



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
Josh Hansen, P.E., Project Manager Supervisor
Erin Evans, P.E., Project Manager

Title: **Resolution Approving the First Amendment to the Services Agreement with Carollo Engineers, Inc. for the Escavera Wastewater Odor Evaluation**
[Located in the Woodlands Subdivision, Castle Rock]

Executive Summary

Staff requests Town Council approval of a First Amendment (**Attachment A**) to the services agreement with Carollo Engineers, Inc. (Carollo) for the Escavera Wastewater Odor Evaluation. This proposed First Amendment is a contract addition in the amount of \$146,922, plus a 10% Town-Managed contingency of \$14,692 for a total authorization of \$161,614.

Carollo is approaching completion of the first phase of the odor evaluation project. These services included collecting and analyzing wastewater liquid and gas samples over a period of 3 days, modeling odor generation based on the sample results, and making recommendations to Castle Rock Water (CRW) for operational changes and facility upgrades. The recommendations were for changes that could be made at the Woodlands Odor Improvement Facility (OIF) and lift stations to reduce odors in the area of the Woodlands Interceptor. The work for this phase will generally be complete by October 2025. CRW has already implemented most of the recommendations from this phase of the study.

Using the outcomes of the initial phase of the evaluation, the next step of the project was identified to maximize odor elimination in this system. The additional scope includes evaluation of alternative pipeline alignments, evaluation of additional wastewater treatment options with associated cost estimates, and engineering assistance with existing treatment and pumping improvements. CRW Staff requested a proposal from Carollo for this amendment work. A scope of services and fee schedule were submitted by Carollo and are also included with **Attachment A**. Staff recommends approval of the First Amendment between the Town of Castle Rock and Carollo. Services are expected to begin upon execution of this Amendment and be complete by February 2026.

Notification and Outreach Efforts

CRW staff and the Escavera and Woodlands Master Associations have been in communication about the progress of the project. Staff has also attended HOA meetings to provide updates on the findings of the sampling and modeling efforts.

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

The Carollo professional services agreement was approved by Town Manager on May 29, 2025 in the amount of \$157,080 plus a 10% Town-managed contingency in the amount of \$15,708.

Castle Rock Water staff presented this item to the Castle Rock Water Commission at their meeting held on September 24, 2025, and the Castle Rock Water Commission voted unanimously 6 to 0 to recommend Town Council approval of the Resolution as presented.

Discussion

The Woodlands Sewer Interceptor is a 2.5-mile gravity pipeline installed in 1987 that conveys wastewater flows from development areas east of Founders Parkway/Ridge Road (Founders Village, Castle Oaks/Terrain, Castlewood Ranch, Bella Mesa), as well as the Woodlands development, back to the Plum Creek Interceptor. A significant portion of the Town's wastewater flows through the interceptor pipeline which is in the areas of the Escavera and Woodlands Master Associations. These wastewater flows are currently pumped from 4 different lift stations through force main pipelines. The Woodlands Interceptor then conveys these wastewater flows by gravity to the west for treatment at the Plum Creek Water Reclamation Authority (PCWRA). The pumping process creates anaerobic conditions that increase wastewater odors released by the Woodlands Interceptor.

Residential development in the Escavera/Woodland's area generally occurred from 2002 to 2006 and houses were constructed as close as 25 feet from the Woodlands Interceptor. With the construction of homes adjacent to the interceptor, the Town began to field complaints related to wastewater odors. In 2007, the Woodlands OIF was constructed by CRW to reduce wastewater odors experienced by customers in the area.

Over the past 18 years, wastewater flows through the Woodlands Interceptor have increased with development, and odor complaints in the area have also increased. CRW has responded to complaints with increased monitoring and operational adjustments to the Woodlands OIF as well as monitoring and adjustment of chemical treatment at the lift stations.

Within the past few years, odor complaints from the area have been increasing again and CRW staff is working with the Escavera Masters Association to find longer lasting solutions to the odor problem. CRW solicited a proposal from Carollo Engineers to provide engineering assistance and evaluate the Woodlands OIF for potential operational changes and facility upgrades that may be needed to mitigate odors associated with the increase in wastewater flows since 2007.

Carollo collected wastewater liquid and gas samples in various locations along the Woodlands Interceptor and two lift stations and worked with CRW staff to run the Woodlands OIF through a series of tests over a period of 3 days as part of the scope of the initial service agreement. The data collected was used in further modeling efforts and the results of the modeling were presented to CRW staff. Recommendations for operational changes and facility upgrades to reduce odors in the area of the Woodlands Interceptor were made to CRW staff based off the results of the modeling.

Immediately actionable recommendations from the modeling efforts included shutting down the Woodlands OIF, increasing the chemical treatment amounts at the lift stations, improving the chemical treatment mixing and pumping at the lift stations, and sealing manholes. CRW Staff completed shut down of the Woodlands OIF, increased the chemical treatment amounts at the lift stations, and sealed the manholes. CRW Staff also requested a proposal (**Attachment A**) for services to evaluate mixing and pumping improvements at the lift stations and evaluation of additional treatment alternatives that may increase performance of the system.

In addition to treatment improvements, Carollo was asked to provide a proposal to evaluate an alternative wastewater conveyance directing flows from the Castle Oaks Lift Station to flow by gravity to the Pinery Wastewater Treatment Plant. This gravity flow would remove a significant amount of flow into the Woodlands Interceptor that is currently being pumped through a 2-mile-long force main, therefore reducing the cause of the odor.

Staff recommends approval of the First Amendment between the Town of Castle Rock and Carollo. Services are expected to begin upon execution of this Amendment and be complete by February 2026.

Budget Impact

Funding for this project will come from the 2025 budget as shown below.

Project	Account Number
Sewer Line Rehab	213-4575-445.75-62

The following table summarizes budget impacts for previously approved agreements and the currently proposed amendment.

Agreement	Contract \$	Contingency \$	Authorization \$
Original Agreement (Approved 5/29/2025)	157,080	15,708	172,788
<i>Amendment 1 (under consideration)</i>	146,922	14,692	161,614
Amended Totals	304,002	30,400	334,402

A budget transfer will be completed from Young American Rehab (213-4575-445.79-31) to Sewer Line Rehab (213-4575-445.75-62).

Staff Recommendation

Staff recommends Town Council approval of the resolution to approve the First Amendment to the Service Agreement between the Town of Castle Rock and Carollo for the Escavera Wastewater Odor Evaluation.

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: First Amendment