

# 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



February 3, 2011

Mr. Kit Hamby  
Snowmass Water and Sanitation District  
P.O. Box 5700  
Snowmass Village, CO 81615

John W. Hickenlooper  
Governor

Mike King  
DNR Executive Director

Jennifer L. Gimbel  
CWCB Director

Re: Ziegler Reservoir Expansion Project  
Contract Number C150315

Dear Mr. Hamby:

I am pleased to inform you that on January 25, 2011 the Colorado Water Conservation Board approved your loan request for the Ziegler Reservoir Expansion Project as described in the application and approved Loan Feasibility Study titled "*Feasibility of Enlargement of Ziegler Reservoir*," dated December 2010. The Board approved a loan not to exceed \$2,873,804 (\$2,845,350 for project costs and \$28,454 for the 1% Loan Service Fee). The loan terms shall be 20 years at an interest rate of 4.75% per annum. I have attached a copy of the updated Board memo dated February 3, 2011, that includes the Board's approval.

After the Board approves a loan there are a few steps that remain in the loan process including:

- A) Contracting: An approved contract must be in place before funds can be disbursed. Vaughn McWilliams will initiate the loan contracting process for this project. When all of the contract conditions are met and the contract is executed the Company may request loan funds to cover eligible project expenses. You can contact Vaughn at (303) 866-3441 x 3227 regarding the requirements.
- B) Design/Construction: You must adhere to the CWCB Design and Construction Administration Procedures. Kirk Russell will contact you regarding this phase of the process. Kirk will make construction site visits, which will be the basis of pay estimates for disbursement of your loan funds. You can contact Kirk at his desk at (303) 866-3441 x 3232 or cell phone (303) 956-5653.

On behalf of the Board, I would like to thank you for your interest in a loan from the Colorado Water Conservation Board.

Snowmass Water and Sanitation District  
Ziegler Reservoir Expansion Project  
February 3, 2011  
Page 2 of 2

Sincerely,

A handwritten signature in black ink, appearing to read 'Tim Feehan', with a long horizontal flourish extending to the right.

Tim Feehan, P.E., Chief  
Finance Section  
Colorado Water Conservation Board

A handwritten signature in black ink, appearing to read 'Anna Mauss', with a long horizontal flourish extending to the right.

Anna Mauss, P.E.  
Finance Section  
Colorado Water Conservation Board

Attachment: Updated Board Memo

E-mail Copy (Including Attachments)

John Redifer, Board Member – Colorado River Basin  
Patricia DeChristopher, AGO  
CWCBC Finance Section Staff

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CWCB Director

TO: Colorado Water Conservation Board Members

FROM: Anna Mauss, P.E. *AM*  
Tim Feehan, P.E., Chief *TF*  
Finance Section

DATE: January 14, 2011 (Updated February 3, 2011)

SUBJECT: **Agenda Item 9a, January 24-26, 2011 Board Meeting**  
**Finance Section – New Project Loans**  
**Snowmass Water and Sanitation District – Ziegler Reservoir Expansion Project**

### Introduction

The Snowmass Water and Sanitation District (District), acting by and through its Water and Sanitation Enterprise (Enterprise), is applying for a loan for the Ziegler Reservoir Expansion Project (Project). The purpose of this project is to enlarge Ziegler Reservoir (Reservoir) from its current 57 acre feet (AF) to 240 AF, thereby improving system reliability. The District is requesting a loan for approximately 90% of the \$3,161,500 Project. See attached Project Data Sheet for a location map and project summary.

### Staff Recommendation (Board approved staff recommendation on January 25, 2011)

Staff recommends the Board approve a loan not to exceed \$2,873,804 (\$2,845,350 for project costs and \$28,454 for the 1% Loan Service Fee) to the Snowmass Water and Sanitation District, acting by and through its Water and Sanitation Enterprise, for engineering and construction costs related to the Ziegler Reservoir Expansion Project. The loan terms shall be 20 years at the high-income municipal rate of 4.75% per annum (reduced from 5.0% for a 30-year term). Security for the loan shall be in compliance with CWCB Financial Policy #5.

### Background

The District provides potable water service for customers within the District boundaries. The District is approximately 3,900 acres and includes the Town of Snowmass Village. In 2006, the District had a yield study completed to assess the need for a new reservoir because the District did not have a reserve raw water storage facility. The study concluded that reservoir storage was

necessary, so the District purchased the Reservoir in 2008 for the purpose of improving system reliability.

The Reservoir is an off-channel reservoir located in a small, upper drainage basin of Brush Creek. The Reservoir is currently 57 AF and will be expanded to 240 AF through this Project.

The District recently completed the Ziegler Reservoir Water Management System Project that connected the District's raw water delivery system to the Reservoir via pipelines and a pump station. The CWCB approved a \$1,952,805 loan to the District in May of 2009 for the pipeline project.

### **Loan Feasibility Study**

The Loan Feasibility Study, "Feasibility of Enlargement of Ziegler Reservoir," dated December 2010, was prepared by W.W. Wheeler and Associates, with assistance from Kit Hamby, District Manager. The study was prepared in accordance with the CWCB guidelines and includes an alternative analysis, engineering design and cost estimates. An additional study, "Dry Year Yield Analysis for Snowmass Creek Water Supplies and Evaluation of Raw Water Storage Requirement," dated October 2006, was also prepared for the District by W.W. Wheeler and Associates and provided supplemental information for the Loan Feasibility Study.

### **Snowmass Water and Sanitation District**

The District is a Colorado Special District, created in 1964. It operates through an Enterprise. Income comes from service fees and system development fees. The District does receive property tax income; however, this revenue is dedicated to repayment of the general obligation bond debt that was incurred to expand the wastewater system.

In addition to providing water and sewer service to its service area, the District also provides potable water outside its service area to Bush Creek Metropolitan District. The District services 3,500 year-round residents. During the ski season, the population can increase to 16,000 residents. This equates to 5,191 equivalent residential units (EQRs). Facilities owned by the District include three diversion locations, a water treatment plant, 12 water storage tanks, and 44 miles of distribution pipelines.

### **Water Rights**

The Project will not require any additional water rights beyond the District's current portfolio. As a part of the Reservoir purchase, the District acquired the 1969 Ziegler Reservoir fill and storage decree for 57 AF. The supply for the Reservoir is delivered from East Snowmass Creek by way of the East Snowmass Creek and Brush Creek Ditch and the Ziegler Pipeline Extension.

In 2008, the District acquired a 300 AF storage right for the enlargement of the Reservoir. These rights are to be delivered through two conveyance systems. The first is through the existing East Snowmass Creek and Brush Creek Pipeline. The second is through the existing Snowmass Creek Pipeline.

**TABLE 1: WATER RIGHTS**

<b>Water Right</b>	<b>Appropriation Date</b>	<b>Adjudication Date</b>	<b>Amount</b>
Ziegler Reservoir	July 11, 1962	November 5, 1971	57 AF
Enlargement of Ziegler Reservoir	December 10, 2008	December 31, 2008	300 AF

These rights are decreed for irrigation, domestic, recreational, piscatorial, and other beneficial purposes. The District has additional water rights, not related to this Project, to meet its current municipal needs. On average, the District delivers 1,850 AF annually.

### **Project Description**

The objective of this project is to supply the District with a raw water storage facility. Three alternatives were considered:

***Alternative No. 1 – No immediate action / Delay construction of the reservoir:*** This alternative was dismissed because raw water storage is necessary for the District. It does not have sufficient reserve supply to provide users with a reliable source of water in the event that the raw water supply is contaminated, if an extended drought situation occurs, or if there is a loss of delivery facilities (such as a mudslide damaging the diversion or delivery system).

***Alternative No. 2 – Construct a reservoir on an alternate site:*** Additional sites were considered prior to the District's purchase of the Ziegler site. Alternate locations were evaluated but not chosen because of topographic reasons and/or public opposition to the sites.

***Selected Alternative No. 3 – Construct the enlarged Ziegler Reservoir:*** This alternative was selected because there was an existing Reservoir on site, the land surrounding the Reservoir was privately owned, and it was in close proximity to the District's existing infrastructure. The District successfully purchased the site and surrounding easements in 2008 and will enlarge the Reservoir from 57 AF to 240 AF. The engineer's estimate for the engineering and construction of the Reservoir expansion is \$3,161,500.

This alternative consists of reconstructing and enlarging the zoned earth embankment dam, reconstructing the emergency spillway and connections to the pump house; relocating the Ziegler residence driveway above the new high water line; and excavating the Reservoir bottom to increase storage. The District's engineer submitted plans to the State Engineers Office in November 2010. Plan approval is expected by March of 2011. Construction is planned for June through November of 2011.

In an effort to meet the anticipated 2011 construction schedule, the District began excavation work in the fall of 2010. (That work was paid for out of District cash reserves and is not a part of this loan request.) During that excavation, it was discovered that the Reservoir area was a mammoth fossil site. The District and the Denver Museum of Nature and Science have signed a Memorandum of Understanding that allows the museum 45 days to continue digging in the spring of 2011. During that time, the District will concurrently begin concrete work and expects the Project to continue on schedule.

**TABLE 2: TOTAL PROJECT COST SUMMARY**

Task	Cost
Engineering (Construction Management Only)	\$412,400
Construction	\$2,390,500
Construction Contingency (15%)	\$358,600
Total	\$3,161,500

### Financial Analysis

Based on the median household income of the area, the interest rate for the District is the high-income municipal interest rate of 5.0% for a 30-year term. This District has chosen a 20-year term, thereby reducing the interest rate to 4.75% (per policy #7).

**TABLE 3: FINANCIAL SUMMARY**

Total Project Cost	\$3,161,500
CWCB Loan Amount (90% of total Project cost)	\$2,845,350
CWCB Loan Amount (Including 1% Service Fee)	\$2,873,804
CWCB Loan Payment	\$225,739
CWCB Loan Obligation (Including 10% Reserve)	\$248,312
Number of EQRs	5,191
Monthly Cost of Loan (with Reserve Account) per EQR	\$4
New Storage Added (AF)	183
Project cost per AF (183 AF expansion)	\$17K
Total development cost per AF (240 AF) Land + Pipeline + Res. Expansion	\$40K

**Creditworthiness:** The District operates its Enterprise as a self-supporting business. Revenues are received from user fees and development fees and are sufficient to cover operating expenses as well as to assist in the funding of capital improvements. In accordance with the Tabor amendment, the District has established emergency reserves of at least 3% of its fiscal year spending.

The District has an existing General Obligation Bond with a balance of \$1,794,955. This is not included in debt service calculations since property tax revenues are specifically dedicated to repayment of this loan and revenues will not continue after the bond is paid off in 2013.

The District also has an existing loan from the CWCB for the Ziegler Reservoir Water Management System Project (contract number C150294). This loan was to construct a new pumphouse, pipeline, and flow control building to deliver water to and from the Reservoir. The loan was approved for \$1,952,805 with annual payments of \$122,300. The loan terms are 20 years at 4.25% per annum. Repayment of this loan has not yet begun, so the debt service is not included in the past years financial ratios in Table 4.

**TABLE 4: FINANCIAL RATIOS**

<b>Financial Ratio</b>	<b>Past 3 Years</b>	<b>Future w/ Project</b>
<b>Operating Ratio (revenues/expenses)</b> <b>weak: &lt;100%</b> - <b>average: 100% - 120%</b> - <b>strong: &gt;120%</b>	153% (Strong) \$2.9M/\$1.9M	126% (Strong) \$2.9M/\$2.3M
<b>Debt Service Coverage Ratio</b> (revenues-expenses)/debt service <b>weak: &lt;100%</b> - <b>average: 100% - 120%</b> - <b>strong: &gt;120%</b>	No Existing Debt	288% (Strong) \$2.9M-\$1.9M/ \$348K
<b>Cash Reserves to Current Expenses</b> <b>weak: &lt;50%</b> - <b>average: 50% - 100%</b> - <b>strong: &gt;100%</b>	153% (Strong) \$2.9M/\$1.9M	113% (Strong) \$2.6M/\$2.3M
<b>Average Residential Water Bill</b> <b>weak: &gt;\$60</b> - <b>average: \$30 - \$60</b> - <b>strong: &lt;\$30</b>	\$16 (Strong)	\$16 (Strong)
<b>Debt per Tap (5,191 EQR)</b> <b>weak: &gt;\$5,000</b> - <b>average: \$2,500-\$5,000</b> - <b>strong: &lt;\$2,500</b>	No Existing Debt	\$67 (Strong) \$348K/5,191

**Collateral:** As security for the loan, the District will pledge its Enterprise revenues backed by a rate covenant and annual financial reporting. This is in compliance with the CWCB Financial Policy #5 (Collateral).

**Staff Recommendation (Board approved staff recommendation on January 25, 2011)**

Staff recommends the Board approve a loan not to exceed \$2,873,804 (\$2,845,350 for project costs and \$28,454 for the 1% Loan Service Fee) to the Snowmass Water and Sanitation District, acting by and through its Water and Sanitation Enterprise, for engineering and construction costs related to the Ziegler Reservoir Expansion Project. The loan terms shall be 20 years at the high-income municipal rate of 4.75% per annum (reduced from 5.0% for a 30-year term). Security for the loan shall be in compliance with CWCB Financial Policy #5.

cc: Kit Hamby, District Manager, Snowmass Water and Sanitation District  
Susan Schneider, AGO  
Patricia DeChristopher, AGO

Attachment: Water Project Loan Program – Project Data Sheet

## CWCB Construction Loan Program Project Data Sheet

**Borrower:** Snowmass Water & Sanitation Dist.  
(Water and Sanitation Enterprise)

**County:** Pitkin

**Project Name:** Ziegler Reservoir Expansion

**Project Type:** Reservoir Enlargement

**Drainage Basin/District:** Colorado River / 38

**Water Source:** Snowmass Creek

**Total Project Cost:** \$3,161,500

**Funding Sources:** Construction Fund

**Type of Borrower:** High-Income Municipal

**Average Delivery:** 1,850 AF

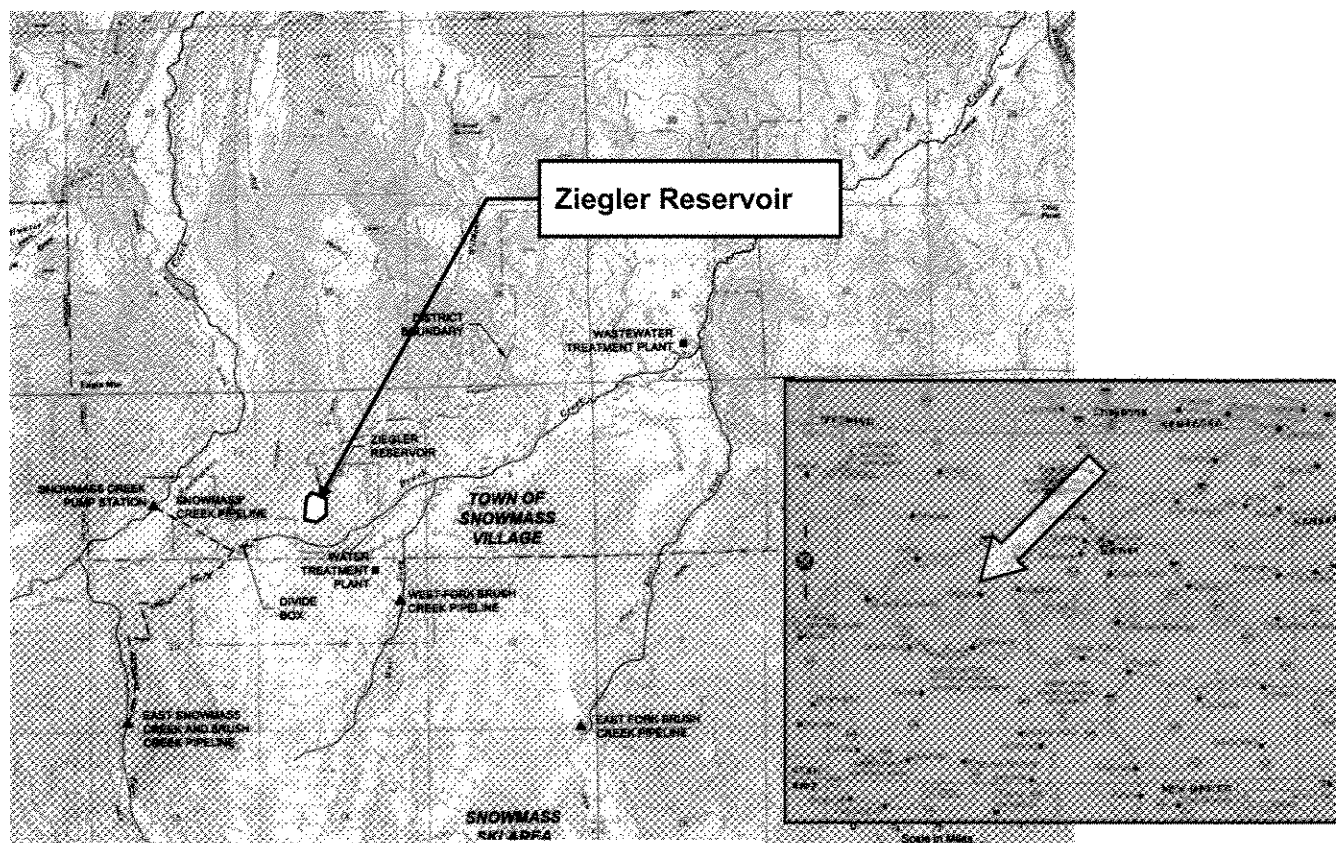
**New Storage:** 183 AF

**Loan Amount:** \$2,873,804 (Including 1% fee)

**Interest Rate:** 4.75%     **Term:** 20 years

**Reduced from:** 5.0% for 30 years

The Snowmass Water and Sanitation District (District), acting by and through its Water and Sanitation Enterprise, is requesting a loan to enlarge Ziegler Reservoir. The District purchased Ziegler Reservoir in 2008. Prior to that time, it did not have a useable raw water storage facility. The District purchased the reservoir with the purpose of improving system reliability and plans to expand the reservoir from 57 AF to 240 AF. To regulate flows and provide a supply during times of diminished stream flows, a system to divert water to and pump water from the reservoir was also required. The CWCB previously approved a loan to the District in May 2009 to construct the pipeline to deliver water to and from the reservoir. The reservoir expansion plans were submitted to the State Engineers Office in November of 2010. Plan approval is expected by March of 2011 with construction occurring between June and November of 2011.



**LOCATION MAP**