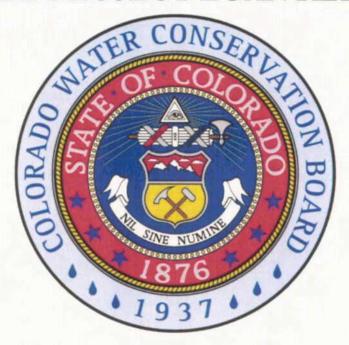
Colorado Water Conservation Board

CONSTRUCTION FUND
AND
SEVERANCE TAX TRUST FUND
PERPETUAL BASE ACCOUNT

SMALL PROJECT LOAN REPORT



Colorado Water Conservation Board Department of Natural Resources

STATE OF COLORADO

Colorado Water Conservation Board

Department of Natural Resources

1313 Sherman Street, Room 721 Denver, Colorado 80203 Phone: (303) 866-3441 FAX: (303) 866-4474 www.cwcb.state.co.us



January 14, 2004

Bill Owens Governor

Russel George Executive Director

Senator Lewis H. Entz

Chairman, Senate Agriculture, Natural Resources & Energy Committee

Rod Kuharich CWCB Director

Representative Diane Hoppe

Chairman, House Agriculture, Livestock & Natural Resources Committee

Dan McAuliffe Deputy Director

Re: Colorado Water Conservation Board Small Project Loans for 2003 from the Construction Fund and Severance Tax Trust Fund Perpetual Base Account - Final Report

Dear Senator Entz and Representative Hoppe,

Pursuant to Section 37-60-122(b) of the C.R.S. we are submitting the attached written determination of the basis for all loans authorized by the Colorado Water Conservation Board (CWCB) under five million dollars during the past 2003 calendar year. The report was completed by CWCB staff on January 14, 2004 and will be presented at the Colorado Water Conservation Board meeting on January 27, 2004 at the Holiday Inn Northglenn, I-25 and 120th Avenue, Northglenn, Colorado at 2:20 p.m.

Copies of the report will be available for distribution from the CWCB and the report will also be available on the CWCB website (www.cwcb.state.co.us). A copy of the report has been submitted to the Legislative Library, Room 029 of the State Capital Building. Under your direction, we are prepared to present copies of the report to your committee members and others, as you see fit.

If you have questions or need additional copies of the report please contact Mr. Mike Serlet of the CWCB staff at 303-866-3426.

Sincerely,

Rod Kuharich, Director

Colorado Water Conservation Board

PREFACE

Pursuant to Section 37-60-122(b) of the C.R.S. the Colorado Water Conservation Board (CWCB) is required to submit a report by January 15th of each year to the Colorado General Assembly describing the basis for all Construction Fund and Severance Tax Trust Fund Perpetual Base Account loans authorized by the CWCB under \$5,000,000. This report fulfils the CWCB reporting obligations for those small project loans for calendar year 2003.

The report includes a summary spreadsheet identifying each loan approval date, the project sponsor or borrower, the project name, the loan amount, and the name of the County and river basin where the project is located. There were 29 loan projects under \$5 million approved by the CWCB in calendar year 2003. The total loan value of the 29 projects was over \$20,000,000.

Also included in the report is a loan project data sheet for each project that includes a project description, project location map, and other pertinent loan and project information.

Colorado Water Conservation Board Small Project Loans For Calendar Year 2003

	Date				Amount		
Item	Approved	Sponsor	Project		Approved	County	Basin
1	01/23/03	Town of Frederick	Milavec Lake Rehabilitation	\$	1,000,000	Weld	South Platte
2	01/23/03	Greeley and Loveland Irrigation Company	Boyd Lake Outlet Project	\$	1,000,000	Larimer	South Platte
3		South Side Ditch Company	South Side Ditch Rehabilitation	\$	72,720	Larimer	South Platte
4	01/23/03	South Side Reservoir Company	South Side Reservoir Rehabilitation	\$	363,600	Larimer	South Platte
5	01/23/03	Town of Paonia	Purchase of Water Rights/Water Taps	\$	1,000,000	Delta	Gunnison
6	01/23/03	G. M. S. Land and Cattle Company	Giffin #1 and #2 Reservoirs Rehabilitation	\$	202,000	Weld	South Platte
7	01/23/03	Low Line Ditch Company	Recharge Ponds and Augmentation Well Construction	\$	161,348	Logan	South Platte
8_	03/26/03	Silt Water Conservancy District	Silt Pump Plant Transformer Rehabilitation	\$	490,860	Garfield	Colorado River
9	03/26/03	Stieb Brothers, Inc.	SBI Recharge Ponds and Augmentation Wells Construction	\$	153,015	Logan	South Platte
10	03/26/03	Lake Meredith Reservoir Company	Lake Meredith Outlet Canal Relocation	\$	1,471,500	Crowley	Arkansas River
11	03/26/03	Glenn D. Toyne	Toyne Recharge Ponds and Augmentation Wells Construction	\$	76,356	Sedgwick	South Platte
12	03/26/03	Supply Irrigating Ditch Company	Knoth Reservoir Dam Rehabilitation and Enlargement	\$	1,000,000	Boulder	South Platte
13	03/26/03	Town of Coal Creek	Union Ditch Water Rights Purchase	\$	68,175	Fremont	Arkansas River
14	05/20/03	Springdale Ditch Company	Springdale Recharge Project	\$	122,715	Logan	South Platte
15	05/20/03	Pine River - Bayfield Ditch Company	Beaver Creek Siphon Rehabilitation	\$	202,000	La Plata	San Juan River
16_	05/20/03	Willow Heights Irrigation Company	Dual Water System Rehabilitation	\$	104,535	Delta	Gunnison
17	05/20/03	Upper Platte and Beaver Canal Company	Badger Creek Well Augmentation Project	\$	68,175	Morgan	South Platte
18	07/29/03	Windsor Reservoir & Canal Company	Windsor Reservori No. 8 & Annex Rehabilitation	\$	681,750	Larimer	South Platte
19	07/29/03	Ogilvy Irriation and Land Company	Seeley Lake Dam Rehabilitation	\$	353,500	Weld	South Platte
20	07/29/03	Silt Water Conservancy District	Silt System Infrastructure Rehabilitation	\$	1,029,897	Garfield	Colorado River
21	07/29/03	Town of New Castle	Colorado River Raw Water Transmission System	\$	707,000	Garfield	Colorado River
22	07/29/03	Victor and Margie Quint	Quint Augmentation Site	\$	86,355	Morgan/Washington	South Platte
23	07/29/03	Mildred L. Rothe	Rothe Augmentation Project	\$	357,017	Morgan/Weld	South Platte
24	07/29/03	Dolores Water Conservancy District	Dove Creek Secondary Water Supply System	\$	892,137	Dolores	San Juan/Dolores
25	09/22/03	Rio Grande and Piedra Valley Ditch Company	Rio Grande and Piedra Valley Ditch Check Structure Rehabilitation	\$	52,520	Rio Grande	Rio Grande
26	09/22/03	Grand Mesa Reservoir Company	Grand Mesa Reservoir Nos. 1 & 9 Rehabilitation	\$	181,800	Mesa	Gunnison
27	11/20/03	Greeley and Loveland Irrigation Company	Boyd Lake Dam Spillway Reconstruction	\$	2,844,000	Larimer	South Platte
28	11/20/03	Orphans Wells of Wiggins, LLC	Orphans Recharge and Augmentation Project	\$	1,048,077	. Morgan	South Platte
29	11/20/03	Central Colorado Water Conservancy District	Purchase Water Rights	\$	5,000,000	Weld/Adams/Morgan	South Platte

Total Small Project Loans Approved in 2003

\$ 20,791,052

Borrower: Town of Frederick County: Weld

Project Name: Milavec Lake Project Type: Rehabilitation

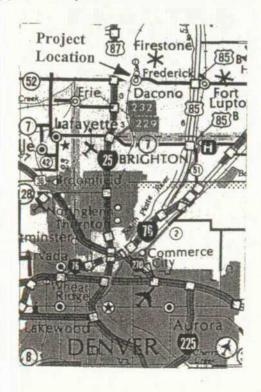
Drainage Basin: South Platte Water Source: Boulder Creek

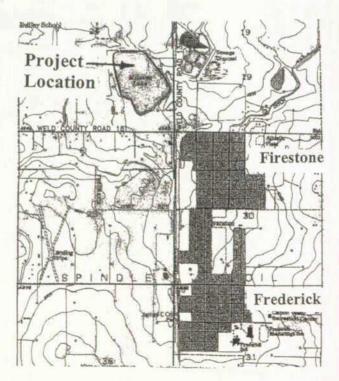
Total Project Cost: \$1,335,000 Funding Sources: CWCB, Town Frederick

Type of Borrower: Municipal (High-Income) Aver. Delivery: 300 acre-feet

CWCB Small Project Loan: \$1,000,000 Interest Rate: 4.5% Term: 20 years

The Town of Frederick is seeking a \$1,000,000 Small Project Loan from the Construction Fund to rehabilitate Milavec Lake to reduce seepage loss and increase capacity, in order to provide non-treated irrigation water for approximately 100 acres of parks, open space, and school recreation areas. The lake was the Town's main domestic water supply until 1988, when the Town converted to the Central Weld County Water District (CWCWD) system. In recent years, the reservoir has been used only for recreation purposes. The total average annual water requirement for the areas to be irrigated is 300 acre-feet. Raw water irrigation will replace the current use of CWCWD water for irrigating some of the Town's public areas and parks, and use of raw water could save about \$42,000 per year. As part of the project, reservoir capacity will be increased by 275 acre-feet from 775 acre-feet to post-project capacity of 1,050 acre-feet. The design includes a low permeability compacted clay slope liner extending from the existing upstream clay liner down to the underling natural clay. The clay liner would tie into the upstream face by construction of a clay cap. Approximately 5,700 linear feet of liner with an average depth of 20 feet would be constructed.





Location Map

Borrower: Greeley and Loveland Irrigation Co. County: Larimer

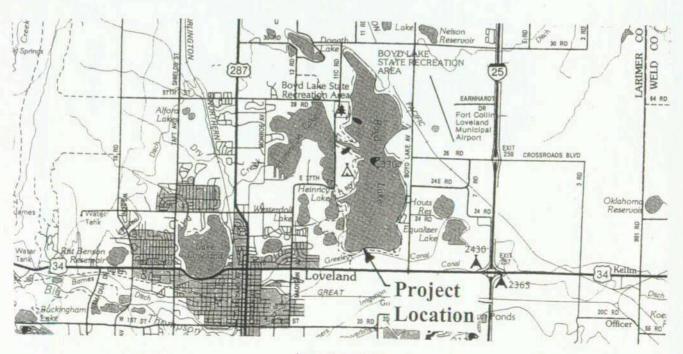
Drainage Basin: South Platte Water Source: Big Thompson River

Total Project Cost: \$1,345,000 Funding Sources: CWCB, GLIC

Type of Borrower: Agricultural/Municipal Aver. Delivery: 37,812 acre-feet

CWCB Small Project Loan: \$1,000,000 Interest Rate: 3.25% Term: 30 years

The Greeley and Loveland Irrigation Company (GLIC), and its sister company the Seven Lakes Irrigation Company, own and operate an extensive system of reservoirs and canals in the Loveland and Greeley area. GLIC owns Boyd Lake, the largest reservoir in the GLIC system, with a surface area of 1,750 acres and a capacity of 48,874 acre-feet. The GLIC is applying for a \$1,000,000 Small Project Loan from the Construction Fund to replace the existing low-level outlet works at the Boyd Lake Dam. The existing outlet works is in poor structural condition, and deficiencies include significant cracking, holes and leaks, and substantial sediment accumulation. Downstream of the embankment the existing pipe is collapsing in some areas. The proposed low-level outlet works will consist of 300 feet of 48" diameter concrete mortar-lined (CML) steel through the dam embankment, and will be controlled by a 48" sluice gate, located in a gate chamber. The 50 feet of CML steel pipe leading into the chamber will be encased in concrete, and the remaining 250 feet of CML steel pipe installed using microtunneling technology. Downstream of the embankment, the steel pipe would transition into 1600 feet of 48" reinforced concrete pipe (RCP), discharging into a stilling basin 200 feet upstream of U.S. Highway 34.



Location Map

Borrower: South Side Irrigation Company

County: Larimer

Project Name: South Side Ditch

Project Type: Rehabilitation

Drainage Basin:

South Platte River

Water Source: Big Thompson River

Total Project Cost: \$80,000

Funding Sources: CWCB and Company

Type of Borrower: Agricultural/Municipal

Median Household Income: Average

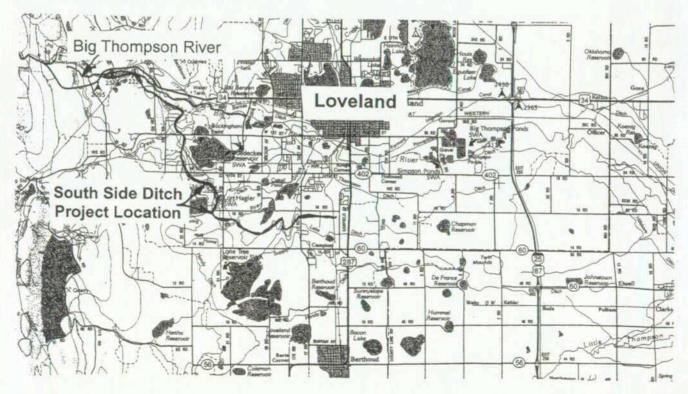
CWCB Loan: \$72,000

Blended Interest Rate: 3.1% Term: 30 years

CWCB Grant: \$5,000

Acre-Feet Diverted: 1,587 acre-feet

The South Side Irrigation Company operates the South Side Ditch for delivery of irrigation water within a 400-acre service area. The ditch is 11 miles long and its headgate is located on the Big Thompson River 4 miles west of Loveland. This project includes rehabilitation of a number of hydraulic structures, and lining portions of the ditch. Rehabilitation work is scheduled for fall 2003. John Gauthiere P.E. has completed the feasibility study. Proposed funding for the project consists of a \$72,000 Small Project Loan and a \$5,000 Feasibility Study Grant from the CWCB, and the remainder from the Borrower.



Borrower: South Side Reservoir Company County: Larimer

Project Name: South Side Reservoir Project Type: Rehabilitation

Drainage Basin: South Platte River Water Source: Big Thompson River

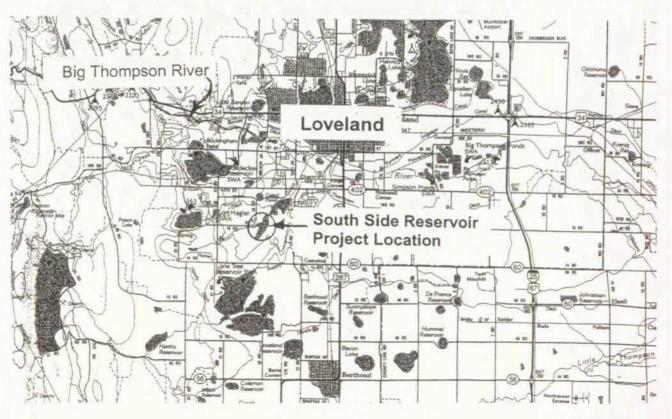
Total Project Cost: \$400,000 Funding Sources: CWCB and Company

Type of Borrower: Agricultural/Municipal Median Household Income: Average

CWCB Loan: \$360,000 Blended Interest Rate: 3.1% Term: 30 years

CWCB Grant: \$5,000 Total annual storage (fill and refill): 1,241 acre-feet

The South Side Reservoir Company operates the South Side Reservoir for delivery of irrigatic water within a 400-acre service area. The reservoir is located in Larimer County, about 1 mile south west of Loveland. This project includes rehabilitation of the outlet and spillway on the dam, and will allow removal of the existing storage restriction currently imposed by the State Engineer. Rehabilitation work is scheduled for 2003. John Gauthiere P.E. has completed the feasibility study. Proposed funding for the project consists of a \$360,000 Small Project Loan and a \$5,000 Feasibility Study Grant from the CWCB, and the remainder from the Borrower.



Location Map

Borrower: Town of Paonia County: Delta

Project Name: Ark Land Property Project Type: Water Rights/Taps Purchase

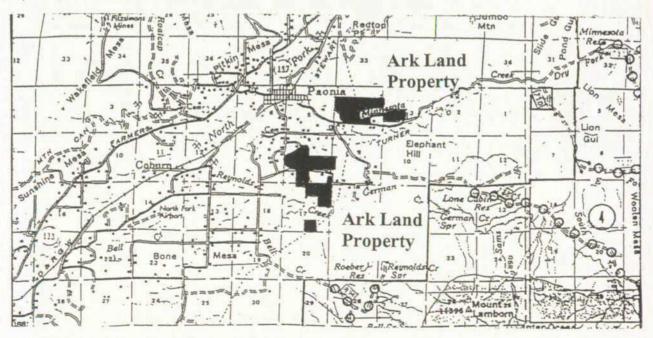
Drainage Basin: Gunnison Water Source: Springs

Total Project Cost: \$1,900,000 Funding Sources: CWCB, Bonding, Paonia

Type of Borrower: Municipal (Low-Income) Aver. Delivery: 129 ac-ft. (demand reduction)

CWCB Loan: \$1,000,000 Interest Rate: 3.75% Term: 30 years

The Town of Paonia, acting by and through its Water Fund (enterprise fund), is seeking a loan for \$1,000,000 for the buy-back and retirement of 317 unused out-of-town water taps. The effect of this water tap buy-back is equivalent to acquisition of water rights, because it relieves an existing water supply shortage. In addition, the Town originally issued the taps in exchange for water rights on German Creek, and the buy-back of the taps for cash provides the seller with acceptable substituted consideration. The project will implement the first step in a long-term raw Water Supply Master Plan strategy, will relieve the Town of a severe strain on its water supply system by realigning their water supply capability and projected water demands, and alleviate the necessity of immediate construction of a major water storage project. The Town has been working with The Conservation Fund, a national non-profit land and water conservation organization, to re-acquire control of the 317 unused water taps through the purchase of the 770 acre Ark Land Property, south and east of the Town. The total cost of the project is \$1,900,000, with CWCB loan funds being used to repurchase the water taps, and Town responsible for securing the additional funding for purchase of the land.



Location Map

Borrower: G.M.S. Land and Cattle Co., LLC County: Weld

Project Name: Giffin #1 and #2 Reservoirs Project Type: Rehabilitation

Drainage Basin: South Platte River Water Source: Lone Tree Creek

Total Project Cost: \$222,896 Funding Sources: CWCB and Borrower

Type of Borrower: Agricultural Median Household Income: N/A

CWCB Loan: \$200,000 Interest Rate: 2.75% Term: 30 years

CWCB Grant: \$2,500 Total Reservoir Volume: 139.5 acre-feet

Refill Volume: 139.5 acre-feet

G.M.S. Land and Cattle owns the Giffin #1 and #2 reservoirs, which are used for storage of irrigation water. These reservoirs are located in Weld County, 18 miles northeast of Fort Collins and are filled by Lone Tree Creek. These reservoirs have a storage capacity of 139.5 acre-feet, but have become silted in. G.M.S. Land and Cattle wants to excavate a total of 105,000 cubic yards of sediment and rehabilitate the upstream slope of each dam, to provide water for its farming/ranching operation during drought periods. The project will be completed in winter 2003. Duane Smith, P.E. of Smith Geotechnical will complete the feasibility study. Proposed funding for the project consists of a \$200,000 Small Project Loan and a \$2,500 Feasibility Study Grant from the CWCB, and the remainder from the Borrower.



Borrower: Low Line Ditch Company

County:

Project Name: Augmentation Project

Project Type: Well Augmentation

Logan

Drainage Basin:

South Platte River

Water Source: South Platte River

Total Project Cost: \$105,000

Funding Sources: CWCB and Company

Type of Borrower: Agricultural

Median Household Income: N/A

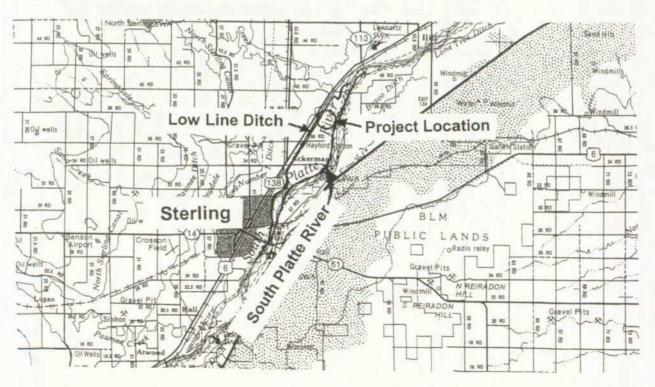
CWCB Loan: \$94,500

Interest Rate: 2.75% Term: 30 years

CWCB Grant: \$1,500

Annual Diversions: 6.650 acre-feet

The Low Line Ditch Company operates the Lowline Ditch for delivery of irrigation water within a 2,070-acre service area. The headgate for the ditch is located in Logan County, at the Town of Sterling. This project includes construction of 4 augmentation ponds and drilling one augmentation well to generate augmentation credits to cover depletions for 13 irrigation wells used by stockholders of the Company. The project will be completed in winter 2003. Brent Nation, P.E., of Nation Engineering Services has completed the feasibility study. Proposed funding for the project consists of a \$94,500 Small Project Loan and a \$1,500 Feasibility Study Grant from the CWCB, and the remainder from the Borrower.



Borrower: Silt Water Conservancy District

County: Garfield

Project Name: Transformer Replacement

Project Type: Pump Plant Rehabilitation

Drainage Basin:

Colorado River

Water Source: Colorado River

Total Project Cost: \$540,100

Funding Sources: CWCB and District

Type of Borrower: Agricultural

Median Household Income: N/A

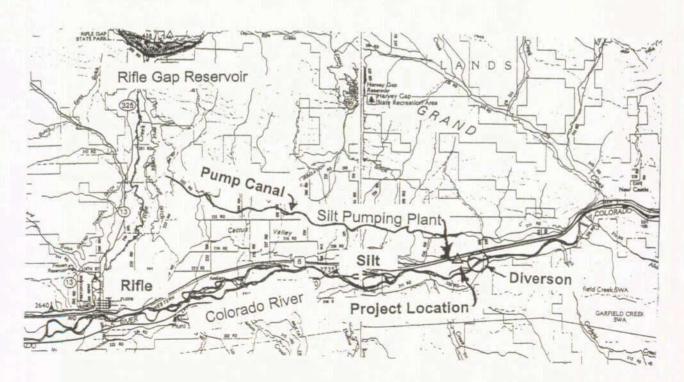
CWCB Loan: \$486,000

Interest Rate: 2.75% Term: 30 years

CWCB Grant: \$5,000

Average water pumped per Year: 4,000 acre-feet

The Silt Water Conservancy District operates a pump plant on the Colorado River to deliver water to its Pump Canal, which serves agricultural users on the lower reaches of Silt Mesa. The pump plant was built in the mid 1960's, and is located 2 miles east of the Town of Silt. It has a capacity of 36 CFS, and delivers an average of 4,000 acre-feet per year. The pump plant transformer must be replaced due to an upgrade of the transmission line by Xcel Energy. Western Area Power Administration will design the project in 2003, and construction will be completed in 2004. The District has completed the feasibility study using information from the preliminary design. Proposed funding for the project consists of a \$486,000 Small Project Loan and a \$5,000 Feasibility Study Grant from the CWCB, a \$15,000 planning grant from the Bureau of Reclamation, and the remainder from the District.



Borrower:

Stieb Brothers, Inc.

County: Logan

Project Name: SBI Recharge Project

Project Type: Well Augmentation

Drainage Basin: South Platte

Water Source: New wells

Total Project Cost: \$202,000

Funding Sources: CWCB

Type of Borrower: Agricultural

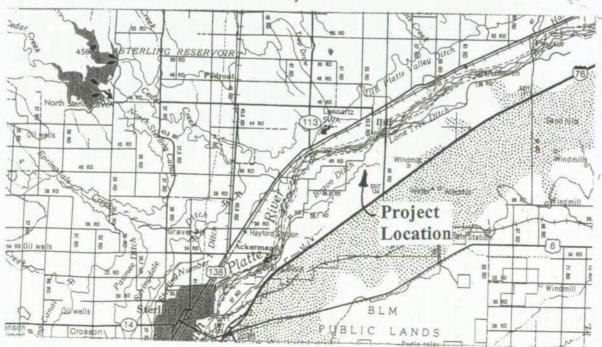
Aver. Delivery: 6000 acre-feet

CWCB Small Project Loan: \$151,500

Interest Rate: 2.5%

Term: 20 years

The SBI is a private family farm corporation located 10 miles north of Sterling in Logan County, near the town of Iliff. SBI has approximately 723 acres of sprinkler irrigated farm ground. The ground is irrigated with 5 tributary groundwater wells, which were drilled in the late 1960's and early 1970's. The wells pump on average 1400 acre-feet annually. The water is typically used to irrigate corn, alfalfa, beans and wheat. The 12 wells are currently augmented under the Groundwater Appropriators of the South Platte (GASP plan of operation. SBI is completely dependent on their 5 wells, which have very junior water rights. SBI has been using GASP to replace depletions from well pumping when there is a senior water right "call" on the river. SBI plans to construct 2 wells to pump water into a recharge ponds in the winter months when there is not a call on the river. Water from the ponds would have a delayed return to the river in summer months when SBI has depletions that need to be offset with augmentation water. The wells, drilled near the South Platte River, would pump up to a combined rate of 13.4 cfs (producing up to 6000 acre feet annually. They would pump to the recharge ponds through 18 " underground piping. An existing well away from the river, near the recharge pond would be converted for augmentation, and the piping used to return "stored" water to the river when necessary.



Location Map

Borrower: Lake Meredith Reservoir Company

County: Crowley

Project Name: Outlet Canal Relocation

Project Type: Reservoir Modification

Drainage Basin: Arkansas River

Water Source: Arkansas River

Total Project Cost: \$1,524,860

Funding Sources: CWCB, Bank, and Company

Type of Borrower: Municipal-Agricultural

Median Household Income: Blended

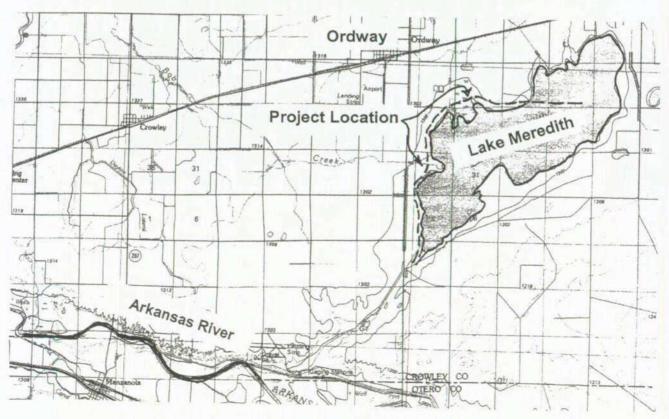
CWCB Loan: \$1,000,000

Blended Interest Rate: 4% Term: 30 years

CWCB Grant: \$5,000

Total Reservoir Volume: 41,000 acre-feet

The Lake Meredith Reservoir Company operates Lake Meredith for storage of water that is used for agricultural, municipal, domestic, and other beneficial uses. Water is received through the Colorado Canal, with headgate on the Arkansas River. This project involves relocation of 5 miles of outlet canal to allow the Company to utilize an additional 18,000 acre-feet of storage in Lake Meredith. The project will be completed in Spring-Fall 2003. Steven Steffens, P.E. of Steffens and Associates, Inc., has completed the feasibility study. Proposed funding for the project consists of a \$1,000,000 Small Project Loan and a \$5,000 Feasibility Study Grant from the CWCB, a \$500,000 loan from the First National Bank of Ordway, and the remainder from the Company.



Location Map

Borrower: Glen D. Toyne (GDT) County: Sedgwick

Project Name: Toyne Recharge Project Project Type: Well Augmentation

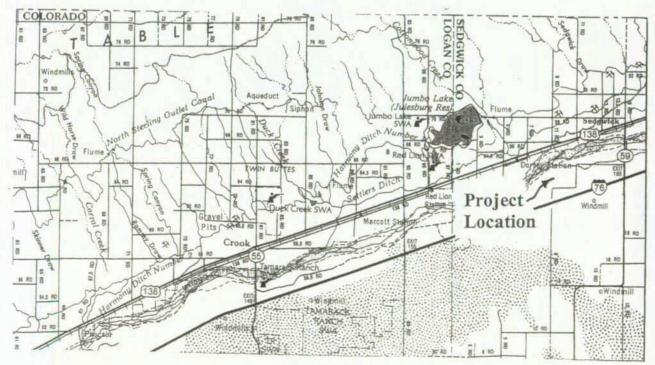
Drainage Basin: South Platte Water Source: New wells

Total Project Cost: \$115,000 Funding Sources: CWCB

Type of Borrower: Agricultural Aver. Delivery: 3500 acre-feet

CWCB Small Project Loan: \$75,600 Interest Rate: 2.75% Term: 30 years

GDT is a private family farm located 14 miles south of Julesurg in Sedgewick County. GDT has approximately 517 acres of irrigated farm ground. There are 8 tributary groundwater wells, which were drilled in the late 1960's and early 1970's. The wells pump on average 1100 acre-feet annually. The water is typically used to irrigate corn, alfalfa, beans and wheat. The 8 wells are currently augmented under the Groundwater Appropriators of the South Platte (GASP) plan of operation GDT is completely dependent on their 8 wells, which have very junior water rights. GDT has been using GASP to replace depletions from well pumping when there is a senior water right "call" on the river. GDT plans to construct a well to pump water into a recharge pond in the winter months when there is not a call on the river. Water from the pond would have a delayed return to the river in summer months when GDT has depletions that need to be offset with augmentation water. The well, drilled near the South Platte River, would pump up to a rate of 7.8 cfs, producing up to 3500 acre feet annually. They would pump to the recharge ponds through 15 " underground piping. An additional well for augmentation would be drilled near the recharge pond, and the piping used to return "stored" water to the river when necessary.



Location Map

Borrower: Supply Irrigating Ditch Company County: Boulder

Project Name: Knoth Reservoir Dam Project Type: Rehabilitation and Enlargement

Drainage Basin: South Platte Water Source: St. Vrain Creek

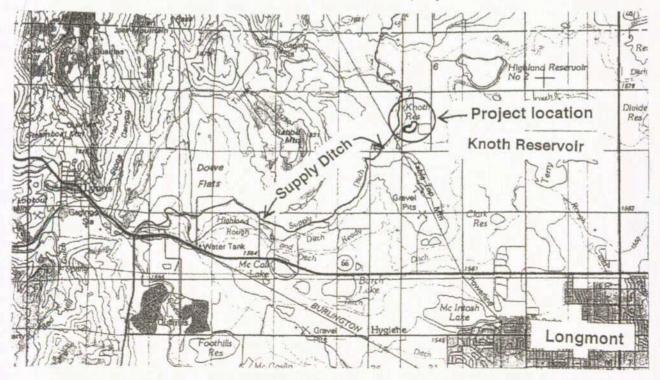
Total Project Cost: \$2,193,000 Funding Sources: Company and CWCB

Type of Borrower: Agricultural/Municipal Blended Interest Rate: 3%

CWCB Loan: \$1,000,000 Term: 30 years

CWCB Grant: \$5,000 Average Annual Volume of Water diverted: 9,745 AF

The Supply Ditch is located in Boulder County, 4 miles north west of Longmont, and diverts water from St. Vrain Creek. The Supply Irrigating Ditch Company operates the ditch to supply water to 160 shareholders for irrigation within the 8,500-acre service area. The Company wants to rehabilitate and enlarge the Knoth Reservoir for use as an equalizer, and for storage under a conditional decree for 542 acre-feet. The project would be designed in 2003 and constructed in 2004. The average annual volume diverted now is 9,500 acre-feet, which will increase to 9,745 acre-feet with the project in place. The Supply Irrigating Ditch Company is a mutual ditch company and a nonprofit corporation registered in the State of Colorado. Duane Smith P.E., of Smith Geotech Inc., has completed the feasibility study. The Company received a \$5,000 CWCB grant for ½ the cost of the study. Proposed funding for the project consists of a CWCB loan in amount of \$1,000,000 and \$1,193,000 from the Company.



Location Map

Borrower: Town of Coal Creek

Project Name: Union Ditch Share Acquisition

Drainage Basin: Arkansas River

Total Project Cost: \$75,000

Type of Borrower: Municipal

CWCB Loan: \$67,500

CWCB Grant: \$0

County: Fremont

Project Type: Water Rights Purchase

Water Source: Arkansas River

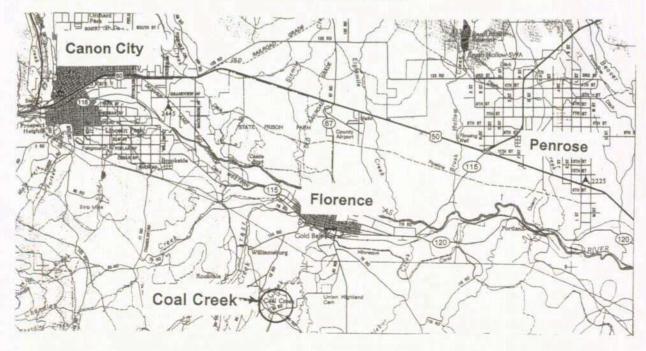
Funding Sources: CWCB and the Town

Median Household Income: Low

Interest Rate: 3.75% Term: 30 years

Annual Volume of Water: 34 acre-feet

The Town of Coal Creek is located 2 miles south of the City of Florence, in Fremont County. The Town provides water service to its residents through a master metering arrangement with the City of Florence Regional Water System. Coal Creek provides raw water to Florence and Florence treats the water and returns it to Coal Creek for distribution. Coal Creek's existing water rights, dated 1884, have been out of priority in times of drought, specifically during 1977, 1978, and 2002. The Town anticipates that its existing water rights will also be called out in 2003. Coal Creek plans to buy water shares in the Union Ditch (priority date 1863) to supplement its existing supply. The Town of Coal Creek is a Colorado municipality with the power to acquire water rights, construct and operate facilities, levy taxes, and issue debt subject to the provisions of TABOR. The Town has 165 taps and an average monthly water bill of \$25.00. Martin and Wood, Water Consultants Inc. has completed an Engineering Report, and the Town has completed the feasibility study. Funding will come from a \$67,500 Small Project loan from the CWCB and remainder from the Town.



Borrower: Springdale Ditch Company

Project Name: Springdale Recharge Project

Drainage Basin: South Platte River

Total Project Cost: \$135,000

Type of Borrower: Agricultural

CWCB Loan: \$121,500

CWCB Grant: \$2,000

County: Logan

Project Type: Well Augmentation

Water Source: South Platte River

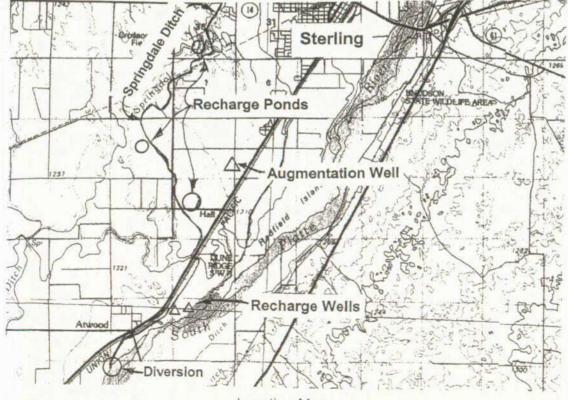
Funding Sources: CWCB and Company

Median Household Income: N/A

Interest Rate: 2.75% Term: 30 years

Average annual diversions: 10.647 acre-feet

The Springdale Ditch Company operates the Springdale Ditch for delivery of irrigation water within a 4490-acre service area. The headgate for the ditch is located in Logan County, 6 miles southwest of Sterling. The project involves construction of augmentation ponds, and drilling one augmentation well and 2 recharge wells to generate augmentation credits to cover depletions for 43 irrigation wells used by stockholders of the Company. The project will be completed in spring 2003. Brent Nation, P.E., of Nation Engineering Services has completed the feasibility study. Proposed funding for the project consists of a \$121,500 Small Project Loan and a \$2,000 Feasibility Study Grant from the CWCB, and the remainder from the Company.



Location Map

Borrower: Pine River - Bayfield Ditch Co.

County: La Plata

Project Name: Beaver Creek Siphon

Project Type: Rehabilitation/Replacement

Drainage Basin: San Juan River

Water Source: Pine River Irrigation District -

Vallecito Reservoir

Total Project Cost: \$267,000

Funding Sources: CWCB, NRCS

Type of Borrower: Agricultural

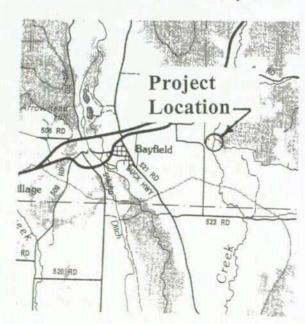
Aver. Delivery: 8,866 acre-feet

CWCB Small Project Loan: \$200,000

Interest Rate: 2.75% Term: 30 years

PRBDC provides irrigation water to a 2,596-acre service area in La Plata County, generally south of the Town of Bayfield. The Pine River Bayfield Ditch is a lateral extending off of the Schroder Ditch and is a carrier ditch for shareholders owning Pine River water rights and Pine River Irrigation District water shares (Vallecito Reservoir). Water is used primarily used for livestock pasture (cattle ranching) and hay production. The PRBDC headgate is located east of the Town of Bayfield, above Beaver Creek. The Company maintains approximately 10.5 miles of unlined ditch, with approximately 60-70 headgates. From the headgate, the ditch flows through a concrete flume and into the Beaver Creek siphon, a 32-inch diameter steel pipe siphon, 2300 feet in length, dropping an estimated 100 feet in elevation, as it runs under Beaver Creek. The current siphon was built in 1955-1957, with a design life of 30 years, and is in deteriorated condition. The steel has oxidized to the point where the pipe walls have thinned in many places beyond repair. Also, large quantities of iron oxide material scalings have accumulated at the siphon outlet. With evidence of further degeneration, the siphon is now subject to imminent failure, which would entirely close the ditch. The original pipe and ditch are designed to carry 37 cfs, but currently capacity is limited to 33 cfs. The existing siphon would be replaced by a new 30-inch PVC pipe, designed to carry 37 cfs.





Location Map

Borrower:

Willow Heights Irrigation Co.

County: Delta

Project Name: Dual Water System

Project Type: Rehabilitation/Replacement

Drainage Basin: Gunnison

Water Source: Leroux Creek

Total Project Cost: \$115,000

Funding Sources: CWCB

Type of Borrower: Municipal - Low Income

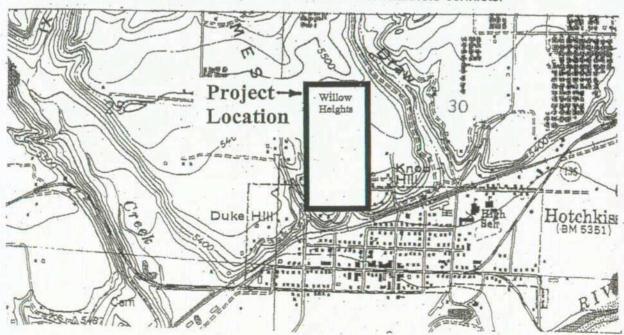
Aver. Delivery: 257 acre-feet

CWCB Small Project Loan: \$103,500

Interest Rate: 3.75%

Term: 30 years

WHIC owns and operates an existing piped irrigation system located in the Willow Heights Subdivision and Duke Hill community in the Town of Hotchkiss. The system was constructed in 1976, and water is obtained through the Duke Ditch, which diverts water from Leroux Creek. Water is supplied to about 95 residential lots and a Town park. The total irrigated area is about 60 acres, and primarily use is to irrigate lawns and gardens. The system consists of a headgate, approximately 6000 lineal feet of main distribution piping (10", 8" and 6"), and approximately 3000 feet of lateral piping. Water flows by gravity and lots are served by 3/4" individual taps. The system was installed in the trench above the sanitary sewer and on the same grade. In places it is very deep, up to 15-17 feet. The original piping was a lightweight plastic pipe, and improper backfilling resulted in crushed pipes in some areas, and significant plugging problems. As a result of the blockages, and reduced flow due to mineral deposits, the overall flow capacity is less than 1/3 of the original. The system is completely obstructed in two places, and typically only 12 to 14 users can be served at a time. The project includes installing all new distribution lines and lateral tap lines, along with cleanouts and isolation valves. The new pipes will be installed over the top of the existing system but at a standard depth of 22 - 30". The piping will be heavier PVC, located above the existing pipe, but offset several feet to eliminate sewer manhole conflicts.



Location Map

Borrower: Upper Platte and Beaver Canal Co. County: Morgan

Project Name: Badger Creek Augmentation Project Type: Well Augmentation

Drainage Basin: South Platte Water Source: South Platte

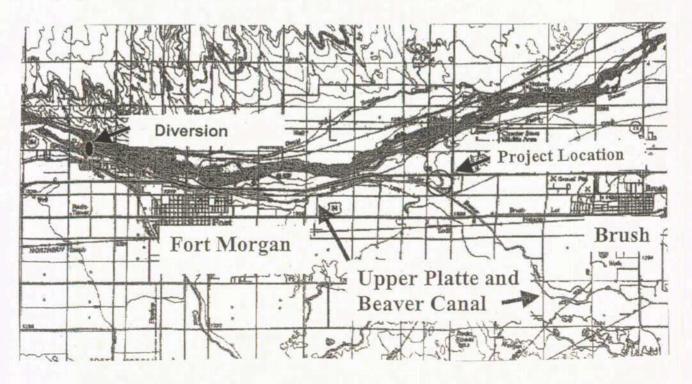
Total Project Cost: \$75,000 Funding Sources: CWCB, Company

Type of Borrower: Agricultural Median Household Income: N/A

CWCB Loan: \$67,500 Interest Rate: 2.25% Term: 10 years

CWCB Grant: \$2,500 Average annual diversions: 32,500 acre-feet

The Upper Platte and Beaver Canal Company operates the Canal for the benefit of their 100 shareholders by providing direct flow irrigation water to an 11,000-acre service area. The diversion and headgate are located on the South Platte River, about one mile northeast of Fort Morgan. There are 97 junior irrigation wells under the Upper Platte and Beaver system. The Company wishes to cover the depletions of these wells by constructing two recharge ponds, to be filled from the Upper Platte and Beaver Canal under the Company's 1972 augmentation decree. Average annual diversions are 32,500 acre-feet. The Upper Platte and Beaver Canal Company is a mutual ditch company and a nonprofit corporation registered in the State of Colorado. Brent Nation, P.E. has completed the feasibility study. Proposed funding for the project consists of a \$67,500 Small Project Loan and a \$2,500 grant from the CWCB, and the remainder from the Company.



Borrower: Windsor Reservoir & Canal Co. County: Larimer

Project Name: Windsor Res. No. 8/Annex Project Type: Rehabilitation

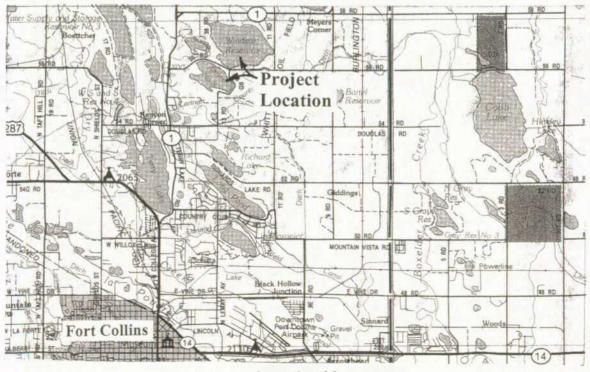
Drainage Basin: South Platte Water Source: Cache La Poudre River

Total Project Cost: \$750,000 Funding Sources: CWCB, WRCC

Type of Borrower: Agricultural Aver. Delivery: 620 acre-feet

CWCB Small Project Loan: \$675,000 Interest Rate: 2.50% Term: 30 years

The Windsor Reservoir & Canal Company (WRCC) is applying for a loan to recover 620 acre-feet of storage in their Windsor Reservoir No. 8 and No. 8 Annex, by excavating and removing up to 1,000,000 cubic yards of sediment. The WRCC service area extends from their Cache la Poudre diversion north of Fort Collins east to near the town of Galeton northeast of Greeley, generally bounded by the Eaton Ditch and the Greeley Ditch No. 2 Ditch. The total area encompassed is about 86,000 acres, providing water for irrigation for about 55,000 acres. WRCC typically uses about 31,000 acre-feet to irrigate the 55,000 acres. WRCC owns 6 reservoirs and about 25 miles of ditch known as the Poudre Valley Canal. Reservoir No. 8 was purchased in 1911. Total decreed storage in all reservoirs is 65,562 acre feet. Windsor Reservoir No. 8 and No. 8 Annex are adjacent, interconnected, reservoirs that have a storage decree of 15,381 acre-feet, with current storage capacity at 12,700 acre-feet due to sediment accumulation. The project would provide an additional 620 acre-feet of storage, allowing WRCC to supply irrigation water for an additional 3 days. This is significant because the total number of days the system normally runs is 30 to 45 days. The removed material will be spread over 30 acres of land adjacent to the reservoir, and re-seeded to address erosion.



Location Map

Borrower: Ogilvy Irrigation and Land Company County: Weld

Project Name: Seeley Lake Dam Project Type: Rehabilitation

Drainage Basin: South Platte Water Source: Cache La Poudre River

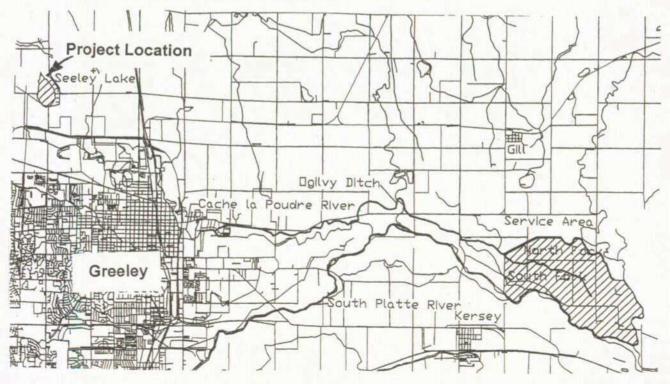
Total Project Cost: \$388,095 Funding Sources: Company and CWCB

Type of Borrower: Agricultural Interest Rate: 2.25%

CWCB Loan: \$350,000 Term: 20 years

CWCB Grant: \$5,000 Average Annual Volume of Water diverted: 16,000 AF

The Ogilvy Ditch is located in Weld County, east of Greeley, and diverts water from the Cache La Poudre River. The Ogilvy Irrigation and Land Company operates the ditch to supply water to 34 shareholders for irrigation within the 3600-acre service area. The Company wants to rehabilitate the Seeley Lake Dam to address safety concerns. The project will be constructed in fall 2004. The average annual volume stored in the reservoir is 1,100 acre-feet, and the average annual volume diverted at the Company's headgate (direct flow and storage water) is 16,000 acre-feet. The Ogilvy Irrigation and Land Company is a mutual ditch company and a nonprofit corporation registered in the State of Colorado. Duane Smith P.E., of Smith Geotech Inc., has completed the feasibility study. The Company received a \$5,000 CWCB grant for ½ the cost of the study. Proposed funding for the project consists of a CWCB loan in amount of \$350,000 and the remainder from the Company.



Location Map

Borrower: Silt Water Conservancy District County: Garfield

Project Name: Infrastructure Replacement Project Type: Rehabilitation

Drainage Basin: Colorado River Water Source: Colorado River, Rifle Creek

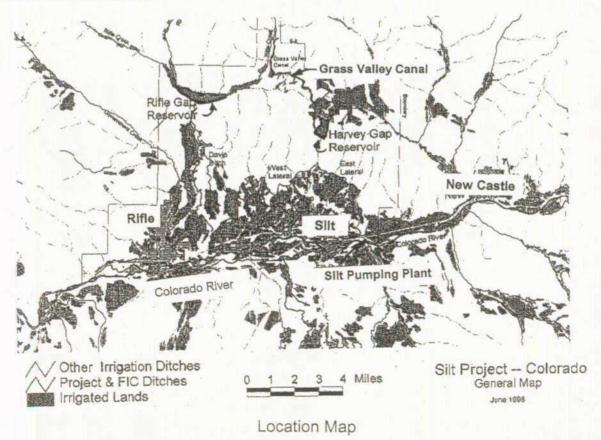
Total Project Cost: \$1,133,000 Funding Sources: CWCB and District

Type of Borrower: Agricultural Median Household Income: N/A

CWCB Loan: \$1,019,700 Interest Rate: 2.5% Term: 30 years

CWCB Grant: \$5,000 Average water diverted per Year: 18,000 acre-feet

The Silt Water Conservancy District, located in Garfield County, operates Silt Project facilities for the benefit of the District landowners/shareholders by providing direct flow and storage of irrigation water for 6,591 acres of agricultural land. The Silt Project infrastructure includes reservoirs, canals, pump plants, and irrigation laterals varying in age from 50 to 100 years old, and in need of rehabilitation. This project involves rehabilitation work on the Grass Valley Canal, the Harvey Gap Dam, the Rifle Gap Dam, and the Colorado River Pump Plant. The District delivers approximately 18,000 acre-feet per year. The District has completed the feasibility study. Proposed funding for the project consists of a \$1,019,700 Small Project Loan and a \$5,000 Feasibility Study Grant from the CWCB, and the remainder from the District.



Borrower: Town of New Castle County: Garfield

Project Name: Colorado River Diversion Project Type: New Raw Water Intake/Pipeline

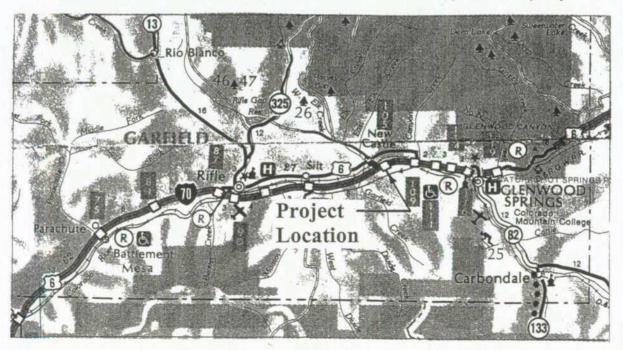
Drainage Basin: Colorado River Water Source: Colorado River

Total Project Cost: \$1,006,900 Funding Sources: CWCB, WQCD, New Castle

Type of Borrower: Municipal (High-Income) Aver. Delivery: 400 acre-feet

CWCB Small Project Loan: \$700,000 Interest Rate: 4.5% Term: 30 years

The Town of New Castle is applying for a loan to construct a new diversion structure and pump station on the Colorado River, and a raw water pipeline to the Town's existing water treatment facility. Currently the Town's sole source of water supply is a diversion structure on East Elk Creek, about 3 miles north of town. The Town's water supply is vulnerable to downstream senior water calls, as well as potential water quality problems due to sediment and ash runoff from forest fire hazard, as was experienced in 2002. The proposed project is to construct a small diversion structure on the Colorado River, with gravity flow to a pump station on the south side of I-70. From there water would be pumped to a sedimentation pond on the north side of I-70, and a second pump station would be used to lift the water to the treatment plant, an elevation increase of about 250 vertical feet. A 12" PVC waterline, 8750 feet in length, would be constructed from the pump station to the treatment plant. The general pipeline alignment would be initially along Elk Creek, then following the Town street right-of-way for Midland Avenue, and then along County Road 245 to the water treatment plant. The system would be designed to pump 1800 gpm, and each pump station would have two pumps plus one back-up pump. The project will provide the Town with a reliable alternate water source during times when diversion from East Elk Creek is prohibited by either water rights administration or poor water quality.



Location Map

Borrower: Victor and Margie Quint.

Project Name: Quint Augmentation Site

Drainage Basin: South Platte River

Total Project Cost: \$95,000

Type of Borrower: Agricultural

CWCB Loan: \$85,500

CWCB Grant: \$600

County: Morgan/Washington

Project Type: Well Augmentation

Water Source: South Platte River

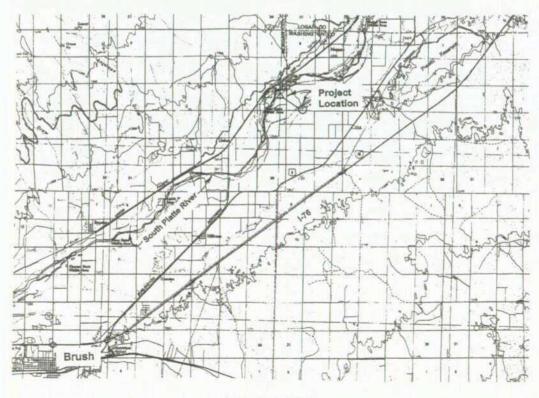
Funding Sources: CWCB and Borrower

Median Household Income: N/A

Interest Rate: 2.5% Term: 30 years

Average annual well diversions: 1,000 acre-feet

Victor and Margie Quint are the owners of the Quint Farm, consisting of 740 acres. The farm is located in Morgan and Washington Counties, 8 miles northeast of Brush. The project involves construction of a recharge well, a recharge pond, and a pipeline connecting the two. The project will generate augmentation credits to cover depletions for 4 irrigation wells used by the Quint Farm. The project will be completed in summer-fall 2003. Brent Nation, P.E., of Nation Engineering Services has completed the feasibility study. Proposed funding for the project consists of an \$85,500 Small Project Loan and a \$600 Feasibility Study Grant from the CWCB, and the remainder from the Borrower.



Location Map

Borrower: Mildred L. Rothe Counties: Morgan and Weld

Project Name: Rothe Augmentation Plan Project Type: Well Augmentation

Drainage Basin: South Platte River Water Source: South Platte River

Total Project Cost: \$392,758 Funding Sources: CWCB and Borrower

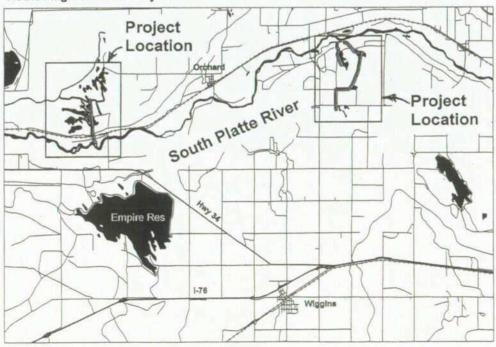
Type of Borrower: Agricultural Median Household Income: N/A

CWCB Loan: \$353,482 Interest Rate: 2.5% Term: 30 years

CWCB Grant: \$600 Average annual well pumping: 4,800 acre-feet

Mildred L. Rothe is an owner of the Rothe Farm, consisting of 9,000 acres, 3055 acres of which are irrigated with wells. The farm is located in Morgan and Weld Counties, near the town of Orchard. The project involves construction of several recharge wells, augmentation wells, recharge ponds, and pipelines. The project will generate augmentation credits to cover depletions for 17 irrigation wells used on the Rothe Farm. The project will be completed by fall 2003. Brent Nation, P.E., of Nation Engineering Services has completed the feasibility study. Proposed funding for the project consists of a \$353,482 Small Project Loan and a \$600 Feasibility Study Grant from the CWCB, and the remainder from the Borrower.

Rothe Augmentation Project



Borrower: Dolores Water Conservancy District County: Dolores

Project Name: Town of Dove Creek Project Type: New Secondary Water System

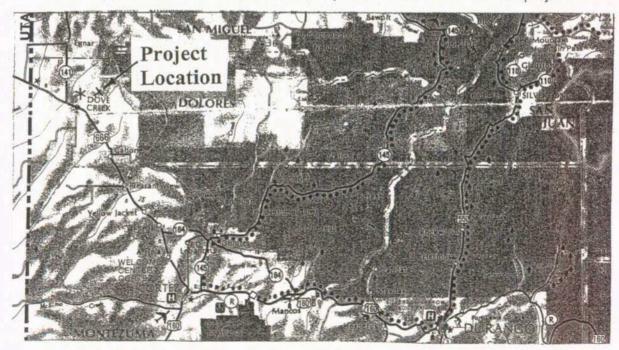
Drainage Basin: San Juan/Dolores Water Source: Dolores Project M & I

Total Project Cost: \$981,450 Funding Sources: DWCD, CWCB

Type of Borrower: Municipal (Low-Income) Aver. Delivery: 300 acre-feet

CWCB Small Project Loan: \$883,304 Interest Rate: 3.00% Term: 10 years

Residents of the Town of Dove Creek currently use existing treated water supply for outside irrigation. DWCD has been working with the Town, and the Town's Secondary Water Supply Committee, to provide a more cost effective raw water supply for outside irrigation. Currently the cost of treated outside irrigation water for Town residents is \$2.40 to \$3.00 per thousand gallons. Through a Franchise Agreement, DWCD will make available up 300 acre-feet of its municipal and industrial (M & I) water to meet the needs of the Town, and will construct and operate a secondary water delivery system. The system will include a new pumping plant to deliver up to 2 cfs, a 5 to 10 acre-foot terminal storage reservoir, 32,000 feet of delivery pipeline (10"-8660 feet, 8"-7480 feet, 6"- 16,480 feet) and 307 individual taps with water meters (¾ to 1-inch capacity) for supplying up to 10 gallons per minute per household. With the new systems outside irrigation can be provided at about \$1.26 per 1000 gallons, including annual operation and maintenance. The project will be paid for by tap fees, and a total of 307 taps are required to generate enough revenue to fully repay the project cost. DWCD will secure a minimum of 200 tap commitments at \$3200 before commencing the project. The system will be constructed using existing streets, alleys and easements. The purpose of the CWCB loan is to up-front fund the construction project.



Location Map

Borrower: Rio Grande & Piedra Valley Ditch Co. County: Rio Grande

Drainage Basin: Rio Grande Water Source: Rio Grande

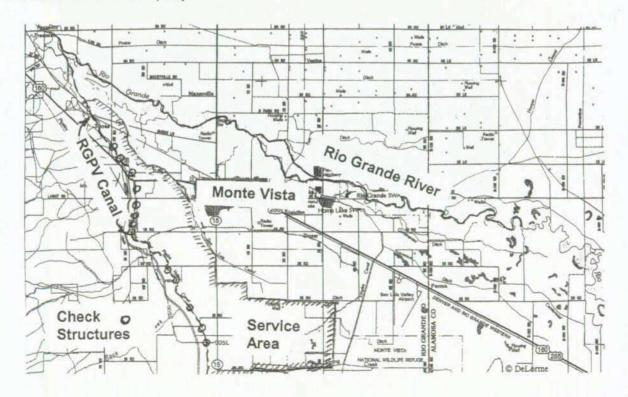
Total Project Cost: \$69,333 Funding Sources: Company and CWCB

Type of Borrower: Agricultural Interest Rate: 2.5%

CWCB Loan: \$52,000 Term: 30 years

CWCB Grant: N/A Average Annual Volume of Water diverted: 17,381 AF

The Rio Grande and Piedra Valley Ditch Company is located in Rio Grande County with office in Del Norte. The Company operates the Rio Grande and Piedra Valley Ditch to supply water to 31 shareholders for irrigation within the 7,660-acre service area. The Company wants to replace 13 wooden check structures on the ditch system. The project will be constructed in fall 2003. The average annual volume diverted is 17,381 acre-feet. The Rio Grande and Piedra Valley Ditch Company is a mutual ditch company and a nonprofit corporation registered in the State of Colorado. Laurie Clark, P.E. of the NRCS has completed the feasibility study. Proposed funding for the project consists of a CWCB loan in amount of \$52,000 and the remainder from the Company.



Borrower: Grand Mesa Reservoir Company County: Mesa

Project Name: Reservoirs #1 and #9 Project Type: Rehabilitation

Drainage Basin: Gunnison Water Source: Kannah Creek

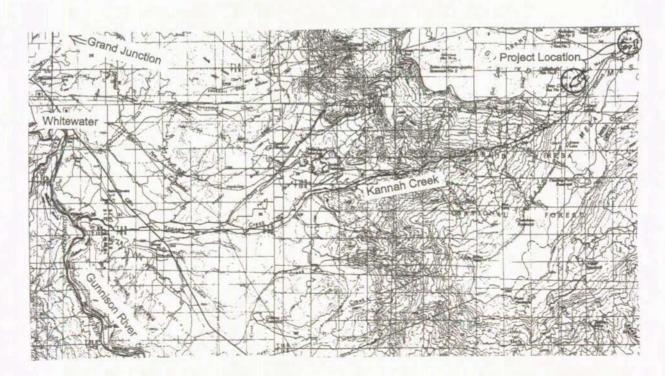
Total Project Cost: \$200,000 Funding Sources: Company and CWCB

Type of Borrower: Agricultural/Municipal Blended Interest Rate: 2.4%

CWCB Loan: \$180,000 Term: 20 years

CWCB Grant: N/A Average Annual Volume of Water diverted: 1,000 AF

The Grand Mesa Reservoir Company is located in Mesa County, south of Grand Junction, and diverts water from Kannah Creek. The Company operates 6 reservoirs on the Grand Mesa to supply water to 16 shareholders for irrigation within the 500-acre service area. The Company wants to rehabilitate the outlets on Grand Mesa Reservoirs #1 and #9, and complete spillway and seepage control work on Grand Mesa Reservoir #1, to address safety concerns. The project will be constructed in fall 2003. The average annual volume diverted from the reservoirs is 1,000 acre-feet. The Grand Mesa Reservoir Company is a mutual ditch company and a nonprofit corporation registered in the State of Colorado. Rod Bonnell, the Company's Secretary-Treasurer, has completed the feasibility study using design information from Bret Guillory P.E., of the City of Grand Junction. Proposed funding for the project consists of a CWCB loan in amount of \$180,000 and the remainder from the Company.



Borrower: Greeley and Loveland Irrigation Co. County: Larimer

Project Name: Boyd Lake Spillway Project Type: Spillway Reconstruction

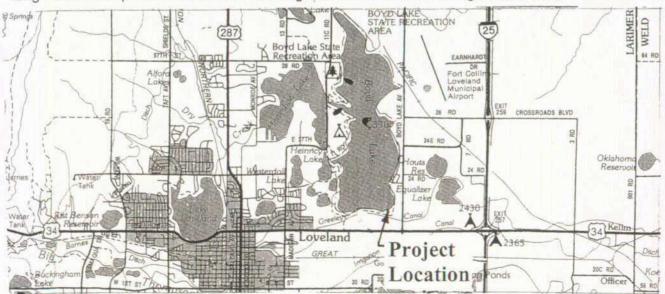
Drainage Basin: South Platte Water Source: Big Thompson River

Total Project Cost: \$3,160,000 Funding Sources: CWCB, GLIC

Type of Borrower: Agricultural/Municipal Aver. Delivery: 37,812 acre-feet

CWCB Small Project Loan: \$2,844,000 Interest Rate: 3.00% Term: 30 years

The Greeley and Loveland Irrigation Company (GLIC), and its sister company the Seven Lakes Irrigation Company (SLIC), own and operate a system of reservoirs and canals in the Loveland and Greeley area, with about 52% of water in municipal use and 48% agricultural. GLIC owns Boyd Lake which has a surface area of 1,750 acres, capacity of 48,874 acre-feet, height of 40 feet and crest length of 10,729 feet. The dam is a Class 1 embankment dam. Previous studies identified possible need for improvements to the Boyd Lake spillway, and possibly the Horseshoe Lake spillway, as both reservoirs basically operate together as a system. The current spillway is a natural swale, located near the pump house in the east side of the dam embankment, with an approximate spillway width of 20 feet. It is abandoned and is no longer operable or capable of conveying any storm flows. The SEO requires that Class I dams contain spillways capable of safely passing 75% of the Probable Maximum Precipitation (PMP) storm event. Even if operable, the existing spillway could only safely pass approximately 16% of the PMP event. The GLIC is applying for a \$2,844,000 Small Project Loan to provide a new spillway for Boyd Lake. Site-specific PMP studies have shown a need for spillway improvements on Boyd Lake only. The selected alternative consists of a combination of labyrinth spillway with a width of about 1,100 feet and an effective weir length of 5,720 feet; replacing 1,100 feet of canal lining downstream of the spillway; and constructing a 350 long floodwall to prevent water from entering into two structures during flood events.



Location Map

Borrower: Orphans Wells of Wiggins, LLC County: Morgan

Project Name: Recharge and Augmentation Project Type: Well Augmentation

Drainage Basin: South Platte River Water Source: South Platte River

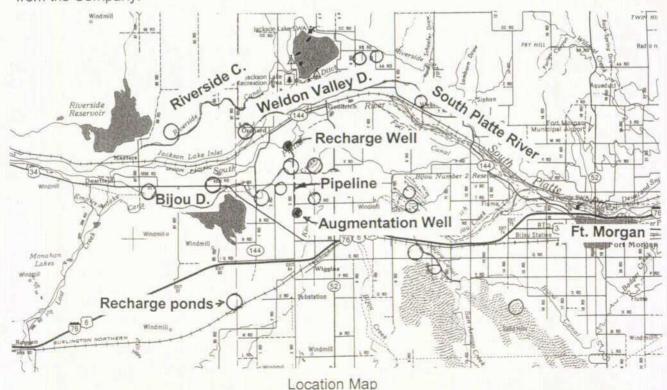
Total Project Cost: \$1,153,000 Funding Sources: CWCB and Company

Type of Borrower: Agricultural Median Household Income: N/A

CWCB Loan: \$1,037,700 Interest Rate: 2.5% Term: 30 years

CWCB Grant: \$2,500 Average annual diversions: 6,000 acre-feet

The Orphans Wells of Wiggins LLC is a new company comprised of 31 separate agricultural operators that own 45 wells which irrigate 4,500 of farmland. Lands owned by Company shareholders receive irrigation water only from junior wells, and are not within the service area of an existing agricultural ditch system. The project involves construction of 1 recharge well, 1 augmentation well, a pipeline, and 23 recharge ponds. The project will generate augmentation credits to cover depletions for 45 irrigation wells used by stockholders of the Company. The project will be completed in fall-winter 2003. Brent Nation, P.E., of Nation Engineering Services has completed the feasibility study. Proposed funding for the project consists of a \$1.037,700 Small Project Loan and a \$2,500 Feasibility Study Grant from the CWCB, and the remainder from the Company.



Borrower: Groundwater Management Subdistrict of the

Central Colorado Water Conservancy District

Project Name: Well Augmentation Project Type: Purchase Water Rights and

Construct Storage Facilities

Counties: Weld, Adams, Morgan

Drainage Basin: South Platte Water Source: South Platte

Total Project Cost: \$22.85 million Funding Sources: Borrower and CWCB

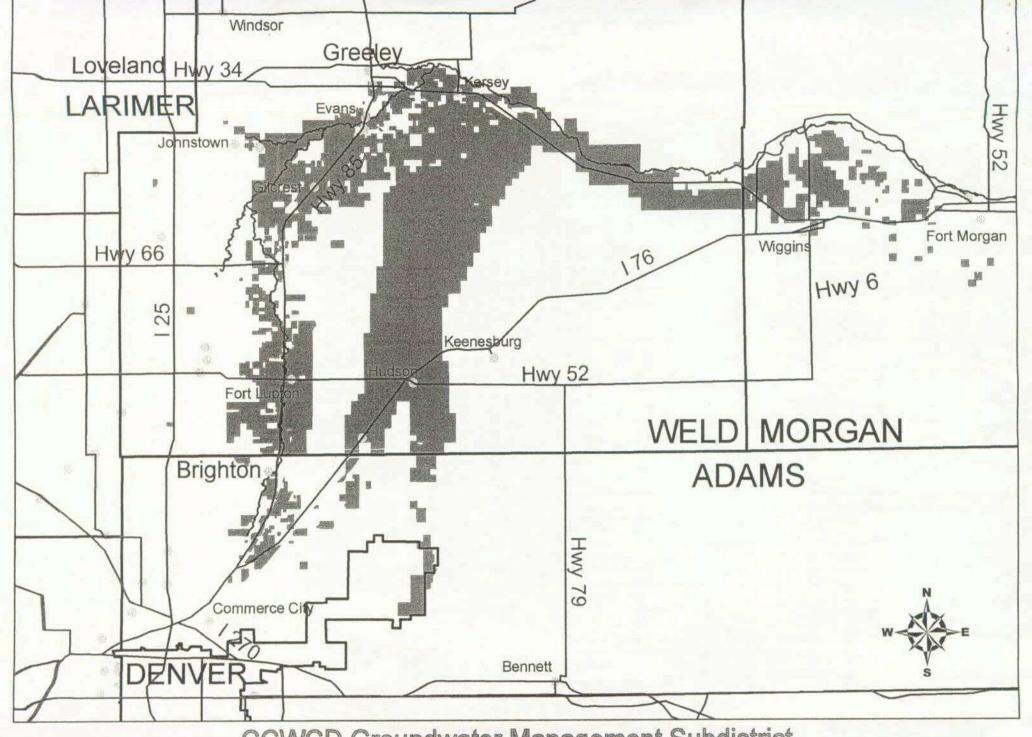
Type of Borrower: Agricultural Median Household Income: N/A

CWCB Loan: \$5 million Interest Rate: 2.5% Term: 30 years

Annual depletions covered: 22,260 acre-feet

The Groundwater Management Subdistrict of the Central Colorado Water Conservancy District is located in Adams, Weld, and Morgan counties. The Subdistrict has operated an augmentation plan since 1973 and currently has 966 agricultural member wells and an annual depletion of 22,260 acre-feet. The 2001 Colorado Supreme Court decision concerning "Empire Lodge" now makes it necessary for the Subdistrict to acquire additional senior water rights and build more storage and water recharge facilities to augment out-of-priority diversions. The Subdistrict was authorized under the Water Conservancy Act of 1937 and has the power to acquire water rights, construct and operate facilities, levy taxes, and issue debt subject to the provisions of TABOR. The Subdistrict has completed the feasibility study. Funding will come from a \$15 million CWCB loan recommended in November 2002 and a \$5 million CWCB follow-up loan approved in November 2003, for 90% of the cost. The Subdistrict will fund the remainder.

(Location Map on Reverse)



CCWCD Groundwater Management Subdistrict