



STAFF REPORT

To: Honorable Mayor and Members of Town Council

Thru: David Corliss, Town Manager

From: Mark Marlowe, P.E., Director of Castle Rock Water
Mark Henderson, P.E., Assistant Director Castle Rock Water
Roy Gallea, P.E., Engineering Manager
Lauren Moore, Water Resources Manager
Emily Huth, P.E., Project Manager

Title: **Resolution Approving the Second Amendment to the Construction Contract between the Town of Castle Rock and Garney Companies Inc. for the RWRWTC LAS Conversion Project** [*Ray Waterman Regional Water Treatment Center*] CRW Project Number 250031

Executive Summary

Castle Rock Water (CRW) staff requests approval of a Second Amendment to the Construction Contract (***Exhibit 1***) with Garney Companies (Garney) to complete construction of liquid ammonium sulfate (LAS) chemical conversion projects at the Ray Waterman Regional Water Treatment Center (RWRWTC). This Amendment includes additional infrastructure and labor that is required to maintain continued operation of the treatment plant during the construction work, installation of the red zone pressure reducing valve (PRV) vault, and a few other project related items that have been identified during the first few months of construction. Work Packages 1 and 2 were previously approved for a total contract value of \$3,765,927 and a Town managed contingency of \$393,446 for a total Authorization amount of \$4,069,373. This Second Amendment will add \$1,041,858 to the contract value for a total of \$4,717,785. The Town managed contingency is not being utilized in this request, but additional contingency is not being requested. This will make the total requested Authorization Amount for this contract to be \$5,111,231.

History of Past Town Council, Boards & Commissions, or Other Discussions

Castle Rock Water staff presented this item to the Castle Rock Water Commission at their meeting held on February 25, 2026, and the Castle Rock Water Commission voted unanimously, 5 to 0 to recommend Town Council approval of the Resolution as presented.

CRW Staff presented Work Package 2 to the CRW Water Commission on July 23, 2025. Castle Rock Water Commission voted unanimously 6 to 0 to recommend award of the resolution as presented. Work Package 2 was approved by Town Council on August 19, 2025.

CRW Staff presented Work Package 1 to the CRW Water Commission on June 25, 2025, The Commission voted unanimously, 7 to 0 to recommend Council approval of the resolution as presented. Work Package 1 was approved by Town Council on July 1, 2025.

Discussion

This project takes place at the Ray Waterman Regional Water Treatment Center (RWRWTC). The work includes conversion of the existing anhydrous ammonia chemical system to a liquid ammonium sulfate (LAS) chemical system to improve safety and align with chemicals being used at other facilities in the system. The location of the conversion from free chlorine to chloramines will be modified in the facility to improve operational flexibility and allow the Town to receive Water Infrastructure Supply Efficiency (WISE) project flows even when RWRWTC is taken offline. Additionally, supervisory control and data acquisition (SCADA) components that are fed from the chemical building at the facility are being upgraded to align with the Towns SCADA Upgrades Master Planning (This scope of work was originally included in the SCADA Phase V project).

The flowrates CRW receives from WISE are determined by Aurora Water and CRW must take the water or pay a fee for not receiving it (known as WISE take-or-pay). Also, CRW is receiving higher WISE flows during the 2025/2026 low demand season (i.e. winter months), which is a trend that is expected to continue in future years. Additionally, CRW is now receiving all of Dominion's WISE and Aurora water supplies through this connection to be wheeled to Dominion. In the future, CRW will also have additional imported supplies coming into our system at RWRWTC. CRW staff have identified the RWRWTC LAS Conversion project as an emergency project to complete as efficiently as possible during the 2025/2026 low demand season to minimize the take-or-pay fees associated with not being able to receive WISE water when RWRWTC must be taken offline – whether for expected routine maintenance, planned construction projects, or unexpected/emergency repairs.

Garney's original construction schedule was prepared with efficiency in mind, and included a required shutdown of approximately five months to complete work on two critical areas that could not be operated while the plant was in operation: a new chemical injection vault installed on the existing treatment plant including discharge piping in the yard, and the ammonia room inside the chemical building. When Garney was mobilizing to the project site in early November to begin construction, CRW determined it was going to be necessary to perform system wide water quality maintenance in the form of a temporary chlorine conversion at the same time as the planned construction at RWRWTC. With this development, RWRWTC would no longer be able to be taken offline for 5 continuous months.

Garney quickly re-phased their construction schedule and worked with the design engineer (Burns & McDonnell) to come up with a temporary piping solution to allow for RWRWTC to remain in operation while construction of the new chemical injection vault could be completed. Since the Town will be providing free chlorine water rather than chloraminated water during the temporary chlorine conversion, Garney is able to proceed with the LAS conversion portion of the project while the plant is operating over the next several months. It was also determined necessary to add the Red Zone PRV Vault construction back into the scope of the project (this was originally removed due to cost concerns) to provide CRW with additional redundancy to move treated water throughout the distribution system even when RWRWTC is offline. Garney is able to maintain the same project completion date of the LAS conversion portion of the project (early May), even with the addition of the temporary bypass piping. It was critical to maintain a plant start-up date in early May to have the production capabilities from the facility ready for the high demand season. There is an overall contract extension of one month due to the red zone PRV vault having some long lead equipment – but this portion of the project can be completed while RWRWTC is operational and is not required for high demand use.

A summary of the various components in this Amendment is included below, as well as an overview of the cost, Change Order Request (COR) number and Request For Information (RFI) number associated with each item. Additional information is included in the back-up material presented in the Amendment 2 Contract. The components have been included in three categories: (1) addition of red zone PRV vault; (2) additional infrastructure and labor required to re-phase the construction of the project; and (3) other miscellaneous items that have been identified during the first few months of construction.

1. Red Zone PRV Vault

- COR101 – Red Zone PRV Vault – a new vault to construct an additional connection between the red and green zones is being installed. This connection improves redundancy and resiliency in the Town’s water distribution system by allowing for the movement of water between zones when RWRWTC is offline.

2. Keeping the Plant Operational

- COR102 – Bypass Piping – cost to install and remove 12-inch bypass piping for the red and green zone distribution piping downstream of the high service pump station. This piping allows the facility to remain in operation while construction of the new chemical injection vault is underway.
- COR103 – LSI Phased Construction Approach – this cost reflects additional equipment (conduits, etc.), programming/integration hours, and additional labor for Logical Systems, LLC to complete their work. The additional work is due to the facility needing to remain in operation throughout construction, resulting in fewer components being able to be reused and modifications to the planned integration, commissioning, and construction schedule.
- COR104 – Reroute Plumbing Lines – existing water lines in the garage/chemical building to be rerouted to account for a new control cabinet location to align with code requirements (cannot route water lines over electrical panels). Control

cabinet location was modified to keep the facility operational throughout construction.

- COR105 – Additional Month of GC’s (General Conditions) – overall construction schedule needed to be adjusted / phased differently to keep treatment plant operational throughout construction and to account for addition of red zone PRV vault. RWRWTC start up schedule will still be held to the original project schedule, but the vault installation will extend the schedule by a month (treatment plant can be operating while the red zone PRV vault is installed).
3. Miscellaneous Items
- COR106 – Davit Crane – change in cost to provide a Davit Crane model to match CRW standards.
 - COR107 – Damp proofing – damp proofing is being added to the exterior of the new chemical injection vault. Damp proofing protects the vault structure from ground water exposure which can help lengthen the life of the structure.
 - COR108 – Fire Caulking – the contract originally called out for two new penetrations in the existing chemical storage room walls for new chemical lines to be fire rated. The need for additional conduits has resulted in additional wall penetrations. Additionally, it was observed that there are 10 existing penetrations that are not currently fire rated. This cost includes work required to make all penetrations in the chemical building fire rated.
 - COR109 – Eye wash station – Scope to add an emergency eye wash station to the existing eastern chlorine chemical storage room.
 - COR110 – Replace Existing Hatches – replacement of three existing access hatches installed at the facility – two on the equalization basins and one on an underground backwash waste basin. Hatches are being replaced in kind.

Item	Description	Reference	Cost
COR101	Red Zone PRV Vault	RFI 007	\$521,253
COR102	Temporary Bypass Piping	RFI 014	\$246,110
COR103	LSI Shutdown Impacts	RFI 006	\$84,642
COR104	Rerouting Plumbing	RFI 006	\$9,894
COR105	Additional Month of GCs		\$93,797
COR106	Davit Crane	RFI 001	\$5,462
COR107	Dampproofing	RFI 013	\$5,409
COR108	Fire Caulking	RFI 010	\$13,053
COR109	Eye Wash Station	RFI 011	\$11,118
COR110	Replace Existing Hatches	RFI 012	\$51,120
		Total	\$1,041,858

Budget Impact

Funding to complete construction of the entire RWRWTC LAS Conversion project, including construction engineering services, is available in the approved 2025 budget. Project funds from 2025 will be brought into 2026 as a carryforward for this purpose as the project is still in progress. Funding will be provided from the accounts listed below. 2026 Budget Amendment #1 will include \$730,000 to the Chloramine & WISE

Modifications at RWRWTC project fund, Account Number 211-4375-443.77-72 and \$315,000 to SCADA System Improvements, Account Number 210-4275-442.75-41.

Project	Account Number	2026 Budget	Budget Amendment	2026 Revised Budget
Chloramine & WISE Modifications at RWWTC	211-4375-443.77-72	\$3,100,000	\$730,000	\$3,830,000
SCADA System Improvements	210-4275-442.75-41	\$1,300,000	\$315,000	\$1,615,000
Total		\$4,400,000	\$1,045,000	\$5,445,000

A summary of Garney's Contract Amount is shown below.

Contract	Contract Amount	Town Managed Contingency (10%)	Authorization Amount
Previously Approved			
Work Package 1 – Construction Contract	\$1,199,662	\$119,966	\$1,319,628
First Amendment – Work Package 2	\$2,476,265	\$273,480	\$2,750,105
Previously approved Total	\$3,675,927	\$393,446	\$4,069,733
Under Consideration			
Second Amendment	\$1,041,858	\$0	\$1,041,858
Total Construction Contract Value	\$4,717,785		\$5,111,231

The total authorization amount for the Construction and Engineering scope for the RWRWTC LAS Conversion project is shown below.

Contract	Status	Authorization Amount
Construction Contract Total (Garney)	Under Consideration	\$5,111,231
Construction Engineering Services (BMcD)	Under Consideration	\$298,096
Total		\$5,409,327

Proposed Motion

"I move to approve the Resolution as introduced by title."

Alternative Motions

*“I move to approve the resolution as introduced by title, with the following conditions:
(list conditions).”*

*“I move to continue this item to the Town Council meeting on _____ date to allow
additional time to (list information needed).”*

Attachments

Attachment A:	Resolution
Exhibit 1:	Construction Agreement
Attachment B:	Location Map