



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
Courtney Stoddard, Water Efficiency Specialist

Title: **Resolution Approving the 2024 Water Use Management Plan (WUMP)**
[Castle Rock Service Area]

Executive Summary

The purpose of this memorandum is to request Town Council approval of a Resolution (***Attachment A***) adopting the 2024 Water Use Management Plan (WUMP). The WUMP is a demand management tool that identifies regulations and watering schedules as a method to encourage water conservation during peak irrigation demand and throughout the year. The WUMP is used to establish a fee structure concerning surcharges and water violations as a way to deter non-compliance with these measures. Practices outlined in the WUMP help to minimize the effects of changing drought conditions. The WUMP supports sustainable habits for a growing community to preserve the water supply of Castle Rock's semi-arid desert location. The WUMP is one of the methods Castle Rock Water (CRW) utilizes to assist the community toward realizing the 100 gallon per person per day water usage goal while still maintaining a high standard of living for residents. The WUMP is referenced in Municipal Code Chapters 13.15.040 and 13.15.050. For this year, only minor administrative changes are suggested and no substantial content changes are being proposed.

Notification and Outreach Efforts

As defined in Chapter 13.15 of the Town's Municipal Code, all customers will receive the 2024 water schedule via United States Mail within thirty (30) days prior to the commencement of the outdoor watering schedule implementation period (May through September). Additionally, this information will be available on the Town's websites (CRgov.com and CRconserve.com) and promoted through Community Relations' outreach avenues, such as Facebook, Twitter, Town Talk, and a press release.

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

The WUMP was last updated and adopted by Council on March 7, 2023 by Resolution.

On February 28, 2024, the Castle Rock Water Commission was presented the 2024 WUMP. Castle Rock Water Commission voted ____ in favor of recommending Town Council approval of the 2024 WUMP as presented.

Discussion

The public education component is key to embracing a cultural shift toward an appreciation for the natural environment and what appropriate landscaping and water usage mean in a semi-arid climate. The WUMP provides an outline of practices during peak water use demand, focusing on individual water use impacts, as well as the necessity and purpose of demand management concerning water resources. Demand management utilizes watering schedules with enforcement by way of the issuance of violation notices and surcharges.

Multiple workshops offered throughout the year have primarily been the main form of in-person outreach. These are offered at no cost to the customers and primarily include ColoradoScape design workshops and Water Wiser Workshops. In the past, Winterization Workshops have also been offered and can be provided upon request.

The three-hour, in-person Water Wiser Workshop covers the prevention of water waste due to irrigation systems and indoor water use. It focuses on practices and tools that the individual can utilize at home to realize water savings and save on their monthly water bill. The course also covers rebates offered during each calendar year, and monetary incentives that Castle Rock Water offers to make the upfront costs for transitioning to water-efficient systems more affordable for residents. The workshops are interactive and encourage individuals to ask questions to CRW conservation representatives.

Once residents have attended a Water Wiser Workshop, armed with a better understanding of water conservation practices they are then given a Water Wiser designation in the billing system and receive a Water Wiser placard, lifting the three (3) day watering schedule restriction. Participating in a Water Wiser Workshop does not excuse any participants from receiving a violation due to water-waste or watering between the hours of 8 a.m. to 8 p.m.

Previously Water Wiser status did not expire, meaning that once residents had attended a class the account would hold the designation. Because of evolving regulations and efforts to continue education, residents were notified that the designation would expire after five (5) years. Those choosing to regain status could attend another in-person workshop or request a link to an online renewal class to maintain status. In 2023, 237 individuals opted to take the online renewal course and regained Water Wiser status. The five (5) year expiration effectively brought the overall Water Wiser participation numbers down from the previous year's total of 3,507 participants to 2,884.

Water Wiser Participants	
2017	3,020
2018	3,993
2019	3,187
2020	3,316
2021	3,497
2022	3,507
2023	2,884

The Town of Castle Rock has used mandatory water demand management for landscape irrigation since 1985. The residential 2024 watering schedule places each house on an every-third-day watering schedule based on the last digit of the home address. The digit correlates to a square, circle, or diamond. These shapes fill each date of the calendar year, irrigation season beginning May 1st through September 30th to assist residents to manage their watering schedule (**Attachment C**).

This watering schedule is specifically designed to prevent multiple houses on the same street and water zone from drawing too much water from the main system at one time, preventing a low water pressure event. There are some exceptions to this calendar schedule found in Founders Village where multiple addresses on the same street end in the same digit. For those individual houses, there is a special schedule mailed directly to the address. Accounts with water wiser designations are not restricted to the every third-day schedule as mentioned previously on the basis that water wiser participants use less water to irrigate overall and are encouraged to water only when needed. To prevent water waste and maximize watering efficiency, all residences are restricted from watering after 8 a.m. and before 8 p.m. other than hand watering.

Non-residential irrigation creates the highest water demand compared to residential irrigation due to the size of the irrigable area. Because of the high-water demand, non-residential accounts have fewer watering hours per day and are divided into two groups according to proximity to the north-south interstate, 1-25. Non-residential watering hours are from 12 a.m. to 8 a.m. Non-residential accounts east of I-25 are designated Tuesday, Thursday, and Saturday. Non-residential accounts west of I-25 are designated Monday, Wednesday, and Friday. **Attachment D** is the non-residential watering schedule.

As an effort to accommodate park use and programmed events, Town-owned and managed parks watering hours are from 9 p.m. on their designated day and finish no later than 5 a.m. the following morning.

In addition to the watering schedule, the WUMP covers alternative schedules for special circumstances including customers with hardships and exemptions for residents installing new sod or vegetation.

Violations are not issued on hearsay. Enforcement of regulations and restrictions outlined by WUMP is largely dependent on CRW Water Monitors. It is the Water Monitor's task to identify violations and process them accordingly. The Water Monitor's first directive is to make contact with the customer in violation, explain the situation, and help provide a solution whenever

reasonably possible. Secondly, Water Monitors issue an official violation. For both residential and non-residential accounts, the first violation is a warning. The table below represents the 2024 fee schedule for violations following the first warning. No adjustments to the fee schedule are recommended at this time.

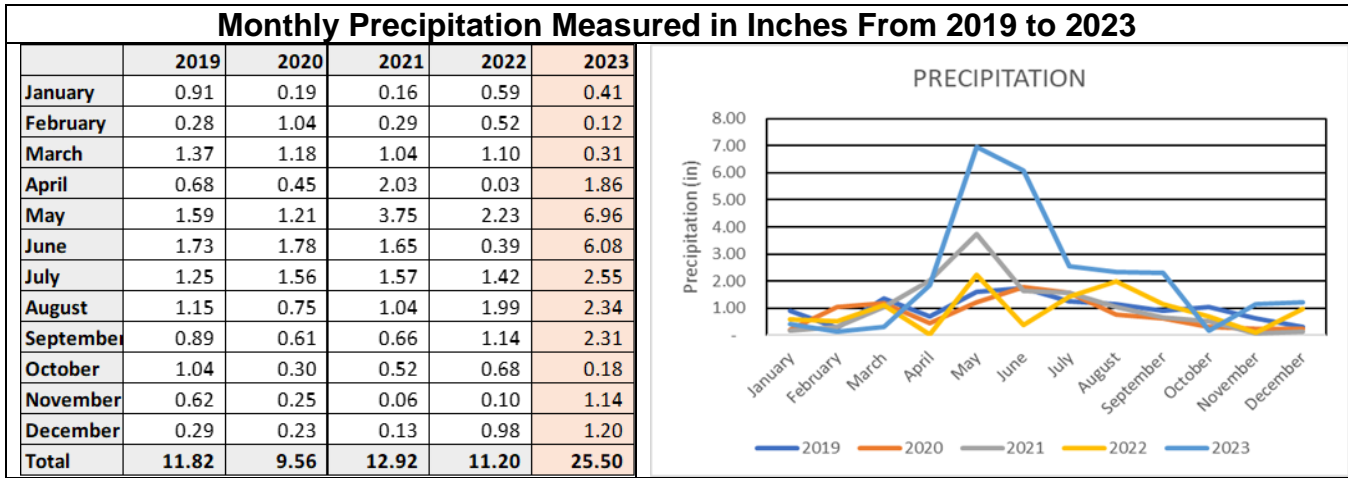
<u>Residential</u>	<u>Non-residential</u>
1 st – Warning, no surcharge	1 st – Warning, no surcharge
2 nd - \$25 surcharge	2 nd - \$100 surcharge*
3 rd - \$50 surcharge	3 rd - \$200 surcharge*
4 th - \$100 surcharge	4 th - \$400 surcharge*
5 th - \$200 surcharge	5 th - \$800 surcharge*
Subsequent - \$200 surcharge*	Subsequent - \$800 surcharge*
*Subject to service discontinuance	*Subject to service discontinuance

The total number of violations issued each year is variable. The more education efforts are successfully received by residents, the fewer violations. The largest factor influencing the number of violations is the amount of rainfall received during the irrigation season. A major concept in our educational outreach is an emphasis on only supplementing irrigation water for outside landscape as needed. Better understanding and practices by residents along with shifting landscapes to ColoradoScape design encourage a water conservation culture.

In 2023 CRW adopted regulations towards requiring new construction irrigation systems to have a rain sensor installed that would automatically monitor precipitation, evapotranspiration, and humidity levels connected to an irrigation clock. Rain sensors automatically prevent the irrigation controller from initiating a run sequence during a rain event or if high humidity levels are detected.

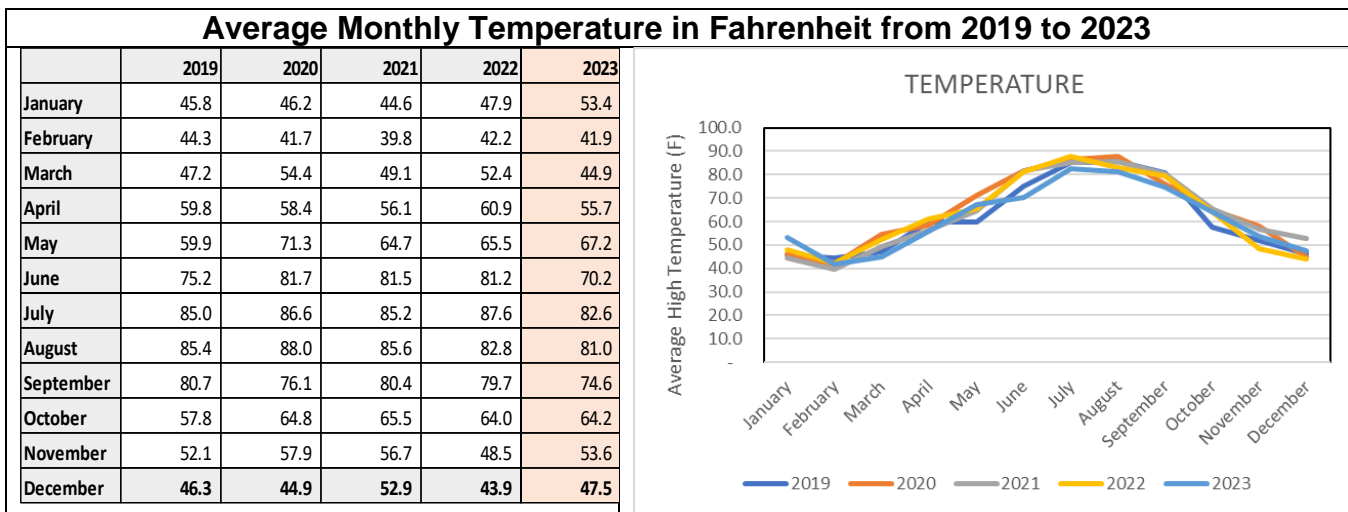
Here in Castle Rock, 2023 was a notable year for the amount of precipitation received compared to the last 5 years. In 2022 the total rainfall was 11.20 inches compared to 2023 when the amount of rainfall received was 25.50 inches, more than double from the previous year.

See the following table and graph representing the five-year precipitation in Castle Rock.



Additionally, 2023 temperatures were very moderate. The average temperature in June of 2023 was 70.2 degrees Fahrenheit (°F) compared to being in the eighties in recent years.

See the following table and graph representing the five-year average temperature in Castle Rock.



As the Town’s population and the CRW service area continues to grow and encompass extraterritorial customers such as Macanta, the Bell Mountain Ranch community, and the Crowfoot Valley Road corridor, so does the need for seasonal water monitors. CRW relies heavily on its monitors to be the eyes in the field. Their presence serves as enforcement to the watering restrictions and ensures that responsible management of water resources is an active practice.

The full 2024 WUMP will be made available following council adoption at the March 5, 2024 meeting and can be found at CRgov.com/waterplans.

Budget Impact

The 2024 seasonal water conservation staff budget is \$58,534 and is covered under account number 211-4330-443.10-30. The revenue budget estimate for watering surcharges is \$107,402. With the transition of the seasonal office assistant out of this fund, the seasonal water conservation salaries are not expected to exceed the budget amount even with six seasonal water monitoring staff.

Staff Recommendation

Staff recommends approval of the 2024 WUMP as presented.

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: 2024 WUMP
- Attachment B: 2024 WUMP Summary of Proposed Changes
- Attachment C: 2024 Residential Watering Schedule
- Attachment D: 2024 Non-Residential Watering Schedule