COLORADO
Colorado Water Conservation Board
Department of Natural Resources

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TO: Colorado Water Conservation Board Members

FROM: Zachary Salin, P.E., Project Manager
Kirk Russell, P.E., Finance Section Chief

DATE: May 21-22, 2025 Board Meeting

AGENDA ITEM: 14b. Water Project Loans
Lower Latham Reservoir Company
Jurgens Reservoir Construction Project

Staff Recommendation

Staff recommends the Board approve a loan not to exceed $9,999,000 ($9,900,000 for project costs and $99,000 for the 1% service fee) to the Lower Latham Reservoir Company, for costs related to the Jurgens Reservoir Construction Project, from the Severance Tax Perpetual Base Fund. The loan term will be 30 years at an interest rate of 2.20% per annum. Security for the loan shall be in compliance with CWCB Financial Policy #5.

In addition, Staff recommends the Board approve the inclusion of the Jurgens Reservoir Construction Project Loan for up to $20,166,670 ($19,967,000 for Project costs and $199,670 for the 1% service fee) to the Lower Latham Reservoir Company for costs related to the Jurgens Reservoir Construction Project in the 2026 CWCB Projects Bill for consideration by the bill sponsors. This is an increase of $10,167,670 ($10,067,000 for Project costs and $100,670 for the 1% service fee).

Introduction

The Lower Latham Reservoir Company (Company), applied for a CWCB blended interest rate loan for the Jurgens Reservoir Construction Project (Project). The Company is seeking to fund construction of a new water storage reservoir complex. This Project will construct new porosity water storage which will be used by the Company to fulfil its augmentation requirements. The Project includes a slurry wall around the perimeter of the Jurgens Reservoir site, a secondary slurry wall to subdivide the project into two cells, four recharge basins to fill the reservoir cells, wells for pumping water out of storage, and additional facilities and infrastructure such as measurement structures, power and controls, ditch and lateral improvements, etc.

The total Project cost is estimated to be $19,967,000. The Company has the financial resources available to self-fund the difference between the total Project cost and the initial Loan amount should the Board not approve the Loan increase in the 2026 Projects Bill. See attached Project Data Sheet for a location map and Project summary.

Borrower – Lower Latham Reservoir Company
The Company is located in Weld County and serves customers irrigating approximately 11,000 acres of farmland near Greeley within the South Platte Basin in Water Division 1. The Company is a mutual irrigation company registered and in good standing with the Colorado Secretary of State. There are currently 39 shareholders who own 156 total outstanding shares of stock in the Company.

The Company has a five-member Board of Trustees which is empowered to set annual assessments, the power to incur indebtedness and sign contracts on behalf of the Company, the power to curtail water deliveries to shareholders that fail to pay their assessments, the power to curtail well pumping for wells included in the Latham Augmentation Plan, and the power to offer stock for sale to pay back assessments.

In addition to providing deliveries of water to shareholders and augmenting depletions owed to the stream, the Company also retails water to other parties, including sales to oil & gas or fracking operations. In 2022 & 2023, Water Utilization Fees (WUF) from the sale of water represented approximately 75% of the Company's annual revenue. WUF varies from year to year and is not present every year, however it generally represents a somewhat stable income stream for the Company. The CWCB understands that the Company would likely aim to repay loan costs using this revenue source rather than increasing annual shareholder assessments.

Background
The Company operates under an augmentation plan structured to allow additional augmentation water supplies and facilities to be added to improve the overall augmentation supply and increase allowable pumping. In 2004 the Company along with its sister company, the Lower Latham Ditch Company (LLDC), formed the Lower Latham Asset Management Company (LLAMC) to administer the Latham Augmentation Plan. Historically, the Latham Augmentation Plan has utilized storage space in Lower Latham Reservoir to store exchanged water supplies during the summer months for subsequent release to the river during the winter months, therefore the usefulness of the Lower Latham Reservoir senior storage rights is reduced because a large portion of the reservoir storage space is physically occupied by augmentation water supplies

Analyses by the Company show that a total lined storage capacity of approximately 2,540 AF - 3,350 AF is necessary in order to operate the Latham Augmentation Plan during a drought or severe drought (i.e., 2012 and 2002 respectively) without curtailing well pumping. The development of 2,665 AF of new lined porosity storage under the Project will allow for sufficient storage of augmentation water supplies to allow the Company to exercise its senior storage priorities for Lower Latham Reservoir more fully and increase the overall irrigation water supply available to its shareholders under most drought scenarios.

Loan Feasibility Study
Doug Seely, P.E., of NOCO Engineering, Inc., with assistance from Susan Rainey, P.E., of Schnabel Engineering prepared the Loan Feasibility Study titled, "Feasibility Study of the Jurgens Reservoir Construction Project" dated March 2025. The feasibility study was prepared in accordance with CWCB guidelines and includes preliminary engineering, an analysis of alternatives and costs. The Company provided financial statements for calendar years 2022-2024.

Water Rights
The Company's water rights associated with this Project (e.g., water rights with a decreed use of augmentation) come from pro-rata rights (share ownership) on a number of local irrigation ditches. The water rights reportedly associated with the Project are shown in Table 1 and represent the pro-rata amount for the shares owned by the Company decreed for augmentation uses. In addition to the water

rights listed below for the Project, the Company also owns water storage rights decreed for irrigation use in Lower Latham Reservoir as well as some amount of irrigation water on the structures identified below, which was not tabulated.

The water rights listed below are the portions of rights held by the Company that could be used to fill and operate the Project.

TABLE 1: WATER RIGHTS ASSOCIATED WITH THE PROJECT

Name (WDID)	Amount	Appropriation Date	Adjudication Date	Case No.
Lower Latham Ditch (0200834)	46.76 cfs	5/12/1869, 12/12/1874, 11/14/1877, 10/24/1881	4/28/1883	03CW47, 13CW3057
Lower Latham Drain (0200891)	5.69 cfs	3/1/1889	8/2/1918	03CW47, 13CW3057
Highland Ditch (0200837)	2.17 cfs	10/1/1871	4/28/1883	17CW3018
Union Ditch (0200828)	9.20 cfs	11/5/1874, 11/2/1881	4/28/1883	06CW292
Canal 3 Ditch (0300934)	3.16 cfs	4/1/1870, 10/1/1871, 7/15/1872, 5/15/1873	4/11/1882	12CW96
Fossil Creek Reservoir (0303774)	148.22 AF**	3/5/1901, 6/1/1904	12/9/1904, 4/22/1922, 9/10/1953	12CW96

* This table only includes shares with a decreed use of 'Augmentation' and does not include Company-owned shares or rights decreed for irrigation use.
**The Company owns 2.9% of the Greeley Irrigation Company shares in the Fossil Creek Reservoir. Greeley Irrigation Company owns 20% of the Fossil Creek Reservoir Storage Right.

Based on an average of deliveries between 2022-2024, the Company provides approximately 1,148 AF of storage delivery as well as 35,565 AF of ditch water deliveries to its shareholders for irrigation as well as 1,600 AF of augmentation water for the Company's customers and 1,182 AF of augmentation water for other customers and 698 AF of water to other entities who contract for deliveries in a typical year. The Project will augment depletions owed to various reaches of the South Platte River under the Latham Augmentation Plan.

Project Description
The purpose of this Project is to secure permanent sources of augmentation water that will allow the Company to continue augmentation required under the Latham Augmentation Plan.

Alternative 1 – No Action: Taking no action would result in the Company continuing to utilize Lower Latham Reservoir for storage of augmentation water supplies which will continue to impact storage space necessary for senior storage rights which would also result in the continued inability to capture senior water supplies downstream. Accordingly, this option was not selected.

Alternative 2 – New Water Storage at an Alternate Location: The Company has also investigated the potential for lined storage development at their Gibbs Farm property. Similar to the Project property, the Gibbs Farm property is ideally located near the South Platte River which would facilitate reservoir development. The Gibbs Farm is ideally located within Administrative Reach 'A' of the Latham Augmentation Plan which means releases could be conveyed to all the administrative reaches for which the Company has replacement requirements. Lined storage development at the Gibbs Farm was determined to be infeasible due to the high unit cost for storage space (estimated between $13,734 to

$19,770 per AF) as well as due to the inadequate volume of storage space available for development (estimated between 275 to 707 AF). Accordingly, this option was not selected.

Selected Alternative 3 – Develop the Jurgens Reservoir: The proposed Project to construct the Jurgens Reservoir would create 2,665 AF of porosity storage by installing a slurry wall liner around the Project area. Construction of optional scope items includes a slurry cut-off wall to divide the project into two storage cells. The Project also includes several recharge basins to deliver augmentation water into the cells for storage, wells to withdraw stored augmentation water, and measurement flumes to record inputs to the recharge basins. Based on the total estimated Project cost, the unit cost to develop storage is estimated at $7,492 per AF.

Porosity storage works by storing water in the pore space within gravelly or sandy soils. A bentonite slurry wall around the exterior (and potentially, subdividing the storage) limits the migration of water outside the storage area. Water is added into storage via recharge basins, which allow the water to percolate down to the storage pool, and water is withdrawn from storage via wells.

Gravel mining at one or more of the storage cells is contemplated as a potential future expansion of the Project, which could add between 1,300 AF and 10,460 AF depending on the extents of the gravel mining. Gravel mining at the Project is not currently planned and would likely occur over the course of a few years.

The Project site is located such that diversions into the reservoir's porosity storage may be accomplished by either direct delivery from the Plumb Ditch via gravity flow and/or pumping from the drain ditch on the Jurgens Farm. The total estimated cost of this selected alternative is $19,967,000 as shown in Table 2.

TABLE 2: ESTIMATED PROJECT COST

Description	Cost
Slurry Wall	
Primary Slurry Wall Construction	$12,734,0000
Optional Construction Items*	$1,434,000
Engineering During Construction	$725,000
Subtotal	**$14,893,000**
Inlet and Outlet	
Facility Construction	$3,757,000
Facility Engineering During Construction	$565,000
Contingency (20% of Construction Costs)	$752,000
Subtotal	**$5,074,000**
TOTAL	**$19,967,000**

*Optional construction items include a secondary slurry wall to subdivide the Project into two cells, excavation and grading for perimeter drains, dewatering, and seeding & reclamation.

Permitting: The Project has already obtained a Weld County Floodplain Development permit, and is seeking other appropriate Federal, State, County and local permits. The construction contractor may be required to obtain additional permits, as necessary. Following completion of the Project, the Company intends to apply for a junior storage right at Jurgens Reservoir.

Schedule: The Project is moving forward. Currently the Company has contracted with Odin Environmental Solutions, LLC (Odin) for the Slurry Wall Construction scope. Odin has mobilized to the Project site and is beginning site preparation.The Slurry Wall Construction work is expected to complete by the fall of 2025 and ancillary facilities are planned to be completed by the end of 2027.

Potential gravel mining in one or both of the cells is not currently scheduled but could be added in the future to bolster storage.

Financial Analysis

Table 3 provides a summary of the Project's financial aspects. The Company qualifies for a blended (approximately 99% agricultural and 1% middle-income municipal) interest rate of 2.20% for a 30-year term. All interest rate evaluations are per CWCB Financial Policy #7 (Lending Rate Determination). In addition to annual per-share assessments levied on the Company's shareholders, the Company also typically receives payments through contracts with oil & gas producers for the sale of retail water. The CWCB understands that this revenue would likely be used by the Company to offset or reduce the amount of the annual loan payment passed on to shareholders.

TABLE 3: FINANCIAL SUMMARY

Item	May 2025 Board Meeting	Pending 2026 Projects Bill
Project Cost	$19,967,0000	$19,967,0000
Company Cash or Additional Debt	$10,067,000	$0
CWCB Loan Amount	$9,900,000	$19,967,0000
CWCB Loan Amount (Including 1% Service Fee)	$9,999,000	$20,166,670
CWCB Annual Loan Payment	$458,825	$925,391
CWCB Annual Loan Obligation (1st Ten Years)	$504,707	$1,017,930
Number of Shares	156	156
Current Annual Assessment per Share	$360	$360
Est. Future Annual Loan Obligation per Share*	$2,941	$5,932

***** The Company may opt to use other sources of revenue, including cash-on-hand or Water Utilization Fees, to offset or cover the Loan repayment costs rather than raising assessments for shareholders.

Creditworthiness: The Company currently has three active loans with CWCB and no other debt. Details are provided in Table 4. The Company is in good standing with the CWCB and has a good repayment history for their existing loans. Financial ratios for the Company are shown in Table 5.

TABLE 4: EXISTING DEBT

Lender	Original Balance	Current Balance	Annual Payment	Maturity Date	Collateral
CWCB (C150253)	$1,994,596	$1,028,557	$92,149	12/1/2037	Undivided 100% Interest in 6 shares of the LLDC as well as a 35 cfs right in the Lower Latham Drain
CWCB (C150264)	$670,607	$368,526	$30,983	12/1/2038	Undivided 100% Interest in 2 shares of the LLDC as well as a 35 cfs right in the Lower Latham Drain
CWCB (C150304)	$2,417,359	$1,653,408	$119,380	6/1/2043	Undivided 100% Interest in the Klein Recharge Site
TOTAL		**$3,050,491**	**$242,512**		

TABLE 5: FINANCIAL RATIOS

Financial Ratio	Past Years	Future w/ Project	Future w/ Increase
Operating Ratio (revenues/expenses) weak: <100% | typical: 100% - 120% | strong: >120%	258% (strong) $7.41M/$2.87M	223% (strong) $7.41M/$3.33M	195% (strong) $7.41M/$3.80M
Debt Service Coverage Ratio (revenues-expenses)/debt service weak: <100% | typical: 100% - 125% | strong: >125%	1,974% (strong) ($7.41M-$2.62M) $243K	683% (strong) ($7.41M-$2.62M) $701K	410% (strong) ($7.41m-$2.62M) $1.17M
Cash Reserves to Current Expenses weak: <50% | typical: 50% - 100% | strong: >100%	651% (strong) $18.67M/$2.87M	561% (strong) $18.67M/$3.33M	492% (strong) $18.67M/$3.80M
Annual Cost per Acre-Foot (40,192 AF) weak: >$24 | typical: $3 - $24 | strong: <$3	$71.40 (weak)	$82.85 (weak)	$94.43 (weak)

Collateral: Security for this loan will be a pledge of assessment revenues backed by an assessment covenant and the Project itself (e.g., the Jurgens Farm property and the associated water rights) including all access, easements, rights, and appurtenances associated therewith. This security is in compliance with the CWCB Financial Policy #5 (Collateral).

cc: Theodore Buderus, President, Lower Latham Reservoir Company
Jennifer Mele, Colorado Attorney General's Office

Attachments: Water Project Loan Program – Project Data Sheet

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Jurgens Reservoir Construction Project

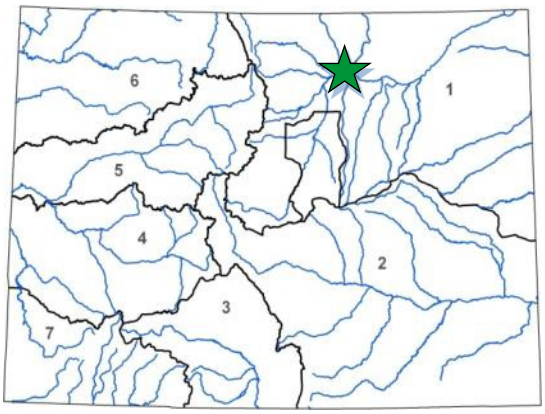
Lower Latham Reservoir Company

May 2025 Board Meeting

LOAN DETAILS	
Project Cost:	$19,967,000
CWCB Loan (with 1% Service Fee):	$9,999,000
Loan Term and Interest Rate:	30 Yrs @ 2.20%
Funding Source:	Severance Tax Perpetual Base Fund

BORROWER TYPE		
Agriculture	*Municipal*	*Commercial*
99%	0% Low - 1% Mid - 0% High	0%

PROJECT DETAILS	
Project Type:	New Reservoir
Average Annual Delivery:	40,192 AF



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

The Lower Latham Reservoir Company (Company) is a mutual irrigation company formed in 1898. It operates jointly with the Lower Latham Ditch Company to provide irrigation water to approximately 11,000 acres of agriculture in Weld County. The Company has 39 shareholders, consisting of agricultural entities and one municipality, and it has the authority to manage water deliveries and shareholder assessments.

The Project will develop a new reservoir with two cells providing a porosity storage capacity of approximately 2,665 AF. The Project will construct a slurry wall to create aquifer storage at the property along with inlet and outlet control facilities. The reservoir will provide additional augmentation water storage for the Company, allowing shareholders to increase well pumping under their plan for augmentation. Construction of the slurry wall is scheduled to begin in the spring of 2025, with ancillary facilities to be completed by the fall of 2027.