

STATE OF COLORADO

Colorado Water Conservation Board

Department of Natural Resources

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TO: Colorado Water Conservation Board Members

FROM: Ryan Edwards, P.E.
Kirk Russell, P.E., Chief
Finance Section

DATE: November 4, 2011

SUBJECT: **Agenda Item 20b, November 15-16, 2011 Board Meeting**
Finance Section/Stream and Lake Protection Section
Crystal Lakes Water and Sewer Association
New Project Loan – Lower Lone Pine Lake Enlargement Project

Introduction

The Crystal Lakes Water and Sewer Association (Association) is applying for a loan for the Lower Lone Pine Lake Enlargement Project (Project). The purpose of the project is to enlarge Lower Lone Pine Lake by 90 AF to provide alternate storage for conditional water rights associated with Upper Lone Pine Lake (not currently in existence), allowing for augmentation of well depletions within North Lone Pine Creek. The loan request is for 90% of the estimated \$2,600,000 total cost of the project. 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 \$2,363,400 (\$2,340,000 for project costs and \$23,400 for a 1% Loan Service Fee) to the Crystal Lakes Water and Sewer Association for the Lower Lone Pine Lake Enlargement Project. The loan terms shall be 30-years at a low-income municipal rate of 4.00% per annum. Security for the loan shall be in compliance with CWCB Financial Policy #5.

Background

Crystal Lakes is a private mountain community, located in Larimer County, spanning multiple drainage basins. The residences of Crystal Lakes utilize individual wells as their water supply. The Association is required by a decreed augmentation plan, Case Nos. W-7631-74 and W-8540-77, to augment depletions to North Lone Pine Creek (NLP Creek) brought on by well water consumption within the Crystal Lakes community. The decreed augmentation plan specifically links the allowable use of well water to the amount of augmentation water held in storage. Allowable water usage (in gallons per person per day) is directly tied to the available storage volume (in AF). As the

available storage drops, usage rates are reduced. Without increased storage capacity many residences within the community will be subject to water curtailments in drier years, with the frequency increasing as more residences are constructed.

The augmentation decree specifically mentions three reservoirs that will be used to make augmentation replacements: Crystal Lake, Upper Loan Pine Lake (Upper Lake), and Lower Lone Pine Lake (Lower Lake). Crystal Lake is on Panhandle Creek and is implicitly tied to depletions occurring in the Panhandle and Poudre basins. Upper Lake, not yet in existence, was to be constructed on NLP Creek and implicitly tied to depletions in the NLP Creek basin. The Lower Lake, an on-channel reservoir on NLP Creek, is mentioned in the decree as a supplemental source to Upper Lake.

While planning the construction of Upper Lake, an environmental study determined the project would impact approximately 17 acres of wetlands. Realizing the Upper Lake realistically could not be constructed due to the severity of the environmental impacts, the Association explored multiple alternatives for complying with their augmentation requirements. The analysis determined the enlargement of Lower Lake was the best alternative. The Association then filed a change of Upper Lake conditional water rights to allow for storage in Lower Lake.

Loan Feasibility Study

The loan feasibility study titled “Loan Feasibility Study for Enlargement of the Lower Lone Pine Reservoir”, dated July 2011, was prepared by Michael O’Grady, States West Water Resources Corporation, with technical assistance from Scott Parker, Anderson Consulting Engineers. Legal assistance was provided by Robert Krassa, from Krassa & Miller. The study was prepared in accordance with CWCB guidelines and includes preliminary engineering and an engineer’s preliminary estimate to establish the total project cost.

Crystal Lakes Water and Sewer Association

The Association is a nonprofit corporation governed by a five-member board of directors. The board members are elected by property owners within the Crystal Lakes subdivision. The board has the authority to set assessment rates as required to operate and to incur debt for system improvements within Crystal Lakes. Crystal Lakes, located north of Red Feather Lakes, was established in 1969 and includes 1,657 lots distributed over more than 4,800 acres. More than 800 residences are currently in existence and being served by the Association, approximately 250 of which are located in the NLP Creek basin.

The Association was founded on January 30, 1987 for the purpose of administering the water rights augmentation plan for Crystal Lakes and the surrounding area, enabling property owners to obtain well permits. Lower Lake, used to augment depletions within the NLP Creek basin, has a current capacity of 10.5 AF that is filled under an absolute water right. The Association owns the dam, land the reservoir is located on, and the dam’s outlet structure.

Water Rights

The Association owns three conditional storage rights for Upper Lake, totaling 271 acre-feet (AF) and an absolute right of 10.5 AF for Lower Lake. Lower Lake is located on NLP Creek, a tributary to the Cache la Poudre River, and is filled by waters from the creek. All rights owned by the Association are considered junior in the Cache la Poudre and greater South Platte basins. It is estimated that an additional 90 AF of storage would enable the Association to meet its

augmentation obligation, allowing residents their full allotment of well water through full build-out, projected at 566 lots. Table 1 provides a summary of the Association's water rights affiliated with this Project.

TABLE 1: LONE PINE BASIN WATER RIGHTS

Name	Case Number	Adjudication Date	Appropriation Date	Amount (AF)
a) Upper Lone Pine Lake	W7633	12-31-1974	7-26-1973	93.73 (Cond.)
b) Upper Lone Pine Lake	W9287	12-31-1978	6-30-1975	25.48 (Cond.)
c) Upper Lone Pine Lake	91CW0116	12-31-1991	10-14-1989	151.79 (Cond.)
d) Lower Lone Pine Lake	W9288	12-31-1978	12-12-1968	10.50 (Abs.)

Project Description

The following alternatives were considered for increasing storage in the NLP Creek basin in the most cost effective, expedient and environmentally sensitive manner:

Alternative No. 1 – No Action: This alternative was considered unacceptable as it would not increase the storage capacity, likely resulting in more frequent restrictions on well usage.

Alternative No. 2 – Upper Lone Pine Lake Dam: This alternative had an application filed with the Denver Regulatory Office on December 30, 2003, for the construction of Upper Lake. Initial environmental mapping identified 17 acres of wetlands that would be inundated by the construction of Upper Lake. The application was pulled and this alternative was deemed unacceptable.

Alternative No. 3 – Off-Channel Reservoir Site: This alternative included an off-channel reservoir site located approximately 0.5 miles downstream from the existing Lower Lake. The site was located on U. S. Forest Service property and the expense of acquiring the land was estimated at more than \$6,000,000. This alternative was considered unacceptable due to the extensive cost.

Selected Alternative No. 4 – Enlargement of Lower Lone Pine Reservoir: This alternative was selected because it was determined that the 90-AF enlargement of Lower Lake is the most cost effective, expedient, and environmentally sensitive alternative to provide the necessary augmentation in the NLP Creek basin.

The selected alternative increases the storage in Lower Lake to 100.5 AF by increasing the height of the existing dam by 15 feet, rehabilitation of the outlet works, addition of a spillway, mitigation of wetlands, and acquisition of private lands encumbered by the proposed water surface. Permitting requirements include a Section 404 Permit, received from by the Corps of Engineers (Corps) on November 18, 2010; and a Section 401 - Water Quality Certification, issued through the Colorado Department of Public Health and Environment on September 3, 2010. A hydrology study and a geotechnical report have been submitted to the SEO, with engineering drawings to follow. Construction is scheduled to begin in July 2012 and be complete by March 2013.

Legal fees associated with the conditional water rights change case are not included in the Project scope and are not subject to reimbursement.

The CWCB maintains an in-stream-flow water right on NLP Creek. This Project will increase the current inundation of NLP Creek from 600 LF to 1,500LF. The Association has worked

cooperatively with the CWCB with the engineering and permitting of the Project (reference CWCB November 15-16, 2011 Board Meeting, Agenda Item 20a).

TABLE 2: TOTAL PROJECT COST SUMMARY

Task	Cost
Engineering	\$375,000
Construction	\$1,560,000
Land Acquisition/Permitting	\$400,000
Contingency (12%)	\$265,000
Total	\$2,600,000

Financial Analysis

The Association qualifies for a low-income municipal interest rate of 4.00% for a 30-year term. Table 3 provides a summary of the financial components of the loan request.

TABLE 3: PROJECT FINANCIAL SUMMARY

Total Project Cost	\$2,600,000
CWCB Loan Amount	\$2,340,000
CWCB Loan Amount (including 1% Service Fee)	\$2,363,400
CWCB Annual Loan Payment	\$136,676
CWCB Loan Obligation (including 10% debt reserve funding)	\$150,343
Number of Lots	1,657
Annual Project Cost Per Lot (1,657 lots)	\$90
Project Cost Per AF (90 AF expansion)	\$28,890

Creditworthiness:

The Association has no outstanding debt and sufficient cash reserves on hand to fund its portion of the Project. The Association derives revenue from annual assessments. A lot assessment, set at \$115 per vacant lot and \$230 per improved lot, generates operating revenue. A \$70 per lot capital projects special assessment, approved by the Association in May 2002, is designated to finance Project related expenses. The special assessment fund balance as of May 31, 2011 was \$424,046. The Association intends to cover the CWCB annual loan obligation with the special assessment revenues (\$116,000), and surplus of operating revenues (averaging over \$60,000 per year since 2008).

TABLE 4: FINANCIAL RATIOS

Financial Ratio	2008-2010	Future w/ Project
Operating Ratio (revenues/ expenses) weak: <100% - average: 100% - 120% - strong: >120%	156% (strong) \$494K/\$316K	106% (average) \$494K/\$466K
Debt Service Coverage Ratio (revenues-expenses)/ debt service weak: <100% - average: 100% - 120% - strong: >120%	No Current Debt (strong)	119% (average) (\$494K-\$316K)/\$150K
Cash Reserves to Current Expenses weak: <50% - average: 50% - 100% - strong: >100%	277% (strong) \$876K/\$316K	132% (strong) \$616K/\$466K
Average Residential Water Bill (monthly) weak: >\$60 - average: \$30 - \$60 - strong: <\$30	N/A – due to well water	N/A – due to well water
Debt Per Tap (based on 1,657 lots) weak: >\$5,000 - average: \$2,500 - \$5,000 - strong: <\$2,500	No Current Debt (strong)	\$1,426 (strong) \$2,363K/1,657

Collateral: As security for the loan, the Association will pledge lot and special assessment revenues backed by a rate covenant; annual financial reporting; and water rights a, b, and d, as identified in Table 1. This is in compliance with the CWCB Financial Policy #5 (Collateral).

Staff Recommendation

Staff recommends the Board approve a loan, from the Construction Fund, not to exceed \$2,363,400 (\$2,340,000 for project costs and \$23,400 for a 1% Loan Service Fee) to the Crystal Lakes Water and Sewer Association for the Lower Lone Pine Lake Enlargement Project. The loan terms shall be 30-years at a low-income municipal rate of 4.00% per annum. Security for the loan shall be in compliance with CWCB Financial Policy #5.

cc: Steven Koeckeriz, President, Crystal Lakes Water and Sewer Association
Susan Schneider, AGO
Peter Johnson, AGO

Attachment: Water Project Loan Program – Project Data Sheet

Water Project Loan Program – Project Data Sheet

Borrower: Crystal Lakes Water and Sewer Association

County: Larimer

Project Name: Lower Lone Pine Reservoir Enlargement

Project Type: Reservoir Enlargement

Drainage Basin: South Platte, District 1

Water Source: North Lone Pine Creek
(tributary to Cache la Poudre River)

Total Project Cost: \$2,600,000

Funding Source: Construction Fund

Type of Borrower: Lower-Income Municipal

Storage: Increase from 10.5 to 100.5 AF

CWCB Loan: \$2,363,400 (w/ 1% service fee)

Interest Rate: 4.00% **Term:** 30 years

The Crystal Lakes Water and Sewer Association is requesting a loan to enlarge Lower Lone Pine Lake from 10.5 AF to 100.5 AF. The increase will provide augmentation water for the Crystal Lakes subdivision, located in Larimer County. Crystal Lakes, established in 1969, is a private community with 1,656 lots distributed over 4,800 acres. More than 800 residences are currently served by the Association. The residences derive their water supply from individual wells. The Crystal Lakes augmentation decree specifically links the allowable use of well water to the amount of augmentation water held in storage. The increased storage capacity will protect the community against possible well curtailments.

Location Map

