



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
Rick Schultz, Water Efficiency Supervisor

Title: **An Ordinance Amending the Castle Rock Municipal Code by the Addition of a New Chapter 4.06 Regarding Plumbing Fixtures** *[The entire Castle Rock Water Service Area]*

Executive Summary

The purpose of this memorandum is to request Town Council approval of an Ordinance (**Attachment A**) to require the installation of ultra-high-efficiency (UHE) toilets for all new residential construction. Specifically, calling for the installation of 0.8 gallons per flush (GPF) or less tank-type toilets, and flushometer-style toilets not to exceed 1.0 GPF. Flushometer-style toilets require a slightly higher volume of water to function properly.

As part of Castle Rock Water's (CRW) goal to drive water conservation to 100 gallons per capita per day (gpcd) by 2050, staff is proposing this requirement, which requires no behavioral changes or disruption to CRW customers.

This ordinance is scheduled to go into effect under all new building permits within the Town's service area starting May 15, 2025.

Notification and Outreach Efforts

In order to inform the development community and elicit feedback about the Town's intent to make a change to Municipal Code, Castle Rock Water presented information to the Economic Development Council (EDC) Water Subcommittee on June 16, 2023, July 21, 2023, September 22, 2023 and February 21, 2025. Information was also presented at the Development Services Contractor Luncheon on January 15, 2025 and February 19, 2025.

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

Town Council adopted the 2021 Water Resource Strategic Master Plan by Resolution 22-048 on April 19, 2022 which identified this code change as a means to conserve water within our community.

Castle Rock Water Staff presented this to the Water Commission on February 26, 2025. The Water Commission voted 5-0 to recommend Town Council approval. This will be presented to the Town Council on March 4, 2025 (first reading) and April 15, 2025 (second reading).

The current federal standard, adopted in 1994, limits toilets to a maximum of 1.6 gpf. With Senate Bill 14-103, Colorado became a WaterSense state, now requiring all plumbing fixtures to be WaterSense labeled. Under this legislation, Colorado now limits toilets to no more than 1.28 gpf.

Discussion

Toilets that use 0.8 gpf are readily accessible to individuals and builders. Several manufacturers offer a variety of styles with multiple options that are comparable to conventional toilets and are competitively priced.

Distributors of these UHE toilets can be found on the EPA WaterSense website at [WaterSense Product Search - Toilets](#). According to the EPA WaterSense product search there are more than 80 model types meeting the 0.8 gpf specification from over 20 different manufacturers.

During the construction of the Castle Rock Water Administration building in 2021, only 0.8 gpf toilets were installed. The installation of these UHE toilets creates a water savings of 0.48 gpf from the current required 1.28 gpf toilets which staff estimates to result in a 37.5% overall water savings within our own facilities for toilet water use. CRW is the first known municipality to propose these standards for new construction.

Castle Rock Water created a Toilet Retrofit Rebate in 2020. This rebate program encourages participants to replace high water use toilets with 0.8 gpf or less toilets, offering up to \$150 towards the purchase price of each toilet.

Since this program began, 243 UHE toilets have replaced the older higher water use ones through the Town's rebate offerings. Looking at the data for the past five years, the average rebate amount awarded back to our customers through this program is \$6,338.20 per season. Currently, Castle Rock Water is in partnership with Colorado Springs Utilities to recycle the ceramic which is then crushed, and the aggregate is used as road base or other building material. To date, CRW is not aware of any issues with the UHE toilets from customers who have used the rebate to purchase UHE toilets.

Based on a 2050 population estimate of 140,000 to 155,000 residents, this equates to approximately 20,690 to 25,690 new homes at buildout. According to data from the 2016 Residential End Uses of water study report¹, the average home flushes 13 times per day. The 0.8 gpf toilets will generate an estimated water use savings of 47,123,690 to 58,511,725 gallons annually or 145 to 179 acre feet (AF). This equates to a projected water supply development savings of approximately \$6,500,000 to over \$8,000,000.

¹ Deoreo, William. "Residential End Uses of Water, Version 2" The Water Research Foundation. 2016. [Residential End Uses of Water, Version 2 | The Water Research Foundation \(waterrf.org\)](#)

Budget Impact

Adoption of this ordinance will have significant impact to reducing the need for developing additional water supplies and has the potential to save approximately \$6,500,000 to \$8,000,000 or more in the water resources fund over time depending on long term development of the community.

Staff Recommendation

Staff recommends approval of a change to Town Code to require the installation of 0.8 gpf or less tank type toilets, and Flushometer-style toilets not to exceed 1.0 gpf for all new residential installations.

Proposed Motion

"I move to approve the Ordinance as introduced by title"

Alternative Motions

"I move to approve the ordinance 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: Ordinance