



Castle Rock Water Commission Agenda - Final-Amended

David Hammelman, Chair
Tony Rathbun, Vice Chair
Angie Brown
Brian Gaddie
Ole Gjerde
KiKi Miller
Melanie Penoyar-Perez

Wednesday, January 22, 2025

6:00 PM

Castle Rock Water
175 Kellogg Ct., Bldg. 183
Castle Rock, CO 80109

This meeting is open to the public. Three or more Council members may also attend this meeting, during which the items listed herein will be discussed. If you are unable to access any portion of these materials due to a disability as defined under Colorado House Bill 21-1110, please call us at 303-663-4440, email the Town’s accessibility team at accessibility@CRgov.com or submit an accommodation request form at CRgov.com/A11yRequest.

6:00 pm CALL TO ORDER / ROLL CALL

COUNCIL UPDATE

COMMISSION COMMENTS

DOUGLAS COUNTY WATER COMMISSION

ADMINISTRATIVE BUSINESS

1. [WC 2025-001](#) Approval of the December 11, 2024 Meeting Minutes

Attachments: [Attachment A: DRAFT December 11, 2024 Mtg Minutes](#)

ACTION ITEMS (HIGH PRIORITY / TIME CRITICAL)

2. [WC 2025-002](#) Resolution Approving an Equipment and Services Acquisition Agreement between the Town of Castle Rock and Burns & McDonnell Engineering for Phase V of the SCADA Master Plan Design Project [Entire CRW service area] DRAFT

3. [WC 2025-003](#) Resolution Approving the Adoption of the 2025-2029 Supervisory Control and Data Acquisition (SCADA) Master Plan [Serves entire Castle Rock Water Service DRAFT

4. [WC 2025-007](#) Discussion/Direction related to item #3: Addition of Two New SCADA Positions, an Operational Technology Network Engineer and an Operational Technology Systems Administrator

Attachments: [Attachment A: SCADA OT Positions Vehicle Worksheet](#)
[Attachment B: OT Network Engineer Business Case](#)
[Attachment C: OT System Administrator Business Case](#)

5. [WC 2025-008](#) Discussion/Direction item related to item #3: Castle Rock Water (CRW) Cybersecurity Update [Serves entire Castle Rock Water Service Area]
Town Council Agenda Date: February 18, 2025
6. [WC 2025-004](#) Resolution Waiving formal Written Bidding Requirement on the Basis of sole Source and Approving an Equipment and Services Agreement with Trojan Technologies Corp for the Plum Creek Water Purification Facility ARIA Membrane Filter #3 Module Replacement Project [Serves entire Castle Rock Water Service Area with project occurring at Plum Creek Water Purification Facility, 1929 Liggett Road]
Town Council Agenda Date: February 18, 2025

Attachments: [Exhibit 1: Agreement](#)
 [Attachment B: Sole Source](#)

DIRECTOR FOLLOW-UP AND INFORMATIONAL / UPDATE ITEMS

7. [WC 2025-005](#) Resolution Approving a Spot Water Lease Agreement between the Town of Castle Rock and Central Colorado Water Conservancy District [Chatfield Reservoir, Douglas County]

Attachments: [Attachment A: Central Water Lease TC Packet](#)

8. [WC 2025-006](#) Discussion/Direction: Request for Two Raw Water System Operator Staff with Excavator and Truck Purchase for Raw Water Operations Team and First Quarter Budget Amendment

Attachments: [Attachment A: Raw Water system Operator Business Case](#)
 [Attachment B: Additional Asset - Ford F250](#)
 [Attachment C: Additional Asset - CAT 308](#)

9. [WC 2025-009](#) Resolution Approving a Second Amendment to the 2024 On-Call Well Maintenance and Repair Services Contract with Applied Ingenuity PM, LLC for Emergency Deep Well Repairs on an As Needed Basis

Attachments: [Attachment A: Town Council Packet](#)

10. [WC 2025-010](#) Discussion/Direction: Fifth Street Water and Sewer Improvement Project [Sanitary and Water Service on Fifth Street near Valley Drive]

Attachments: [Attachment A: Town Council Packet](#)

11. [WC 2025-011](#) 2024 Financial Performance and the 2025 Rates & Fees Calendar
12. [WC 2025-012](#) 2024 Castle Rock Year In Review
13. [WC 2025-013](#) Upcoming Town Council Items

COMMISSIONER MEETING COMMENTS



Town of Castle Rock

Agenda Memorandum

Agenda Date: 1/22/2025

Item #: 1. **File #:** WC 2025-001

To: Members of the Castle Rock Water Commission

From: Mark Marlowe, P.E., Director of Castle Rock Water

**Approval of the December 11, 2024 Meeting Minutes
Town Council Agenda Date:** NA

Executive Summary

Attached are the meeting minutes for the December 11, 2024 Water Commission meeting.

Proposed Motion

"I move to approve the Minutes as presented"

Attachments

Attachment A: December 11, 2024 Meeting Minutes

**Water Commission Mtg.
December 11, 2024**

Present: Commissioners David Hammelman, Brian Gaddie, Melanie Penoyar-Perez, Angie Brown, Tony Rathbun, Ole Gjerde and Kiki Miller

Absent:

Guest: Becca Schnorr

Staff: Mark Marlowe, Nichol Bussey, Paul Rementer, Roy Gallea, David Van Dellen, Hannah Branning, Erin Evans, Scott Tait and MaryJo Reese

Start: 6:00 pm

End: 8:45 pm

Council Report

Time was allowed for Mr. Marlowe to share a council update.

Introduction of the New Water Commission Member

Commissioner Comments

Time was allowed for Commissioner Comments.

Douglas County Water Commission Meeting Update

Mr. Marlowe shared an update on the Douglas County Water Commission meeting.

Pine Canyon Update

Mr. Marlowe shared an update on the Pine Canyon development.

Approval of the October 30, 2024 Meeting Minutes

I move to approve the Minutes as presented.

It was moved by Melanie Penoyar-Perez and seconded by Brian Gaddie to approve the October 30, 2024 meeting minutes as presented. The motion passed (5-0-2). David Hammelman and Ole Gjerde abstained.

Resolution Approving the Progressive Design-Build Agreement with S.J. Louis Construction, Inc. for the Sedalia Lift Station and Force Main to Plum Creek Water Reclamation Authority Project [Located in Sedalia, CO]

Mr. Tait shared that this project is to design and build the main wastewater conveyance system for Sedalia and the surrounding area. The project will be accomplished in two phases and is funded by the American Rescue Plan Act (ARPA) through Douglas County.

Phase 1 of the project is to complete 60% design of the wastewater infrastructure from Sedalia to the Plum Creek Water Reclamation Authority.

S. J. Louis Construction, Inc. & Garver Engineering were selected as the Design-Build team. CRW and Douglas County both approved the vendors. The total cost of the project will be \$14M, CRW will receive a 1% Project Management fee for the project. Phase 1 should be completed in July 2025.

I move to recommend to Town Council approval of the Resolution as presented.

Melanie Penoyar-Perez moved to approve the Resolution as presented, Angie Brown seconded the motion. Motion passed unanimously (7-0).

Resolution Approving an Amendment to the Rueter-Hess Drought Water Supply Pilot Plan Intergovernmental Agreement (IGA) between the Town of Castle Rock Water Enterprise and Denver Water, Parker Water and Sanitation District, and East Cherry Creek Valley Water and Sanitation District [Located in northwest and northeast Douglas County]

Mr. Marlowe explained that CRW entered into an agreement with Denver Water, Parker Water & Sanitation District (PWSD), and East Cherry Creek Valley Water & Sanitation District (ECCV) four years ago, and this item is to renew that agreement for an additional four years.

The purpose of this partnership allows CRW to move water from Chatfield Reservoir to Reuter-Hess Reservoir without any infrastructure. How it works is Denver Water transfers “Pilot Water” into the WISE System. Pilot Water is then pumped through WISE infrastructure to PWSD’s Rueter-Hess Water Purification Facility (RHWPF) where it combines with other water and enters PWSD’s potable water distribution system. When PWSD uses the Pilot Water in the manner described above, PWSD has a reduced need to withdraw water supplies stored in RHR. Therefore, PWSD will book over water stored in a PWSD RHR storage account into a new PWSD subaccount titled “Pilot Plan Storage Account.”

CRW and Denver coordinated a swap of 390 acre-foot (AF) of water in 2024. This block of water was “moved” from Castle Rock’s Chatfield Reservoir storage account to a Denver Water Chatfield Reservoir storage account. At the same time Denver Water “moved” 390 AF of RHR Pilot Plan Storage water to the CRW RHR storage account.

The benefit of this agreement to CRW is that it gives an opportunity to add additional supplies into RHR, where through other agreements with PWSD, we can treat and deliver additional potable water to our customers. PWSD will realize higher water levels in RHR and Denver Water will be able to investigate potential future options for storing water in RHR. The pilot project will also use some of ECCV’s pumping and piping infrastructure to move water to PWSD’s system, and because the primary benefit is for CRW, the Town will pay energy recovery costs and administrative fees to ECCV during the pilot project. In 2024, CRW paid \$15,581 to ECCV.

I move to recommend to Town Council approval of the Resolution as presented.

Angie Brown moved to approve the Resolution as presented, Ole Gjerde seconded the motion. Motion passed unanimously (7-0).

An Ordinance Amending Title 15.36 of the Castle Rock Municipal Code Adopting by Reference as Primary Code the Town of Castle Rock, Colorado Storm Drainage Design and Technical Criteria Manual (First Reading) *Castle Rock Boundary*

Mr. Van Dellen shared that this item is to request changes to the Storm Drainage Design and Technical Criteria (Drainage Manual). The recommended changes are primarily in response to issues that were identified after the large storm event June 9, 2024.

The main changes to the manual are:

- Ensuring adequate street capacity in large storm events
- Providing for additional inlets in residential subdivisions to address over icing of residential roads and reduce flow depths in a smaller storm event
- Ensuring designated emergency over flow paths for ponds and inlets

I move to recommend to Town Council approval of the Ordinance as presented.

Brian Gaddie moved to approve the Resolution as presented, Angie Brown seconded the motion. Motion passed unanimously (7-0).

Commissioner David Hammelman left the meeting.

An Ordinance Approving Changes to Municipal Code, 13.12.070, Emergency regulation of water *[Entire Castle Rock Service Area]*

Ms. Bussey explained that the purpose of this item is to update the drought rates, in times of emergencies. This is part of the updates for the 2025 Drought Management Plan, which was last updated in 2018.

The largest change to the plan is the implementation of a reduction of residential water budget levels and an increase in the Tier 3 (excess) and water surcharge rates during various drought stages.

The chart below shows the changes and the affect CRW would see:

Drought Stage	Drought Rates in Effect	Conservation from Price (% total use)	Conservation Target (% total use)	Key Restrictions	Potential Additional Revenue
Advisory	N	N/A	10%	Voluntary	N/A
Watch	Y	3.19%	25%	2x per week outdoor water	\$2.8 Million
Warning	Y	4.86%	40%	1x per week outdoor water	\$3.2 Million
Emergency	Y	10.29%	50%	Outdoor water banned	\$5 Million
Critical/Crisis	Y	13.40%	60%	Outdoor water banned + indoor restrictions	\$5 Million

I move to recommend to Town Council approval of the Ordinance as presented.

Angie Brown moved to approve the Resolution as presented, Ole Gjerde seconded the motion. Motion passed unanimously (6-0).

Resolution Approving the 2025 Drought Management Plan [Entire Castle Rock Service Area]

Ms. Bussey shared that this item is to update the Drought Management Plan. The previous plan was approved in 2018. The plan is intended to be a guide to facilitate water use decision-making if supply or water production shortages present themselves.

Some of the key items of the plan are:

- Ongoing monitoring of drought indicators;
- Development of new water supplies (this includes WISE, the development of infrastructure to fully utilize our return flows in Plum Creek, and the Box Elder project);
- Cooperative water sharing agreements with neighboring communities;
- Operation and maintenance activities that improve water efficiency;
- Conservation measures specified in the Water Efficiency Master Plan (WEMP);
- Implementation of a reduction of residential water budget levels and an increase in the Tier 3 (excess) and water surcharge rates during various drought stages.

I move to recommend to Town Council approval of the Resolution as presented.

Melanie Penoyar-Perez moved to approve the Resolution as presented, Brian Gaddie seconded the motion. Motion passed unanimously (6-0).

2024 Sanitary Survey Results

Ms. Branning explained that every three years CDPHE is required to conduct a Sanitary Survey of the CRW system. Ms. Branning shared the results from that Survey and Mr. Marlowe explained what CRW will be doing in the future, based on those results.

Follow-up on Rates and Fees Study RFP

Mr. Rementer and Ms. Bussey shared an update on 2024 end of year numbers and a follow-up on the RFP for the 2025 Rates and Fees study.

Update on Tallgrass Project

Mr. Tait shared an update on the Tallgrass project.

Upcoming Town Council Items

This is a standing item that will be used to share information about projects that are being worked on at the time of the meeting but that staff doesn't have information ready yet.

Mr. Marlowe shared that staff is currently working on a project to get utilities placed along 5th St. prior to Public Works redoing the street. More information will be shared as it comes available.

Commissioner Meeting Comments

Time was allowed for Commissioner Comments.



Town of Castle Rock

Agenda Memorandum

Agenda Date: 1/22/2025

Item #: 2. **File #:** WC 2025-002

To: Members of the Castle Rock Water Commission

From: Mark Marlowe, P.E., Director of Castle Rock Water
 Shawn Griffith, Assistant director of Operations
 Nicolas Van Kooten, P.E., SCADA Superintendent

Resolution Approving an Equipment and Services Acquisition Agreement between the Town of Castle Rock and Burns & McDonnell Engineering for Phase V of the SCADA Master Plan Design Project [Entire Castle Rock Water Service area] *DRAFT*
Town Council Agenda Date: February 18, 2024

Executive Summary

Castle Rock Water (CRW) staff requests Town Manager approval for a services agreement with Burns & McDonnell Engineering Company, Inc. for assistance in creating the SCADA MP Phase V Ray Waterman and Remotes Sites System Design and Bid Phase Services project, for the not to exceed amount of \$437,303, (**see Attachment A**), with a 10% Town managed contingency of \$43,730, for a total authorization request of \$481,033, (**see Attachment A**).

The table below shows the total approved expenditures to date on the SCADA MP by vendor:

Project	PO	Vendor	Year	Amount
OWL Data Diode	2171	Rexel	2021	\$46,856
SCADA Backhaul & Radio Network Implementation	2252	Techneaux	2022	\$1,801,157
PLC Hardware for OT Upgrades	2305	Rexel	2021	\$91,066
Starwind Software for OT Server Upgrades	n/a	Starwind	2021	\$14,000
PCWPF PLC Replacements	n/a	Rexel	2021	\$19,573
Founders WTP & Remote Sites OT Equipment Upgrades	2352	Rexel	2022	\$32,905
Founders WTP & Remote Sites PLC Upgrades	2369	Rexel	2022	\$51,092
Founders WTP & Remote Sites Display Upgrades	2388	Rexel	2022	\$72,912
Dell SCADA Clients for PlantPAX	n/a	One Technology	2023	\$21,192
Founders WTP & Remotes Sites Upgrade	2474	Techneaux	2023	\$1,954,052

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Founders Remote Tanks and Pump Station PLC Equipment	2595	Rexel	2023	\$78,568
Meadows WTP Remote Sites PLC Upgrade	2579	Rexel	2023	\$77,737
Founders WTP & Remote Sites PLC Upgrades	2602	Rexel	2023	\$61,838
OWL Data Diode Package	2666	Rexel	2023	\$136,523
Miller & Remotes Sites Design Project	2683	Techneaux	2023	\$180,000
P&ID Project	2737	Tetra Tech	2023	\$61,032
IP Address Update Project	2765	Tetra Tech	2023	\$29,338
SCADA Master Plan Phase IV	2787	Tetra Tech	2024	\$90,744
Screen Development	2797	LSI	2024	\$302,800
Miller WTP PLC Equipment	2805	Rexel	2024	\$124,750
O&M Building PLC Equipment	2833	Rexel	2024	\$46,327
OWL Data Diode Renewal & Historian	2843	Rexel	2024	\$31,704
Remote Sites Screen Development	2854	LSI	2024	\$102,630
RFP for SCADA Master Plan Phase IV	2860	Burns & McDonnell	2024	\$79,236
Founders Emergency Programming & Commissioning	2907	Techneaux	2024	\$72,450
SCADA Master Plan Phase IV Oversight	2937	Burns & McDonnell	2024	\$117,241
SCADA All Hazards Assessment	2979	Tetra Tech	2025	\$38,765
Subtotal: Completed Projects to Date				\$5,736,488
Phase IV- Miller WTP & Remote Sites Upgrade	pending	LSI	2024	\$5,689,632
Total Expenses				\$11,426,119

The SCADA system is crucial to the security and efficient operation of CRW's water and wastewater facilities. In 2019, the SCADA Master Plan (MP) was completed to assess the system and develop a plan for its upgrade, maintenance, and operation. The Town Council approved the SCADA MP on December 17, 2019, which identified approximately \$12 million in expenditures over seven years.

In late 2023, the SCADA MP implementation cost was reviewed and updated, revealing a 26% increase in equipment and implementation costs since 2019. Additionally, the update included newly identified work not previously covered in the 2019 scope. As a result, the revised estimated cost for full implementation of the plan over the next seven years is approximately \$15 million.

Notification and Outreach Efforts

This project is security-sensitive and no public outreach is planned. Work will be performed at various CRW water treatment facilities and will be done out of the public eye.

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

Castle Rock Water Commission was provided with a presentation on the SCADA Master Plan on December 11, 2019, and voted to recommend Council approval. Town Council adopted the 2019 SCADA Master Plan Update on December 17, 2019.

Discussion

An engineering consultant is required to create a comprehensive SCADA system design for Phase V of the MP, which includes upgrades to the Ray Waterman Regional Water Treatment Facility (Ray Waterman) and 17 remote sites. The scope of work for this project encompasses complete SCADA system and electrical drawings, detailed scopes of work (SOW), equipment and Input/Output (I/O) lists, P&ID drawings, network diagrams, and site-specific control narratives. These deliverables are essential to ensure an accurate project estimate and proper implementation details. Additionally, the project will include bid-phase services.

Staff submitted a Request for Proposal (RFP) to three qualified consultants, in December of 2024, as shown in the chart below:

Consultant	Proposal Cost
Burns & McDonnell Engineering	\$437,303
Jacobs	Declined to Bid
Tetra Tech	\$588,051

Staff recommends selecting Burns & McDonnell Engineering Company, Inc. (Burns & McDonnell) as the design contractor for the MP Phase V project. Burns & McDonnell is a preferred contractor and has submitted a comprehensive quote detailing all the deliverables requested in the original Request for Proposal (RFP). The items outlined in their proposal are critical to the success and efficient execution of the MP Phase V project.

Burns & McDonnell has extensive experience providing key consulting services for various segments of the SCADA MP and has participated in multiple SCADA MP RFPs. Their team has been consistently relied upon for their expertise on numerous related projects. Additionally, their principal engineers and technical staff will be pivotal in the Phase V design.

Given the security-sensitive nature of the Cybersecurity portion of the MP, Burns & McDonnell has signed a non-disclosure agreement with the Town to ensure confidentiality and protect sensitive information.

Burns & McDonnell will conduct site investigations at each of the facilities listed below, in collaboration with staff. Based on these investigations, a scope of work (SOW) will be developed and summarized for bid inclusion, detailing the identified work at each facility:

- Ray Waterman Treatment Plant
- Well Site Castle Oaks 8
- Well Site Castle Oaks 7
- Well Site Castle Oaks 6

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- Castle Oaks Lift Station
- Well Site Woodlands 1
- Well Site Canyons South
- Reservoir 3
- Black Pine PRV
- Pinery Flume
- Castle Oaks Valve Vault
- Well Site Heckendorf
- CR1 Diversion
- Well Site Central Well Field 1
- Well Site Central Well Field 2
- Well Site CR 11, 12, 13
- Well Site 204
- Well Site 176

This project will also include the following deliverables:

- Site investigations and data gathering
- Progress meetings and project management
- Technical Memorandum summarizing the SOW for each site
- SCADA programmable logical control (PLC) cabinet design requirements and drawings
- Individual Control Narratives for each site
- New P&ID drawings for each site, aligned with CRW standards
- Electrical site plans
- Instrumentation lists
- Input/Output (I/O) lists
- Electrical lists
- Network diagrams
- Design and project scope documents
- Bid Phase services

Burns & McDonnell has submitted a target completion date of July 21, 2025. Upon completion of the design phase, they will assist with bid-phase activities, including vendor selection and contractor award-related tasks.

Budget Impact

Funds have been budgeted each year, through 2026 for the Master Plan Implementation. Funds for this project will be taken from the Water CIP SCADA System Improvements line items as follows:

Fund Name	Account Number	Cost	2025 Account Balance
SCADA System Improvements	210-4275-442.75-41	\$481,033	\$2,311,916

Staff Recommendation

Item #: 2. File #: WC 2025-002

Staff recommends a services agreement with Burns & McDonnell to create the SCADA MP Phase V Ray Waterman and Remotes Sites System Design and Bid Phase Services project, for the not to exceed amount of \$437,303, with a 10% Town managed contingency of \$43,730, for a total authorization request of \$481,033

Proposed Motion

"I move to recommend to Town Council approval of the Resolution as presented"

Attachments

Attachment A: Resolution (Not Attached)
Exhibit 1: Contract (Not Attached)



Town of Castle Rock

Agenda Memorandum

Agenda Date: 1/22/2025

Item #: 3. **File #:** WC 2025-003

To: Members of the Castle Rock Water Commission

From: Mark Marlowe, P.E., Director of Castle Rock Water
Shawn Griffith, Assistant Director of Operations
Nicolas Van Kooten, SCADA Superintendent

Resolution to Adopt the 2025-2029 Supervisory Control and Data Acquisition (SCADA) Master Plan [Serves the entire Castle Rock Water Service Area] *DRAFT*
Town Council Agenda Date: February 18, 2025

Executive Summary

The Castle Rock Water (CRW) Supervisory Control and Data Acquisition (SCADA) Master Plan is the starting point for the development of the CRW SCADA system functional requirements. This Master Plan (MP) includes cybersecurity, Operational Technology (OT), telemetry, backhaul, programmable logic controllers (PLCs), and human-machine interface (HMI). During the planning effort, investigations are performed to determine all desired functions, features, and requirements for each subsystem (PLC, HMI, OT, cybersecurity, telemetry, backhaul).

Master planning provides a road map to address deficiencies within the existing SCADA system, considers new technologies, and documents present and future system requirements. This high-level path was fully initiated with the onboarding of Jacobs Engineering in 2019. They were contracted to conduct a complete evaluation of the current SCADA system. They interviewed CRW staff in an attempt to address all the needs of the stakeholders, including engineering, operations, maintenance, safety, security, management, and the residents of Castle Rock.

Notification and Outreach Efforts

This project is a security-sensitive project and no outreach is anticipated.

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

Castle Rock Water Commission was provided with a presentation on the SCADA Master Plan on December 11, 2019, and voted to recommend Council approval. Town Council adopted the 2019 SCADA Master Plan Update on December 17, 2019. The 2019-2024 SCADA MP was approved by the Town Council in 2021.

Discussion

The 2025-2029 SCADA MP provides an updated and modernized version of the previous SCADA MP. On January 18, 2024, CRW received Town Manager approval for Tetra Tech to update the MP for 2025-2029. This update considers several factors that warrant additional clarification and review. It identifies the status of the recommended projects from the previous MPs and recommends new projects to optimize CRW's performance and resiliency.

The 2019-2024 MP identified infrastructure elements including PLCs, HMI, communication backhaul, and telemetry, that were outdated due to the changing landscape of cybersecurity regulations and evolving technology. As a result, technology specifications were updated again in the 2025-2029 MP version.

The new MP recommends nine specific goals, to be completed within the next four years:

1. Outstanding Project Closure
2. Cybersecurity
3. SCADA Standardization
4. Complete Facility List
5. Documentation and Procedure Standardization
6. Physical Security
7. Staffing
8. Data Study
9. Computerized Maintenance Management System (CMMS)

Staff has begun working on the most urgent goals of Cybersecurity and Staffing. The Cybersecurity Projects Addendum review serves multiple functions, the foremost of which is the All-Hazards Assessment, assigned to Tetra Tech in January of 2025. This will examine CRW's OT vulnerabilities for America's Water Infrastructure Act (AWIA) compliance due March 31, 2025.

The MP update also addressed the need for specific OT specialty staff members. The new MP addresses staffing in Section 5.1 and recommends the need for seven OT Support Positions:

1. PLC Programming Engineer
2. HMI Systems Engineer
3. Field Instrument Technicians
4. Network Engineer
5. Systems Administrator Engineer/Server Specialist
6. Cybersecurity Engineer
7. Chief Information Security Officer (CISO)

These OT Support positions are unique to the Water Utility SCADA Industry and are not to be confused with Information Technology positions. SCADA controls are subject to strict local and national regulations requiring staff with advanced water and wastewater system knowledge. CRW currently employs staff with some of the above skills, but staffing levels are not adequate to ensure that operational and cybersecurity needs are met.

The 2025-2029 SCADA MP identified in Section 5.1, the need to hire an Operational Technology (OT)

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“Network Engineer”, as the individual who maintains the network and maintains CRW’s SCADA/OT servers as well as an OT “Systems Administrator”. These two positions will ensure that cybersecurity and staffing levels are met.

All MPs are guidance documents for organizations to follow. CRW is committed to providing safe and reliable water to Town residents. To do so, a safe, reliable, and secure SCADA system must be in place. The SCADA MP 2025-2029 provides staff a compass to use when expanding, upgrading, and protecting CRW’s SCADA system.

Staff Recommendation

Staff recommends the adoption of the 2025-2029 SCADA Master Plan.

Proposed Motion

“I move to recommend to Town Council approval of the Resolution as presented”



Town of Castle Rock

Agenda Memorandum

Agenda Date: 1/22/2025

Item #: 4. **File #:** WC 2025-007

To: Members of the Castle Rock Water Commission

From: Mark Marlowe, P.E., Director of Castle Rock Water
Shawn Griffith, Assistant Director of Operations
Nic Van Kooten, SCADA Superintendent

Discussion/Direction related to item #3: Addition of Town New SCADA Positions, an Operational Technology Network Engineer and an Operational Technology Systems Administrator [Entire Castle Rock Service Area]
Town Council Agenda Date: February 18, 2025

Executive Summary

The SCADA Master Plan (MP) was approved by the Town Council on December 17, 2019. The plan was updated in the 2025-2029 SCADA Master Plan in 2024. Additional needed work, not previously identified in the original SCADA MP scope, was included in the updated MP. Revised estimated costs for full implementation were updated to \$15M. This cost may go higher and will be reviewed in the 3rd Quarter of 2025 by an outside firm.

The following program description is supported and described in both the 2020-2024 and 2025-2029 SCADA MPs, finalized and accepted in January 2021 and September 2024, respectively:

“The Castle Rock Water (CRW) Supervisory Control and Data Acquisition (SCADA) Master Plan is the starting point for the development of the CRW SCADA system functional requirements, which for this Master Plan includes cybersecurity, operational technology (OT), telemetry, backhaul, programmable logic controllers (PLCs), and human-machine interface (HMI). During the master planning effort, investigations were performed to determine all desired functions, features, and requirements for each subsystem (PLC, HMI, OT, cybersecurity, telemetry, backhaul). This Master Planning effort provides an opportunity to identify deficiencies within the existing system, consider new technologies, and document present and future system requirements.”

As part of the 2025-2029 SCADA MP, finalized in September 2024, the document identified in Section 5.1, the need to hire an Operational Technology (OT) “Network Engineer”, as the individual who maintains the network and maintains CRW’s SCADA/OT servers as well as an OT “Systems Administrator”.

Discussion

The SCADA Master Plan outlines the need for cybersecurity as a way to protect CRW infrastructure and the Town's water supply. In today's fast-evolving technological landscape, maintaining current tools and architecture is vital. Utilities, particularly in the water and wastewater sectors, are frequent targets for cyber-attacks, often following the patterns established in the power sector. As a result, water utilities are adopting similar protocols and equipment to enhance their cybersecurity defenses. CRW has lacked upper-level staff with the specialty training and education required to oversee physical and cyber security issues.

The OT Network Engineer will be responsible for:

- Implementing and maintaining OT solutions based on proven security architectures, including virtualization, networks, security platforms, and various other OT technologies.
- Participating in the design, documentation, implementation, and maintenance of Industrial Control System (ICS) networks.
- Securing ICS projects and processes, including backup and disaster recovery, following industry best practices, NIST guidelines for ICS security, and Castle Rock Water requirements.
- Installation and configuration of network switches, routers, firewalls, virtualized servers, client workstations, and various cybersecurity platforms and tools.
- Providing support and troubleshooting for network communications, hardware, firmware, and security settings.

The OT Systems Administrator will be responsible for:

- Maintaining CRW's SCADA/OT servers
- Managing the SCADA domain
- Overseeing Active Directory
- Ensuring the functionality and security of domain-linked computers, including client computers, and SCADA service laptops
- Manual updates, due to network isolation, for CRW's servers, ASA switches, and computers, as they cannot receive automatic updates from the internet. The Systems Administrator will manage these manual updates to maintain a robust security posture and protect against potential cyber threats.

The need to provide staff that can utilize current tools and architecture in the fast-paced environment of technology is essential. Cyber hackers have consistently attacked Utilities over the past few years. Power is a primary target and water/wastewater is a very close second. Water utilities have been able to learn from Power utilities and are now implementing many of the same protocols and equipment that Power uses. The design, maintenance, and repair of a protected SCADA system is crucial to the safety of Town facilities and its residents.

Item #: 4. File #: WC 2025-007

For the past five years, CRW has contracted with firms that offer the services of Network Engineers, Systems Administrators, and Cyber Security experts. While this approach has had its successes, particularly in recommending specific devices and providing training on Best Management Practices, it has also revealed consistent drawbacks. The immediate availability of contractors has been a challenge, compounded by their lack of investment in CRW’s unique SCADA environment. While contractors meet their obligations, they often lack familiarity with Town assets, their locations, and their critical importance to the operation of CRW.

To fulfill our vision of robust cybersecurity and operational efficiency, an active, informed, and responsive OT Network Engineer and System Administrator with industry-specific technical knowledge is crucial for effective implementation and management. These staff members would not only address immediate technical needs but also ensure that our systems are safeguarded against evolving threats.

Budget Impact

These two positions will be paid from the SCADA Water, Water Resources, and Wastewater funds through a first-quarter budget amendment, costs shown in the chart below:

Budget Year	2025	2026	2027	2028	2029
Annual Cost for two FTEs	\$341,198	\$356,455	\$372,450	\$389,223	\$406,818

Staff Recommendation

Staff Recommends Approving the request for two new full-time equivalents, the SCADA Network Engineer and the Systems Administrator with a vehicle.

Attachments

- Attachment A: SCADA OT Two Positions-Vehicle Worksheet
- Attachment B: Business Case 2025 OT Network Engineer
- Attachment C: Business Case 2025 OT System Administrator



Business Case Title: SCADA CRW Operational Technology Network Systems Engineer

Date: 11/21/2024

Total Cost: (2025 IT Grade 22 Employee and Benefit)

Submitted By: Shawn Griffith Operations AD

Department/Fund: SCADA – 100% SCADA Water/Waste Water/ Water Resources

Rates/SDF Impact: Base Rate Charges

Request

The purpose of this request is to add a Supervisory Control and Data Acquisition (SCADA) Castle Rock Water Operational Technology Network Systems Engineer (OT Engineer) Full Time Equivalent (FTE) to Castle Rock Water (CRW). This position will be responsible for assisting in the design, implementation, support, and maintenance of technology solutions in the areas of Operational Technology (OT) including industrial security controls, networking (switching, routing, segregation, subnets, redundancy protocols), firewalls and data diodes, servers, virtualization, and related technologies. This position will also assist in the development and implementation of cybersecurity policy, procedures, and regulatory compliance.

This position will perform these functions with minimal direction and will collaborate with various internal stakeholders and external consultants, contractors, and vendors as needed. The quantity of assets to be managed is approximately 415, with an approximate value of \$2,000,000.

Background (Deficiency or Condition that exists):

Castle Rock Water (CRW) has recently completed an in-depth update of its SCADA Master Plan (MP) for 2025-2029. This analysis assessed CRW’s needs for instrumentation and controls, associated hardware and software, and the critical requirement for cybersecurity protocols and staffing.

The SCADA MP identified in Section 5.1 to hire a “Network Engineer”, as the individual who maintains the network and maintains CRW’s SCADA/OT servers. This person will also be responsible for:

- Implementing and maintaining operational technology solutions based on proven security architectures, including virtualization, networks, security platforms, and various other OT technologies.

- Participating in the design, documentation, implementation, and maintenance of Industrial Control System (ICS) networks.
- Securing ICS projects and processes, including backup and disaster recovery, following industry best practices, NIST guidelines for ICS security, and Castle Rock Water requirements.
- Install and configure network switches, routers, firewalls, virtualized servers, client workstations, and various cybersecurity platforms and tools.
- Provide support and troubleshooting for network communications, hardware, firmware, and security settings.

The need to provide current tools and architecture in the fast-paced environment of technology is essential. Cyber hackers have consistently attacked Utilities over the past few years. Power is a primary target and water/wastewater is a very close second. Water utilities have been able to learn from Power utilities and are now implementing many of the same protocols and equipment that Power uses. The design, maintenance, and repair of a protected SCADA system is now a full-time specialty job.

The recommendations below are excerpted from the SCADA MP 2025-2029 5.2 Staffing Gap Analysis Reasoning and Recommendations and the 7.2 Cybersecurity Gap Analysis and Recommendations (**see Attachment A**).

NO	GAP	Reasoning	Recommendation
1	SCADA Division Workload	The SCADA Supervisor and staff do not have the time and resources available to perform needed cybersecurity functions, including oversight/development of systems, policies, and practices, and analytical support for operational security optimization. An additional SCADA staff position is needed to manage both this work and facility security maintenance.	A SCADA OT Engineer would manage network and server security.
2	SCADA Network & Server Experience	Current SCADA staff have very limited experience managing networks and SCADA system servers. The complexity of networks and servers requires dedicated staff.	A dedicated SCADA OT Engineer would be a dedicated Cybersecurity Engineer with the expertise to Implement and maintain cybersecurity procedures for complex SCADA networks and servers. There is a unique distinction between IT and OT network engineers.
3	Cybersecurity Training Program	Cybersecurity knowledge is critical to prevent system risks, threats, and vulnerabilities. These risks and threats change daily. This training program will also be included in SCADA staff career progression documentation.	A dedicated cybersecurity SCADA staff member will develop and implement an ongoing training program specific to the needs of CRW.

Narrative

The benefits of adding new technical team members to the SCADA staff are numerous. One of the biggest benefits, however, is realized in cost savings. Utilizing internal staff to assist with or even complete some capital projects would reduce the cost of the project from a capital funding perspective. As more staff are added, the workload on current SCADA team members will be alleviated, allowing time for SCADA team members to assist with capital projects. Several of the capital projects identified in this SCADA master plan update require CRW SCADA staff participation:

- Data Diode replacement and implementation
- System segregation
- Cybersecurity- policies, equipment, and implementation
- Recommend and install servers and the replacement of end-of-life equipment

Program Description and Benefit to Customers:

The SCADA Master Plan outlines the need for cybersecurity as a way to protect CRW infrastructure and the Town's water supply. The Colorado Department of Public Health and Environment (CDPHE) evaluates and recommends physical security in the Sanitary Surveys, which are conducted every three to four years. When Sanitary Survey security issues are discovered, SCADA is expected to bring CRW into security compliance immediately. CRW has lacked upper-level staff with the specialty training and education required to oversee physical and cyber security issues.

This program description is supported and described in the SCADA MP 2020-2024 and 2025-2029, finalized in January 2021 and September 2024, respectively both were adopted and are shown below:

“The Castle Rock Water (CRW) Supervisory Control and Data Acquisition (SCADA) Master Plan is the starting point for the development of the CRW SCADA system functional requirements, which for this Master Plan includes cybersecurity, operational technology (OT), telemetry, backhaul, programmable logic controllers (PLCs), and human-machine interface (HMI). During the master planning effort, investigations were performed to determine all desired functions, features, and requirements for each subsystem (PLC, HMI, OT, cybersecurity, telemetry, backhaul). This Master Planning effort provides an opportunity to identify deficiencies within the existing system, consider new technologies, and document present and future system requirements.”

It is essential to have high-level oversight with an active, informed, and responsive OT Engineer to fulfill this vision fully. A skilled OT Engineer with technical knowledge in the industry is essential.

Next Best Alternative(s): Is there an alternative that would meet or partially meet the requested objective? Are there any consequences?

To enhance CRW's SCADA System networks and servers, the best alternative is to subcontract oversight to a qualified firm. This would involve having a contract employee on-site dedicated to

monitoring and maintaining the current SCADA system, thereby strengthening our defenses against cyber threats.

For the past five years, CRW has contracted Network Engineers, Systems Administrators, and Cyber Security experts. While this approach has had its successes—particularly in recommending specific devices and providing training on Best Management Practices (BMPs)—it has also revealed consistent drawbacks. The immediate availability of contractors has been a challenge, compounded by their lack of investment in CRW’s unique environment. While contractors meet their obligations, they often lack familiarity with our assets, their locations, and their critical importance.

To fulfill our vision of robust cybersecurity and operational efficiency, an active, informed, and responsive OT Engineer with industry-specific technical knowledge is crucial for effective implementation and management. This individual would not only address immediate technical needs but also ensure that our systems are safeguarded against evolving threats.

In summary, having on-site support from a Full-Time Equivalent (FTE) OT Engineer, complemented by contracts with qualified firms, will significantly enhance CRW’s ability to protect its systems and respond swiftly to challenges.

Approved or Rejected:

Backup Attached:

Attachment A: SCADA Master Plan 2025-2029 Chart 5.2 and 7.2.



Business Case Title: SCADA CRW OT Systems Administrator

Date: 11/21/2024

Total Cost: (2025 IT Grade 20 Employee and Benefit)

Submitted By: Shawn Griffith Operations AD

Department/Fund: SCADA –SCADA 50% Water/ 25% Waste Water/ 25% Water Resources

Rates/SDF Impact: Base Rate Charges

Request

The purpose of this request is to add a Supervisory Control and Data Acquisition (SCADA) Castle Rock Water Operational Technology Systems Administrator (OT Systems Administrator) Full Time Equivalent (FTE) to Castle Rock Water (CRW). This new position will allow for the SCADA team to manage critical servers, and data recovery systems, and provide 2nd level support for complex server and network issues. This position would be responsible for managing and maintaining CRW's virtual environment (VMware) as well as having a significant emphasis on implementing and maintaining an Active Directory for user authentication and security. This systems administrator will also be responsible for SCADA's Backup and Archiving system. The quantity of assets to be managed is approximately 415, with an approximate value of \$2,000,000.

Background (Deficiency or Condition that exists):

Castle Rock Water (CRW) has recently completed an in-depth update of its SCADA Master Plan (MP) for 2025-2029. This analysis assessed CRW's needs for instrumentation and controls, associated hardware and software, and the critical requirement for cybersecurity protocols and staffing.

The SCADA Master Plan (MP) identifies the need to hire a "Systems Administrator" in Section 5.1. This individual will be responsible for maintaining CRW's SCADA/Operational Technology (OT) servers, managing the SCADA domain, overseeing Active Directory, and ensuring the functionality and security of domain-linked computers, including client computers, and SCADA service laptops.

Currently, CRW operates a segregated network with no external connections to the internet or outside servers. This isolation is achieved through a Data Diode, which provides an 'air-gap' style of protection. The Data Diode allows for one-way communication with the Business/IT network, enabling information to exit the SCADA system without permitting external access.

This effective security measure will likely remain in place, albeit with some adjustments and modifications to enhance its functionality.

Due to this network isolation, CRW’s servers, ASA switches, and computers require manual updates, as they cannot receive automatic updates from the internet. The Systems Administrator will manage these manual updates to maintain a robust security posture and protect against potential cyber threats.

In today’s fast-evolving technological landscape, maintaining current tools and architecture is vital. Utilities, particularly in the water and wastewater sectors, are frequent targets for cyber-attacks, often following the patterns established in the power sector. As a result, water utilities are adopting similar protocols and equipment to enhance their cybersecurity defenses.

The design, maintenance, and protection of a SCADA system has evolved into a full-time specialty role. Therefore, the addition of a Systems Administrator is not just beneficial but critical to safeguarding CRW’s operations against emerging cyber threats.

The recommendations below are excerpted from the SCADA MP 2025-2029 5.2 Staffing Gap Analysis Reasoning and Recommendations and the 7.2 Cybersecurity Gap Analysis and Recommendations (**see Attachment A**).

Staffing Gap Analysis Reasoning and Recommendations:

NO	GAP	Reasoning	Recommendation
1	SCADA Division Workload	The SCADA Supervisor and staff do not have the time and resources available to perform needed cybersecurity functions, including oversight/development of systems, policies, and practices, and analytical support for operational security optimization. An additional SCADA staff position is needed to manage both this work and facility security maintenance.	A SCADA OT Systems Administrator would manage the physical SCADA system oversight and equipment and facility maintenance functions.
2	SCADA Network & Server Experience	Current SCADA staff have very limited experience managing networks and SCADA system servers. The complexity of networks and servers requires dedicated staff.	A dedicated OT SCADA Systems Administrator would define clear responsibility guidelines for the SCADA network and servers. There is a unique distinction between IT and OT network engineers.

3	Cybersecurity Program Creation and Management	Federal cybersecurity regulations require a dedicated Chief Information Security Officer (CISO) to oversee both enterprise and ICS cybersecurity to develop, implement, monitor, and maintain cyber policies and procedures.	The SCADA OT Systems Administrator would be appointed Chief Information Security Officer to ensure that a cybersecurity program is created and that all Federal and State guidelines are met.
4	Cybersecurity Training Program	Cybersecurity knowledge is critical to prevent system risks, threats, and vulnerabilities. These risks and threats change daily. This training program will also be included in SCADA staff career progression documentation.	A dedicated cybersecurity SCADA staff member will develop and implement an ongoing training program specific to the needs of CRW.

The SCADA Master Plan 2025-2029 (section 7: SCADA Cybersecurity) also specifies additional areas of concern that would be addressed by the SCADA Systems Administrator:

- SCADA disaster recovery plan
- Demilitarized Zone (DMZ) upgraded firewalls
- Network Monitoring
- Complex password program
- Onsite server backups
- Facility network traffic policies

Narrative

The benefits of adding a new SCADA OT Systems Administrator to the SCADA staff are numerous. One of the biggest benefits, however, is realized in cost savings. Utilizing internal staff to assist with or even complete some capital projects would reduce the cost of the project from a capital funding perspective. As more staff are added, the workload on current SCADA team members will be alleviated, allowing time for SCADA team members to assist with capital projects. Several of the capital projects identified in this SCADA master plan update require CRW SCADA staff participation:

- Field tag update implementation project
- SCADA drawing standardization project
- SCADA specification standardization project

Program Description and Benefit to Customers:

The SCADA Master Plan outlines the need for cybersecurity as a way to protect CRW infrastructure and the Town’s water supply. The Colorado Department of Public Health and Environment (CDPHE) evaluates and recommends physical security in the Sanitary Surveys, which are conducted every three to four years. When Sanitary Survey security issues are discovered, SCADA is expected to bring CRW into security compliance immediately. CRW has lacked upper-level staff with the specialty training and education required to oversee physical and cyber security issues.

This program description is supported and described in the SCADA MP 2020-2024 and 2025-2029, finalized in January 2021 and September 2024, respectively both were adopted and are shown below:

“The Castle Rock Water (CRW) Supervisory Control and Data Acquisition (SCADA) Master Plan is the starting point for the development of the CRW SCADA system functional requirements, which for this Master Plan includes cybersecurity, operational technology (OT), telemetry, backhaul, programmable logic controllers (PLCs), and human-machine interface (HMI). During the master planning effort, investigations were performed to determine all desired functions, features, and requirements for each subsystem (PLC, HMI, OT, cybersecurity, telemetry, backhaul). This Master Planning effort provides an opportunity to identify deficiencies within the existing system, consider new technologies, and document present and future system requirements.”

Next Best Alternative(s): Is there an alternative that would meet or partially meet the requested objective? Are there any consequences?

To enhance CRW’s OT Systems Administration, the best alternative is to subcontract oversight to a qualified firm. This would involve having a contract employee on-site dedicated to monitoring and maintaining the current SCADA system, thereby strengthening our defenses against cyber threats.

For the past five years, CRW has contracted Network Engineers, Systems Administrators, and Cyber Security experts. While this approach has had its successes—particularly in recommending specific devices and providing training on Best Management Practices (BMPs)—it has also revealed consistent drawbacks. The immediate availability of contractors has been a challenge, compounded by their lack of investment in CRW’s unique environment. While contractors meet their obligations, they often lack familiarity with our assets, their locations, and their critical importance.

To fulfill our vision of robust cybersecurity and operational efficiency, high-level oversight is essential. An active, informed, and responsive Systems Administrator with industry-specific technical knowledge is crucial for effective oversight. This individual would not only address immediate technical needs but also ensure that our systems are safeguarded against evolving threats.

In summary, having on-site support from a Full-Time Equivalent (FTE) Systems Administrator, complemented by contracts with qualified firms, will significantly enhance CRW’s ability to protect its systems and respond swiftly to challenges.

Approved or Rejected:

Backup Attached:

Attachment A: SCADA Master Plan 2025-2029 Chart 5.2 and 7.2.



Town of Castle Rock

Agenda Memorandum

Agenda Date: 1/22/2025

Item #: 5. **File #:** WC 2025-008

To: Members of the Castle Rock Water Commission

From: Mark Marlowe, P.E., Director of Castle Rock Water
Shawn Griffith, Assistant director of Operations
Nicolas Van Kooten, SCADA Supervisor

Discussion/Direction item related to item #3: Castle Rock Water (CRW) Cybersecurity Update [*Serves entire Castle Rock Water Service Area*]
Town Council Agenda Date: February 18, 2025

Executive Summary

As part of the 2025-2029 SCADA Master plan update requested by CRW, Tetra Tech's security team provided a proposal titled "Operational Technology Cybersecurity Projects". This document provides guidance and recommendations for improving and enhancing the security of CRW's Operational Technology (OT). The document references the National Institute of Standards and Technology (NIST) Cybersecurity Framework (CSF) and the necessity to have the All Hazards Assessment completed to meet regulatory requirements for the America's Water Infrastructure Act (AWIA) Risk and Resiliency Assessment by March 31, 2025. This project will be integral to the SCADA Master Plan (MP) implementation.

Discussion

The assessment resulted in the following evaluation:

CRW requires a comprehensive, structured program to enhance operational technology (OT) cybersecurity, OT asset management, and operational reliability. The CRW OT Cybersecurity Program intends to mitigate cybersecurity risk by establishing an OT risk management strategy based on the NIST Cybersecurity Framework (CSF) 2.0. Both the EPA Cybersecurity Guidelines and the Cybersecurity and Infrastructure Security Agency Cross-Sector Cybersecurity Performance Goals (CPGs) align with the CSF.

The CSF emphasizes continuous assessment, protection, detection, and recovery, ensuring that water utilities are equipped to manage risks that could impact water quality and availability.

Addressing OT cybersecurity is essential for protecting public health, ensuring ongoing regulatory compliance, safeguarding critical infrastructure, and building resilience against increasingly sophisticated cyber threats. Aligning the OT cybersecurity program with the CSF not only strengthens

the security of OT systems but also enhances operational efficiency, financial stability, and public trust in the utility.

The Scope of Work (SoW) outlines a multi-phase engagement to develop and implement robust OT security and resilience measures tailored to CRW's operational environment. The following tasks are aligned with the CSF's six core functions of **Govern, Identify, Protect, Detect, Respond, and Recover**, and align with EPA Cybersecurity Guidance. The tasks are prioritized in order and are not necessarily executed in the order of the CSF functions.

Task 1: The OT Cybersecurity - All Hazards Assessment: examines CRW's OT vulnerabilities for America's Water Infrastructure Act of 2018 (AWIA) compliance by March 31, 2025. Tetra Tech will deliver a risk assessment aligned with Cybersecurity and Infrastructure Security Agency (CISA) and Environmental Protection Agency (EPA) guidelines to provide CRW with a clear understanding of its OT risk landscape. The All-Hazards Assessment Project was approved and awarded to Tetra Tech in January of 2025.

Task 2: OT Network Cybersecurity Improvements enhance CRW's OT network architecture by implementing the CSF "Protect" function. Key improvements will focus on network segmentation, secure access protocols, and OT firewall upgrades, reducing risks tied to outdated configurations and insufficient access controls.

Task 3: The OT Risk Management Strategy introduces a structured approach to assess, manage, and mitigate cybersecurity risks, aligning with the CSF. This strategy will equip CRW with a framework to prioritize resources and make informed, risk-based decisions that enhance resilience.

Task 4: The OT Incident Response, Disaster Recovery, and Continuity Plans developed to ensure CRW's rapid response and recovery capabilities in the event of a cyber incident. These plans will align with SDWA 1433 and EPA guidelines, enabling CRW to maintain critical OT operations and minimize disruption during adverse events.

Task 5: The OT Asset Management and Lifecycle Program establishes a comprehensive asset inventory and lifecycle management approach to mitigate risks related to unsupported or end-of-life OT equipment. This program will support CRW's compliance with resilience standards while enhancing operational reliability.

Task 6: The OT Cybersecurity Awareness Training Program helps foster a strong security culture. This training program will educate CRW personnel on the critical role they play in protecting infrastructure. This training program will align with the CSF to build the necessary knowledge, skills, and awareness to counter cybersecurity threats effectively.

Task 7: The OT Change Management Program establishes the process and procedures to minimize risks from system changes. It will include the development of change management forms and approval processes, a Change Advisory Board (CAB), and a change-tracking mechanism.

Task 8: The OT Patch Management Program establishes the processes, procedures, and technical measures to track component vulnerabilities, identify and vet available updates, and the

methodologies to test and deploy software and firmware updates without impacting the availability of OT systems.

Task 9: OT Cybersecurity Policies and Procedures Development develops baseline OT cybersecurity policies and procedures for CRW, aligned with the CSF and NIST SP 800-82. This effort will enhance the security, resilience, and compliance of CRW's Operational Technology (OT) systems and staff, addressing both technical and human factor cybersecurity.

Through these targeted tasks, CRW will gain a comprehensive OT cybersecurity program that not only addresses immediate risks but also establishes sustainable practices for long-term resilience. Each task is strategically interlinked, reinforcing CRW's ability to respond to threats, manage risks, protect assets, and ensure operational continuity in compliance with regulatory standards. This program represents a proactive commitment to cybersecurity and a significant step forward in safeguarding CRW's critical infrastructure.

Currently, the SCADA system is isolated, segregated or commonly known as "air-gapped" and protected from external disruption by hackers and disruptive external (internet) forces. In lay terms, this translates to a complete inability for the SCADA system to connect to the outside world. However, there are cases where the outside world relies on internal data, thus CRW has installed Data Diodes as opposed to Firewalls. Data Diodes, known as unidirectional security gateways, combines hardware and software that ensure that only one-way (unidirectional) information transfers between two networks.

CRW has requested two additional SCADA staff positions: an OT SCADA Systems Administrator and an OT SCADA Network Administrator. The addition of these two positions will assist the CRW team in providing top cybersecurity, updated networks, and instrumentation, which includes the implementation of proper SCADA System programming, updates, and patching.

CRW has implemented security measures that effectively control infiltration from potential threats, an ongoing and dynamic process. With the assistance of specialized consultants and highly trained SCADA staff, CRW is committed to proactively defending its infrastructure and the Town's water supply against cyber threats and attacks.



Town of Castle Rock

Agenda Memorandum

Agenda Date: 1/22/2025

Item #: 6. **File #:** WC 2025-004

To: Members of the Castle Rock Water Commission

From: Mark Marlowe, P.E., Director of Castle Rock Water
Shawn Griffith, assistant director of Operations
John Chrestensen, Operations Manager

Resolution Waiving formal Written Bidding Requirement on the Basis of sole Source and Approving an Equipment and Services Agreement with Trojan Technologies Corp for the Plum Creek Water Purification Facility Aria Membrane Filter #3 Module Replacement Project [*Serves entire Castle Rock Water Service Area with project occurring at Plum Creek Water Purification Facility, 1929 Liggett Road*]
Town Council Agenda Date: February 18, 2025

Executive Summary

Castle Rock Water (CRW) seeks Town Council approval of a Resolution (**Attachment A**) approving an agreement (**Exhibit 1**) with Aria Filtra Trojan Technologies Corp (Trojan), for the Plum Creek Water Purification Facility (PCWPF) Aria Filtra (Aria) Membrane Filter #3 Module Replacement Project, in the amount of \$342,190, plus a 10% contingency of \$34,219, for a total authorization amount of \$376,409, as well as a sole source justification, (**Attachment B**).

Trojan will provide the membranes and CRW staff will install the membranes. These modules will be ordered in February 2025 and installed after the 2025 demand season.

CRW has six water treatment plants within our overall service area. Aria membranes are included as part of the main treatment process at PCWPF which is the Town's only plant that treats surface water for our community. The other five plants treat groundwater only. PCWPF was opened in 2013 and the Aria membranes have a life span of 10 to 15 years. This agreement is the second of four phases to replace the membranes over the course of four years. CRW has budgeted \$450,000 annually through 2027 for this purpose.

Notification and Outreach Efforts

This project is security-sensitive and no public outreach is planned. Work will be performed at PCWPF and will be done out of the public eye.

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

The engineering contract for PCWPF, which included the Aria Membrane system, with Burns and McDonnell was approved by Council on January 20, 2011, and constructed by Moltz Construction. The plant began operations in 2013 with three Aria Membrane filtration system racks. The expansion of the original membrane system at PCWPF was approved by Council on September 20, 2016, which added another rack and increased capacity by 2 million gallons (MG).

Town Council approved the replacement of 78 modules in Aria Filter Rack #2 on January 17, 2024, for \$365,899. The replacement modules for Filter Rack #2 were delivered in August of 2024. These filters were installed at the end of the 2024 demand season.

Castle Rock Water staff presented this item to the Castle Rock Water Commission at their meeting held on January 22, 2025, and the Castle Rock Water Commission voted unanimously 6 to 0 to recommend Town Council approval of the Resolution as presented.

Discussion

The Trojan Aira membranes, formally known as Pall Corporation Aria membranes, at PCWPF, have been in continuous operation since 2013 and are nearing the end of their operational lifespans. PCWPF operates four module racks and all will need to be replaced over the next several years. Staff requested the replacement of all the modules in Aria Filter Rack #1 in 2023, Rack #2 in 2024, Rack #3 in 2025, and plans to replace Rack #4 in 2026. The membranes have an operating lifespan of 10-15 years and over time, lose filter performance due to age and irreversible fouling.

The Aria microfiltration system at PCWPF is designed to treat surface water to remove biological contaminants for drinking water treatment. The filters provide an absolute barrier to disease-causing organisms and particulate matter down to a pore size of .1 micron (0.0001 millimeter) in size. The system is highly effective at removing bacteria and parasites like giardia and cryptosporidium and receives removal credit to 99.9% (3 log) through the Colorado Department of Public Health and Environment. The membranes are also effective at removing coagulated organic carbon.

CRW operates and maintains four racks of Aria pressure membranes at PCWPF, with each rack having the capacity to treat 2 million gallons/day (mgd), for a total treatment capacity of 6 mgd, with a redundant capacity of 2 mgd. Individual racks can house up to 78 modules, each containing hundreds of hollow fiber membranes; constructed of polyvinylidene difluoride, a specialty plastic.

The scope of work includes:

- Delivery of 78 new filter modules and associated ancillary installation hardware
- A Trojan technician to provide onsite supervision of CRW plant maintenance personnel as modules are removed and replaced
- Technical support to perform startup and performance testing, certification, and documentation

The Aria microfiltration system is a custom system available only from Trojan. Other microfiltration membranes are not designed to fit within the modular racks manufactured by Trojan. As such, this replacement will need to be performed through a sole source contract.

Budget Impact

CRW has budgeted \$450,000 per year for these replacements through 2027. The Rack #2 was replaced in 2023 for \$365,899. The price this year is \$376,409. Funding for this purchase will come from the 2025 Water Resources Plant Operations Repair & Maintenance Equipment fund, as shown below:

Fund Name	Account Number	Cost	Current Account Balance
Plant Operations Repair & Maintenance	211-4360-443.40-32	\$376,409	\$500,000
Total Cost		\$376,409	

Staff Recommendation

Staff recommends approval of a services agreement with Trojan, for the PCWPF Aria Membrane Filter #3 Module Replacement Project, for the amount of \$342,190, plus a 10% contingency of \$34,219, for a total authorization amount of \$376,409.

Proposed Motion

"I move to recommend to Town Council approval of the Resolution as presented"

Attachments

- Attachment A: Resolution (Not Attached)
- Exhibit 1: Contract
- Attachment B: Sole Source Justification Form



**TOWN OF CASTLE ROCK
EQUIPMENT AND SERVICES ACQUISITION AGREEMENT
(PCWPF Aria Filtra Filter Rack #3 Module Replacement – Castle Rock Water)**

DATE: January 13, 2025.

PARTIES: **TOWN OF CASTLE ROCK**, a Colorado municipal corporation, 100 N. Wilcox Street, Castle Rock, Colorado 80104 (“Town”).

TROJAN TECHNOLOGIES CORP., a Delaware corporation, 839 State Route 13, Courtland, New York 13045 (“Contractor”).

RECITALS:

I. The Town may authorize a Sole Source purchase if: (1) the product or service has been formally awarded to a vendor by the State of Colorado, MAPO, or other cooperative purchasing group and the product meets the needs of the Town; (2) the product or service is of a unique nature, or allows for standardization with existing equipment and will provide exceptional value to the Town; or (3) the Town currently has a contract in place with a vendor for like products or services.

II. The Town engages Contractor pursuant to its Sole Source policy.

TERMS:

1. **Scope of Services.** Contractor shall perform all of the services and provide all materials as set forth on *Exhibit 1* (“Services”). Contractor shall complete the Services consistent with standards and practices of the profession.

2. **Payment.** The Town’s total obligation to Contractor under this Agreement for the Services shall not exceed **\$342,190.00**, unless authorized in writing by the Town. Contractor shall invoice Town upon completion of the Services. Town may withhold payment in whole, or in part for the Services found by the Town to be defective, untimely, unsatisfactory, or otherwise not conforming to this Agreement, not in conformance with all applicable federal, state, and local laws, ordinances, rules and regulations, or if Contractor is in default of the Inspection and Warranty Section herein, below. Town shall remit payment, whether whole or in part within fifteen (15) days of receipt of such invoice.

3. **Term.** The term of this Agreement shall commence upon the execution of this Agreement and expire on **December 31, 2025** (the “Term”). The Parties may mutually agree to extend the Term of this Agreement under the same terms and conditions by a written amendment to this Agreement prior to the expiration of this Agreement. Nothing in this paragraph prohibits the parties from amending the payment section should the Parties elect to extend the term of the Agreement. Contractor shall complete any Services in progress as of the expiration date. Contractor shall devote adequate resources to assure timely completion of the Services in accordance with the standards specified in this Agreement. Contractor shall perform the Services under this Agreement using a standard of care, skill and diligence ordinarily used by reputable professionals performing under circumstances similar to those required by this Agreement.

4. **Termination.** Town shall have the right to terminate this Agreement with or without cause at any time with ten (10) days’ written notice to Contractor. The Town’s only obligation in the event of termination shall be payment of fees and expenses incurred up to and including the effective

date of termination. Upon termination, Contractor shall immediately turn over all work product, materials, deliverables created up to the point of termination.

5. **Subcontractors.** Contractor may utilize subcontractors to assist with specialized Services as necessary to complete the Services. Contractor will submit any proposed subcontractor and the description of subcontractor services to the Town for its prior approval.

6. **Inspection and Warranty.** Town reserves the right to inspect the Services provided under this Agreement at all reasonable times and places during the term of this Agreement. Alternatively, the Town may refuse the Services and cancel all or any part of this Agreement if Contractor fails to deliver all or any part of the Services in accordance with the terms and conditions of this Agreement. Failure by the Town to inspect and test the Services shall not relieve Contractor of such responsibility. Any acceptance by the Town shall not be deemed a waiver or settlement of any defect or nonconformity in such Services. If Town elects to accept nonconforming or defective Services, Town, in addition to its other remedies, shall be entitled to deduct a reasonable amount from the price thereof to compensate Town for the nonconformity or defect. Contractor expressly warrants that all materials and/or equipment furnished under this Agreement shall be free from defects in materials or workmanship, are installed properly and in accordance with the manufacturer recommendations or other industry standards, and will function in a failure-free manner for a period of one (1) year from the date of delivery or installation. Contractor, shall, at its option, repair or replace any material and/or equipment that fail to satisfy this warranty during the warranty period. Additionally, Contractor agrees to assign to the Town all written manufacturer warranties relating to the supplies and to deliver such written warranties to the Town.

7. **Risk of Loss.** With respect to any goods or equipment provided under this Agreement, risk of loss shall not pass to the Town until such equipment has been received and accepted by the Town, pursuant to the Inspection and Warranty Section herein, above, at the destination specified by the Town. Contractor assumes full responsibility for packing, crating, marking, transporting, and liability for loss or damage in transit, notwithstanding any agreement by the Town to pay freight, express or other transportation charges.

8. **Annual Appropriation.** The continuance of this Agreement is contingent upon the appropriation of funds to fulfill the requirements of the Agreement by the Town. If the Town fails to appropriate sufficient monies to provide for the continuance of the Agreement, the Agreement shall terminate on the final day preceding the date of the beginning of the first fiscal year for which funds are not appropriated. The Town's only obligation in the event of termination shall be payment of fees and expenses incurred up to and including the effective date of termination.

9. **Assignment.** This Agreement shall not be assigned by Contractor without the written consent of the Town.

10. **Notice.** Any notice required or permitted by this Agreement shall be in writing and shall be deemed to have been sufficiently given for all purposes if sent by certified mail or registered mail, postage and fees prepaid, addressed to the party to whom such notice is to be given at the address set forth on the first page of this Agreement, or at such other address as has been previously furnished in writing to the other party or parties. Such notice shall be deemed given when deposited in the United States mail.

11. **Insurance.**

A. **General Conditions:** Contractor agrees to secure, at or before the time of execution of this Agreement, the following insurance covering all operations, goods or services provided pursuant to this Agreement. Contractor shall keep the required insurance coverage in force at all times during the term of the Agreement, including any extension thereof, and during any warranty period. The required insurance shall be underwritten by an insurer licensed or authorized to do business in Colorado and rated by A.M. Best Company as "A-VII" or better. Each policy shall require notification to the Town in the event any of the required policies be canceled or non-renewed before the expiration date thereof. Such written notice shall be sent to the parties identified in the Notices section of this Agreement. Such notice shall reference the Town. Said notice shall be sent thirty (30) days prior to such cancellation or non-renewal unless due to non-payment of premiums for which notice shall be sent ten (10) days prior. If such written notice is unavailable from the insurer, Contractor shall provide written notice of cancellation, non-renewal and any reduction in coverage to the Town by certified mail, return receipt requested within three (3) business days of such notice by its insurer(s). Contractor shall be responsible for the payment of any deductible or self-insured retention. The insurance coverages specified in this Agreement are the minimum requirements, and these requirements do not lessen or limit the liability of the Contractor. The Contractor shall maintain, at its own expense, any additional kinds or amounts of insurance that it may deem necessary to cover its obligations and liabilities under this Agreement. All commercial and automobile liability policies shall have the following additional provisions:

- Severability of interests or separation of insureds provision;
- Provision that coverage is primary and non-contributory with other coverage maintained by the Town;
- The underlying Agreement is an "insured contract" under the policy;
- Defense costs shall be outside the policy limits for liability coverage.

B. **Proof of Insurance:** Contractor may not commence services or work relating to this Agreement prior to placement of coverages required under this Agreement. Contractor certifies that the certificate of insurance attached as *Exhibit 2*, preferably an ACORD form, complies with all insurance requirements of this Agreement. The Town's acceptance of a certificate of insurance or other proof of insurance that does not comply with all insurance requirements set forth in this Agreement shall not act as a waiver of Contractor's breach of this Agreement or of any of the Town's rights or remedies under this Agreement. Each certificate shall identify the Project and shall provide that coverage afforded under the policies shall not be cancelled, terminated or materially changed until at least 30 days prior written notice has been given to the Town. If the words "endeavor to" appear in the portion of the certificate addressing cancellation, those words shall be stricken from the certificate by the agent(s) completing the certificate. The Town may require additional proof of insurance, including but not limited to policies and endorsements.

C. **Additional Insureds:** For Commercial General Liability and Automobile Liability, Contractor and subcontractor's insurer(s) shall include the Town, its elected and appointed officials, officers, employees, agents and volunteers acting within the course and scope of their duties for the Town as additional insured.

D. **Waiver of Subrogation:** For all coverages required under this Agreement, Contractor's insurer shall waive subrogation rights against the Town, its elected and appointed officials, officers, employees, agents and volunteers acting within the course and scope of their duties for the Town.

E. **Subcontractors:** Contractor shall confirm and document that all subcontractors (including independent contractors, suppliers or other entities providing goods or services required by

this Agreement) procure and maintain coverage as approved by the Contractor and appropriate to their respective primary business risks considering the nature and scope of services provided.

F. **Workers' Compensation and Employer's Liability Insurance:** Contractor shall maintain the coverage as required by statute for each work location and shall maintain Employer's Liability insurance with limits of \$100,000 per occurrence for each bodily injury claim, \$100,000 per occurrence for each bodily injury caused by disease claim, and \$500,000 aggregate for all bodily injuries caused by disease claims.

G. **Commercial General Liability:** Contractor shall maintain a Commercial General Liability insurance policy with minimum limits of \$1,000,000 for each occurrence and \$2,000,000 products and completed operations aggregate, and \$2,000,000 general aggregate (per project). The policy shall provide coverage for all claims for bodily injury, property damage (including loss of use), products and completed operations, and contractual liability.

H. **Automobile Liability:** Contractor shall maintain Automobile Liability with minimum limits of \$1,000,000 combined single limit applicable to all owned, hired and non-owned vehicles used in performing services under this Agreement.

12. **Colorado Governmental Immunity Act.** The parties understand and agree that the Town is relying on, and does not waive or intend to waive by any provision of this contract, the monetary limitations or any other rights, immunities, and protections provided by the Colorado Governmental Immunity Act, §24-10-101, *et seq.*, C.R.S., as from time to time amended, or otherwise available to Town, its officers, or its employees.

13. **Indemnification.** Contractor expressly agrees to defend, indemnify and hold harmless Town or any of its agents, officers or employees from any and all claims, damages, liability, or court awards including attorney's fees that are or may be awarded as a result of any loss, injury or damage sustained or claimed to have been sustained by anyone, including, but not limited to, any person, firm, partnership, or corporation, to the extent caused by the negligent acts, errors or omissions of Contractor or any of their employees or agents in performing Services pursuant to this Agreement. In the event that any such suit or action is brought against Town, Town will give notice within ten (10) days thereof to Contractor. These defense and indemnification obligations shall survive the expiration or termination of this Agreement.

14. **Delays.** Any delays in or failure of performance by any party of the obligations under this Agreement shall be excused if such delays or failure are a result of acts of God, fires, floods, strikes, labor disputes, accidents, regulations or orders of civil or military authorities, shortages of labor or materials, or other causes, similar or dissimilar, which are beyond the control of such party.

15. **Additional Documents & Entire Agreement.** The parties agree to execute any additional documents or take any additional action that is necessary to carry out this Agreement. Further, this Agreement represents the entire agreement between the parties and there are no oral or collateral agreements or understandings. This Agreement may be amended only by an instrument in writing signed by the parties. If any other provision of this Agreement is held invalid or unenforceable, no other provision shall be affected by such holding, and all of the remaining provisions of this Agreement shall continue in full force and effect.

16. **Time of the Essence.** If any payment or any other condition, obligation, or duty is not timely made, tendered or performed by either party, then this Agreement, at the option of the party who

is not in default, may be terminated by the non-defaulting party, in which case, the non-defaulting party may recover such damages as may be proper.

17. **Default and Remedies.** In the event either party should default in performance of its obligations under this agreement, and such default shall remain uncured for more than ten (10) days after notice of default is given to the defaulting party, the non-defaulting party shall be entitled to pursue any and all legal remedies (subject to the following limitations on damages), and recover its reasonable attorney's fees and costs in such legal action. In addition, no party will be entitled to lost profits or incidental, consequential, punitive or exemplary damages in the event of a default.

18. **Waiver.** A waiver by any party to this Agreement of the breach of any term or provision of this Agreement shall not operate or be construed as a waiver of any subsequent breach by either party.

19. **Venue, Choice of Law and Disputes.** Venue for all legal actions shall lie in the District Court in and for the County of Douglas, State of Colorado, and shall be governed by the laws of the State of Colorado as well as the Charter and Municipal Code, rules, regulations, Executive Orders, and fiscal rules of the Town.

20. **Americans with Disabilities Act.** Contractor agrees to ensure that any deliverables, work, services, or equipment developed, designed, constructed or produced pursuant to this Agreement, to include website design services, will comply with all requirements of Title II of the Americans with Disabilities Act and, where applicable, Section 504 of the Rehabilitation Act, the Architectural Barriers Act, and the Colorado Anti-Discrimination Act. To the extent any deliverables, work, services, or equipment developed, designed, constructed or produced pursuant to this Agreement fail to comply with the requirements of this Section, Contractor shall indemnify the Town in accordance with the terms of this Agreement and, at the Town's option, shall re-visit, re-construct, or similar, the non-compliant deliverable, work, service, or equipment, or reimburse the Town for the cost associated with bringing the non-compliance deliverable, work, service or equipment into compliance.

21. **No Discrimination in Employment.** The Town is a governmental agency and, therefore, in connection with the performance of Work or Services under this Agreement, Contractor shall not refuse to hire, discharge, promote or demote, or to discriminate in matters of compensation against any person otherwise qualified, solely because of race, color, religion, national origin, gender, age, military status, sexual orientation, gender identity or gender expression, marital status, or physical or mental disability, or any other protected class under Federal or State law; and Contractor shall insert the foregoing provision in any subcontracts hereunder.

22. **Title VI Compliance.** To the extent applicable, Contractor shall ensure its current and future compliance with Title VI of the Civil Rights Act of 1964, 42 U.S.C. § 2000d et seq., as amended, which prohibits the exclusion from participation, denial of the benefits of, or subjection to discrimination under programs and activities receiving federal financial assistance, of any person in the United States on the ground of race, color, or national origin.

23. **Advertising and Public Disclosure.** Contractor shall not include any reference to this Agreement or goods or services provided pursuant to this Agreement in any of Contractor's advertising or public relations materials without first obtaining the written approval of the Town. Nothing herein, however, shall preclude the transmittal of any information to officials of the Town, including without limitation, the Town Attorney, Town Manager, and the Town Council.

24. **Ownership of Documents, Open Records, and Copyright.** Any work product, materials, and documents produced by the Contractor pursuant to this Agreement shall become property of the Town upon delivery and shall not be made subject to any copyright or made confidential or protected in any manner unless authorized by the Town. Other materials, methodology and proprietary work used or provided by the Contractor to the Town not specifically created and delivered pursuant to the Services outlined in this Agreement may be protected by a copyright held by the Contractor and the Contractor reserves all rights granted to it by any copyright. However, Contractor acknowledges and understands that the Town is subject to the Colorado Open Records Act, C.R.S. § 24-72-201, et seq. The Town shall not reproduce, sell, or otherwise make copies of any copyrighted, confidential or protected material, subject to the following exceptions: (1) for exclusive use internally by Town staff and/or employees; or (2) pursuant to a request under the Colorado Open Records Act, C.R.S. § 24-72-201, et seq., to the extent that such statute applies; or (3) pursuant to law, regulation, or court order. The Contractor waives any right to prevent its name from being used in connection with the Services.

Contractor warrants that all Services or Work performed under this Agreement shall comply with all applicable patent, trademark and copyright laws, rules, regulations and codes of the United States. Contractor shall not utilize any protected patent, trademark or copyright in performance of the Work or Services unless Contractor has obtained proper permission and all licenses, releases and other necessary documents. Contractor releases, defends, indemnifies and holds harmless the Town, its officers, agents, and employees from any and all claims, damages, suits, costs, expenses, liabilities actions or proceedings of any kind or nature whatsoever, of or by anyone whomsoever, in any way resulting from, or arising out of, directly or indirectly, the performance of the Work or Services under this Agreement which infringes upon any patent, trademark or copyright protected by law.

25. **Authority.** The individuals executing this Agreement represent that they are expressly authorized to enter into this Agreement on behalf of the Town and the Contractor and bind their respective entities. This Agreement is executed and made effective as provided above.

26. **Digital Accessibility.** Contractor shall be responsible for ensuring that all deliverables, work, services, or equipment developed, designed, constructed or produced pursuant to this Agreement comply with Colorado law governing digital accessibility, including but not necessarily limited to at a minimum conforming with the current Web Content Accessibility Guidelines (“WCAG”) followed by the State of Colorado. To the extent any deliverables, work, services, or equipment developed, designed, constructed or produced pursuant to this Agreement fail to comply with the requirements of this Section, Contractor releases, defends, indemnifies and holds harmless Town, its officers, agents, and employees from any and all claims, damages, suits, costs, expenses, liabilities actions or proceedings of any kind or nature whatsoever, of or by anyone whomsoever, in any way resulting from, or arising out of, directly or indirectly, said failure. These defense and indemnification obligations shall survive the expiration or termination of this Agreement.

27. **Independent Contractor.** Contractor and the Town hereby represent that Contractor is an independent contractor for all purposes hereunder. Contractor is not covered by any worker’s compensation insurance or any other insurance maintained by Town except as would apply to members of the general public. Contractor shall not create any indebtedness on behalf of the Town.

28. **No Third-Party Beneficiaries.** It is expressly understood and agreed that enforcement of the terms and conditions of this Agreement, and all rights of action relating to such enforcement, shall be strictly reserved to Town and Contractor, and nothing contained in this Agreement shall give or allow any such claim or right of action by any other third party on such Agreement. It is the express intention of the parties that any person other than Town or Contractor receiving services or benefits under this Agreement shall be deemed to be an incidental beneficiary only.



29. **Counterparts & Electronic Signatures.** This Agreement may be executed in counterparts, each of which shall be deemed an original, and all of which together shall be deemed to constitute one and the same instrument. Each of the parties hereto shall be entitled to rely upon a counterpart of the instrument executed by the other party and sent by electronic mail. Each party agrees that this Agreement and any other documents to be delivered in connection herewith may be electronically signed, and that any electronic signatures appearing on this Agreement or such other documents are the same as handwritten signatures for the purposes of validity, enforceability, and admissibility.

30. **Licenses/Taxes.** Contractor affirms it is licensed to do business in the State of Colorado and is in good standing. Further, Contractor shall be solely responsible for paying all applicable taxes associated with or rising out of this Agreement.

31. **Confidentiality.** Contractor agrees that it shall treat as confidential all information provided by the Town regarding the Town's business and operations. All confidential information provided by the Town hereto shall be used by Contractor solely for the purposes of rendering services or work pursuant to this Agreement and, except as may be required in carrying out the terms of this Agreement, shall not be disclosed to any third party without the prior consent of the Town. The foregoing shall not be applicable to any information that is publicly available when provided or which thereafter becomes publicly available or which is required to be disclosed by any regulatory authority in the lawful and appropriate exercise of its jurisdiction over a party, any auditor of the parties hereto, by judicial or administrative process or otherwise by applicable law or regulation.

32. **Priority of Provisions.** In the event that any terms of this Agreement and any Exhibit, attachment, or other referenced document are inconsistent, the following order of priority shall control: (1) this Agreement; (2) Exhibit containing Certificate of Insurance; and (3) Exhibit containing the Scope of Services and Fee Schedule.

ATTACHED EXHIBITS:

EXHIBIT 1 – SCOPE OF SERVICES AND FEE SCHEDULE

EXHIBIT 2 – CONTRACTOR'S CERTIFICATE OF INSURANCE

REMAINDER OF PAGE INTENTIONALLY LEFT BLANK



ATTEST:

TOWN OF CASTLE ROCK

Lisa Anderson, Town Clerk

Jason Gray, Mayor

Approved as to form:

Approved as to content:

Stacey Song, Assistant Town Attorney

Mark Marlowe, Director of Castle Rock Water

CONTRACTOR:

TROJAN TECHNOLOGIES CORP.

By: _____
(Print Name)

(Signature)

Its: _____
(Title)

EXHIBIT 1

SCOPE OF SERVICES AND FEE SCHEDULE

Contractor shall provide labor and materials as described below for replacing 78 Microfiltration Modules on one filtration rack on the Town's water filtration system.

Contractor will provide the following materials for module replacement:

- 78 ea Aria Filtra Microfiltration modules
- 2 Gal. Lubricant for module nuts
- 156 ea Module nuts
- 164 ea Module O-rings
- 4 ea XR Gaskets
- 4 ea XR Nuts
- 78 ea Clear couplings
- 78 ea Upper end caps
- 78 ea Lower end caps
- 3 each module wrenches
- 2 each torque wrenches
- 2 each clear coupling wrenches
- 2 each XR hoses
- 80 each 1.0-inch clamps
- 80 each 2.0-inch clamps

Installation Supervision: Contractor will provide a qualified Field Service Engineer (FSE) to supervise and assist with removing the old modules and installing the new modules. This module replacement project will require an additional crew of 3 people for 2 days in addition to the Aria Filtra FSE complete. Additional labor crew is by others.

Overall, Contractor expects this work to take up to 3 days to complete, including set up at the beginning and clean up at the end. As part of this work, Contractor will also provide a new Operating Protocol, and update the system Process & Instrumentation Diagram (P&ID) drawing.

Contractor will provide a new Operating Protocol as part of this work. The Operating Protocol is a document created by Contractor's Process Engineers based on a review of Town's MF system, together with incoming water quality*, and includes recommended settings and protocols for Flux Maintenance (FM), Enhanced Flux Maintenance (EFM) and Clean-In-Place (CIP) operations. The OP is designed to give operators the information and guidance to achieve optimal system performance results. Potential benefits from following Contractor's Operating Protocols include improved cleanings, increased up time, and extended service life.

To prepare the operating protocol, the Town must provide the following:

- 3 to 12 months' worth of operating data
- Setpoints screenshots
- recent WQ data
- pre-and post-treatment processes and performance data trends like Flux, Flows, TMP, Temperature- Corrected Specific Flux (Permeability), Temperature, Process active code,
- cleaning frequency and concentrations

Copies of both the P&ID and the Operating Protocol will be provided shortly after completion of the installation work.

*Incoming water quality data will be provided by the Town. Necessary data include:

- TOC/DOC
- Metals (Dissolved and Total): Fe, Mn, Al
- Turbidity
- TSS
- Alkalinity
- Hardness

Contractor can provide the comprehensive water quality analysis needed for the Operating Protocol at additional cost.

Change-Out Plan and Schedule

The Aria Filtra Field Service Engineer will arrive at the site a full day before the start of the module removal process to meet with site personnel, review the site where the work will be performed, and make preparations for the module change-out process.

Once full drainage of the cleaned rack has been verified, the old modules will be removed and the new ones installed. The old modules will be set aside for disposal. The new modules will need to be drained of preservative prior to installation on the module rack. Contractor will provide a Material Safety Data Sheet for the module preservative upon receipt of order. Disposal of old modules and module preservative is by others.

Once the full set of modules is installed on the rack, the rack will then be filled and rinsed in place to ensure all preservative has been removed from the modules. The FSE will then verify the operating set points, oversee the start-up of the rack, and verify proper operation.

If the Town has any safety concerns over potential exposure to collected contaminants while working with the old membrane modules, Contractor recommends performing CIP's just prior to module removal for change-out.

Total contract amount: \$342,189.41

In no event shall payment to Contractor exceed **\$342,189.41**, unless authorized in writing by Town.

Service Reports: If service reports are required by Town to comply with Town or state regulations, Town will indicate on its order that service report documents are required. Service reports detailing the visit and recommendations will then be provided by Contractor.



EXHIBIT 2

CONTRACTOR'S CERTIFICATE OF INSURANCE



CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

11/21/2024

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER Marsh USA LLC 30 South 17th Street Philadelphia, PA 19103 Attn: Veralto.certrequest@marsh.com CN142374883-VC-GAW-24-25	CONTACT NAME: Marsh USA, Inc. PHONE (A/C, No, Ext): 8669664664 FAX (A/C, No): E-MAIL ADDRESS: Veralto.CertRequest@Marsh.com													
	<table border="1"> <thead> <tr> <th>INSURER(S) AFFORDING COVERAGE</th> <th>NAIC #</th> </tr> </thead> <tbody> <tr> <td>INSURER A: ACE American Insurance Company</td> <td>22667</td> </tr> <tr> <td>INSURER B: Indemnity Ins Co Of North America</td> <td>43575</td> </tr> <tr> <td>INSURER C:</td> <td></td> </tr> <tr> <td>INSURER D:</td> <td></td> </tr> <tr> <td>INSURER E:</td> <td></td> </tr> <tr> <td>INSURER F:</td> <td></td> </tr> </tbody> </table>	INSURER(S) AFFORDING COVERAGE	NAIC #	INSURER A: ACE American Insurance Company	22667	INSURER B: Indemnity Ins Co Of North America	43575	INSURER C:		INSURER D:		INSURER E:		INSURER F:
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INSURER D:														
INSURER E:														
INSURER F:														
INSURED Trojan Technologies Corp. 839 State Route 13 Cortland, NY 13045														

COVERAGES **CERTIFICATE NUMBER:** CLE-007298693-01 **REVISION NUMBER:** 2

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR <input checked="" type="checkbox"/> Contractual Liability <input checked="" type="checkbox"/> Broad Form PD GEN'L AGGREGATE LIMIT APPLIES PER: <input checked="" type="checkbox"/> POLICY <input type="checkbox"/> JEC1 <input type="checkbox"/> LOC OTHER:			HDO G4892895A	09/30/2024	09/30/2025	EACH OCCURRENCE \$ 2,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 2,000,000 MED EXP (Any one person) \$ 10,000 PERSONAL & ADV INJURY \$ 2,000,000 GENERAL AGGREGATE \$ 5,000,000 PRODUCTS - COMP/OP AGG \$ 5,000,000
A	<input checked="" type="checkbox"/> AUTOMOBILE LIABILITY <input checked="" type="checkbox"/> ANY AUTO <input type="checkbox"/> OWNED AUTOS ONLY <input type="checkbox"/> SCHEDULED AUTOS <input type="checkbox"/> HIRED AUTOS ONLY <input checked="" type="checkbox"/> NON-OWNED AUTOS ONLY			ISA H11351529	09/30/2024	09/30/2025	COMBINED SINGLE LIMIT (Ea accident) \$ 3,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$
	<input type="checkbox"/> UMBRELLA LIAB <input type="checkbox"/> OCCUR <input type="checkbox"/> EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE DED RETENTION \$						EACH OCCURRENCE \$ AGGREGATE \$
B A	<input checked="" type="checkbox"/> WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	Y/N N	N/A	WLR C72611846 (AOS) SCF C72611883 (WI)	09/30/2024 09/30/2024	09/30/2025 09/30/2025	<input checked="" type="checkbox"/> PER STATUTE <input type="checkbox"/> OTHER E.L. EACH ACCIDENT \$ 2,000,000 E.L. DISEASE - EA EMPLOYEE \$ 2,000,000 E.L. DISEASE - POLICY LIMIT \$ 2,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

CERTIFICATE HOLDER

CANCELLATION

Castle Rock Water Town of Castle Rock 175 Kellogg Ct. Castle Rock, CO 80109	SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS. AUTHORIZED REPRESENTATIVE <i>Marsh USA LLC</i>
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	SUBJECT: APPENDIX J – SOLE SOURCE JUSTIFICATION FORM	Approval Date 1/1/2018
	DIVISION AND POLICY NUMBER PURCHASING	Revision Date 9/16/2022

COMMODITY OR SERVICE PCWPF Filter 3 Aria Filtra Membrane Module Replacements

VENDOR Trojan Technologies Corp

AMOUNT OF PURCHASE \$ \$376,409

REQUESTORS NAME Grant Garvin

DEPARTMENT Castle Rock Water

DEPARTMENT DIRECTOR's Approval Signed by:
Mark Marlowe
FEA6D2E651B231D

FINANCE DEPARTMENT's Approval DocuSigned by:
Trish Muller
47B109A71C08408...

TOWN MANAGER's (or Designee) Approval Signed by:
David L. Cortiss
1BB5457CFF75414...

TOWN COUNCIL's Approval, when necessary _____

PURCHASING POLICY EXCEPTION ITEM	CHECK ONE
1. Item(s) or service has been formally awarded to a vendor by the State of Colorado, MAPO, or other cooperative purchasing group and the product meets the needs of the Town of Castle Rock.	<input type="checkbox"/>
2. The product or service is of a unique nature, or allows for standardization with existing equipment and will provide exceptional value to the Town of Castle Rock.	<input checked="" type="checkbox"/>
3. Emergency purchases where the well-being of the citizens, employees or Town property may be endangered if the purchase is delayed.	<input type="checkbox"/>
4. Town of Castle Rock currently has a contract in place with a vendor for like products or services and the compatibility and/or continuity of those products or services are paramount to the success of the department or Town function.	<input type="checkbox"/>

Per Municipal Code 3.02.060:

Purchases over one thousand dollars (\$1,000.00) and up to and including five thousand dollars (\$5,000.00) require three (3) verbal bids unless approved by the Town Manager on the basis of sole source, emergency or unresponsive bidders.

Purchases over five thousand dollars (\$5,000.00) and up to seventy-five thousand dollars (\$75,000.00) require three (3) informal written bids unless approved by the Town Manager on the basis of sole source, emergency or unresponsive bidders.

Purchases over seventy-five thousand dollars (\$75,000.00) require formal written sealed bids unless waived by the Town Manager for purchases up to and including two hundred fifty thousand dollars (\$250,000.00) or by Town Council for purchases over two hundred fifty thousand dollars (\$250,000.00) on the basis of sole source, emergency or unresponsive bidders.

The requesting department must provide written justification to the Finance Department for review and forward it to the Accounting Manager. **Attach additional sheets as necessary.**

Castle Rock Water uses the Aria Filtra Microfiltration System at Plum Creek Water Purification Facility (PCWPF). Trojan Technologies, Corp. is the sole manufacturer for the system. This purchase is to replace spent filter modules for Rack #3 with exact replacements.

The Aira Filtra membranes at PCWPF have been in continuous operation since 2013 and are nearing the end of their operational lifespans. PCWPF operates four module racks and all will need to be replaced over the next several years. Staff are requesting to replace all of the modules in Filter Rack 3 in 2025. The membranes have an operating lifespan of 10-15 years and over time, have lost filter performance due to age and irreversible fouling. Due to supply chain issues, these will need to be ordered now to conduct the replacement after demand season in 2025.



Town of Castle Rock

Agenda Memorandum

Agenda Date: 1/22/2025

Item #: 7. **File #:** WC 2025-005

To: Members of the Castle Rock Water Commission

From: Mark Marlowe, P.E., Director of Castle Rock Water
Matt Benak, P.E., Water Resources Manager
Zuzana Howard, Water Resources Program Analyst

Resolution Approving a Spot Water Lease Agreement between the Town of Castle Rock and Central Colorado Water Conservancy District [Chatfield Reservoir, Douglas County]

Town Council Agenda Date: January 7, 2025

Executive Summary

Attached is the Town Council packet for your information.

Attachments

Attachment A: Central Water Lease Agreement TC Packet



STAFF REPORT

To: Honorable Mayor and Members of Town Council

Through: David L. Corliss, Town Manager

From: Mark Marlowe, P.E., Director of Castle Rock Water
Matt Benak, P.E., Water Resources Manager
Zuzana Howard, Water Resources Program Analyst

Title: **Resolution Approving a Spot Water Lease Agreement between the Town of Castle Rock and Central Colorado Water Conservancy District [Chatfield Reservoir, Douglas County]**

Executive Summary

Castle Rock Water is seeking Town Council approval of a resolution (**Attachment A**) for a spot water lease with Central Colorado Water Conservancy District (Central). Central wishes to lease some of the Town's surplus water stored in Chatfield Reservoir to increase their storage supplies within Chatfield and have additional water upon which to make projections for their well pumping augmentation plans. While the Town currently owns 848 AF of storage in Chatfield, the Colorado Water Conservation Board (CWCB) allows for rental of the remaining permitted amount, for a total of 2,000 AF of storage. The Town currently has upwards of 1,400 AF of water stored in the reservoir with additional reusable supplies coming in each day.

If Council approves this lease, up to 400 AF of water may be released from the Town's Chatfield Reservoir storage account as a book-over into Central's Chatfield Reservoir storage account during 2025. This release may occur between January 8, 2025 and December 31, 2025. The Town will assess a \$110 per AF price for the water. This is Castle Rock Water's lease rate for agricultural uses out of Chatfield Reservoir. Payment will be required within 30 days from requested releases. The potential revenue for this lease is up to \$44,000. The agreement will terminate at the end of 2025.

Discussion

Castle Rock Water has a strategic goal to strive to maintain sustainable rates and fees, and demonstrate fiscal responsibility, accountability, and transparency. One of the tactics to achieve this goal is to maximize leasing opportunities for idle water rights. Over the past seven years, the Town has generated over \$1.539 million by leasing idle water rights to downstream users (see **Table 1** below). Until these water rights can be fully utilized by the

Town, Staff will continue to seek out users that can put these rights to beneficial use and generate revenue to the benefit of Castle Rock Water’s customers.

Table 1. Revenue generated from leasing idle water rights to downstream users over the past six years.

2018	2019	2020	2021	2022	2023	2024
\$29,019.1 3	\$30,606.6 5	\$70,699.7 5	\$499,449.7 3	\$531,292.8 1	\$214,123.8 9	\$159,675.6 4

The key terms of the 2025 spot water lease agreement are summarized below:

- Central will lease up to 400 AF of water at a rate of \$110/AF;
- Point of delivery measurement will be a book-over at Chatfield Reservoir; and
- The agreement will terminate on December 31, 2025.

As mentioned in the Executive Summary, the Town has been able to store excess supplies in Chatfield Reservoir over the past year, which have exceeded the purchased storage amounts (848 AF). Since the Town does not physically have a way to utilize these excess storage supplies at this point in time, CWCB has developed, and Town Council has approved, a lease agreement with the Town to lease the optioned storage space for \$50/AF. With a current annual lease rate for 1,152 AF (2,000 AF minus 848 AF), the Town will pay the CWCB \$57,600 in 2025. This spot lease with Central would allow the Town to further maximize storage space within the reservoir and will help to cover the annual lease option of storage space with CWCB.

Budget Impact

If Council approves the agreement, Castle Rock Water would potentially receive up to \$44,000 of additional revenue in 2025. The revenue will be deposited into the Water Resources Fund Capital Leases account 211-4375-393.70-00.

Staff Recommendation

Staff recommends approval of the resolution as presented.

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: Agreement

RESOLUTION NO. 2025-001

A RESOLUTION APPROVING THE 2025 SPOT WATER LEASE AGREEMENT BETWEEN THE TOWN OF CASTLE ROCK AND THE CENTRAL COLORADO WATER CONSERVANCY DISTRICT

WHEREAS, the Town of Castle Rock, Colorado, acting by and through the Town of Castle Rock Water Enterprise (the “Town”) owns certain water in the Chatfield Basin that is reusable and fully consumable after its first use for municipal purposes by the Town; and

WHEREAS, the Town has identified that a portion of this water is surplus to the needs and obligations of the Town for 2025 (“Surplus Water”); and

WHEREAS, the Central Colorado Water Conservancy District (“Lessee”) desires to lease a certain portion of the Surplus Water from the Town for municipal use; and

WHEREAS, the Town and Lessee have agreed to the terms and conditions by which the Town will lease the Surplus Water to Lessee.

NOW, THEREFORE, BE IT RESOLVED BY THE TOWN COUNCIL OF THE TOWN OF CASTLE ROCK, COLORADO AS FOLLOWS:

Section 1. Approval. The Spot Water Lease Agreement between the Town and Lessee is hereby approved in substantially the same form as presented at tonight’s meeting, with such technical changes, additions, modifications, deletions, or amendments as the Town Manager may approve upon consultation with the Town Attorney. The Mayor and other proper Town officials are hereby authorized to execute the Agreement and any technical amendments thereto by and on behalf of the Town.

PASSED, APPROVED AND ADOPTED this 7th day of January, 2025, by the Town Council of the Town of Castle Rock by a vote of __ for and __ against.

ATTEST:

TOWN OF CASTLE ROCK

Lisa Anderson, Town Clerk

Jason Gray, Mayor

Approved as to form:

Approved as to content:

Michael J. Hyman, Town Attorney

Mark Marlowe, Director of Castle Rock Water

**TOWN OF CASTLE ROCK/CENTRAL COLORADO WATER CONSERVANCY
DISTRICT
SPOT WATER LEASE AGREEMENT**

THIS SPOT WATER LEASE AGREEMENT (“Agreement”) is entered into January 7, 2025, by and between the Town of Castle Rock, a home rule municipal corporation, acting by and through the Castle Rock Water Enterprise (“Town”), as Lessor, whose address is 100 N. Wilcox Street, Castle Rock, Colorado 80104 and Central Colorado Water Conservancy District (“Central”), as Lessee, whose address is 3209 W 28th St, Greeley, CO 80634, collectively referred to as the Parties.

RECITALS

WHEREAS, the Town owns certain water in the Chatfield Basin that is reusable and fully consumable after its first use for municipal purposes by the Town. From time to time, a certain amount of this water is surplus to the needs and obligations of the Town (“Surplus Water”); and

WHEREAS, the Town anticipates it will have Surplus Water available from time to time in 2025; and

WHEREAS, Central desires to lease a certain portion of the Surplus Water from the Town in accordance with the terms and conditions of this Agreement for municipal use.

AGREEMENT

NOW THEREFORE, in consideration of the mutual agreements contained herein and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Town and Central agree as follows:

1. Water Rights Lease. The Town hereby leases to Central surplus water up to 400 AF total (“Leased Spot Water”), which may be made available as follows:

A. Between January 7, 2025 and December 31, 2025 with no additional water released thereafter.

2. Deliveries.

A. Amount. The Town may have water available within its Chatfield Storage Account to lease up to 400 AF to Central in 2025. The Leased Spot Water will be withdrawn from the Town’s Storage Account upon coordination with the Colorado Department of Natural Resources – Division of Water Resources.

B. Location. Release will consist of a book-over from Castle Rock’s Chatfield Storage Account into Central’s Chatfield Storage Account.

C. Delivery to Central. Central will take delivery of the Leased Spot Water within its Chatfield Storage Account. Deliveries will be made by mutual agreement of the Parties.

D. Accounting. Central must provide the Town with a copy of the water accounting showing the date(s) and quantities of the release of Leased Spot Water. This information will also be used to confirm and update the Town's Chatfield accounting forms.

3. Lease Rate. Leased quantities shall be paid at the rate of \$110.00 per acre-foot. Payment for quantities leased shall be made thirty (30) days following the issuance of an invoice from Castle Rock. The Town shall invoice Central and payment shall be remitted to Castle Rock Water; 175 Kellogg Court; Castle Rock, CO 80129; ATTN: Matt Benak, Water Resources Manager.

4. Quality of Leased Spot Water. Leased Spot Water shall be delivered "as is," but shall be of a quality that meets all standards and effluent limitations specified in Colorado Discharge Permit System Permit No. CO-0038547, as amended, or in any other discharge permit issued by the Water Quality Control Division or by the U.S. EPA authorizing discharges from the Plum Creek Water Reclamation Authority (PCWRA) facility, such quality to be measured at the authorized discharge point(s) specified in any such discharge permit. By entering into this Agreement and utilization of the Leased Spot Water, Central acknowledges that water meeting the requirements of this paragraph is suitable for its purposes and will accept such water as meeting the terms of this Agreement.

5. Lease Term. The term of this Agreement shall commence upon its execution and expire December 31, 2025. By mutual written agreement of the Parties, this Agreement may be renewed on the same or on different terms.

6. Central's Obligations. Central's obligations under this Agreement are limited to making the payments as described in paragraph 3 above.

7. Town's Obligations. The Town shall allow Central to divert, store, use, reuse, and successively reuse to extinction and make all decreed uses of all Leased Spot Water, and shall confirm to Central's satisfaction that all Leased Spot Water is decreed for all such uses and has been recognized and is administered by the Colorado State Engineer for all such uses.

8. Notice. All notices which may be required to be given by either Party to the other shall be made in writing and either hand delivered or sent by first class United States mail, postage prepaid, addressed as follows, or by facsimile, or via electronic means:

If to Town:

Town of Castle Rock (Castle Rock Water)
Attn: Water Resources Manager (Matt Benak)
175 Kellogg Court
Castle Rock, CO 80109

with copy to: Town of Castle Rock
Attn: Town Attorney (Mike Hyman)
100 N. Wilcox Street
Castle Rock, CO 80104

If to Central: Central Water and Sanitation District
Attn: Randy Ray, Executive Director
3209 W 28th St
Greeley, CO 80634

9. Assignment. Central may not assign its rights hereunder without the prior written consent of the Town, which may be withheld in the Town's sole discretion. In the event that the Town consents to an assignment of Central's rights hereunder, the assignee shall execute an assumption agreement with the Town and Central pursuant to which it shall assume Central's obligations hereunder. The terms of such assumption agreement must be approved by the Town.

10. Entire Agreement. This Agreement represents the entire Agreement between the Parties on the matters set forth herein and supersedes all prior negotiations, representations or agreements respecting said matters whether written or oral.

11. Binding Effect. The execution of the Agreement by the Town as Lessor and Central as Lessee constitutes the execution of a binding lease agreement by the Parties on the terms and conditions contained herein and may not be modified except in writing signed by both Parties. This Agreement shall be binding on the Parties' respective successors and assigns.

12. Enforcement. In the event either Party commences any action to enforce the terms and provisions of the Agreement, the prevailing Party shall be entitled to its reasonable attorneys' fees and all costs incurred in connection with such action, including, but not limited to, expert witness fees.

13. Controlling Law. This Agreement shall be governed under, and construed pursuant to the laws of the State of Colorado.

(signature page to follow)



Town of Castle Rock

Agenda Memorandum

Agenda Date: 1/22/2025

Item #: 8. **File #:** WC 2025-006

To: Members of the Castle Rock Water Commission

From: Mark Marlowe, P.E., Director of Castle Rock Water
Shawn Griffith, Assistant Director of Operations
John Chrestensen, Operations Manager

Discussion/Direction: Request for Two Raw Water System Operator Staff with Excavator and Truck Purchase for Raw Water Operations Team and first Quarter Budget Amendment

Town Council Agenda Date: February 18, 2025

Executive Summary

The purpose of this request is to add two Full Time Equivalent (FTE) Raw Water System Operator I-IV positions, reporting to the Field Services Water Distribution team, a new $\frac{3}{4}$ ton work truck with a utility bed, and a new Cat 308 mini excavator. To fund these new employees and equipment, we will be utilizing a first-quarter budget amendment, in 2025 for a total amount of \$517,594, (**See Attachments A, B, and C**).

The goal of Castle Rock Water (CRW) is to consistently increase the use of renewable water for treatment and distribution. CRW is moving away from non-renewable groundwater sources, found primarily in the Dawson, Denver, and Arapahoe aquifers. CRW's ultimate goal is to be able to provide 75% renewable water for distribution by 2050. In pursuit of this goal, CRW has been making significant investments in acquiring rights for renewable water sources and building needed infrastructure to convey, store, and treat renewable water.

Currently, CRW receives renewable water from multiple sources, including:

- 14 alluvial wells along East Plum Creek
- Two surface water diversions on Plum Creek. These two diversions are the Plum Creek Diversion (PCD) and CR-1 Diversion (CR-1)
- Purchasing imported water from the South Metro Water Supply Authority through the Water Infrastructure and Supply Efficiency Project (WISE)

These sources are essential to ensure that CRW has the available water to meet and exceed the demands of its service areas, now and in perpetuity. While these sources are a vital part of our plan to ensure long-term water, the infrastructure associated with them requires a significant amount of maintenance and operator involvement for consistent and efficient operation, when compared to deep groundwater wells. Although they require more maintenance, the majority of this maintenance can be performed by in-house staff, reducing the need and cost of scheduling specialized maintenance contractors and equipment.

Alluvial wells and diversions also provide a significant cost benefit in terms of electrical use. The water from our renewable sources is either at surface elevation or in the shallow (<100' deep) stream alluvium, whereas groundwater sources range from 600'- 2,500' below surface elevation. Pumping water from these depths requires large amounts of electricity to run high-horsepower pump motors. The use of these sources also reduces the environmental impacts caused by the depletion of underground aquifers.

The most impactful staff deficiency that these raw water sources have created is the operation and maintenance of the two surface water diversions. Diversion maintenance is labor-intensive requiring multiple hours of maintenance per day to be at peak efficiency. Additionally, the reactive maintenance and repairs associated with the pumping infrastructure need to be considered.

Required daily diversion maintenance is the result of two contributing factors:

- The first is organic material in the stream, which adheres to the screen filters. This material consists of tree leaves, algae, and other vegetation that float in the stream and get stuck to the screens as water passes through them. The buildup of this material significantly reduces the amount of water that can flow through the screen. When this happens, an operator must go to the site and manually clean the screens to restore flow.
 - This activity is typically needed 1 to 3 times per day and takes 30 minutes to 2 hours for 1 to 2 operators depending upon stream flows and traffic. Labor ranges from 11 to 84 hours per week.
- The second and most impactful factor is the transference of sediment in Plum Creek. Plum Creek has a significant amount of erosion causing sand loading that constantly migrates along the bed of the stream. This sand builds up in front of the diversions and eventually moves into the structures, impeding water flows, and causing damage to the pumping and treatment plant equipment. Scheduled and reactive manual sand removal and mitigation is the only option available to remove the sand build-up and reduce equipment damage. Although both diversions have the same issue, differences in the design and the location of each diversion require significantly different processes and equipment to complete maintenance.

There are many variables involved with diversion raw water capture, but it has been proven that regular proactive maintenance increases raw water production. For example, the average daily production in gallons per day (GPD) at CR-1, over the past three years, is shown in the chart below:

- 2022: 571,324 GPD
- 2023: 611,863 GPD
- 2024: 1,058,490 GPD

The dramatic increase in 2024 can be attributed to the regularly scheduled maintenance program that was implemented in 2024. It is anticipated that a scheduled maintenance program implemented by dedicated raw water staff at PCD will have similar results.

CR-1 Diversion

Located on East Plum Creek in Castle Rock just south of the Plum Creek Water Purification Facility (PCWPF). This diversion consists of a screened section of an exposed 24” pipe that runs perpendicular to the stream flow. The screen filter is located in the center of the creek. This diversion operates by allowing surface water to infiltrate the pipe and fill a wet well, where it is then pumped directly to the raw water blending tank at PCWPF. The rated capacity of CR-1 is 5.6 cubic feet per second (CFS), or 3.6 million gallons per day (MGD). In April of 2022, the diversion captured a record amount of 2.7MGD.

The most effective way to manage the sand loading at this site is to utilize a large high-volume vacuum truck (Vac Truck) to clean the deposited sand out of the wet well. This work is scheduled twice per week during periods of high stream flows (every Monday and Thursday) and once per week (every Wednesday) during periods of low stream flows.

- Currently, vac truck work is typically performed by members of the Field Services Collection system operation team, removing the team from the primary duties of operating and maintaining the Wastewater Collection system.
- Labor: Depending on the amount of sand that has accumulated in the vault, 2 operators, trained and licensed to operate a vac truck, 2 hours per visit to complete. Labor ranges from 4 to 24 hours per week.

PCD Diversion

Located on Plum Creek in Sedalia, just downstream from the confluence of East and West Plum Creeks, roughly five miles downstream of Plum Creek Water Reclamation Authority’s Wastewater Treatment Facility outfall. This diversion sits at the edge of the stream running parallel to the stream flow. It operates by blocking the stream flows with a weir wall and the use of slide gates to create a pool of water that then flows over and through the screens. The rated capacity of PCD is 40 CFS or 25.8 MGD. The water then flows through an underground structure that fills the wet well of the Plum Creek Diversion Pump Station (PCDPS), where it is pumped to Castle Rock Reservoir 1 (CRR1) and the soon-to-be-completed Castle Rock Reservoir 2 (CRR2) for storage. The stored water in CRR1/CRR2 is then pumped to PCWPF through the PCD Pump Station and to the Ravenna Golf Course through the Ravenna Pump Station.

The sand loading issue at the Sedalia site is significantly more impactful and requires more frequent intervention to keep it from interrupting diversion operations and causing damage to the pump station, piping, and pumps. Five main forms of routine sand removal and mitigation operations are needed to keep this diversion and pump station operating consistently:

- Setting and maintaining large sandbags (Super Sacks) in the stream channel
 - A large excavator with at least two operators is required to set the sacks. Adjustment of the Super Sacks is critical due to frequent stream flow changes. Relocating the Super Sacks based on the stream flows creates the proper scour depression in front of the intake structure and increases the amount of water that can flow into the structure. Stream erosion and flood events necessitate continuous Super Sack maintenance for

efficient diversion operations.

- Labor: 2 operators, 4 to 6 hours to complete, and is needed 1 to 2 times per month, depending upon stream flows and storm events.
- Scouring sand that builds up in front of the intake structure
 - Operators must go to the site two or three times per day to operate the slide gates, which allow built-up sand in front of the diversion structure to scour downstream.
 - This operation is typically completed by members of the Treatment Services team, removing staff from the primary duties of operating the treatment plants and maintaining water and water quality in the distribution system.
 - Labor: typically takes 1 operator, 1 hour on-site, and 1 hour of travel time. Labor ranges from 28 to 42 hours per week.
- Removing accumulated sand from inside of the intake structure
 - A mini excavator and a dump truck are used to scoop the sand out and truck it to a stockpile location. Removing the sand from the intake structure requires a skilled operator to carefully dig inside the concrete structure and place the sand in a dump truck.
 - This operation requires the use of equipment close to the fragile and expensive stainless-steel screens; only expert-level heavy equipment operators can perform this task. As such, it is completed by senior members of the Field Services team, removing staff from the primary duties of operating and maintaining the Stormwater, Water Distribution, and Wastewater Collection systems.
 - Labor: 2 operators 3 to 5 hours to complete and are needed 1 to 2 times per week. Labor ranges from 6 to 30 labor hours per week.
- Removing accumulated sand from the downstream side of the diversion
 - A large excavator is used to enter the stream and dig out sand from behind the diversion. The sand is then stockpiled on the stream bank where it is later loaded into dump trucks and trucked to a stockpile location.
 - This operation requires the use of large heavy equipment close to the diversion structure and in the stream flow, only expert-level heavy equipment operators can perform this task. As such, it is completed by senior members of the Field Services team, removing staff from primary duties of operating and maintaining the Stormwater,

Water Distribution, and Wastewater Collection systems.

- Labor: 3 operators 6 to 12 hours to complete and are needed once a week to once every other week. Labor ranges from 9 to 36 hours per week to complete.
- Removing accumulated sand from the sand vault, 42” pipe, and wet well at PCDPS
 - Over time smaller suspended particles of sand, pass through the filter screens in the diversion. Sediment deposits build up inside the sand vault, the 42” diameter pipe, and the wet well of the pump station.
 - As sand accumulates and travels through the system it causes a loss of production as well as significant damage to the pumps. Recently, this issue caused a catastrophic failure of one of the small-duty pumps inside the pump station, in the middle of the summer demand season. This damage required the pump to be taken out of service and sent in for repairs. The overall cost for the pump repair and the crane service to remove and reinstall the pump was \$26,122. The repair took four months to complete.
 - Due to the long lead time involved in getting these pumps repaired and the loss of pumping capacity when they are out of service, CRW purchased a spare pump, stored at the pump station, to reduce the downtime during pump repairs. The cost of the spare pump was \$67,232.
 - This work is a three-step process:
 - A vac truck is used to suck out the deposited sand from the sand vault.
 - Operators enter the 42” pipe with fire hoses to blast the sand from the pipe into the sand vault and wet well.
 - Operators enter the wet well and utilize shovels and fire hoses to liquefy and move the sand to the sand pump, pumping it out of the wet well.
 - Labor: This complex maintenance operation requires 12 operators 10 to 15 hours to complete and was required 3 times in 2024. The total labor hours for this task range from 360 - 540 annually or roughly 7 to 10 labor hours weekly to complete.

CRR1 and CRR2 Raw Water Reservoirs

- CRR1 and CRR2 are raw water reservoirs that store creek water pumped from the PCD.
- The water stored in these two reservoirs is then pumped through the PCDPS to

PCWPF.

- This water in the reservoirs is used for potable drinking water, close water quality monitoring is required.
- The required frequency of water quality monitoring changes seasonally and typically increases during late spring through the summer demand season.
 - Samples are typically taken twice in May and then weekly from June - October. Operators must launch a boat to pull water samples from specific locations and water depths from the reservoir.
 - Labor: 2 operators 3 hours to complete, 22 times per year. The total labor hours for this task are 2.5 hours per week, 132 hours annually.

Alluvial Well Maintenance

- There are 14 wells in the shallow stream alluvium under East Plum Creek, classified as Ground Water Under the Direct Influence of Surface Water (GWUDI) wells. Because of this, the raw water from these wells has higher concentrations of Iron, Manganese, and organic material, than deep groundwater wells. As a result, these wells become fouled quickly as material builds up on the well equipment and piping, increasing maintenance needs.
- To keep up with this maintenance and ensure consistent flows, CRW plans to conduct rehabilitation (rehab) work each year.
- This rehab work consists of hiring a specialized well contractor to pull and clean the well equipment, bail accumulated sediment from the well casing, and wash the well screen to remove iron deposits and other materials that may clog the screen.
- Once the equipment has been pulled by the well contractor, CRW staff will complete an ice-pigging operation, to clean the piping from the wellhead to the metering vault.
- Labor: requires the use of a vac truck as well as several other specialized pieces of equipment, requiring 5 operators roughly 10 hours to complete. Total labor hours for this task are 4 hours per week, with approximately 200 labor hours annually.

Meadow Ditch Water Rights Infrastructure

- CRW recently acquired Meadow Ditch water rights and infrastructure.
- Maintenance activities include those at Meadows Ditch (Indian Creek), Deer Creek (upstream of Chatfield Reservoir), Cook Creek (tributary to East Plum Creek), and the

Highline Ditch water rights (along East Plum Creek), among others.

- Maintenance activities include vegetation and debris removal, streambed maintenance, flow measuring devices maintenance, and creating field reports for the supervisors.
- As these resources are new to CRW, we do not have a full understanding of the amount of or frequency of maintenance activities that will be required. However, operating and maintaining this infrastructure will increase the total labor hours associated with renewable water resources.

When the total labor hours are added up for the routine maintenance requirements at both diversions, the raw water reservoirs, and the alluvial wells, the CRW Operations team dedicates between 74 to 239 labor and equipment hours each week, or 3,817 to 12,397 annually to ensure consistent renewable water operations. These labor hours do not include the hours that will be needed to maintain the Meadow Ditch Water Rights infrastructure and will be higher than this in 2025.

The teams primarily impacted by this additional maintenance are:

- Water Treatment Operations
- Field Services Stormwater Maintenance Operations
- Field Services Wastewater Collections Operations
- Field Services Distribution Operations
- Plant Maintenance
- Water Quality

Performing these maintenance duties removes staff from the primary duty of treating water and repairing and maintaining Town infrastructure. The additional raw water maintenance work causes Operation team problems, such as:

- Extended assigned project completion timelines
- Difficulty reaching annual maintenance goals
- Sudden storm-related re-prioritization of tasks
- Planned project backlogs
- Increases in required staff overtime

All of these issues may contribute to a lack of employee job satisfaction, stress, and burnout.

Discussion

CRW currently has two large Capital Improvement Projects (CIP) underway that will be completed within the next three years. These projects are:

- The construction of Castle Rock Reservoir 2 (CRR2) and expansion of Castle Rock Reservoir 1 (CRR1), with project cost for Design and Construction at \$30 million.
- The expansion of PCWPF from 6 million gallons per day (MGD) to 12 MGD, with project cost for design and construction at \$74 million.

These projects will increase CRW's ability to store and treat renewable water and will rely on the two surface water diversions operating at the full rated capacity of 29.4 MGD combined while ensuring that the alluvial wells operate at maximum efficiency. In 2024, the average combined production of the diversions was 1.44 MGD with the highest single-day production of 7.96 MGD. Fully operational and reliable diversions, particularly during times of Free River, will allow the maximization of water rights, and increase the volume of stored water in CRR1 and CRR2 for treatment at PCWPF.

The addition of two Raw Water System Operator IV positions as well as the purchase of a utility truck and a dedicated diversion maintenance mini excavator will benefit CRW and the Town by providing the staffing levels required for:

- Consistently operating the surface water diversions in a safe, efficient, and cost-effective manner.
- Consistent focus on the repair, maintenance, and production goals in all operational systems.
- Maximizing available renewable water for treatment.
- Increasing in-house staff competency.
- Creating standard operating procedures for diversion maintenance.
- Moving from reactive maintenance to routine and predictive maintenance cycles at the diversions.
- Operating the raw water storage reservoirs at full potential (CRR1/CRR2).
- Creating the framework needed to meet CRW's goal of providing 75% renewable water by 2050.
- Increasing available water at PCWPF, up to 12 million gallons per day, once the plant expansion is complete in 2028.

Adequate staffing is a requirement for safety, maintaining current levels of service, having the available water resources for treatment needs, and the efficient, cost-effective production of high-quality water, which is a valuable benefit for CRW Customers.

This request takes into account the following tactics or initiatives from the CRW Strategic Plan:

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- Strategic Goal Tactic 1-2-2: “Complete the construction of CRR2 and the expansion of CRR1.” With the additional volume of surface water storage that will be available shortly, maximizing the ability to divert surface water at PCD is imperative to meet our goal of 75% renewable water use by 2050.
- Strategic Goal Tactic 1-2-8: “Optimize the amount of water stored in all reservoirs each year.” With the addition of two Raw Water System operators, dedicated staff will be available to operate the PCD and CR-1 Diversions and help keep renewable water flowing to the reservoirs and to PCWPF for treatment.
- Strategic Goal Tactic 1-2-18 and 19: “Upgrade PCD to maximize its operational ability relative to the current permitted capacity.” The new staff will become experts in the operation of diversions, obtaining a clearer understanding of needed upgrades essential for operational optimization.
- Strategic Goal Tactic 5-3-26: “Refine reservoir monitoring procedures to help anticipate toxic algal blooms.” With this addition, CRW will have staff members at the reservoir site nearly every day, available to inspect, test, and monitor reservoir water quality frequently, responding quickly to issues.

Next Best Alternative(s): Is there an alternative that would meet or partially meet the requested objective? Are there any consequences?

One option is to continue to operate these diversions by utilizing the members of the various teams in Operations fitting these tasks into their schedules, as needed. However, this will continue to cause deficiencies in the individual work groups by adding additional workload. Also, diversion operation may not be optimized, which will impact diversion production capabilities, limiting the availability of renewable water.

Another alternative that would partially meet the objective would be to utilize a contractor to perform the sand removal and dredging operations at the diversions. This option would reduce the staff and equipment time needed to perform these tasks but would require a staff member to be onsite to coordinate, oversee the work, and operate infrastructure. While this option would alleviate some of the staffing and equipment needs, the rates for the contractor will likely exceed the annual cost of having dedicated FTEs. Also, this option has been utilized in the past with limited success, due to the availability of the contractors.

Budget Impact

Funds for this request will need to be added to the Water Resources accounts, as shown in the charts below:

For Staff Salaries & Wages:

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Fund Name	Account Number	Spilt
Field Services	211-4345-443.10-10	50%
Treatment Services	211-4360-443.10-10	50%

For Equipment and Vehicle:

Fund Name	Account Number	Spilt
Field Services	211-4345-443.70-30	100%

Staff Recommendation

Staff recommends an amendment to the 2025 budget to add two additional FTEs, a new work truck, and a new Mini Excavator.

Attachments

- Attachment A:** Raw Water System Operator BCR Form
- Attachment B:** Asset Addition Estimate Template - Ford F250
- Attachment C:** Asset Addition Estimate Template - Cat 308



Town of Castle Rock Castle Rock Fleet Services

Vehicle Replacement Estimate

Estimate prepared for Department: Castle Rock Water
 Date: 11/15/2024

New Vehicle Description

Make	2025 Ford
Model	F250 Super (Extended) Cab work truck with utility service body.
Vehicle Class	
Projected In Service Date	2/28/2024
Number of Vehicles Requested	1
Description/Reason:	Raw Water System Operators

Funding Source (Fund)	
Operating Funding Source	
Estimated Vehicle Cost (ea.)	67,000
Estimated Add-On Equipment Cost (ea.) See Itemized list from "Vehicle Addition" page.	-
Total Estimated Vehicle Cost \$	67,000
Replacement fund contributions 221-8100-342 65-00	-
Estimated Salvage Value	-
Total Estimated Replacement Funds Available \$	-
Total Estimated Additional Funding Needed from Department \$	67,000

Replaced Asset Disposition	
Replaced Asset Number	
Estimated Vehicle Life (years)	12
Unleaded/Diesel	Unleaded
Estimated Mileage/Yr. (ea.)	6,000
Estimated MPG	12

Costs	2024	2025	2026
% of Year	84.17%	100.00%	100.00%
Year	1	2	3
Vehicle Purchase	67,000.00	-	-
Est. Vehicle Replacement Contribution (91-85) (Starts next budget year) Excess proceeds from sale may role into contribution balance.	5,583.00	5,583.00	5,583.00
.91-85			
Est. Fleet Admin Fee (91-85)	430.28	430.28	430.28
.91-85			
Est. Maintenance (40-33)	3,000	3,300	3,600
.40-33			
Est. Fuel (61-23)	1,750.00	1,750.00	1,750.00
.61-23			
Total Annual Cost	77,763.28	11,063.28	11,363.28
221-8100-342.70-00	430		



Town of Castle Rock Castle Rock Fleet Services

Vehicle Replacement Estimate

Estimate prepared for Department:

Castle Rock Water

Date:

11/15/2024

New Vehicle Description

Make	2025 CAT
Model	Cat 308 Mini Hydraulic Excavator
Vehicle Class	
Projected In Service Date	3/1/2025
Number of Vehicles Requested	1
Description/Reason:	Raw Water System Operators

Funding Source (Fund)

Operating Funding Source	
Estimated Vehicle Cost (ea.)	160,000
Estimated Add-On Equipment Cost (ea.) See Itemized list from "Vehicle Addition" page.	-
Total Estimated Vehicle Cost \$	160,000
Replacement fund contributions 221-8100-342 65-00	-
Estimated Salvage Value	-
Total Estimated Replacement Funds Available \$	-
Total Estimated Additional Funding Needed from Department \$	160,000

Replaced Asset Disposition

Replaced Asset Number	
Estimated Vehicle Life (years)	12
Unleaded/Diesel	Unleaded
Estimated Mileage/Yr. (ea.)	6,000
Estimated MPG	12

Costs

	2024	2025	2026
% of Year	0.00%	83.33%	100.00%
Year	0	1	2
Vehicle Purchase	-	160,000.00	-
Est. Vehicle Replacement Contribution (91-85) (Starts next budget year) Excess proceeds from sale may roll into contribution balance.	13,333.00	13,333.00	13,333.00
Est. Fleet Admin Fee (91-85)	-	430.28	430.28
Est. Maintenance (40-33)	3,000	3,300	3,600
Est. Fuel (61-23)	1,750.00	1,750.00	1,750.00
Total Annual Cost	18,083.00	178,813.28	19,113.28
221-8100-342.70-00	-		



Town of Castle Rock

Agenda Memorandum

Agenda Date: 1/22/2025

Item #: 9. **File #:** WC 2025-009

To: Members of the Castle Rock Water Commission

From: Mark Marlowe, P.E., Director of Castle Rock Water
Shawn Griffith, Assistant director of Operations
John Chrestensen, Operations Manager

Resolution Approving a Contract Amendment with Applied Ingenuity PM, LLC to Provide Funding for 2024 Emergency Repairs to Castle rock Water Deep Wells 31R, 27 and 227 [Castle Rock wells located in various areas of the service territory]
Town Council Agenda Date: January 21, 2025

Executive Summary

Attached is the Town Council packet for this item.

Attachments

Attachment A: Town Council Packet



MEMORANDUM

To: David L. Corliss, Town Manager

Thru: Mark Marlowe, Director Castle Rock Water

From: Shawn Griffith, Assistant Director Operations
John Chrestensen, Operations Manager

Date: December 7, 2023

Title: 2024 On-call Well Maintenance and Repair Services

Executive Summary

Castle Rock Water (CRW) staff requests the Town Manager's approval to enter into a first renewal of the services agreement, with Applied Ingenuity, LLC (Applied) for emergency deep and alluvial well repairs, on an as-needed basis. This as-needed services agreement will not exceed \$100,000, (*see Attachment A*). The original 2023 agreement allowed for two renewal terms which could extend the agreement through 2025. This is the first renewal.

Discussion

CRW requires a qualified well repair contractor to repair and maintain equipment, used in 65 deep wells and 14 alluvial wells, located throughout Town. The scope of work includes providing all labor and materials needed to conduct well maintenance, well pump and equipment troubleshooting and repairs, deep well video recording, and supply of temporary loaner pumps, motors, and equipment. This contractor will also assist with well startups and conduct well disinfections.

Applied's rates did not increase in 2024. In 2023 Applied completed six task orders, five were for deep well repairs and one was for an alluvial well repair. These task orders included troubleshooting problems with wells, pump pulls, replacing pumps and motors, and well-drive repairs, for the total amount of \$55,895. In 2024 the sum of all task orders shall not exceed \$100,000.

Budget Impact

This project will be funded through the Water and Water Resources Facility Maintenance Purchased Property Services Repair & Maintenance Wells line items as follows:

Fund Name	Account Number	Cost	2024 Account Balance
Repair & Maintenance Wells	210-4250-442.40-37	\$80,000	\$80,000
Repair & Maintenance Wells	211-4350-443.40-37	\$20,000	\$50,000
Total		\$100,000	\$130,000

Staff Recommendation

Staff recommends entering into a renewal of the on-call services agreement with Applied Ingenuity, LLC for an amount not to exceed \$100,000.

Attachments

Attachment A – Applied Ingenuity, LLC Service Agreement



CON-2023-0833

FIRST AMENDMENT TO TOWN OF CASTLE ROCK SERVICES AGREEMENT TO PROVIDE ON-CALL SERVICES (2024 On-Call Repair and Maintenance)

DATE: December 7, 2023.

PARTIES: **TOWN OF CASTLE ROCK**, a Colorado municipal corporation, 100 N. Wilcox Street, Castle Rock, Colorado 80104 (“Town”).

APPLIED INGENUITY, LLC, a Colorado limited liability company, 14920 Harvest Road, Brighton, Colorado 80603 (“Contractor”).

RECITALS:

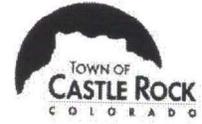
- I. The Town and Contractor entered into a Service Agreement on February 3, 2023 (the “Agreement”), to provide emergency deep and alluvial well repairs on an as needed basis set forth in the Agreement, and attached hereto as *Exhibit A-1*.
- II. Pursuant to the terms of the Agreement, the Parties may renew the Agreement under the same terms and conditions for up to two (2) additional one-year terms by executing a Renewal Agreement.
- III. The parties desire to amend the Agreement by eliminating the need to execute a Renewal Agreement, extend the Term of the Agreement by one year through a written amendment and incorporate Contractor’s 2024 rate sheet/schedule.
- IV. The Town and Contractor wish to memorialize these changes in this First Amendment to the Agreement (“First Amendment”).

TERMS:

- 1. **Amendment.** Section 2 of the Agreement is amended to read as follows:

“Section 2. Term/Completion. The Parties agree to extend the term of this Agreement by one (1) year, with an expiration date of December 31, 2024 (the “2024 Term”) under the same terms and conditions of the Agreement, unless otherwise amended. The Parties may mutually agree to extend the Term of this Agreement for one (1) additional one-year term under the same terms and conditions by executing a written amendment to this Agreement prior December 31, 2024. Nothing in this paragraph prohibits the parties from amending the payment section and/or incorporating an updated rate and fee schedule should the Parties elect to extend the term of the Agreement. Contractor shall devote adequate resources to assure timely completion of the Services. Contractor shall perform the Services under this Agreement using a standard of care, skill and diligence ordinarily used by reputable professionals performing under circumstances similar to those required by this Agreement.

CON-2023-0833



The Town shall have the right to terminate this Agreement at any time with thirty (30) days written notice to Contractor. The Town’s only obligation in the event of termination shall be payment of fees and expenses incurred up to and including the effective date of termination. Projects initiated before the expiration of this Agreement shall survive expiration of this Agreement and shall be completed pursuant to the terms of this Agreement unless Town gives Contractor notice of termination of the project.”

2. **Amendment.** Section 3 of the Agreement is amended to read as follows:

“Section 3. **Payment.** Contractor shall invoice Town for Services rendered under a Task Order at the rates designated in the attached *Exhibit B-1* (“2024 Rates”). Contractor shall submit invoices upon completion of a Task and Town shall pay such invoices within thirty (30) days receipt. In no event shall payment for the 2024 Term exceed **\$100,000.00**, unless authorized in writing by Town.”

3. **Certificate of Insurance.** An updated Certificate of Insurance for Contractor is attached as *Exhibit C-1*.

4. **Ratification.** In all other respects, the Agreement shall remain in full force and effect.

ATTACHED EXHIBITS:

EXHIBIT A-1 – AGREEMENT

EXHIBIT B-1 – 2024 RATE SHEET

EXHIBIT C-1 – CONTRACTOR’S CERTIFICATE OF INSURANCE

ATTEST:

DocuSigned by:
Lisa Anderson
298A8A4EDEE34AF...
Lisa Anderson, Town Clerk



TOWN OF CASTLE ROCK

DocuSigned by:
David L. Corliss
1BB5457CFF75474...
David L. Corliss, Town Manager

Approved as to form:

DocuSigned by:
Lindsay M. Jordan
1C100C15C47A4A9...
Lindsay M. Jordan, Assistant Town Attorney

Approved as to content:

DocuSigned by:
Mark Marlowe
FEA6D2E651B241D...
Mark Marlowe, Director of Castle Rock Water

CONTRACTOR:

APPLIED INGENUITY, LLC

By: *Scott Martin*

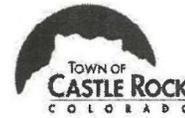
Its: *President*

CON-2023-0833



EXHIBIT A-1

AGREEMENT



**TOWN OF CASTLE ROCK SERVICES AGREEMENT
TO PROVIDE ON-CALL SERVICES
(2023 On-Call Well Repair and Maintenance)**

DATE: February 3, 2023.

PARTIES: **TOWN OF CASTLE ROCK**, a Colorado municipal corporation, 100 N. Wilcox Street, Castle Rock, Colorado 80104 (the "Town").

APPLIED INGENUITY, LLC, a Colorado limited liability company, 14920 Harvest Road, Brighton, Colorado 80603 ("Contractor").

RECITALS:

- A. The Town wishes to engage Contractor on an on-call basis to provide the services more fully described in the following Agreement and Exhibits.

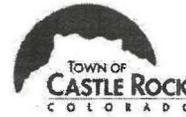
TERMS:

Section 1. Scope of Services. Contractor shall provide emergency deep and alluvial well repairs as needed for the Town in accordance with the scope of services in *Exhibit 1* ("Services"). The Town shall issue task orders for Services on an as-needed basis generally in the form attached as *Exhibit 2* ("Task Order"). Contractor may decline to undertake the Task Order. The Town shall not be obligated to use Contractor for any specific task.

Section 2. Term / Renewal. The term of this Agreement shall commence upon execution and expire on December 31, 2023. Provided, this Agreement may be renewed by the parties under the same terms and conditions for up to two (2) additional one-year terms by executing the Renewal Agreement, attached as *Exhibit 3* ("Renewal Term"). Contractor shall devote adequate resources to assure timely completion of the Services. Contractor shall perform the Services under this Agreement using a standard of care, skill and diligence ordinarily used by reputable professionals performing under circumstances similar to those required by this Agreement.

The Town shall have the right to terminate this Agreement at any time with 30 days written notice to Contractor. The Town's only obligation in the event of termination shall be payment of fees and expenses incurred up to and including the effective date of termination. Contractor shall turn over all work product produced up to the date of termination. Projects initiated before the expiration of this Agreement shall survive expiration of this Agreement and shall be completed pursuant to the terms of this Agreement unless Town gives Contractor notice of termination of the project.

Section 3. Payment. Contractor shall invoice Town for the Services rendered under a Task Order at the rates designated in the attached *Exhibit 1*. Contractor shall submit invoices upon completion of a Task and Town shall pay such invoices within 30 days of



receipt. In no event shall the cumulative payments to Contractor under this Agreement exceed \$100,000.00, unless authorized in writing by the Town.

Section 4. Annual Appropriation. The continuance of this Agreement is contingent upon the appropriation of funds to fulfill the requirements of the Agreement by the Town. If the Town fails to appropriate sufficient monies to provide for the continuance of the Agreement, the Agreement shall terminate on the final day preceding the date of the beginning of the first fiscal year for which funds are not appropriated. The Town's only obligation in the event of termination shall be payment of fees and expenses incurred up to and including the effective date of termination.

Section 5. Performance of Services. Contractor shall complete the Services for each task in accordance with the timeframe set forth in the Task Order. Contractor shall devote adequate resources to assure timely completion of the Services. Contractor shall perform the Services under this Agreement using a standard of care, skill and diligence ordinarily used by reputable professionals performing under circumstances similar to those required by this Agreement.

Section 6. Subcontractors. Contractor may utilize subcontractors to assist with non-specialized work as necessary to complete Task Orders. Contractor will submit any proposed subcontractor and the description of their services to the Town for approval prior to the execution of the Task Order. Contractor shall be solely responsible for payment to such approved subcontractor.

Section 7. Assignment. This Agreement shall not be assigned by Contractor without the written consent of the Town.

Section 8. Notice. Any notice required or permitted by this Agreement shall be in writing and shall be deemed to have been sufficiently given for all purposes if sent by certified mail or registered mail, postage and fees prepaid, addressed to the party to whom such notice is to be given at the address set forth on the first page of this Agreement, or at such other address as has been previously furnished in writing to the other party or parties. Such notice shall be deemed given when deposited in the United States mail.

Section 9. Insurance. Contractor agrees to procure and maintain, at its own cost, the following policy or policies of insurance. Contractor shall not be relieved of any liability, claims, demands or other obligations assumed pursuant to this Agreement by reason of its failure to procure or maintain insurance, or by reason of its failure to procure or maintain insurance in sufficient amounts, durations, or types.

A. Contractor shall procure and maintain, and shall cause each subcontractor of the Contractor to procure and maintain, a policy with the minimum insurance coverage listed below. Such coverage shall be procured and maintained with forms and insurers acceptable to the Town. All coverage shall be continuously maintained from the date of commencement of services hereunder. In the case of any claims-made policy, the necessary retroactive dates and extended reporting periods shall be procured to maintain such continuous coverage.



1. Workers Compensation insurance to cover obligations imposed by the Workers Compensation Act of Colorado and any other applicable laws for any employee engaged in the performance of Work under this contract, and Employer's Liability insurance with minimum limits of FIVE HUNDRED THOUSAND DOLLARS (\$500,000) each accident, FIVE HUNDRED THOUSAND DOLLARS (\$500,000) disease-policy limit, and FIVE HUNDRED THOUSAND DOLLARS (\$500,000) disease-each employee.

2. Comprehensive General Liability insurance with minimum combined single limits of ONE MILLION DOLLARS (\$1,000,000) each occurrence and ONE MILLION DOLLARS (\$1,000,000) aggregate. The policy shall be applicable to all premises and operations. The policy shall include coverage for bodily injury, broad form property damage (including for contractual and employee acts), blanket contractual, independent contractors, products, and completed operations. The policy shall contain a severability of interests provision.

3. Comprehensive Automobile Liability Insurance with minimum combined single limits for bodily injury and property damage of not less than ONE MILLION DOLLARS (\$1,000,000) each occurrence and ONE MILLION DOLLARS (\$1,000,000) aggregate with respect to each of Contractor's owned, hired and/or non-owned vehicles assigned to or used in performance of the services. The policy shall contain a severability of interests provision.

4. Professional Liability insurance with minimum limits of ONE MILLION DOLLARS (\$1,000,000) per claim and ONE MILLION DOLLARS (\$1,000,000) aggregate.

B. The policies required above, except Workers' Compensation insurance, Employers' Liability insurance and Professional Liability insurance shall be endorsed to include the Town, its officers and employees, as additional insureds. Every policy required above, excluding Workers Compensation, shall be primary insurance, and any insurance carried by the Town, its officers, or its employees, shall be excess and not contributory insurance to that provided by Contractor. The additional insured endorsement for the Comprehensive General Liability insurance required above shall not contain any exclusion for bodily injury or property damage arising from completed operations. The Contractor shall be solely responsible for any deductible losses under each of the policies required above.

C. Certificates of insurance shall be completed by Contractor's insurance agent and submitted at the time of execution of this Agreement as *Exhibit 4* as evidence that policies providing the required coverage, conditions and minimum limits are in full force and effect, and shall be subject to review and approval by the Town. Each certificate shall identify the Project and shall provide that coverage afforded under the policies shall not be cancelled, terminated or materially changed until at least 30 days prior written notice has been given to the Town. If the words "endeavor to" appear in the portion of the certificate addressing cancellation, those words shall be stricken from the certificate by the agent(s) completing the



certificate. The Town reserves the right to request and receive a certified copy of any policy and any endorsement thereto.

D. Failure on the part of Contractor to procure or maintain policies providing the required coverage, conditions, and minimum limits shall constitute a material breach of contract upon which at the Town's discretion may procure or renew any such policy or any extended connection therewith, and all monies so paid by the Town shall be repaid by Contractor to the Town upon demand, or the Town may offset the cost of the premiums against any monies due to Contractor from the Town.

Section 10. Colorado Governmental Immunity Act. The parties understand and agree that the Town is relying on, and does not waive or intend to waive by any provision of this contract, the monetary limitations (presently \$424,000 per person, \$1,195,000 for two or more persons, per occurrence) or any other rights, immunities, and protections provided by the Colorado Governmental Immunity Act, §24-10-101, *et seq.*, C.R.S., as from time to time amended, or otherwise available to Town, its officers, or its employees.

Section 11. Indemnification. Contractor expressly agrees to indemnify and hold harmless the Town or any of its officers or employees from any and all claims, damages, liability, or court awards including attorney's fees that are or may be awarded as a result of any loss, injury or damage sustained or claimed to have been sustained by anyone, including, but not limited to, any person, firm, partnership, or corporation, to the extent caused by the negligent acts, errors or omissions of Contractor or any of their employees or agents in performing work pursuant to this Agreement. In the event that any such suit or action is brought against the Town, the Town will give notice within ten (10) days thereof to Contractor.

Section 12. Delays. Any delays in or failure of performance by any party of their obligations under this Agreement shall be excused if such delays or failure are a result of acts of God, fires, floods, strikes, labor disputes, accidents, regulations or orders of civil or military authorities, shortages of labor or materials, or other causes, similar or dissimilar, which are beyond the control of such party.

Section 13. Additional Documents. The parties agree to execute any additional documents or take any additional action that is necessary to carry out this Agreement.

Section 14. Entire Agreement. This Agreement represents the entire agreement between the parties and there are no oral or collateral agreements or understandings. This Agreement may be amended only by an instrument in writing signed by the parties. If any other provision of this Agreement is held invalid or unenforceable, no other provision shall be affected by such holding, and all of the remaining provisions of this Agreement shall continue in full force and effect.

Section 15. Time of the Essence. Time is of the essence. If any payment or any other condition, obligation, or duty is not timely made, tendered or performed by either party, then this Agreement, at the option of the party who is not in default, may be terminated by the



non-defaulting party, in which case, the non-defaulting party may recover such damages as may be proper.

Section 16. Default and Remedies. In the event either party should default in performance of its obligations under this agreement, and such default shall remain uncured for more than 10 days after notice of default is given to the defaulting party, the non-defaulting party shall be entitled to pursue any and all legal remedies and recover its reasonable attorney's fees and costs in such legal action. In addition, no Party will be entitled to lost profits, economic damages, or actual, direct, incidental, consequential, punitive or exemplary damages in the event of a default.

Section 17. Waiver. A waiver by any party to this Agreement of the breach of any term or provision of this Agreement shall not operate or be construed as a waiver of any subsequent breach by either party.

Section 18. Governing Law. This Agreement shall be governed by the laws of the State of Colorado in the Douglas County District Court.

Section 19. Independent Contractor. Contractor has completed the Affidavit of Independent Contractor Status, attached as *Exhibit 5*, and submitted same at the time of execution of this Agreement. In addition to the Affidavit, Contractor and the Town hereby represent that Contractor is an independent contractor for all purposes hereunder. Contractor represents and warrants that they are free from the Town's direction and control in the performance of their work or services and that they have an independent business doing the specific type of work or services which are the subject of this Agreement. More specifically, Contractor represents and warrants that the Town does not control what work or services they will perform or the manner in which such work or services will be performed. As such, Contractor is not covered by any worker's compensation insurance or any other insurance maintained by Town except as would apply to members of the general public. Contractor shall not create any indebtedness on behalf of the Town.

Section 20. No Third Party Beneficiaries. It is expressly understood and agreed that enforcement of the terms and conditions of this Agreement, and all rights of action relating to such enforcement, shall be strictly reserved to Town and Contractor, and nothing contained in this Agreement shall give or allow any such claim or right of action by any other third party on such Agreement. It is the express intention of the parties that any person other than Town or Contractor receiving services or benefits under this Agreement shall be deemed to be an incidental beneficiary only.

Section 21. Counterparts. This Agreement may be executed in counterparts, each of which shall be deemed an original, and all of which together shall be deemed to constitute one and the same instrument. Each of the Parties hereto shall be entitled to rely upon a counterpart of the instrument executed by the other Party and sent by electronic mail.



ATTEST:

DocuSigned by:
Lisa Anderson



Lisa Anderson, Town Clerk

TOWN OF CASTLE ROCK

DocuSigned by:
David L. Corliss

David L. Corliss, Town Manager

Approved as to form:

Michael J. Hyman
Michael J. Hyman, Town Attorney

Approved as to content:

Mark Marlowe
Mark Marlowe, Director of Castle Rock Water

CONTRACTOR:

APPLIED INGENUITY, LLC

By: *Fred [Signature]*

Its: *President*

Previously Executed



EXHIBIT 1

SERVICES AND RATES

Services: Contract will repair and maintain equipment used in 64 deep wells and 14 alluvial well located throughout the Town. The scope of work includes providing all labor and materials needed to conduct well maintenance, well pump and equipment troubleshooting and repairs, deep video recording, and supply temporary loaner pumps, motors and equipment. Contractor will also assist with well startups and conduct well disinfections.

Rates:

	A	B	C	D	E	F	G
2	APPLIED LABOR AND EQUIPMENT RATES						
3							
4	Unit #	DESCRIPTION	RATE				
5		ADMINISTRATION	\$110.00				
6		PROJECT MANAGER	\$82.50				
7		SHOP FAB 1M	\$77.00				
8		SHOP LOAD 1M	\$55.00				
9		TECHNICIAN TRAVEL	\$82.50				
10		PICK UP TRAV 1M	\$66.00				
11		FLATBED TRAV 1M	\$71.50				
12	110	15T/CRANE TRAV 1M	\$99.00				
13	100	50T TRAV 1M	\$110.00				
14		PICK UP MILEAGE 1M	\$1.91				
15		FLATBED MILEAGE 1M	\$2.23				
16		TRAILER ADD MILEAGE	\$0.84				
17		15T/CRANE MILEAGE	\$3.03				
18		50T MILEAGE	\$3.83				
19		PICK UP SITE 1M	\$71.50				
20		TECHNICIAN SITE 1M	\$105.00				
21	110	15T/CRANE SITE 1M	\$132.00				
22	100	50T SITE 1M	\$220.00				
23		BASE CHARGE RIG	\$300.00				
24		FORKLIFT SITE 1M	\$104.50				
25		PER DIEM 1M	\$250.00				
26		PER DIEM 2M	\$380.00				
27		PER DIEM 3M	\$500.00				
28		PER DIEM 4M	\$580.00				
29		ADD 1 MAN LABOR	\$44.00				
30		ADD 2 MEN LABOR	\$88.00				
31		ADD 3 MEN LABOR	\$132.00				
32		ADD 4 MEN LABOR	\$176.00				
33		ADD 5 MEN LABOR	\$220.00				
34		Overtime 1M	\$22.00				
35		Overtime 2M	\$44.00				
36		Overtime 3M	\$66.00				
37		Overtime 4M	\$88.00				
38		TOLL	\$3.00				

Not to exceed \$100,000 in 2023.



Task Order # _____

EXEMPLAR – NOT FOR EXECUTION

EXHIBIT 2

TASK ORDER

This Task Order, dated this ____ day of _____, 20__ is issued in accordance with the terms and conditions of the Town of Castle Rock Services Agreement to Provide On-Call __ Services dated _____ (“Agreement”), including rates and fees established therein. The scope of work to be performed under this Task Order is attached as **Exhibit A**. Consultant shall reference the Task Order number assigned above on all correspondence and billings.

Task Title:

Cost of Task:

Schedule:

Attest:

Lisa Anderson, Town Clerk

Town of Castle Rock

Dept. Dir/Manager/Mayor

Approved as to form:

Michael J. Hyman, Town Attorney

Approved as to content:

Contractor:

By: _____

Its: _____

Account Number:

Project Manager:

Previously Executed



EXHIBIT 3

**RENEWAL OF
TOWN OF CASTLE ROCK
SERVICES AGREEMENT**

(Click or tap here to enter text.)

DATE: _____

PARTIES: **TOWN OF CASTLE ROCK**, a Colorado municipal corporation, 100 N. Wilcox Street, Castle Rock, Colorado 80104 (Town).

CLICK OR TAP HERE TO ENTER TEXT., Click or tap here to enter text. (“Contractor”).

RECITALS:

A. The Town and Contractor are parties to the Town of Castle Rock Click or tap here to enter text. Agreement () dated Click or tap here to enter text. (“Agreement”) and attached as *Exhibit A*.

B. The term of the Agreement expires Click or tap here to enter text.. The parties wish to renew the Agreement under the same terms and conditions for an additional one-year term, expiring on Click or tap here to enter text..

C. The parties desire to amend the Agreement to incorporate a new rate/fee schedule for 20____, attached as *Exhibit B* and extend the term of the Agreement.

TERMS:

Section 1. Renewal of Agreement. The Agreement shall be renewed for an additional one-year term, expiring Click or tap here to enter text..

Section 2. Amendment. The rate and fee schedule attached as *Exhibit B* to this Renewal Agreement is incorporated herein and made a part of the Agreement.

Section 3. Amendment. The updated Certificate of Insurance for the Contractor/ Consultant for 20__ is attached as *Exhibit C* to this Renewal Agreement is incorporated herein and made a part of the Agreement.

Section 4. Remaining Terms. All other terms and conditions set forth in the Agreement shall remain in full force and effect, including the rights to early termination.

[SIGNATURE BLOCK HERE]



EXHIBIT 4

CERTIFICATE OF INSURANCE (COI)

Previously Executed



EXHIBIT 5

TOWN OF CASTLE ROCK AFFIDAVIT OF INDEPENDENT CONTRACTOR STATUS

I, Scott Martin, an authorized representative of Applied Ingenuity, LLC (“Applied Ingenuity”), holding legal authority to sign this Affidavit declare under oath that I am 18 years or older and have the capacity to sign this Affidavit.

In accordance with Section 8-70-115, C.R.S., I certify the following:

- With respect to the Agreement, Applied Ingenuity represents and warrants that it is its express intention to be employed as an independent contractor of the Town of Castle Rock (the “Town”) for purposes of performing the work or services which are the subject of the Agreement. Applied Ingenuity understands and confirms that the Town reasonably relied on this intention in entering into the Agreement.
- The Town does not require Applied Ingenuity work exclusively for the Town, except that Applied Ingenuity may choose to work exclusively for the Town for a finite period of time specified in the document.
- The Town does not establish a quality standard for the work or services performed pursuant to the Agreement, except that the Town may provide plans and specifications regarding the work but cannot oversee the actual work or provide instruction as to how the work is performed.
- The Town does not pay a salary or hourly rate but rather a fixed or contract rate, as noted in the terms and conditions of the Agreement, and any Exhibits made part of the Agreement.
- The Town cannot terminate the work or services performed during the contract period unless otherwise agreed to in the terms and conditions of the Agreement.
- Applied Ingenuity is not provided with anything, if at all, more than minimal training from the Town.
- The Town does not provide Applied Ingenuity with tools or benefits for the performance of the work or services which are the subject of the Agreement, except materials and equipment may be supplied.
- The Town does not dictate the time of performance, except that a completion schedule and a range of mutually agreeable work hours may be established in the Agreement.
- The Town issues checks payable to Applied Ingenuity, who is a party to the Agreement; and the Town does not combine their business operations in any way with Applied Ingenuity’s business, but instead maintains such operations as separate and distinct.



- Applied Ingenuity understands that if a professional license to practice a particular occupation under the laws of the State of Colorado requires the exercise of a supervisory function with regard to the work of services performed under this Agreement, such supervisory role shall not affect the independent contractor relationship with the Town.
- **APPLIED INGENUITY UNDERSTANDS THAT NEITHER APPLIED INGENUITY NOR ITS EMPLOYEES ARE ENTITLED TO UNEMPLOYMENT COMPENSATION COVERAGE PROVIDED BY THE TOWN.**
- **APPLIED INGENUITY UNDERSTANDS THAT IT IS OBLIGATED TO PAY FEDERAL AND STATE INCOME TAX ON MONEYS PAID PURSUANT TO THE AGREEMENT.**

CONTRACTOR

APPLIED INGENUITY, LLC

By: *Scott Martin*

Scott Martin

STATE OF COLORADO)

) ss.

COUNTY OF Adams)

The foregoing instrument as acknowledged before me this 7th day of February, 2023 by Scott Martin as President of the above mentioned Contractor.

Witness my official hand and seal.

My commission expires: Sep 27, 2026

Daniel Jimenez
Notary Public

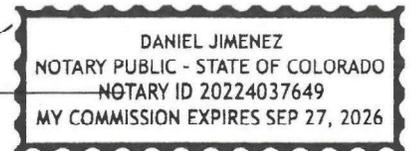




EXHIBIT B-1

CONTRACTOR’S 2024 RATES

The following rates shall apply to the Services provided by Contractor in 2024:

	A	B	C	D	E	F	G
2	APPLIED LABOR AND EQUIPMENT RATES						
3							
4	Unit #	DESCRIPTION	RATE				
5		ADMINISTRATION	\$110.00				
6		PROJECT MANAGER	\$82.50				
7		SHOP FAB 1M	\$77.00				
8		SHOP LOAD 1M	\$55.00				
9		TECHNICIAN TRAVEL	\$82.50				
10		PICK UP TRAV 1M	\$66.00				
11		FLATBED TRAV 1M	\$71.50				
12	110	15T/CRANE TRAV 1M	\$99.00				
13	100	50T TRAV 1M	\$110.00				
14		PICK UP MILEAGE 1M	\$1.91				
15		FLATBED MILEAGE 1M	\$2.23				
16		TRAILER ADD MILEAGE	\$0.64				
17		15T/CRANE MILEAGE	\$3.03				
18		50T MILEAGE	\$3.83				
19		PICK UP SITE 1M	\$71.50				
20		TECHNICIAN SITE 1M	\$105.00				
21	110	15T/CRANE SITE 1M	\$132.00				
22	100	50T SITE 1M	\$220.00				
23		BASE CHARGE RIG	\$300.00				
24		FORKLIFT SITE 1M	\$104.50				
25		PER DIEM 1M	\$250.00				
26		PER DIEM 2M	\$380.00				
27		PER DIEM 3M	\$500.00				
28		PER DIEM 4M	\$580.00				
29		ADD 1 MAN LABOR	\$44.00				
30		ADD 2 MEN LABOR	\$88.00				
31		ADD 3 MEN LABOR	\$132.00				
32		ADD 4 MEN LABOR	\$176.00				
33		ADD 5 MEN LABOR	\$220.00				
34		Overtime 1M	\$22.00				
35		Overtime 2M	\$44.00				
36		Overtime 3M	\$66.00				
37		Overtime 4M	\$88.00				
38		TOLL	\$3.00				

Not to exceed \$100,000 in 2024.

CON-2023-0833



EXHIBIT C-1

CONTRACTOR'S CERTIFICATE OF INSURANCE



CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)
9/20/2023

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER License # 0757776 HUB International Insurance Services (COL) 111 S Tejon Street Colorado Springs, CO 80903	CONTACT NAME: Terri Reese PHONE (A/C, No, Ext): (719) 884-0704 FAX (A/C, No): (866) 290-9290 E-MAIL ADDRESS: terri.reese@hubinternational.com
INSURER(S) AFFORDING COVERAGE	
INSURED	NAIC #
Applied Ingenuity LLC MBC Enterprises LLC 14920 Harvest Rd Brighton, CO 80603	INSURER A : EMCASCO Insurance Co. 21407 INSURER B : Pinnacol Assurance Company 41190 INSURER C : Nautilus Insurance Company 17370 INSURER D : INSURER E : INSURER F :

COVERAGES CERTIFICATE NUMBER: REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC OTHER:			6X17261	3/1/2023	3/1/2024	EACH OCCURRENCE \$ 1,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 500,000 MED EXP (Any one person) \$ 10,000 PERSONAL & ADV INJURY \$ 1,000,000 GENERAL AGGREGATE \$ 2,000,000 PRODUCTS - COMP/OP AGG \$ 2,000,000 \$
A	<input type="checkbox"/> AUTOMOBILE LIABILITY <input type="checkbox"/> ANY AUTO OWNED AUTOS ONLY <input checked="" type="checkbox"/> SCHEDULED AUTOS <input checked="" type="checkbox"/> HIRED AUTOS ONLY <input checked="" type="checkbox"/> NON-OWNED AUTOS ONLY			6X17261	3/1/2023	3/1/2024	COMBINED SINGLE LIMIT (Ea accident) \$ 1,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$ \$
A	<input checked="" type="checkbox"/> UMBRELLA LIAB <input checked="" type="checkbox"/> OCCUR <input type="checkbox"/> EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE DED <input checked="" type="checkbox"/> RETENTION \$ 10,000			6X17261	3/1/2023	3/1/2024	EACH OCCURRENCE \$ 5,000,000 AGGREGATE \$ 5,000,000 \$
B	<input type="checkbox"/> WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) <input type="checkbox"/> Y / N If yes, describe under DESCRIPTION OF OPERATIONS below		N / A	4142675	10/1/2023	10/1/2024	<input checked="" type="checkbox"/> PER STATUTE <input type="checkbox"/> OTH-ER E.L. EACH ACCIDENT \$ 1,000,000 E.L. DISEASE - EA EMPLOYEE \$ 1,000,000 E.L. DISEASE - POLICY LIMIT \$ 1,000,000
C	Pollution Liability			CPL2013379-20	3/1/2023	3/1/2024	1,000,000 / 2,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)
RE: 2022 On Call Well Repair

CERTIFICATE HOLDER Castle Rock Water Town of Castle Rock 175 Kellogg Ct Castle Rock, CO 80109	CANCELLATION SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS. AUTHORIZED REPRESENTATIVE
--	--

RESOLUTION NO. 2025-__

A RESOLUTION APPROVING A CONTRACT AMENDMENT WITH APPLIED INGENUITY PM, LLC TO PROVIDE FUNDING FOR 2024 EMERGENCY REPAIRS TO CASTLE ROCK WATER DEEP WELLS 31R, 27, and 227

WHEREAS, the Town of Castle Rock, Colorado (the “Town”) entered into a Town of Castle Rock Services Agreement to Provide On-Call Services (the “Agreement”) with Applied Ingenuity PM, LLC, a Colorado limited liability company (the “Contractor”), on February 3, 2023 for the provision of as-needed deep well maintenance and repairs; and

WHEREAS, the Agreement was amended on December 7, 2023 to extend the term and incorporate the Contractor’s rates for 2024 (the “First Amendment”); and

WHEREAS, the Agreement has also been amended to extend the term through December 31, 2025, provide funding for services provided in 2025, and incorporate Contractor’s rates for 2025 (the “Second Amendment”); and

WHEREAS, the Contractor conducted extensive emergency repairs on deep wells 31R, 27, and 227, which were completed as of December 19, 2024 (the “Work”) at the direction of Town staff; and

WHEREAS, the Town did not receive the invoices for the Work from the Contractor until December 30, 2024; and

WHEREAS, the Town discovered the cost of the Work exceeds the funding appropriated for 2024 in the First Amendment upon presentation of the invoices; and

WHEREAS, the Agreement needs to be amended to provide funding for the Work so that Contractor can be paid for its services; and

WHEREAS, the Town and Contractor have agreed to execute the Third Amendment to Town of Castle Rock Services Agreement to Provide On-Call Services (the “Third Amendment”) so that Contractor may be paid in full for the emergency services provided in 2024.

NOW, THEREFORE, BE IT RESOLVED BY THE TOWN COUNCIL OF THE TOWN OF CASTLE ROCK, COLORADO AS FOLLOWS:

Section 1. Approval of Amendment. The Amendment between the Town and Contractor is hereby approved in substantially the same form as presented at tonight’s meeting, with such technical changes, additions, modifications, deletions, or amendments as the Town Manager may approve upon consultation with the Town Attorney. The Mayor and other proper Town officials are hereby authorized to execute the Amendment and any technical amendments thereto by and on behalf of the Town.

Section 2. Encumbrance and Authorization for Payment. In order to meet the Town’s financial obligations under the Amendment the Town authorizes the expenditure and payment in an amount not to exceed \$455,117.00 for those services conducted in 2024, including the Work, unless otherwise authorized in writing by the Town.

PASSED, APPROVED AND ADOPTED this ___ day of _____, 2025, by the Town Council of the Town of Castle Rock by a vote of ___ for and ___ against.

ATTEST:

TOWN OF CASTLE ROCK

Lisa Anderson, Town Clerk

Jason Gray, Mayor

Approved as to form:

Approved as to content:

Michael J. Hyman, Town Attorney

Mark Marlowe, Director of Castle Rock Water



STAFF REPORT

To: Honorable Mayor and Members of Town Council

Through: David L. Corliss, Town Manager

From: Mark Marlowe, P.E., Director of Castle Rock Water
Shawn Griffith, Assistant Director of Operations
John Chrestensen, Operations Manager

Title: **Resolution Approving a Contract Amendment with Applied Ingenuity PM, LLC to Provide Funding for 2024 Emergency Repairs to Castle Rock Water Deep Wells 31R, 27 and 227** *[Castle Rock wells located in various areas of the service territory]*

Executive Summary

Castle Rock Water (CRW) staff requests Town Council approval of a Resolution for a second amendment, **Attachment A**, to the 2024 contract agreement with Applied Ingenuity PM, LLC (Applied) for as-needed emergency repairs to deep wells of an additional \$355,117 for a total authorized amount of \$455,117.

Discussion

On December 7, 2023, CRW entered into the 2024 On-Call Repair services agreement with Applied for emergency deep well repairs, on an as-needed basis for an amount not to exceed \$100,000. Applied completed nine well repairs on five separate task orders. These task orders included troubleshooting problems with wells, pump pulls, replacing pumps and motors, and well-drive repairs, for the total amount of \$99,623.

Task Order Number	Well Number	Task Order Cost	Project Completion Date
TO#1	110	\$29,710.00	7/30/24
TO#2	20	\$1,499.45	7/22/24
TO#3	110	\$4,688.17	8/30/24
TO#4	125	\$25,761.45	10/3/24
TO#5	22	\$37,963.73	11/26/24
Total Cost		\$99,922.80	

Three additional well issues arose starting in September of 2024. The wells were initially evaluated by our internal Plant Maintenance Team. The problems with the wells were beyond the capacity of our internal team. Applied Ingenuity was brought in on an emergency basis to repair the wells and put them back into operation. These three wells needed significant rehabilitation work which is typically handled by our Water Resources Team.

In addition to the On-Call emergency well repair agreement, Applied also provided the following work through the following individual project agreements:

- Well 117 variable frequency drive (VFD) replacement
- Well 110 pump replacement
- Well 73 & 224 pump replacements
- Well 219 pump and motor replacements

Applied Ingenuity was also the contractor for the 23/24 Well Rehabilitation project, which was managed by the CRW Water Resources team.

The work completed on each well is summarized in the invoices provided as **Attachment B**. Our Water Resources Team reviewed the work and pricing in each invoice and determined that the work was competitively and fairly priced. These three wells needed significant rehabilitation equipment and repair work to return them to full operation, which is not typically completed utilizing the annual on-call well repair services agreement. In January of 2025, the final invoices totaling \$355,117, for emergency well repair work that was started in September of 2024 and completed in December of 2024, were received. The table below summarizes the well number, the amount of the invoiced work, and the dates that the work was completed.

Task Order Number	Well Number	Task Order Cost	Project Completion Date
Task Order 6 - Inv3355	Well 31R	\$99,476.67	12/13/24
Task Order 7 - Inv3357	Well 27	\$143,615.64	12/20/24
Task Order 8 - Inv3369	Well 227	\$112,024.25	12/19/24
Total Cost		\$355,116.56	

Budget Impact

Funds are available for this contract amendment and will be taken from the Water Facility Maintenance Repair & Maintenance Wells line item, as follows:

Fund Name	Account Number	Cost	2024 Account Balance
Repair & Maintenance Wells	210-4250-442.40-37	\$355,117	\$355,494

Staff Recommendation

Staff recommends an amendment to the 2024 As Needed Well Repair services agreement with Applied Ingenuity for the additional amount of \$355,117, for a total authorization amount of \$455,117.

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: Contract
- Attachment B: Original Agreement



Town of Castle Rock

Agenda Memorandum

Agenda Date: 1/22/2025

Item #: 10. **File #:** WC 2025-010

To: Members of the Castle Rock Water Commission

From: Mark Marlowe, P.E., Director of Castle Rock Water
Roy Gallea, P.E., Engineering Manager
Erin Evans, P.E., Project Manager

Discussion/Direction: **Fifth Street Water and Sewer Improvement Project** [*Sanitary and Water Service on Fifth Street near Valley Drive*]
Town Council Agenda Date: January 7, 2025

Executive Summary

Attached is the Town Council packet for your information.

Attachments

Attachment A: D/D of Fifth Street Water and Sewer Improvement Project TC Packet



STAFF REPORT

To: Honorable Mayor and Members of Town Council

Through: **David L. Corliss, Town Manager**

From: Mark Marlowe P.E., Director of Castle Rock Water
Roy Gallea, P.E, Engineering Manager Castle Rock Water
Erin Evans P.E., Project Manager Castle Rock Water
Andrew Focht, Project Manager Castle Rock Public Works

Title: **Discussion/Direction: Fifth Street Water and Sewer Improvement Project**
[Sanitary and Water Service on Fifth Street near Valley Drive]

Executive Summary

Castle Rock Water (CRW) is currently working on the Fifth Street Water and Sewer Improvement Project (Utilities Project) to design and construct water and sanitary sewer utilities on Fifth Street as shown in **Attachment A**. A need for this project became evident through several avenues including requests by the St. Francis Catholic Church and Cornerstone Church to connect to Town Utilities as well as the Fifth Street Improvements Project (Roadway Project) being managed by Public Works. As part of the Right-of-Way (ROW) acquisition process for the Roadway Project, an opportunity to use Public Works funds being allocated to the rehabilitation of a septic tank system for water and sanitary sewer service to the Degarmo property at 2864 Fifth Street instead was also identified.

With the Roadway Project planned to start early 2025, staff has identified a need to accelerate the completion of design and construction of the Utilities Project ahead of the Roadway Project. This process also includes executing reimbursement agreements with the property owners along Fifth Street who will be serviced by the new utilities. Agreements are currently being negotiated with the Degarmo property owners and Public Works for ROW acquisition and connection to Town sanitary sewer and water service. Additionally, the Town has been coordinating with the St. Francis and Cornerstone Churches regarding connection to Town utilities and reimbursement to the Town for design and construction of their services.

The Town Manager awarded a service agreement with Stanley Consultants (Stanley) in November of 2024 for design of the water and sanitary sewer pipelines for the three properties identified by this project. Stanley was granted a sole source exception for this service agreement due to their familiarity with the Fifth Street Roadway Project and the requirement for

a speedy completion of the design and construction of the Fifth Street Utilities Project ahead of the Roadway Project.

An alternative project delivery method, Guaranteed Maximum Price Construction Management (GMPCM), is being used for design and construction of the proposed Utilities Project. Alternative project delivery methods have been successfully utilized by the Town for design and construction projects such as the GMPCM contract used for many of the Plum Creek Water Purification Facility (PCWPF) projects that have been completed over the years. For this project, an alternative project delivery method was chosen in order to accelerate the overall Utility Project timeline by allowing a phased design and construction approach and including a more thorough constructability review during design.

Global Underground (Global) was selected as the Construction Manager and General contractor (CM/GC) through a sole source procurement process and has a proven track record in the industry as well as specifically on Castle Rock Water projects. Previous successful projects with CRW, knowledge of the Town's utilities and geography, availability of resources to meet the required schedule constraints, and exceptional customer service allow Global to stand out as a preferred contractor to undertake these construction services. Upon authorization to award work package (WP) #1, Global will begin ordering long lead materials. Global plans to begin site mobilization in Spring 2025 with overall construction completion of the project planned for Summer 2025. Completion of the Utilities Project prior to the start of the Fifth Street Roadway Project being managed by Public Works is a priority for the Town. Installing sewer and water after completion of the Roadway Project would result in the cost of these utilities being much higher in the future.

Costs for this project ultimately will be allocated to the property owners who need connection to Town infrastructure. CRW is working with three property owners currently on reimbursement agreements for their fair portion of the costs. If for some reason, agreements cannot be reached at this time, CRW still recommends moving forward with this project so the infrastructure is in place for when these property owners and other property owners along the corridor need to connect. A priority of CRW is to capture reuse water that is currently being lost with septic system wastewater disposal within Town.

Notification and Outreach Efforts

All property owners and the public have been notified through the Fifth Street Roadway Project being performed by Public Works. The project manager for Public Works will continue to be heavily involved in the Utilities Project through construction completion to ensure coordination between both projects and perform the outreach efforts required.

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

In October 2023 St. Francis approached Development Services regarding connection to Town sanitary sewer. Currently, the St. Francis annexation is in progress, and they have held a pre-application meeting. Annexation for St. Francis requires connection into the Town's infrastructure. Public Works is in communication with St. Francis regarding easement and Right-of-Way acquisition for the Roadway Project.

Development Services and CRW staff have been in communication regarding utility connections into the Town for Cornerstone Church since they approached the Town in August 2023. Their original Development Agreement allowed them to stay on well and septic as no utilities were available at the time. However, as part of their Development Agreement, major expansion of their facility requires them to connect to Town water and sewer services. Public Works is in communication with Cornerstone Church regarding easement and Right-of-Way acquisition for the Roadway Project.

On November 6th, 2024, Town Manger approved the service agreement with Stanley Consultants for \$222,791 with authorization of \$22,209 in staff-managed contingency to complete the design of the Fifth Street Utilities Project.

On December 11, 2024, CRW Staff reviewed the Utilities Project and the potential reimbursement agreements with the Castle Rock Water Commission (CRW Commission). Commission members provided general support for moving forward with the project. Staff indicated that they would provide updated information for CRW Commission consideration as the information becomes available.

Staff is currently seeking Town Manager approval of the preconstruction services construction contract with Global Underground for up to a maximum of \$200,000 to assist with constructability review, cost estimating services, and ordering of materials and mobilization for the Fifth Street Utilities Project.

Discussion

The Town has determined that construction of a water and sanitary sewer system within the eastern reaches of Fifth Street is needed to enable current and future service connections for properties in the area and protect the quality and resiliency of \$12M of roadway infrastructure that will be installed with the Roadway Project. **Attachment A** provides a general layout of the proposed sanitary sewer and water utilities on Fifth Street. The sanitary infrastructure proposed with this Utility Project will enable service connections to St. Francis of Assisi Catholic Church, Cornerstone Presbyterian Church, and Degarmo property at 2864 Fifth Street. The water distribution infrastructure proposed will enable service connection to Cornerstone Presbyterian Church and the Degarmo property. Approximately 18 other properties in the area, such as those adjacent to Castle Crest Drive and those directly east of St. Francis, are currently on well and septic and may engage with the Town in the future to connect to Castle Rock Water services.

The Utility Project must be complete prior to construction of the Roadway Project, as the Roadway Project is partially funded by a Denver Regional Council of Governments (DRCOG) grant which stipulates a broad range of planning, design and construction requirements. These grant requirements, along with other considerations, make it necessary for the Utility Project within Fifth Street to be completed by separate contract with the Design Consultant and Contractor prior to the Roadway Project construction. The Roadway Project is currently anticipated to begin construction in the Summer of 2025.

A service agreement with Stanley was awarded by Town Manager in November 2024 for design services for sanitary and water utilities including an alternatives analysis for both

pipelines. Through the alternatives analysis portion of the design, it became evident that constructability review and cost estimating services would be in the best interest of the project to gather advanced contractor input on potential alignments as well as to conduct a trenchless versus open cut pipeline installation evaluation. This would also allow the engagement of a contractor to keep the very tight schedule to avoid impacting the Roadway Project.

Currently, Staff is seeking Town Manager approval of a preconstruction services contract with Global using the GMPCM project delivery method for construction of the Utilities Project. The GMPCM method involves hiring a construction manager/general contractor (CM/GC) to perform contract administration and to guarantee a maximum price for the complete project. The owner and CM/GC agree on the price before the construction phase begins and all work is awarded through a competitive subcontractor bidding process. Any cost overruns not due to unforeseen circumstances are borne by the CM/GC.

The Owner, CM/GC and Engineer work collaboratively to design a project that fits a given budget and adjustments to the project design and/or budget are made during the design phase to ensure a successful project that meets the Owner's expectations regarding cost, quality and schedule. The CM/GC's expertise in construction, contracting, and estimating can influence decisions made by the design consultant to keep project costs to a minimum in a manner consistent with the owner's objectives for quality and functionality. The GMPCM project delivery method centers on initiating a contract with a construction management contractor while the project is in early stages of design. This allows establishment of a strong, collaborative working relationship between the owner, designer and contractor early in the life of the project.

An alternative project delivery method for the Utilities Project will also provide much needed schedule efficiencies by allowing the team to collaborate with a contractor who can provide advanced review of the design and input on minimizing potential challenges during construction, value engineering ideas, potholing, survey, tunnel calculations as needed, and advanced material procurement among other services. The ability to phase construction and design to achieve the greatest schedule savings is also a benefit of this procurement method. With this end in mind, CRW selected Global to perform these preconstruction services.

Global's long history of performing high quality projects and consistently providing responsive and professional service to the Town allows them to be uniquely qualified to be brought on through sole source procurement for this project. Additionally, Global has a current on-call contract with CRW for emergency repairs; they are prequalified on the annual Capital Improvements Projects on-call contractor list; they are familiar with the Town's standards, utilities and unique challenges; they are able to perform trenchless and open cut pipeline installations (a requirement of this project); and they have provided similar design assistance to CRW in the past. CRW staff has also confirmed that Global has staff and crew availability to perform the required design and construction services in the consolidated timeline required to complete this project ahead of the Roadway Project, which is anticipated to start Summer 2025.

During the 30% design stage of this project, CRW, Global and Stanley will work to finalize the Initial Guaranteed Maximum Price (IGMP). This cost includes general conditions, overhead and profit and the cost to do the work. This IGMP represents the most the Town can expect to

pay for construction of the Utilities Project, barring any changes in scope and will initiate the construction phase of the project. During the preconstruction period, the Town will work with the contractor and designer to adjust the design to include value engineering ideas and update costs based on development of additional project detail. A second amendment will be requested as the design approaches 90% completion and a Final Guaranteed Maximum Price (FGMP) is negotiated by the project team at this milestone. The FGMP will be established as the final construction contract amount for the Utilities Project.

Each property owner requesting connection to the utility infrastructure on Fifth Street will need to enter into agreements with the Town to assist with funding their service connections. Connection into Town infrastructure is required for St. Francis as a result of annexation, which they are currently working on completing. St. Francis of Assisi has been provided with an initial estimate of \$1,118,000 for their portion of the cost of the sanitary sewer infrastructure provided to connect to Town systems. Cornerstone has been provided with an initial estimate of \$850,000 for their portion of the cost of the sanitary sewer and water infrastructure provided to connect to Town systems. Each reimbursement agreement will be amended to reflect FGMP reimbursement cost that will be collected by the Town. Public Works will also be contributing funds for the sanitary sewer connection for the Degarmo property as outlined in agreements that are currently being negotiated between the Town and the Degarmos.

Budget Impact

Current known and estimated project costs are shown below:

Stanley	Design (including contingency)	\$ 245,000
Global Underground	Pre-construction services	\$ 200,000
Global Underground	Construction costs*	<u>\$2,500,000</u>
	TOTAL	\$2,945,000

*Any early material procurement paid for during the preconstruction phase will be eliminated from the construction costs.

Cost for the additional utility upgrades is planned to be shared with the property owners who will be connecting to CRW services including St. Francis and Cornerstone Church. CRW is working with the three property owners to develop reimbursement agreements for their portion of the costs and work. If for some reason, an agreement cannot be reached at this time, CRW still recommends moving forward with this project so the infrastructure is in place for when these property owners and other property owners in the area need to connect. A priority of CRW is to capture reuse water that is currently being lost to septic systems within Town. Construction of the Utilities Project in the future after the Roadway Project would significantly increase the costs.

A preliminary breakdown of the responsibilities for the estimated construction costs and all accessory costs such as design and preconstruction services is as follows:

Property Owner	Estimated Water Construction Cost	Estimated Sanitary Construction Cost	Estimated Accessory Cost	Total Reimbursement to CRW
St. Francis of Assisi	\$0	\$950,000	\$168,000	\$1,118,000
Cornerstone Church	\$350,000	\$370,000	\$130,000	\$850,000
Degarmo	\$10,000	\$820,000	\$147,000	\$97,195 (From Public Works)
Totals	\$360,000	\$2,140,000	\$445,000	
Total Reimbursement to CRW				\$2,065,195

Staff Recommendation

Staff recommends Town Council direct staff to prepare reimbursement agreements with the potential customers, finalize construction contracts with Global and proceed with the project to ensure completion prior to the Roadway Project.

Attachments

Attachment A: Fifth Street Utilities Map



Legend

- Proposed Sanitary Line
- Proposed Water Line
- ▶— Sanitary Sewer Gravity Main
- Water Main
- Parcels



Disclaimer: If you are unable to access any portion of this map due to a disability as defined under Colorado House Bill 21-1110, we are here to help! Please call us at 303-663-4440, email the Town's accessibility team at accessibility@CRgov.com or submit an accommodation request form at CRgov.com/A11yRequest.

Creation Date: 12/11/2024



Town of Castle Rock

Agenda Memorandum

Agenda Date: 1/22/2025

Item #: 11. **File #:** WC 2025-011

To: Members of the Castle Rock Water Commission

From: Mark Marlowe, P.E., Director of Castle Rock Water

2024 Financial Performance and the 2025 Rates & Fees Calendar
Town Council Agenda Date: NA

Executive Summary

This will be a presentation only item.



Town of Castle Rock

Agenda Memorandum

Agenda Date: 1/22/2025

Item #: 12. File #: WC 2025-012

To: Members of the Castle Rock Water Commission

From: Mark Marlowe, P.E., Director of Castle Rock Water

**2024 Castle Rock Water Year In-Review
Town Council Agenda Date: NA**

Executive Summary

This will be a presentation only item.



Town of Castle Rock

Agenda Memorandum

Agenda Date: 1/22/2025

Item #: 13. **File #:** WC 2025-013

To: Members of the Castle Rock Water Commission

From: Mark Marlowe, P.E., Director of Castle Rock Water

Upcoming Town Council Items
Town Council Agenda Date: NA

Executive Summary

This item is an informational update only, and is designed to give Commission a preview of time critical items that may need to go to Council prior to review at a Commission meeting.

Items for this month include:

There are no items at this time.