STATE OF COLORADO

Colorado Water Conservation Board
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TO: Colorado Water Conservation Board Members

FROM: Ryan Edwards, P.E., Project Manager RME
Kirk Russell, P.E., Chief KLR
Finance Section

DATE: March 9, 2012

SUBJECT: **Agenda Item 16a, March 20-21, 2012 Board Meeting**
Finance Section/Water Supply Planning
Terrace Irrigation Company – Spillway Replacement Project
Water Project Loan – Construction Fund

Introduction

The Terrace Irrigation Company (Company) is applying for a loan for the Spillway Replacement Project (Project). The purpose of the Project is to remove a seven-foot gauge height restriction imposed by the State Engineer's Office (SEO). The total Project cost is estimated to be $4,500,000. The Company has requested a loan for $1,000,000, a Water Supply Reserve Account (WSRA) grant for $1,500,000, and a Summitville Natural Resource Damage (NRD) grant for $2,000,000 to fund the construction of the Project. In conjunction with the new loan request, the Company is also seeking a consolidation of the balance on its three existing CWCB loans in consideration for 2,000AF of instream flow storage rights in Terrace Reservoir. The existing loans have a combined principal balance of $1,724,721. See attached Project Data Sheet for a location map and project summary.

Staff Recommendation

Staff recommends the Board approve a loan, from the Construction Fund, not to exceed $2,751,968 ($2,724,721 for project costs and $27,247 for the 1% Loan Service Fee) to the Terrace Irrigation Company for the Spillway Replacement Project. The loan terms shall be 30 years at the agricultural restricted reservoir interest rate of 1.75% per annum. Security for the loan shall be in compliance with CWCB Financial Policy #5.

Staff further recommends the contract include a condition stating: Should the Project fail to reach substantial completion before expiration of the contract the Project will initiate repayment at an interest rate of 4.15 % in lieu of 1.75%.

Background

The Company, located in Monte Vista, Colorado, owns and operates Terrace Reservoir. The reservoir was constructed in the early 1900's as a mainstem reservoir along the Alamosa River. The Company utilizes the reservoir for raw water storage of winter flows and peak runoff to supplement flows in the Alamosa River throughout the later part of the irrigation season. In the early 1980's the SEO issued the gage height restriction on the reservoir due to inadequate size and the general condition of the dam's spillway. The restriction reduces the reservoir capacity by approximately 2,000 AF. The combination of loan and grants will fund the replacement of the spillway; thereby, removing the restriction and restoring the Company's right to store at its full capacity of 15,182 AF.

This Project is part of the second phase of a two-phased effort known as the Alamosa River Instream Flow Project (ISF Project). The ISF Project is intended to restore flows and replace natural resources damaged by mining operations at the Summitville Mine in the upper Alamosa River watershed. The ISF Project is a community-based effort spearheaded by Alamosa Riverkeeper (ARK) and the Terrace Irrigation Company. Phase I, currently underway, includes purchasing senior irrigation water rights, transferring the water rights to the CWCB, changing the use in water court to ISF use by CWCB, and designing the spillway improvements to Terrace Reservoir. Phase II involves reconstructing the reservoir spillway, storing the acquired water rights, and the release of water rights to offset natural drop-offs in Alamosa River flow rates during the late summer, fall and early winter months.

In addition, the Company has three current loans, all with the CWCB. The Company has requested the remaining principal on the loans be consolidated with the Project loan in consideration for its participation in the ISF Project, and particularly, the offering of 2,000 AF of storage rights in Terrace Reservoir be dedicated to instream flow storage. The proposed loan will thereby be structured to include the $1,000,000 associated with this Project, in addition to the outstanding principal balance of $1,724,721 from the three existing CWCB loans. The result would be a single loan for $2,724,721 with a 30-year term at the agricultural restricted reservoir interest rate of 1.75% per annum.

Loan Feasibility Study

The Loan feasibility study, titled "Feasibility of Spillway Replacement of Terrace Reservoir," and dated January 2012, was prepared by Rodney Reinhardt, Project Manager for Terrace Irrigation Company. Engineering and technical support was provided by Ed Toms from URS Corp. 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 the determination of total Project cost.

Terrace Irrigation Company

The Company was formed July 11, 1941. The Company is a nonprofit irrigation corporation with approximately 24 shareholders and 832 shares. The Company supplies its shareholders with water for irrigating 9,300 acres of farmland across Rio Grande and Conejos County. The service area is centrally located in the Rio Grande Basin, Water District 21.

The Company owns and operates Terrace Reservoir and two irrigation canals totaling eighteen miles in length. Both canals, the Terrace Main Canal and Alamosa Creek Canal, are concrete-lined ditches with diversion structures located downstream of Terrace Reservoir, along the northern bank

of the Alamosa River. On average, the two canals combine to deliver 15,339 AF of irrigation water annually.

The Company is governed by a three-member board of directors. Revenues are generated through annual shareholder assessment dues. The board has the authority to restrict water deliveries and sell stock for delinquent assessments. The board makes a recommendation on annual assessment rates; however, shareholder approval of the rate is required. Shareholder approval is also required for the Company to enter in to a debt agreement.

Water Rights

The Company owns numerous Alamosa River direct flow water rights and a Terrace Reservoir storage right of 17,171 AF. Collectively the Company's direct flow water rights for the Terrace Main Canal (134.15 cfs) and Alamosa Creek (78.7 cfs) total 212.85 cfs, including Alamosa River priority number one and two rights that date back to 1867 (appropriation) and 1888 (adjudication).

This Project does not require the addition of any new water rights by the Company; however, the Company has partnered with ARK in return for NRD funding. ARK will attempt to acquire 2,000 AF of water rights that will ultimately be converted to an instream flow use, and the Company will donate 2,000 AF of capacity in Terrace Reservoir to store the converted rights.

Project Description

The objective of this Project is to replace the Terrace Reservoir spillway and remove the restriction imposed by the SEO. The following alternatives were considered:

Alternative No. 1 – No Action: It is important to the Company to address the inadequacy of the existing spillway and fully utilize the storage capacity of the reservoir. For this reason the "No Action" alternative has been dismissed.

Alternative No. 2 – Fuse Gate System: This alternative includes the demolition of the existing spillway and the installation of multiple fuse gates where the existing spillway was located. The initial construction costs of this alternative are slightly less than in "Spillway Replacement;" however, this alternative requires long-term recurring operation and maintenance expenses. Due to the extent of the operation and maintenance expenses and the fact that the SEO has not granted conceptual approval to the design, this alternative has been dismissed.

Selected Alternative No. 3 – Spillway Replacement: This alternative involves the demolition of the existing spillway, construction to raise the existing saddle dike to the main Terrace Dam crest elevation, and construction of a new reinforced concrete spillway control structure, chute and stilling basin. This alternative was selected for its ability to restore the Company's raw water storage capacity in the most economical and environmentally sensitive fashion.

The selected alternative requires SEO approval of construction documents, specifications, hydrology report, and geotechnical stability analysis. Engineering documents and reports have been submitted to the SEO for review and approvals are expected within the next six months. Upon approval by the SEO, the Company plans to bid the Project, with construction expected to begin during the summer/fall of 2012 and be complete in 2013.

The Company has applied for a Section 404 general permit from the Corps of Engineers and is awaiting a response. It is anticipated that the permit will be granted and no additional permits will be required.

Engineering design efforts for the spillway replacement were funded under Phase I of the ISF Project. The funding for this Project will be dedicated to construction related expenses for the demolition and replacement of the spillway. Table 1 provides a summary of estimated costs to complete the spillway replacement Project.

TABLE 1: TOTAL PROJECT COST SUMMARY

Task	Cost
Engineering (Construction Management)	$350,000
Construction	$3,750,000
Contingency	$400,000
Total	$4,500,000

Financial Analysis

The Company qualifies for an interest rate of 1.75% based on the agricultural base rate of 2.75%, for a 30-year term, with a 1% restricted reservoir rate reduction in accordance with CWCB Financial Policy #7. In addition, the Company has requested $3,500,000 in grant funding between the WSRA and NRD accounts. Table 2 provides a financial summary of the loan request.

TABLE 2: PROJECT FINANCIAL SUMMARY

Total Project Cost	$4,500,000
WSRA Rio Grande Basin	$75,000
WSRA Statewide	$1,425,000
Natural Resources Damages Settlement	$2,000,000
CWCB Loan Amount (construction of Spillway Replacement Project)	$1,000,000
Existing Debt Balance	$1,724,721
Consolidated CWCB Loan Amount (existing plus new)	$2,724,721
Consolidated CWCB Loan Amount (with 1% service fee)	$2,751,968
Consolidated CWCB Annual Loan Payment	$118,692
Consolidated CWCB Loan Obligation (including 10% debt reserve funding)	$130,561
Current Annual Payment for Existing CWCB Loans	$134,198
Number of Shareholders	24
Number of Shares	831.875
Current Assessment (per share)	$230
Future Assessment (per share)	$230
Cost of Project per AF	$293

The sequencing of CWCB fund disbursement will be as follows: NRD funds shall be fully disbursed prior to disbursement of any loan or WSRA grant funds, or as otherwise required by the NRD policies; subsequent disbursements will then be issued at a prorated ratio for loan and WSRA grant funding, up to the approved limits.

Creditworthiness:
The Company generates revenue through annual water assessments. The assessments are evaluated annually and set at a rate sufficient to cover projected operation, maintenance and debt service expenses. Assessments have recently been raised to meet the growing expenses for the Company. In addition, the Company has three outstanding loans with the CWCB. Table 3 provides a summary of the existing loans the Company has with CWCB.

TABLE 3: EXISTING LOANS

CWCB Contract # - Project	Contract Date	Rate	Term	Remaining Balance	Annual Payment	Maturity Date
C153332-System Improv.	9/1982	2.455%	40-year	$224,424	$26,310	9/1/2021
C153606-Ditch lining	10/1994	5.00%	40-year	$1,297,060	$96,162	6/1/2034
C150171-Terrace Res. Outlet	4/2004	2.50%	30-year	$203,237	$11,726	1/1/2035
TOTAL				**$1,724,721**	**$134,198**	

By consolidating the existing loans with the proposed request, the Company will offset the immediate financial burden brought on by this Project by extending the repayment period for the consolidated loans. In addition, the consolidation will strengthen the Company's ability to address future financial demands, enabling it to better meet its long-term obligations while continuing its active participation in the ISF Project.

Table 4 provides financial ratios for the Company. The ratios are based on an average of the Company's financial reporting for fiscal years 2010-2011 and projected future ratios with loan consolidation.

TABLE 4: FINANCIAL RATIOS

Financial Ratio	2010 - 2011	Future[1] w/ Project
Operating Ratio (operating revenues/operating expenses) weak: <100% - average: 100% - 120% - strong: >120%	103% (average) $185K/$179K	111% (average) $195K/$176K[2]
Debt Service Coverage Ratio (total eligible revenues-operating expenses)/total debt service weak: <100% - average: 100% - 120% - strong: >120%	104% (average) ($185K-$45K)/$134K	115% (average) ($195K-$45K)/$131K[2]
Cash Reserves to Current Expenses weak: <50% - average: 50% - 100% - strong: >100%	94% (average) $168K/$179K	95% (average) $168K/$176K
Annual Operating Cost per Acre-Foot (based on 15,339 AF) weak: >$20 - average: $10 - $20 - strong: <$10	$11.67 (average) $179K/15,339AF	$11.47 (average) $176K/15,339AF

[1] *"Future w/ Project" ratios are based on consolidated data; therefore, all existing debt service has been replaced with the loan terms from this Project, using a principal balance of $2.75M.*
[2] *Assessment rates were increased to $230/share following the collection of 2011 assessments, increasing revenues from $185K to $195K annually.*

Collateral: As security for the loan, the Company will pledge assessment revenues backed by a rate covenant, the Terrace Reservoir and appurtenances, and the Company's 212.85 cfs of water rights already granted in existing loan number C150171. This is in compliance with the CWCB Financial Policy #5 (Collateral).

The pledge and covenant are contractual provisions requiring the Company to pay its CWCB debt obligation from assessment revenues; and requires the Company to set its assessment rates sufficient to fund its debt obligation, in addition to operation and maintenance expenses.

The Terrace Reservoir, it appurtenances, and its direct flow water rights are collateral pledged under existing loan number C150171. The deed of trust from that loan shall be amended to include that collateral as security for this Project.

cc: Rodney Reinhardt, Project Manager, Terrace Reservoir Company
Susan Schneider, AGO
Peter Johnson, AGO

Attachment: Water Project Loan Program – Project Data Sheet

Water Project Loan Program – Project Data Sheet

Borrower: Terrace Irrigation Company

County: Conejos

Project Name: Spillway Replacement Project

Project Type: Reservoir Rehabilitation

Drainage Basin: Rio Grande River Basin, District 21

Water Source: Alamosa River

Total Project Cost: $4,500,000

Funding Source: Construction Fund

Type of Borrower: Agricultural

Avg. Annual Delivery: 15,339 AF

CWCB Loan: Project: $1,010,000 (w/ 1% service fee)
Consolidated: $2,751,968

Interest Rate: 1.75% **Term:** 30 years
(with a 1% Restricted Reservoir reduction)

The Company, responsible for supplying irrigation water to its shareholders for irrigation of 9,300 acres of agricultural lands, is also an active participant in the Alamosa River Instream Flow Project. The ISF Project is intended to restore flows and replace natural resources damaged by mining operations in the upper reaches of the Alamosa River. The Company relies on Terrace Reservoir to meet its irrigation demands throughout the later part of the irrigation season. The reservoir is currently under a restriction order from the SEO, reducing its available capacity by 2,000 AF. This project will replace the existing spillway and remove the SEO restriction order. Funding for this project includes grant money from WSRA ($1,500,000) and the Summitville Natural Resource Damage (NRD) account ($2,000,000). In return for NRD funding, the Company has agreed to donate 2,000 AF of storage in Terrace Reservoir towards instream flow storage to further the efforts of the ISF Project. Construction is expected to begin in summer/fall of 2012 and be completed by the end of 2013.

Location Map