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Colorado Water Conservation Board
Department of Natural Resources

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TO: Colorado Water Conservation Board Members

FROM: Jonathan Hernandez, P.E., Project Manager
Kirk Russell, P.E., Finance Section Chief

DATE: September 15-17, 2015 Board Meeting

AGENDA ITEM: 24b - Change to Existing Loans
North Poudre Irrigation Company – Emergency Fossil Creek Reservoir Inlet Diversion Structure Repair

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Introduction
The North Poudre Irrigation Company (Company) received approval of a $481,770 CWCB loan (CT2015-024, C150368) to finance the Emergency Fossil Creek Reservoir Inlet Diversion Structure Repair Project (Project) at the October 2013 Special Board Meeting. The purpose of the Project is to allow the continued use of Fossil Creek Reservoir by repairing the Fossil Creek Reservoir inlet diversion structure, which was damaged during the unprecedented flood of September 2013 in the tributaries to the South Platte River. The loan was to fund 100% of the Project's October 2013 estimated cost of $477,000. This estimate was based on a damage assessment made immediately after the flood; before survey data, a geotechnical evaluation, drawings, and specifications could be prepared. As a result of final design, and bids received in August 2015, the Company is requesting a loan increase of $394,910 to fully cover the new Project Cost, estimated to be $868,000. See attached Project Data Sheet for a location map and Project summary.

Staff Recommendation
Staff recommends the Board approve a loan increase of $394,910 ($391,000 for Project cost and $3,910 for the 1% Loan Service Fee), for a total loan not to exceed $876,680 ($868,000 for Project cost and $8,680 for the 1% Loan Service Fee) to the North Poudre Irrigation Company for 100% of Project costs related to the Emergency Fossil Creek Reservoir Diversion Structure Repair Project from the Severance Tax Perpetual Base Fund, up to the approved loan amount. The loan terms shall be modified to 5 years of no interest followed by 27-years at a blended interest rate of 2.35% per annum. Security for the loan shall be in compliance with CWCB Financial Policy #5.

Additionally staff recommends modifying the following existing contract condition:

> *"Any future grant funds obtained for the purpose of this Project shall be submitted to CWCB to be applied to the balance of the loan within thirty (30) calendar days after receipt of said funds."*

to read:

> *"Except for FEMA grant funds, any future grant funds obtained for the purpose of this Project shall be submitted to CWCB to be applied to the balance of the loan within thirty (30) calendar days after receipt of said funds. Non-rescinded FEMA grant funds shall be applied to the balance of the loan within thirty (30) calendar days after FEMA Project Closeout, as long as the borrower deposits received FEMA grant funds in a secured account prior to Project Closeout. FEMA grant funds shall only be used for the repayment of rescinded grant funds, or to pay down the loan principal."*

Background

The North Poudre Irrigation Company serves approximately 28,000 irrigated acres in Larimer County north of Fort Collins near Wellington. The Company owns Fossil Creek Reservoir located in South Fort Collins. There are 5,656 acre-feet of water diverted through the Fossil Creek Reservoir Inlet headgates annually. This water is used by shareholders of 149 preferred water rights to irrigate approximately 2,200 acres of farmland. During the unprecedented flood of September 2013 in the tributaries to the South Platte River, a significant number of diversion structures and dams along the river corridor were damaged, including the Company's river diversion for Fossil Creek Reservoir.

The Fossil Creek Reservoir Diversion Structure consists of a concrete structure that spans the Cache la Poudre River and contains a 10-foot wide radial gate at the right abutment. The diversion structure checks the river approximately two feet in elevation to permit delivery to the Fossil Creek Reservoir Canal. The diversion structure ties into the right abutment headgate structure with two eight foot-wide by three-foot high radial gates that control discharge into the Fossil Creek Reservoir Canal which flows to Fossil Creek Reservoir approximately 5 miles downstream.

Prior to the 2013 flood, the diversion structure was fully functional and in place. Since point elevations of the structure were surveyed for an unrelated floodplain study in 2013, pre-flood conditions are recorded. During the 2013 flood, the river scoured material beneath the structure leaving a void underneath. The diversion structure broke near the center of the river and collapsed into the void. The diversion structure was not attached to the left abutment structure and was only attached to the right abutment structure by way of the radial gate. The concrete broke in the center so that when the center collapsed into the void, the two abutment ends became elevated. Elevation of the left abutment end of the diversion, combined with scouring and rapid drawdown of water, damaged the left abutment structure. Elevation of the right abutment end of the diversion damaged the radial gate, but there appears to be no damage to the right abutment headgate structure.

Water Rights

The water rights impacted by this project include

TABLE 1: IMPACTED WATER RIGHTS

Name	Amount (AF)	Appropriation Date	Adjudication Date
Fossil Creek Reservoir	808	3/1/1862	4/11/1882
Fossil Creek Reservoir	808	9/15/1864	4/11/1882
Fossil Creek Reservoir	808	3/15/1868	4/11/1882
Fossil Creek Reservoir	808	3/20/1873	4/11/1882
Fossil Creek Reservoir	808	4/1/1878	4/11/1882
Fossil Creek Reservoir	808	4/25/1881	4/11/1882
Fossil Creek Reservoir	808	9/28/1914	12/18/1945

Average annual diversions of the Company are 44,400 AF. Average annual diversions through the Fossil Creek Reservoir Inlet Diversion Structure are 5,656 AF.

Project Update

FEMA visited the site on December 17, 2013 to determine the extent of the damages and prepare the Project Worksheet. The worksheet estimated the damage at $659,897 which included $111,880 of mitigation to improve the stability of the structure, $546,600 of repair costs, and $1,417 of direct administration costs. This cost estimate assumed that construction would occur once the river receded to historic pre-flood levels, enabling the river to be diverted through the Fossil Creek Inlet Ditch while repairs were made to the structure. This meant construction prior to the 2014 irrigation season would not be possible.

The Project was bid in the fall of 2014 with a stipulation that flows in the river be below 100 cfs for 10 consecutive days prior to December 1. The river level remained near 200 cfs and thus the bidding process was cancelled. In response to the high river flows, the Project was redesigned to allow flows to be bypassed through the construction zone, which requires the Project to be built in two stages which will increase construction cost. The Project was put out to bid in July 2015 and four bids were received

on August 4, 2015. The Company analyzed the bids and selected the low-bidder of Naranjo Civil Constructors.

Additionally, to keep the inlet ditch operational during the 2014 and 2015 irrigation seasons, the Company replaced two ten-foot radial gates which were not included in the original CWCB loan request. The updated Project costs are shown in Table 2.

TABLE 2: PROJECT COST SUMMARY

Task	Cost
Design to Date (Engineering, Geotechnical, Surveying, Gate Fabrication)	$103,000
Administration to Date (FEMA Compliance)	$58,000
Construction to Date (Structure Stabilization, Radial Gate Installation, FEMA Administration)	$39,000
Remaining Construction (Contractor's Bid)	$553,000
Construction Engineering, Survey, Inspection, Administration	$25,000
Contingency (~15% Remaining Cost)	$90,000
Total	$868,000

FEMA: The FEMA Project Worksheet was completed on December 19, 2013. This worksheet estimated project costs at $659,897 and provided for a 75% reimbursement as all damages were related to the diversion dam and headgate structure. The Company has worked with FEMA to extend the construction window and will be filing the required paperwork with FEMA to reflect any increase in costs that can be covered by the grant.

Schedule: Construction is expected to be complete before the 2016 irrigation season.

Financial Analysis
Table 3 provides a summary of the Project's financial aspects. The original contract allowed for the first three years of the loan to be assessed a 0% interest rate. In recognition of the extended time it has taken for the Project site to be suitable for construction, the period of 0% interest will be extended by two years for a total of five years. The remaining term of the loan will be assessed a blended interest rate that will remain at 2.35% with the principal amortized over 27 years (Ownership: 37% Agriculture, 1% Low Municipal, 57% Mid Municipal, 4% High Municipal, <1% Commercial). Staff is recommending an exemption to Financial Policy #11 to allow for 100% funding of eligible Project costs.

TABLE 3: FINANCIAL SUMMARY

Total Project Cost	$868,000
CWCB Loan Amount (100% of total Project cost)	$868,000
CWCB Loan Amount (Including 1% Service Fee)	$876,680
CWCB Annual Loan Payment	$44,220
CWCB Loan Obligation (Including 10% Reserve)	$48,642
Number of Shares	10,000
Annual Cost Per Share for Loan	$4.86/share
Current Assessment per Share	$120/share
Future Assessment per Share	$133/share

Creditworthiness: The Company has $3,580,188 in existing long-term debt made up of eight CWCB loans as summarized in Table 4. Additionally the Company has been approved for a $1,636,200 CWCB loan for the Reservoir #4 Rehabilitation project (C150378). That project is under construction and in the loan disbursement phase. All loans are in good standing.

TABLE 4: EXISTING DEBT

Lender	Original Balance	Current Balance	Annual Payment	Maturity Date	Collateral
CWCB (C153833)	$500,000	$133,807	$36,889	9/1/2019	Undivided 100% Interest in North Poudre Reservoirs #5 & #6
CWCB (C153385)	$1,331,704	$551,644	$77,612	5/1/2024	Undivided 100% Interest Fossil Creek Dam and Reservoir
CWCB (C150013)	$623,778	$341,858	$46,061	5/1/2024	Undivided 100% Interest Fossil Creek Dam and Reservoir
CWCB (C153449)	$1,152,909	$558,114	$67,192	5/1/2026	Undivided 100% Interest Fossil Creek Dam and Reservoir
CWCB (C150170)	$735,280	$495,961	$50,572	2/1/2027	Undivided 100% Interest North Poudre Res #1 (Miner's Lake)
CWCB (C153496)	$404,502	$231,034	$23,574	5/1/2029	Undivided 100% Interest Fossil Creek Dam and Reservoir
CWCB (C153572)	$340,551	$215,094	$19,847	5/1/2031	Undivided 100% Interest Fossil Creek Dam and Reservoir
CWCB (C153637)	$1,761,096	$1,052,676	$64,378	5/1/2035	Undivided 100% Interest in North Poudre Reservoirs #5 & #6
Subtotal (Existing Debt)		$3,580,188	$386,125		
CWCB (C150378) (In Progress)	*$1,636,200*	*In Disbursement*	*$76,619*	-	*Undivided 100% Interest in Res #4, Assessments*
Total		$5,216,388	$462,744		

TABLE 6: FINANCIAL RATIOS

Financial Ratio	Past 2 Years	Future w/ Project
Operating Ratio (revenues/expenses) weak: <100% - average: 100% - 120% - strong: >120%	102% (Average) $2.11M/$2.07M	100% (Average) $2.20M/$2.20M
Debt Service Coverage Ratio (revenues-expenses)/debt service weak: <100% - average: 100% - 120% - strong: >120%	110% (Average) $2.11M-$1.68M $0.39M	100% (Average) $2.20M-$1.68M $0.52M
Cash Reserves to Current Expenses weak: <50% - average: 50% - 100% - strong: >100%	3% (Weak) $63K/$2.07M	3% (Weak) $63K/$2.02M
Annual Operating Cost per Acre-Foot (44,400 AF) weak: >$20 - average: $10 - $20 - strong: <$10	$47 (Weak) $2.07M/44.4K AF	$50 (Weak) $2.20M/44.4K AF

Collateral: Security for the loan will remain a pledge of assessment revenues backed by an assessment covenant and the Project itself (Fossil Creek Reservoir inlet diversion dam and headgate). This is in compliance with the CWCB Financial Policy #5 (Collateral).

cc: Scott Hummer, Manager, North Poudre Irrigation Company
Susan Schneider/Jennifer Mele, Colorado Attorney General's Office

Attachment: Water Project Loan Program – Project Data Sheet

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Fossil Creek Reservoir Diversion Structure Repair

North Poudre Irrigation Company

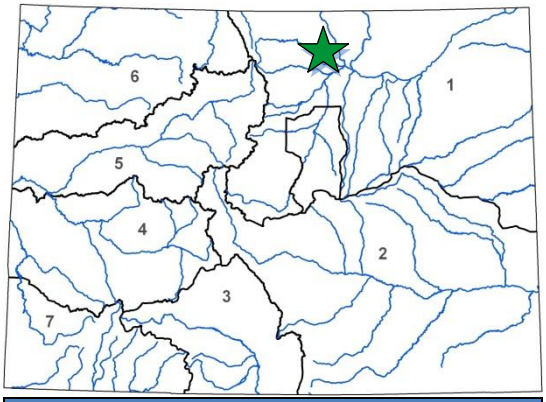
September 2015 Board Meeting

(Loan Increase)

LOAN DETAILS	
Project Cost:	$868,000
CWCB Loan (with Service Fee):	$876,680
Loan Term and Interest Rate:	27 Years @ 2.35%
Funding Source:	Severence Tax Perpetual Base Fund

BORROWER TYPE		
Agriculture	*Municipal*	*Commercial*
37%	1% Low - 57% Mid - 4% High	<1%

PROJECT DETAILS	
Project Type:	Diversion Rehabilitation
Average Annual Delivery:	44,400 AF



LOCATION			
County:			Larimer
Water Source:			Cache la Poudre River
Drainage Basin:			South Platte
Division:	1	*District:*	3

During the unprecedented flood of September 2013 in the tributaries to the South Platte River, a significant number of diversion structures and dams along the river corridor were damaged including North Poudre Irrigation Company's Fossil Creek Reservoir inlet diversion off the Cache la Poudre River. The purpose of the Project is to repair the existing diversion structure by rebuilding the check dam and abutment. The Project will restore the structure to pre-flood elevations while modifying the foundation to improve protection against future scouring.

Construction cost increased as a result of final design and the new requirement to route river flows through the construction site. Bids were received on August 4, 2015 and construction will be completed prior to the 2016 irrigation season.