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 am
Kirk Russell, P.E., Chief KBR
Finance Section

DATE: May 9, 2014

SUBJECT: **Agenda Item 34a, May 21-22, 2014 Board Meeting**
Water Project Loans
Farmers Pawnee Canal Company – Diversion Structure Replacement Project

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Introduction

The Farmers Pawnee Canal Company (Company) is applying for a loan for the Diversion Structure Replacement Project (Project). As a result of the September 2013 flood, the diversion structure was damaged and severely undermined. In order to repair the flood damage and address ongoing maintenance issues, the Company intends to rebuild its diversion dam and canal headgate. The total Project cost is estimated at $2,047,000. The Company is requesting a loan to cover 100% of the Project cost. 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 $2,067,470 ($2,047,000 for project costs and $20,470 for the 1% Loan Service Fee) to the Farmers Pawnee Canal Company for costs associated with design and construction of the Diversion Structure Replacement Project from the Construction Fund. The loan terms shall be 30 years at the agricultural interest rate of 1.75% per annum. Security for the loan shall be in compliance with CWCB Financial Policy #5.

Background
The Company, located in Logan County, provides irrigation water to a 10,000 acre service area. The service area extends from one mile south of Merino to four miles north of Sterling along the west side of the South Platte River.

The Company's diversion structure is 218-foot long rollover diversion dam that spans the width of the river. Adjacent to the dam is the Company's 40-foot canal headgate structure. Both structures were originally built in 1926. In 1998, repairs and improvements were completed including the addition of sheet piling on the upstream and downstream sides of the dam.

After the September 2013 flood, the river began to undermine the structures. Attempts to repair the structures with additional steel sheet piling and concrete were not successful and the undermining worsened. The Company intends to rebuild the diversion dam and canal headgate. Replacement of the diversion dam provides the Company with an opportunity to utilize an improved design and alleviate an ongoing maintenance issue of sand accumulation within the canal.

Loan Feasibility Study
John Gauthiere, P.E. of Gauthiere Engineering, Inc. in Greeley, Colorado prepared the Loan Feasibility Study, titled "*Feasibility Study for the Farmers Pawnee Canal Company Diversion Structure Replacement Project*," dated March 15, 2014. The Study was prepared in accordance with CWCB guidelines and includes preliminary engineering and an engineer's estimate of probable cost that were used in determination of the total Project cost.

Farmers Pawnee Canal Company
The Company is a non-profit ditch company incorporated in 1898. There are 102 shareholders and 500 shares of stock. The Company is managed by a six-member board of directors. The board has the authority to set annual assessments to be paid by the shareholders, to take on debt, and the power to offer shareholders' stock for sale to pay assessments that remain delinquent.

Water Rights
The Company has absolute rights to divert up to 305.4 cfs for irrigation and augmentation use from the South Platte River under decrees dated from 1873 to 1995. It also has a 1994 conditional decree for 75 cfs. Average annual diversions are 27,956 acre feet.

Project Description
The purpose of this Project is repair the river diversion structure and canal headgate so the Company can continue delivering water to its shareholders. Three alternatives were considered.

Alternative No. 1 – No-action: This option was considered unacceptable because the existing diversion dam is no longer dependable and complete failure of the structure would result in the loss of irrigated acreage.

Alternative No. 2 – Reconstruction of the diversion dam with a concrete weir: This alternative evaluated reconstructing the diversion dam with a concrete weir with board slots and improving the canal headgate with a bladder gate. The estimated cost was $1,852,600. This alternative was dismissed because it did not address the large accumulation of sand upstream of the dam and did not provide the efficiency and safety of the operation of Alternative 3.

Selected Alternative No. 3 – Reconstruction of the diversion dam with a bladder gate and concrete weir: This alternative was similar to alternative no. 2 but included replacing a section of the weir with a bladder gate. The estimated cost of this alternative was $2,947,000. This alternative was selected because it was considered to be the most reliable and safest way to divert water and provides a means to flush accumulated sediment.

The selected alternative consists of the construction of a 118-foot section of concrete weir and a 100-foot section of a 7-foot high pneumatically actuated bladder gate. This combination weir structure will be installed on a new concrete slab in the riverbed. The canal headgate will be replaced with a new concrete structure and 30-foot section of a 5-foot high bladder gate.

Schedule: Final design is scheduled for completion by the end of July 2014. Construction will follow during the fall of 2014 through the winter of 2014/15.

TABLE 1: PROJECT COST

Construction	$ 1,706,000
Planning, Design, and Legal	$85,250
Project Management and Administration	$85,250
Contingency	$ 170,500
TOTAL	$ 2,047,000

Financial Analysis

The Company shares are held by a mix of 98% agricultural and 2% low-income municipal owners. Blending these under the current interest rates, the Company qualifies for a 1.75% loan for a 30-year term. Staff is recommending an exemption to Financial Policy #11 to allow for 100% funding of eligible Project costs because the Company is an existing borrower and its structure was affected by the September 2013 flood.

TABLE 2: FINANCIAL SUMMARY

Total Project Cost	$2,047,000
CWCB Loan Amount (Including 1% Service Fee)	$2,067,470
Annual CWCB Loan Payment	$89,169
Annual CWCB Loan Obligation (Including 10% Reserve)	$98,086
Current Assessment per share	$275
Cost of Loan (with Reserve Account) per share (500 Shares)	$196

Creditworthiness: The Company's share assessment history is: $225/share in 2011, $235/share in 2012, and $275/share in 2013. The Company will have to increase assessments in order to cover this Project debt service. The Company has a credit history with the CWCB, always making its payments on time. It had a loan to repair the diversion structure and headgate after flood damage in 1997. The loan was paid in full in October 2008. It currently has another loan with the CWCB for control structures along its ditch.

TABLE 3: DEBT TABLE

Loan	Maturity Date	Original Balance	Remaining Balance	Annual Payment	Collateral
CWCB – Diversion Structure Rehabilitation (C153825)	Paid off in 2008	$22,250	$0	$2,675.37	Pledge of assessment revenues and a certificate of deposit
CWCB – Ditch Flow Control Structures Project (C150272)	2042	$255,530	$249,709	$10,857	Pledge of assessment revenues

TABLE 4: FINANCIAL RATIOS

Financial Ratio	Past 3 Years	Future w/ Project
Operating Ratio (revenues/expenses) weak: <100% - average: 100% - 120% - strong: >120%	88% (1) (Weak) $114K/$129K	101% (3) (Average) $236K/$234K
Debt Service Coverage Ratio (revenues-expenses)/debt service weak: <100% - average: 100% - 120% - strong: >120%	-101% (1) (Weak) $114K-125K/ $10.9K	102% (Average) $236K-125K/ $109K
Cash Reserves to Current Expenses weak: <50% - average: 50% - 100% - strong: >100%	18% (Weak) $23K(2)/$129K	1% (Weak) $3.5K/$234K
Annual Operating Cost per Acre-Foot (27,956 AF) weak: >$20 - average: $10 - $20 - strong: <$10	$4.61 (Strong) $129K/27,956 AF	$8.37 (Strong) $234K/27,956 AF

Notes: (1) Company has been using cash reserves to make up difference between revenues and expenses in the past three years. (2) Cash reserves in 2012 were 35,656 and were down to $3,539 at the end of 2013. (3) Future w/ Project ratios assumes a $196 assessment increase on top of the $275 current assessment per share.

Collateral: As security for the loan, the Company will pledge assessment revenues backed by an assessment covenant, and the Project itself (the diversion structure). This is in compliance with the CWCB Financial Policy #5 (Collateral).

cc: Larry Kloberdanz, Secretary/Treasurer, Farmers Pawnee Canal Company
Susan Schneider/Jennifer Mele, Colorado Attorney General's Office

Attachment: Project Data Sheet

CWCB Water Project Loan Program
Project Data Sheet

C150394

Borrower: Farmers Pawnee Canal Company

County: Logan

Project Name: Diversion Structure Replacement Project

Project Type: Diversion Structure

Drainage Basin/ District: South Platte / 64

Water Source: South Platte River

Total Project Cost: $2,047,000

Funding Source: Construction Fund

Type of Borrower: Agricultural

Average Annual Diversion: 27,956 AF

CWCB Loan: $2,067,470
(with 1% service fee)

Interest Rate: 1.75% **Term:** 30 years

The Company provides irrigation water to a 10,000 acre service area, extending from one mile south of Merino to four miles north of Sterling along the west side of the South Platte River. The Company's diversion structure is 218-foot long rollover diversion dam that spans the width of the river. Adjacent to the dam is the Company's 40-foot canal headgate structure. Both structures were originally built in 1926. After the September 2013 flood, the river began to undermine the structures. Attempts to repair the structures with additional steel sheet piling and concrete were not successful and the undermining worsened. The Company intends to rebuild the diversion dam and canal headgate. Replacement of the diversion dam provides the Company with an opportunity to utilize an improved design and alleviate an ongoing maintenance issue of sand accumulation within the canal. Construction is expected to occur in the fall/winter of 2014/2015.