COLORADO
Colorado Water Conservation Board
Department of Natural Resources
1313 Sherman Street, Room 718
Denver, CO 80203

March 15, 2021

Jim Yahn, General Manager
North Sterling Irrigation District
112 N 8th Ave
Sterling, CO 80751
jim@northsterling.org

Re: North Sterling River Diversion Replacement Project – Loan Approval

Dear Mr. Yahn:

I am pleased to inform you that on March 11, 2021, the Colorado Water Conservation Board approved your loan request for the North Sterling River Diversion Replacement Project described in the application and approved Loan Feasibility Study titled *Feasibility of Construction of the North Sterling Irrigation District River Diversion Replacement Project,* dated January 2021. The Board approved a loan not to exceed $3,532,980 ($3,498,000 for Project costs and $34,980 for the 1% service fee). The loan terms shall be 0.85% per annum for 20 years.

I have attached a copy of the updated Board memo dated March 12, 2021 that includes the Board's approval. After the Board approves a loan there are a few steps that remain in the loan process including:

Contracting: An executed loan contract must be in place before funds can be disbursed for eligible project expenses. Peg Mason, Loan Contracts Manager, will contact you to initiate the loan contracting process. She can be reached at (303) 866-3441 x3227.

Design/Construction: You must adhere to the CWCB Design and Construction Administration Procedures including an invitation to the Prebid, Preconstruction and Bid Opening meetings. Cole Bedford, P.E., will be the Project Manager for this phase of the process and will work with you on the disbursements of your loan funds. He can be reached at (303) 866-3441 x3234.

On behalf of the Board, I would like to thank you for your interest in a loan from the CWCB.

Sincerely,

Kirk Russell, P.E., Chief
Finance Section

Attachment: Updated Board Memo

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Department of Natural Resources

1313 Sherman Street, Room 718
Denver, CO 80203

P (303) 866-3441
F (303) 866-4474

Jared Polis, Governor

Dan Gibbs, DNR Executive Director

Rebecca Mitchell, CWCB Director

TO: Colorado Water Conservation Board Members

FROM: Cole Bedford, P.E., Project Manager
Kirk Russell, P.E., Finance Section Chief

DATE: March 10-11, 2021 Board Meeting **(Updated March 12, 2021)**

AGENDA ITEM: 19d. Water Project Loans
North Sterling Irrigation District – North Sterling River Diversion Replacement

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Staff Recommendation: (Board approved Staff Recommendation March 11, 2021)
Staff recommends the Board approve a loan not to exceed $3,532,980 ($3,498,000 for Project costs and $34,980 for the 1.0% service fee) to the North Sterling Irrigation District for costs related to the North Sterling River Diversion Replacement, from the Severance Tax Perpetual Base Fund. The loan terms shall be 20 years at an interest rate of 0.85% per annum. Security for the loan shall be in compliance with CWCB Financial Policy #5.

Introduction:
The North Sterling Irrigation District (District) is applying for a CWCB blended interest rate loan, reduced for a 20-year term, for the North Sterling River Diversion Replacement (Project). The District encompasses more than 40,000 acres stretching from the North Sterling Reservoir northwest of Sterling to the end of its Outlet Canal northeast of Crook. Water is delivered to the reservoir via the Inlet Canal, which is supplied with water from the District's diversion structure and headgate on the South Platte River. In 2013, severe flooding eroded areas around the headgate and, in 2015, extended high water resulted in some settlement in the headgate as well. Furthermore, there are indications that failure is occurring in the piling under the diversion structure. This project will replace both the diversion structure and the headgate, improving both their safety and functionality. The total project cost is estimated at $3,498,000. See attached Project Data Sheet for a location map and Project summary.

Borrower – North Sterling Irrigation District:
The North Sterling Irrigation District is an irrigation district, formed under C.R.S. Title 37, on the north side of the South Platte River near Sterling, Colorado. It's major components are the River Diversion, Inlet Canal, North Sterling Reservoir, and Outlet Canal. The District encompassess more than 40,000 acres, 35,000 of which are irrigated, and services 122 landowners. More than 99% of the total acreage is used for agriculture inlcuding corn, alfalfa, sugar beets, pinto beans, small grain, and feed crop production.

The District's Board of Directors is comprised of three members each representing one of three Divisions and are elected by a popular vote of the landowners in each Division. The District certifies a mill levy each year which is collected by the Logan County Treasurer with property taxes. Non-payment by landowners can lead to a land tax sale or limited water use until payment is received. Because this loan contract is more than $400,000, the District may authorize the debt by conducting a full vote of District voters of whom at least 50% approve the debt. Any contract more than $400,000 requires at least 50% approval of all District voters. This will be completed in March 2021.

Background:
The North Sterling Irrigation District's diversion structure is 210-feet long and spans the entire breadth of the South Platte River. It contains four radial sluice gates with concrete piers and boards over the remainder of the length. Because the structure and its gates are operated during the winter months dangerous ice flows sometimes occur. The diversion structure diverts water into both the 40-foot wide inlet headgate for the North Sterling Inlet Canal and the smaller Union Ditch headgate. Both headgates are on the river's north side. While the Union Ditch Company, which operates the Union Ditch, takes advantage of the North Sterling Diversion Structure for its own diversions, it does not share ownership of the structure and is not party to the Project. The Company is, however, aware and supportive of the Project and will be kept apprised of the its progress. Both the North Sterling River Diversion Structure and the Inlet Canal Headgate are reaching the end of their useful life.

Loan Feasibility Study:
The Loan Feasibility Study titled "Feasibility of Construction of the North Sterling Irrigation District River Diversion Replacement Project" dated January 2021 was prepared under the direction of James T. Yahn, P.E., Manager of North Sterling Irrigation District. It is in accordance with CWCB guidelines and includes an analysis of alternatives, preliminary engineering design, and a construction cost estimate. Also submitted were recent years' Annual Financial Reports audited by Lauer, Szabo & Associates, Certified Public Accountants.

Water Rights:
The District utilizes several different water rights for its operations. Its oldest water right under Decree 2142 allows for diversion off the South Platte River and other tributaries for irrigation water storage. Other, more recent rights, allow for diversion and storage of water for recreation, wildlife, augmentation, municipal, and commercial purposes. Over the past 20 years, the average annual delivery has been 1.66 acre-feet per District acre for a total average delivery of 67,922 acre-feet. The District's rights are detailed in Table 1.

TABLE 1: WATER RIGHTS

Source Name	Rate or Volume	Adjudication Date	Appropriation Date	Water Court Case No.
S. Platte R., Springdale Cr., Pawnee Cr., Cedar Cr.	300 cfs 69,446 AF	Jan 1, 1922	Jun 15, 1908	2142
Cedar Cr.	2,000 AF	Jan 1, 1922	Jun 15, 1908	2142
Pawnee Cr.	540 cfs 5,000 AF	Jan 1, 1922	Jun 15, 1908	2142
S. Platte R.	411 cfs 11,954 AF	Jan 1, 1922	Aug 1, 1915	2142
S. Platte R.	460 cfs	Jan 13, 1936	May 27, 1914	8492
S. Platte R.	69,446 AF 11,954 AF	Jun 29, 1989	Dec 1988	88CW0234
S. Platte R.	294 cfs (abs) 306 cfs (cond) 7,800 AF	Jul 21, 2006	May 8, 1996	96CW1034
S. Platte R.	510 cfs (abs) 90 cfs (cond) 24,000 AF	Jul 21, 2006	Dec 31, 2002	96CW1034
S. Platte R.	15,000 AF	Jul 21, 2006	Dec 31, 2000	96CW1034

Project Description:
The purpose of the Project is to improve the safety and functionality of the District's diversion structure and headgate:

Alternative 1 – No Action: This alternative would entail continuing to use the existing diversion structure and headgate. It is not desirable as it would maintain the existing status quo and risk associated with the aging structures. It would not improve the safety or functionality of either structure.

Alternative 2 – Rehabilitation of the Existing Diversion Structure and Headgate: This alternative would attempt to rehabilitate some components, but maintain the basic structures. It would be less expensive to pursue this course in the short-term, but would result in ongoing, expensive maintenance costs. Because of this long-term disadvantage, this alternative was not selected.

Selected Alternative 3 – Full Replacement of the Diversion Structure and Headgate This alternative was selected as the preferred alternative as it achieves the project purpose and does so while minimizing long-term costs. This alternative involves the removal and replacement of the existing diversion structure. The new structure will be placed at or near the position of the existing, with the intake oriented nearly perpendicular to it. This new orientation will aid in sediment removal processes. Principal components of the new structure include Obermeyer bladder gates, headgate structure for the Inlet Canal, radial gate sluiceway, control building, and a flume measurement structure.

The cost estimate of this alternative is $3,498,000 as shown in Table 2.

TABLE 2: ESTIMATED PROJECT COST

Task	Total
Mobilization, Demolition, and Site Work	$385,000
Pilings	$455,000
Obermeyer Gates	$1,037,000
Air Supply and Electrical Services	$156,000
Cast-In-Place Concrete and Reinforcing Steel	$723,000
Other (Control Building, Telemetry, Railings, Site Restoration)	$266,000
Engineering	$165,000
Contingency (10%)	$311,000
TOTAL	**$3,498,000**

Permitting: All construction will take place on District property and no new easements or rights-of-way will be required. It is also expected that the work will be exempt from 404 permitting though the Corps of Engineers.

Schedule: The project design is in its final stages and will be ready for bidding in March or April 2021. Construction is expected to begin in July 2021 and be completed before the end of the year.

Financial Analysis:
Table 3 provides a summary of the Project's financial aspects and Table 4 details the District's current existing debt. The District operates a single General Fund to which the loan will be applied. The District qualifies for a blended interest rate of 1.10% (Landownership: 99.5% agricultural, 0.5% middle-income municipal) for a 30-year term. The District is applying for a 20-year term; therefore, the interest rate is decreased by 0.25% for a final interest rate of 0.85% per CWCB Financial Policy #7 (Lending Rate Determination).

TABLE 3: FINANCIAL SUMMARY

Total Project Cost	$3,498,000
CWCB Loan Amount	$3,498,000
CWCB Loan Amount (Including 1% Service Fee)	$3,532,980
CWCB Annual Loan Payment	$192,837
CWCB Annual Loan Obligation (1st Ten Years)	$212,121
Number of Acres in the District	40,917
Current Assessment per Acre	$17
Annual Loan Obligation per Acre	$5.18
Future Assessment per Acre	$22[1]

1. Because the current assessment provides the District with a surplus of revenues, it can be increased by less than the annual loan obligation and still allow the District adequate revenues to cover the loan repayment.

Creditworthiness: The District has two existing loans with CWCB. One loan was recently approved in January 2021 and is being contracted and the other is in repayment, as shown in Table 4. The District is in good standing.

TABLE 4: EXISTING DEBT

Lender	Original Balance	Current Balance	Annual Payment	Maturity Date	Collateral
CWCB (C150293)	$1,094,840	$661,765.48	$68,583.04	2031	Pledge of Assessments
CWCB (TBD)	$395,920	N/A	$23,892	2041	Pledge of Assessment

TABLE 5: FINANCIAL RATIOS

Financial Ratio	Prior Years	Future w/ Project[1]
Operating Ratio (revenues/expenses) weak: <100% | average: 100% - 120% | strong: >120%	111% (average) $1,000K/$900K	106% (average) $1,205K/1,136K
Debt Service Coverage Ratio (revenues-expenses)/debt service weak: <100% | average: 100% - 120% | strong: >120%	245% (strong) $1,000K-$831K $69K	122% (strong) $1,205K-$831K $305K
Cash Reserves to Current Expenses weak: <50% | average: 50% - 100% | strong: >100%	22% (weak) $200K/$900K	18% (weak) $200K/$1,136K
Annual Operating Cost per Acre-Foot (67,922 AF) weak: >$20 | average: $10 - $20 | strong: <$10	$13.25 (average)	$16.73 (average)

1. Future w/ Project ratios include expenses associated with the Outlet Canal Automation Phase II Project, the loan for which was approved at the January 2021 CWCB Board Meeting.

Collateral: Security for this loan will be a pledge of assessment revenues backed by a rate covenant and annual financial reporting. This security is in compliance with the CWCB financial Policy #5 (Collateral).

cc: Jim Yahn, Manager, North Sterling Irrigation District
Jennifer Mele, Colorado Attorney General's Office

Attachment: Water Project Loan Program – Project Data Sheet

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North Sterling River Diversion Replacement

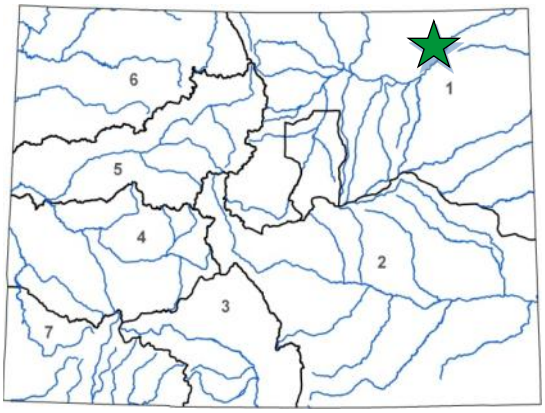
North Sterling Irrigation District

March 2021 Board Meeting

LOAN DETAILS	
Project Cost:	$3,498,000
CWCB Loan (with 1% Service Fee):	$3,532,980
Loan Term and Interest Rate:	20 Yrs @ 0.85%
Funding Source:	Severance Tax Perpetual Base Fund

BORROWER TYPE		
Agriculture	*Municipal*	*Commercial*
99.5%	0% Low – 0.5% Mid - 0% High	0%

PROJECT DETAILS	
Project Type:	Ditch Rehabilitation
Average Annual Diversions:	67,922 AF



LOCATION			
County:			Morgan
Water Source:			South Platte River
Drainage Basin:			South Platte
Division:	1	*District:*	1

The North Sterling Irrigation District (District) was created in 1907 by the Board of County Commissioners and currently serves 122 landowners with more than 40,000 acres. Irrigated land in the District's service area produces corn, alfalfa, sugar beets, pinto beans, small grains and feed crops.

The project will include replacement of the existing 210 foot long diversion structure with a bladder gate, a new inlet headgate, continued service for the Union Ditch, and a new measurement structure. This option will allow for safe passage of flood events, sediment, and ice flow in the winter. During intermediate flows, it will allow for fish passage while a partial pool on the upstream side will benefit aquatic habitat and waterfowl. Benefits for the District include improved safety for employees, and automation including remote control. Construction is expected to begin in the summer of 2021 and be completed before the end of the year.