



COLORADO

**Colorado Water
Conservation Board**

Department of Natural Resources

1313 Sherman Street
Denver, CO 80203

P (303) 866-3441
F (303) 866-4474

John Hickenlooper, Governor

Mike King, DNR Executive Director

James Eklund, CWCB Director

TO: Colorado Water Conservation Board Members

FROM: Jonathan Hernandez, P.E., Project Manager
Kirk Russell, P.E., Finance Section Chief

DATE: May 20-21, 2015 Board Meeting

AGENDA ITEM: 14d. Water Project Loans
Plum Valley Heights Subdistrict of the Roxborough Water and Sanitation District
- Raw Water Supply Project

Introduction

The Plum Valley Heights Subdistrict (Subdistrict) of the Roxborough Water and Sanitation District (District) is applying for a loan for the Raw Water Supply Project (Project). The Subdistrict is currently served by individual non-tributary Denver basin wells. The purpose of the Project is to obtain a renewable water supply as part of the overall effort to tie the Subdistrict into the District's water infrastructure in order to eliminate its current reliance on a non-renewable water supply. This overall effort is known as the Northwest Douglas County Water Project (NDCW Project) and has an estimated cost of \$14.9 million. The Project cost of the raw water supply component is \$2,473,605. The Subdistrict is requesting a loan from CWCB for 90% of the raw water supply component costs. See attached Project Data Sheet for a location map and Project summary.

Staff Recommendation

Staff recommends the Board approve a loan not to exceed \$2,248,260 (\$2,226,000 for Project costs and \$22,260 for the 1% service fee) to the Plum Valley Heights Subdistrict of the Roxborough Water and Sanitation District for costs related to the Raw Water Supply Project from the Construction Fund. The loan terms shall be 30 years at the high-income municipal interest rate of 3.05% per annum. Security for the loan shall be in compliance with CWCB Financial Policy #5.



Background

The District is located in unincorporated northwest Douglas County and provides water and sewer service within its service area comprising of Roxborough Park south of Chatfield Reservoir. The District currently provides water service to approximately 3,400 Equivalent Residential Units (EQRs), with a planned build out of 3,800 EQRs.

The Subdistrict is made up of the existing residential developments of Chatfield Acres, Chatfield East, and Plum Valley Heights, and the industrial development of Titan Road Industrial Park. These developments were built in the 1970s and 1980s and are currently served by individual non-tributary Denver Basin aquifer wells. Water levels in the Denver Basin aquifers are declining, particularly in the margins of the aquifers where these developments are located. As a result, existing wells in these developments have either already failed, or are in danger of failing.

The 2014 election expanded the District's boundary to include these four developments. The purpose of the Subdistrict is to facilitate the financing, construction, operations, and maintenance of the improvements necessary to connect these four developments to the District's municipal water system. In March 2015, the Subdistrict was approved for a CWCB Water Supply Reserve Account grant and a Colorado Water Resources and Power Development Authority loan for the infrastructure components of the NDCW Project. The Subdistrict is seeking this CWCB loan to fund the water supply acquisition component of the NDCW Project.

Loan Feasibility Study

Bill Goetz, P.E. of TST Infrastructure, LLC, prepared the Loan Feasibility Study, titled "Plum Valley Heights Subdistrict of the Roxborough Water and Sanitation District - Loan Feasibility Study," dated March 2015. The study was prepared in accordance with CWCB guidelines and includes an alternative analysis, conceptual design, cost estimates, and financial statements of the District.

Borrower - Plum Valley Heights Subdistrict of the Roxborough Water and Sanitation District

The District is a Colorado Title 32 District established in 1971. The Subdistrict was formed in August 2013, also under Title 32 of the Colorado Revised Statutes, as an independent quasi-municipal corporation. The Subdistrict will be dissolved, with all operational and maintenance requirements transferring to the District, upon the retirement of the debt incurred for the NDCW Project.

The Subdistrict is governed by the same five member board that governs the District. As a taxing district, the subdistrict is governed by the Taxpayers Bill of Rights (TABOR) and voter approval is necessary to allow the Subdistrict to incur debt and levy taxes to finance its operations. An election was held in November 2014 where the voters approved a \$100,000 annual tax for the Subdistrict's operations and approved the incurring of debt up to \$8,500,000 for water construction projects, including an annual tax of up to \$450,000 to pay for the debt service. The voters also approved the Subdistrict to "de-Bruce" exempting the Subdistrict from TABOR's annual spending and revenue limitations. The Subdistrict is in the process of establishing a water activity enterprise to allow the charging of user fee surcharges. Revenue from ad valorem property tax and service fees will be used to pay the debts of the Subdistrict.

Water Rights

The Subdistrict does not currently own water rights. The lease to be purchased from Aurora is for the right to use 150 AF per year of raw water. Under the IGA, Aurora will deliver raw water through its existing system to the District's current delivery point. In turn, the District will pay Aurora a connection fee for each EQR connected to the District's system and a usage rate per 1,000 gallons of raw water supplied to the District. The primary term of the lease is 90 years and shall automatically and continuously renew thereafter for an additional 90 years.

Project Description

The NDCW Project will involve the installation of approximately 12 miles of water distribution pipeline, a 260,000 gallon water storage tank, and the purchase of a 150 AF per year long-term lease from Aurora. The goal of the NDWC Project is to move the Subdistrict off of a non-renewable water supply and onto a renewable water supply. This is consistent with defined concerns in the Metro and South Platte Roundtable Needs Assessment and Implementation Studies. The Metro Roundtable has determined the NWDC Project is an important component of replacing the use of non-tributary groundwater in the South Metropolitan Area of Denver and in solving the water supply gap identified in SWSI.

In determining the best mechanism for bringing a renewable water supply to the Subdistrict, three alternatives were studied. Each alternative was evaluated based on: 1) the ability to replace the nonrenewable groundwater supply with a permanent, renewable water supply; 2) the initial capital cost required; 3) the impact to the environment caused by new infrastructure construction; 4) institutional requirements such as required permits, court actions, contracts, and agreements; 5) and special considerations such as technical considerations, further investigations, and the uncertainty or risk involved with each alternative.

Alternative 1 - Do Nothing: Under this alternative, no new facilities would be constructed, and for the immediate future, the Subdistrict would continue to utilize individual non-tributary wells. Temporary actions under this alternative would include replacing failed wells with new wells drilled into the same declining aquifer, while the permanent solution would be committing to permanently hauling water. This alternative was eliminated because it did not address the primary goal of replacing a non-renewable water supply with a renewable water supply. Further, if no action is taken at this time, the Subdistrict risks losing the current opportunity to lease 150 AF per year; an opportunity which has not previously existed and may not occur again in the future.

Selected Alternative 2 - Basic Service to the Subdistrict: This alternative would provide for a domestic supply from the District to the Subdistrict. The system would not be designed for future expansion outside of the Subdistrict's boundary nor provide for fire flow. This alternative would serve 228 EQRs with a maximum of 251 EQRs at build out. Treatment service will be provided at the District's existing water treatment facility as it has adequate capacity to serve the additional EQRs. This alternative is within the level of service the 150 AF per year is capable providing. The cost for this alternative is approximately \$14.9 million.

Alternative 3 - Extended Service: This alternative would expand the service area to include additional existing and future development areas located outside of the current Subdistrict boundaries and include a 1,500 gpm fire flow in addition to the peak hour flow based on domestic service. The 150 AF per year supply from Aurora is not sufficient for uses beyond domestic service to the Subdistrict and so an additional water source would have to be secured. The cost for this alternative is approximately \$29 million and a viable water source was not identified. This alternative was eliminated due to cost considerations and limited water supply.

The costs associated with the Selected Alternative 2 are shown in Table 1.

TABLE 1: NDCW PROJECT COST

Task	COST	CWPRDA LOAN	CWCB LOAN	WSRA GRANT	DOUGLAS COUNTY	SUBDISTRICT LANDOWNERS
Infrastructure	\$8.3 M	\$5.2 M		\$1.0 M	\$2.1 M	
Financing Fees and Debt Reserve	\$0.3 M				\$0.3 M	
District Fees	\$2.7 M					\$2.7 M
Water Supply Acquisition (CWCB Loan Project)	\$2.5 M		\$2.2 M		\$0.3 M	
Engineering	\$1.1 M				\$1.1 M	
TOTALS	\$14.9 M	\$5.2 M	\$2.2 M	\$1.0 M	\$3.8 M	\$2.7 M

Schedule: The 90-year water supply agreement between the District and the City of Aurora has been completed and was effective January 1, 2015. The District has 5 years to initiate operations until the agreement becomes null and void. The Subdistrict plans to finish engineering by summer 2015 with construction occurring from fall 2015 to summer 2017. The Subdistrict plans to begin drawing on loan funds by fall 2015.

Financial Analysis

The Subdistrict qualifies for a high-income municipal interest rate of 3.05% for a 30-year term. Table 2 provides a summary of the Project's financial aspects. The loan will be used to pay the Development and Connection Fee of \$9,855 per EQR per the terms of Aurora water supply contract, dated October 12, 2014. Revenues available to pay this loan include ad valorem mill levy revenue approved in the November 2014 election and monthly user surcharge fees through the Subdistrict's water activity enterprise.

TABLE 2: FINANCIAL SUMMARY

Total Project Cost	\$2,473,605
Borrowers Contribution	\$247,605
CWCB Loan Amount	\$2,226,000
CWCB Loan Amount (Including 1% Service Fee)	\$2,248,260
CWCB Annual Loan Payment	\$115,447
CWCB Annual Loan Obligation (1 st Ten Years)	\$126,992
Monthly Loan Obligation per Tap (228 EQRs)	\$46/month
Current Monthly Charges (<u>District</u>)*	
Service Flat Fee	\$32.14/month
User Fee Surcharge	\$27/month
Capital Reserve Fee Surcharge	\$2/month
Usage Fee	\$5.18/1000 gallons
Future Monthly Charges (<u>Subdistrict</u>)	
Service Flat Fee	\$32.14/month
User Fee Surcharge	\$68/month
Capital Reserve Fee Surcharge	\$2/month
Usage Fee	\$5.18/1000 gallons
Cost of Project per AF of Water Supply (150 AF)	\$23,558/AF

* District charges are included to provide a comparison for future Subdistrict charges.

Creditworthiness: The Subdistrict has \$5,199,125 in existing debt as summarized in Table 3. The Colorado Water Resources & Power Development Authority (CWRPDA) Loan was approved in March 2015 and will go towards the infrastructure requirements of the NDCW Project. Having been created in August 2013, the Subdistrict has no history of revenues or expenses. It will begin collecting tax

revenues in 2016 (from its 2015 property tax), and will begin collecting users fees when either the Subdistrict begins drawing loan funds or awards the construction contract.

As the Subdistrict is controlled by the same Board of Directors as the District, CWCB staff reviewed the financials of the District and has included those findings for the “Past 3 Years” ratio analysis in Table 4 for comparison purposes.

TABLE 3: EXISTING DEBT

Lender	Approved Amount	Current Balance	Annual Payment	Maturity Date	Collateral
CWRPDA	\$5,199,125	Not Yet Disbursed	\$305,519	2036	Ad valorem property taxes

TABLE 4: FINANCIAL RATIOS

Financial Ratio	Past 3 Years (<i>District's Debt Service Account</i>)	Future w/ Project (<i>Subdistrict's Debt Service Account</i>)
Operating Ratio (revenues/expenses) weak: <100% - average: 100% - 120% - strong: >120%	245% (Strong) \$1,711K/\$698K	122% (Strong) \$625K/\$514K
Debt Service Coverage Ratio (revenues-expenses)/debt service weak: <100% - average: 100% - 120% - strong: >120%	245% (Strong) (\$1,711K-\$0K) \$698K	122% (Strong) (\$625K-\$0K) \$514K
Cash Reserves to Current Expenses weak: <50% - average: 50% - 100% - strong: >100%	167% (strong) \$1,165K/\$698K	22% (weak) \$111K/\$514K
Debt per Tap (3400 EQRs for District, 228 EQRs for Subdistrict) weak: >\$5,000 - average: \$2,500 - \$5,000 - strong: <\$2,500	\$7,500 (weak) \$25.5M/3400 EQR	\$32,456 (weak) \$7.4M/228 EQR
Average Monthly Water Bill weak: >\$60 - average: \$30 - \$60 - strong: <\$30	\$94 (weak)	\$135 (weak)

Collateral: Security for this loan will be a pledge of voter approved (November 2014) ad valorem property taxes, with annual financial reporting. This is in compliance with the CWCB Financial Policy #5 (Collateral).

cc: Larry Moore, General Manager, Plum Valley Heights Subdistrict of the Roxborough Water and Sanitation District
Susan Schneider/Jennifer Mele, Colorado Attorney General's Office

Attachment: Water Project Loan Program - Project Data Sheet

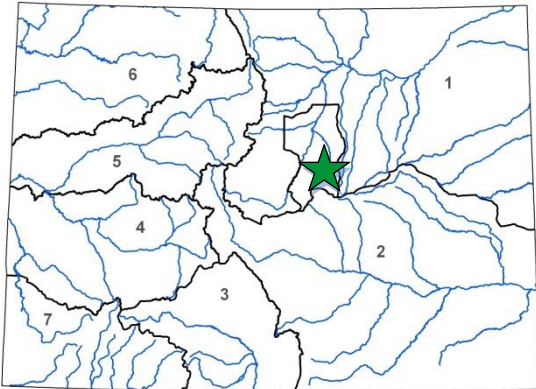


Raw Water Supply Project

Plum Valley Heights Subdistrict of the Roxborough Water and Sanitation District

May 2015 Board Meeting

L O A N D E T A I L S	
Project Cost:	\$2,473,605
CWCB Loan (with Service Fee):	\$2,248,260
Loan Term and Interest Rate:	30 Years @ 3.05%
Funding Source:	Construction Fund
B O R R O W E R T Y P E	
Agriculture	Municipal
0%	0% Low - 0% Mid - 100% High
	Commercial
	0%
P R O J E C T D E T A I L S	
Project Type:	Water Rights Purchase
Average Annual Delivery:	150 AF



L O C A T I O N	
County:	Douglas
Water Source:	South Platte River
Drainage Basin:	South Platte
Division:	1
District:	8

Plum Valley Heights Subdistrict of the Roxborough Water and Sanitation District was recently formed to provide rural communities in Douglas County with a renewable water supply. The communities will be connected to the Roxborough Water and Sanitation District system through an infrastructure project funded by a WSR grant, CWRPDA loan, and Douglas County. The total project cost (including infrastructure) is approximately \$14.9M. The CWCB loan will finance the acquisition of a renewable water supply from the City of Aurora.

The existing residential developments of Chatfield Acres, Chatfield East, and Plum Valley Heights, and the industrial development of Titan Road Industrial Park, were built in the 1970s and 1980s. These developments are currently served by individual wells completed in the non-tributary Denver Basin aquifers. Water levels in the Denver Basin aquifers are declining, particularly in the margins of the aquifers where these developments are located. As a result, existing wells in these developments have either already failed, or are in danger of failing. The Metro Roundtable has determined this project is an important component of replacing the use of non-tributary groundwater in the South Metropolitan Area of Denver and in solving the water supply gap identified in SWSI.

