



**To:** Honorable Mayor and Members of Town Council

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

**From:** Mark Marlowe, P.E., Director of Castle Rock Water  
Nichol Bussey, Business Solutions Manager

**Title** **Ordinance Amending Sections 4.04.150 and 13.12.080 of the Castle Rock Municipal Code by Adopting a Revised Methodology for Calculating Renewable Water Resource Fees and Water and Wastewater System Development Fees for the Construction of New Single-Family Residential Homes** *[Entire Castle Rock Water Service Area]*

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### **Executive Summary**

Staff is requesting Town Council approval of an Ordinance on first reading (Attachment A) modifying the methodology for assessing System Development Fees (SDFs) for new single-family residential development. The proposed approach aligns Water, Water Resources, and Wastewater SDFs with observed system demand based on total home size.

Under this proposal, Castle Rock Water would implement a tiered System Development Fee structure for single-family residential homes based on total square footage, including both finished living space and any unfinished basement area that could reasonably be converted to habitable space in the future. This ensures that fees reflect the full potential long-term demand a home may place on the water and wastewater systems.

The proposed methodology is based on an analysis of water use from 750 homes constructed between 2023 and 2025, which demonstrates a clear relationship between home size and water demand. However, the data also shows that this relationship is not strictly linear. Water use increases more rapidly at smaller home sizes, stabilizes through the mid-range, and increases again for larger homes. Because a single regression formula would not accurately represent this pattern and could result in over- or under-charging across different home sizes, staff determined that a tiered structure provides a more accurate and defensible method for aligning fees with actual system demand.

Staff proposes a tiered System Development Fee structure based on total home square footage, as shown in Table 1 below. The tiers are generally organized in 500-square-foot increments, reflecting observed differences in average daily water use associated with home size. Under this structure, Water, Water Resources, and Wastewater System

Development Fees are scaled proportionally, with smaller homes paying lower fees and larger homes paying higher fees based on their relative system impact. To establish a consistent baseline for fee calculation, one Single Family Equivalent (SFE) is defined as the 75th percentile of home size constructed since 2023. This benchmark reflects a representative upper-range home within the Town’s current development pattern and aligns the standard SDF with the level of service required to support commonly constructed larger homes. Homes smaller than this benchmark pay proportionally less, while larger homes pay proportionally more based on their relative demand.

Table 1

Total SF including unfinished basement	3-year average GPD	% of SDF	Water System	Renewable Water aka Water Resources	Wastewater System	Total
Less than 500	45	27%	\$ 2,676.02	\$ 9,654.52	\$ 1,651.80	\$ 13,982.34
500-999	55	33%	\$ 3,270.69	\$ 11,799.97	\$ 2,018.86	\$ 17,089.52
1000-1499	65	39%	\$ 3,865.36	\$ 13,945.42	\$ 2,385.93	\$ 20,196.71
1500-1999	70	42%	\$ 4,162.69	\$ 15,018.14	\$ 2,569.46	\$ 21,750.30
2000-2499	109	65%	\$ 6,481.91	\$ 23,385.40	\$ 4,001.02	\$ 33,868.32
2500-2999	136	81%	\$ 8,087.52	\$ 29,178.11	\$ 4,992.10	\$ 42,257.72
3000-3499	137	82%	\$ 8,146.99	\$ 29,392.65	\$ 5,028.80	\$ 42,568.44
3500-3999	138	83%	\$ 8,206.46	\$ 29,607.20	\$ 5,065.51	\$ 42,879.16
4000-4499	142	85%	\$ 8,444.32	\$ 30,465.38	\$ 5,212.34	\$ 44,122.04
4500-4999	146	87%	\$ 8,682.19	\$ 31,323.56	\$ 5,359.16	\$ 45,364.91
5000-5499	155	93%	\$ 9,217.40	\$ 33,254.46	\$ 5,689.52	\$ 48,161.38
5500-5999	167	100%	\$ 9,931.00	\$ 35,829.00	\$ 6,130.00	\$ 51,890.00
6000-6499	175	105%	\$ 10,406.74	\$ 37,545.36	\$ 6,423.65	\$ 54,375.75
6500-6999	177	106%	\$ 10,525.67	\$ 37,974.45	\$ 6,497.07	\$ 54,997.19
7000-7499	185	111%	\$ 11,001.41	\$ 39,690.81	\$ 6,790.72	\$ 57,482.93
7500-7999	192	115%	\$ 11,417.68	\$ 41,192.62	\$ 7,047.66	\$ 59,657.96
8000-8499	200	120%	\$ 11,893.41	\$ 42,908.98	\$ 7,341.32	\$ 62,143.71
8500-8999	207	124%	\$ 12,309.68	\$ 44,410.80	\$ 7,598.26	\$ 64,318.74
9000-9499	215	129%	\$ 12,785.42	\$ 46,127.16	\$ 7,891.92	\$ 66,804.49
9500-9999	223	134%	\$ 13,261.16	\$ 47,843.51	\$ 8,185.57	\$ 69,290.24
Over 10,000	230	138%	\$ 13,677.43	\$ 49,345.33	\$ 8,442.51	\$ 71,465.27

This proposal reflects the Town’s ongoing evaluation of water use patterns in new residential development constructed under the 2022 landscape standards, as well as Town Council’s interest in housing attainability and fee proportionality. Castle Rock Water ensures the alignment of measurable water demand and the cost of service for new development by completing an annual rates and fees study. This evaluation was undertaken in between these studies to focus on the impact of the relatively new 2022 landscape standards for which Castle Rock Water finally had adequate data to evaluate impact. By ensuring alignment of System Development Fees with measurable water demand and observed development impacts, the revised methodology improves proportionality, supports housing attainability by reducing fees for smaller homes, and maintains full cost recovery under the Town’s “growth pays for growth” framework.

Castle Rock Water worked closely with Stantec, our expert consultant on rates and fees in developing this revised approach. Stantec's review of the revised methodology is provided as Attachment B.

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

Preliminary analysis, discussion, and recommendations related to this item were presented to the Economic Development Council Water Subcommittee at their meetings on December 19, 2025, January 16, February 20, and March 20, 2026.

Castle Rock Water staff subsequently presented this item to the Castle Rock Water Commission at their meeting held on March 25, 2026, and the Castle Rock Water Commission voted 7 to 0 to recommend Town Council approval of the Ordinance as presented.

### **Discussion**

System Development Fees ensure that new development contributes proportionally to the cost of infrastructure required to serve growth. These costs include water rights, water supply infrastructure, raw and treated water storage, water treatment capacity, water transmission infrastructure, water distribution systems, wastewater treatment capacity, wastewater collection, and necessary expansions and improvements of these systems.

From 2023 through 2025, Castle Rock Water provided a System Development Fee credit for builders who installed both the front and back yard landscaping at the time of home construction, based on the assumption that installation of full landscaping by the builder could reduce long-term outdoor water demand. Staff conducted an analysis of water consumption patterns for new homes subject to this credit and found that builder-installed front and back yard landscaping did not result in a measurable difference in average water use compared to homes where landscaping was completed by the homeowner. Because the credit was not supported by observed demand reductions, Castle Rock Water discontinued this landscaping-related SDF credit effective January 1, 2026.

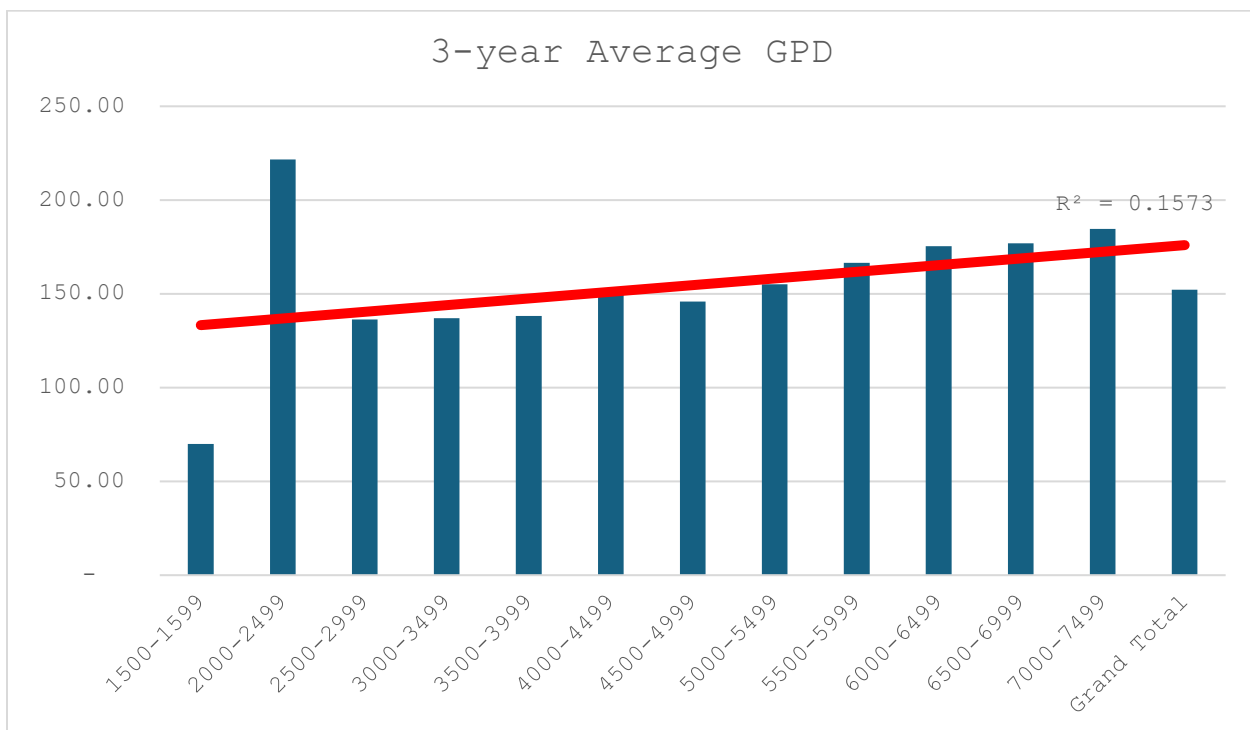
More broadly, Castle Rock Water's System Development Fees are structured to ensure that growth pays for growth and that new development fully funds the infrastructure required to serve it. At the same time, staff initiated additional analysis to evaluate whether measurable differences in system demand exist that could support more proportional fee alignment. The goal of this effort was to use observed water use and development patterns to better align fees with demand, while maintaining full cost recovery and ensuring that the Town's "growth pays for growth" framework remains intact.

Staff conducted an analysis of water use patterns for 750 single-family residential homes constructed between 2023 and 2025. These homes were built under the Town's updated 2022 landscape standards, which became effective January 1, 2023, providing a consistent baseline for evaluating water demand. It is important to note that until this year, there was not adequate data to undertake this kind of evaluation on homes built

under the new code. Castle Rock Water wanted to have at least two full years of water use data for this evaluation. The analysis grouped homes into 500-square-foot increments and evaluated both monthly and daily water consumption across each category.

Results show a clear relationship between total home size and water demand. The overall average water use across all homes in the study was approximately 152 gallons per day (GPD). Smaller homes demonstrated significantly lower usage, while larger homes showed progressively higher demand. For example, homes between 1,500 and 1,999 square feet averaged approximately 70 GPD (46% of the overall average), while homes between 5,500 and 5,999 square feet averaged approximately 167 GPD (109% of average). At the upper end of the range, homes between 7,000 and 7,499 square feet averaged approximately 185 GPD (121% of average).

Figure 1 illustrates the relationship between total square footage and average daily water demand across the study period.



As shown in Figure 1, while this analysis demonstrates a consistent overall increase in water use as home size increases, the relationship is not strictly linear. Water demand increases more rapidly at smaller home sizes, stabilizes through the mid-range, and then increases again for larger homes. This variability within and between size categories indicates that a single regression formula would not accurately represent system demand across all home sizes. In practice, a single formula would introduce systematic bias by overestimating demand for smaller homes and underestimating demand for mid-sized homes, resulting in fees that are not proportional to actual system impacts.

As a result, staff determined that a tiered or segmented approach based on observed data provides a more accurate, equitable, and defensible method for aligning System Development Fees with actual system demand.

The distribution of homes in the dataset further supports this approach and demonstrates that the proposed structure aligns with current development patterns. The majority of homes constructed during the study period fall within the 3,000 to 5,500 square foot range, representing over 55% of the sample, with relatively consistent water use between approximately 137 and 155 GPD. Smaller homes represent a much smaller share of construction but consistently show lower system demand, while larger homes demonstrate increasing demand consistent with expanded living space and associated water use.

One category (2,000–2,499 square feet) exhibited anomalously high water use (221 GPD) due to a very small sample size of three homes and was determined to be statistically unreliable. Consistent with standard analytical practice, categories with limited sample sizes or anomalous results were normalized using interpolation between adjacent square footage ranges to better reflect the overall relationship between home size and water demand and to avoid distortion from statistically unreliable data points.

In addition to addressing categories with limited sample sizes, staff also evaluated square footage ranges at the lower and upper ends of the dataset where few or no representative homes were available. For these ranges, average water demand values were developed using extrapolation from observed trends in adjacent square footage categories. At the lower end, this approach reflects the continued reduction in water use associated with smaller living areas, while at the upper end it reflects the gradual increase in demand observed in larger homes with larger lots, more bedrooms and bathrooms and larger irrigated landscapes. These extrapolated values were developed to maintain a consistent and smooth progression in water demand across all home sizes, avoid artificial gaps in the fee structure, and ensure that System Development Fees can be applied uniformly across the full range of potential residential development. This approach is consistent with standard analytical practices and supports a complete and administratively implementable fee schedule.

Based on these observed patterns in both water demand and home size distribution, staff identified the need for a representative benchmark to serve as the basis for System Development Fee calculations. Staff therefore proposes a revised System Development Fee methodology in which all Water, Water Resources, and Wastewater SDFs are based on the total square footage of the home, including both finished living space and any unfinished basement square footage that could reasonably be converted to habitable space in the future. “Total square footage” means the sum of all finished square footage and any unfinished basement square footage that could reasonably be converted to habitable space. Including unfinished basement square footage ensures that fees reflect the full potential long-term demand a home may place on the system.

“Finished square footage” refers to habitable, conditioned living space within the home that is served by heating and/or cooling systems and intended for regular occupancy, consistent with standard residential building definitions. This includes above-grade living areas and any finished basement space, but excludes unfinished basements, garages, and other non-habitable areas. For clarity, this methodology applies to single-family

residential homes, including both single-family detached dwellings (one-family homes) and single-family attached dwellings (two-family homes), including individual units within duplexes, where each dwelling unit is served by a separate, independent water service line and meter. This definition does not include multifamily dwelling units, which are defined as three or more residential units within a single building or multiple units served by a master meter, such as apartments or multi-level condominium buildings. Individually owned condominiums and townhomes that share only common walls and are served by separate service lines and meters are considered single-family residential for purposes of this fee structure.

Under this approach, each home's SDF is determined using the relationship between square footage and average water demand established through the study, rather than a single flat fee or purely fixture-based approach. This creates a direct and measurable nexus between development characteristics and system impact.

Although System Development Fees under this proposal are based on total home square footage, applicants will still be required to submit plumbing fixture counts as part of the plan review and building permit process to determine the appropriate water meter size and to ensure that Castle Rock Water has all of the information needed to continue to evaluate water demand versus all the potential parameters that may impact that demand. Plumbing fixture counts shall include all plumbing fixtures and water-using features associated with the home, including any optional or future features available at the time of permit submittal, consistent with current submittal requirements.

The proposed SDF methodology applies only to single-family residential homes served by a standard ¾-inch meter. All other customer classes and meter sizes will continue to pay System Development Fees in accordance with the schedule implemented on January 1, 2026. Castle Rock Water may evaluate additional customer classes and meter sizes in the future to determine whether similar adjustments are appropriate based on available data and observed demand patterns.

Castle Rock Water has, in limited cases, partnered with developers to implement "water efficiency plans" for specific communities, where enhanced water conservation measures were incorporated into home design and landscaping in exchange for reduced System Development Fees. While these arrangements have demonstrated potential for reducing long-term system demand, they have been evaluated on a case-by-case basis and tailored to the specific characteristics of each development. This proposal does not modify or replace the ability to consider such arrangements in the future; however, any water efficiency plans would continue to be reviewed independently and would require separate analysis and approval to ensure that any fee adjustments remain supported by measurable reductions in system demand and consistency with cost-of-service principles.

To establish a consistent and defensible baseline for fee calculation, one Single Family Equivalent (SFE) is defined as the 75th percentile of home size constructed since 2023. This benchmark was selected because it reflects a representative upper-range home within the Town's current development pattern, rather than an average influenced by smaller homes or outliers. Using the 75th percentile ensures that the standard SDF aligns with the level of service required to support a typical larger home that still occurs frequently in the market. This approach provides a stable and policy-relevant reference

point for scaling fees, such that homes smaller than this benchmark pay proportionally less, while larger homes pay proportionally more based on their relative demand. By anchoring the SFE to observed development patterns, the methodology strengthens the nexus between system demand and fee assessment while avoiding distortions that could result from using either a simple average or an extreme value.

This approach directly aligns System Development Fees with observed water use patterns and improves proportionality by tying fees to measurable system impacts. It also provides a clear and predictable framework for the development community while supporting the Town's broader objectives of encouraging smaller, more attainable housing options and ensuring that growth continues to fund the infrastructure necessary to support it.

### **Budget Impact**

The proposed methodology is expected to result in lower System Development Fee revenues for the Water, Water Resources, and Wastewater SDFs for new single-family residential development. Based on observed building patterns from 2023 and 2024, and assuming similar trends in both the number and size distribution of new homes, overall SDF revenues are projected to decrease by approximately 10 percent under the proposed tiered structure.

Within the study sample of 750 homes, 67 homes would experience no change in System Development Fees, 554 homes would see a reduction in fees, and 129 homes would see an increase. These outcomes reflect the distribution of home sizes within the community, where the majority of homes fall below the proposed Single Family Equivalent (SFE) benchmark and therefore benefit from lower, more proportionate fees, while larger homes pay increased fees consistent with their higher system demand.

While these changes are expected to reduce overall SDF revenues, the analysis demonstrates a clear relationship between total home size and water demand, supporting the proposed tiered structure. The revised methodology aligns fees more closely with observed system usage and long-term demand characteristics, ensuring that SDFs remain consistent with cost-of-service principles. By tying fees directly to total square footage, the approach strengthens the nexus between development impacts and fee assessment while maintaining the Town's commitment that growth funds the infrastructure necessary to support growth.

Staff will continue to monitor building trends, home size distribution, and water use data to ensure ongoing alignment between SDF revenues and infrastructure funding needs and to evaluate whether adjustments to the tier structure or additional customer classes may be warranted in the future.

### **Schedule**

If approved, staff will update the System Development Fee schedule and implement policy to reflect the tiered fee structure based on total home square footage. Staff will coordinate with Development Services to incorporate the updated fee methodology into the building permit review process and ensure consistent application at permit issuance.

Staff will also communicate the changes to the development community and the Home Builders Association (HBA). Implementation would begin on July 1, 2026.

### **Recommendation**

Staff recommends Town Council approval of an Ordinance modifying the System Development Fee methodology for single-family residential development as follows:

#### Single-Family Residential SDF Methodology

- System Development Fees for Water, Water Resources, and Wastewater shall be based on total square footage of the home, including both finished living space and any unfinished basement square footage that could reasonably be converted to habitable space.
- Fees shall be determined using a tiered structure based on total square footage, organized in 500-square-foot increments from 0 to 10,000 square feet, as outlined in Table 1. Each tier reflects the average water demand associated with that home size.
- One Single Family Equivalent (SFE) shall be defined as the 75th percentile of home size constructed since 2023, establishing the baseline fee level for a representative upper-range home.
- Homes smaller than the SFE benchmark shall pay proportionally lower System Development Fees, while homes larger than the SFE benchmark shall pay proportionally higher fees based on their relative demand.

#### Applicability

- This methodology shall apply to single-family residential homes served by a standard  $\frac{3}{4}$ -inch water meter.
- Plumbing fixture counts shall continue to be required at the time of plan review for the purpose of determining appropriate meter sizing. Plumbing fixture counts shall include all plumbing fixtures and water-using features associated with the home, including any optional or future features available at the time of permit submittal, consistent with current submittal requirements.
- All other customer classes and meter sizes shall continue to pay System Development Fees in accordance with the schedule implemented on January 1, 2026.

### **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

Attachment B: Stantec Consulting Services, Inc. Letter of Support