

# STATE OF COLORADO

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## Colorado Water Conservation Board Department of Natural Resources

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TO: Colorado Water Conservation Board Members

FROM: Kirk Russell, PE  
Mike Serlet, PE, Chief  
Water Supply Planning & Finance Section

DATE: May 12, 2009

SUBJECT: **Agenda Item 17b, May 19-20, 2009 Board Meeting**  
**Water Supply Planning and Finance Section – New Project Loans**  
**Town of Dillon – Old Dillon Reservoir Enlargement Project**

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Bill Ritter, Jr.  
Governor

Harris D. Sherman  
DNR Executive Director

Jennifer L. Gimbel  
CWCB Director

Dan McAuliffe  
CWCB Deputy Director

### Introduction

The Town of Dillon (Town), acting by and through its water activity enterprise, is applying for a \$1,500,000 loan for the Town's cost share of the Old Dillon Reservoir Enlargement Project (Project). The total cost estimate for the enlargement is \$6,315,000, which will be shared between the Town of Dillon, Summit County and the Town of Silverthorne. The enlargement will provide additional storage capacity and a back-up water supply to meet existing and future domestic water supply needs. The loan request is for approximately 90% of the Town's project costs estimated at \$1,667,000. See attached Project Data Sheet.

### Staff Recommendation

Staff recommends the Board approve a loan not to exceed \$1,515,000 (\$1,500,000 for project costs and \$15,000 for the 1% Loan Service Fee) to the Town of Dillon, acting by and through its water activity enterprise, for the Old Dillon Reservoir Enlargement Project from the Construction Fund. The loan terms shall be an interest rate of 4.0% per annum for 30 years. Security for the loan shall be in compliance with Financial Policy #5.

Loan approval shall be conditioned upon CWCB receiving parity with all current debt that is secured by the Town's water activity enterprise revenues.

## **Background**

The Town has always recognized the value of its water rights associated with the Old Dillon Reservoir (Reservoir) and the Dillon Ditch. The Town felt that the Reservoir would serve as an alternate source of supply for the Town and be of benefit to other governmental entities in Summit County. The Town entered into Inter-governmental Agreements (IGA) with Summit County and the Town of Silverthorne (Participants) to make the enlargement economically feasible. Through the various studies done since 1995, the option of enlarging proved to be the most economical alternative. In 2004, the Participants solicited the assistance of the Colorado River Water Conservation District (River District) with permitting and design.

The 46 AF Reservoir will be enlarged by 240 AF for a total of 286 AF. The enlarged Reservoir will provide the Town additional storage capacity and a back-up water supply. The Town's current water supply from Straight Creek is susceptible to contamination from several sources, including potential wildfire due to massive pine beetle kill and potential contamination from hazardous material spills on I-70 in the watershed.

Original construction of the Reservoir and the Dillon Ditch was completed in 1939 to provide domestic water supply to the Town. The 46 AF Reservoir is filled by the Dillon Ditch, which diverts from Salt Lick Gulch (Gulch). The Reservoir sits in a saddle with a north and south dam each about 7 feet high.

On July 17, 2008, the SEO issued an order to the Town to drain the reservoir due to concerns over safety of the north dam. The reservoir will remain empty until the proposed enlargement is approved. If approval of the enlargement is not obtained, the Town will begin design and permitting to repair the existing dam to its pre-restricted capacity.

## **Loan Feasibility Study**

The Loan Feasibility Study, titled "Feasibility Study for Old Dillon Reservoir Enlargement Project", dated March 2009, was prepared by Town of Dillon staff Eric Holgerson, Public Works Director and Carri McDonnell, Finance Director. The submittal included several past studies and recent engineering reports related to the current permitting efforts. The study included audited financial statements for years 2005 through 2007. The application was signed by C. Devin Granbery, Town Manager. The study was prepared in accordance with the CWCB guidelines.

## **The Town of Dillon**

The Town of Dillon, Colorado was incorporated on January 26, 1883. The Town relocated in 1956 when the Denver Water Board began the process of building Dillon Dam. The Town is located 70 miles west of Denver in Summit County along I-70 with a population just over 800. Eighty percent of the housing units are second homes, which increases the population to approximately 5,000 in the peak seasons. The service area is primarily within the Town boundaries and is a mix of residential, multi-family residential and commercial uses. The Town is currently limited in growth by the capacity in the sewer treatment plant of 2,100 EQRs. (EQR = Equivalent Residential unit)

The Town currently has 1,695 EQRs on line or 81% of build-out capacity. The 2008 water usage was approximately 300 AF. The Town operates its water system using a Water Enterprise Fund. Revenues are generated from customers through the monthly volume charge and monthly capital fee. The 2009 rates are as follows:

Monthly Capital Fee	\$17.00 per Single Family Home (EQR)
Monthly Volume Charge	\$3.00 per 1,000 gallons for usage 15,000 gallons and less \$4.50 per 1,000 gallons for usage over 16,000 gallons
Water Tap Fee	\$7,000 per EQR

### Water Rights

Summit County and the Town of Dillon acquired a water right for the Old Dillon Reservoir Enlargement in Case No. 93CW288 and an additional amount in 07CW223. An IGA gives the County the right to enlarge the Reservoir and gives the Town the option to participate. Water rights and agreements associated with Old Dillon Reservoir are:

Decree	Description	Amount
CA1803	Original Decree for Old Dillon Reservoir and the Dillon Ditch	46AF & 10cfs
93CW288	Old Dillon Reservoir First Enlargement from Salt lick Gulch	10cfs & 150AF
07CW223	Old Dillon Reservoir Second Enlargement	60AF enlarge.
86CW329	Town of Dillon Blue River Intake	5cfs
86CW330	Exchange from Salt Lick Gulch to the Town's Blue River Intake	3.5cfs to 250AF
07CW226	Exchange Summit County's water from other reservoirs to Old Dillon Res.	8cfs

### Project Description

The purpose of this Project is to utilize Old Dillon Reservoir and maximize its regional potential based on a cost-benefit assessment of the following four alternatives:

**Alternative No. 1 – No-action** was considered unacceptable since the Reservoir is currently under a zero gage restriction by the SEO and will require repair. This alternative does not provide the Town with a desperately needed alternative water source.

**Alternative No. 2(SELECTED) - Enlarge Old Dillon Reservoir** to serve Summit County, the Town of Dillon and possibly the Town of Silverthorne.

**Alternative No. 3 – Provide water supply needs without enlarging Old Dillon Reservoir** for Summit County, the Town of Dillon and the Town of Silverthorne. This alternative would use the existing Dillon Ditch and a newly constructed outlet from Old Dillon Reservoir to Dillon Reservoir to route Dillon Ditch water to the Town of Dillon and to put water into storage in a pool in Dillon Reservoir, possibly affecting the water supply contemplated by Old Dillon Reservoir First Enlargement without constructing the enlargement. This requires significant assistance from Denver Water. This was ruled out since Denver Water has not indicated that useful space in Dillon

Reservoir would be available for this purpose and in addition Denver Water places very restrictive operating conditions on the use.

***Alternative No. 4 - Serve More Than Existing Partners*** - Assistance from Denver Water in the form of a storage pool with carry-over could enable more water than Old Dillon Reservoir and Old Dillon Reservoir First Enlargement capacity to be diverted from Salt Lick Gulch and stored in Dillon Reservoir. The expanded uses could contribute to the “global solution” discussions under the UPCO process. These diversions would need to be made with stream flow targets in the Blue River in mind. This alternative did not meet the Participant’s objectives in utilizing the Reservoir.

The Selected Alternative includes expanding the existing reservoir from 46 AF to 286 AF by increasing the height of both dams requiring, about 120,000 cubic yards of excavation, 80,000 cubic yards of embankment fill, 10,000 cubic yards of imported riprap, and 1,000 feet of 24” pipe for the outlet to the Blue River (via Dillon Reservoir). On-site borrow material will be utilized. The Project will also include approximately 6,100 feet of 24” high density polyethylene pipe placed within the existing Dillon Ditch alignment. The headgate would be relocated and the inverted siphon under I-70 would be slip lined. The Project will require improvements to the existing access road and burying overhead power lines. The project would cause a loss of wetlands around the existing reservoir shoreline which will require mitigation.

#### **Project Components and Cost Estimate**

1. Reservoir Enlargement	\$1,460,000
2. Outlet to the Blue River	\$ 460,000
3. Rehabilitate Dillon Ditch	\$1,400,000
4. Rehabilitate the outlet to Salt Lick Gulch	\$ 460,000
5. Temporary road access improvements	\$ 502,000
6. Burying overhead power and cable lines	\$ 100,000
7. Wetlands Creation	<u>\$ 243,000</u>
Total Construction Costs	\$4,625,000
Contingency 20%	\$ 925,000
Design/Engineering Fees	<u>\$ 765,000</u>
Total Project Costs	\$6,315,000

The overall project cost per Acre-Foot for 286 AF of storage is \$22,080/AF. The Town is responsible for 20% of design, engineering and permitting and 27% of the construction costs and receives 109 AF of the final storage. The cost breakdown is as follows:

Construction Cost (27%)	\$1,499,000
Design/Engineering (20%)	<u>153,000</u>
Sub Total	\$1,652,000
Town Specific Costs	<u>\$ 15,000</u>
Total Town Cost	\$1,667,000

The Town's cost per Acre-Foot for its 109AF is \$15,290/AF. Project Engineering Construction Plans (90%) prepared by Tetra Tech have been submitted to USFS for Permitting and SEO Dam Safety. Permitting and SEO review is expected to be complete by the end of 2009. The Town expects to start construction in the spring of 2010 and complete construction by the spring of 2011.

## Financial Analysis

Table 1 shows a summary of the financial aspects of the loan request. The interest rate for the Town is based on a middle income municipal rate of 4.0% for 30 years. (Financial Policy #7).

**Table 1. Financial Summary**

<b>PROJECT/LOAN</b>	
Old Dillon Reservoir Enlargement Total Project Cost	\$6,315,000
Summit County & Silverthorne Project Cost Participation	\$4,663,000
Town of Dillon Project Cost Participation	\$1,652,000
Town of Dillon Total Project Costs (including non-Participant Costs)	\$1,667,000
Town of Dillon Loan (90%)	\$1,500,000
CWCB Loan (Including 1% Service Fee)	\$1,515,000
CWCB Annual Loan Payment	\$87,600/yr
CWCB Loan Obligation (including 10% debt reserve funding)	\$96,360/yr
Current Taps or EQRs	1,695 EQR's
New Annual Debt Service per Tap or EQR	\$57/EQR

**Creditworthiness:** The Town's Water Enterprise currently has two outstanding loans with a total balance of \$555,000. The Colorado Water & Power Development Authority loan will be retired prior to the first P&I payment to CWCB.

	Balance	Annual Pmt	Maturity Date
Colorado Water & Power Development Authority	\$464,028	\$126,689	11/2012
Wells Fargo Brokerage Service (land for new well)	\$90,887	\$18,547	3/2014

Table 2 shows the Financial Ratios for the Town.

**Table 2. Financial Ratios**

<b>Financial Ratio</b>	<b>Past Years</b>	<b>Future (2013) With Project</b>
Operating Ratio (revenues/expenses) weak: <100% - average: 100% - 120% - strong: >120%	119% (Average) \$755K/634K	140% (Strong) \$900K/645K
Debt Service Coverage Ratio (revenues-expenses)/debt service weak: <100% - average: 100% - 120% - strong: >120%	183% (Strong) \$755K-489K/145K	115% (Average) \$900K-530K/115K
Cash Reserves to Current Expenses weak: <50% - average: 50% - 100% - strong: >100%	114% (Strong) \$725K/634K	109% (Strong) \$700K/645K
Average Monthly Residential Water Bill weak: >\$60 - average: \$30 - \$60 - strong: <\$30	\$41/Month (Average)	\$45/Month (Average)

**Collateral** - Security for the loan shall be a pledge of the Town's water activity enterprise revenues backed by a rate covenant and audited annual financial reporting. This is in compliance with CWCB Financial Policy #5 (Collateral).

#### **Staff Recommendation**

Staff recommends the Board approve a loan not to exceed \$1,515,000 (\$1,500,000 for project costs and \$15,000 for the 1% Loan Service Fee) to the Town of Dillon, acting by and through its water activity enterprise, for the Old Dillon Reservoir Enlargement Project from the Construction Fund. The loan terms shall be an interest rate of 4.0% per annum for 30 years. Security for the loan shall be in compliance with Financial Policy #5.

Loan approval shall be conditioned upon CWCB receiving parity with all current debt that is secured by the Town's water activity enterprise revenues.

cc: Eric Holgerson, Public Works Director  
Susan Schneider, AGO

Attachment: Water Project Loan Program – Project Data Sheet

## CWCB Construction Loan Program Project Data Sheet

**Borrower:** Town of Dillon

**County:** Summit

**Project Name:** Old Dillon Reservoir Enlargement **Project Type:** Reservoir Enlargement

**Drainage Basin:** Colorado River

**Water Source:** Salt Lick Gulch

**Total Project Cost:** \$6,315,000 Total Cost  
\$1,667,000 Town's Portion

**Funding Sources:** Construction Fund

**Type of Borrower:** Municipal Middle Income

**Average Delivery:** 321 AF

**New Storage:** 109 AF (Restricted + New)

**Loan Amount:** \$1,515,000 (Including 1% fee)

**Interest Rate:** 4.0% **Term:** 30 years

The Town of Dillon is applying for a loan to participate in the enlargement of the Old Dillon Reservoir. In 2004, the Town, Summit County and Town of Silverthorne signed an agreement to enlarge the reservoir. The Town's participation cost is approximately 27% of the construction costs and 20% of the Engineering costs. The Town and the County initiated a feasibility study in 1995. The Reservoir was originally constructed as a 46 AF raw water storage reservoir filled via the Dillon Ditch, which diverts from Salt Lick Gulch. The Reservoir site is southwest of the Dillon Reservoir Dam. In the summer of 2008, the SEO issued an order to drain the Reservoir due to concerns over the integrity of the north dam. The Reservoir is currently not available for storage. Permitting is underway and construction of the enlargement is scheduled to occur in 2010.

