



## **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:** **A Resolution Approving the 2023 Conservation Rebate Incentive Program**  
*[Entire Castle Rock Water Service Area]*

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### **Executive Summary**

The purpose of this memorandum is to request Town Council approval by resolution (**Attachment A**) of the 2023 Conservation Rebate Incentive program. The program is a cost effective way to save existing water supplies and / or avoid the need to develop new water supplies. When we think of it in this way, the rebate program is a water supply that is completely within our control. The estimated cost per gallon saved for the rebate program is approximately 0.05\$ / gallon, while the cost of fully developed delivered new water supplies ranges from 0.09\$ – 0.14\$ / gallon. This conserved water is less expensive than the current estimated costs to develop new water supplies, and importantly, this water supply is fully within our control as a Town and can be developed much more quickly. The program is proposed to be funded at a level of \$200,000 this year, and approximate increase of 38%, with rebates being awarded in any of the proposed categories below on a first come first served basis until the funds have been exhausted.

The core rebate categories remain intact, with only a few proposed changes for 2023.

The proposed rebates and recommended changes for 2023 are:

- Residential ColoradoScape Renovation - Increase the rebate amount from \$1.20 to \$1.50/square foot. Maintain the existing minimum area required of 400 square feet, or entire front yard. Maintain the existing 1,500 square foot maximum.
- Non-Residential ColoradoScape Renovation - Increase the rebate amount from \$1.20 to \$1.50/square foot. Maintain the existing minimum area required of 1,500 square feet. Maintain the existing 15,000 square foot maximum.
- Smart Irrigation Controller - Discontinue this rebate category.

- Rotary Nozzle Retrofit Rebate - Up to \$5 per nozzle; maximum rebate of \$2,000 for non-residential customers.
- Toilet Retrofit Rebate - Increase the rebate amount from \$100 to \$150 per toilet; maximum rebate of \$600 or four (4) toilets for residential and non-residential customers.
- Whole-home Water Monitoring System Rebate - fifty (50) percent of the cost of the system up to \$200 for residential and non-residential customers.

The ColoradoScape renovation rebates are the most important of these rebates because reducing outdoor irrigation not only saves valuable water supplies, it also makes it more likely that more of our supply will be used indoors. Supplies used indoors can be reused to extinction while supplies used for outdoor irrigation cannot. Castle Rock Water is committed to incentivizing the reduction of outdoor irrigation especially for non-functional turf grass having set a target in the non-binding memorandum of understanding regarding the Colorado River of a 30% reduction in non-functional turf grass over the next several decades. Less outdoor irrigation allows us to capture more reusable water supplies and it also lowers our peak irrigation demands which are very expensive from an infrastructure standpoint.

### **Notification and Outreach Efforts**

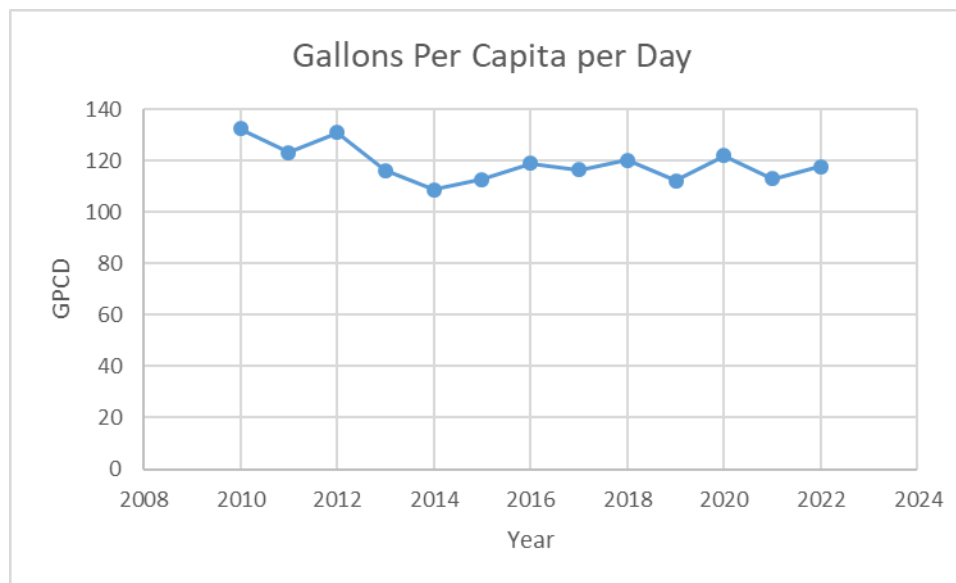
This information will be available on CRconserve.com and promoted through Community Relations' outreach avenues, such as Facebook, Twitter, Town Talk, and press releases.

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

Castle Rock Water staff presented this item to the Castle Rock Water Commission at their meeting held on February 28, 2023, and the Castle Rock Water Commission voted unanimously 7 to 0 to recommend Town Council approval of the Resolution as presented.

### **Discussion**

The original Water Conservation Master Plan (WCMP) was adopted in 2006, with an overall goal of achieving a water savings of 18% (165 to 135 gallons per capita per day) through various programs. The Castle Rock community, with the help of the Castle Rock Water team, has exceeded this goal. In 2015, the Water Resources / Conservation Division of Castle Rock Water updated this document as the Water Efficiency Master Plan (WEMP) which received approval from the Colorado Water Conservation Board (CWCB) in February 2016. The WEMP is again being updated in 2023. The 2023 WEMP maintains a goal for per capita water use of 100 Gallons Per Capita Per Day (GPCD) by 2050. Progress on the GPCD water use is shown in the Figure below.



The figure indicates excellent progress over the last thirteen years (2010 – 2022), with per capita water use going as low as 112 GPCD. Ongoing water conservation and efficiency efforts are required in order to continue reductions achieved and meet our future goal of 100 GPCD.

One-way Castle Rock Water continues to work toward sustaining and building on the conservation goals outlined in the original WCMP and the new 2023 WEMP is by offering water efficiency rebates to the community. The 2023 WEMP calls for evaluating options to update and expand this rebate program on an annual basis.

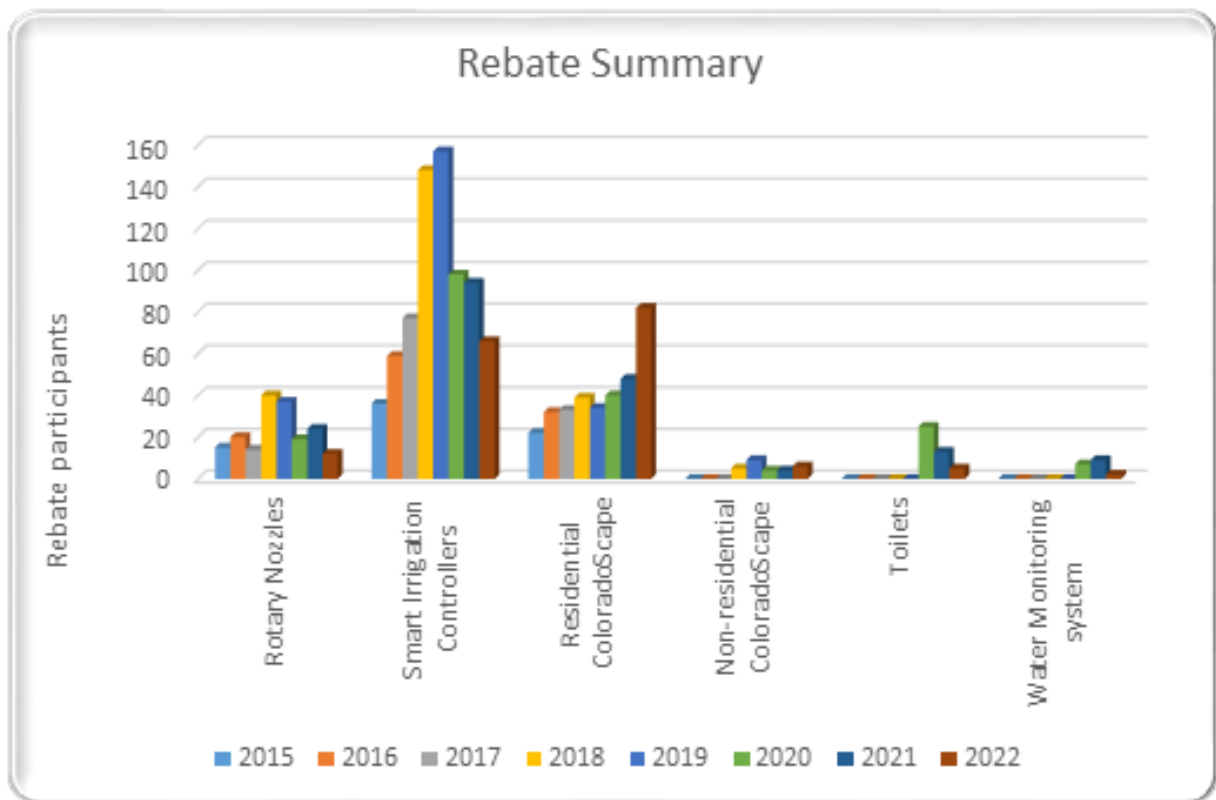
After evaluation of the 2022 program, staff is recommending the rebate for smart irrigation controllers be discontinued. Similar to rain sensors, smart irrigation controllers have been required on new homes for several years. Additionally, a thorough analysis of consumption data confirms smart controllers have not saved water. The way smart controllers are designed, when properly programmed and managed, a smart controller will estimate and replace the amount of water lost from the lawn or landscape. When the weather is hot and dry, a properly operating smart controller will water more, attempting to replace this increased water lost. Conversely, during cooler wetter periods, when the moisture lost is lower, the smart controller will water less, or not at all.

Staff is recommending an increase from \$1.20 to \$1.50 per square foot for residential (400 square feet minimum, or the entire front yard, 1,500 square feet maximum) and non-residential (1,500 square feet minimum, 15,000 square feet maximum) ColoradoScape rebate participants. Castle Rock Water hopes to encourage increased levels of participation and help offset rising labor and material costs.

Turf reduction through the ColoradoScape renovation rebate continues to be the most effective conservation rebate. The residential ColoradoScape program began in 2013 and the non-residential program began in 2018. Thinking in terms of water used by the landscape, our water budget rate structure is based on the 7-year rolling average of local historic evapotranspiration (ET). Most residential customers are currently allocated 80% of this 7-year rolling average,

which is approximately 30" of supplemental irrigation. This 30" of irrigation is equal to 18.69 gallons/square foot. When tur grass is replaced with ColoradoScape, the water demand drops to 10" or less. 10" of irrigation equates to 6.23 gallons/square foot. Water use for both programs is tracked two years before the rebate and a minimum of two years after the rebate. The residential consumption data indicates a 16% reduction when comparing post rebate water use to that before the rebate. A similar analysis of the non-residential ColoradoScape program shows a 28% savings.

The rebate program undergoes continuous evaluation, and adjustments are recommended as needed. The figure below shows a graphic representation of the number of participants we have had with the various rebate categories over the last five years.



## **Budget Impact**

The 2023 program will continue to be funded from revenue generated during the 2022 watering schedule violations and a portion of funds from the Block 4 surcharge rate. The average revenues generated and estimated costs for the violations program are shown on **Attachment B**. The total proposed rebate budget amount for 2023 is \$200,000, which is above the original proposed 2023 approved budget of \$145,000 and will require a budget amendment. Based on 2022 violations and Block 4 surcharge revenues, Castle Rock Water will have the revenues to cover the proposed revision to the 2023 budget and program.

**Attachment C** summarizes the rebate activity for the previous three years, and sets the starting point for the budget for the current year program.

## **Staff Recommendation**

Castle Rock Water staff recommends approval of the 2023 Conservation Rebate Incentive Program.

## **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:	Rebates vs Surcharge Violation Revenues
Exhibit 2:	Funding Summary