



**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., Finance Section Chief

**DATE:** July 17-18, 2019 Board Meeting

**AGENDA ITEM:** 10a. Water Project Loans  
Taylor & Gill Ditch Company - Ditch Piping

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### Introduction

The Taylor & Gill Ditch Company (Company) is applying for a loan for the Ditch Piping (Project). The purpose of the Project is to eliminate a water loss and maintenance issue by converting 1,000 linear feet of open ditch into a piped ditch. The section of ditch to be piped runs through a residential area and experiences significant seepage. Piping the ditch will also help reduce maintenance issues and improve public safety. The total Project cost is estimated to be \$125,000. The Company is requesting a loan to cover 100% of Project cost. See attached Project Data Sheet for a location map and Project summary.

### Staff Recommendation

Staff recommends the Board approve a loan not to exceed \$126,250 (\$125,000 for Project costs and \$1,250 for the 1% service fee) to the Taylor & Gill Ditch Company for costs related to the Ditch Piping Project, from the Construction Fund. The loan terms shall be 30 years at a blended interest rate of 3.10% per annum. Security for the loan shall be in compliance with CWCB Financial Policy #5.



**Borrower - Taylor & Gill Ditch Company**

The Company was incorporated in 1891 and is a nonprofit corporation that is in good standing with the Colorado Secretary of State. Its 5-member Board of Trustees exercises the general supervision over the affairs of the Company. The Company is made up of 26 shareholders owning 64.375 shares of stock. The LaPorte Lateral owns 13 of these shares but are not a part of the Project. Historically the Company diverts between 8 and 10 cfs daily for the entire irrigation season as the water rights are seldom out of priority. On Average the Company provides an annual delivery of 2,960 AF.

Revenues are primarily generated through assessments from shareholders including the LaPorte Lateral. Miscellaneous income is derived from transfer fees and crossing permits. The Board of Trustees have the power to levy assessments upon all shares of stock. To enforce assessments, the Board has authority to assess interest on delinquent assessments and can sell stock that is delinquent by 30 days.

**Background**

The Company owns and operates the Taylor & Gill Ditch. Its water is diverted from the Cache la Poudre River at the Little Cache la Poudre Ditch’s diversion structure. The Little Cache la Poudre Ditch carries Taylor & Gill water for approximately half a mile where a turnout structure divides, measures, and delivers the water into the Taylor & Gill Ditch. The Taylor & Gill Ditch is approximately 3 miles long and historically delivered water to approximately 400 acres of irrigated land. The ditch now primarily serves small acreage farms of orchards, hay, and pasture livestock. Martin Marietta owns 14.175 shares which are used in its substitute water supply plans for augmentation.

There is a 1,000 LF section of the Taylor & Gill Ditch that runs through a residential neighborhood and is subject to significant seepage and maintenance issues such as disposal of yard waste in the ditch. Limited access has made the problem difficult to solve but the Company has recently removed trees from the easement which will allow easier access thereby allowing a more permanent fix.

**Loan Feasibility Study**

Dale Leach and Walter Niccoli, P.E., with Telesto Solutions, prepared the Loan Feasibility Study titled, “Piping Project for the Taylor & Gill Ditch Co,” dated June 2019. The feasibility study was prepared in accordance with CWCB guidelines and includes an analysis of alternatives, preliminary engineering design, and construction cost estimates. Financial statements were provided by the Taylor & Gill Ditch Company.

**Water Rights**

The Company owns water rights totaling 17.46 cfs shown in Table 1. Of that amount, 4.75 cfs is delivered directly to the North Poudre Canal under an alternate point of diversion (APOD) decree.

**TABLE 1: WATER RIGHTS IN LAKE DITCH**

Name	Amount	Appropriation Date	Adjudication Date	Water Court Case No.
Taylor Gill Ditch	12.71 CFS	4/15/1866	4/11/1882	CA0320
North Poudre Canal (APOD to Taylor Gill Ditch)	3.46 CFS	4/15/1866	4/11/1882	CA2850
North Poudre Canal (APOD to Taylor Gill Ditch)	1.29 CFS	4/15/1866	4/11/1882	CA3311

**Project Description**

The objective of the Project is to address a section of the Taylor & Gill Ditch that has significant seepage and maintenance issues. The following alternatives were analyzed by the engineer and the Company:

**Alternative 1 - No Action:** This alternative is no longer acceptable due to the ditch leakage and access issues.

**Alternative 2 - Ditch Liner:** This alternative would line the ditch with a synthetic material. Lining the ditch would address the seepage problem but would not eliminate the trash problem from adjoining trees and yard waste. This alternative was quickly dismissed and a formal cost estimate was not developed.

**Selected Alternative 3 - Piping Project:** This alternative will pipe the section of ditch for approximately 1,000 LF. That length will cover the section which runs through the residential area prone to the seepage and maintenance issues. This will improve the Company’s stewardship of water diverted and the Company expects annual maintenance cost to be reduced with this section of ditch enclosed.

An engineering analysis was performed by Telesto Solutions and determined that a single 24-inch diameter high-density polyethylene (HDPE) pipe will pass the required flow and fit within the existing ditch footprint. Leading to the decision to move with construction now is that the neighboring property will be able to provide the fill material at no cost to the Company.

The cost estimate of this alternative is \$125,000 as shown in Table 2.

**TABLE 2: ESTIMATED PROJECT COST**

Task	Total
Design/Oversight	\$5,000
Earthwork	\$18,000
Pipe Construction	\$86,000
Contingency (15%)	\$16,000
<b>TOTAL</b>	<b>\$125,000</b>

**Permitting:** All work will occur within the existing ditch right-of-way and no additional easements will be required. The engineer will confirm if a county grading permit will be required for the earthwork.

**Schedule:** Construction will occur between the 2019 and 2020 irrigation season, either starting November 2019 or March 2020. Construction is expected to be completed within a month of starting.

**Financial Analysis**

Table 3 provides a summary of the Project’s financial aspects. The Company qualifies for a blended interest rate of 3.10% for a 30-year term (Ownership: 46% Agricultural, <1% Low Municipal, 24% Mid Municipal, 2% High Municipal, 28% Commercial).

**TABLE 3: FINANCIAL SUMMARY**

Total Project Cost	\$125,000
CWCB Loan Amount	\$125,000
CWCB Loan Amount (Including 1% Service Fee)	\$126,250
CWCB Annual Loan Payment	\$6,525
CWCB Annual Loan Obligation (1 <sup>st</sup> Ten Years)	\$7,177
Number of Assessed Shares	51.375
Annual Loan Obligation per Share	\$140/share
Current Assessment per Share	\$200/share

**Creditworthiness:** The Company has no existing debt. The Company has however committed to contributing \$41,000 for a joint diversion upgrade with the Little Cache la Poudre Ditch. That diversion project is scheduled to occur within a year and the Company’s contribution will be paid out over a three year period by raising annual assessments.

The Company charges assessments by certificate and not total shares owned. The current minimum assessment is \$120 for a ½ share or less and increases incrementally to \$200 for a full share. It’s expected that the assessment for ½ share or less will be increased by approximately \$71 for the Ditch Piping Project and \$134 for the diversion project, and the single share cost will increase by \$118 and \$224, respectively.

**TABLE 4: FINANCIAL RATIOS**

Financial Ratio	Prior Years <sup>1</sup>	Future w/ Project
Operating Ratio (revenues/expenses) Weak: <100% - average: 100% - 120% - strong: >120%	102% (average) \$18.2K/\$17.8K	101% (average) \$39.0K/\$38.6K
Debt Service Coverage Ratio (revenues-expenses)/debt service Weak: <100% - average: 100% - 120% - strong: >120%	N/A	102% (average) (\$39.0K-\$17.8K) \$20.8K
Cash Reserves to Current Expenses Weak: <50% - average: 50% - 100% - strong: >100%	120% (strong) \$21.4K/\$17.8K	55% (average) \$21.4K/\$38.6K
Annual Operating Cost per Acre-Foot (2,960 AF) Weak: >\$20 - average: \$10 - \$20 - strong: <\$10	\$6 (strong) \$17.8K/2,960AF	\$13 (average) \$38.6K/2,960AF

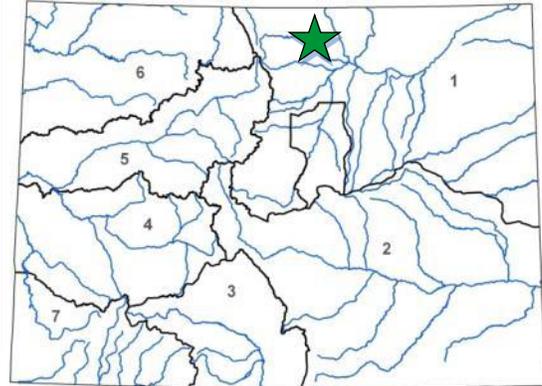
**Collateral:** Security for this loan will be a pledge of assessment revenues back by an assessment covenant and the Project itself (pipeline). This security is in compliance with the CWCB Financial Policy #5 (Collateral).

cc: Doug Bigge, Secretary, Taylor & Gill Ditch Company  
 Jennifer Mele, Colorado Attorney General’s Office

Attachment: Water Project Loan Program - Project Data Sheet



L O A N   D E T A I L S		
Project Cost:	\$125,000	
CWCB Loan (with Service Fee):	\$126,250	
Loan Term and Interest Rate:	30 Years @ 3.10%	
Funding Source:	Construction Fund	
B O R R O W E R   T Y P E		
Agriculture	Municipal	Commercial
46%	<1% Low - 24% Mid - 2% High	28%
P R O J E C T   D E T A I L S		
Project Type:	Ditch Rehabilitation	
Average Annual Diversions:	2,960 AF	



The Taylor & Gill Ditch Company was incorporated in 1891 and provides irrigation water to a service area in Laporte, northwest of Fort Collins. The Company diverts from the Cache la Poudre through a shared diversion structure with the Little Cache la Poudre Ditch.

L O C A T I O N			
County:	Larimer		
Water Source:	Cache la Poudre		
Drainage Basin:	South Platte		
Division:	1	District:	3

The Ditch Piping Project will pipe a 1,000-foot section of the Taylor & Gill Ditch that runs through a residential neighborhood. This section is subject to significant seepage and maintenance issues and has limited access. The Company will pipe this section with a 24" diameter water tight HDPE pipe. Construction will occur in between the 2019 and 2020 irrigation season.

