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 the purchase of a Vacuum Truck Replacement *[Entire Castle Rock Water Service Area]*

Executive Summary

Castle Rock Water (CRW) staff requests Town Council's approval of a resolution ***(See Attachment A)*** approving a purchase agreement to replace the 2010 Vac-Con truck #181 with a 2025 Freightliner Vac-Con V312 for the total amount of $599,228. This item was also included in the First Quarter Budget Amendment.

Funds for this replacement will come from the Vehicle Replacement Contribution Fund as well as rollover funds from a previous Business Case Request from 2024:

- The total funds available in the Vehicle Replacement fund are $481,684
- 2024 rollover budget of $255,985
- A total of $737,669 budget available

Notification and Outreach Efforts

No public outreach is planned.

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

Castle Rock Water Commission was provided with a presentation on the Vac-Con truck purchase on March 26, 2025. Castle Rock Water Commission recommended Council approval of the purchase.

Discussion

CRW currently owns and operates two combination vacuum trucks (Vac Trucks).

- The original Vac-Con (Unit 181) was purchased in 2010 for $272,853.
    - This truck has approximately 19,300 miles.
    - The motor has approximately 4,134 running hours and has been replaced.
    - The estimated book value, based on Fleet Services analysis, is $63,416.
    - The total life-to-date maintenance cost is estimated at $396,913.
    - Total cost of ownership is estimated at $669,766
- The second Vac Truck (Unit 295) was purchased in 2018 for $415,195.
    - This truck has approximately 13,000 miles.
    - The motor has approximately 2,212 hours.
    - The estimated book value of this unit based on Fleet Services analysis is $278,382.
    - The total life-to-date maintenance cost is estimated at $93,965.
    - The total cost of ownership is estimated at $509,160.

Having two combination Vac Trucks readily available at all times has a significant benefit. All four Field Services teams utilize these trucks, and a brief list of their uses is listed below. It is common for both units to be used daily, particularly during the warmer months.

Many CRW facility maintenance and repair tasks can only be safely completed by utilizing a high-pressure jetting operation (Jet), a high-volume vacuum (Vac), and Hydro excavation. A Vac Truck can safely and efficiently conduct all three of these services. These tasks include:

- Collection system cleaning and maintenance
- Stormwater infrastructure cleaning and maintenance
- Distribution system maintenance
- Hydro excavation
- Water tank cleaning
- Equalization basin cleaning
- Treatment plant clear well cleaning
- Alluvial well rehabilitation
- Surface water diversion maintenance

The Vac Truck also assists in scheduled maintenance and emergency response to sanitary sewer overflows, waterline breaks, and other unplanned emergencies. The Operations Field Services divisions must share these vital pieces of equipment and schedule labor appropriately, as shown by the team below:

- Wastewater Collections:
    - Annual acoustic survey - This project generated 184 new cleaning tasks in 2024.
- Stormwater (SW) Maintenance:
    - Inlet Boxes -CRW owns roughly 7,300 curb inlet boxes with an annual maintenance goal to inspect and clean 50% of these structures every year.
    - Stormceptors -nine stormceptors requiring regular maintenance.
    - SW pipeline jetting operation on an as-needed basis.
- Distribution:
    - Tank draining and cleaning -five tanks per year.

    - Treatment plant clear well cleaning.
    - Hydro excavation for repairs and infrastructure installation.
- Emergency Repairs -The Vac truck is also utilized during emergency repairs when the excavation area needs to be limited in size or with underground utilities.
- Plant Mechanics:
    - Equalization Basins -maintenance and sediment removal at water treatment plants.
    - Sewer Lift Stations -for equipment maintenance and repair tasks.
- Operations Team:
    - Alluvial Well cleaning (ice pigging).
    - CR-1 Diversion maintenance – once or twice per week.
    - Fire department training and emergencies, such as a trench collapse rescue.

The Vac truck is a complex piece of machinery that requires routine maintenance and repairs, placing it out of service frequently. For the last three years, truck 181 has cost CRW just over $83,000 for the repairs. Truck #181's vehicle age is playing a large factor in the cost of the maintenance:

- Vac Truck 181 has become a financial and safety liability to CRW and staff. This is a crucial piece of equipment and must be fully operational.
- This vehicle is at end-of-life and the manufacturer no longer produces the necessary parts.

Staff also contacted multiple contractors who perform collection system services for cleaning and jetting maintenance. The average cost for a contractor to perform cleaning on sewer lines 8"-12" was $0.79 per linear foot. Castle Rock Water staff can perform the same work for an average of $0.47. The overall cost of services would, over time, exceed the cost of adding a new Vac truck to our fleet. Also, with the current industry staffing issues, the response time needed to rely on a contractor for an emergency may be delayed.

The Field Services team conducted demonstrations of several different Vac Trucks during the summer of 2024:

Manufacturer	**Model**	**Price**
Dawson Infrastructure	Sewer Equipment of America	$599,890
Faris Machinery	GapVax	$658,508
OJ Watson	Vac-Con	$599,228
Kaiser Premier	AquaStar	$780,033

Through these demos, the team formed a collective decision that the 2025 Freightliner Vac-Con V312 was the best value for the Town.

Budget Impact

The current cost of the new Freightliner Vac-Con truck is $599,228. Using the Replacement Contribution Fund of $481,684 lowers the additional funding cost to $117,544. Auctioning off #181 may recover as much as $63,416 that would be placed back into Castle Rock Water's fleet funding. Funds have been allocated in the following funds, as follows:

Fund Name	Account Number	Freightliner Vac-Con Cost	2025 Account Balance
Vehicle Replacement Program	213-4500-445.91-85		$481,684
2023-24 Carry Forward Budget Amendment	213-4590-445.91-80		$255,985
		$599,228	$737,669

Staff Recommendation

Staff recommends the approval of a resolution ***(See Attachment A)*** approving a purchase agreement to replace the 2010 Vac-Con truck #181 with a 2025 Freightliner Vac-Con V312 for the total amount of $599,228.

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