

STATE OF COLORADO

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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 30b, May 21-22, 2014 Board Meeting**
Water Infrastructure and Supply Efficiency (WISE) Project Loans
Inverness Water and Sanitation District

Introduction

The Inverness Water & Sanitation District (Inverness or District) 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 \$5,400,000.00 participation cost. See attached Project Data Sheet for a location map and a project summary.

Staff Recommendation

Staff recommends the Board approve a total loan amount not to exceed \$4,908,600 (\$4,860,000 for Project costs and \$ 48,600 for the 1% Loan Service Fee) to the Inverness Water & Sanitation District for its participation in the Water Infrastructure and Supply Efficiency (WISE) Project from the Construction Fund. The loan terms shall be 20 years at the reduced high- income municipal interest rate of 2.75% 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 in bold are recommended for CWCB funding.</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: Inverness Water and Sanitation District

In 1973, Inverness was formed pursuant to Article 1 of Title 32 C.R.S. to provide water supply and treatment systems for the customers within their service area. 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.

The District is located in Arapahoe and Douglas Counties. The District contains about 1,000 acres with approximately 2/3 of the development in unincorporated Arapahoe County and 1/3 in unincorporated Douglas County. Current annual water demands are between 1,000 and 1,100 acre-feet per year for both potable and non-potable uses. Current water delivery is approximately 50% from Denver Water and 50% from non-tributary well pumping. The District currently serves 2,400 single family equivalents (SFEs).

The District has an independent water system with potable water provided from 4 non-tributary wells, and through a permanent water lease with Denver Water. Denver Water supplies are delivered through the systems of the Southgate Water District and the Castlewood Water District, both distributors of Denver Water.

Water Rights

The District has non-tributary ground water rights amounting to 2,402 acre-feet annually in the Dawson, Arapahoe and Laramie-Fox Hills Aquifers. Currently the District has developed potable water wells only in the Arapahoe Aquifer with the ability to deliver 1,305 acre-feet per year. Dawson Aquifer Wells have also been constructed but are low producing wells and quality precludes direct use in the potable system. The contract with Denver Water allows delivery of 593 acre-feet of renewable surface water supply. Both the non-tributary ground water and the Denver contract supply are reusable.

Water supply is delivered through the District's distribution system and potable water storage. Wastewater treated at the Lone Tree Creek Water Reclamation Facility, which is owned and operated by the Arapahoe County Water and Wastewater Authority. Inverness stores the treated effluent in a 425 acre-foot reservoir and then fully reuses this supply for irrigation of a golf course and numerous commercial and multi-family residential projects.

Borrower's Participation

Inverness has subscribed to 500 acre-feet of water on an average annual basis through the WISE Project.

Inverness will have a connection to the East Cherry Creek Valley (ECCV) Western Pipeline near the intersection of South Jamaica Street and E-470. Immediately downstream of the connection will be a below-grade vault with flow control and metering equipment. Downstream of the vault will be approximately 1,800 feet of 10-inch pipe to connect to the existing Inverness distribution system.

In addition, Inverness may participate in the pipeline, pump station, and Rueter-Hess Reservoir fill pipeline being constructed by Parker as part of the WISE Project. The District is continuing to evaluate its participation to provide supplemental storage. If added, Inverness will fund these improvements through existing cash reserves.

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. The District's funding is shown in Table 3 below:

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	\$ 1,300,000	\$ 1,170,000	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			\$ 5,400,000	\$ 4,860,000	

* *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 Simmons and Wheeler, PC. Additional clarification and information was provided by Eric Hecox and Rick Marsicek, P.E. of South Metro Water Supply Authority (SMWSA).

Financial Analysis

The District qualifies for a high-income municipal interest rate of 2.75% for a 20-year term (reduced from a 3.00% rate per CWCB Loan Policy #7). The District will use cash reserves to fund its required match. Table 4 shows a summary of the financial aspects of the Project.

TABLE 4: PROJECT FINANCIAL SUMMARY

Total Project Cost	\$ 5,400,000
Borrower Match	\$ 540,000
CWCB Loan	\$ 4,860,000
CWCB Loan (Including 1% Service Fee)	\$ 4,908,600
CWCB Annual Loan Payment	\$ 322,356
CWCB Annual Loan Obligation (including 10% debt reserve funding)	\$ 354,592
Monthly Cost of Loan per SFE (2400 SFEs)	\$ 6.89
Cost per Acre-Foot of Subscribed Deliveries (500 AF)	\$ 10,800

Creditworthiness: Per the District’s 2012 financial statements, the District has \$21,315,000 in outstanding debt. CWCB will disburse loan funds at a rate of up to 90% of Project Cost, up to the approved loan contract limit. The District’s debt per assessed value is less than 10%.

TABLE 5: EXISTING DEBT

Lender	Original Balance	Current Balance	Annual Payment	Maturity Date	Collateral
Series 2006A Bonds	\$ 17,000,000	\$ 11,315,000	\$ 1,706,828	12/1/2019	Property Tax Levy
Series 2012 Bonds	\$ 10,000,000	\$ 10,000,000	\$ 668,723	12/1/2022	Property Tax Levy
Totals	\$ 27,000,000	\$ 21,315,000	\$ 2,375,551		

TABLE 6: FINANCIAL RATIOS

Financial Ratio	Past 3 Years	Future w/ Project
Operating Ratio (revenues/expenses) weak: <100% - average: 100% - 120% - strong: >120%	104% (average) \$5.3M/\$5.1M	100% (average) \$5.4M/\$5.4M
Debt Service Coverage Ratio (revenues-expenses)/debt service weak: <100% - average: 100% - 120% - strong: >120%	109% (average) (\$5.3M-\$2.7M)/\$2.4M	100% (average) (\$5.4M-\$2.7M)/\$2.7M
Cash Reserves to Current Expenses weak: <50% - average: 50% - 100% - strong: >100%	138% (strong) \$7.0M/\$5.1M	129% (strong) \$7.0M/\$5.4M
Monthly Residential Water Bill weak: >\$60 - average: \$30 - \$60 - strong: <\$30	\$50 (average)	\$55 (average)

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

cc: Patrick Mulhern, General Manger, Inverness Water & Sanitation 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**

C150409

Borrower: Inverness Water & Sanitation District

County: Douglas & Arapahoe

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: \$5,400,000

Funding Source: Construction Fund

Type of Borrower: High-Income Municipal

Average Annual Delivery: 1,100 AF

CWCB Loan: \$4,908,600 (with 1% service fee) **Interest Rate:** 2.75% **Term:** 20 years

In 1973, Inverness was formed pursuant to Article 1 of Title 32 C.R.S. to provide water supply and treatment systems for the customers within their service area.

Inverness will have a connection to the East Cherry Creek Valley (ECCV) Western Pipeline near the intersection of South Jamaica Street and E-470. Immediately downstream of the connection will be a below-grade vault with flow control and metering equipment. Downstream of the vault will be approximately 1,800 feet of 10-inch pipe to connect to the existing Inverness distribution system.

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.

