

STATE OF COLORADO

Colorado Water Conservation Board Department of Natural Resources

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TO: Colorado Water Conservation Board Members

FROM: Derek Johnson, P.E., Project Manager
Kirk Russell, P.E., Chief
Finance Section

DATE: May 9, 2014

SUBJECT: **Agenda Item 30d, May 21-22, 2014 Board Meeting**
Water Infrastructure and Supply Efficiency (WISE) Project Loans
Pinery Water and Wastewater District

Introduction

The Denver Southeast Suburban Water and Sanitation District dba Pinery Water and Wastewater District (Pinery or District), acting by and through its water activity enterprise, is requesting a loan for its participation in the Water Infrastructure and Supply Efficiency (WISE) Project. The WISE Project is included in the CWCB Projects Bill (HB14-1333). For the purposes of this loan, the Project is defined as the District's participation therein. The goal of the Project is to reduce the District's dependence on non-renewable water sources. The District is requesting a loan from the CWCB for 90% of its \$10,920,000 participation cost. See attached Project Data Sheet for a location map and a project summary.

Staff Recommendation

Staff recommends the Board approve a combined total loans amount not to exceed \$9,926,280 (\$9,828,000 for Project costs and \$98,280 for the 1% Loan Service Fee) to the Denver Southeast Suburban Water and Sanitation District, acting by and through its water activity enterprise, for its participation in the Water Infrastructure and Supply Efficiency (WISE) Project from the Construction Fund. The loan terms shall be 30 years at the high-income municipal interest rate of 3.0% per annum. Security for the loan shall be in compliance with CWCB Financial Policy #5.

(INFORMATION IN SMALL CAPS IS COMMON TO ALL WISE LOANS)

WISE Project Overview

THE WISE PROJECT IS THE RESULT OF REGIONAL COOPERATIVE PLANNING EFFORTS BETWEEN DENVER WATER, AURORA WATER, AND 10 REGIONAL WATER PROVIDERS IN THE SOUTH METROPOLITAN AREA.

WATER PROVIDERS IN THE SOUTH METROPOLITAN DENVER AREA RELY PRIMARILY ON BEDROCK GROUNDWATER TO SUPPLY MUNICIPAL AND INDUSTRIAL WATER NEEDS. ALTHOUGH THERE IS A SUBSTANTIAL AMOUNT OF GROUNDWATER IN BEDROCK AQUIFERS UNDERLYING THE DENVER AREA, THESE SUPPLIES DO NOT HAVE A NATURAL SOURCE OF REPLENISHMENT AND ARE THUS CONSIDERED TO BE NON-RENEWABLE. GROUNDWATER AND WELL PRODUCTION DATA INDICATE THAT GROUNDWATER LEVELS ARE DECLINING IN MANY AREAS AS A RESULT OF GROUNDWATER PUMPING. AREA WATER PROVIDERS RECOGNIZE THE NEED TO TRANSITION TO RENEWABLE WATER SUPPLY SOURCES.

THE SOUTH METRO WISE AUTHORITY (WISE AUTHORITY) IS COMPRISED OF TEN GOVERNMENTAL WATER PROVIDERS IN DOUGLAS AND ARAPAHOE COUNTIES BOUND TOGETHER BY A 2013 INTERGOVERNMENTAL AGREEMENT. STAFF IS RECOMMENDING FOUR WISE AUTHORITY MEMBERS FOR LOAN FUNDING THROUGH CWCBC.

THE WISE PROJECT WILL UTILIZE EXCESS CAPACITY IN AURORA'S PRAIRIE WATERS PROJECT AND AS-AVAILABLE REUSABLE RETURN FLOWS FROM DENVER WATER AND AURORA WATER TO CREATE A NEW SURFACE WATER SUPPLY FOR WISE AUTHORITY MEMBERS. REUSABLE RETURN FLOWS WILL BE DELIVERED FROM THE SOUTH PLATTE RIVER THROUGH AURORA'S PRAIRIE WATERS SYSTEM TO ITS BINNEY WATER PURIFICATION FACILITY. TREATED WATER WILL THEN BE DELIVERED TO A MASTER METER FOR FURTHER DISTRIBUTION TO WISE AUTHORITY MEMBERS.

WATER DELIVERIES RESULTING FROM THE WISE PROJECT WILL BE VARIABLE AND, AT TIMES, INTERMITTENT. WATER DELIVERIES THROUGH THE WISE PROJECT CAN BE DIRECTLY USED IN PARTICIPANTS' DISTRIBUTION SYSTEMS WHEN DEMANDS COINCIDE WITH THE AVAILABILITY OF SUPPLIES. TO THE DEGREE THAT DELIVERIES EXCEED DEMAND (IN ANY GIVEN MONTH OR DAY), EXCESS WATER CAN BE PUT INTO STORAGE FOR LATER WITHDRAWAL. STORAGE SITES THAT MAY BE UTILIZED INCLUDE RUETER-HESS RESERVOIR AND AQUIFER STORAGE AND RECOVERY (ASR).

WATER WILL BE DELIVERED TO PARTICIPANTS BASED ON THE AMOUNTS DEFINED IN THE WATER DELIVERY AGREEMENT BETWEEN AURORA WATER, DENVER WATER AND THE WISE AUTHORITY. THIS DEFINED VOLUME IS REFERRED TO AS THE SUBSCRIPTION LEVEL, AND IS BASED ON AVERAGE ANNUAL WATER DELIVERIES OVER A 10-YEAR BLOCK OF TIME IN ACRE-FEET PER YEAR. THE FOLLOWING *TABLE 1: WISE PARTICIPANTS & DELIVERIES* LISTS THE AMOUNT OF WATER TO WHICH EACH WISE AUTHORITY MEMBER HAS COMMITTED IN THE WATER DELIVERY AGREEMENT.

TABLE 1: WISE PARTICIPANTS & DELIVERIES

WISE Authority Member	10-Year Guar. Delivery (acre-feet)	Subscription Level (acre-feet per year)
Cottonwood *	4,000	400
Inverness *	5,000	500
Parker *	12,000	1,200
Pinery *	5,000	500
Rangeview	5,000	500
Castle Rock	10,000	1,000
Centennial	10,000	1,000
Dominion	13,250	1,325
Stonegate	5,000	500
Meridian	3,000	300
Totals	72,250	7,225
<i>* Entities shown in bold are requesting CWCB loans.</i>		

FACILITIES TO BE CONSTRUCTED OR ACQUIRED FOR THE WISE PROJECT CAN BE CONSIDERED CORE OR LOCAL COMPONENTS. CORE INFRASTRUCTURE COMPONENTS ARE THOSE DOWNSTREAM OF AURORA'S BINNEY WATER PURIFICATION FACILITY (BWPF) CLEAR WELL AND MASTER METER THAT ARE NECESSARY FOR SERVICE TO ALL OR MOST OF THE PARTICIPANTS, AND RELATED COSTS THEREFORE ARE DISTRIBUTED AMONG ALL WISE AUTHORITY PARTICIPANTS ACCORDING TO THEIR COMMITTED DELIVERY SUBSCRIPTION LEVEL. LOCAL INFRASTRUCTURE COMPONENTS ARE NECESSARY ELEMENTS FOR INDIVIDUAL OR SMALLER GROUPS OF WISE AUTHORITY PARTICIPANTS, AND ARE DIRECTLY APPLIED TO THE BENEFITING MEMBERS. THE CWCB LOANS FOR THE OVERALL PROJECT HAVE BEEN DIVIDED INTO FOUR SEPARATE LOAN CONTRACTS ACCORDING TO FUNDING, TIMELINE, AND LOCATION:

CONTRACT #1 - EAST CHERRY CREEK VALLEY (ECCV) PIPELINE PURCHASE: DELIVERIES TO THE WISE AUTHORITY MEMBERS WILL BE BROUGHT SOUTH THROUGH AURORA'S PRAIRIE WATERS PIPELINE TO A DELIVERY AND MASTER METER POINT LOCATED AT AURORA'S BWPF. SUBSEQUENT DELIVERY TO AREAS WEST WILL BE MADE VIA THE ECCV WESTERN PIPELINE. THE WISE AUTHORITY WILL PURCHASE AN 85% OWNERSHIP INTEREST IN THE 15-MILE ECCV WESTERN PIPELINE, WITH THE REMAINING 15% OWNERSHIP TO BE HELD BY DENVER WATER. ECCV WILL RETAIN RIGHTS TO CARRYING CAPACITY IN THE PIPELINE.

CONTRACT #2 - PHASE 1 INFRASTRUCTURE: COMPONENTS INCLUDED IN THIS PHASE/LOAN INCLUDE A TEMPORARY DIRECT CONNECTION TO AURORA'S DISTRIBUTION SYSTEM TO PROVIDE SHORT-TERM DELIVERIES, AND MODIFICATIONS TO THE ECCV WESTERN PIPELINE NECESSARY TO MAKE WISE WATER DELIVERIES. LOCAL COMPONENTS CONSIST OF SEVERAL TURNOUTS TO BE CONSTRUCTED TO DELIVER WATER DIRECTLY TO WISE PARTICIPANTS WITH SYSTEMS ADJACENT TO THE PIPELINE. ADDITIONAL PUMP STATIONS WILL BE CONSTRUCTED TO DELIVER WATER TO STORAGE IN RUETER-HESS RESERVOIR AND CONVEY WATER TO PARTICIPANTS LOCATED SOUTH OF RUETER-HESS RESERVOIR. THIS PHASE INCLUDES TWO PUMP STATIONS, AND 45 MILES OF NEW PIPELINES VARYING BETWEEN 8- AND 42- INCHES IN DIAMETER.

CONTRACT #3 - PHASE 2 INFRASTRUCTURE: COMPONENTS INCLUDED IN THIS PHASE/LOAN INCLUDE A PUMP STATION AND PIPELINE FROM THE BWPF TO THE EXISTING ECCV PIPELINE, REPLACING THE

TEMPORARY INTERCONNECT WITH THE AURORA DISTRIBUTION SYSTEM AND INCREASING THE CAPACITY OF THE OVERALL SYSTEM. WATER WILL BE PUMPED GENERALLY WEST TO A HIGH POINT, THEN WEST ALONG THE HIGHWAY E-470/C-470 CORRIDOR THROUGH THE EXISTING ECCV WESTERN PIPELINE.

CONTRACT #4 - DENVER INTERNATIONAL AIRPORT (DIA) CONNECTION: THE DIA CONNECTION PROJECT COMPONENT, A 24-INCH 6 MILE PIPELINE INTERCONNECTION BETWEEN DENVER WATER'S TREATED DISTRIBUTION SYSTEM NEAR DIA AND AURORA'S PRAIRIE WATERS PIPELINE, WILL PROVIDE BLEND WATER DELIVERIES FOR THE WISE AUTHORITY MEMBERS. DENVER WATER WILL OWN AND OPERATE THE DIA CONNECTION.

TABLE 2: WISE AUTHORITY PROJECT COSTS

WISE Authority Member	ECCV Pipeline Purchase	Phase 1 & 2 Infrastructure	DIA Connection	Totals
Cottonwood *	\$ 420,000	\$ 4,140,000	\$ 400,000	\$ 4,960,000
Inverness *	\$ 2,030,000	\$ 2,870,000	\$ 500,000	\$ 5,400,000
Parker *	\$ 4,870,000	\$ 11,226,000	\$ 1,210,000	\$ 17,306,000
Pinery *	\$ 2,030,000	\$ 8,390,000	\$ 500,000	\$ 10,920,000
Range view	\$ 2,030,000	\$ 3,903,900	\$ 500,000	\$ 6,433,900
Castle Rock	\$ 4,060,000	\$ 34,934,900	\$ 1,000,000	\$ 39,994,900
Centennial	\$ 4,060,000	\$ 4,046,900	\$ 1,000,000	\$ 9,106,900
Dominion	\$ 5,370,000	\$ 37,008,400	\$ 1,330,000	\$ 43,708,400
Meridian	\$ 1,220,000	\$ 1,272,700	\$ 300,000	\$ 2,792,700
Stonegate	\$ 2,030,000	\$ 4,304,300	\$ 500,000	\$ 6,834,300
Component Totals	\$ 28,120,000	\$ 112,097,100	\$ 7,240,000	\$ 147,457,100

** Entities in bold are recommended for CWCB funding.*

SCHEDULE: ALL FACILITIES ARE SCHEDULED TO BE CONSTRUCTED BY MID-2020. MAJOR MILESTONES TO NOTE INCLUDE:

- ALL AGREEMENTS WILL BE FINALIZED BY THE MIDDLE OF 2014
- PURCHASE OF THE ECCV PIPELINE IS EXPECTED IN 2014
- DESIGN OF PHASE 1 INFRASTRUCTURE AND A DIRECT CONNECTION TO AURORA WATER'S DISTRIBUTION SYSTEM WILL BEGIN IN 2014. CONSTRUCTION OF THESE COMPONENTS WILL BEGIN IN 2015 AND IS PLANNED TO BE COMPLETED MID-2016.
- DESIGN OF PERMANENT PHASE 2 INFRASTRUCTURE TO REPLACE THE TEMPORARY CONNECTION TO THE AURORA WATER DISTRIBUTION SYSTEM WILL BEGIN IN 2018. CONSTRUCTION OF THESE COMPONENTS WILL BEGIN IN 2019 AND IS PLANNED TO BE COMPLETED MID-2020.
- DENVER WATER HAS AGREED TO DESIGN AND CONSTRUCT THE DIA CONNECTION ON OR BEFORE MAY 31, 2020.

Borrower - Pinery Water and Wastewater District

In 1965, the District was formed as the Denver Southeast Suburban Water and Sanitation District. The District has been providing water and wastewater services since 1971 to its predominately residential customers. In the early 1990's, in an effort to give some geographic reference between the name and the service area, the District began doing business as the "Pinery Water and Wastewater District". The District has qualified as a TABOR Enterprise since 1993. The District meets the requirement for a state-approved conservation plan by virtue of its participation in the cooperative Douglas County Water Conservation Plan, which combines the individual conservation plans of 15 regional water providers into a single document.

Located within Douglas County and the Cherry Creek Basin, The District encompasses approximately 8,500 acres and has a total of approximately 4,287 single family equivalent taps (SFE).

The District's drinking water system consists of seven alluvial and 18 Denver Basin water supply wells, seven pump stations, 10 finished water storage tanks, and over 107 miles of water distribution and transmission piping serving seven different pressure zones.

The total water produced and treated for consumption in 2013 was 2,837 acre-feet. The District anticipates treating and delivering close to 2,900 acre-feet of water in 2014.

Water Rights

The District owns 1,220 acre-feet of tributary water rights and junior water rights on Cherry Creek. The District also owns approximately 13,430 acre-feet of non-tributary water rights in the Denver Basin aquifers.

Borrower's Participation

The District will participate in Parker's WISE infrastructure components including 20,300 feet of new 42-inch pipeline from near the intersection of Chambers Road and E-470 to the Parker Water Treatment Plant located just south of Rueter-Hess Reservoir. At the Parker Water Treatment Plant site a new 16.5 million gallons per day pumping station will be constructed. Downstream of the pumping station 9,000 feet of new 24-inch pipe will be constructed that will allow WISE water to be conveyed to Reuter-Hess Reservoir for storage. In addition, Pinery will construct about 6,200 feet of 12-inch pipeline to deliver water to an existing finished water distribution system pumping station.

The estimated total project cost for all of the WISE Project components is \$147.5M. The amount that each WISE Authority member is required to pay depends on the amount of water each WISE Authority member has committed to taking, as well as the amount of local infrastructure that must be constructed to deliver each member's WISE water. Pinery's funding is shown in Table 3.

TABLE 3: LOAN CONTRACTING SUMMARY

Contract	Earliest Contract Date	Time of Performance	Project Cost *	CWCB Loan Contract Amount (w/o service fee)	Project Activity
1	7/1/2014	2 Years	\$ 2,030,000	\$ 1,827,000	ECCV Pipeline Purchase
2	1/1/2015	4 Years	\$ 6,820,000	\$ 6,138,000	Phase 1 Infrastructure
3	1/1/2015	8 Years	\$ 1,570,000	\$ 1,413,000	Phase 2 Infrastructure
4	7/1/2014	8 Years	\$ 500,000	\$ 450,000	DIA Connection
Totals			\$ 10,920,000	\$ 9,828,000	

* Project Cost is defined as the District's participation cost in the overall WISE Project.

Contracting: In anticipation of a multi-year and multi-phased project, CWCB will enter into multiple contracts, for increments of the approved loan limit. This will put the District into repayment on completed portions of the Project and allow CWCB to best utilize its loan funds. CWCB will enter into contracts for project activities no sooner than the dates shown in the above table. Given the potentially long Time of Performance of each contract, interest during construction will be required to be paid annually unless otherwise approved by CWCB.

Loan Feasibility Study

Black & Veatch prepared a Loan Feasibility on behalf of the WISE Authority dated October 23, 2013 and titled “*Water Infrastructure and Supply Efficiency Project Loan Feasibility Study*”. This study was prepared in accordance with CWCB guidelines and includes an alternatives analysis, conceptual design descriptions, exhibits, cost estimates, and financial statements audited by L. Paul Goedecke, PC, and current financial information provided by Debra L. Sedgely of CliftonLarsonAllen LLP. Additional clarification and information was provided by Eric Hecox and Rick Marsicek, P.E. of South Metro Water Supply Authority (SMWSA).

Financial Analysis

Table 4 shows a summary of the financial aspects of the Project. Based on the median household income of its members, the District qualifies for the high municipal income rate of 3.00% for a 30-year term.

TABLE 4: PROJECT FINANCIAL SUMMARY

Total Project Cost	\$ 10,920,000
Borrower Match	\$ 1,092,000
CWCB Loan	\$ 9,828,000
CWCB Loan (Including 1% Service Fee)	\$ 9,926,280
CWCB Annual Loan Payment	\$ 506,431
CWCB Annual Loan Obligation (including 10% debt reserve funding)	\$ 557,075
Monthly Cost of Loan per SFE (4287 SFEs)	\$ 10.83
Cost per Acre-Foot of Subscribed Deliveries (500 AF)	\$ 21,840

CWCB will disburse loan funds at a rate of up to 90% of Project Cost, up to the approved loan contract limit.

Creditworthiness: The District has \$15,997 in outstanding debt tied its water activity enterprise revenues.

TABLE 5: EXISTING DEBT

Lender	Original Balance	Current Balance	Annual Payment	Maturity Date	Collateral
CWRPDA 2002	\$ 7,045,000	\$ 3,515,000	\$ 467,949	8/1/2023	Water Revenues
CWRPDA 2005	\$ 4,800,000	\$ 3,215,000	\$ 342,322	8/2/2026	Water Revenues
Wells Fargo 2010 Refunding Note	\$ 10,335,213	\$ 9,267,440	\$ 753,649	12/1/1930	Water Revenues
Totals	\$ 22,180,213	\$ 15,997,440	\$ 1,563,920		

TABLE 6: ENTERPRISE FINANCIAL RATIOS

Financial Ratio	Past 3 Years	Future w/ Project
Operating Ratio (revenues/expenses) weak: <100% - average: 100% - 120% - strong: >120%	126% (strong) \$6.8M/\$5.4M	116% (average) \$6.9M/ \$5.9M
Debt Service Coverage Ratio * (revenues-expenses)/debt service weak: <100% - average: 100% - 120% - strong: >120%	189% (strong) (\$6.8M-\$3.8M)/\$1.6M	144% (strong) (\$6.9M-\$3.8M)/\$2.1M
Cash Reserves to Current Expenses weak: <50% - average: 50% - 100% - strong: >100%	114% (strong) \$6.1M/\$5.4M	103% (strong) \$6.1M/\$5.9M
Debt per Tap (4,287 SFes) weak: >\$5,000 - average: \$2,500 - \$5,000 - strong: < \$2,500	\$3,732 (average) \$16.0M / 4,287 SFes	\$6,019 (weak) \$25.8M / 4,287 SFes
Monthly Residential Water Bill weak: >\$60 - average: \$30 - \$60 - strong: <\$30	\$67 (weak)	\$69 (Weak)

Notes: * Debt service utilizing enterprise revenues only

Collateral - Security for this loan will be a pledge of the District's water activity enterprise revenues backed by a rate covenant as evidenced by annual financial reporting. Parity status will be required with all existing revenue-secured loans. This security is in compliance with CWCB Loan Policy #5 (Collateral).

cc: Heather Beasley, District Manager, Pinery Water and Wastewater District
Eric Hecox, Executive Director, South Metro Water Supply Authority
Susan Schneider/Jennifer Mele, Colorado Attorney General's Office

Attachment: Water Project Loan Program – Project Data Sheet

**CWCB Water Project Loan Program
Project Data Sheet**

C150411

Borrower: Denver Southeast Suburban Water
and Sanitation District (dba
Pinery Water and Wastewater District)

County: Douglas

Project Name: Water Infrastructure and Supply
(WISE) Efficiency Project

Project Type: New Water Supply

Drainage Basin/ District: South Platte / 8

Water Source: South Platte

Total Project Cost: \$10,920,000

Funding Source: Construction Fund

Type of Borrower: High-income Municipal

Average Annual Delivery: 2,837 AF

CWCB Loan: \$9,926,280 (with 1% service fee)

Interest Rate: 3.00% **Term:** 30 years

In 1965, the District was formed as the Denver Southeast Suburban Water and Sanitation District. The District has been providing water and wastewater services since 1971 to its predominately residential customers.

The District will participate in Parker's WISE infrastructure components including 20,300 feet of new 42-inch pipeline from near the intersection of Chambers Road and E-470 to the Parker Water Treatment Plant located just south of Reuter-Hess Reservoir. At the Parker Water Treatment Plant site a new 16.5 million gallons per day pumping station will be constructed. Downstream of the pumping station 9,000 feet of new 24-inch pipe will be constructed that will allow WISE water to be conveyed to Reuter-Hess Reservoir for storage. In addition, Pinery will construct about 6,200 feet of 12-inch pipeline to deliver water to an existing finished water distribution system pumping station.

The WISE Project is the result of regional cooperative planning efforts between Denver Water, Aurora Water, and 10 regional water providers in the south metropolitan area. The South Metro WISE Authority (WISE Authority) is comprised of ten governmental water providers in Douglas and Arapahoe Counties bound together by a 2013 Intergovernmental Agreement. The WISE Project will reduce dependence on non-renewable groundwater resources.

