

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., Project Manager
Kirk Russell, P.E., Chief
Finance and Administration Section

DATE: May 3, 2013

SUBJECT: **Agenda Item 16b, May 14-15, 2013 Board Meeting**
Finance – New Water Project Loans
Boxelder Basin Regional Stormwater Authority – Larimer and Weld Canal
Crossing Structure Project

Introduction

The Boxelder Basin Regional Stormwater Authority (Authority), acting by and through its Water Activity Enterprise, is requesting a loan for the Larimer and Weld Canal Crossing Structure Project (Project). This Project is one of two projects being constructed by the Authority for regional flood control improvements. It is a structure designed to convey water from Boxelder Creek across the Larimer-Weld Canal. The total Project cost is estimated to be \$1,139,000. The Authority is requesting a loan from the CWCB for approximately 90% of Project costs. 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 \$1,010,000 (\$1,000,000 for project costs and \$10,000 for the 1% Loan Service Fee) to the Boxelder Basin Regional Stormwater Authority, acting by and through its Water Activity Enterprise, for the Larimer and Weld Canal Crossing Structure Project from the Construction Fund. The loan terms shall be 15 years at the municipal middle income interest rate of 2.75% per annum. Security for the loan shall be in compliance with CWCB Financial Policy #5.

Background

In 2005 the communities of Fort Collins, Wellington, Timnath, Windsor, and Larimer County formed an alliance to develop a regional solution to mitigate the flood hazard posed by Boxelder Creek. The Boxelder Creek watershed covers 265 square miles from roughly the Wyoming border on the north and Poudre River on the south. Given the size of the watershed and the number of property owners, the local governments decided a regional mitigation plan would be the most efficient solution.

As a result of the alliance, the Boxelder Creek Regional Stormwater Master Plan was completed in October of 2006. The master plan was the basis of the formation of the Authority. The Authority was established in August of 2008 by an Intergovernmental Agreement (IGA) between the City of Fort Collins, Larimer County, and the Town of Wellington.

The purpose of the Authority was to develop and construct three regional flood control projects. The first of these projects, the Coal Creek Flood Mitigation project was completed in 2012. It was a \$5.1M project that diverted stormwater flows from Coal Creek (a tributary to Boxelder Creek) into Clark Reservoir. The project was funded through a FEMA Pre-Disaster Mitigation Grant with matching funds from the Authority's service fees.

The remaining two projects are the East Side Detention Facility and the Larimer and Weld Canal Crossing Structure. The Larimer and Weld Canal Crossing Structure is the subject this loan request.

The Larimer and Weld Canal (owned and operated by the Larimer and Weld Reservoir Company) crosses Boxelder Creek approximately one mile south of the Gray Reservoirs. Boxelder Creek flood flows inundate the canal and cause it to overflow into a drainage area within the City of Fort Collins.

Loan Feasibility Study

Pinnacle Consulting Group, Inc., prepared The Loan Feasibility Study titled "*Feasibility Study For Larimer and Weld Crossing Structure*," dated April 1, 2013, with Engineering support from Andrea Faucett, P.E. of Ayres Associates of Fort Collins, Colorado. The study was prepared in accordance with the CWCBA guidelines and includes an alternative analysis, engineering design and cost estimates.

Boxelder Basin Regional Stormwater Authority

The Authority was established as a drainage authority pursuant to section 29-1-204.2(2), C.R.S. (2012). The Authority operates as an Enterprise and collects Service and System Development Fees annually from the unincorporated area of Larimer County and the portions of Fort Collins and Wellington that lie within its 56 square mile service area. Included in this service area are 5,600 residences and nearly 300 commercial and industrial properties.

The Authority is governed by a five-member Board of Directors consisting of one each selected by Fort Collins, Wellington, and Larimer County and two unaffiliated members representing the public at large. The Board has the power to take on debt and to set fees and rates.

Project Description

The purpose of this Project is to pass the Boxelder Creek flood flows back into the Boxelder floodplain on the south side of the canal. This will reduce the risk of canal embankment failure during flood events.

The Authority considered several alternatives to pass flood flows and prevent the canal from overflowing including siphons under the canal. It ultimately decided to construct a side-flow spillway on the south side of the canal by lowering the embankment by 2 feet. In doing so the flows will spill across a weir and back into the floodplain rather than filling the canal with backwater.

The proposed weir is 1,200 feet long. Along this section, the canal embankment will be reinforced with a concrete cut-off wall to ensure that it will not fail due to erosion or undercutting. The weir elevation was designed so that there will be no spills of irrigation flows through the canal.

Table 1 provides a summary of the estimated costs related to the Project.

TABLE 1: TOTAL PROJECT COST SUMMARY

Task	Cost
Engineering Design & Permitting	\$120,000
Construction	\$761,000
Construction Management	\$87,000
Contingency	\$171,000
Total	\$1,139,000

Schedule: The preliminary design of the Project has been completed and final design is expected to be complete by September of 2013. Construction is scheduled for fall of 2013 through spring of 2014.

Financial Analysis

Table 2 shows a summary of the financial aspects of the Project. Based on the median household income of its members, the Authority's interest rate is the municipal middle income rate of 3.0% for a 30 year term. The Authority is applying for a 15 year term; therefore the interest rate is reduced by 0.25% to 2.75% per CWCB Loan Policy #7.

The Town of Timnath has agreed to partner in the Project and will contribute 25% of the cost as agreed upon through an IGA dated November 13, 2012.

Table 2. Project Financial Summary

PROJECT/LOAN	
Total Project Cost	\$1,139,000
Borrower Match	\$139,000
CWCB Loan	\$1,000,000
CWCB Loan (Including 1% Service Fee)	\$1,010,000
CWCB Annual Loan Payment	\$83,082
CWCB Loan Obligation (including 10% debt reserve funding)	\$91,390

CWCB will disburse funds at a rate of no greater than 90% of the total invoice amount for engineering and construction activities related to the Project, up to the approved loan limit.

Creditworthiness: The Authority has \$985,484 in existing debt. When the Authority constructed the Coal Creek Flood Mitigation project, the federal grant it received had a local matching requirement. The City and Town advanced funds for the project and the Authority agreed to repay the matching funds without interest at an unspecified future date. The Authority expects to pay off this debt after the CWCB loans are paid in full, so the debt service is not included in the “Future w/ Project” financial ratios.

Financial ratios were calculated using both the Larimer and Weld Canal Crossing Structure Project and the East Side Detention Facility Project as combined annual debt service of \$740,259 (including the debt reserve funding).

Table 3. Financial Ratios

Financial Ratio	Past 3 Years	Future w/ Project
Operating Ratio (revenues/expenses) weak: <100% - average: 100% - 120% - strong: >120%	289% (Strong) \$725K/\$251K	102% (Average) \$908K/\$890K
Debt Service Coverage Ratio (revenues-expenses)/debt service weak: <100% - average: 100% - 120% - strong: >120%	N/A	102% (Average) (\$908K-\$150K)/ \$740K
Cash Reserves to Current Expenses weak: <50% - average: 50% - 100% - strong: >100%	98% (Average) \$724K/\$736K	88% (Average) \$785K/\$890K

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).

cc: Stan Myers, Authority Manager, Boxelder Basin Regional Stormwater Authority
 Susan Schneider, AGO

Attachment: Water Project Loan Program – Project Data Sheet

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

Borrower: Boxelder Basin Regional Stormwater Authority

County: Larimer

Project Name: Larimer-Weld Canal & Boxelder Creek Crossing Structure

Project Type: Flood Control

Drainage Basin / District: South Platte / 3

Water Source: Boxelder Creek

Total Project Cost: \$1,139,000

Funding Source: Construction Fund

Type of Borrower: Middle Income Municipal

Average Annual Diversion: N/A

CWCB Loan: \$1,010,000
(with 1% service fee)

Interest Rate: 2.75% **Term:** 15-years
(rate reduced from 3.0% for middle income municipal)

The Boxelder Basin Regional Stormwater Authority was formed in 2008, through an IGA between the City of Fort Collins, Larimer County and the Town of Wellington, to facilitate the construction of regional flood control projects to reduce the threat of flooding and remove areas from the FEMA floodplain in the Boxelder Creek basin. The crossing structure will provide conveyance for 100-year flows from Boxelder Creek across the Larimer-Weld Canal in a safe and controlled manner. Currently the Boxelder Creek 100-year flows inundate the Larimer and Weld Canal and cause it to overflow west of I-25 into the Cooper Slough drainage within the City of Fort Collins. The design of the crossing structure calls for the construction of a side-flow spillway. Construction is expected to occur between the fall of 2014 through the spring of 2014. Repayment for the project will come from stormwater service and system development fees collected by the Authority.

