

# STATE OF COLORADO

## Colorado Water Conservation Board Department of Natural Resources

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TO: Colorado Water Conservation Board Members

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

DATE: May 6, 2011

SUBJECT: **Agenda Item 27, May 17-18, 2011 Board Meeting  
Finance Section and Water Supply Planning Section – Loan/WSRA Statewide  
Grant Package for the Lake Durango Water Authority– Source Water Supply  
Project**

### Introduction

The Lake Durango Water Authority (Authority) is applying for a loan for the Source Water Supply Project (Project). The purpose of this project is to purchase water and provide the infrastructure to deliver raw water from the Animas-La Plata Project (A-LP) to Lake Durango Reservoir. The total project cost is estimated to be \$3,000,000. The Authority requested a grant for \$1,000,000 from the Statewide Water Supply Reserve Account for the project at the March board meeting. The Board suggested that the Authority request a loan from the Construction Fund and along with the grant request for consideration at the May meeting. For this meeting, the Authority requested a loan for \$2,000,000 and a grant for \$1,000,000. Upon review of the project and the Authority's financial statements and based upon the board's comments at the March meeting, staff is recommending a \$2,500,000 loan and a \$500,000 grant rather than recommending approval of the Authority's requested loan/grant amounts. 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 \$2,525,000 (\$2,500,000 for project costs and \$25,000 for the 1% Loan Service Fee) from the Construction Fund to the Lake Durango Water Authority for engineering and construction costs related to the Source Water Supply Project. The loan terms shall be 30 years at the low-income municipal rate of 4.00% per annum. Security for the loan shall be in compliance with CWCB Financial Policy #5.

Staff additionally recommends the Board approve a grant not to exceed \$500,000 from the Statewide Water Supply Reserve Account for engineering and construction costs related to the Source Water Supply Project with the following contingencies:

- Funds will not be disbursed until legal issues concerning the purchase of A-LP water are resolved and the agreement for the use of the A-LP intake structure is executed.

### **Background**

The Authority provides water service to a residential area of 17,000 acres located in south central La Plata County four miles southwest of the City of Durango. The service area currently has 1,435 taps.

The Authority was created in 2008 as a result of a drought in 2002-2003. During the drought, the Lake Durango Water Company (Company) was unable to provide sufficient water to meet its customers' demands. This resulted in water rationing, poor treated water quality, and a moratorium on the sale of additional taps by the Company. As a result of the drought and poor customer satisfaction, the Public Utilities Commission (PUC) intervened and the Authority was formed in order to purchase the assets of the Company and assume operations of the water delivery system. The Authority assumed operation of the water system in July of 2009.

A Master Plan and a Safe Yield Report, prepared by Bikis Water Consulting and Russell Engineering and Planning in 2011, determined that the existing water rights of the Authority are not sufficient to meet the current commitment of 1,435 taps. The safe yield is estimated to be only 792 taps in drought conditions. The report concluded that the A-LP project water was the only feasible alternative capable of meeting the current Authority tap commitments and the projected service area demand.

### **Loan Feasibility Study**

The Loan Feasibility Study titled, "Lake Durango Water Authority Source Water Supply Loan Feasibility Study," dated April 4, 2011, was prepared by Charles Smith, General Manager of the Lake Durango Water Authority. Technical information was provided in the Master Plan by Russell Water Engineering and in the Safe Yield Report prepared by Bikis Water Consulting. The study was prepared in accordance with the CWCB guidelines and includes an alternative analysis, engineering design and cost estimates.

### **Lake Durango Water Authority**

The Authority owns and operates a water treatment and distribution system that provides potable water to retail and bulk water users in south central La Plata County. The Authority was established in 2008 by La Plata County, Durango West 1 and Durango West 2 Metropolitan Districts. The Authority is governed by a five-member Board with representatives appointed by Durango West 1 and Durango West 2 Metropolitan Districts and La Plata County. The Authority employs a General Manager, two Distribution Operators, and an Administrative Assistant.

The Authority services approximately 3,000 people (1,435 taps), including 1,181 active taps and has 254 additional tap commitments. A demand study prepared as part of the Authority Master Plan determined that maximum build out of the geographic service area could result in an additional 1,300 taps. Additionally, the neighboring La Plata West Water Authority plans to utilize the Authority's water treatment plant and raw water infrastructure, being financed through this project, to service approximately 600 future La Plata West taps.

Authority revenues are comprised of water sales, fees, and surcharges. In addition to the metered rates, the Authority charges customers for a Water Acquisition Fee and a Water Royalty Surcharge. The Water Acquisition Fee is the fee charged to customers to pay the debt service on the water infrastructure acquired through the purchase of the Company. The Water Royalty Surcharge is an amount paid to the previous owner of the water rights and was a term of the water system purchase. (More details of the Water Acquisition Fee and Water Royalty Surcharge are noted in the Creditworthiness section of this memo.) Additional funding has also come from a Department of Local Affairs grant that was used to fund deferred maintenance, capital improvements projects, engineering, and a rate study.

Existing Authority water supply facilities include: four reservoirs, a treatment plant, nine treated water storage tanks with total capacity of 1.3M gallons, 10 pump stations, and approximately 40 miles of distribution pipelines.

### **Water Rights**

The Authority has 4.75 cfs in absolute direct flow water rights from the La Plata River. It also has an additional 14 cfs in a junior right on the La Plata River that is only available if the river is not on call. The Authority has 1.218 cfs from Lightner Creek and Coal Gulch and an additional 5.67 cfs of conditional water rights from the same sources.

The Authority has four storage reservoirs: Lake Durango Reservoir (1,000 acre-feet (AF)), Amber Reservoir (43 AF), Johnson Reservoir 2 (15 AF absolute and 388 AF conditional), and Johnson Reservoir 3 (253 AF conditional). The major limitation to these water rights is that storage right to Lake Durango Reservoir is limited to a single fill.

Through this project, the Authority will add 100 AF of A-LP project water to its portfolio. Water will be purchased from the Colorado Water Resources and Power Development Authority (CWRPDA). The additional 100 AF will allow the Authority to increase the safe yield by 256 taps, going from 792 taps to 1,048 total taps.

In the future, the Authority plans on purchasing an additional 600 AF from the CWRPDA. This additional water purchase will allow for 1,538 more taps using the infrastructure financed through this project.

### **Project Description**

The objective of this project is to help the Authority expand its water supply system to meet the demands of its current customers in drought years. Three alternatives were considered:

**Alternative No. 1 – Increase Storage of Runoff:** This alternative considered increasing the storage capacity in Johnson 2 and 3 Reservoirs. It was dismissed because it did not significantly increase water supply.

**Alternative No. 2 – Development of Lightner Creek Water Rights:** This alternative evaluated developing the Lightner Creek water rights along with increased storage in Lake Durango. The alternative was not chosen because of the variable yield of the water rights in dry years and the high cost per AF to develop.

**Selected Alternative No. 3 – Utilize A-LP Project Water:** This alternative evaluated using A-LP Project water stored in Lake Nighthorse. (Lake Nighthorse is located approximately 4 miles southeast of Lake Durango Reservoir.) Water will be pumped from Lake Nighthorse to Lake Durango for use in the Authority's distribution system. After evaluating the yield of each alternative, the ability to meet current commitments and future demand, and costs (including capital, operation and maintenance, and annual costs), the A-LP project water was identified as the preferred alternative.

The project involves: final engineering, construction of a 4,170 foot access road, installation of pumps at the A-LP intake structure, 4.6 miles of pipeline from Lake Nighthorse to Lake Durango Reservoir, and the purchase of 100 AF of A-LP water rights from CWRPDA.

The Authority will need to obtain a Stormwater Discharge Permit for construction activity from the Colorado Department of Public Health and Environment, a Section 404 Permit, and permits from La Plata County. Additionally, an agreement must be reached with La Plata West Water Authority so the Authority can utilize La Plata West's capacity in the intake structure at Lake Nighthorse. (Note: The intake structure was funded in part by a \$1,000,000 WSRA grant to the La Plata West Water Authority in 2008.)

**TABLE 2: TOTAL PROJECT COST SUMMARY**

Task	Cost
Engineering	\$144,000
Environmental, Permitting & Easements	\$54,000
Water Purchase (100 AF)	\$147,600
Infrastructure Construction	\$2,654,400
Total	\$3,000,000

The project will commence upon securing project funding. The Authority expects the engineering and design work to take 180 days and one year for permitting and easement work to be completed. Construction is projected to begin in the spring of 2013 through the summer of 2014.

## Financial Analysis

Based on the median household income of the area, the interest rate for the Authority is the low-income municipal interest rate of 4.0% for a 30-year term.

**TABLE 3: FINANCIAL SUMMARY**

Funding Options Considered			
	<u>Option 1</u> No Grant	<u>Option 2</u> \$1M Grant (as requested)	<u>Option 3</u> \$500K Grant (Staff Recommendation)
Total Project Cost	\$3,000,000.00	\$3,000,000.00	\$3,000,000.00
WSRA Grant Amount	\$0	\$1,000,000	\$500,000
CWCB Loan Amount	\$2,700,000.00	\$2,000,000.00	\$2,500,000.00
Borrower Match	\$300,000	Covered by grant	Covered by grant
Percent of Project funded by CWCB Loan	90%	67%	83%
CWCB Loan Amount (Including 1% Service Fee)	\$2,727,000	\$2,020,000	\$2,525,000
CWCB Loan Payment	\$157,703	\$116,817	\$146,021
CWCB Loan Obligation (Including 10% Reserve)	\$173,473	\$128,498	\$160,623
Number of taps	1,435	1,435	1,435
Monthly Cost of Loan (with Reserve Account) per tap	\$10.07	\$7.46	\$9.33
Current average monthly water bill	\$65.04	\$65.04	\$65.04
Assessment per tap/month to generate 10% match	\$17.42	Covered by grant	Covered by grant
Monthly water bill with project*	\$98.16	\$78.13	\$80.00

\*Note: Includes an additional \$5.63/month/tap for additional O&M costs associated with project based on an average annual estimate of \$97,000 /yr for the first 10 years of loan repayment.

**Creditworthiness:** Loan repayment will be made by increased customer fees. Currently, all tap holders are assessed a \$15/month Acquisition Surcharge that is used to repay debt associated with the purchase of the water system and for the Authority formation expenses. The Authority has a \$2,000,000 loan from the CWRPDA. The note is at 2% interest with biannual payments of \$62,000 due until May 2029. The Authority also has a \$500,000 Water Revenue Bond with interest at 8.35% maturing in 2021.

Additionally, a Water Royalty Fee is also assessed as a term of the water system purchase. The Water Royalty Fee is recalculated annually based on the previous 12 month water sales. Beginning in July of 2011, the rate will be \$1.30/1000 gallons. The Authority estimates the present value of future royalty payments to be \$1,050,000.

**TABLE 4: FINANCIAL RATIOS**

<b>Financial Ratio</b>	<b>Past 2 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>	103% (Average) \$442K/\$428K	103% (Average) \$539K/\$525K
<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>	133% (Strong) \$770K-428K/ \$257K)	125% (Strong) \$1,027K- \$525K/ \$403K
<b>Cash Reserves to Current Expenses</b> <b>weak: &lt;50%</b> - <b>average: 50% - 100%</b> - <b>strong: &gt;100%</b>	28% (Weak) \$193K/\$685K	21% (Weak) \$193K/\$928K
<b>Average Residential Water Bill</b> <b>weak: &gt;\$60</b> - <b>average: \$30 - \$60</b> - <b>strong: &lt;\$30</b>	\$65.04 (Weak)	\$80.00 (Weak)
<b>Debt per Tap (1,435 taps)</b> <b>weak: &gt;\$5,000</b> - <b>average: \$2,500-\$5,000</b> - <b>strong: &lt;\$2,500</b>	\$2,369 (Strong) \$3.4M/1435	\$4,111 (Average) \$5.9M/1435

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

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cc: Charles Smith, General Manager, Lake Durango Water Authority  
Susan Schneider, AGO

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

**Borrower:** Lake Durango Water Authority

**County:** La Plata

**Project Name:** Source Water Supply Project

**Project Type:** Water Rights  
Purchase/Infrastructure

**Drainage Basin:** San Juan / Dolores

**Water Source:** ALP

**Total Project Cost:** \$3,000,000

**Funding Source:** Construction Fund and  
WSRA Statewide Funds

**Type of Borrower:** Low-income Municipal

**Average Delivery:** 309 AF

**CWCB Loan:** \$2,525,000 (w/ 1% service fee)

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

**WSRA Statewide Grant:** \$500,000

The Lake Durango Water Authority serves 1,435 taps in southwest La Plata County. A safe yield analysis has indicated that the Authority can only supply water to 792 taps in a drought year. This was an issue in the 2002-2003 drought, so the Authority is seeking additional supply and storage to safely serve its customers. The Authority is planning on purchasing 100 AF of A-LP water from the Colorado Water Resources and Power Development Authority, constructing a pump station at Lake Nighthorse, building an access road, and installing a pipeline to bring water from Lake Nighthorse to Lake Durango (where the Authority currently stores the majority of its water).



0 0.4 0.8 1.6 2.4 Miles

2009 NAIP aerial imagery provided by  
the US Farm Service Agency

