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

TO: Colorado Water Conservation Board Members

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

DATE: May 11, 2010

SUBJECT: **Agenda Item 14d, May 18-19, 2010 Board Meeting**
Finance Section – New Project Loans
City of Monte Vista – Water Rights Acquisition Project

Introduction

Upcoming rules from the Office of the State Engineer (SEO) will require water users in the San Luis Valley to replace depletions from pumping wells in the confined and unconfined aquifers tributary to the Rio Grande River. The water rights currently owned by the City of Monte Vista (City) are insufficient to fully replace the City's depletions, so it is seeking a CWCB loan to purchase Anderson Ditch water rights, and to purchase storage in the Rio Grande Reservoir. See attached Project Data Sheet for a location map and a project summary.

Staff Recommendation

Staff recommends the Board approve a loan not to exceed $1,693,770 ($1,677,000 for project costs and $16,770 for the 1% Loan Service Fee) to the City of Monte Vista, acting by and through its water activity enterprise, for the Water Rights Acquisition Project from the Construction Fund. The terms of the loan shall be 30 years at the low-income municipal rate of 4.0% per annum. Staff will have the option to enter into two separate contracts which in aggregate will not exceed the approved limit. Security for the loan shall be in compliance with CWCB Financial Policy #5.

Staff also recommends an additional contract condition:

No CWCB funds will be disbursed until the City has an executed storage agreement for the water rights being financed through this loan.

Background

The City is located in the Rio Grande River Basin, Water Division 3. The City limits encompass approximately 1,350 acres and the municipal water service area is approximately 1,700 acres. The current population of the City is 4,300 residents, and the full build-out population is projected to be 6,250 people.

The City's water supply system services residents, businesses, and public buildings as well as some public parks and recreation facilities. The system was constructed in 1950 and does not have any storage; all demands are met by pumping. Currently, the domestic system includes approximately 30 miles of lines that are supplied by five wells completed in the confined aquifer and serves approximately 2,000 taps. The City also owns and operates three decreed wells in the unconfined aquifer. These wells are used to irrigate a total of 13 acres of parks and recreation fields.

All of these wells are junior in priority to most surface water rights in the Rio Grande River Basin. Historically, surface water rights in the basin have been administered, but wells have not. It has been shown that pumping from both the confined and unconfined aquifer wells results in depletions to the Rio Grande River (River), which is located about 1.5 miles north of the City. These depletions affect irrigation water rights and the State of Colorado's ability to meet the Rio Grande River Compact (Compact).

Reduction of water in the River from pumping prompted administration of wells, and the passage of Senate Bill 04-222 and associated rules being promulgated by the SEO requiring replacement of depletions from wells such as the City's. In response to the need to regulate groundwater, the SEO has developed a groundwater model to quantify depletions from well pumping. The Rio Grande Decision Support System (RGDSS) groundwater model covers the entire San Luis Valley and simulates both confined and unconfined aquifers.

Depletions from the City's wells were estimated by the SEO using the RGDSS model in April of 2008. The estimated depletions for current and future conditions, based on the RGDSS modeling by the SEO and a Davis Engineering Report, estimate current depletions at 528 AF/yr, and full build-out depletions at 599 AF/yr.

Subsequent to this modeling, the SEO determined that the RGDSS model may not be appropriate to predict depletions from individual wells and for small areas, such as the City's wells. In the future, the SEO may partition the model to make it appropriate for use for smaller areas. While there is uncertainty over the use of the RGDSS model to determine depletions for the City, the modeling completed to date is the most detailed estimate of depletions for the City and was used (with a 15% contingency to address the uncertainty in current modeling) for the Loan Feasibility Study.

The City currently owns senior water rights in several irrigation ditches that can be used to replace its depletions. However, these rights are not sufficient in quantity to meet the current and future augmentation requirements of the City. Therefore, the City needs to acquire additional sources of replacement water to be able to meet its depletions.

Through this Project the City intends to acquire additional replacement water and reservoir storage. Ultimately, the City will submit an application for water rights and a Plan for Augmentation to water court.

Loan Feasibility Study

The Loan Feasibility Study, titled "*Augmentation Water Rights Acquisition Feasibility Study – City of Monte Vista, April 2010,*" was prepared for the City by David Mehan, Hydrologist, with Bikis Water Consultants, LLC, Durango, CO with assistance from Don Van Wormer, City Manager. The study was prepared in accordance with the CWCB guidelines.

City of Monte Vista

The City was incorporated in 1886. It manages its water through a water activity enterprise. There are three sources of revenue for this fund: water tap fees, water acquisition fees, and water sales revenues. Water sales revenues will be the source of repayment for this Project. The base water rate is currently $20.20 per month, with a rate of $1.46 per 1,000 gallons after 5,000 gallons.

In 2000, the City began an effort to install meters on all of the system's taps. This project resulted in a significant decrease in water demand. Prior to metering, an average of 2,463 AF/yr of water was pumped from 1994 to 2005; since meters were installed, the amount of water pumped annually dropped to 1,212 AF/yr. This decrease of 51 percent in demand is attributed to metering.

Water Rights

The City owns eight wells that were decreed in 1975. The wells are numbered 1 – 7 and an additional well named Prospect Street Well. Wells 1 - 4 are located in the confined aquifer, and wells 5 - 7 are located in the unconfined aquifer. The Prospect Street Well was decreed as an alternate point of diversion for Wells 1 – 4.

The City also owns surface water rights in the following four ditches: the McDonald, Anderson, Rio Grande Lariat, and Ben Ogle Ditches. All of these ditches divert from the mainstem of the River upstream of the City. Currently, the City leases its shares in these ditches to others for irrigation. The City will dry-up lands historically irrigated by the ditches and change the water rights' use to augmentation.

An evaluation of the historical consumptive use (HCU) of the four ditches was completed by Bikis Water Consultants. This evaluation considered the effects of potential sub-irrigation and actual diversions on ditch yield. HCU for both average and dry-year conditions was determined to be 278 AF/yr.

This amount of HCU currently owned by the City (278 AF/yr) is not adequate to meet depletions (528 AF/yr) from current use or full build-out use (599 AF/yr). Also, the HCU credits do not exist in winter months; although there is a surplus of credits in June. The City needs an additional 250 AF of HCU to replace current depletions, and a total of 321 AF to meet full build-out demand.

Project Description

The City investigated alternatives for water rights acquisition over the past several years. Potential water rights available for acquisition are relatively limited because of the over-appropriated nature of the basin. The following summarizes the alternative sources of replacement water that were identified and investigated by the City.

Alternative No. 1- Join New Sub-Districts for Water Rights Administration: In an effort to protect groundwater levels and senior water rights, the Rio Grande Water Conservation District has been working on the formation of Groundwater Management Sub-Districts (Sub-Districts) in the basin. The goals of the Sub-Districts include reducing groundwater usage in order to protect aquifers, prevent injury to senior surface water rights, and improve compliance with the Compact via collaboration from stakeholders in the basin.

Formation of the Sub-Districts is in various stages at this time. Approximately six separate Sub-Districts are envisioned; one of the Sub-Districts could potentially include the City. The formation of the Sub-Districts is dependent on the Court ruling on the Groundwater Rules, and approval by the SEO. The Sub-District covering the City has not been formed at this time. Therefore, the City is planning on preparing its own augmentation plan.

Alternative No. 2- Purchase Water in the San Jose/Lucero Ditch (James Property): A portion of the water rights in the San Jose/Lucero Ditch (0.55 cfs) is for sale on the James Property located five miles northwest of the City. This would yield approximately 42 AF/yr of HUC. Because of the small yield relative to the City's needs and the fact that the owner preferred to sell the land and the water together, this alternative was not preferred.

Alternative No. 3- Purchase Water in the Rio Grande Ditch No. 1 (Haught Ranch): The Rio Grande Ditch No. 1 is a senior irrigation ditch located approximately 15 miles upstream of the City. The 3.22 cfs in this ditch that has been used on the Haught Ranch is for sale. This water is more senior than the rights currently owned by the City; however, the owner has indicated a relatively high price (more than $10,000/AF), so this alternative was not selected.

Alternative No. 4 – Purchase Shares in the Santa Maria Reservoir: 15 shares of Santa Maria Reservoir water are currently for sale. The estimated yield of a share is 1.6 AF/share/year or less. Based on this yield, the shares would only provide 24 AF/yr of water, and would likely be even less with transit losses. Due to the high priced wanted by the seller and the small amount of water available, this alternative was not pursued further by the City.

Selected Alternative No. 5- Purchase Water in the Anderson Ditch (Valley Choice Property): Valley Choice owns approximately 65.6 acres of land immediately northwest of the City's golf course. Two fields on the southern portion of the property have been historically irrigated by the Anderson Ditch. (The City already owns a portion of this ditch.) Analysis of this water shows an average of 68.7 AF/yr of HCU from irrigation. The City is in negotiations with the owner of the Valley Choice property who desires to sell the land and water together. The owner has shown a willingness to negotiate with the City so this alternative is preferred. (Note that CWCB funding will only be used on the water rights portion of the purchase, not the land portion.)

Selected Alternative No. 6- Purchase Water in the Anderson Ditch (Trosper Ranch): Water rights in the Anderson Ditch which have been used on the Trosper Ranch just west (upstream) of the City are also available for purchase. The City has been in negotiations with the owners of this water right for a period of time. An issue with this alternative is potential sub-irrigation of land could reduce the yield of the rights; however, acquisition of these additional Anderson Ditch right is still preferred. These rights are expected to yield 123.3 AF/yr of HCU.

Selected Alternative No. 7- Lease Water in the Williams Creek Squaw Pass Diversion: Navajo Development Company (Company) owns water rights in the Williams Creek Squaw Pass Diversion (WCSPD). This diversion takes water from the upper Pine River basin (San Juan River Basin) into Squaw Creek and Rio Grande Reservoir (Rio Grande River Basin) and therefore, represents trans-basin water. Evaluation of this water right indicates that the yield of the diversion should be adequate to meet the City's needs in most years, in conjunction with acquisition of Anderson Ditch rights. The majority of this water is decreed for irrigation use; so there would have to be a change of use in order for the City to utilize this water right.

WCSPD water is stored in the Rio Grande Reservoir under a year-to-year agreement with the San Luis Valley Irrigation District (District). Storage of all or a portion of these rights in the reservoir would be pursued to increase their benefit in a dry water year. Negotiations with the Company indicate that the WCSPD water rights are available for long-term lease, not purchase. The City intends to pursue such a lease; however, it will not be funded by the CWCB.

Selected Alternative No. 8 – Obtain Storage in the Rio Grande Reservoir: The City investigated using the Rio Grande Reservoir for storage of credits from ditches which are greater than required to meet depletions during a month ("surplus credits"), and also for storage of water from other sources (e.g., WCSPD). The District is in the process of rehabilitating the reservoir and is planning on making additional storage available to others. Because the City needs storage for its surplus credits and possibly for the WCSPD rights, this is also a preferred alternative.

Summary of Selected Alternatives:

The City intends to purchase all HCU available associated with the Anderson Ditch from the Trosper Ranch and Valley Choice properties. The additional water needed to meet depletions will come from leasing the WCSPD water.

The breakdown of the water available and Project costs are as follows:

192 AF/yr Anderson ditch water	$1,020,000 (estimate)
162 AF/yr WCSPD water (leased)	$8,100/yr (not part of the CWCB loan)
241AF for storage in Rio Grande Reservoir	$843,500 (estimate)

HCU credits from dry-up of the irrigated lands will replace depletions directly during the irrigation season. Surplus credits will be stored by exchange in the Rio Grande Reservoir and then released to replace depletions during the non-irrigation season and other months with a deficit.

Schedule – The City is prepared to execute sales agreements with the sellers of the Anderson Ditch water rights upon loan approval. The City intends to file for water rights to enable the use of those rights to replace depletions as soon as possible. The City is currently negotiating agreements with the District for the storage in the Rio Grande Reservoir, and is negotiating with Navajo Development Company on the lease agreement of the WCSPD water.

The cost of storage in the Rio Grande Reservoir is being evaluated by the District. Final costs are not available at this time, but the District has indicated a cost of around $3,500 AF for spill-proof storage.

Appraisal - In accordance with the CWCB Financial Policy #8 (Purchase of Water Rights), a written appraisal or opinion of value from a qualified water rights appraiser supporting the purchase price has been submitted. The City retained Wright Water Engineers, Inc. of Denver to provide an appraisal of the value of the Anderson Ditch water rights. Wright Water Engineers placed a value of $6,000 per acre-foot on these water rights. This value was based on one comparable sale in 2008, and on the cost of San Luis Valley Water Conservancy District stored water. The City is in the process of negotiating a purchase price with the owners of the Anderson Ditch rights at this time.

The City has been in negotiations with Navajo Development Company for leasing the WCSPD water. The City anticipates entering into a long-term lease for 162 AF/yr of WCSPD water at a cost of $50/AF/yr.

Financial Analysis

Table 1 shows a summary of the financial aspects of the loan request. Based on the median household income in the City, the interest rate will be the municipal low-income rate of 4.0% for a 30 year term.

TABLE 1. FINANCIAL RATIOS

PROJECT/LOAN	
Total Project Cost (not including land purchase or lease of WCSPD water)	$1,863,500
CWCB Loan	$1,677,000
CWCB Loan (Including 1% Service Fee)	$1,693,770
CWCB Annual Loan Payment	$97,951
CWCB Loan Obligation (including 10% debt reserve funding)	$107,746
Total Project Cost per AF based on 192 AF expected yield	$9,700

Creditworthiness: The City, through the water activity enterprise, will fund the CWCB loan repayment through user fees paid for water service. The base water rate of $20.20 per month will be raised by $4.50 per month per tap to pay back the requested loan. The base rate will also be increased by an additional $2.72 to pay back the City's 10% loan match, cost of WCSPD water, and to purchase a portion of the Valley Choice Property.

The water activity enterprise no current debt secured by water user rates and fees.

TABLE 2. FINANCIAL RATIOS

Financial Ratio	Past 3 Years	Future w/ Project
Operating Ratio (revenues/expenses) weak: <100% - average: 100% - 120% - strong: >120%	136% (Strong) $759K/$558K	115% (Average) $768K/$666K
Debt Service Coverage Ratio (revenues-expenses)/debt service weak: <100% - average: 100% - 120% - strong: >120%	N/A	194% (Strong) $768K-558K/ $108K
Cash Reserves to Current Expenses weak: <50% - average: 50% - 100% - strong: >100%	84% (Average) $471K/$558K	55% (Average) $367K/$666K
Monthly Residential Water Bill weak: >$60 - average: $30 - $60 - strong: <$30	$20.20 (Strong)	$27.42 (Strong)

Collateral - Security for this loan will be a pledge of water activity enterprise revenues backed by a rate covenant and annual financial reporting. This security is in compliance with CWCB Loan Policy #5 (Collateral).

Staff Recommendation

Staff recommends the Board approve a loan not to exceed $1,693,770 ($1,677,000 for project costs and $16,770 for the 1% Loan Service Fee) to the City of Monte Vista, acting by and through its water activity enterprise, for the Water Rights Acquisition Project from the Construction Fund. The terms of the loan shall be 30 years at the low-income municipal rate of 4.0% per annum. Staff will have the option to enter into two separate contracts which in aggregate will not exceed the approved limit. Security for the loan shall be in compliance with CWCB Financial Policy #5.

Staff also recommends an additional contract condition:

No CWCB funds will be disbursed until the City has an executed storage agreement for the water rights being financed through this loan.

cc: Don Van Wormer, City Manager, City of Monte Vista
Susan Schneider, AGO
Patricia DeChristopher, AGO

Attachment: Water Project Loan Program – Project Data Sheet

Water Project Loan Program - Project Data

Borrower: City of Monte Vista (Water Activity Enterprise)

County: Rio Grande

Project Name: Augmentation Water Rights Acquisition

Project Type: Water Rights Purchase

Drainage Basin: Rio Grande

Water Source: Rio Grande River

Total Project Cost: $1,863,500

Funding Source: Construction Fund

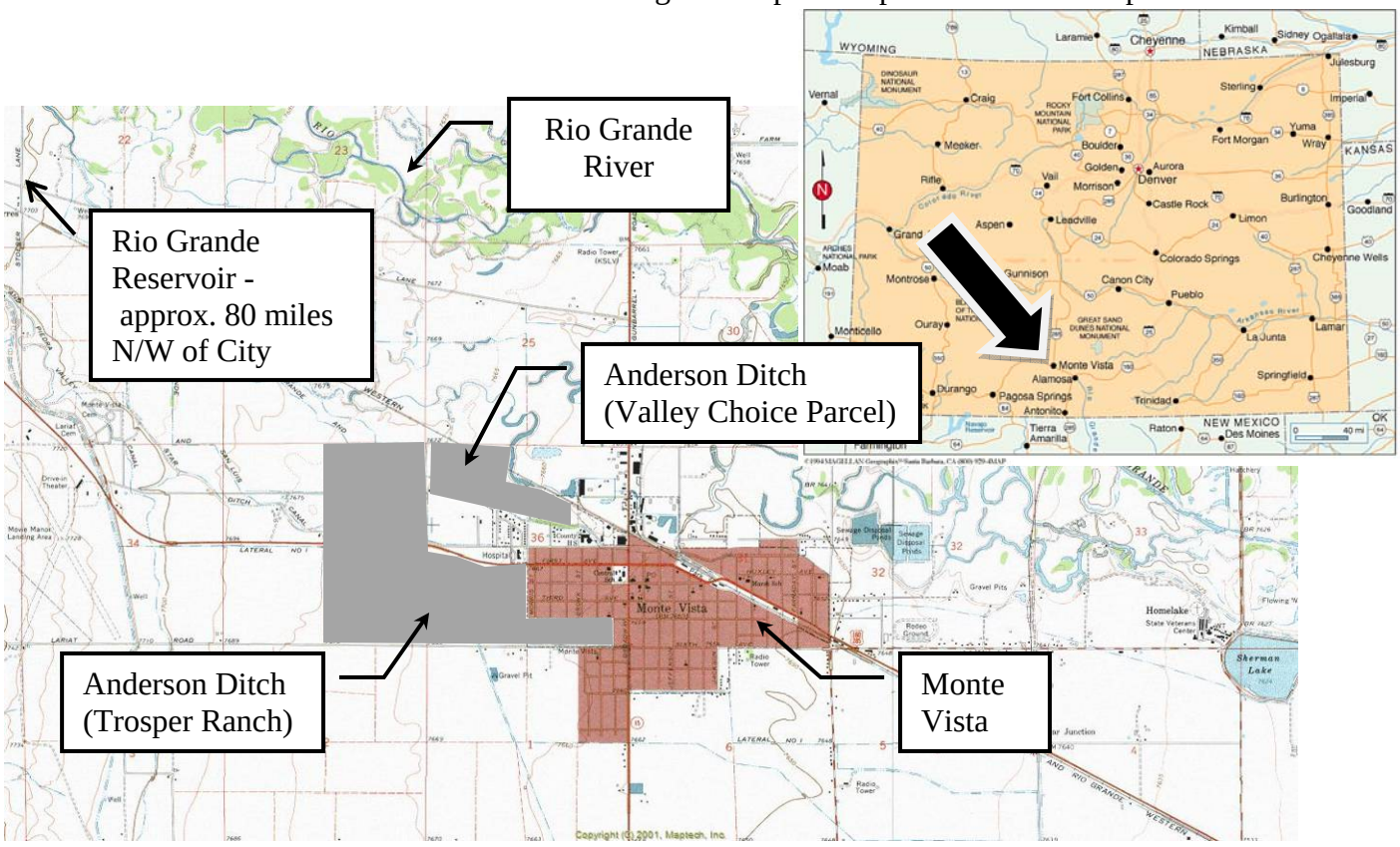
Type of Borrower: Low-Income Municipal

Aver. Demand: 1,212 AF/year

CWCB Loan: $1,693,770 (incl. 1% loan fee)

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

The City of Monte Vista, by and through its water activity enterprise, provides water to 4,300 residents in the San Luis Valley. The City's water system consists of five wells in a confined aquifer and three wells in an unconfined aquifer. Upcoming rules from the Office of the State Engineer will require water users in the San Luis Valley to replace depletions from pumping of wells in both the confined and unconfined aquifers tributary to the Rio Grande River. The water rights currently owned by the City are insufficient to fully replace the City's depletions. The City needs an additional 321 AF of replacement water. In order to meet this need, the City is purchasing Anderson Ditch water rights and storage in the Rio Grande Reservoir to store both the excess credits from the water it is purchasing and to store additional water it intends on leasing. Upon loan approval, the City plans on executing purchase agreements with the sellers of the Anderson Ditch rights and will then file in water court to enable the use of those rights to replace depletions as soon as possible.



Location Map