



COLORADO

Colorado Water Conservation Board

Department of Natural Resources

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TO: Colorado Water Conservation Board Members

FROM: Derek Johnson, P.E., Project Manager
Kirk Russell, P.E., Finance Section Chief

DATE: July 16-17, 2014 Board Meeting

AGENDA ITEM: 23a. Water Project Loan
Upper Platte & Beaver Canal Company - Hospital Road Recharge Facility and Bridge Widening Project

Introduction

The Upper Platte and Beaver Canal Company (Company) is applying for a loan for the construction of the Hospital Road Recharge Facility and Bridge Widening Project (Project). The project includes the construction of an augmentation pond to better meet retiming of return flows to the South Platte River, as well as the widening of an existing bridge at its main diversion facilities on the Platte River for improved ongoing maintenance access. The total Project cost is estimated at \$210,000.00. The Company is requesting a loan to cover 90% of the Project cost. See the attached Project Data Sheet for a location map and a project summary.

Staff Recommendation

Staff recommends the Board approve a loan not to exceed \$190,890 (\$189,000 for project costs and \$1,890 for the 1% Loan Service Fee) to the Upper Platte and Beaver Canal Company for costs associated with design and construction of the Hospital Road Recharge Facility and Bridge Widening Project from the Construction Fund. The loan terms shall be 10 years at a blended 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 Morgan County, provides irrigation water to a 9,500-acre service area composed of irrigated alluvial land situated between the South Platte River and Beaver Creek, extending from its Platte River diversion headgate just west of the City of Fort Morgan to approximately 4 miles east of the Town of Brush.

Along with supplying irrigation water to shareholders, the Company operates a recharge plan that generates recharge credits to replace out-of-priority depletions attributable to well pumping. This enables pumping of wells for irrigation by the Company's shareholders. The Company has a decreed recharge plan involving recharge ponds, reaches, and augmentation wells. Currently, the operation of the recharge plan results in restrictions on well pumping due to the lack of recharge credits and requires the use of augmentation wells. The Company needs an additional recharge pond and especially needs a pond at a greater distance to the South Platte River. The three existing recharge sites that account for more than 85% of the water that the Company recharges (Kemble Reach, Clark Pond and Kroskob Pond) are all located within one mile of the South Platte River. This proximity results in 62% of the accretions reaching the river within 5 months and consequently the recharge water is not sufficiently retimed.

Construction of an additional recharge pond at a greater distance from the river is important for generating recharge credits of a sufficient volume and proper timing to allow well pumping to provide a full water supply.

Loan Feasibility Study

John C. Faux, P.E., of TZA Water Engineers in Lakewood, Colorado prepared the Loan Feasibility Study, titled "*Loan Feasibility Study for the Upper Platte and Beaver Canal Company - Hospital Road Recharge Facility*," dated June 2014. The Study was prepared in accordance with CWCB guidelines and includes preliminary engineering and an engineer's estimate of probable costs used in determination of total project costs.

Upper Platte and Beaver Canal Company

The Company is a non-profit mutual ditch company incorporated in 1979. There are 96 shareholders and 1187 shares of stock. The Company is managed by a five-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

Direct Flow Rights: The Company has direct flow water rights decreed for irrigation use as shown below. The source of water is the South Platte River.

Priority No.	Appropriation Date	Adjudication Date	Amount (CFS)
1	April 20, 1868	November 21, 1895	15.0
16	May 15, 1869	April 28, 1883	5.17
20	June 20, 1882	November 21, 1895	50.0
38	April 15, 1888	November 21, 1895	164.0

Additionally, the Company owns Storage Rights shares in three reservoirs: Jackson Lake, Riverside Reservoir, and Prewitt Reservoir.

The Company also owns 36 shares of the 10,020 outstanding shares of the Riverside Reservoir and Land Company. These shares entitle the Company to a proportionate share of the storage water rights controlled by Riverside.

The Company owns 50 shares of the 261 outstanding shares of the Morgan-Prewitt Reservoir Company. These shares entitle the Company to a proportionate share of the storage water rights controlled by Morgan-Prewitt, which owns 6/31 of the water rights decreed to Prewitt Reservoir.

On average, the Company annually provides 32,500 acre-feet of water to its members.

Project Description

There are two projects proposed by the Company to improve the ability to provide water to its shareholders:

1. **Augmentation Pond:** The Company has been given the opportunity to purchase a parcel of land currently under unrelated development that would provide a recharge site two miles from the South Platte River and thus provide the required lagging of recharge accretions.
2. **Diversion dam bridge deck widening:** The Company is seeking to improve the bridge infrastructure at the headgate structure at the South Platte River. This would give improved and wider access for operation and maintenance.

Three alternatives were considered for this project:

Alternative No. 1 - No-action: This alternative would not address the restriction on well pumping due to inadequate or ill-timed recharge accretions. In addition, this alternative would not address the inadequate infrastructure at the Company's headgate. If the project is not implemented, use of wells will continue to be restricted by available recharge accretions, thus limiting agricultural activity in the area and impacting the local economy.

Alternative No. 2 - Lease Augmentation Credit: This alternative was not selected because the Company desires to have long term stability of their augmentation credits. An alternative that depends on other entities having excess augmentation credits will not be a reliable source and would be subject to factors beyond the Company's control. This would not provide the stability needed to meet out-of-priority depletions.

Selected Alternative No. 3 - Hospital Road Recharge Pond and Headgate Bridge Expansion: This alternative was chosen because it meets the need for the Company's recharge plan, is technically feasible, and provides infrastructure for the continued operation of both irrigation and recharge under the Company's system.

Hospital Road Recharge Pond. The purpose of the Hospital Road Recharge Pond is to generate recharge accretions that can offset out-of-priority depletions caused by well pumping under the Company's system. Deliveries to the pond will infiltrate into the aquifer and percolate into the South Platte River as recharge accretions. The proposed Hospital Road Recharge Pond would be located on the north side of the City of Brush and just north of the Brush Lateral of the Upper Platte and Beaver Canal system. The parcel on which the pond is located was purchased by a construction company for development and as a source of highway construction fill material. The Company has a purchase agreement for ten acres of the overall parcel for the recharge facility, which will be included in the loan. As part of the agreement, the construction company has nearly completed the excavation of the pond, which is planned to be about 9.6 acres with 4:1 side slopes and a depth of about ten feet. The Company will deliver water from the Brush Lateral into the Hospital Road Recharge Pond. A pond inlet check structure will be constructed on the canal, with a slide gate and measurement weir to divert

and measure the recharge water entering the pond. An all-weather access road will be installed on the north side of the Brush Lateral running from Hospital Road to the inlet structure.

Headgate Bridge. The headgate of the canal includes a bridge that enables crossing of the canal. This bridge is approximately 36 feet long and enables material to be hauled from one side of the canal to the other during routine maintenance exercises. The bridge is presently too narrow for the maneuvering of trucks for hauling, hindering ditch maintenance. Enlargement of the Headgate Bridge is planned to expand the width by twelve feet for truck passage to meet current and projected operation and maintenance demands.

Schedule: Final design and construction of the augmentation pond is targeted for completion by fall of 2014, but special use permit negotiations with the City of Fort Morgan have the potential to delay completion for another few months. Design and construction of the bridge widening is targeted for the fall of 2014 or spring of 2015, when irrigation schedules permit.

TABLE 1: ESTIMATED PROJECT COST

Hospital Road Recharge Pond		
Site Purchase and Excavation	\$ 100,000.00	
Pond Inlet Structure	\$ 25,000.00	
Access Road	\$ 10,000.00	
Improvements per Special Use Permit	\$ 15,000.00	
Engineering	\$ 5,000.00	
Subtotal		\$ 155,000.00
Headgate Bridge Expansion		
Bridge Design and Engineering	\$ 10,000.00	
Construction	\$ 25,000.00	
Subtotal		\$ 35,000.00
Contingencies (10%)		\$ 20,000.00
Total		\$210,000.00

Financial Analysis

The Company shares are held by a mix of 89.2% agricultural, 6% commercial, and 4.8% low-income municipal owners. Blending these under the current interest rates, the Company qualifies for a 2.25% interest rate for 30 years. The Company applied for a 10-year term, so the interest rate will accordingly be reduced to 1.75% per CWCB Financial Policy #7.

TABLE 2: FINANCIAL SUMMARY

Total Project Cost	\$ 210,000
Borrower Match	\$ 21,000
CWCB Loan	\$ 189,000
CWCB Loan (Including 1% Service Fee)	\$ 190,890
CWCB Annual Loan Payment	\$ 20,974
CWCB Annual Loan Obligation (including 10% debt reserve funding)	\$ 23,072
Current Annual Assessment per Share	\$ 260
Cost of Loan (with Reserve Account) per share (1,187 Shares)	\$ 19.44

Creditworthiness: The Company plans to increase assessments in order to cover the project debt service. The Company's assessments to its members have been increased and decreased annually for the past four years in response to its debt service needs.

The Company has a credit history with the CWCB, always making its payments on time. Prior loans include an \$83,000 CWCB loan for a diversion structure rehabilitation paid off in September of 2012, and a \$68,175 CWCB loan for the Badger Creek Well Augmentation project, paid off in November of 2013.

TABLE 3: EXISTING DEBT

Loan	Maturity Date	Original Balance	Remaining Balance	Annual Payment	Collateral
Bank of Colorado (Brush, Colorado)	2/27/2019	\$60,000	\$49,916	\$10,544	Backhoe

TABLE 4: FINANCIAL RATIOS

Financial Ratio	Past Years	Future w/ Project
Operating Ratio (revenues/expenses) weak: <100% - average: 100% - 120% - strong: >120%	101% (average) \$261.6K/\$259.6K	101% (average) \$284.7K/\$282.7K
Debt Service Coverage Ratio (revenues-expenses)/debt service weak: <100% - average: 100% - 120% - strong: >120%	119% (average) (\$261.6K- \$249K)/\$10.5K	106% (average) (\$284.7K- \$249K)/\$33.6K
Cash Reserves to Current Expenses weak: <50% - average: 50% - 100% - strong: >100%	29% (weak) \$75K/\$259.6K	19% (weak) \$54K/\$282.7K
Annual Operating Cost per Acre-Foot (32,500) weak: >\$20 - average: \$10 - \$20 - strong: <\$10	\$ 7.99 (strong) \$259.6K/32500	\$ 8.70 (strong) \$282.7K/32500

Collateral: As security for the loan, the Company will pledge assessment revenues backed by a rate covenant in compliance with the CWCB Financial Policy #5 (Collateral).

cc: Bart Ginther, Secretary/Treasurer, Upper Platte & Beaver Canal Company
 Susan Schneider/Jennifer Mele, Colorado Attorney General's Office

Attachment: Project Data Sheet

CWCB Water Project Loan Program

Project Data Sheet

Borrower:	Upper Platte & Beaver Canal Company	County:	Morgan		
Project Name:	Hospital Road Recharge Facility and Bridge Widening Project	Project Type:	Augmentation		
Drainage Basin/ District:	South Platte Basin Division 1, District 1	Water Source:	South Platte River		
Total Project Cost:	\$210,000	Funding Source:	Construction Fund		
Type of Borrower:	Blended	Average Annual Diversion:	35,000 Acre-feet		
CWCB Loan:	\$190,890 (with 1% service fee)	Interest Rate:	1.75%	Term:	10 years

The Upper Platte & Beaver Canal Company desires funding to construct an augmentation pond, and, at a separate location, to widen an existing access bridge at their primary diversion along the South Platte River. The augmentation pond will enable better retiming of return flows to the river by virtue of its further location from the river than existing augmentation ponds operated by the Company. The widening of the access bridge will allow improved function and safety crossing the canal for ongoing maintenance needs.

