

COLORADO WATER CONSERVATION BOARD
CONSTRUCTION FUND

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



Colorado Water Conservation Board
Department of Natural Resources

December 1, 1997

CONTENTS

Preface	iii
1.0 CWCB Overview	1
1.1 Mission	1
1.2 Board Composition	1
1.3 Statutory Responsibilities	3
1.4 Customers	3
1.5 Business Services	4
1.6 Annual Report	4
2.0 Construction Fund	5
2.1 Fund Equity	5
2.2 Cash Sources	6
2.3 Projected Cash for New Projects in 1998	7
2.4 Fish and Wildlife Resources Account	8
2.5 Emergency Infrastructure Repair Loan Account	9
2.6 Small Project Loan Account	10
2.7 Arkansas River Augmentation Loan Account	11
2.8 Salinity Control Program Loan Account	11
2.9 Horse Creek Basin Loan Account	11
2.10 Litigation Account	12
2.11 Publications Account	12
2.12 Performance Audit Recommendations	13
3.0 Water Project Construction Loan Program	15
3.1 Eligible Projects	15
3.2 Construction Fund Criteria	16
3.3 Interest Rate Policy	16
3.4 Loan Deposits	18
3.5 Loan Disbursements	19
3.6 Completed Construction Project Loans	20
3.7 New Loan Projects Recommended for Authorization	21
3.8 Recommended Changes to Previous Loan Authorizations	23
3.9 Loan Projects Recommended for De-authorization	24

4.0	Non-Reimbursable Grants and Other Recommendations	25
4.1	Rio Grande Decision Support System Data Collection and Design	25
4.2	Satellite Monitoring System Maintenance Continuation	26
4.3	Arkansas River Well Measurement Program Continuation	26
4.4	Chatfield Reservoir Reallocation Feasibility Study Increase	26
4.5	South Platte River Multi-Objective Management Plan Continuation	27
4.6	Lower Elk River Floodplain Management Plan	27
4.7	Geo-Hydrologic Investigation of the Denver Basin Aquifers	27
4.8	Loans to the Colorado River and San Juan River Recovery Programs	27
4.9	Recommended Change in Session Laws	28
4.10	Recommended Change in Statutes	28

Appendix A - Completed Project Loans

----- --Appendix B--Data for Projects Completed in FY96-97

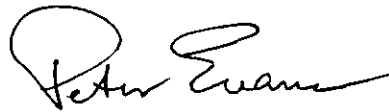
Appendix C - Data for Projects Recommended for New Authorizations in FY97-98

Appendix D - List of De-Authorized Loans

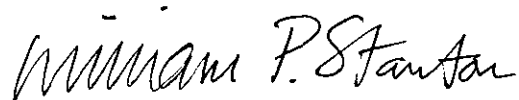
PREFACE

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. FY 97 was a record year for both the number of project loans completed and the value of loans for the completed projects.

This year, the Colorado Water Conservation Board will seek legislative authorization to provide spending authority totaling \$21.38 million. The Board recommends authority to make low interest loans totaling \$18.81 million to fund 17 water development projects statewide and \$2.57 million in grants for 7 studies and projects. The recommended 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. The Board also recommends decreases totaling \$6.82 million for 8 previously authorized loans and transfer of \$2.00 million for the creation of 1 loan account within the Construction Fund.



Peter H. Evans, Acting 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
SECOND REGULAR SESSION

December 1, 1997

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 1 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	Robert O. Burr
South Platte River	Elizabeth Ann Rieke
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

Four Ex-Officio Non-Voting Members

Director, CWCB

Daries C. Lile

State Engineer

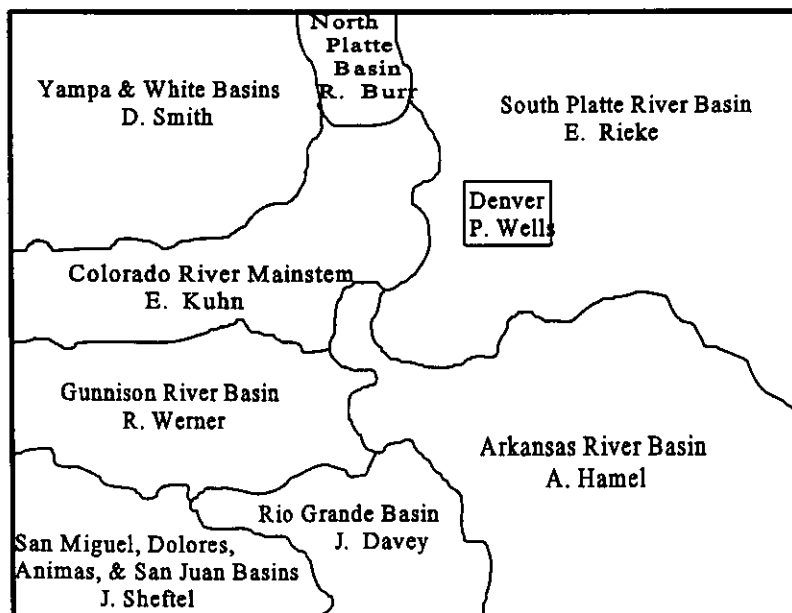
Hal D. Simpson

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 37-60-130, 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	Colorado Water Resources and Power Development Authority Act
CRS 37-95-107	Colorado Water Resources and Power Development 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

Although HB 96-1167 terminated the requirement for periodic reports to the General Assembly, the purpose of this annual report is to provide information concerning the use and status of the Construction Fund.

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 \$193.5 million on June 30, 1997, the end of FY 96-97.

This included approximately \$102.1 million in outstanding loan principal receivable from borrowers with completed projects, \$21.3 million in cash funds reserved for projects authorized by the Legislature which are under contract or under construction, \$67.3 million in cash funds reserved in special accounts or for future projects authorized by the Legislature, and \$2.8 million in unreserved cash. The total "cash balance" on June 30, 1997, was \$91.4 million.

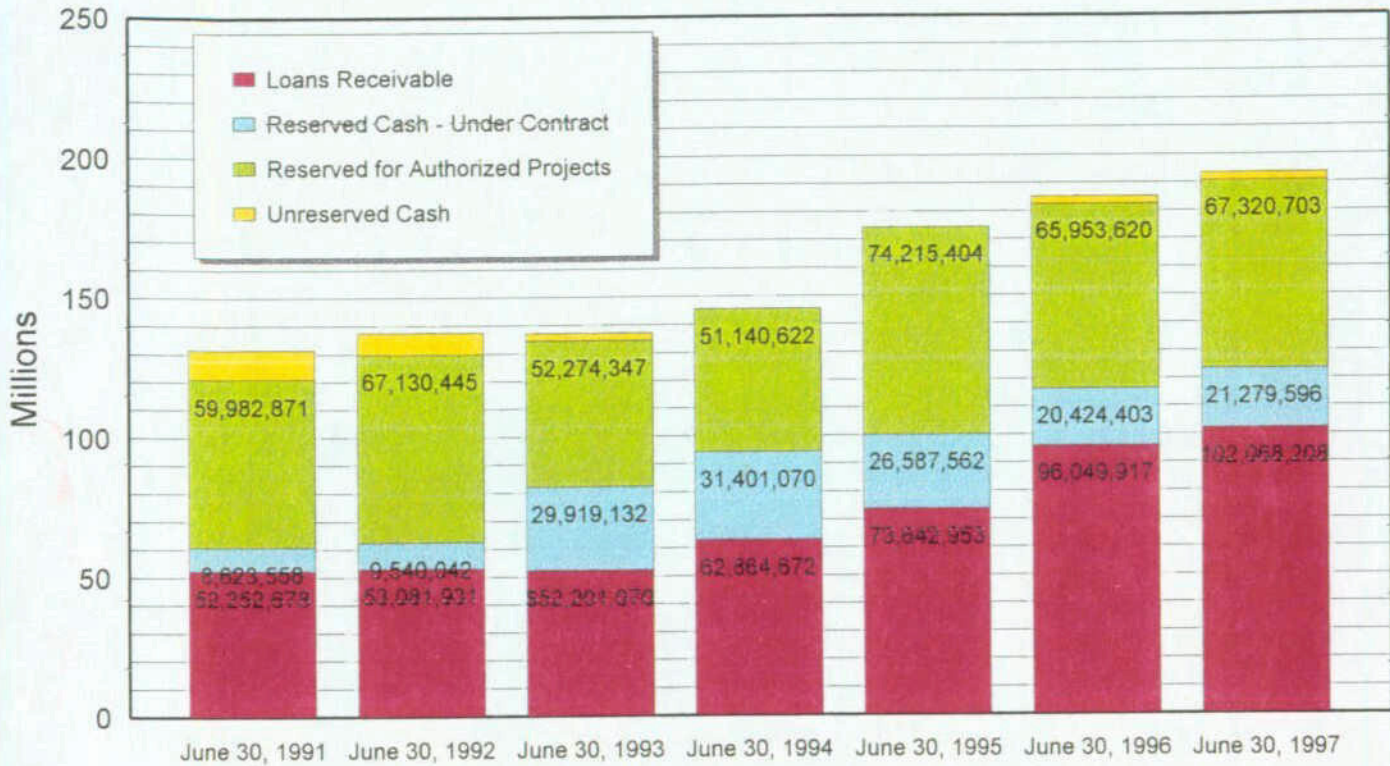
TABLE 1

**Colorado Water Conservation Board
Financial Statements FY 96-97**

Fund Equity	June 30, 1996	June 30, 1997
Outstanding Loans Receivable	\$ 96,049,917	\$102,068,208
Reserved for Authorized Projects - Under Contract	20,424,403	21,279,596
Reserved for Authorized Projects - Not Under Contract	65,953,620	67,320,703
Unreserved Cash or "Working Balance"	2,664,758	2,812,981
	-----	-----
Total Fund Equity on June 30	\$185,092,698	\$193,481,488

Cash Reserved in Special Accounts	June 30, 1996	June 30, 1997
Emergency Infrastructure Repair Loan Account	\$ 1,532,501	\$ 1,532,501
Small Projects Loan Account	1,875,000	712,836
Arkansas River Augmentation Plan Loan Account	750,000	2,204,911
Fish and Wildlife Resources Account	4,670,436	5,143,663
Litigation Account	4,000,000	4,000,000
Salinity Control Program Loan Account	0	1,000,000
Horse Creek Basin Loan Account	0	915,000
Publications Account	5,410	2,986
	-----	-----
Total	\$ 12,833,347	\$ 15,511,897

Colorado Water Conservation Board CONSTRUCTION FUND EQUITY



2.2 Cash Sources

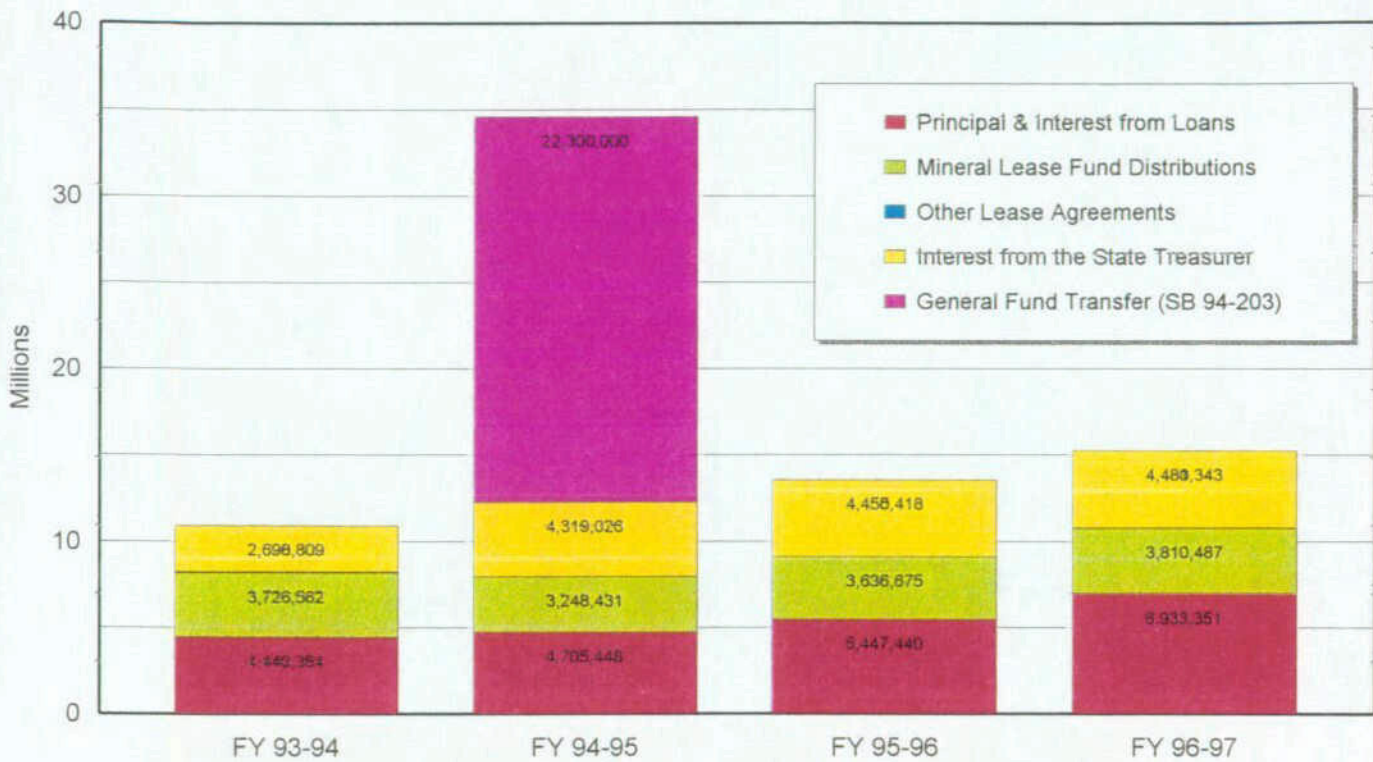
The Construction Fund is supported by the following cash sources:

- **Principal and Interest on Loans** - The return of principal and interest in FY 97 was reported by COFRS to be \$6.93 million. This included \$2.98 million in principal and \$3.95 million in interest.
- **Mineral Lease Fund Distributions** - Federal mineral lease revenues from rentals and royalties are distributed to the state in a complex "cascade" formula. The CWCB receives 10-percent of the distribution in the first cut. COFRS reported the CWCB's distribution as \$3.81 million in FY 97.
- **Lease Agreements and Other Sources** - COFRS reported \$48,147 from lease agreements and other sources in FY 97.
- **Interest from the State Treasurer** - Cash in the Construction Fund is invested by the State Treasurer and the earned interest accrues to the Construction Fund. In FY 97, the CWCB received \$4.48 million in earned interest.
- **Occasional General Fund Transfers** - There were no General Fund transfers to the Construction Fund in FY 97. In 1995, \$22.3 million was transferred to the Construction Fund pursuant to SB94-203 which settled a long standing obligation.

The sum of all cash sources in FY 97 was \$15.27 million.

CASH SOURCES

CWCB Construction Fund



2.3 Projected Cash for New Projects in 1998

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 97-98 is \$12.73 million. This includes \$6.72 million in returned principal plus interest, \$3.28 million from Mineral Lease Fund distributions, and \$2.73 million from interest on the cash balance invested by the Colorado Treasurer.

The Board is recommending 8 projects for deauthorization in FY 97-98 totaling \$6.81 million. Unreserved cash at the beginning of the year was \$2.81 million. Administrative expenses from the fund are estimated at \$1.17 million. The balance in the Severance Tax Trust Fund Perpetual Base Account was \$5.90 million. Therefore, the unreserved cash available for new projects in 1998 is estimated to be approximately \$27.07 million.

2.4 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 \$5,143,663 on June 30, 1997.

2.5 Emergency Infrastructure Repair Loan 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 only 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 emergency situations.

The Board approved 3 emergency loans in FY 94, 2 emergency loans in FY 95, no emergency loans in FY 96, 2 emergency loans in FY 97, and 1 thus far in FY 97-98. A list of the 8 projects that have been authorized by the Board through the Emergency Infrastructure Repair Account is shown in the table below.

The balance in the Emergency Infrastructure Repair Account was \$1,532,501 on June 30, 1997. Section 12 of SB 97-008 effective May 21, 1997 directed the State Treasurer to transfer \$960,000 or so much as necessary from unreserved cash in the Construction Fund to restore the balance in the account to \$2,000,000.

Date Approved	Borrower - Emergency	County	Approved Amount	Contract Amount
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
Sep 1997	Julesburg Irrigation District - Diversion Structure Rehabilitation	Logan	590,000	590,000
		Totals	\$1,578,000	\$1,550,000

2.6 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.

The Board approved 5 Small Project Account loans in FY 96, 5 Small Projects Account loans in FY 97, and 1 Small Project Account loan in FY 98 totaling \$746,700. However, the total amount actually under contract was less, or \$675,000 as listed below. A balance of \$712,836 was reported by COFRS to be in the account on June 30, 1997.

Date Approved	Borrower/Emergency	County	Approved Amount	Contract Amount
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
Mar 1997	Cotton Creek Water Company - Airline Ditch Rehabilitation	Saguache	100,000	100,000
Mar 1997	Farmers Independent Ditch - Ditch Rehabilitation	Weld	55,000	55,000
May 1997	Chipperfield Lane Ditch - Rehab Headgate and Pipeline	Garfield	60,000	60,000
Jul 1997	Smith Irrigation Ditch - Diversion Dam Replacement	Routt	50,000	50,000
		Totals	\$746,700	\$ 675,000

2.7 Arkansas River Augmentation Loan Account

HB 95-1155 created the Arkansas River Augmentation Loan Account in the Construction Fund, and directed the State Treasurer to transfer \$1.5 million from unreserved cash in the Construction Fund into the account. A short term bridge loan was made to the Lower Arkansas Water Management Association (LAWMA) in FY95-96, but it was fully repaid to the account through the financing package out of the Construction Fund to LAWMA authorized in SB 96-124. Section 17 of SB97-008 increased the total amount the Board is authorized to expend from the account to \$3.5 million. The balance of the Arkansas River Augmentation Loan Account was reported in COFRS to be \$2.20 million on June 30, 1997.

<u>Contract Date</u>	<u>Borrower</u>	<u>Counties</u>	<u>Approved Amount</u>	<u>Contract Amount</u>
Oct 1995	Lower Arkansas Water Management Association - Bridge Loan	Prowers	\$ 750,000	\$ 750,000
May 1997	Lower Arkansas Water Management Association - Water Rights Purchase	Prowers	\$ 2,300,000	\$ 2,300,000
Sep 1997	Arkansas Groundwater Users Association - Water Rights Purchase	Fremont Pueblo	\$ 650,000	\$ 590,590

2.8 Salinity Control Program Loan Account

SB97-008 authorized the Board to expend a cumulative total of \$1,000,000 from the 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. No loans have been considered by the Board, and the balance in the account at the end of the fiscal year was \$1,000,000.

2.9 Horse Creek Basin Loan Account

SB97-008 authorized the creation of the Horse Creek Basin Account in the Construction Fund with an initial balance of \$915,000. The Board was authorized to make loans from the account to borrowers in the Horse Creek basin for the purpose of acquiring water rights. An initial loan of \$825,000 from the account was approved by the Board for the Horse Creek Water Users Association, but contract negotiations have not been completed. The balance of the account remained at \$915,000 at the end of the fiscal year.

2.10 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.

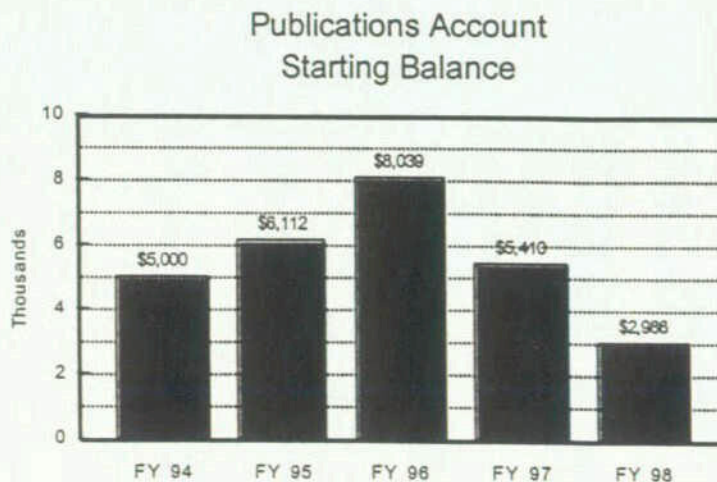
The Litigation Account is not to be confused with the Reserved Rights Litigation Fund created in the State Treasury by the General Assembly in 1982 through SB 82-087. Authority for that fund is found in the statutes at Section 37-60-121.1, CRS.

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, 1997.

2.11 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. The publications account has been used to publish documents related to the Instream Flow Program and a brochure for the Office of Water Conservation.

The starting balance of the Publications Account since its creation in 1994 is shown below. The balance in the account was \$2,986 on June 30, 1997.



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, 1997
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 and revised July 1995.
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 and is revised annually.
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 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 Sept. to Nov. to the sponsors for certain 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 1993 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. A standard contract information sheet was developed. Several procedures have been written down. Insurance certificates and UCC documents are tracked. A computer tracking system was designed in 1997.

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 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 loans which are to be recommended to the General Assembly in the following year.

From 1973 to 1992, the Board charged a fixed "service charge" of up to 5 percent to all borrowers in accordance with state statutes. These loans typically extended over 40 years. In 1992, the General Assembly (SB92-87) authorized the Board to charge interest at a rate between zero and 7-percent. In May 1993, the Board adopted guidelines for setting the interest rate for a "standard" 30-year loan at 2 percent (200 "basis points") 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 higher than for the other categories.

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.

In November 1997, the Board changed the rate setting procedure to be based on the average yield for the 30-year "A" Municipal Bond for the preceding 12 months. The Board adopted the following interest rates for standard loans recommended to the General Assembly in the respective years of the table.

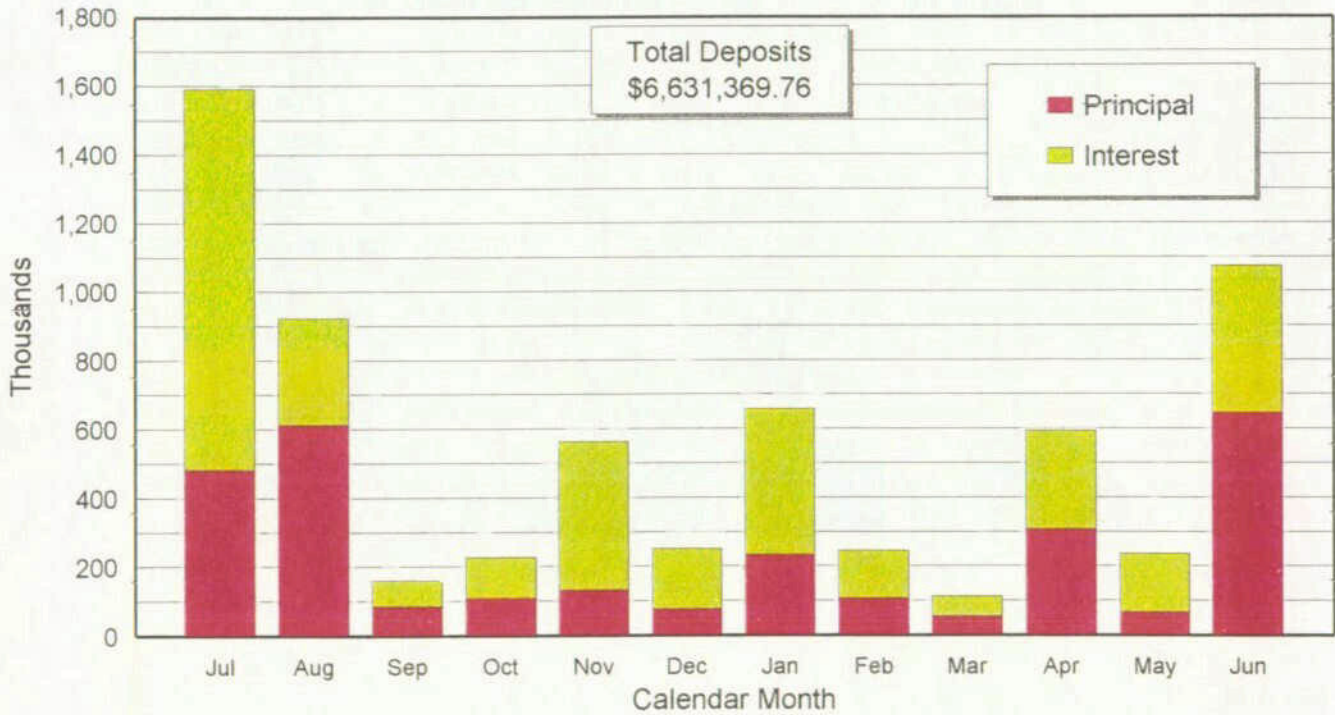
CWCB 30-Year Lending Rates

Type of Loan	1973 -1992	1993 -1995	1996	1997	1998
Agricultural	5.00%	4.00%	4.25%	3.75%	4.00%
Municipal - Low	5.00%	4.00%	4.25%	3.75%	4.00%
Municipal - Middle	5.00%	5.00%	5.25%	4.75%	5.00%
Municipal - High	5.00%	5.50%	5.75%	5.25%	5.75%
Commercial	5.00%	5.50%	5.75%	5.25%	6.25%

3.4 Loan Deposits

A total of \$6.63 million was received in loan deposits in the calendar months of FY 97. Of this amount, \$2.90 million was return of principal and \$3.73 million was interest. A difference with COFRS data occurs because of the half month shift in reporting periods. The following bar chart shows the monthly distribution of deposits.

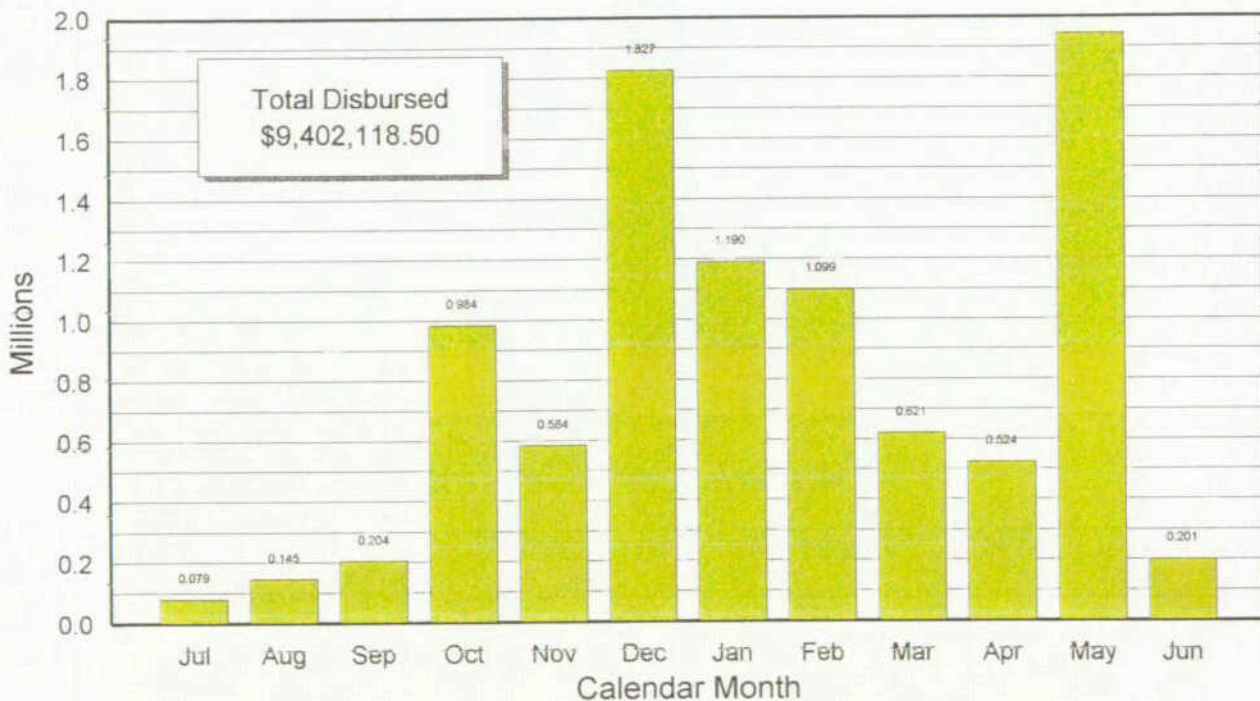
CWCB Construction Fund Deposits in FY 1996-97



3.5 Loan Disbursements

A total of \$9.40 million in disbursements from the Construction Fund were made for construction projects, non-reimbursable projects, and investigations in the calendar months of FY 97. The following bar chart shows disbursements on a monthly basis.

CWCB Construction Fund
Disbursements in FY 1996-97



3.6 Completed Construction Project Loans

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 FY97, the fund provided over \$118.7 million in loan financing for 159 water projects. A list of the completed projects financed through loans from the Construction Fund is shown in Appendix A.

A record nineteen CWCB Construction Fund loans representing over \$23.1 million, as shown in the following table, were completed in FY 97. Additional details about these completed project loans are located in Appendix B.

TABLE 3
Project Loans Completed in FY 97

Borrower - Project	Authority	County	Water Div.	Loan Amount	Date Completed
Morgan County Quality Water District - Hay Gulch Well Field Purchase	SB 96-153	Weld	1	3,000,000	07/09/96
City of Greeley - Peterson Lake Dam Rehabilitation	SB 87-015	Larimer	1	644,236	09/01/96
Tremont Mutual Ditch Company - Diversion Structure Rehabilitation	SPLA May 96	Morgan	1	45,000	09/01/96
Lower Arkansas Water Mgt. Assoc. - Well Augmentation Feasibility Study	37-60-122(1)	Prowers	2	65,000	10/24/96
Castle Pines North Metro District - Rehabilitate Three 2,200 foot Wells	HB 95-1155	Douglas	1	255,804	12/01/96
City of Fort Lupton - NCWCD Southern Pipeline	HB 93-1273	Weld	1	4,233,000	01/01/97
City of Greeley - Hourglass Reservoir Rehabilitation	HB 91-1006	Larimer	1	206,351	01/01/97
Town of Hudson - NCWCD Southern Pipeline	HB 93-1273	Weld	1	1,273,000	01/01/97
City of Ft. Morgan - NCWCD Southern Pipeline	HB 93-1273	Weld	1	5,500,000	01/01/97
Town of Norwood - Norwood Raw Water Reservoir	HB 95-1155	San Miguel	4	950,000	01/01/97
West Divide Water Cons. District - Alsbury Dam Rehabilitation	HB 91-1006	Mesa	5	70,000	01/01/97
Bravo Ditch Company - Diversion Structure Rehabilitation	SPLA Mar 96	Logan	1	39,099	03/01/97
Consolidated Extension Canal Co. - Purgatoire River Siphon Rehabilitation	EIRA Nov 96	Bent	2	229,431	03/10/97
Orchard Mesa Irrigation District - Mutual Mesa Ditch Lateral Rehab.	HB 95-1155	Mesa	5	861,827	05/01/97
Vouga Reservoir Association - Vouga Reservoir Dam Rehabilitation	HB 95-1155	Saguache	4	600,000	05/08/97
Lower Arkansas Water Mgt. Assoc. - X-Y Ranch and Water/Manvel Shares	SB 96-124	Prowers	2	3,688,568	05/28/97
Julesburg Irrigation District - Julesburg Res. Dam No. 4 Rehab.	SB 86-027	Sedgwick	1	325,000	06/01/97
Town of Ignacio - Ignacio Outside Irrigation System	SB 92-087	La Plata	7	180,000	06/01/97
Beaver Park Water Company - Brush Hollow Dam Rehabilitation	SB 94-029	Fremont	2	975,000	06/30/97
			Total	\$23,141,316	

3.7 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 from the Construction Fund totaling \$11.82 million to fund 11 water development projects statewide in 1998. 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 from the
CWCB Construction Fund for Authorization in 1998

Priority	Borrower-Project	County	Loan Amount
a	City of Loveland - Green Ridge Glade Reservoir Enlargement	Larimer	\$2,000,000
b	DeWeese-Dye Ditch & Reservoir Company - DeWeese Dam Rehabilitation*	Custer	\$734,000
c	North Poudre Irrigation Company - System Rehabilitation	Larimer	\$500,000
d	City of Idaho Springs - Idaho Springs Reservoir Rehabilitation*	Clear Creek	\$955,000
e	Greeley and Loveland Irrigation Company - System Rehabilitation*	Larimer/Weld	\$308,000
f	Blue Lake Owners Association - Raw Water Irrigation System*	Eagle	\$900,000
g	City of Fort Morgan - Raw Water Pipeline*	Morgan	\$4,000,000
h	City of Sterling - Pawnee Creek Flood Control Project*	Logan	\$550,000
i	Chatfield South Water District - Water Rights Purchase*	Douglas	\$500,000
j	Riverside Reservoir and Land Company - Riverside Res. Spillway Rehab. And Land Purchase	Weld	\$450,000
k	Windsor Canal & Ditch Company - Big Windsor Reservoir Pump Station	Weld	\$925,000
	Total		\$11,822,000

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

Pursuant to Section 39-29-109 (1) (a) (I), CRS, the Colorado Water Conservation Board has recommended legislative authorization to provide loans from the Severance Tax Trust Fund Perpetual Base Account totaling \$5.94 million to fund 3 water development projects statewide in 1998. These projects are listed in Table 5 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 5
Colorado Water Conservation Board
New Loan Projects Recommended from the
Severance Tax Trust Fund Perpetual Base Account for Authorization in 1998

Priority	Borrower-Project	County	Loan Amount
a	Highland Ditch Company - Foothills Reservoir Dam Rehabilitation	Boulder	\$1,040,000
b	City of Fort Morgan - Raw Water Pipeline*	Morgan	\$4,000,000
c	Northern Colorado Water Association - Purchase of Wells and Water Rights	Larimer	\$900,000
	Total		\$5,940,000

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

Loans from the CWCB Construction Fund or the Severance Tax Trust Fund Perpetual Base Account are plus or minus such amounts, if any, as may be justified by reason of ordinary fluctuations in construction costs as indicated by the engineering cost indices applicable to the types of construction required for each project, or as may be justified by reason of changes in the plans for a project due to differing or unforeseen site conditions, errors or omissions in the plans and specifications, changes instituted by regulatory agencies, or changes in material quantities beyond contract limits.

3.8 Recommended Changes to Previous Loan Authorizations

The Board has recommended legislative authorization to provide additional loan expenditures totaling \$1.05 million to increase funding for 3 previously authorized water development projects. These projects are listed in Table 6, and additional details may be found in Appendix C.

TABLE 6
Colorado Water Conservation Board
Recommended Changes to Previous Loan Authorizations

Borrower-Project	Prior Authority	Prior Amount	Increase	Revised Amount
City of Greeley - Twin Lakes Res. Dam Rehabilitation	SB 87-15	\$412,500	\$375,000	\$787,500
Town of Palisade - Cottonwood Cr. Pipeline Replacement*	HB 95-1155	\$750,000	\$172,000	\$922,000
Purgatoire River Water Cons. District - Trinidad Project Refinance	SB 97-008	\$500,000	\$500,000	\$1,000,000
Totals		\$1,662,500	\$1,047,000	\$2,709,500

*Footnote "a" in the original authorization (HB95-1155) regarding the borrower being unable to obtain financing through the Colorado water resources and power development authority as it applies to this borrower is recommended to be removed.

3.9 Loan Projects Recommended for De-authorization

Authorized projects which show no activity may be de-authorized 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 de-authorized. After a project has been completed, the remaining unspent but still encumbered funds are de-authorized as soon as possible.

At its November 1997 and January 1998 meetings, the Board recommended 8 projects totaling \$6.81 million be de-authorized by the General Assembly in FY 97-98 as listed in Table 7 below. A list of previously de-authorized loans is included in Appendix D.

TABLE 7
Colorado Water Conservation Board
Loan Projects Recommended for De-authorization in FY 97-98

Borrower-Project	Prior Authority	Prior Amount	Amount to Deauthorize	Amount Remaining
Dolores Water Conservancy District - Dolores Project Residual	HB 83-1102	\$5,617,392	\$5,617,392	\$0
Rio Grande Water Cons. District - Ditches and Drains	SB 87-15	\$250,000	\$250,000	\$0
Town of Oak Creek - Sheriff Res. Spillway Enlargement	SB 87-15	\$300,000	\$300,000	\$0
Wadley Farms Home Owners Assoc. - Wadley Dams No. 1, 2, & 3 Rehab.	SB 96-153	\$500,000	\$500,000	\$0
Cedar Mesa Ditch & Reservoir Co. - Cedar Mesa Reservoir Outlet Rehab.	SB 94-029	\$10,500	\$10,500	\$0
Lateral 35 Association - New Lateral	SB 94-029	\$35,000	\$35,000	\$0
City of Walsenburg - Martin Lake Dam Rehab. & Enlargmt.	SB 94-029	\$86,000	\$86,000	\$0
Goodhue Ditch and Reservoir Co. - Goodhue Ditch Rehabilitation	HB 95-1155	\$19,000	\$19,000	\$0
Totals		\$6,817,892	\$6,817,892	\$0

4.0 Non-Reimbursable Grants and Other Recommendations

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 7 non-reimbursable studies and projects totaling \$2.57 million. These grant recommendations are listed in Table 8 below.

TABLE 8
Colorado Water Conservation Board
1998 Grant Recommendations

Grantee - Project	County	Amount
CWCB and State Engineer - Rio Grande Decision Support System Data Collection & Design	basinwide	2,000,000
State Engineer - Satellite Monitoring System Maintenance Continuation	statewide	120,000
State Engineer - Arkansas River Well Measurement Program Continuation	basinwide	75,000
CWCB - Chatfield Reservoir Reallocation Feasibility Study Increase	Douglas	200,000
CWCB - South Platte River Multi-Objective Floodplain Management Plan Continuation	basinwide	56,000
CWCB - Lower Elk River Floodplain Management Plan	Routt	30,000
Denver Museum of Natural History/U.S. Geological Survey - Geo-Hydrologic Investigation of the Denver Basin Aquifers	Denver Basin	90,000
	Total	\$2,571,000

4.1 Rio Grande Decision Support System Data Collection and Design

A contractor has recently completed a feasibility study under the guidance of a technical advisory committee (TAC). Significant savings in design costs will be realized due to our work on the Colorado River Decision Support System. However the extensive groundwater component in the Rio Grande basin will require a significant expenditure for collection of new data. The project is estimated to cost up to \$5.0 million over 3 years including \$3.5 million for data collection and \$1.5 million for design. Based upon the recommendation of the TAC, the CWCB recommends an appropriation of up to \$2,000,000 during FY98-99 to the Division of Water Resources and the CWCB to collect data, manage the design of the system, develop the necessary databases, models, and user tools, and to acquire, operate, and maintain the associated hardware and software. The CWCB and Division of Water Resources will continue to rely upon the TAC for advice.

4.2 Satellite Monitoring System Maintenance Continuation

The Board recommends up to \$120,000 be appropriated to the State Engineer to continue systematic renovation of stream gaging stations and replace "data collection platforms" in the statewide satellite monitoring system. This system gathers streamflow data from selected gaging stations and makes it available to water supply managers and other interested parties. This request is for the fifth year of a ten year replacement program.

4.3 Arkansas River Well Measurement Program Continuation

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. The State Engineer, the Division Engineer and most well owners prefer the PCC method. In order to provide information to the Special Master in Kansas v. Colorado on which to base this 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 is being done through the USGS Cooperative Program, and is expected to take at least two years to complete. \$50,000 was appropriated last year which included \$25,000 for our share of the first year study costs and \$25,000 to purchase and install meters on randomly selected wells. The CWCB recommends an additional \$75,000 be appropriated this year to complete the study.

4.4 Chatfield Reservoir Reallocation Feasibility Study Increase

Last year, the Board was authorized to expend up to \$300,000 from the Construction Fund to participate with the Army Corps of Engineers and other water user entities 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. Since then, the Corps has streamlined its requirements, and the reconnaissance study is no longer necessary. The feasibility investigation will require about \$500,000 from the state. This section of the bill changes the amount from \$300,000 to \$500,000 and eliminates language that referred to a reconnaissance study and other contingencies which are no longer appropriate.

The investigation will examine the feasibility of reallocating storage in the flood control pool of Chatfield reservoir to the conservation pool for water supply purposes, either permanently or on a seasonal basis. Existing and alternative operations of the Chatfield, Cherry Creek and Bear Creek reservoirs will be analyzed. 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 will be evaluated. Expenditure of the funds will still be contingent upon the board negotiating a formal cost share agreement for the feasibility study.

4.5 South Platte River Multi-Objective Management Plan Continuation

In 1996, the Board was authorized to expend up to \$50,000 under contract with the Corps of Engineers to investigate problems related to flooding on the South Platte River in 1995 and to develop a multi-objective management plan to mitigate future flood losses and improve irrigation supply. The Board recommends that an additional \$56,000 from the Construction Fund be appropriated for mapping, surveys, and collection of field data.

4.6 Lower Elk River Floodplain Management Plan

The CWCB recommends an appropriation of up to \$30,000 to the Board to assist Routt County and the Lower Elk River Flood Association implement demonstration projects (\$10,000) and to develop a multi-objective floodplain management master plan (\$20,000) for the lower reach of the Elk River and the Yampa River. Matching funds will be obtained from the county and the association.

4.7 Geo-Hydrologic Investigation of the Denver Basin Aquifers

The Board recommends that the state participate with the Denver Museum of Natural History and U.S. Geological Survey to obtain a 2,000 foot core from the center of the Denver Basin aquifers near Kiowa in Elbert County and conduct a geo-hydrologic analysis. The core hole is part of a \$467,000 three year National Science Foundation research proposal that will focus on the evolution of the Denver Basin and its landscapes. Drilling and coring of the 2-inch diameter hole is estimated to cost \$170,000 and is planned to begin in 1999. The geo-hydrologic analysis will measure the specific yield, hydraulic conductivity, and porosity of 50 samples taken from the core. The results will develop a more quantitative understanding of the geometry and yield of the aquifers.

4.8 Loans to the Colorado River and San Juan River Recovery Programs

Proposed federal legislation will limit both state and federal financial commitments to the two endangered fish recovery programs for Colorado River fishes. This legislation is being prepared for introduction with broad support from the Colorado congressional delegation as well as the Utah, Wyoming and New Mexico delegations. This proposed legislation anticipated a \$17 million contribution from the four states (collectively) and a matching contribution of \$17 million from users of hydroelectric power produced at Colorado River Storage Project facilities. The electric power users have generally agreed to this proposal with the condition that their contribution can be structured in a way which does not require them to raise their electric rates. Therefore, the CWCB proposes to finance their \$17 million contribution from a new account over a period of 30 or 40 years at an interest rate favorable to the CWCB Construction Fund. The Board recommends a transfer of \$2 million into this new account this year, with the understanding that is all the cash available at this time and that additional cash should be transferred into this account as its available during the next several years. The CWCB recommends legislative approval of this arrangement as a clear indication of the state's willingness to support the proposed federal legislative allocation and limitation of recovery program costs.

4.9 Recommended Change in the Session Laws

Last year the General Assembly approved the CWCB recommendation that monies from the Fish and Wildlife Resources Account within the CWCB construction fund be made available to the recovery program to help implement improvements to the Grand Valley Canal. These improvements are intended to reduce administrative spills by the canal and, as a result, increase stream flows available for recovery of the endangered fish. These improvements are being planned and will be implemented with full cooperation of the Grand Valley Water Users Association and without any impairment of their beneficial uses. In order to provide more flexibility in the delivery of those monies, the Board recommends the name of the grant recipient be changed from the "U.S. Fish and Wildlife Service" to the "participants of the Colorado River Recovery Implementation Program." This recommendation is supported by the Grand Valley Water Users Association and Recovery Program participants.

4.10 Recommended Change in Statutes

The Department of Natural Resources Controller's Office has determined that, while the Board has statutory authority to receive funds for cooperative projects with local governments, the CWCB technically does not have the statutory authority to expend such monies. The Board recommends the state statutes be amended to allow the Board to expend funds received in managing cooperative projects so that the Board has the same authority as other DNR agencies.

APPENDIX A

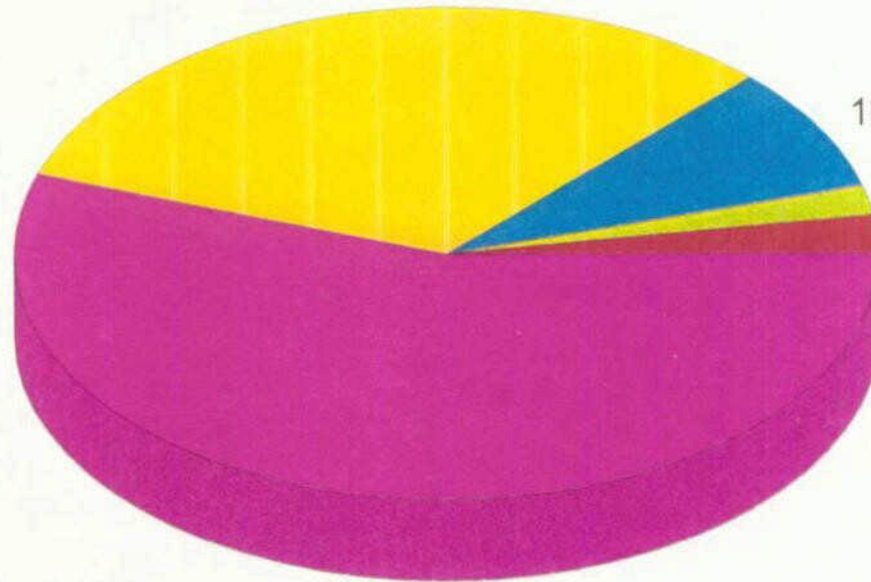
Completed Project Loans

**Colorado Water Conservation Board
Water Project Construction Loan Program
Construction Fund Loans**

<u>State</u> <u>Fiscal Year</u>	<u>New</u> <u>Reservoir</u>	<u>Res.</u> <u>Enlargement</u>	<u>Purchase</u>	<u>Dam</u> <u>Rehabilitation</u>	<u>Infrastructure</u>	<u>Total</u>	<u>Value</u> <u>(millions)</u>
FY78	0	0	0	0	1	1	0.20
FY79	0	0	0	0	1	1	0.16
FY80	0	0	0	1	4	5	2.06
FY81	0	0	0	0	4	4	2.73
FY82	1	0	0	1	5	7	2.18
FY83	0	0	0	4	11	15	5.86
FY84	0	1	1	4	11	17	13.37
FY85	0	0	0	2	7	9	6.84
FY86	0	0	0	2	3	5	2.49
FY87	0	1	0	1	4	6	2.27
FY88	0	0	0	1	2	3	0.61
FY89	0	0	4	2	2	8	5.68
FY90	0	0	3	4	1	8	4.09
FY91	1	0	0	6	3	10	10.77
FY92	0	0	0	7	1	8	3.09
FY93	0	1	0	1	1	3	2.24
FY94	0	0	3	1	1	5	5.52
FY95	0	0	0	3	10	13	5.70
FY96	1	0	0	4	7	12	19.74
FY97	1	0	2	7	9	19	23.14
Total	4	3	13	51	88	159	118.73

Colorado Water Conservation Board Construction Fund Loans by Type: FY78 - FY97

51 (32.1%) Dam Rehabilitation



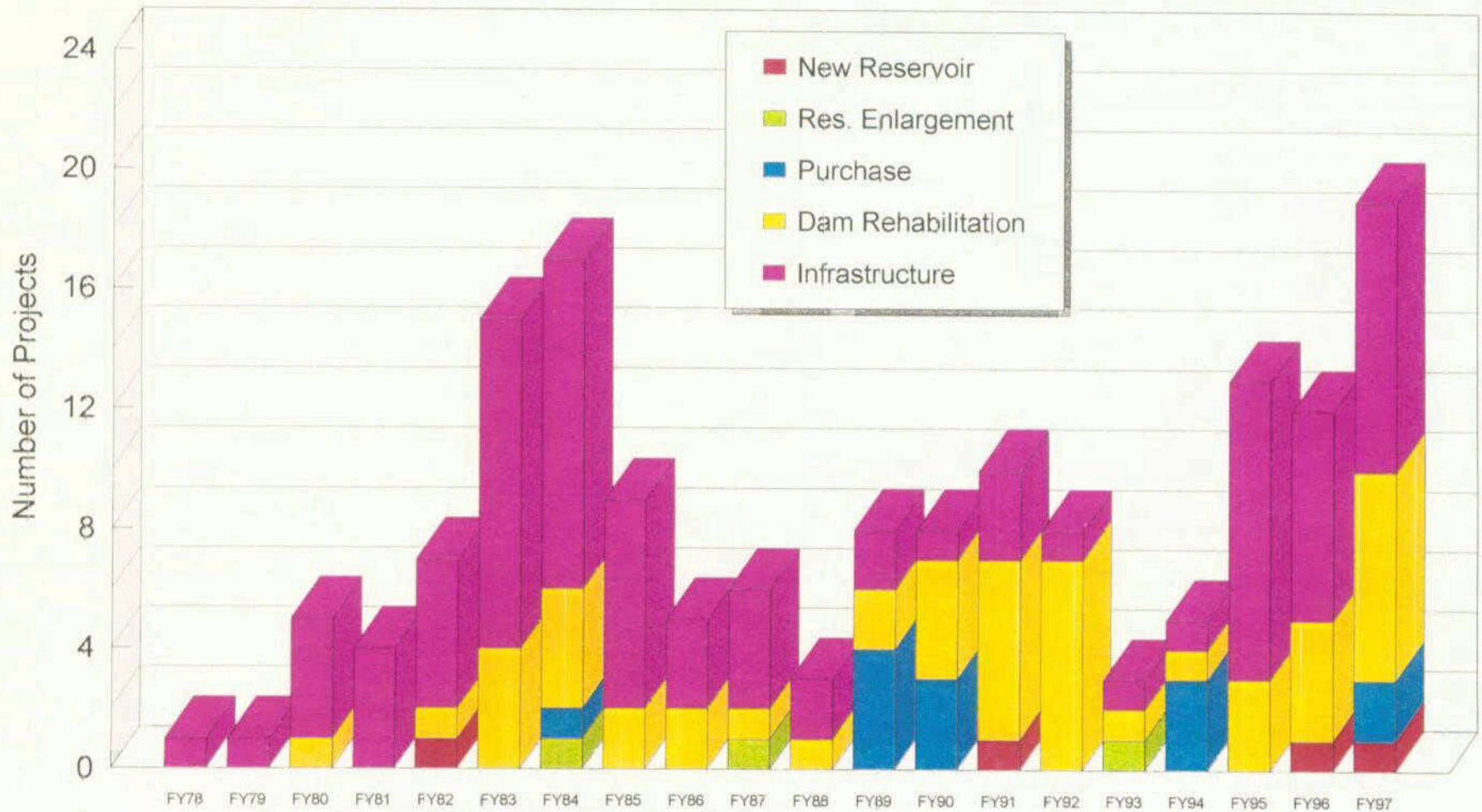
13 (8.2%) Purchase

3 (1.9%) Res. Enlargement

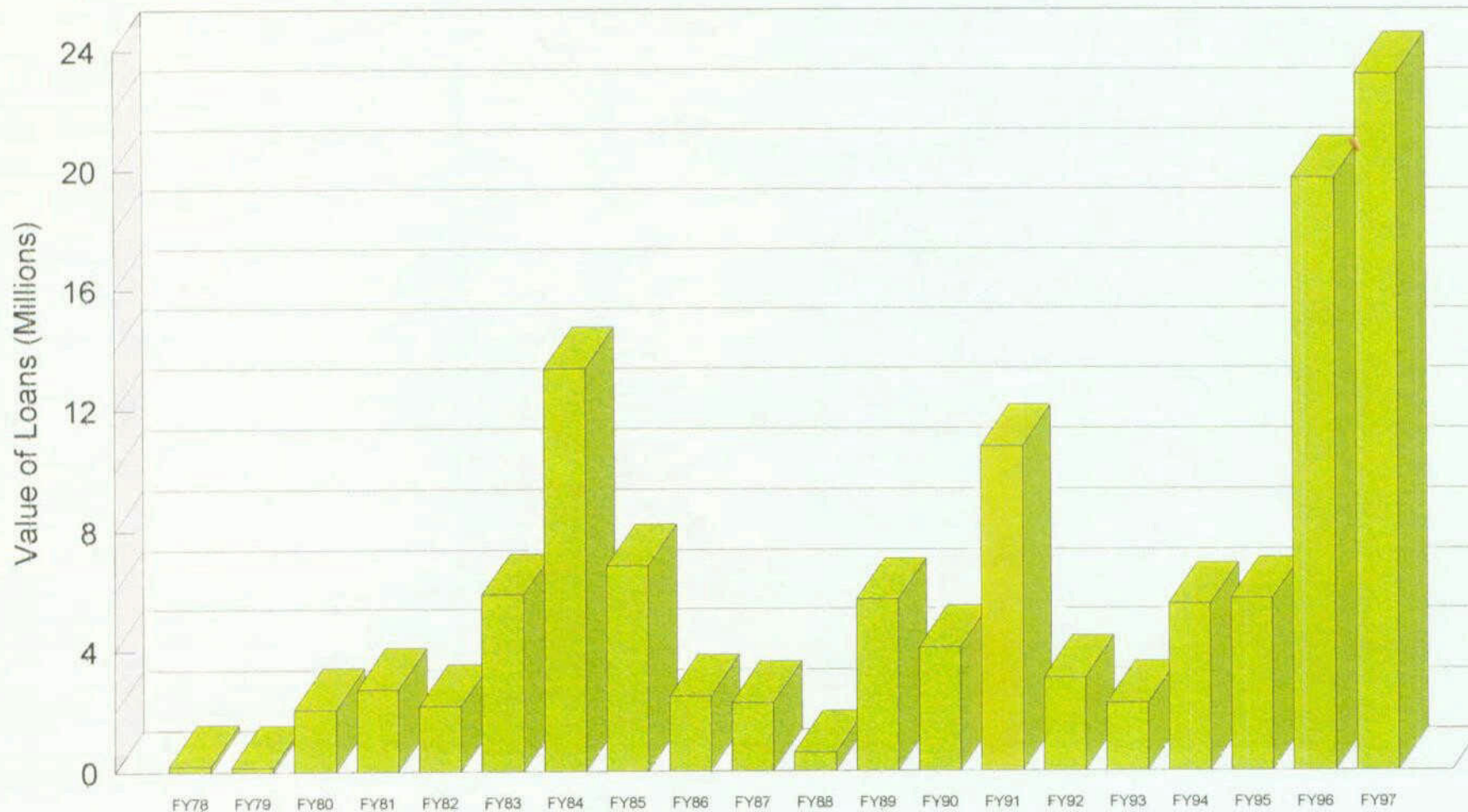
4 (2.5%) New Reservoir

88 (55.3%) Infrastructure

Colorado Water Conservation Board Number of Construction Fund Loans



Colorado Water Conservation Board Value of Construction Fund Loans



Colorado Water Conservation Board
Water Project Construction Loan Program
Completed Project Loans

Borrower	Project Name	County	Div	Amount Loaned	Date Completed
Allenspark Water & San. District	Allenspark Water Project	Boulder	1	200,001	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	Rangely 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 C. 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
Town of Basalt	Basalt Water Supply System	Eagle	5	226,975	07/01/84
Town of Starkville	Starkville Water Supply System	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
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

Borrower	Project Name	County	Div	Amount Loaned	Date Completed
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	29,515	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	64,919	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
Morgan County Quality Water District	Hay Gulch Well Field Purchase	Weld	1	3,000,000	07/09/96
City of Greeley	Peterson Lake Dan Rehabilitation	Larimer	1	644,236	09/01/96
Tremont Mutual Ditch Company	Diversion Structure Rehabilitation	Morgan	1	45,000	09/01/96
Lower Arkansas Water Mgt. Assoc.	Well Augmentation Feasibility Study	Prowers	2	65,000	10/24/96
Castle Pines North Metro District	Rehabilitate Three 2,200 foot Wells	Douglas	1	255,804	12/01/96
City of Fort Lupton	NCWCD Southern Pipeline	Weld	1	4,233,000	01/01/97
City of Greeley	Hourglass Reservoir Rehabilitation	Larimer	1	206,351	01/01/97
Town of Hudson	NCWCD Southern Pipeline	Weld	1	1,273,000	01/01/97
City of Ft. Morgan	NCWCD Southern Pipeline	Weld	1	5,500,000	01/01/97
Town of Norwood	Norwood Raw Water Reservoir	San Miguel	4	950,000	01/01/97
West Divide Water Cons. District	Alsbury Dam Rehabilitation	Mesa	5	70,000	01/01/97
Bravo Ditch Company	Diversion Structure Rehabilitation	Logan	1	39,099	03/01/97
Consolidated Extension Canal Co.	Purgatoire River Siphon Rehabilitation	Bent	2	229,431	03/10/97
Orchard Mesa Irrigation District	Mutual Mesa Ditch Lateral Rehab.	Mesa	5	861,827	05/01/97
Vouga Reservoir Association	Vouga Reservoir Dam Rehabilitation	Saguache	4	600,000	05/08/97
Lower Arkansas Water Mgt. Assoc.	X-Y Ranch and Water/Manvel Shares	Prowers	2	3,688,368	05/28/97
Julesburg Irrigation District	Julesburg Res. Dam No. 4 Rehab.	Sedgwick	1	325,000	06/01/97
Town of Ignacio	Ignacio Outside Irrigation System	La Plata	7	180,000	06/01/97
Beaver Park Water Company	Brush Hollow Dam Rehabilitation	Fremont	2	975,000	06/30/97
TOTAL	159 Project Loans			\$118,736,452	

APPENDIX B

Data for Projects Completed in FY96-97

BEAVER PARK WATER COMPANY - BRUSH HOLLOW DAM REHABILITATION



Stabilized Upstream Face of the Brush Hollow Reservoir Dam

Project Description

This project was the rehabilitation of the Brush Hollow Reservoir in Fremont County. The Woodward-Clyde designed project commenced construction in November 1996 by Tezak Heavy Equipment Company of Canon City. The project included the stabilization of the upstream dam face and the replacement of the outlet structure. This work consisted of the construction of a new concrete intake structure, a new gate control house and an extension of the 36 inch diameter steel outlet pipe. Additionally, the outlet pipe required lining due to extensive corrosion which was encountered during construction. The project was completed June 30, 1997.

Project Data

Sponsor: Beaver Park Water Company **County:** Fremont **River:** Brush Hollow Creek

Terms of Loan: \$975,000 @ 3.5% for 30 yrs **Substantial Completion Date:** June 30, 1997

Design Engineer: Woodward-Clyde Consultants - Denver, Colorado

Construction Contractor: Tezak Heavy Equipment Company, Inc. - Canon City, Colorado

Design Criteria:
Dam Height = 75 ft.
Crest Elevation = 5,504.5
Reservoir Capacity = 4,125 ac.ft.

Annual Volume of Water Delivered by the Project: 4,125 ac.ft.

BRAVO DITCH COMPANY - DIVERSION STRUCTURE REHABILITATION



Placement of Steel Sheet Piling to Provide Erosion Protection and Structural Stability

Project Description

This diversion structure rehabilitation project was the result of damage caused by the 1995 South Platte River flooding. The project included the total reconstruction of the upstream wingwall, placement of sheet piling around the entire structure, and rehabilitation of the old structure's floor including filling the undermined voids created by erosive over flows. The structure, located at the downstream end of a river island, provides irrigation diversions for 990 acres of farmland.

Project Data

Sponsor: Bravo Ditch Company **County:** Logan **River:** South Platte River
Terms of Loan: \$39,098.50 @ 4.25% for 30 years **Substantial Completion Date:** March 1, 1997
Design Engineer: Natural Resource Conservation Service - Sterling Office
Construction Contractor: Yost Construction Company, Inc. - Sterling, Colorado
Design Criteria: Ditch Capacity = 40 cfs
 Diversion Side-Channel Spillway Width = 60 ft.
Annual Volume of Water Delivered by the Project: 6,200 ac.ft.

CASTLE PINES NORTH METROPOLITAN DISTRICT WELL REHABILITATION



Brushing and Cleaning of Well A-2

Project Description

This loan financed 3 well rehabilitations, including 1 well rehabilitated through an emergency construction fund loan, for the Castle Pines North Metropolitan District in Douglas County. The project lowered the pump intake, increased the pump size and well capacity for each Arapahoe Aquifer well. New vaults, piping and appurtenances were installed at each site, and all electrical equipment was upgraded for each well. The project commenced in March and was completed December 1, 1996.

Project Data

Sponsor: Castle Pines North Metro District **County:** Douglas **River:** Arapahoe Aquifer

Terms of Loan: \$301,500 @ 5.0% for 15 yrs. **Substantial Completion Date:** Dec. 1, 1996

Design Engineer: Jehn Water Consultants, Inc. - Denver, Colorado

Construction Contractor: AmWest, Inc. - Brighton, Colorado

Design Criteria: Well capacity = 500 gpm
Pump Motor = 300 HP
Pump Intake Depth = A-1 = 1,580 ft. A-2 = 1,660 ft. A-3 = 1,780 ft.

Annual Volume of Water Delivered by the Project: 900 ac.ft.

CITY OF FT. LUPTON - NCWCD SOUTHERN PIPELINE EXTENSION



Excavated Pipeline Trench, Partially Backfilled

Project Description

This project was an extension of the Northern Colorado Water Conservancy District's Southern Supply Pipeline Project. The project limits were from the Southern Supply mainline, 1 mile north of Longmont, to the Ft. Lupton/Hudson water treatment plant, 4 miles east of Ft. Lupton. The project consisted of laying approximately 29.5 miles of 22"-28" steel pipe, including all appurtenances, around, under and through several highways, rivers, creeks, irrigation ditches and many other obstacles. The total construction cost of the project was approximately \$13,000,000. Construction commenced in November 1995 and was completed in November 1996.

Project Data

Sponsor: City of Ft. Lupton **County:** Weld **River:** Colo-Big Thompson Project

Terms of Loan: \$4,233,000 @ 2% for 40 yrs. **Substantial Completion Date:** Jan. 1, 1997

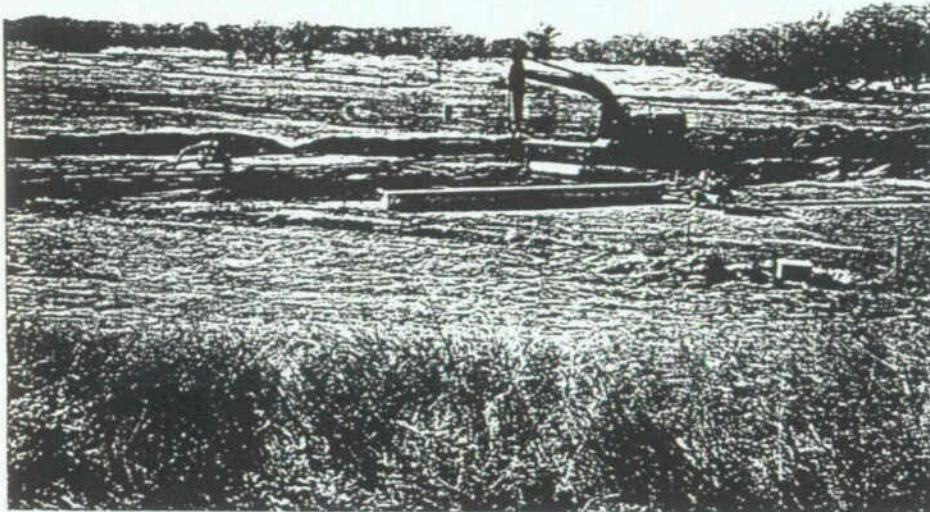
Design Engineer: Black and Veatch - Aurora, Colorado

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

Design Criteria: Length of Pipeline = 29.5 miles
 Pipe Size and Type = 22"-28" Steel Pipe
 Delivery rate = 8.0 cfs

Annual Volume of Water Delivered by the Project: 2,900 ac.ft.

CITY OF FORT MORGAN - NCWCD SOUTHERN PIPELINE EXTENSION



Laying the 28" Steel Pipe from West to East, Just East of the S. Platte River Near Platteville

Project Description

This project was an extension of the Northern Colorado Water Conservancy District's Southern Supply Pipeline Project. The project limits were from the Southern Supply mainline, 1 mile north of Longmont, to the Ft. Lupton/Hudson water treatment plant, 4 miles east of Ft. Lupton. The project consisted of laying approximately 29.5 miles of 22"-28" steel pipe, including all appurtenances, around, under and through several highways, rivers, creeks, irrigation ditches and many other obstacles. The total construction cost of the project was approximately \$13,000,000. Construction commenced in November 1995 and was completed in November 1996.

Project Data

Sponsor: City of Fort Morgan **County:** Weld **River:** Colo-Big Thompson Project

Terms of Loan: \$5,500,000 @ 4% for 40 yrs. **Substantial Completion Date:** Jan. 1, 1997

Design Engineer: Black and Veatch - Aurora, Colorado

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

Design Criteria: Length of Pipeline = 29.5 miles
 Pipe Size and Type = 22"-28" Steel Pipe
 Delivery rate = 9.5 cfs

Annual Volume of Water Delivered by the Project: 6,878 ac.ft.

CITY OF GREELEY - HOURGLASS RESERVOIR REHABILITATION



A Unique Design: The Reservoir Inlet is to the Left - The Service Spillway is to the Right

Project Description

This project consisted of construction of a new toe-drain system along the dam, a new concrete control weir at the service spillway, and re-grading the dam crest. The reservoir capacity was not increased by the project. The project features a rather unique design in that the inlet channel is immediately adjacent to the service spillway control weir. Project construction commenced in May 1996 and was completed in November 1996.

Project Data

Sponsor: City of Greeley **County:** Larimer **River:** Cache la Poudre - Off Channel

Terms of Loan: \$250,000 @ 5% for 15 yrs. **Substantial Completion Date:** Jan. 1, 1997

Design Engineer: The Engineering Co. and Smith Geotechnical, Inc. - Ft. Collins, Colorado

Construction Contractor: Barker Construction Company, Inc. - Ft. Collins, Colorado

Design Criteria: Embankment Height = 40 ft.
 Crest Elevation = 9,372 ft.
 Reservoir Capacity = 1,729 ac.ft.

Annual Volume of Water Delivered by the Project: 259 ac.ft.

CITY OF GREELEY - PETERSON LAKE DAM RECONSTRUCTION



Looking North Along the Dam Axis Showing the Stairstep Spillway

Project Description

This dam reconstruction project was a Roller Compacted Concrete (RCC) dam to replace the existing structurally deficient earthfilled dam at the City of Greeley's Peterson Lake north of Rocky Mountain National Park tributary to the Poudre River. Major work elements of this 1,183 ac.ft. reservoir included 8,500 cu.yd. of roller compacted concrete, 32,000 cu.yd. of dam and spillway excavation and 15,000 cu.yd. of embankment and fill. The project commenced construction in June 1995.

Project Data

Sponsor: City of Greeley **County:** Larimer **River:** Cache la Poudre (off-channel)

Terms of Loan: \$644,236 @ 5% for 25 years **Substantial Completion Date:** Sept. 1, 1996

Design Engineer: The Engineering Company and Smith Geotechnical, Inc. - Ft. Collins, CO.

Construction Contractor: ASI-RCC, Inc. - Buena Vista, Colorado

Design Criteria: Dam Height = 60 feet
 Crest Elevation = 9,495 feet
 Reservoir Storage Capacity = 1,183 ac.ft.

Volume of Water Removed from Reservoir Restrictions by the Project: 1,183 ac.ft.

CONSOLIDATED MUTUAL CANAL COMPANY - SIPHON REHABILITATION



The Concrete Siphon Outlet Structure Looking West Across the Purgatoire River Valley

Project Description

This project is the rehabilitation of a 1,000 foot long siphon of the Consolidated Mutual Canal under the Purgatoire River. The project included the replacement of 600 feet of wood stave pipe with 48 inch diameter pre-cast concrete pipe and construction of a new concrete outlet structure. The concrete pipe was connected upstream to approximately 400 feet of existing 42 inch diameter steel siphon pipe which was still in excellent condition after over 40 years of service. This emergency project was completed on time and within budget.

Project Data

Sponsor: Consolidated Mutual Canal Co. **County:** Bent **River:** Arkansas River

Terms of Loan: \$300,000 @ 3.75% for 30 years **Substantial Completion Date:** Mar.10, 1997

Design Engineer: Public Service Company of Colorado - Denver, Colorado

Construction Contractor: Lillard and Clark Construction Co., Inc. - Denver, Colorado

Design Criteria: Size and Type of Siphon Pipe = 48 inch concrete
 Siphon Capacity = 70 cfs
 Length of Siphon Rehab = 600 ft.

Annual Volume of Water Delivered by the Project: 9,300 ac.ft.

JULESBURG IRRIGATION DIST. - JULESBURG (JUMBO) RES. DAM #4 REHAB



New Jumbo Reservoir Outlet Tower Looking West into the Reservoir

Project Description

This project consisted of constructing a new concrete outlet works, including tower, and dam embankment immediately downstream of the existing structure. The existing deficient outlet structure and embankment was then removed. The construction sequence enabled the Irrigation District to maintain the reservoir in service during construction. Much of the excavation and placement of riprap was completed by District forces which contributed to the lengthy construction time. Construction commenced in September 1992 and was completed in November 1996.

Project Data

Sponsor: Julesburg Irrigation Dist. **County:** Sedgwick **River:** S. Platte River - Off Channel

Terms of Loan: \$325,000 @ 5% for 40 yrs. **Substantial Completion Date:** June 1, 1997

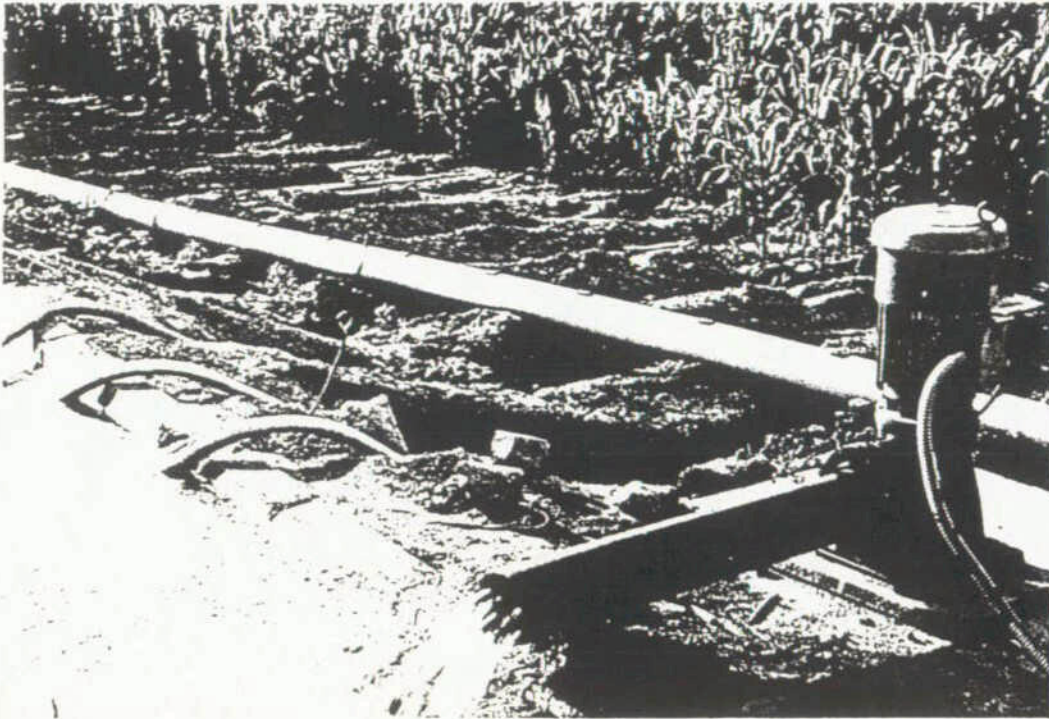
Design Engineer: W.W. Wheeler and Associates, Inc. - Englewood, Colorado

Construction Contractor: Concrete Specialties Construction Co. - Sterling, Colorado

Design Criteria:
Dam Height = 37 ft.
Crest Elevation = 3,717 ft.
Reservoir Capacity = 6,000 ac.ft.

Annual Volume of Water Delivered by the Project: 6,000 ac.ft.

LOWER ARKANSAS WATER MANAGEMENT ASSOC.-WATER RIGHTS PURCHASE



Project Description

This loan was to fund the Lower Arkansas Water Management Association's augmentation program to offset depletions by its members' wells to Colorado surface water rights and to usable stateline flow in the Arkansas basin. The project involved acquisition of the X-Y Ranch and associated water rights, 1.5 cfs of X-Y Canal Company water rights, and a majority of the shares of the Manvel Canal and Irrigation Company.

Project Data

Sponsor: Lower Arkansas Water Management Assn **County:** Prowers **River:** Arkansas River

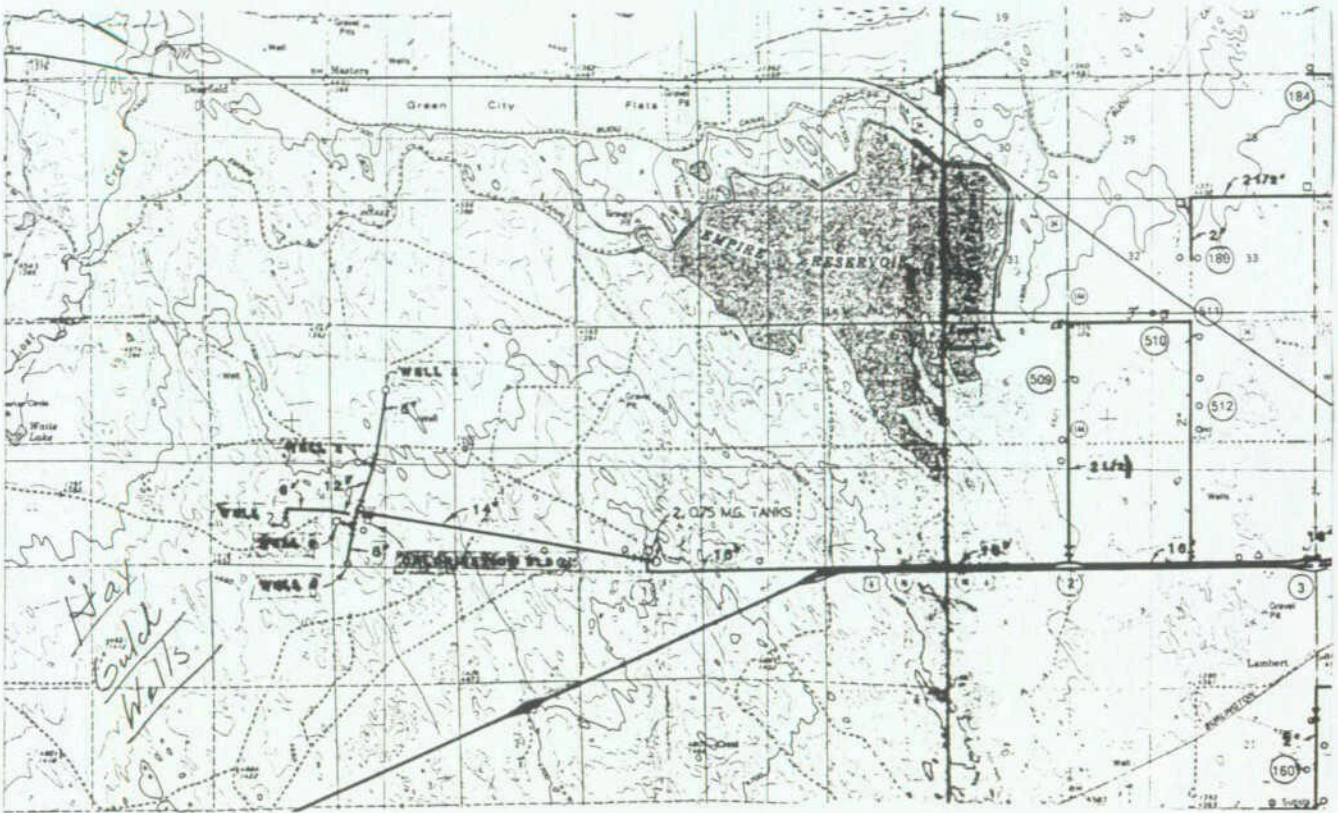
Terms of Loan: \$3,688,568 @ 3% for 40 yrs. **Substantial Completion Date:** May 28, 1997

Engineer: Helton and Williamson, P.C. - Denver, Colorado

Feasibility Study Loan: \$65,000 **Substantial Completion Date:** Oct. 24, 1996

Annual Volume of Augmentation Water for Consumptive Use Provided: 6,000 Ac-ft.

MORGAN COUNTY QUALITY WATER DISTRICT - HAY GULCH WELL FIELD



Project Description

The project involved the purchase of the Morgan County Quality Water District's main source of water supply, the Hay Gulch Well Field, from private owners of the land and the wells. The purchase included a section of land, three wells which are currently leased by the District, and the perpetual right to water from a fourth well.

Project Data

Sponsor: Morgan County Quality Water District **County:** Weld **Source:** Groundwater

Terms of Loan: \$3,000,000@ 4% for 30 yrs. **Substantial Completion Date:** January 9, 1996

Annual Volume of Water Delivered by the Project: 1,380 acre-feet per year

ORCHARD MESA IRRIGATION CO. - MUTUAL MESA LATERAL REHABILITATION.



The 30 Inch Dia. PVC Pipe (Not A Standard Manufactured Size) Required A Special Order

Project Description

The project (Phase 1 of 3) was the replacement of 8,500 feet of open channel irrigation ditch with an underground PVC pipeline. The project was designed by the Natural Resource Conservation Service, Grand Junction office as part of the salinity control program. The project included 12,000 cubic yards of backfill, a new concrete control structure, and over 8,000 linear feet of 30 inch diameter Poly Vinyl Chloride (PVC) pipe with appurtenances, including 41 various sized butterfly valves. A construction contract was awarded to Mendez Construction Co. of Breckenridge in October 1996 and was completed on time and within budget May 1, 1997.

Project Data

Sponsor: Orchard Mesa Irrigation Company **County:** Mesa **River:** Colorado River

Terms of Loan: \$871,000 @ 4.0% for 30 years **Substantial Completion Date:** May 1, 1997

Design Engineer: Natural Resource Conservation Service - Grand Junction Office

Construction Contractor: Mendez Construction Company, Inc. - Breckenridge, Colorado

Design Criteria: Size and Type of Pipeline = 30 in. diameter PVC
 Pipeline Capacity = 28 cfs
 Length of Pipe = 8,500 ft.

Annual Volume of Water Delivered by the Project: 12,000 ac.ft.

TOWN OF HUDSON - NCWCD SOUTHERN PIPELINE EXTENSION



Laying the 28" Steel Pipe from West to East, Just East of the S. Platte River Near Platteville

Project Description

This project was an extension of the Northern Colorado Water Conservancy District's Southern Supply Pipeline Project. The project limits were from the Southern Supply mainline, 1 mile north of Longmont, to the Ft. Lupton/Hudson water treatment plant, 4 miles east of Ft. Lupton. The project consisted of laying approximately 29.5 miles of 22"-28" steel pipe, including all appurtenances, around, under and through several highways, rivers, creeks, irrigation ditches and many other obstacles. The total construction cost of the project was approximately \$13,000,000. Construction commenced in November 1995 and was completed in November 1996.

Project Data

Sponsor: Town of Hudson **County:** Weld **River:** Colo-Big Thompson Project

Terms of Loan: \$1,273,000 @ 2% for 40 yrs. **Substantial Completion Date:** Jan. 1, 1997

Design Engineer: Black and Veatch - Aurora, Colorado

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

Design Criteria: Length of Pipeline = 29.5 miles
 Pipe Size and Type = 22"-28" Steel Pipe
 Delivery rate = 1.6 cfs

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

TOWN OF IGNACIO - IGNACIO OUTSIDE IRRIGATION SYSTEM



An Individual Homeowner's Lawn Irrigation System Turnout

Project Description

The Town of Ignacio's outside irrigation system project commenced construction by the Town's own forces in June 1993. The project consisted of the installation of a pipeline with individual turnouts throughout the Town to irrigate homeowners lawns and gardens, as well as the Town's parks and landscape. The project utilizes raw water rather than placing an overburden on the Town's water treatment plant operations.

Project Data

Sponsor: Town of Ignacio

County: La Plata

River: Rock Creek

Terms of Loan: \$180,000 @ 5% for 40 yrs.

Substantial Completion Date: June 1, 1997

Design Engineer: Natural Resource Conservation Service - Durango Office

Construction Contractor: Town of Ignacio

Design Criteria: 15,000 ft. of PVC pipe ranging from 12 in. to 6 in. diameter
25,000 gal. settling pond
200 tap capacity

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

TOWN OF NORWOOD - NORWOOD RAW WATER RESERVOIR



Looking West Past the Outlet Tower Bridge from the East Embankment

Project Description

The project was the new construction of a below-grade reservoir (non-jurisdictional) for the Town of Norwood and the Norwood Water Commission. The reservoir receives water via the Gurley Reservoir supply ditch. Major elements of the project included 130,000 cubic yards of reservoir excavation, 50,500 square yards of 40 mil high density polyethylene (HDPE) liner, and 30,000 cubic yards of compacted embankment. Construction commenced in March 1996 and was completed in November 1996.

Project Data

Sponsor: Town of Norwood **County:** San Miguel **River:** Gurley Canyon Drainage

Terms of Loan: \$320,000 @ 2% for 20 yrs. **Substantial Completion Date:** Jan. 1, 1997
\$630,000 @ 4% for 40 yrs.

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

Construction Contractor: Ed Jensen Construction Co. - Redvale, Colorado

Design Criteria: Embankment Height = 13 ft.
 Crest Elevation = 7,345 ft.
 Reservoir Capacity = 118 ac.ft.

Annual Volume of Water Delivered by the Project: 118 ac.ft.

TREMONT MUTUAL DITCH CO.- HEADGATE STRUCTURE RECONSTRUCTION



Headwall and Wingwall Forms Prior to Concrete Placement

Project Description

The reconstruction of this headgate structure included the removal of the old structure (damaged during the 1995 South Platte River flood), construction of a new concrete headwall, wingwalls, flashboard inlet, and the placement of a new 40 ft. x 5 ft. diameter connecting pipe to the Tremont Irrigation Ditch. The new structure, located 6 miles east of Ft. Morgan, was founded on sheet piles and designed to reduce sanding of the ditch by flashboard operation. Construction commenced in March 1996, and the structure was operational in May 1996.

Project Data

Sponsor: Tremont Mutual Ditch Company **County:** Morgan **River:** S. Platte River

Terms of Loan: \$45,000 @ 4% for 20 years **Substantial Completion Date:** Sept. 1, 1996

Design Engineer: Cecil Osborne, P.E. - Ft. Morgan, Colorado

Construction Contractor: Ransom Boone Excavating, Inc. - Ft. Morgan, Colorado

Design Criteria: Tremont Ditch Capacity = 70 cfs
60 inch dia. - 40 ft. long Corrugated Metal Pipe
Control Method = Flashboards

Annual Volume of Water Delivered by the Project: 13,000 ac.ft.

VOUGA RESERVOIR ASSOCIATION - VOUGA RES. DAM REHABILITATION



Vouga Reservoir Morning Glory Service Spillway

Project Description

The project is the rehabilitation of Vouga Reservoir in Saguache County. The project was designed by Woodward-Clyde Consultants and the construction contract was awarded to M&A Concrete of Grand Junction in September 1996. The project consisted of the complete replacement of the dam's outlet works including construction of a morning glory service spillway connected to a 65 inch diameter steel outlet pipe and 55 ft. concrete stilling basin. Improvements to the fuse plug emergency spillway completed the work.

Project Data

Sponsor: Vouga Reservoir Association **County:** Saguache **River:** Razor Creek

Terms of Loan: \$600,000 @ 3.75% for 20 yrs. **Substantial Completion Date:** May 8, 1997

Design Engineer: Woodward-Clyde Consultants - Denver, Colorado

Construction Contractor: M&A Concrete, Inc. - Grand Junction, Colorado

Design Criteria: Dam Height = 58 ft.
 Crest Elevation = 8,597.5
 Reservoir Capacity = 920 ac.ft.

Annual Volume of Water Delivered by the Project: 920 ac.ft.

WEST DIVIDE WATER CONSERVANCY DIST. - ALSBURY DAM REHABILITATION



Looking North at the Upstream Face of Alsbury Dam from the Reservoir

Project Description

The project consisted of the reconstruction of an earth-filled dam which impounds a reservoir of 255 acre-feet. Major work elements of the project included 12,000 cubic yards of excavation and 14,000 cubic yards of fill in the dam. The project also included the reconstruction of the dam outlet works consisting of an 18" corrugated metal pipe. The project commenced construction in August 1995 and was completed in October 1996.

Project Data

Sponsor: West Divide Water Conservancy Dist. **County:** Mesa **River:** East Divide Cr.

Terms of Loan: \$70,000 @ 5% for 30 yrs. **Substantial Completion Date:** Jan. 1, 1997

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

Construction Contractor: Bogue Construction, Inc. - Fruita, Colorado

Design Criteria: Dam Height = 23 feet
 Crest Elevation = 9,065 ft.
 Reservoir Capacity = 255 ac.ft.

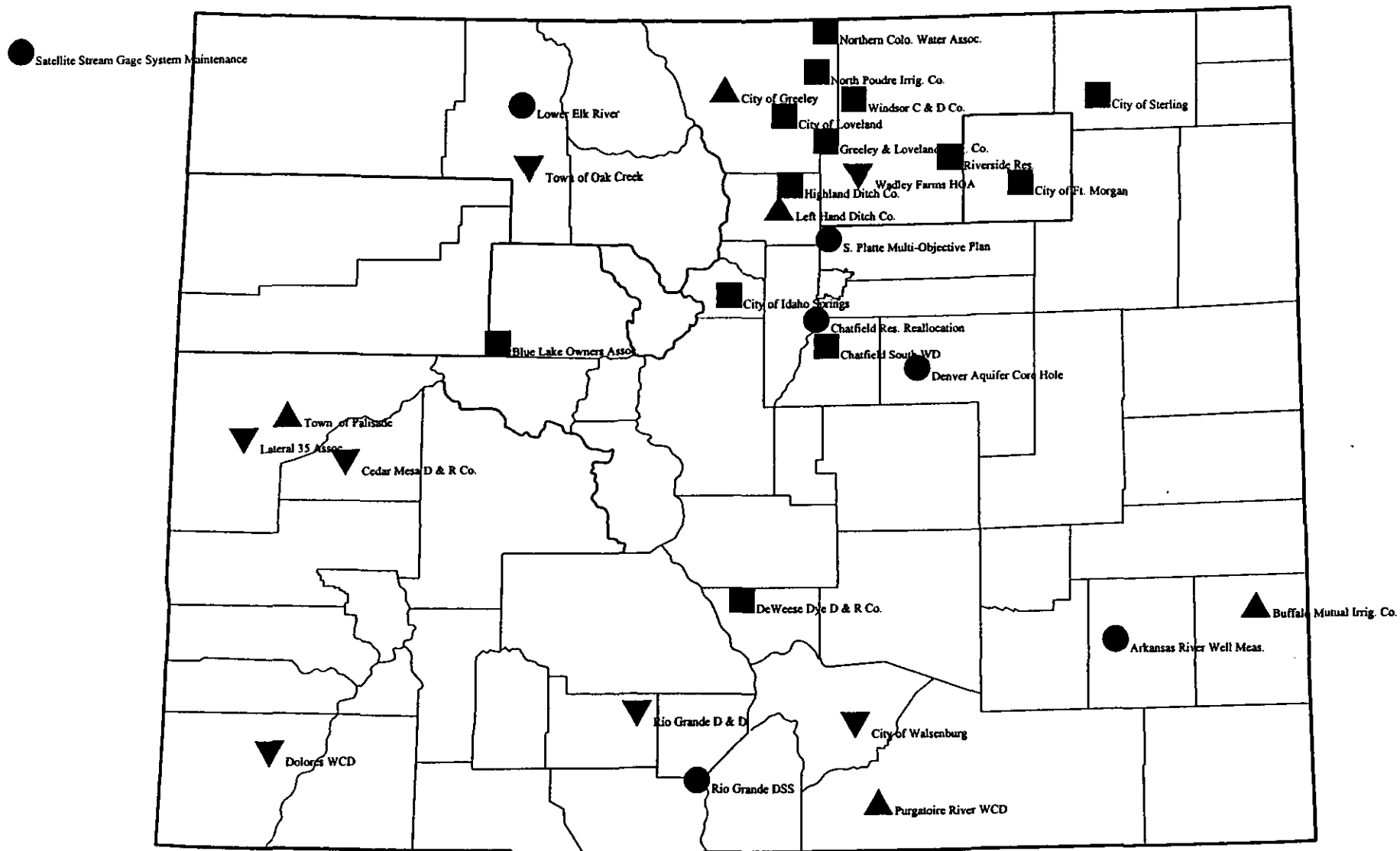
Annual Volume of Water Delivered by the Project: 255 ac.ft.

APPENDIX C

Data for New Loans Recommended for New Authorization in FY97-98

Colorado Water Conservation Board Water Project Construction Loan Program

Statewide



New Loan Authorization

Loan Increase

Loan Decrease

Non-Reimbursable Project

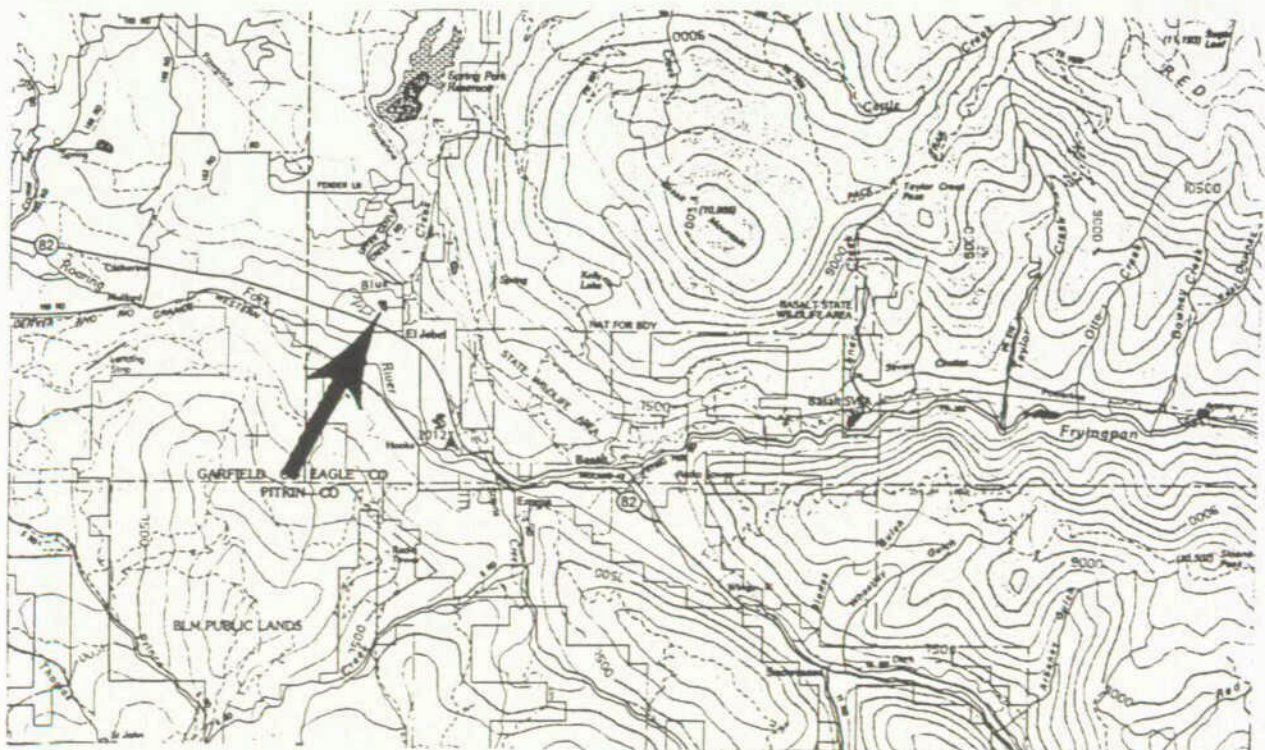


Water Project Construction Loan Program - Project Data

Borrower:	Blue Lake Owners Association				
Project Name:	Raw Water Irrigation System*	Project Type:	Infrastructure		
County:	Eagle	Drainage Basin:	Colorado	Water Source:	Roaring Fork
Total Project Cost:	\$1,200,000	Funding Sources:	Association and CWCB		
Type of Borrower:	Municipal	Median Household Income:	High		
CWCB Loan:	\$900,000	Interest Rate:	5.75%	Term:	30 years

Annual Volume of Water Delivered by the Project: 60 acre-feet

This project is located in Eagle County, 6 miles southeast of the Town of Carbondale, in the Roaring Fork Valley. The borrower is a homeowners association serving the Blue Lake Subdivision, which has 350 homes and a service area of 200 acres. The project is needed because the subdivision has a shortage of irrigation water for parks, open space, and individual owner lots. Without the project, area residents will be forced to use potable water for irrigation. Potable water is in short supply, and very expensive. The Natural Resources Conservation Service has completed initial engineering under whose direction a draft feasibility study and initial design work has been completed. The project will consist of a pump station on Blue Lake, a trunk pipeline system looping through the subdivision, and individual taps for open space and for each individual lot. Construction is scheduled to start in March 1998 and to be completed in September 1998. Funding sources consist of a CWCB loan and a special assessment of the homeowners.



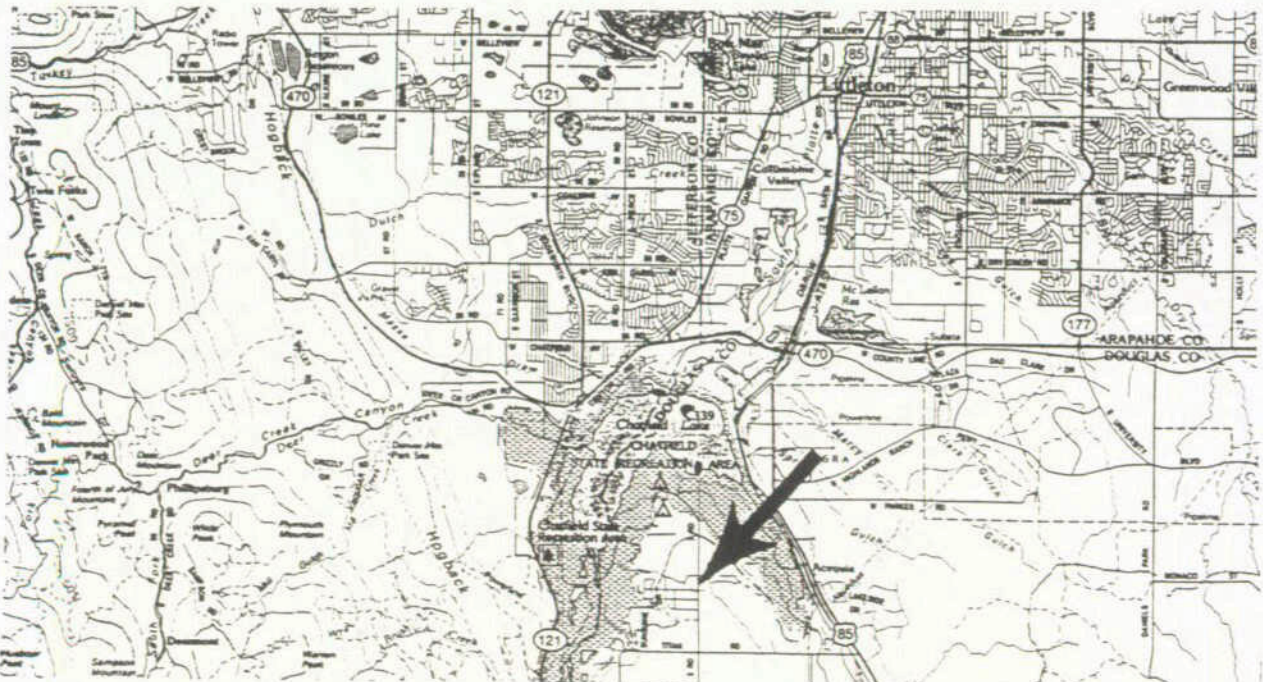
Location Map

Water Project Construction Loan Program - Project Data

Borrower:	Chatfield South Water District				
Project Name:	Water Rights Purchase*	Project Type:	Water Purchase		
County:	Douglas	Drainage Basin:	S. Platte	Water Source:	Denver Water
Total Project Cost:	\$1,950,000	Funding Sources: District, CWCB, and others			
Type of Borrower:	Municipal	Median Household Income:	Middle		
CWCB Loan:	\$500,000	Interest Rate:	4.75%	Term:	20 years

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

This project is located in Douglas County, 5 miles south of Littleton, and about a mile east of the South Platte River. The borrower is a Special District serving 4 small existing subdivisions that have 75 homes within a 960-acre service area. The project is needed because wells are going dry. The aquifers in the area of Chatfield South are thin, and water levels have dropped significantly over the past 20 years. Without the project, residents will be forced to haul water for drinking and for irrigation purposes. Patrick Mulhern, P.E. and Joseph Rottman P.E. have completed initial engineering under whose direction a draft feasibility study and initial design work has been completed. The project will consist of a trunk pipeline connecting to Denver Water conduit #10, approximately 21,000 feet of distribution water line looping through subdivisions in the service area, and individual taps for each lot. Construction is scheduled to start in April 1998 and to be completed in August 1998. Funding sources consist of a CWCB loan, a loan from another agency yet to be determined, and a special assessment of the homeowners.



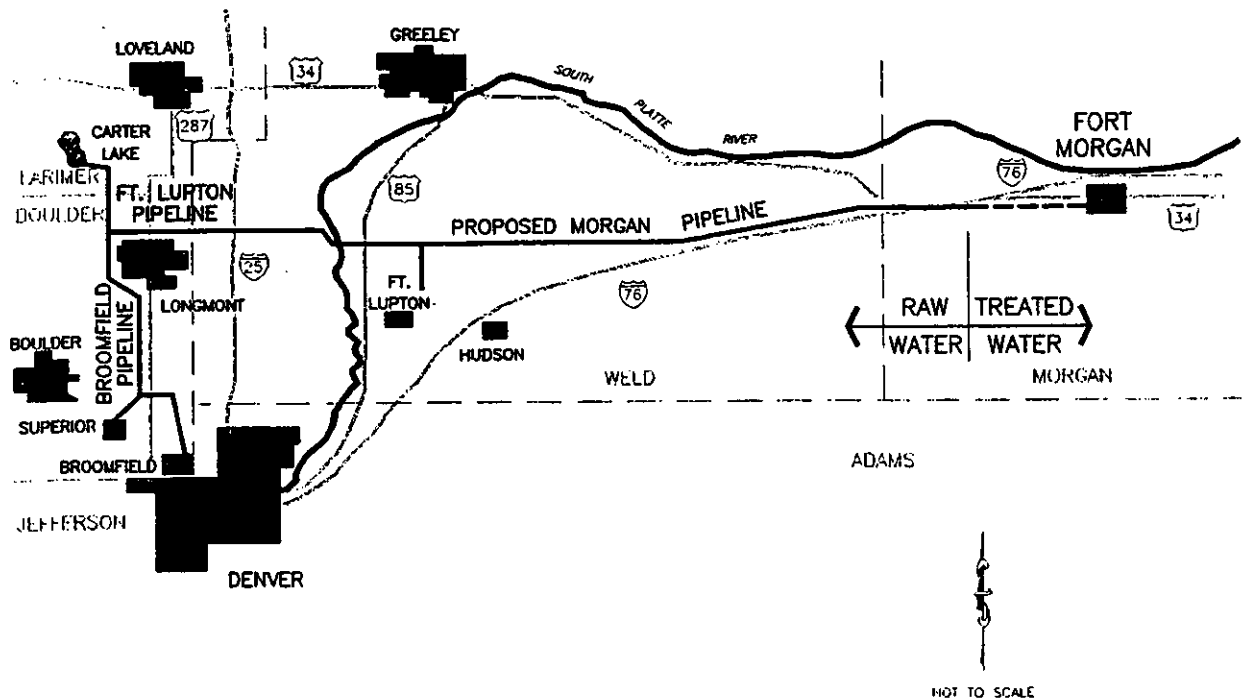
Location Map

Water Project Construction Loan Program - Project Data

Borrower:	City of Fort Morgan	
Project Name:	Raw Water Pipeline*	Project Type: Infrastructure
County:	Morgan	Drainage Basin: S. Platte Water Source: CBT Project
Total Project Cost:	\$15,100,000	Funding Sources: City, Authority and CWCB
Type of Borrower:	Municipal	Median Household Income: Low
CWCB Loan:	\$8,000,000	Interest Rate: 4.00% Term: 30 years

Annual Volume of Water Delivered by the Project: 3,360 acre-feet

The project involves the completion of the raw water facilities for the City's water system replacement project. This will consist of 42 miles of 24-inch diameter pipeline from the vicinity of Platteville to Fort Morgan and a terminal raw water reservoir with a capacity of 132 acre-feet. The project is a part of the Southern Water Supply Project (SWSP) of the Northern Colorado Water Conservancy District. With a previous (1994) financing, the CWCB's participation in the project will amount to \$13,500,000. Feasibility studies were completed in May 1995 and January 1997.



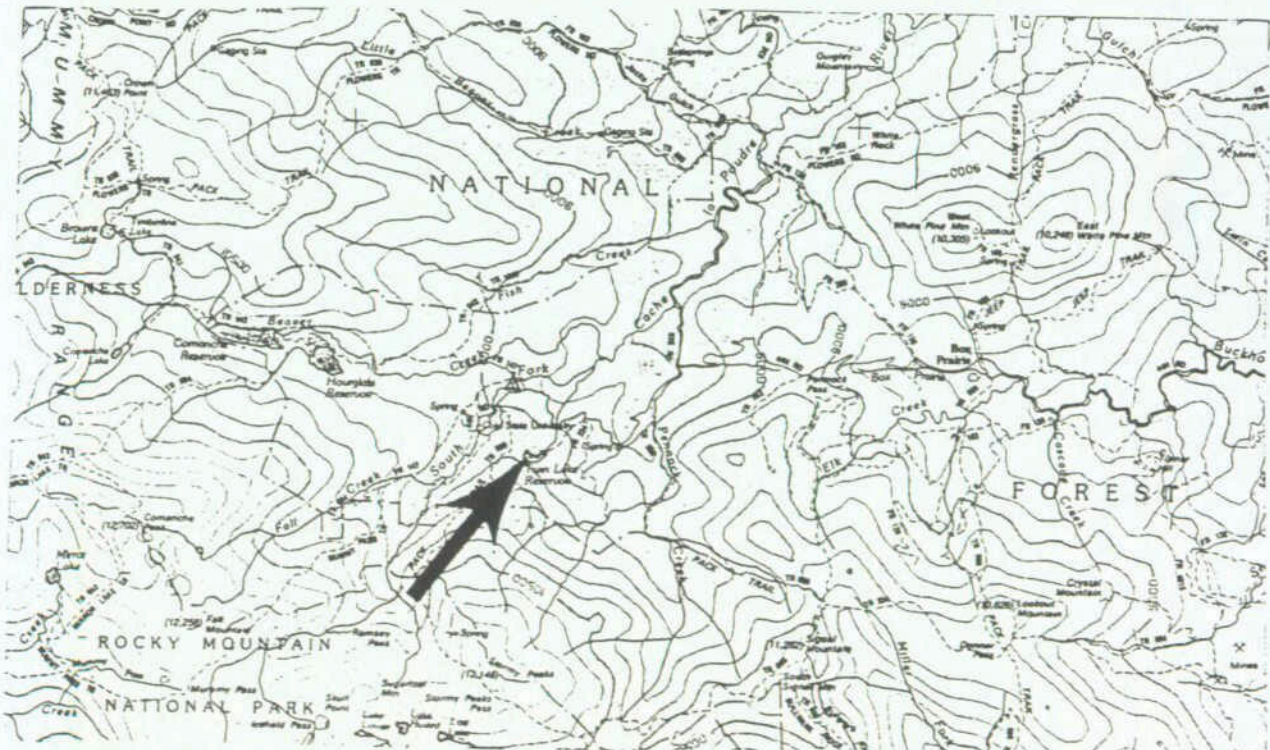
Location Map.

Water Project Construction Loan Program - Project Data

Borrower:	City of Greeley				
Project Name:	Twin Lakes Reservoir Rehabilitation	Project Type:	Dam Rehab.		
County:	Larimer	Drainage Basin:	S. Platte	Water Source:	Cache La Poudre
Total Project Cost:	\$1,100,000	Funding Sources:	City and CWCB		
Type of Borrower:	Municipal	Median Household Income:	\$23,462		
CWCB Loan:	\$787,000	Interest Rate:	5.00%	Term:	30 years

Annual Volume of Water Delivered by the Project: 278 acre-feet

Twin Lakes Reservoir, located in the Roosevelt National Forest on a tributary of the South Fork of the Cache la Poudre, is an integral part of the City of Greeley's raw water supply system. The City has been unable to use the storage capacity of the reservoir since 1984 due to the poor condition of the embankment and outlet works. The existing dam will be removed and replaced with an earth embankment dam at essentially the same location and the same dimensions as the existing structure. The City's original (1987) authorization for this project was \$412,500. The City is requesting an additional \$375,000 for a total authorization of \$787,500 or about 75 percent of total project costs when planning assistance by the CWCB is included. The feasibility study was completed in November 1997.



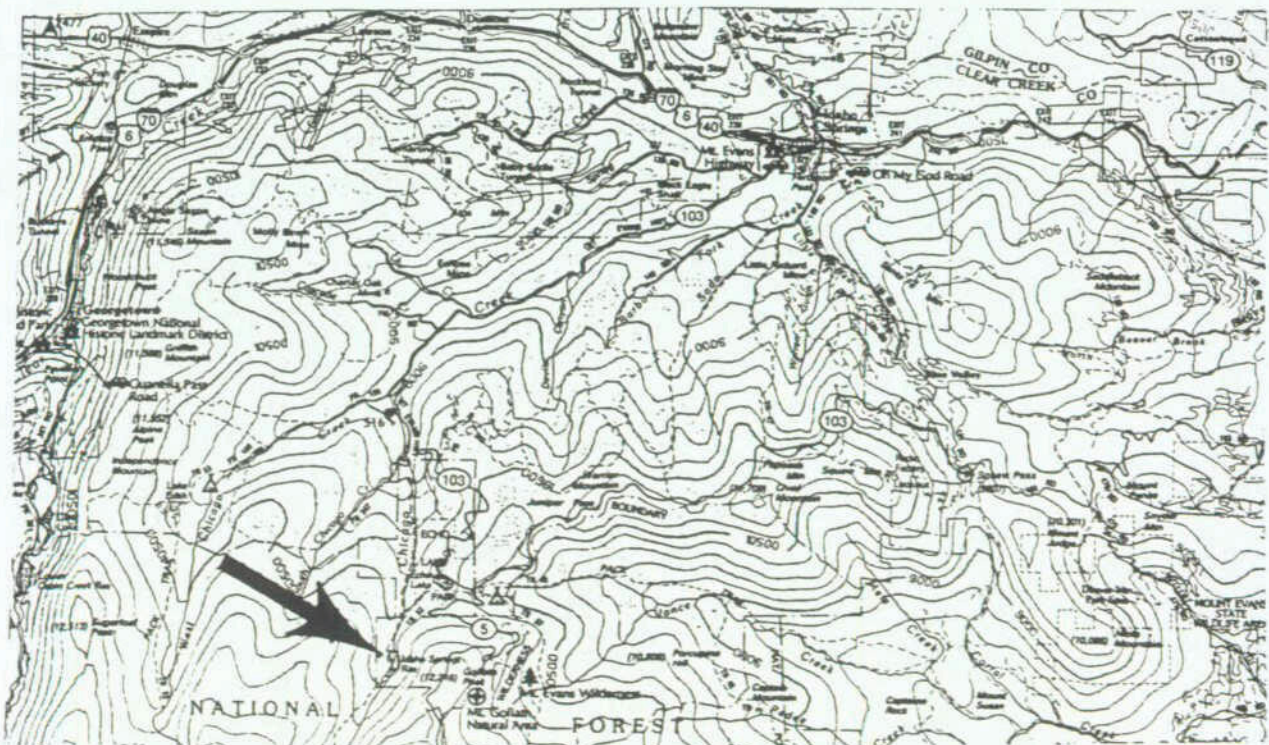
Location Map

Water Project Construction Loan Program - Project Data

Borrower:	City of Idaho Springs				
Project Name:	Idaho Springs Reservoir Dam Rehabilitation*	Project Type:	Dam Rehab.		
County:	Clear Creek	Drainage Basin:	S. Platte	Water Source:	Chicago Creek
Total Project Cost:	\$1,100,000	Funding Sources:	City and CWCB		
Type of Borrower:	Municipal	Median Household Income:	Middle		
CWCB Loan:	\$955,000	Interest Rate:	5.00%	Term:	30 years

Annual Volume of Water Delivered by the Project: 107 acre-feet

This project is located in Clear Creek County, 10 miles southwest of Idaho Springs. The borrower is a Statutory City serving approximately 1,000 customers. The project is needed because the Idaho Springs Reservoir Dam, owned by the city, has an inadequate spillway and seepage through the embankment. The reservoir has a capacity of 227 acre-feet, but is restricted to 120 acre-feet by the State Engineer due to safety concerns (a loss of about 107 acre-feet). Parsons Engineering Science has completed the feasibility study. The project will consist of constructing a support berm with blanket drain on the downstream slope of the dam, and rehabilitating the emergency spillway. Construction is scheduled to start in the year 2000, and be completed in 2001. Funding sources consist of a CWCB loan and city funds.



Location Map

Water Project Construction Loan Program - Project Data

Borrower:	City of Loveland				
Project Name:	Green Ridge Glade Reservoir Enlargement	Project Type:	Enlargement		
County:	Larimer	Drainage Basin:	S. Platte	Water Source:	Big Thompson
Total Project Cost:	\$19,700,000	Funding Sources:	City, Authority and CWCB		
Type of Borrower:	Municipal	Median Household Income:	Middle		
CWCB Loan:	\$2,000,000	Interest Rate:	4.75%	Term:	10 years

Annual Volume of Water Delivered by the Project: 6,000 acre-feet

The City of Loveland is proposing to expand it's existing Green Ridge Glade Reservoir from a capacity of 600 acre-feet to 6,000 acre-feet. Green Ridge Glade is an off-channel reservoir located about seven miles west of Loveland. The project will include raising the existing earth embankment dam and replacing the existing intake tower, outlet works, and spillway as well as relocating an existing county road in the reservoir area. The expanded reservoir will provide emergency storage, drought protection, and better management of the City's water supplies. Feasibility studies were completed in August 1986, January 1988, and October 1997.



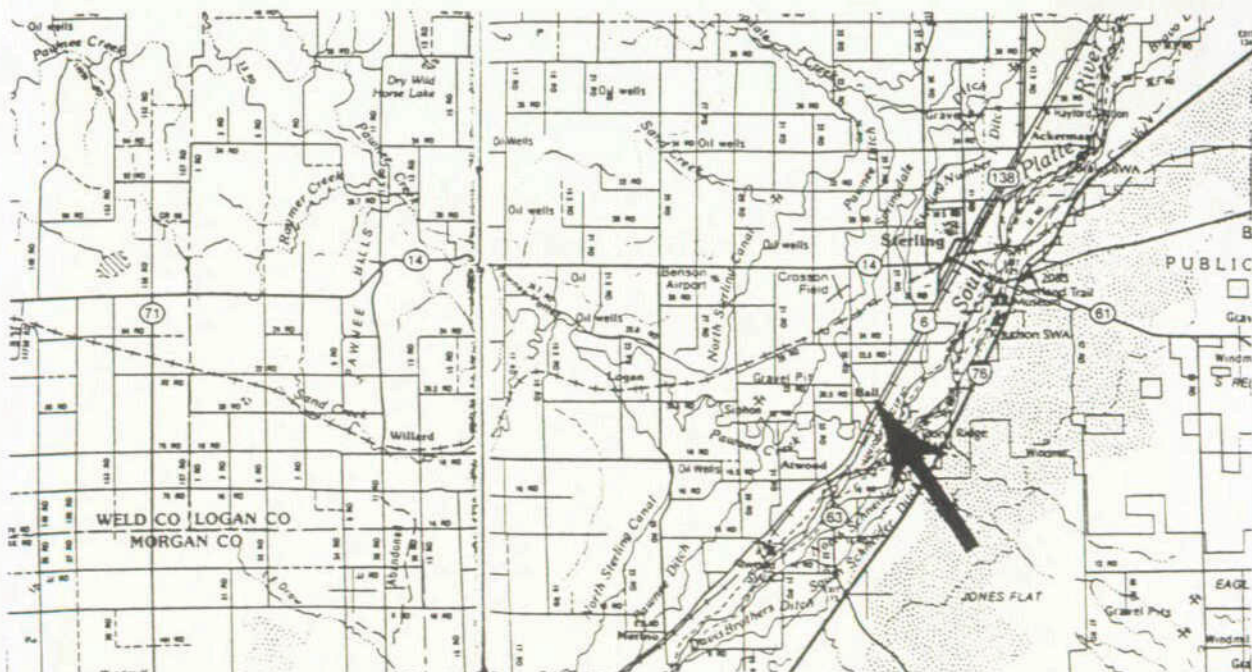
Location Map

Water Project Construction Loan Program - Project Data

Borrower:	City of Sterling		
Project Name:	Pawnee Creek Flood Control Project*		Project Type: Flood Control
County:	Logan	Drainage Basin: S. Platte	Water Source: Pawnee Creek
Total Project Cost:	\$3,000,000	Funding Sources: City and CWCB	
Type of Borrower:	Municipal	Median Household Income:	
CWCB Loan:	\$550,000	Interest Rate: 3.75%	Term: 20 years

Annual Volume of Water Delivered by the Project: NA

Pawnee Creek drains an area of 645 square miles in Logan County and is tributary to the South Platte River southwest of the City of Sterling. The overflows from floods on Pawnee Creek flooded the community in 1935, 1965, and 1997. The city's business sector was completely inundated during the July 30-31, 1997 flood event. Approximately 1,400 homes and the entire business district in the southern half of the community are in the 100-year floodplain from Pawnee Creek overflows. ICON Engineering, Inc. of Denver completed a reconnaissance level study in June 1997. The proposed project consists of levees, improved channel hydraulic conveyance systems, bridge modifications, and floodwalls designed to provide 100-year flood protection. The project plan is under review to evaluate the flood characteristics from a flood of the same magnitude as the 1997 flood. The total cost of the project is estimated at \$4,040,000. Funding sources include the city's capital improvement fund (\$750,000), a FEMA hazard mitigation grant (\$1,165,000), Logan County in kind services (\$150,000), the Union Pacific Railroad (\$375,000), Colorado Department of Transportation (\$550,000), CWCB Construction Fund in 1998 (\$550,000), and CWCB Construction Fund in 1999 if needed (\$500,000).



Location Map

Water Project Construction Loan Program - Project Data

Borrower: DeWeese-Dye Ditch & Reservoir Company

Project Name: DeWeese Dam Rehabilitation* **Project Type:** Dam Rehab.

County: Custer **Drainage Basin:** Arkansas **Water Source:** Grape Creek

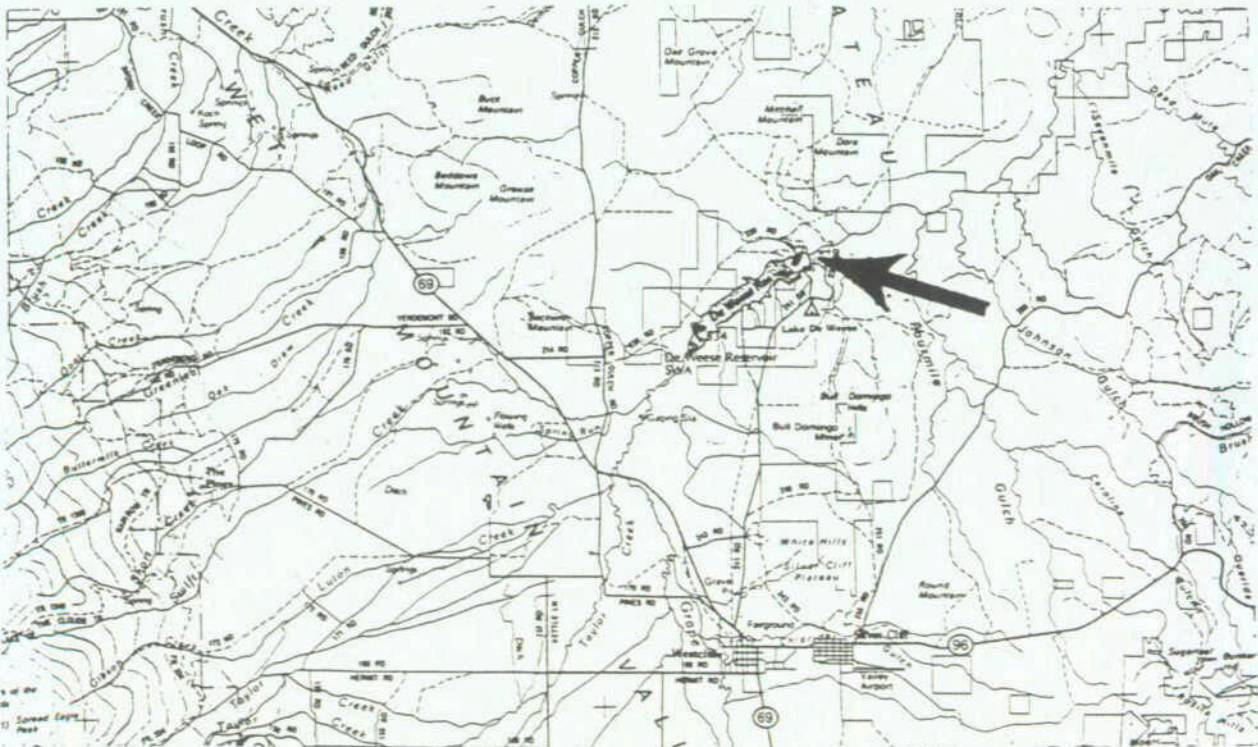
Total Project Cost: \$839,000 **Funding Sources:** Company and CWCB

Type of Borrower: Agricultural/Municipal **Median Household Income:** Low

CWCB Loan: \$734,000 **Interest Rate:** 4.00% **Term:** 30 years

Annual Volume of Water Delivered by the Project: 2,480 acre-feet

DeWeese Dam is located on Grape Creek about five miles north of Westcliffe in Custer County. The main irrigation service area is south of Canon City in Fremont County where the Company supplies water for small farms and rural domestic water supply. The dam, which was originally constructed in about 1903, is a concrete masonry structure which exhibits considerable deterioration of the concrete in the top 12 feet of the dam crest. The project involves the replacement of the entire upper 12 feet of the dam. The project does not involve any enlargement of the reservoir which has a capacity of 4,000 acre-feet. The feasibility study was completed in April 1997.



Location Map

Water Project Construction Loan Program - Project Data

Borrower: Greeley and Loveland Irrigation Company

Project Name: Equalizer Dam Rehabilitation* **Project Type:** Dam Rehab.

County: Larimer/Weld **Drainage Basin:** S. Platte **Water Source:** Big Thompson

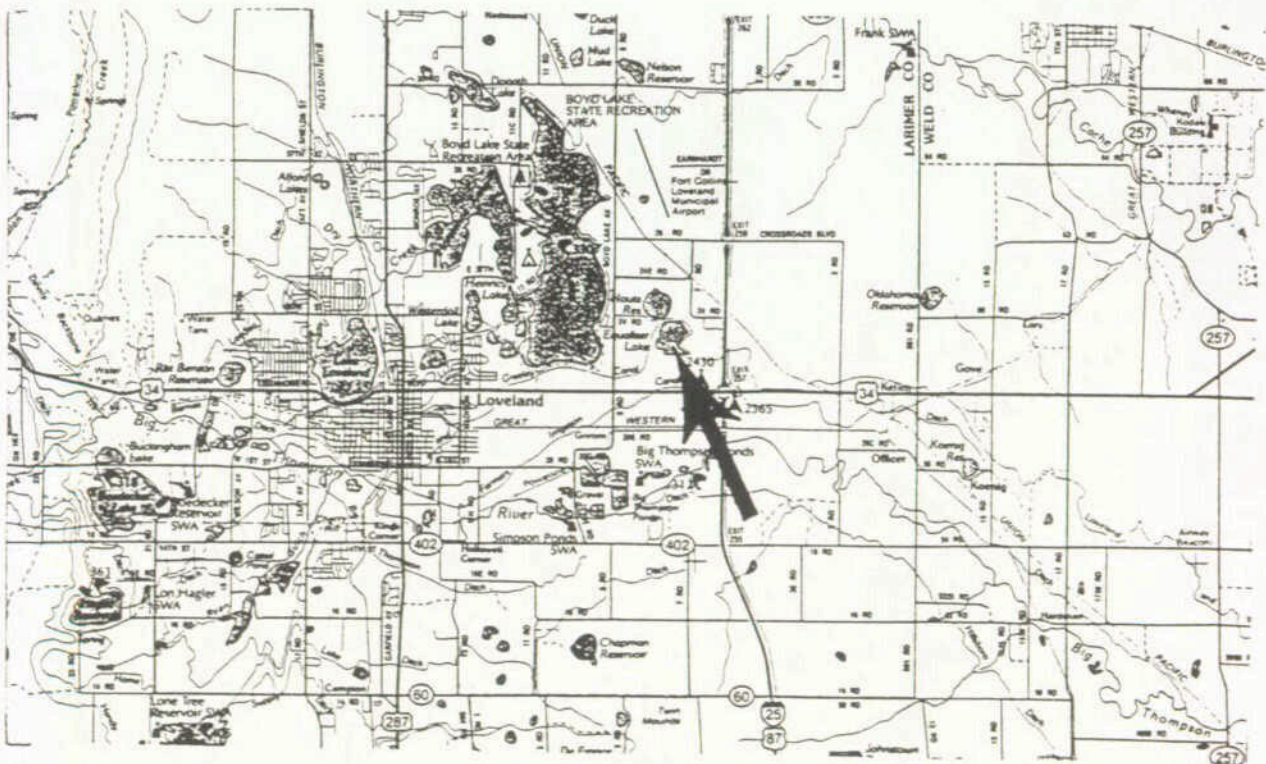
Total Project Cost: \$426,000 **Funding Sources:** Company and CWCB

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

CWCB Loan: \$308,000 **Interest Rate:** 4.21% (blend) **Term:** 30 years

Annual Volume of Water Delivered by the Project: 885 acre-feet

Equalizer Dam, which is located about two miles east of Loveland in Larimer County, is an integral part of the Greeley and Loveland Irrigation Company system. The system provides water for the City of Greeley and for the irrigation of about 18,000 acres of irrigated croplands in Larimer and Weld counties. The project involves replacing an existing gate structure on Equalizer Dam with a new structure which will incorporate both the outlet gates and a spillway. In addition, the existing dam embankment will be raised one foot. The feasibility study was completed in November 1997.



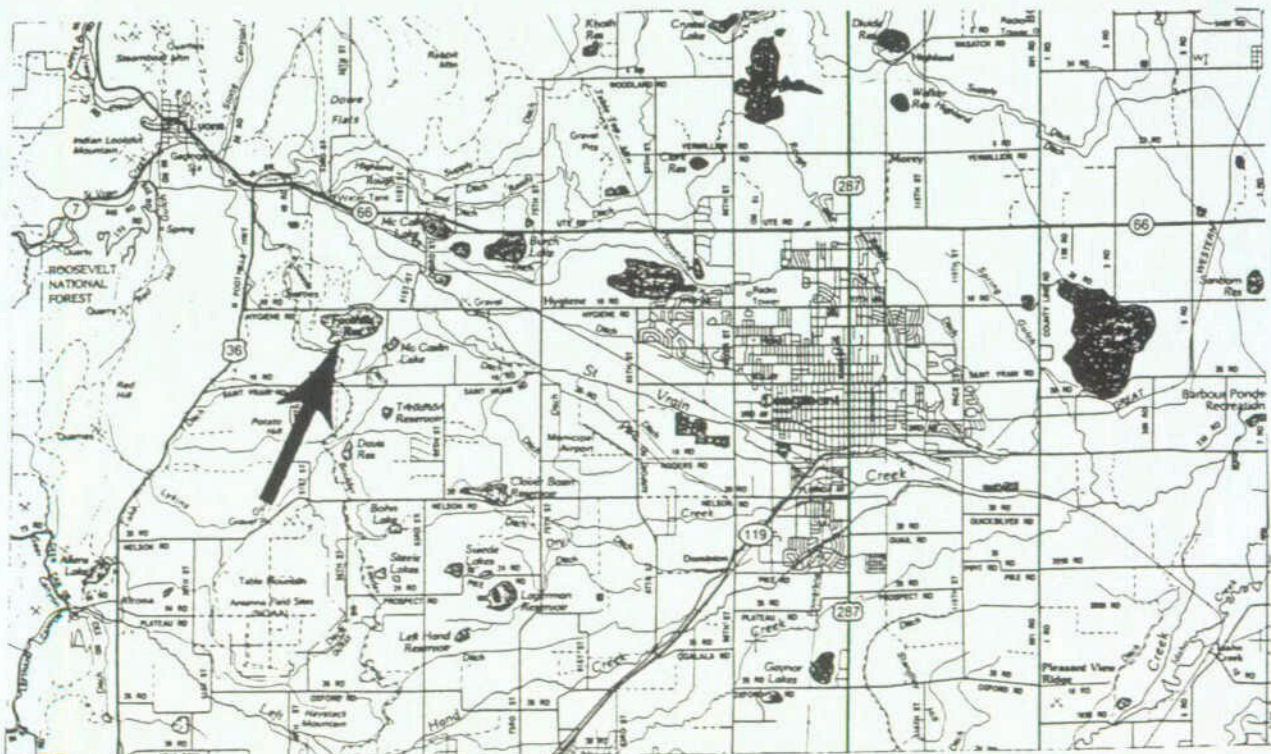
Location Map

Water Project Construction Loan Program - Project Data

Borrower:	Highland Ditch Company		
Project Name:	Foothills Reservoir Dam Rehabilitation	Project Type:	Dam Rehab.
County:	Boulder	Drainage Basin:	S. Platte
		Water Source:	St. Vrain
Total Project Cost:	\$1,390,000	Funding Sources:	Company and CWCB
Type of Borrower:	Agricultural	Median Household Income:	NA
CWCB Loan:	\$1,040,000	Interest Rate:	4.00%
		Term:	30 years

Annual Volume of Water Delivered by the Project: 450 acre-feet

This project is located in Larimer County, 5 miles west of Longmont. The borrower is an agricultural irrigation company serving 425 shareholders within a 40,000-acre service area. The project is needed because the Foothills Reservoir Dam, owned by the company, has an inadequate spillway and severe seepage through the embankment. The reservoir has a capacity of 4,346 acre-feet, but is restricted to gage 41 by the State Engineer due to safety concerns (a loss of about 450 acre-feet.). Smith Geotechnical Engineers has completed the feasibility study and initial design work. The project will consist of constructing a blanket drain on the downstream slope of the dam, and enlarging the emergency spillway. Construction is scheduled for fall 1998. Funding sources consist of a CWCB loan and a special assessment of the shareholders.



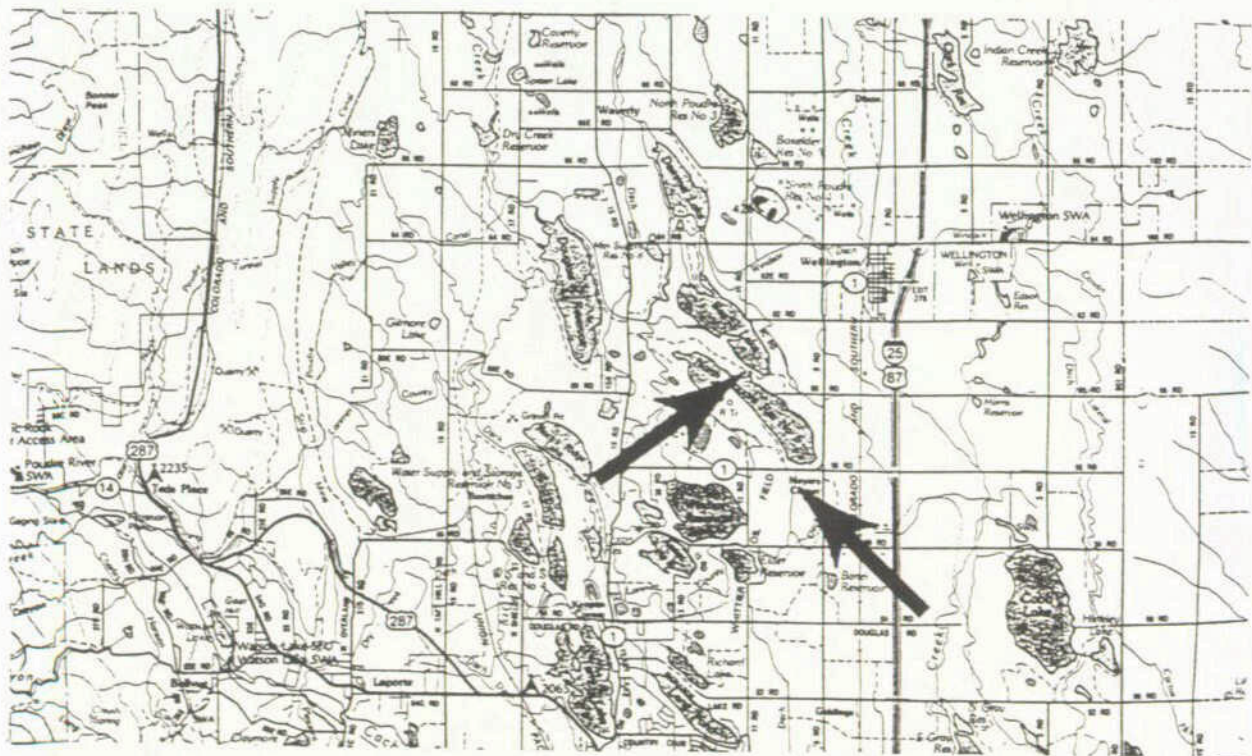
Location Map

Water Project Construction Loan Program - Project Data

Borrower:	North Poudre Irrigation Company		
Project Name:	System Rehabilitation	Project Type:	Dam Rehab.
County:	Larimer	Drainage Basin:	S. Platte
Total Project Cost:	\$1,244,450	Funding Sources:	Company and CWCB
Type of Borrower:	Agricultural	Median Household Income:	NA
CWCB Loan:	\$500,000	Interest Rate:	4.00%
		Term:	30 years

Annual Volume of Water Delivered by the Project: 200 acre-feet

This project is located in Larimer County, 10 miles north of Fort Collins. The borrower is an agricultural irrigation company serving 685 shareholders within a 30,000-acre service area. The project is needed because North Poudre Reservoir #5 has an inadequate spillway, and because two company ditches are eroding badly, threatening adjacent farmland and county roads. Smith Geotechnical Engineers has completed the feasibility study and initial design. The project will consist of constructing an emergency spillway and placing two open ditches with pipe. Construction is scheduled to start in March of 1998 and be completed by October 1998. Funding sources include a CWCB loan and a special assessment of the shareholders.



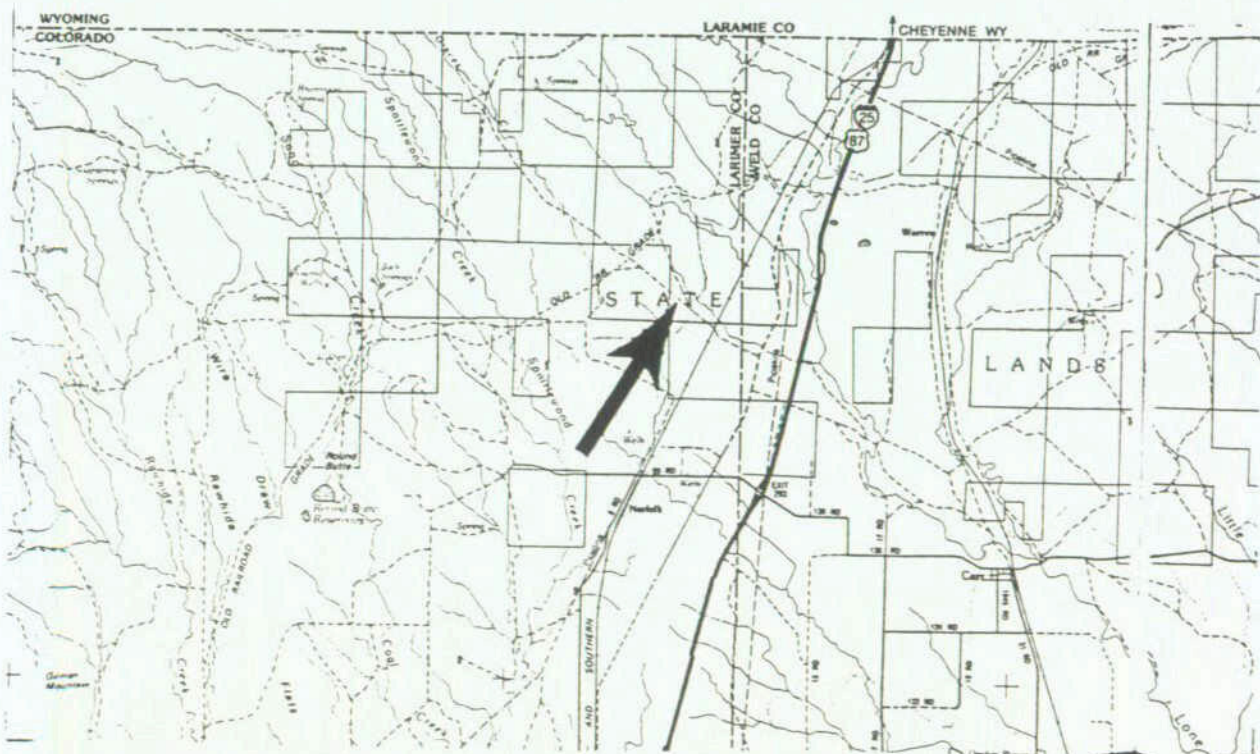
Location Map

Water Project Construction Loan Program - Project Data

Borrower:	Northern Colorado Water Association				
Project Name:	Purchase of Wells and Water Rights	Project Type:	Water Purchase		
County:	Larimer	Drainage Basin:	S. Platte	Water Source:	Groundwater
Total Project Cost:	\$1,200,000	Funding Sources:	Association and CWCB		
Type of Borrower:	Municipal	Median Household Income:	Low		
CWCB Loan:	\$900,000	Interest Rate:	4.00%	Term:	30 years

Annual Volume of Water Delivered by the Project: 800 acre-feet

This project is located in Larimer County, 15 miles north of the Town of Wellington. The borrower is a private non-profit corporation providing domestic water to approximately 3,300 rural area residents within the 120 square mile service area. The association needs to acquire these wells and the land on which they are located to assure adequate supply for customers within their existing service area, and to provide wellhead protection for their existing well field. A feasibility study has been completed by Littjohann and Pederson, CPA, and by Richard G. Patterson, PE. The project does not involve construction. Purchase is scheduled for fall 1998. Funding sources consist of a CWCB loan, and the Association.



Location Map

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:** Purgatoire River

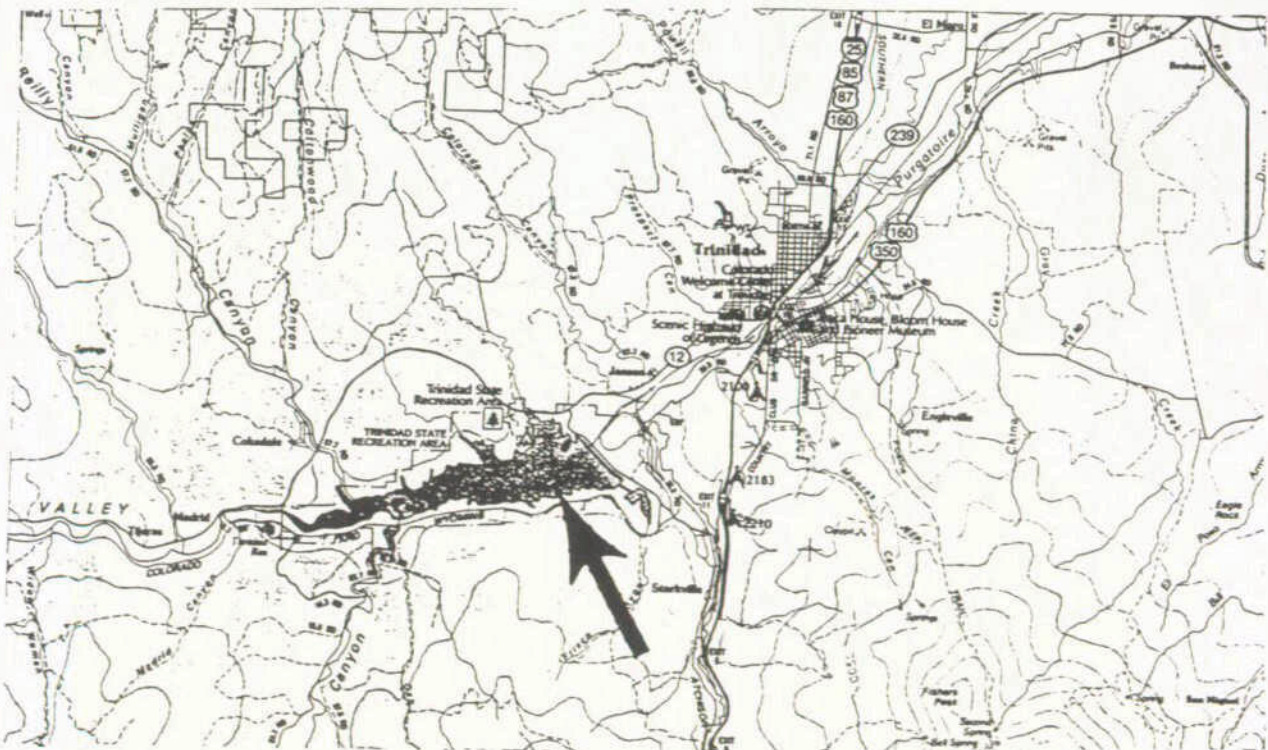
Total Project Cost: \$1,500,000 **Funding Sources:** District and CWCB

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

CWCB Loan: \$1,000,000 **Interest Rate:** 3.75 % & 4.00% **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.



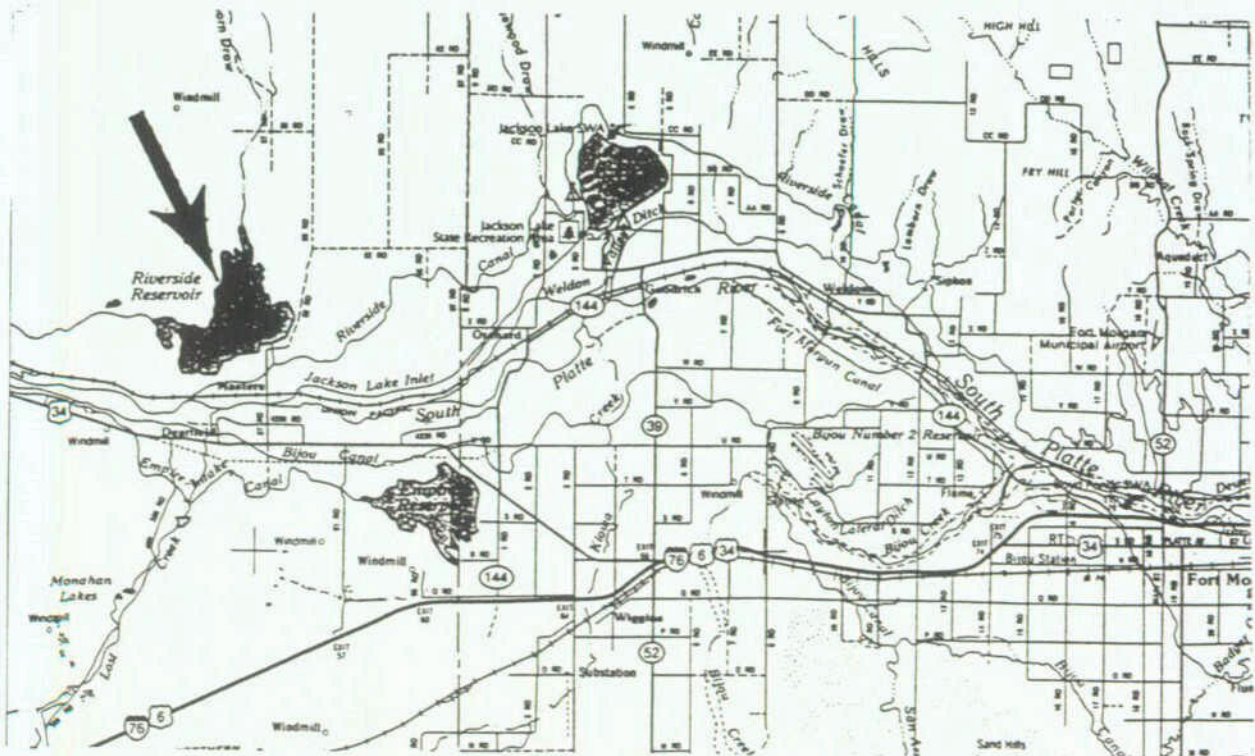
Location Map

Water Project Construction Loan Program - Project Data

Borrower:	Riverside Reservoir & Land Company				
Project Name:	Riverside Res. Emergency Spillway Rehab.	Project Type:	Dam Rehab.		
County:	Weld	Drainage Basin:	S. Platte	Water Source:	S. Platte
Total Project Cost:	\$530,000	Funding Sources:	Company and CWCB		
Type of Borrower:	Agricultural	Median Household Income:	NA		
CWCB Loan:	\$400,000	Interest Rate:	4.00%	Term:	30 years

Annual Volume of Water Delivered by the Project: 200 acre-feet

This project is located in Weld County, about 40 miles west of Fort Morgan and 4 miles north of the South Platte River. The borrower is an irrigation company serving shareholders within a 47,000 acre service area in Morgan, Weld, Washington, and Logan Counties. The project is needed because Riverside Reservoir, owned by the company, does not have an emergency spillway. The reservoir is under restriction by the State Engineer with a current annual storage loss of 200 acre-feet. The CWCB loan will also be used to acquire 3,100 acres of BLM land lying primarily within the reservoir basin. This land purchase is necessary for the company to maintain control of their reservoir and its facilities. W.W. Wheeler and Associates has completed the feasibility study. The project will consist of constructing an emergency spillway adjacent to the left abutment of the dam. Construction is scheduled for fall 1998. Funding sources consist of a CWCB loan and a special assessment of the shareholders.



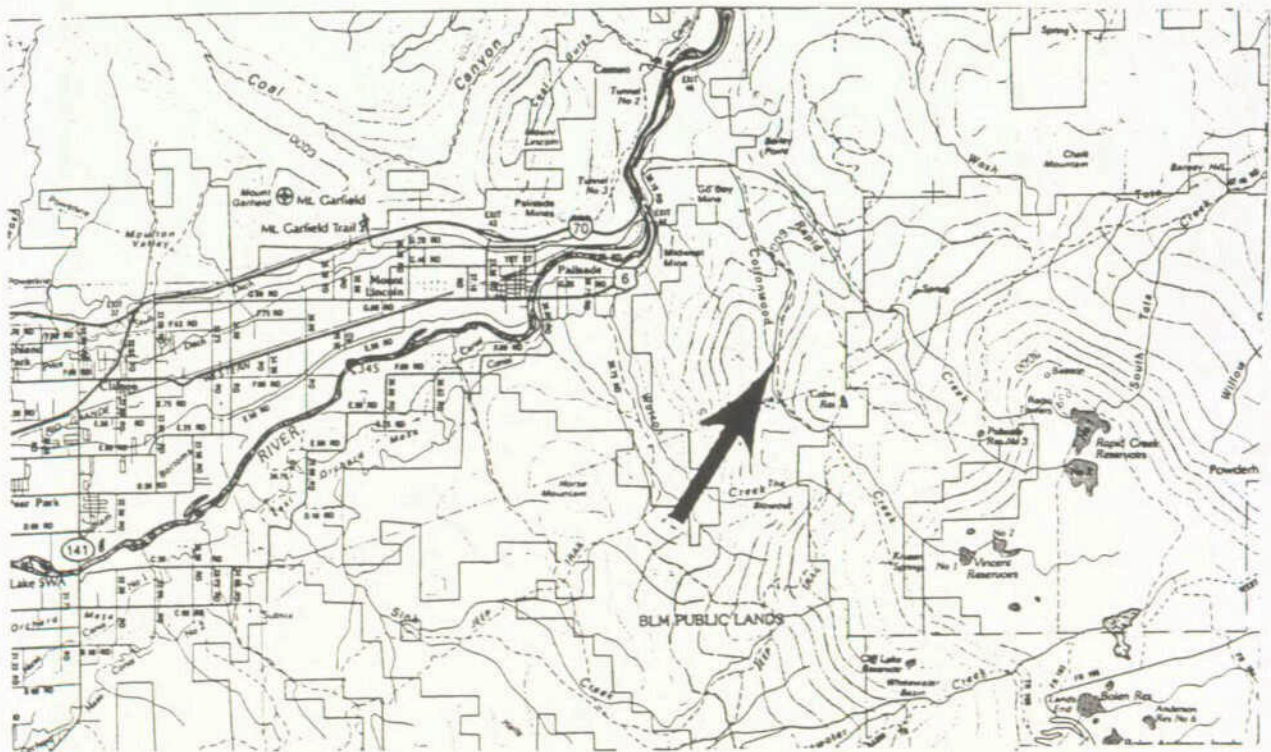
Location Map

Water Project Construction Loan Program - Project Data

Borrower:	Town of Palisade	
Project Name:	Cottonwood Creek Pipeline Replacement	Project Type: Infrastructure
County:	Mesa	Drainage Basin: Colorado Water Source: Rapid Creek
Total Project Cost:	\$1,243,000	Funding Sources: Town and CWCB
Type of Borrower:	Municipal	Median Household Income: \$18,500
CWCB Loan:	\$922,000	Interest Rate: 4.00% Term: 30 years

Annual Volume of Water Delivered by the Project: 930 acre-feet

The Town of Palisade is proposing to replace its existing Cottonwood Creek Pipeline which is the Town's major source of raw water supply. The pipeline, which was built about fifty years ago, is operating at capacity and is in very poor condition. The project will consist of the installation of about 4.2 miles of 12-inch diameter pipe in the Cottonwood Creek drainage about five miles southeast of Palisade. The Town's original (1994) authorization for this project was \$750,000. Completion of the feasibility study in November 1997 indicated a higher cost than originally expected and resulted in a request by the Town for an additional \$172,000 for a total requested authorization of \$922,000 or about 75 percent of total project costs.



Location Map

Water Project Construction Loan Program - Project Data

Borrower: Windsor Canal & Ditch Company

Project Name: Big Windsor Reservoir Pump Station **Project Type:** Infrastructure

County: Weld **Drainage Basin:** S. Platte **Water Source:** Cache La Poudre

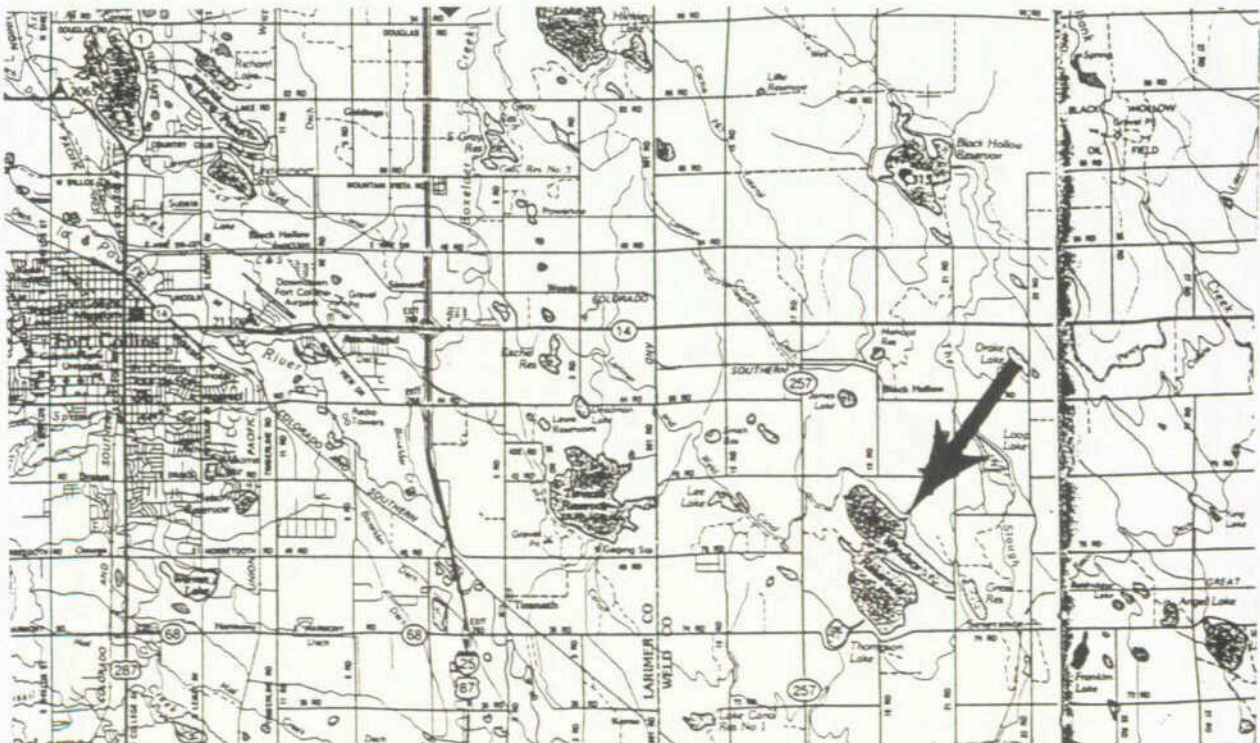
Total Project Cost: \$1,564,000 **Funding Sources:** Company and CWCB

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

CWCB Loan: \$1,175,000 **Interest Rate:** 4.00% **Term:** 30 years

Annual Volume of Water Delivered by the Project: 14,000 acre-feet

This project is located in Weld County, 10 miles east of Fort Collins. The borrower is an agricultural irrigation company serving 275 shareholders within a 55,000-acre service area. The project is needed because the company is not able to directly deliver 14,000 acre-feet of water from this reservoir for irrigation use within the service area. Smith Geotechnical Engineers has completed the feasibility study. The project will consist of constructing a pump station to lift water from the reservoir into the Larimer and Weld Canal. Construction is scheduled for fall 1999. Funding sources consist of a CWCB loan and a special assessment of the shareholders.



Location Map

APPENDIX D

List of De-Authorized Loans

**Colorado Water Conservation Board
Water Project Construction Loan Program
Deauthorized Loans**

<u>Applicant/Borrower</u>	<u>Project</u>	<u>County</u>	<u>Amount</u>
<u>Projects Deauthorized in 1997 (SB 97-008)</u>			
Meyering Livestock Co.	Hyannis Peak Reservoir	Jackson	425,000
Redlands Water & Power Co.	Redlands Rehabilitation	Mesa	420,000
Bull Basin Res. & Irrig Co.	Bull Basin Res. No. 2 Outlet Rehab.	Mesa	25,000
Lower Clear Creek Ditch Co.	Diversion Dam Rehab.	Adams	60,000
Colo. Agricultural Ditch Co.	Diversion Dam Rehab.	Adams	60,000
Buckeye Lateral Ditch Association, Inc.	Ditch Rehabilitation	Larimer	440,000
			1,430,000
<u>Projects Deauthorized in 1996 (SB 96-153)</u>			
Town of Elizabeth	New 2,100 foot Arapahoe Well	Elbert	437,250
City of Salida	Raw Water Pipeline	Chaffee	553,000
Pagosa Area Water and Sanitation District	Hidden Valley Reservoir	Archuleta	500,000
			1,490,250
<u>Projects Deauthorized in 1995 (HB 95-1155)</u>			
City of Broomfield (partial deauthorization)	Great Western Dam Rehabilitation	Jefferson	1,600,000
Mesa Linda Property Owners Association	Mesa Linda Irrigation System	La Plata	32,000
			1,632,000
<u>Projects Deauthorized in 1994 (SB 94-029)</u>			
Bauer Lakes Water Co. (close account)	Bauer No. 1 Res. Dam Rehab.	Montezuma	7,149
Blaine Lateral Ditch Company	Blaine Lateral	Weld	155,000
Clinton Ditch and Reservoir Company (close account)	Clinton Reservoir Residual	Summit	550,000
Florida Canal Company	Florida Farm Irrigation Project	La Plata	260,000
Kern Reservoir and Ditch Company (close account)	Kern Reservoir Dam Rehab.	Weld	40,033
Town of Lochbuie	Lake Henry Dam Rehab.	Weld	100,000
Spring Creek Extension Ditch Company	Spring Creek Inverted Siphon	La Plata	48,000
Colorado Water Conservation Board (close account)	White River Study Residual	Rio Blanco	30,000
			1,188,182
<u>Projects Deauthorized in 1993 (HB 93-1273)</u>			
Mancos WCD	Jackson Gulch Diversion Dam Repair Residual	Montezuma	43,638
Ridges Metro District	Ridges Water Supply and Irrig. System	Mesa	922,109
Town of Oak Creek	Flood Emergency - Diversion and Settl. Pond	Routt	144,000
North Poudre Irrig. Co.	Clark Lake Dam Rehab.	Larimer	72,058
Florida Water Conservancy District	Lemon Dam Rehab.	La Plata	162,900
Montezuma Valley Irrigation Company	Moonlight Lateral Rehab.	Montezuma	100,000
Wisconsin Ditch Company	Reinforced Concrete Siphon (with SCS)	Moffat	16,500
City of Louisville	Louisville Reservoir Rehab. and Enlargement	Boulder	1,690,000
Clinton Ditch and Reservoir Company	Part of Clinton Reservoir Residual	Summit	3,115,000
Town of Erie	Keystone Reservoir	Weld	1,050,000
			7,316,205
<u>Projects Deauthorized in 1992 (SB 92-87)</u>			
Greeley-Loveland Irrigation Company	Lake Loveland Outlet Works Repairs	Weld	250,000
Town of Frederick	Raw Water Conveyance System	Weld	1,315,000
City of Grand Junction (close account)	Juniata Pipeline Project	Mesa	54,069
Canon Heights Irrigation Company	Canal Rehabilitation	Fremont	65,000
Ish Reservoir Company (close account)	Ish Dam Repairs	Boulder	19,000
			1,703,069
<u>Projects Deauthorized in 1991 (HB 91-1006)</u>			
Durango West Metro District Nos. 1 and 2	Durango West Water Transmission Line	La Plata	408,000
<u>Projects Deauthorized in 1990 (SB 90-41)</u>			
Town of Hotchkiss (close account)	Hotchkiss Water Supply System Improvements	Delta	510,000
Town of Basalt (close account)	Basalt Water Supply System	Eagle	151,918
Kelton Heights Water and San. Dist. (close account)	Bancroft Water Delivery System	Jefferson	11,693
Town of New Castle	Domestic Water Supply Project	Garfield	250,000
Beeman Irrigation Ditch and Milling Co. (close account)	Beeman Diversion Dam Improvements	Weld	17,488
North Poudre Irrigation Co. (close account)	Fossil Creek Reservoir Dam Rehab.	Larimer	725,296
Town of Erie	Keystone Dam	Weld	1,645,000
City of Louisville (close account)	Harper Lake Dam Repairs	Boulder	192,729
Minnesota Canal and Reservoir Co.	Monument (now Minnesota) Reservoir	Gunnison	397,080
			3,901,204