

STATE OF COLORADO

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., Chief
Finance and Administration Section

DATE: October 18, 2013

SUBJECT: **Agenda Item 8d, October 21, 2013 Special Board Meeting**
Finance – Emergency Loans
Oligarchy Irrigation Company – Emergency Oligarchy Ditch River Diversion
Structure Repair

Introduction

The Oligarchy Irrigation Company (Company) is applying for an Emergency Loan for the Emergency Oligarchy Irrigation Ditch River Diversion Structure Repair Project (Project). 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. The Oligarchy Ditch river diversion structure received significant damage as a result of this flood. The purpose of the Project is to repair the diversion structure to allow the Company to divert their decreed water rights. The total Project cost is estimated to be \$1,250,000. See attached Project Data Sheet for a location map and project summary.

Staff Recommendation

Staff recommends the Board approve a loan not to exceed \$1,262,500 (\$1,250,000 for project cost and \$12,500 for the 1% service fee) to the Oligarchy Irrigation Company for 100% of engineering and construction costs related to the Emergency Oligarchy Ditch River Diversion Structure Repair Project from the Severance Tax Perpetual Base Fund, up to the approved loan amount. The loan terms shall be 3 years of no interest followed by 27-years at a blended interest rate of 2.50% per annum. Security for the loan shall be in compliance with CWCB Financial Policy #5.

Additionally, staff recommends the following 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) days after receipt of said funds.

Background

The Company serves approximately 2,700 irrigated acres in Boulder and Weld Counties north of Longmont. 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 the Oligarchy Ditch.

Prior to the 2013 flood, there was a buttressed concrete dam across the river to provide head for the diversion with an adjacent, but connected, concrete headgate structure with a sand gate and two headgates that regulate the flow diverted into the Oligarchy Ditch. This sand gate had previously been retrofitted with a Rubicon flumegate which allowed flows bypassing the Oligarchy diversion to be controlled and measured. Additionally, there was a flow regulating, or bypass, gate in the ditch between the river diversion and the Oligarchy Ditch measuring flume.

After the 2013 flood, only a small portion of the diversion dam and right abutment of that structure remain, though it is not yet clear if they have been undermined. The remainder of the diversion dam was destroyed when it collapsed into a scour hole in the river. Likewise, the sand gate portion of the headgate structure collapsed into the river. It is not yet clear, but the Rubicon flumegate may be partially salvageable. The remainder of the headgate structure and two headgates were destroyed. During the flooding fill material was placed where the headgates had been, in order to prevent further flooding down the Oligarchy Ditch. The bypass gate had to be torn out from its structure to alleviate pressure and mitigate further damage downstream in the ditch. The ditch itself and the measuring structure were largely undamaged by the flood although some cleanup will be necessary.

Loan Feasibility Study

Mark Mclean, P.E. with Deere and Ault Consultants, Inc., prepared the Loan Feasibility Study titled "*Emergency Loan Application and Feasibility Study*," dated October 2013. The study includes an alternative analysis and preliminary engineering design and cost estimates. The study was prepared in accordance with the CWCB guidelines.

Borrower – Oligarchy Irrigation Company

The Company is a Colorado Non-Profit Mutual Irrigation Ditch Company that was incorporated in 1891. The Company's office is located in Longmont. It is in good standing with the Colorado Secretary of State. The Company has issued 300 shares of stock. The Company's revenues are primarily derived from assessments charged on shares of stock owned by the stockholders, carriage agreements and recreational leases

The Company's by-laws authorize the Board of Directors to make all contracts that are deemed necessary for the purposes of the Company. The Board has the authority to take measures to enforce assessments including the suspension of water deliveries and the eventual sale or forfeiture of shares for failure to pay assessments.

Water Rights

The water rights impacted by this project include

TABLE 1: IMPACTED DIRECT FLOW WATER RIGHTS

Name	Amount (CFS)	Appropriation Date	Adjudication Date
Oligarchy Ditch	43.95	6/1/1866	6/2/1882
Oligarchy Ditch	98.65	12/1/1870	6/2/1882
Oligarchy Ditch	36.84	3/1/1872	6/2/1882
Oligarchy Ditch	58.07	4/1/1874	6/2/1882

TABLE 2: IMPACTED STORAGE WATER RIGHTS

Name	Amount (AF)	Appropriation Date	Adjudication Date
Union Reservoir	13,219	10/6/1902	3/13/1907
Union Reservoir	5,879	5/1/1973	3/11/1977
McIntosh Reservoir	2,460	10/8/1902	3/13/1907
McIntosh Reservoir	2,460	12/31/1929	7/23/1951

Average annual diversions through the diversion structure are 7,966 AF

Project Description

The Project goal is to reconstruct the Company's St. Vrain Creek diversion structure, which was destroyed by the September 12-16, 2013 flood, including the diversion dam, sand gate, Rubicon flumegate, headgates, and bypass gate. The Company has retained Deere and Ault Consultants, Inc. to provide design and construction review services.

Alternative 1 – Do Nothing: This alternative is considered unacceptable. Failure to replace the diversion structure would prevent the diversion of the Company's water rights and the inability to uphold the Company's responsibility to deliver Union Reservoir and McIntosh Reservoir water rights.

Selected Alternative 2 – Rebuilding Collaboratively with Improvements: The Oligarchy Ditch already serves multiple users and interest including its shareholders, and the owners of Union and McIntosh Reservoirs. The Rubicon flumegate serves the interests of the St. Vrain Creek Corridor Committee for preserving streamflow past the structure. Because of the relatively isolated location of the Oligarchy Diversion (nearest headgates are nearly one mile upstream and one mile downstream), no practical means of serving additional multiple interests were identified.

The Project will reconstruct the damaged facilities in the same location, size and for the same function as the pre-flood structure, with improvements to provide a long lasting installation. The rebuilt structure will provide a better hydraulic cutoff and energy dissipation which should provide additional protection of the structure under future flood flow conditions. The original structure had one sand gate into which the Rubicon flumegate was installed. For better operation and river administration, the rebuilt diversion will separate the sand gate and the flumegate into their own passages through the diversion dam.

The Company is currently in the permitting process with the U.S. Army Corps of Engineers and will begin to obtain a Boulder County grading permit if required. The estimated engineering and construction cost of this Alternative is \$1,250,000 and is further broken down as follows:

TABLE 3: PROJECT COST SUMMARY

Task	Cost
Design and Construction Engineering, Geotechnical, Surveying and Testing	\$130,000
Permitting	\$32,000
Construction	\$800,000
Subtotal	\$960,000
Contingency (30%)	\$288,000
Total	\$1,250,000

Collaboration: The borrower is encouraged to consider rebuilding a river diversion that enhances the nonconsumptive uses of water within the river corridor. Examples include improved fish passage and improved rafting/boating navigation. If needed, loan funds may be used for the construction of a temporary diversion until such time that a multi-beneficial structure can be designed and constructed.

Schedule: Construction of the Project is expected to commence December 2013 with Project completion to occur by May 2014.

Financial Analysis

Table 4 provides a summary of the Project's financial aspects. The first three years of the loan will be assessed a zero % interest rate. The remaining term of the loan will be assessed a blended interest rate of 2.50% with the principal amortized over 27-years (Ownership: 26% Agriculture, 72% Mid Municipal, 2% High Municipal). Staff is recommending an exemption to Financial Policy #11 to allow for 100% funding of eligible Project costs.

TABLE 4: FINANCIAL SUMMARY

Total Project Cost	\$1,250,000
CWCB Loan Amount (100% of total Project cost)	\$1,250,000
CWCB Loan Amount (Including 1% Service Fee)	\$1,262,500
CWCB Annual Loan Payment	\$64,863
CWCB Loan Obligation (Including 10% Reserve)	\$71,350
Number of Shares	300
Annual Cost Per Share for Loan	\$238
Current Assessment per Share	\$100
Future Assessment per Share	\$290

Creditworthiness: The Company has no existing debt.

TABLE 5: FINANCIAL RATIOS

Financial Ratio	Past 3 Years	Future w/ Project
Operating Ratio (revenues/expenses) weak: <100% - average: 100% - 120% - strong: >120%	121% (Strong) \$92K/\$76K	101% (Average) \$149K/\$147K
Debt Service Coverage Ratio (revenues-expenses)/debt service weak: <100% - average: 100% - 120% - strong: >120%	No Existing Debt	103% (Average) <u>\$149K-\$76k</u> \$71K
Cash Reserves to Current Expenses weak: <50% - average: 50% - 100% - strong: >100%	145% (Strong) \$110K/\$76k	75% (Weak) \$110K/\$147K
Annual Operating Cost per Acre-Foot (7,966 AF) weak: >\$20 - average: \$10 - \$20 - strong: <\$10	\$9.5 (Strong) \$76K/8K AF	\$18 (Weak) \$147K/8K AF

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

cc: Dan Grant, Secretary/Treasurer, Oligarchy Irrigation Company
Susan Schneider/Jennifer Mele, Colorado's Attorney General Office

Attachment: Water Project Loan Program – Project Data Sheet

**CWCB Water Project Loan Program
Project Data Sheet**

C150372

Borrower: Oligarchy Irrigation Company

County: Boulder

Project Name: Oligarchy Irrigation Ditch
River Diversion Structure Repair

Project Type: Diversion Rehabilitation

Drainage Basin/ District: South Platte / 5

Water Source: St. Vrain Creek

Total Project Cost: \$1,250,000

Funding Source: Severance Tax PBF

Type of Borrower: Blended

Average Annual Diversion: 7,966 AF

CWCB Loan: \$1,262,500
(with 1% service fee)

Interest Rate: 2.50% **Term:** 30-years
(26% Ag, 72% Mid, 2% High)

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 diversion off the St. Vrain Creek. Of the original structure, only a small portion of the diversion dam and right abutment remain. The purpose of this Project is to rebuild the diversion dam, sand gates, Rubicon flumegate, and bypass gate. The structure will be the same size and location as the original but will modify the sand gates and flumegate. The original structure had one sand gate into which the Rubicon flumegate was installed. For better operation and river administration, the rebuilt diversion will separate the sand gate and the flumegate into their own passages through the diversion dam.

