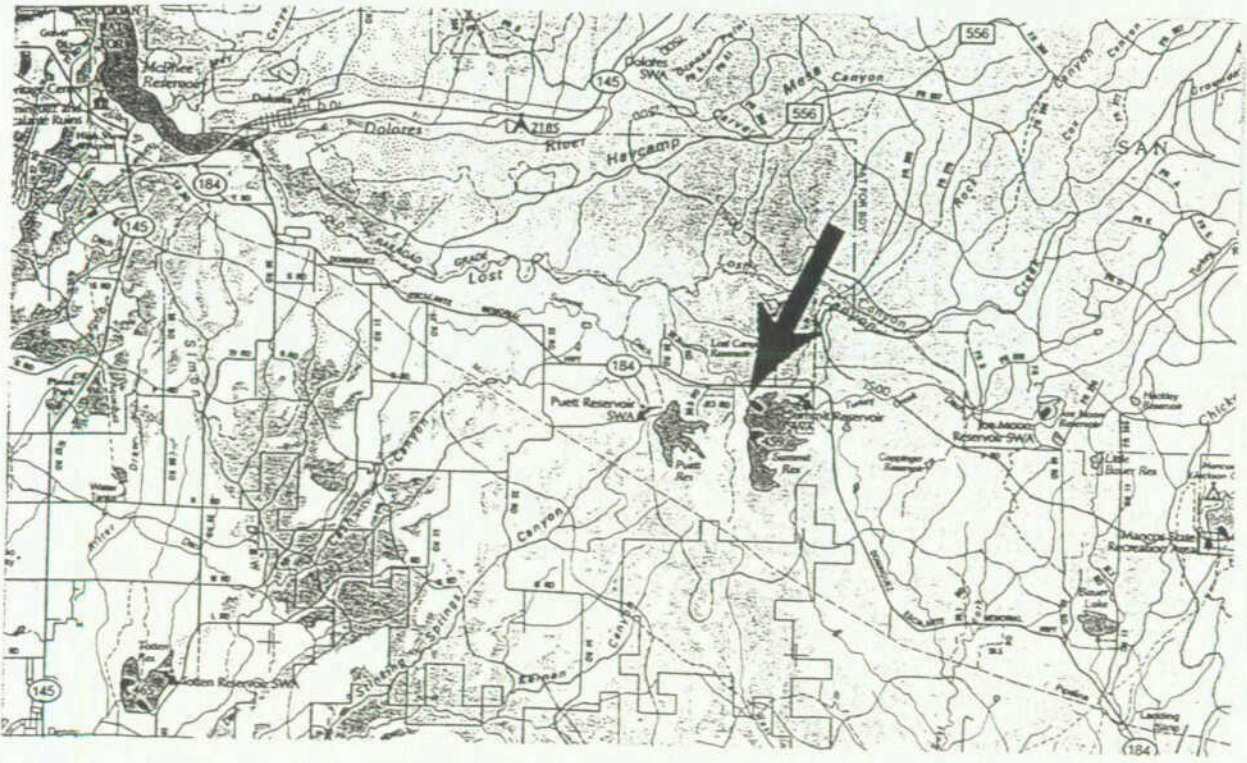
Location Map

Water Project Construction Loan Program - Project Data

Borrower:	Summit Reservoir and Irrigation Company				
Project Name:	System Rehabilitation	Project Type:	Dam Rehab		
County:	Montezuma	Drainage Basin:	Dolores	Water Source:	Lost Canyon
Total Project Cost:	\$800,000	Funding Sources:	Company and CWCB		
Type of Borrower:	Agricultural	Median Household Income:	NA		
CWCB Loan:	\$600,000	Interest Rate:	3.75%	Term:	30 years

Annual Volume of Water Delivered by the Project: 5,954 acre-feet

The Summit Reservoir system is located about 35 miles west of Durango. The Summit Reservoir and Irrigation Company plans to rehabilitate the dam on Summit Reservoir and the various collection and distribution canals. The outlet on the reservoir will be rehabilitated, as well as portions of the dam. The "Rail Road Siphon," as well as delivery and distribution ditches will also be rehabilitated. They are requesting a loan in the amount of \$600,000, which is 75% of the estimated total project cost of \$800,000.



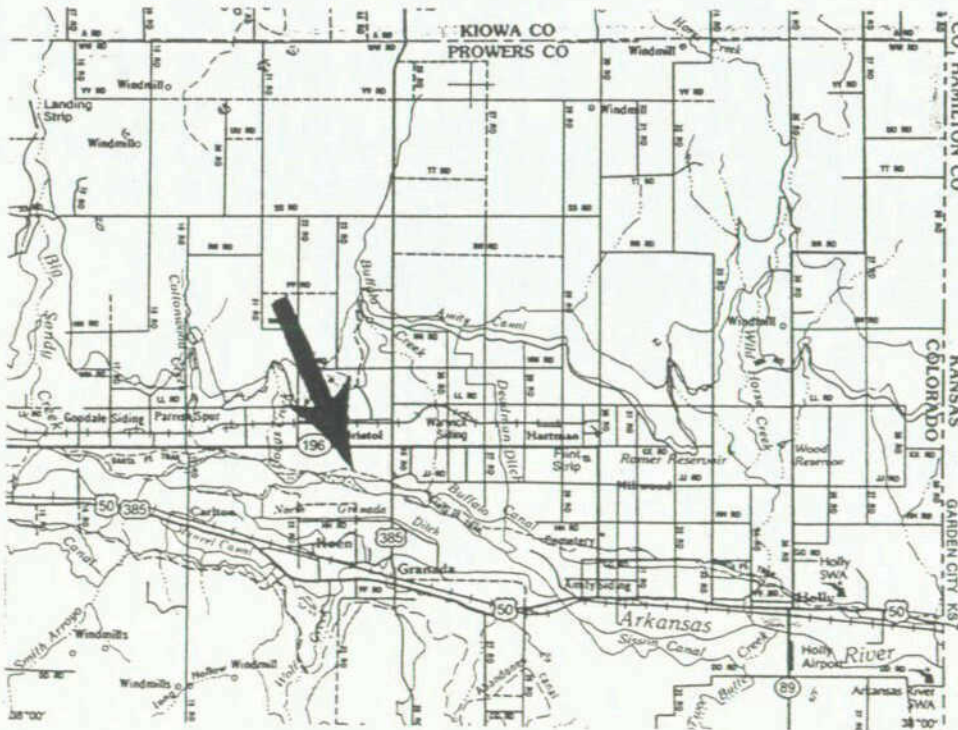
Location Map

Water Project Construction Loan Program - Project Data

Borrower:	Buffalo Mutual Irrigation Company		
Project Name:	Diversion Dam Rehabilitation	Project Type: Infrastructure	
County:	Prowers	Drainage Basin: Arkansas	Water Source: Arkansas River
Total Project Cost:	\$326,500	Funding Sources: Company and CWCB	
Type of Borrower:	Agricultural	Median Household Income:	NA
CWCB Loan:	\$250,000	Interest Rate: 3.75%	Term: 30 years

Annual Volume of Water Delivered by the Project: 18,092 af

The Buffalo Mutual Irrigation Company owns and operates the Buffalo Canal system which diverts water from the Arkansas River at a headgate about three miles northwest of the Town of Granada. The existing diversion dam and headgate for the Buffalo Canal have been in place for more than fifty years and are in very poor condition. The Company will replace the diversion dam and headgate with new structures at an estimated cost of \$326,500. The Company is requesting a 30-year Construction Fund loan of \$250,000.



Location Map

Water Project Construction Loan Program - Project Data

Borrower: The Excelsior Irrigating Company

Project Name: Excelsior Ditch Rehabilitation **Project Type:** Infrastructure

County: Pueblo **Drainage Basin:** Arkansas **Water Source:** Arkansas River

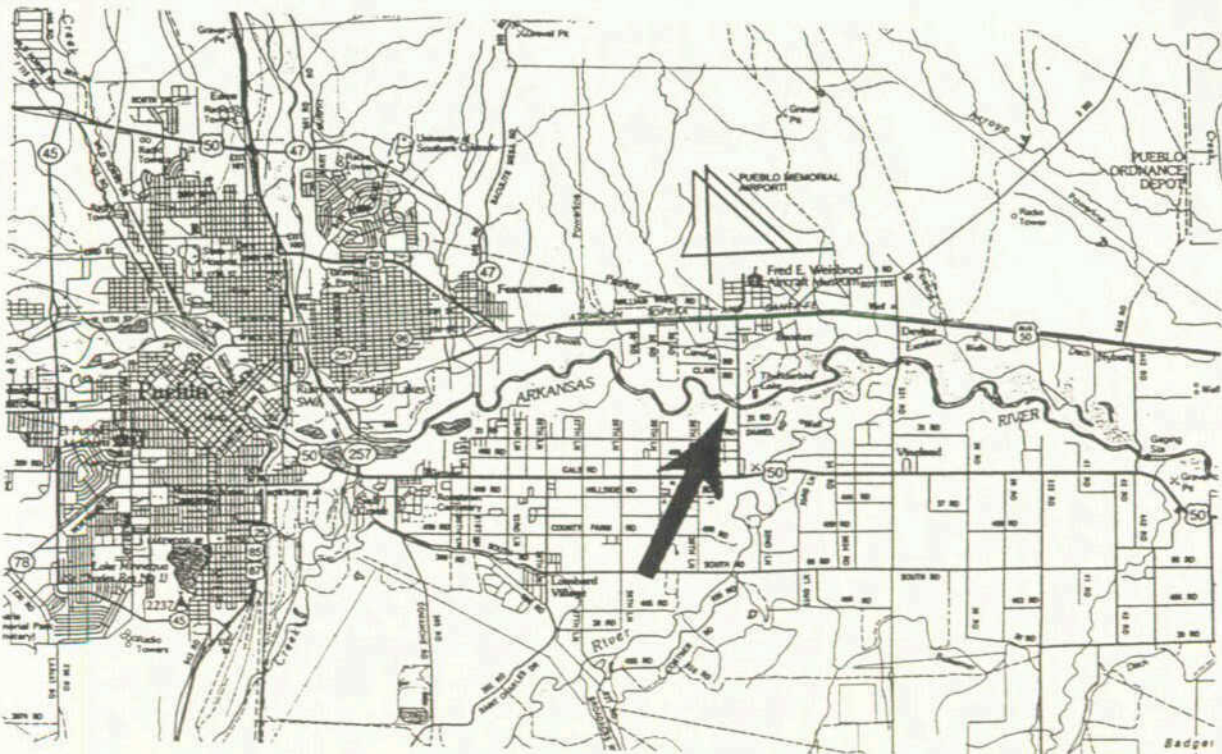
Total Project Cost: \$335,000 **Funding Sources:** Company and CWCB

Type of Borrower: Agricultural **Median Household Income:** NA

CWCB Loan: \$230,000 **Interest Rate:** 3.75% **Term:** 30 years

Annual Volume of Water Delivered by the Project: 4,248 acre-feet

The headgate of the Excelsior Ditch is located on the north bank of the Arkansas River 1 mile south of Baxter, on the east edge of Pueblo. The ditch, built in the 1860's, has a capacity of 60 cfs and can service up to 2,200 acres of farm land. The diversion structure has severely deteriorated and silt has accumulated in the ditch throughout its full 6.5 mile length. The Excelsior Irrigating Company plans to rehabilitate the Excelsior Ditch by building a new diversion dam on the Arkansas River, cleaning the ditch, installing a gaging station, and constructing 6 recharge ponds. The project has been designed in cooperation with the Natural Resources Conservation Service. The company is requesting a loan of \$230,000 which is 68% of the total estimated project cost.



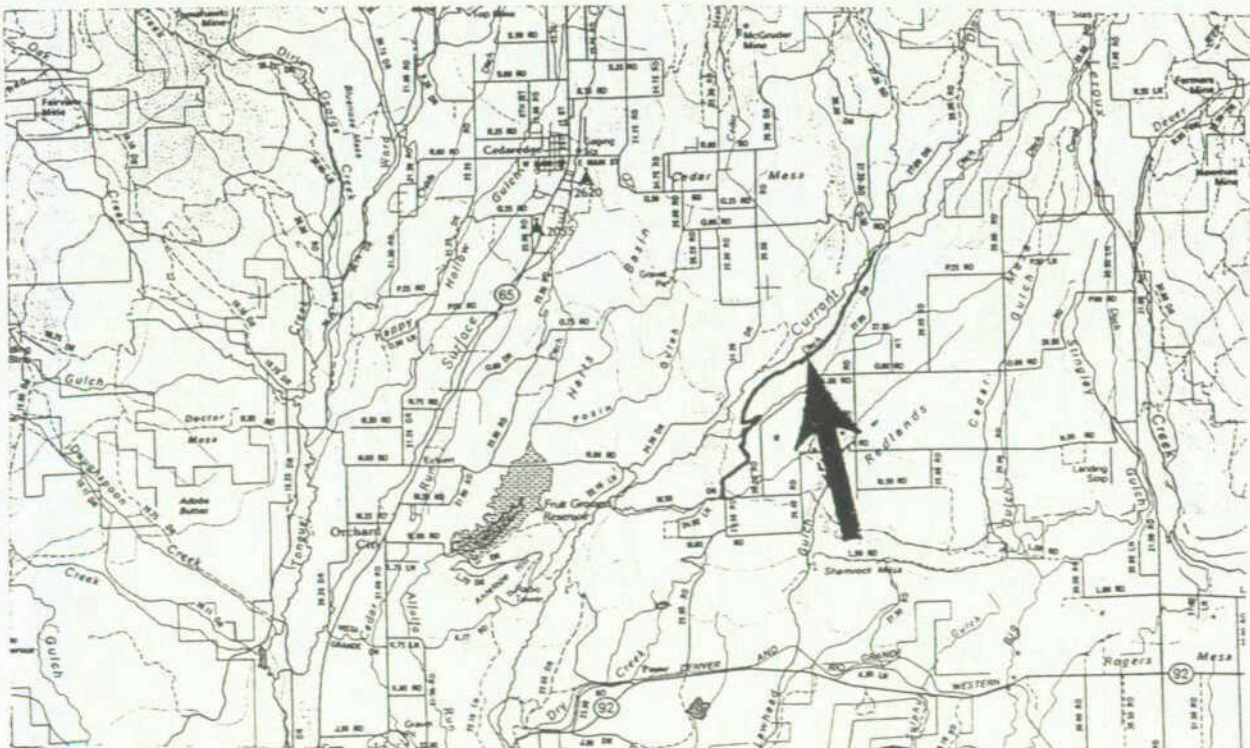
Location Map

Water Project Construction Loan Program - Project Data

Borrower:	The Durkee Ditch Company				
Project Name:	Durkee Ditch Rehabilitation	Project Type:	Infrastructure		
County:	Delta	Drainage Basin:	Gunnison	Water Source:	Currant Creek
Total Project Cost:	\$343,000	Funding Sources:	Company, CFSA, and CWCB		
Type of Borrower:	Agricultural	Median Household Income:	NA		
CWCB Loan:	\$120,000	Interest Rate:	3.75%	Term:	30 years

Annual Volume of Water Delivered by the Project: 2,000 acre-feet

The Durkee ditch is located about 15 miles northeast of Delta. The upper end of the ditch leaks significantly, and passes through unstable slopes. Landslides have closed the ditch in the past, and the company has already installed 1500 feet of 36" pipe through the worst areas. The Durkee Ditch Company plans to rehabilitate the upper 13,000 feet of their ditch. They plan to pipe the ditch, and rehabilitate several concrete structures. They are requesting a loan in the amount up to \$120,000 (approximately 35% of the estimated total project cost of \$343,000).



Location Map

Water Project Construction Loan Program - Project Data

Borrower: The Agricultural Ditch and Reservoir Company

Project Name: Welch Ditch Pump and Pipeline **Project Type:** Infrastructure

County: Jefferson **Drainage Basin:** South Platte **Water Source:** Clear Creek

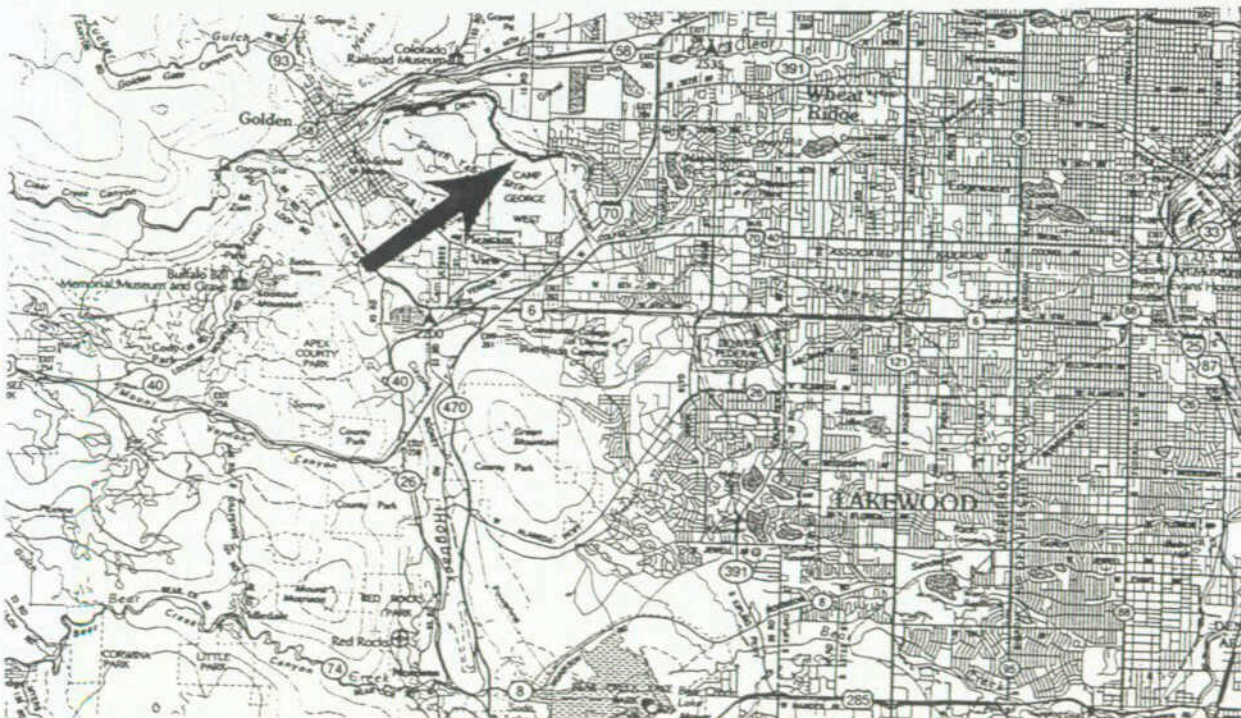
Total Project Cost: \$600,000 **Funding Sources:** Company and CWCB

Type of Borrower: Municipal Use **Median Household Income:** Over 110%

CWCB Loan: \$300,000 **Interest Rate:** 5.25% **Term:** 30 years

Annual Volume of Water Delivered by the Project: 6,300 acre-feet

The Welch Ditch starts on Clear Creek above Golden, and terminates at the Midway Reservoirs in Lakewood. It was constructed in the early 1900's, and has had a history of major repairs associated with a slide area it traverses along the north slope of South Table Mountain. An inspection in the fall of 1996 indicated that it is a matter of time before another slide occurs, requiring expensive repairs. Almost all of the water users are located downstream of this problem area and will lose water delivery when another slide occurs. The Welch Ditch System is a carrier ditch owned by the Agricultural Ditch and Reservoir Company (ADRC). ADRC plans to rehabilitate portions of the Welch Ditch system. They request a loan of \$300,000 (50% of the estimated total project cost of \$600,000).



Location Map

Water Project Construction Loan Program - Project Data

Borrower: The Hawkeye Lateral Ditch Company

Project Name: Hawkeye Lateral Ditch Rehabilitation **Project Type:** Infrastructure

County: Mesa **Drainage Basin:** Colorado **Water Source:** Colorado River

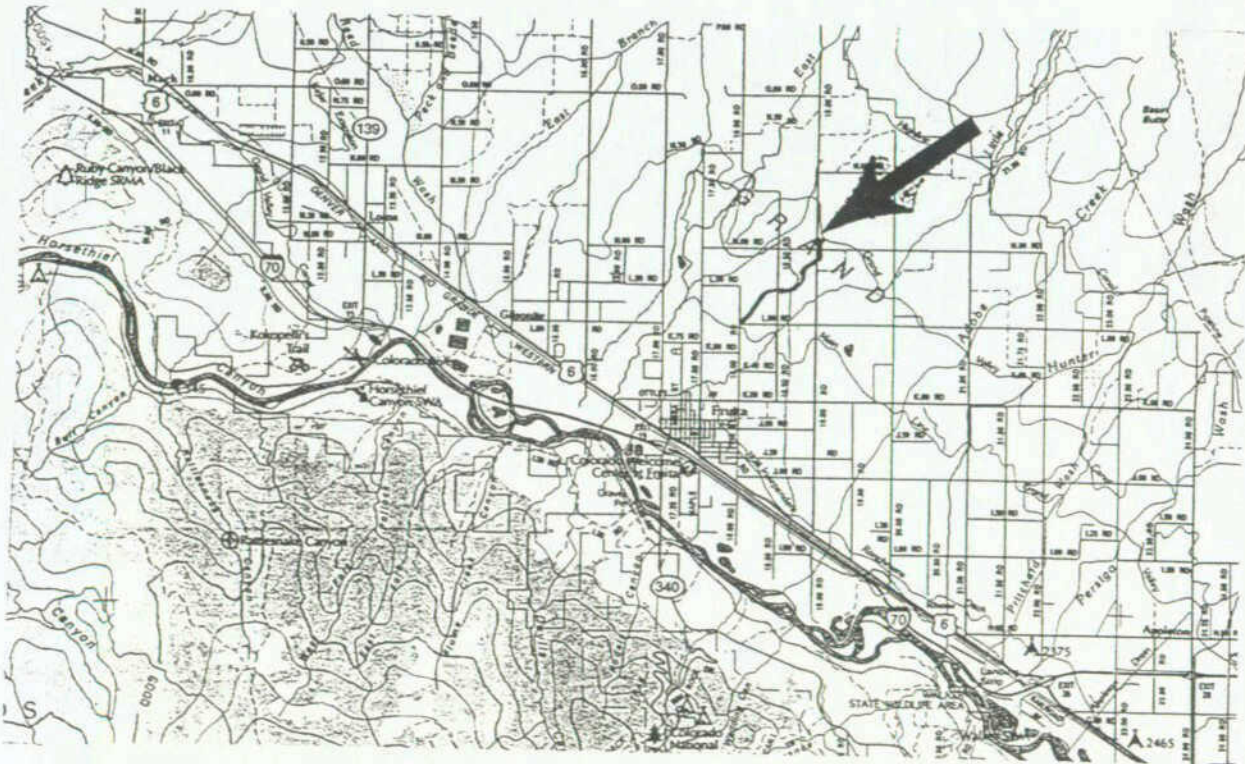
Total Project Cost: \$393,000 **Funding Sources:** Company, CFSa, and CWCB

Type of Borrower: Agricultural **Median Household Income:** NA

CWCB Loan: \$143,000 **Interest Rate:** 3.75% **Term:** 30 years

Annual Volume of Water Delivered by the Project: 1,260 acre-feet

The Hawkeye Lateral Ditch is located about 2.5 miles northeast of Fruita. The existing concrete ditch leaks significantly (estimated at 30% loss rate), and the concrete drop and diversion structures are deteriorated. The Hawkeye Lateral Ditch Company plans to pipe 11,750 feet of their ditch. They are requesting a loan of \$143,000 (approximately 36% of the estimated total project cost of \$393,000). The remainder will be funded under the federal salinity control program.



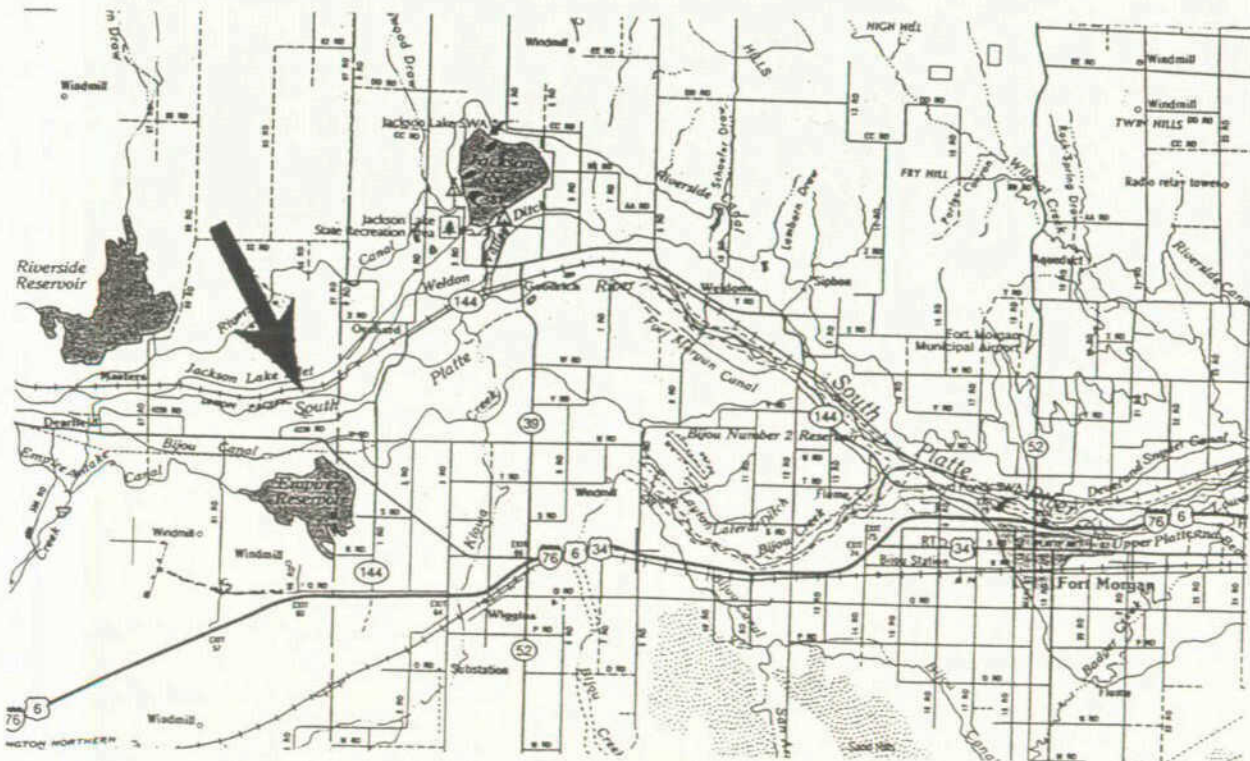
Location Map

Water Project Construction Loan Program - Project Data

Borrower:	Weldon Valley Ditch Company		
Project Name:	Diversion Dam Rehabilitation	Project Type:	Infrastructure
County:	Weld	Drainage Basin:	South Platte
		Water Source:	South Platte
Total Project Cost:	\$250,000	Funding Sources:	Company and CWCB
Type of Borrower:	Agricultural	Median Household Income:	NA
CWCB Loan:	\$188,000	Interest Rate:	3.5 %
		Term:	20 years

Annual Volume of Water Delivered by the Project: 330 acre-feet

The Weldon Valley Ditch Company's river diversion was built in 1910, and washed out in 1972. The diversion was replaced with a "temporary" structure constructed of sheet piling. That structure is near the end of its useful life and needs to be replaced. The Weldon Valley Ditch Company plans to rehabilitate their river diversion structure. They are requesting a loan in the amount of \$188,000 (75% of the estimated total project cost of \$250,000).



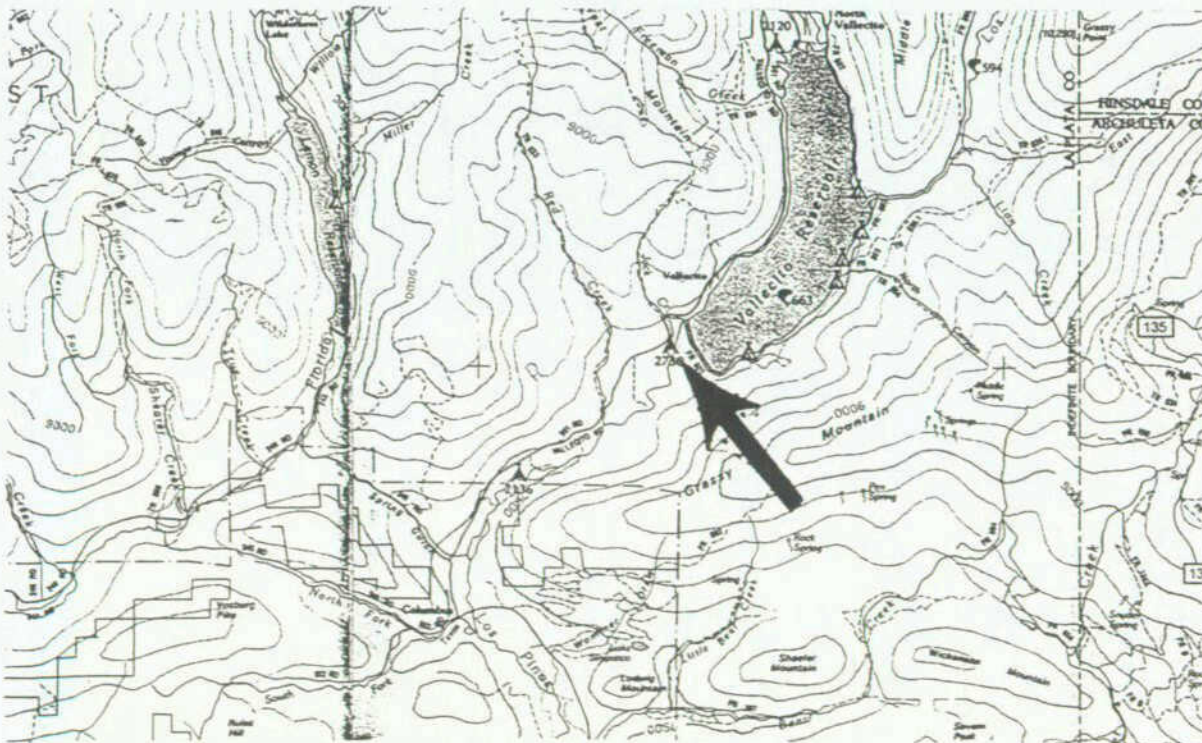
Location Map

Water Project Construction Loan Program - Project Data

Borrower:	Pine River Irrigation District				
Project Name:	Raw Water Supply System	Project Type:	Infrastructure		
County:	La Plata	Drainage Basin:	San Juan	Water Source:	Vallecito Res.
Total Project Cost:	\$455,000	Funding Sources:	District and CWCB		
Type of Borrower:	Agricultural	Median Household Income:	NA		
CWCB Loan:	\$341,000	Interest Rate:	3.5 %	Term:	20 years

Annual Volume of Water Delivered by the Project: 2,000 acre-feet

People living in the service area of the Pine River Irrigation District, which serves eastern La Plata and southwestern Archuleta Counties, are short of potable water for rural domestic use. Many residents are forced to haul water at great expense. Groundwater is very limited and of poor quality. Methane gas has polluted numerous wells in the service area. The District plans to construct a rural domestic water system to meet this need. They are requesting a loan of \$341,000 for 75% of the \$455,000 estimated cost of the raw water portion of the project. The total project cost will exceed \$10 million.



Location Map

Water Project Construction Loan Program - Project Data

Borrower: River Oaks on the Roaring Fork Property Owners Association

Project Name: Raw Water Irrigation System **Project Type:** Infrastructure

County: Eagle **Drainage Basin:** Colorado **Water Source:** Roaring Fork

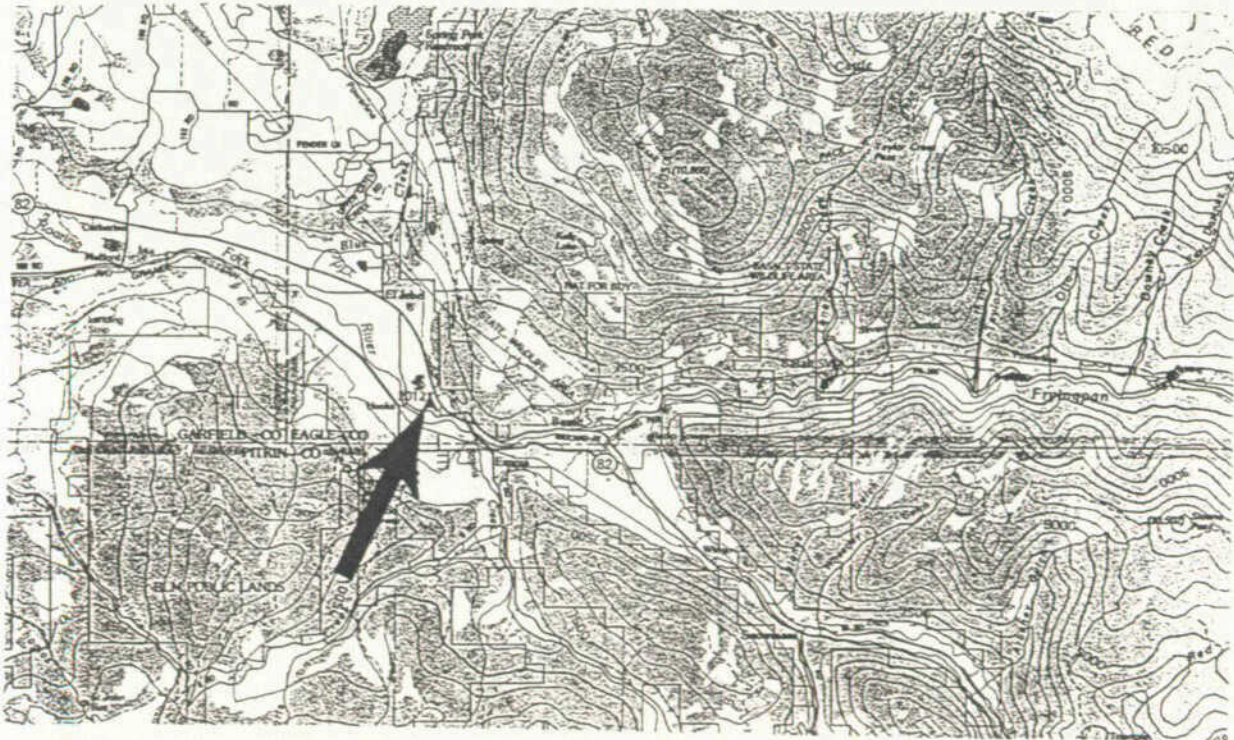
Total Project Cost: \$34,000 **Funding Sources:** Association and CWCB

Type of Borrower: Municipal **Median Household Income:** Over 110%

CWCB Loan: \$25,500 **Interest Rate:** 4.75 % **Term:** 10 years

Annual Volume of Water Delivered by the Project: 19 acre-feet

The River Oaks subdivision, located 2 miles west of Basalt, has 19 lots. Potable water is provided by Mid Valley Metropolitan District, and is in short supply due to growth in the Roaring Fork Valley. The property owners can no longer use treated water for landscape irrigation of individual lots. The River Oaks subdivision plans to construct a separate raw water irrigation system. The property owners association is requesting a loan in the amount of \$25,500 (75% of the estimated total project cost of \$34,000.)



Location Map

Water Project Construction Loan Program - Project Data

Borrower: Upper Yampa Water Conservancy District

Project Name: Stagecoach Reservoir Refinance **Project Type:** Refinance

County: Routt **Drainage Basin:** Yampa **Water Source:** Yampa River

Total Project Cost: \$3,107,973 **Funding Sources:** District and CWCB

Type of Borrower: Ag, M & I **Median Household Income:** Between 80% and 110%

CWCB Loan: \$2,000,000 **Interest Rate:** 4.5 % **Term:** 20 years

Annual Volume of Water Delivered by the Project: 30,000 acre-feet

The Upper Yampa District is requesting a Construction Fund loan of \$2.0 million to assist in paying off an existing Bureau of Reclamation loan on the Stagecoach Project which was constructed in 1989 with funding from the Bureau and the CWCB. The balance on the Bureau loan is about \$3.1 million. The District would like to retire the loan in order to reduce the level of federal involvement in the project. Stagecoach Dam and Reservoir (capacity of 33,000 acre-feet) are located about 16 miles south of Steamboat Springs on the Yampa River and provide agricultural, industrial, and municipal water supplies.



Location Map

Water Project Construction Loan Program - Project Data

Borrower: Powderhorn Metro District I

Project Name: Robbins Reservoir Rehabilitation **Project Type:** Dam Rehab

County: Mesa **Drainage Basin:** Colorado **Water Source:** Beaver Creek

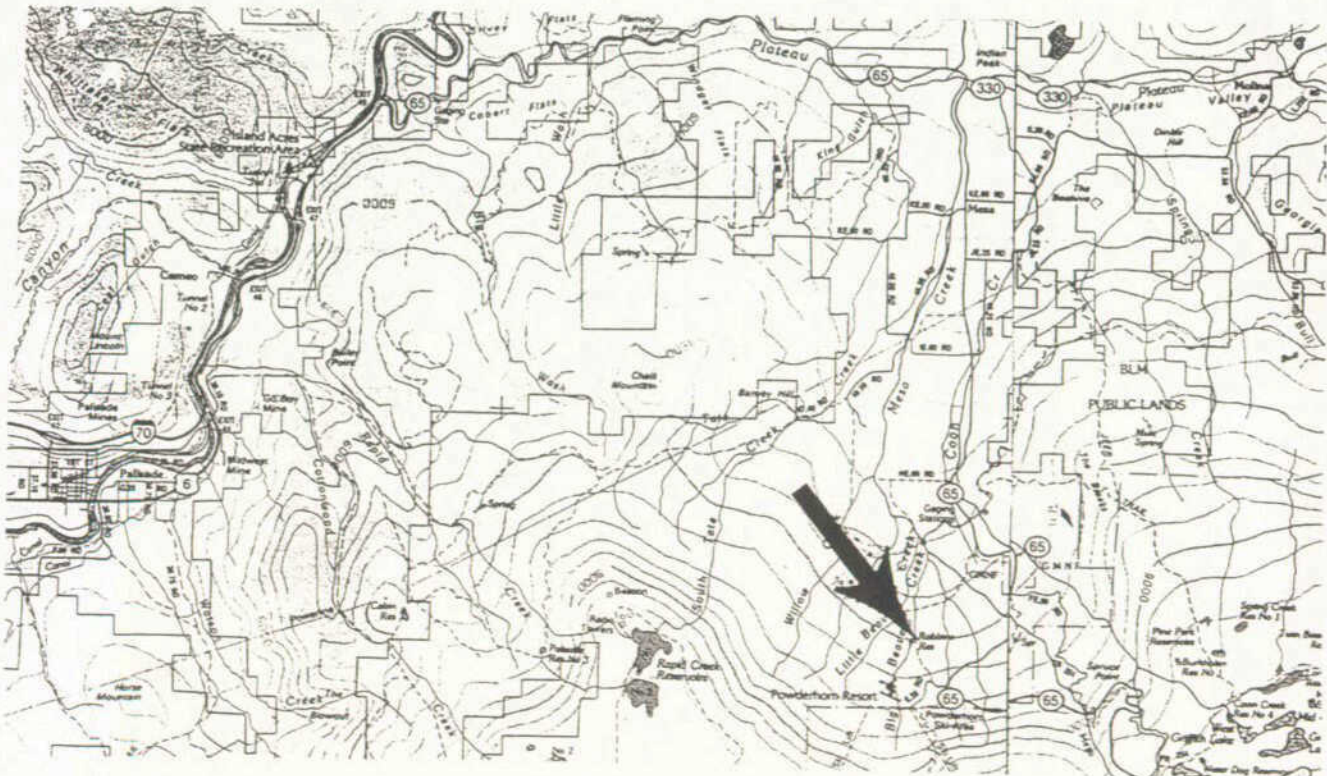
Total Project Cost: \$750,000 **Funding Sources:** District and CWCB

Type of Borrower: Municipal & Ag **Median Household Income:** Between 80% and 110%

CWCB Loan: \$525,000 **Interest Rate:** 4.5 % **Term:** 20 years

Annual Volume of Water Delivered by the Project: 75 acre-feet

Robbins Reservoir Dam is located 7 miles south of the Town of Mesa. The existing dam is breached in two places and needs total rehabilitation to be placed back in use. The Powderhorn Metropolitan District I plans to rehabilitate the dam and enlarge Robbins Reservoir to a capacity of 75 acre-feet. The water would be used for augmentation and irrigation. The estimated total project cost is \$750,000.



Location Map

Water Project Construction Loan Program - Project Data

Borrower: Pinon Mesa Ranches Community Association

Project Name: Raw Water Supply System **Project Type:** Infrastructure

County: La Plata **Drainage Basin:** Animas **Water Source:** Florida River

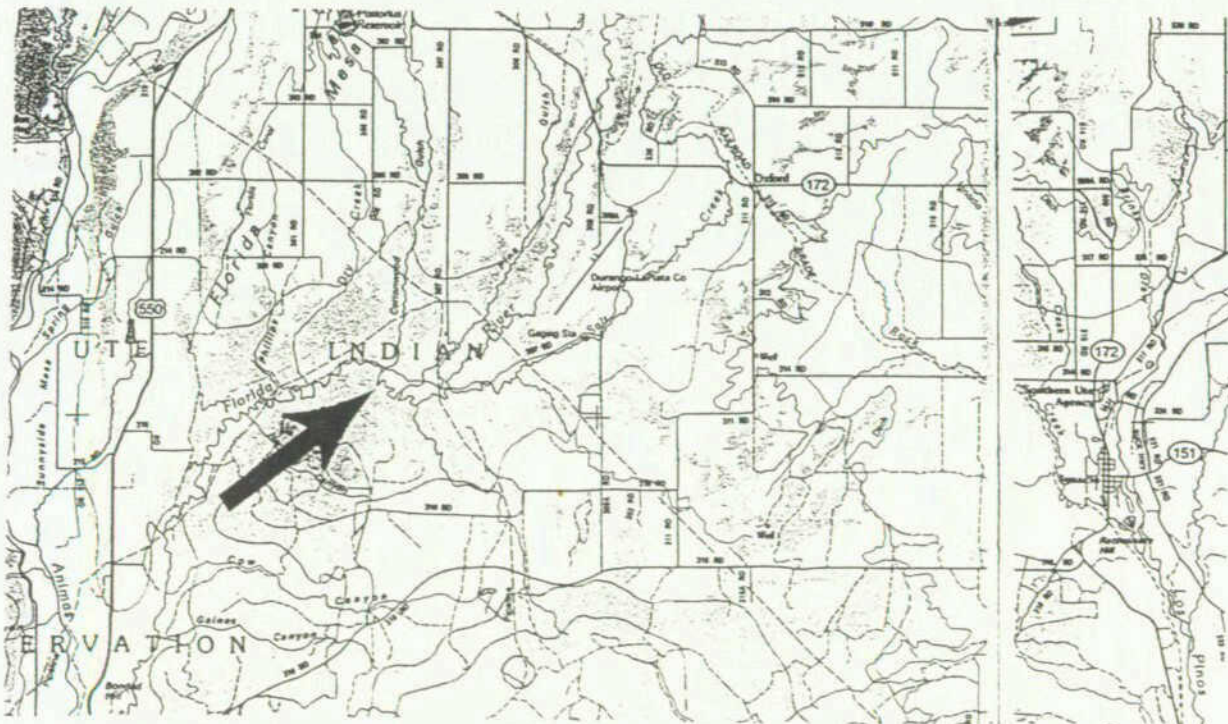
Total Project Cost: \$274,000 **Funding Sources:** Association and CWCB

Type of Borrower: Agricultural Use **Median Household Income:** Less than 80%

CWCB Loan: \$206,000 **Interest Rate:** 3.75 % **Term:** 30 years

Annual Volume of Water Delivered by the Project: 100 acre-feet

Potable water on Pinon Mesa, located about 12 miles west of the town of Ignacio, is in short supply due to the low yield and poor quality of area wells. Some wells produce as little as 40 gallons per day (less than 2 gallons per hour). Many residents are forced to haul water from Ignacio at a cost of about \$100 per month. The Pinon Mesa Ranches Community Association (PMRCA) plans to construct a rural domestic water system. PMRCA is requesting a loan in the amount of \$206,000 for 75% of the estimated cost of \$274,000 for the raw water portion of the project.



Location Map