



Town of Castle Rock

Agenda Memorandum

Agenda Date: 2/19/2019

Item #: File #: TMP 2018-967

To: Honorable Mayor and Members of Town Council

From: Mark Marlowe, P.E., Director of Castle Rock Water

Resolution Adopting the 2019 Water Use Management Plan

Executive Summary

The purpose of this memorandum is to request Town Council approval of a Resolution (**Attachment A**) adopting the 2019 Water Use Management Plan (WUMP). Several minor changes, revisions, and administrative updates are proposed (**Attachment B**).

Notification and Outreach Efforts

As defined in Chapter 13.15 of the Town's Municipal Code, all customers will receive the 2019 watering schedule via United States Mail within 30 days (approximately April 1, 2019) of the commencement of the irrigation schedule (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 press releases.

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

On January 23, 2019, the Castle Rock Water Commission _____ the WUMP as presented.

Discussion

The Town of Castle Rock has used mandatory water demand management for landscape irrigation since 1985. Peak season demands for residential customers are staggered on an every-third-day format. This is the traditional circle, diamond, square schedule that is familiar to our customers.

New for 2019, we are proposing to expand the irrigation schedule to include May and September. Non-residential watering hours will begin at 10 p.m. on the designated day and must be complete by 6 a.m. the following morning. Other than hand watering, no watering during the daytime hours of 8 a.m. - 8 p.m. is allowed. This format helps ensure our customers use irrigation water when it is most efficient and effective, ultimately saving customer's money. In addition, it allows positive pressures to be maintained throughout the water distribution system while maintaining appropriate fire flows. It also allocates time for the finished water storage tanks to recover volume.

Another way to maximize the efficient use of water is to limit the issuance of irrigation exemptions during the hottest and driest part of the year. Castle Rock Water typically issues 515 on average per year, and in 2018 issued 563. July is typically the hottest month of the year, and as such, it takes significantly more water to establish new plant material during this period. As implemented in 2018, irrigation exemptions will not be issued or applicable from July 1 - July 31.

The full plan is available on the website, and can be found at CRgov.com/waterplans.

The Watering Violations Summary is included (***Attachment C***). For the last several years, the focus of the monitoring program has undergone a philosophical shift. Primarily for residential customers, the program has been transitioning from a punitive violations role to a more educational role. While the monitors have always issued violations, their direction is to contact the customer, explain the problem, and provide a solution whenever reasonable and possible.

Budget Impact

The budget for 2019 seasonal water conservation staff is \$48,772 and is covered under account number 211-4330-443.10-30. The seasonal water conservation salaries will exceed the budget amount due to the additional two months of monitoring proposed. Any expense in excess of the budget will be handled through a budget amendment.

Staff Recommendation

Staff recommends approving the Water Use Management Plan as presented.

Proposed Motion

"I move to approve the Resolution as introduced by title."

Attachments

Attachment A:	Resolution
Exhibit 1:	Water Use Management Plan
Attachment B:	Summary of proposed changes
Attachment C:	Watering violations summary

EXHIBIT 1

WATER USE MANAGEMENT PLAN

Date, 2019



Castle Rock Water
175 Kellogg Court
Castle Rock, CO 80109
720-733-6000

CRgov.com



TABLE OF CONTENTS

SECTION 1. INTRODUCTION

- 1.1 Policy Statement
- 1.2 Executive Summary
- 1.3 Definitions

SECTION 2. PUBLIC EDUCATION

2.1 EDUCATION

SECTION 3. PROGRAM IMPLEMENTATION

- 3.1 Annual Implementation Review
- 3.2 Regular Irrigation Schedules
- 3.3 Alternative Irrigation Schedules
- 3.4 Special Circumstances
- 3.5 Enforcement
- 3.6 Demand Management Tools

SECTION 4. DATABASE MANAGEMENT

SECTION 5. LANDSCAPE PROFESSIONALS – Maintenance/Design/irrigation

SECTION 6. RAIN WATER COLLECTION

SECTION 7. APPENDICES *Not included - revisions in process*

- Exhibit 1 Water Restriction Code – Chapter 13.15
- Exhibit 2 Sample Water Schedule and Residential Letter
- Exhibit 3 Sample Non-Residential Communications
- ~~Exhibit 4 Non-Residential Maintenance Submittal~~
- Exhibit 5 Temporary Irrigation Exemption Applications
- Exhibit 6 Exemption Placard
- Exhibit 7 Special Pressure Related Area Schedule
- Exhibit 8 Water monitor Training Guidelines
- Exhibit 9 Sample Warning Letter
- Exhibit 10 Sample Subsequent Enforcement/Violation Notification
- Exhibit 11 Landscape Professional Qualification Forms
- Exhibit 12 Rainwater Collection Information Sheet



Section 1. Introduction

- 1.1 Policy Statement
- 1.2 Executive Summary
- 1.3 Definitions

1.1 Policy Statement

The Town of Castle Rock, through the implementation of the Water Use Management Plan (WUMP), is committed to the wise development and efficient use of water resources. The water use management program is designed as a demand management tool to control peak demand. This program operates in concert with the Town of Castle Rock Landscape and Irrigation Performance Standards and Criteria Manual, the Water Efficiency Master Plan, and the Drought Management Plan to encourage the wise use of a finite resource.

1.2 Executive Summary

The Town of Castle Rock has used mandatory water demand management for landscape irrigation since 1985. Peak season demands are managed through an alternating irrigation schedule.

Program administration and implementation has traditionally been accomplished through Castle Rock Water. The Town's restrictions, Chapter 13.15 of the Castle Rock Municipal Code, are included as **Exhibit 1**.

The water use management program implementation policy assists staff with implementation of the WUMP that deals with management of peak season related water use issues. The WUMP is reviewed and approved annually by Town Council.

The policy addresses:

- Identification of regular days and hours for landscape irrigation during designated peak demand months, i.e. irrigation schedule development.
- The need for alternative schedules due to various hardships and/or irrigation system limitations, and applicable criteria.
- Special watering circumstances, including hand watering.
- Enforcement of water use management strategies by issuance of warnings, surcharges, and ultimately the potential for discontinuance of water service.
- Appeals and variance issues.
- Further demand management tools.

1.3 Definitions

Alternative irrigation schedule: Schedules not meeting the regular criteria and have been approved by the program administrator.

ColoradoScape: A natural landscape which uses low to very low water (less than 10-inches of water), plant material which blends in with the native Castle Rock landscapes. Plant material must be maintained in its natural, native form, utilizing a combination of hardscape and landscape materials which provide a variety of colors, textures, sizes, shapes, and seasonal interest.

Common area: Streetscaping, An area available for public use. May be whether publicly or privately owned, managed, or maintained.

Curtailment stages: As defined in the Drought Management Plan.

Hand watering: Application of water to plant material while holding a hose in hand.

Irrigable area: The area of a property where a permanent irrigation system is installed and has the potential to be irrigated.

Irrigated area: The actual area of a property receiving regular/consistent supplemental irrigation.

Irrigation season: April 1 through October 31.

Landscape maintenance contractor: Designated by owner or responsible party to operate, manage, and maintain the landscape and irrigation of a defined property.

Monitor: A Town employee observing irrigation activities as defined and outlined in the WUMP.

Owner: Party identified by Castle Rock Water billing records.

Program administrator: As defined by municipal code, is the Town Manager or designee thereof, and for purposes of the WUMP, designated to Director of Castle Rock Water.

Public area: Town-owned, maintained, and managed properties and facilities.

Residential: Account category identified in Castle Rock Water billing records.

Responsible party: Person or group identified in the Castle Rock Water billing or by owner as such, including owner, property manager, or homeowners' association representative.

Restriction period: Time period when designated watering days and hours are enforced. See current year calendar for specific details.

Special schedule: Approved alternative schedule designated for the current irrigation season.

Water budget: The water budget is the amount of water available to each account, each month. The average winter monthly consumption (AWMC) is calculated for each customer by averaging the total potable water consumption used by the customer in the months of November through February in accordance with standard operating procedures maintained by Castle Rock Water. and depends on indoor use and through the growing season—April through October. The outdoor water budget is determined by the irrigable irrigated area, landscape type, and historical local evapotranspiration rate, April through October.

Water waste: Application of water that does not result in beneficial use. This includes:

- Continuous irrigation to any area resulting in ponding or pooling of water;
- Runoff of water not absorbed into the ground which flows away from the area being irrigated;
- Any irrigation system that is leaking;
- Application of water intended for irrigation to any impervious surface;
- Letting water run unrestricted from a hose or faucet;
- Application of water to impervious surfaces such as street washing applications;
- Operation of any irrigation system when curtailment stages have been invoked.



Section 2. Public Education

2.1 Education

Public education is a primary component of the WUMP. Outdoor water use during the April through October landscape irrigation season accounts for the largest demand on the system. Educating customers on industry best management practices, the need for adherence to the irrigation schedule, and the overall water use management program are the keys to success. Customers that adhere to this plan will use water more efficiently and ultimately save money while maintaining a healthy landscape.

One of the primary educational opportunities for residential customers is the Water Wiser Workshop. This program focuses on xeric design, landscape preparation, and efficient irrigation. After completion of this workshop, residents are exempt from the every-third-day watering schedule. This exemption provides residents with the opportunity to take advantage of the weather and watering ~~ing~~ **only** when necessary, not just because it's the scheduled watering day. This Water Wiser status will remain active for five (5) years and can be renewed by completion of another Water Wiser Workshop.

The WUMP is designed for management of peak demand by designating days and hours for residential and non-residential customers. This reduces the necessary amount of water system infrastructure, water resource acquisition, treatment, storage, and distribution. Adherence to the designated schedule ~~that~~ **ensures** peak demand is spread evenly throughout ~~the week during~~ the irrigation season and allows for water storage tank recovery ~~time during~~ non-irrigation periods. The designated watering hours also ensure customers irrigate at the times ~~where~~ **when** watering is most effective and efficient.

Part of enforcement is to educate customers on these issues, and offer assistance with irrigation system problems and water use management when possible. This assistance is offered through newsletters, individual letters, and one-on-one communications. The Town of Castle Rock maintains two web sites (CRgov.com and CRconserve.com) where additional information about WUMP policies and water efficiency efforts can be found. All Castle Rock Water staff are trained on the basics of this program. Seasonal water monitors receive additional in-depth training on water efficiency and conservation.

Annual public education strategies are developed in relation to the Water Use Management Plan and water conservation programs. This includes providing water conservation information for residents, residential builders, property managers, and the non-residential community.



Section 3. Program Implementation

- 3.1 Annual Implementation Review
- 3.2 Regular Irrigation Schedules
- 3.3 Alternative Irrigation Schedules
- 3.4 Special Circumstances
- 3.5 Enforcement
- 3.6 Demand Management Tools

3.1 Annual Implementation Review

The WUMP is reviewed on an annual basis, and submitted to the Castle Rock Water Commission for review. Program and policy changes are forwarded to Town Council for adoption. Town Council may alter this program and its implementation as necessary.

3.2 Regular Irrigation Schedules

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3.2.2 Residential Irrigation

- A. *Day/Address Assignment*: Watering shall be limited to every-third-day in accordance with the following procedure:
1. Properties with addresses ending in zero (0) through three (3) are designated by a square.
 2. Properties with addresses ending in four (4) through six (6) are designated by a circle.
 3. Properties with addresses ending in seven (7) through nine (9) are designated by a diamond.
- B. *Permissible Hours of Irrigation*: Permissible hours of irrigation are before 8 a.m. or after 8 p.m. on the designated day. These hours are for customers benefit as they ensure water is most efficiently applied to the landscape, minimizing evaporation and other losses. Under no circumstances, beyond hand watering, will irrigation be allowed between the hours of 8 a.m. to 8 p.m.
- C. *Schedule Dissemination Criteria*: Schedules shall be distributed to water customers no later than thirty (30) days prior to the commencement of watering restrictions. See **Exhibit 2**.
1. The watering schedule shall be distributed through the U.S. Postal Service to all Town of Castle Rock residents.
 2. The Town Clerk shall receive a copy of the watering schedule.
 3. The watering schedule shall be posted at Town Hall and Castle Rock Water offices.
 4. The watering schedule shall be published on CRconserve.com and in the official notice section of CRgov.com/notices.
 5. The watering schedule and a general outline of the policy will be posted on the Town's website.
 6. Watering schedules shall be made available to all building permit applicants where the permit includes installation of an irrigation system, or when the building permit is for the sole purpose of installation of an irrigation system.
- D. *New Customers*: All parties that become new customers will receive the watering schedule and educational materials through a new homeowner welcome packet.
- E. *Residential Homebuilders*: Homebuilder landscape contractors that install and/or maintain residential landscaping shall be registered with the Town of Castle Rock **Water** to ensure those managing the properties are thoroughly versed on **the** Water Use Management Plan and **the** Landscape and Irrigation Performance Standards and Criteria Manual. See Section 5 for information regarding

registration of landscape professionals.

3.2.3 Non-Residential/Common Area/Public Area Irrigation

Non-residential, common, and public irrigated areas shall be considered as any property managed or owned by the same group or individual. This includes apartments, condominiums, townhomes, and multi-family developments ~~still~~ under the control of the builder, commercial customers, churches, streetscapes, common areas, or private areas. The “property” shall be considered one entity for the purpose of water restriction administration and enforcement regardless of the number of metered services serving the property.

- A. *Day / Geographic Location Assignment:* Watering days for the entire property will be three days per week as assigned by ~~your~~ geographic location. For properties west of I-25, designated watering days are Monday, Wednesday, and Friday. For properties east of I-25, designated watering days are Tuesday, Thursday, and Saturday. Watering shall begin on the designated day and must be completed within the specified window (*See B. below*).
- B. *Permissible Hours of Irrigation:* Permissible hours of irrigation for non-residential, common, and public areas shall begin no earlier than 10 p.m. on ~~your~~ **the** assigned day and be completed no later than 6 a.m. the following day.
- C. *Application Rates:* Total water application shall not exceed 1.5-inches per week, per irrigation zone.
- D. ~~*Maintenance Schedule Submittal Requirements:* All irrigation schedules for non-residential properties must be submitted to Castle Rock Water for review and approval. These schedules must be submitted no later than May 15 each year. Those properties that have not submitted a schedule will be considered out of compliance with the water use management program and will be subject to enforcement action. (See **Exhibit 4**)~~
- E. *Leaking Irrigation Systems:* As deemed necessary, the Town has the ability to charge property owners for nighttime emergency call-outs that are attributable to malfunctioning, leaking irrigation systems that are not repaired on a timely basis. Three or more call-outs of this type shall be considered excessive and the owner will be subject to incur the associated charges.
- F. *Registered Landscape Professionals:* Landscape and irrigation installation and maintenance contractors working for non-residential customers shall be registered with Castle Rock Water to ensure those managing the properties are thoroughly versed on **the** Water Use Management Plan and **the** Landscape and Irrigation Performance Standards and Criteria Manual. See Section 5 for information regarding registration of landscape maintenance professionals.

3.2.4 Parks/Athletic Fields

The Town of Castle Rock Parks and Recreation Department utilizes an ET based computerized central control system. This system is monitored daily, and automatically adjusts based on changes in weather and soil moisture. The Parks Department will adhere to the established schedule as closely as possible, however, park size, level of activity, special events, and athletic programming will ultimately determine

water needs.

3.3 Alternative Irrigation Schedules

Alternative irrigation schedules may be granted for hardship and/or special circumstances. Please contact Castle Rock Water to determine eligibility. ~~applicant must complete and submit an application for such an exemption. (See Exhibit 5 and Exhibit 6)~~ Beyond hand watering, irrigation will not be allowed between the hours of 8 a.m. and 8 p.m.

3.3.1 Exemptions

Irrigation exemptions may be issued to help establish new plant material or other exemptions as noted below. However, irrigation exemptions for establishing new plant material will not be issued or applicable between July 1 and July 31. This is typically the hottest month of the year and new plant material requiring an exemption should not be installed during this month. An administrative fee up to \$25 will be charged for processing of exemption applications.

Should the administrator of the WUMP determine that granting an exemption would not significantly impact the water system, the administrator may issue an exemption, stating appropriate conditions thereon. These conditions include the effective date, expiration date, designated address, required hours of irrigation, and any other special criteria associated with the exemption. The exemption allows for ~~daily~~ watering **as needed, on any individual day**; however, designated hours and water rates still apply. These exemptions may be revoked at any time should it be deemed necessary by Castle Rock Water.

Exemptions may be granted for:

- A. *Establishment of New Plant Material:* An exemption to the established watering schedule may be granted to establish new plant material not to exceed 21 days for new sod and not to exceed 30 days for seed or other plant material, provided an exemption is obtained through Castle Rock Water.

Conditions for this exemption include:

Verification through site inspection by the program manager or designee, through certification by accredited landscape architect or the builder, through documentation by receipt or invoice, or through other means deemed acceptable by the Program Manager that prior to seeding or sodding of turf, soil amendment at a **minimum** of four (4) cubic yards per one thousand (1,000) square feet or deemed by soil analysis, and has been tilled to a minimum depth of six-inches. Approved soil amendment must be Class I or Class II compost.

Evidence that an irrigation system backflow prevention assembly has been installed, tested, and approved.

- D. *Disease Mitigation:* Exemptions may be granted to assist with mitigation of diseased plant material. Exemptions of this type are reviewed on a case-by-case basis. Potential exemptions are related directly to the disease or issue to be mitigated. Irrigation, however, must occur within the regularly scheduled hours.

E. *Fertilization*: Exemptions may be granted to allow daily watering for application of fertilizer material. Exemptions of this type are reviewed on a case-by-case basis. Potential exemptions are related directly to the square footage, type of fertilization process, and current weather conditions. Duration of additional irrigation shall be determined by staff and shall not exceed the manufacturer's recommendation for application. Irrigation must occur within the regularly scheduled irrigation hours.

F. *Hydro-seeding*: Installations in non-residential landscapes must be performed by a Castle Rock Water registered landscape contractor. Exemptions may be granted to allow daily watering as needed on any individual day for establishment of hydro-seeded areas, which shall include areas used for:

1. Stormwater retention
2. Re-vegetation of over-lot areas

Staff may determine that irrigation may be allowed during identified water system recovery periods.

E. *Special Schedules for Non-Residential Properties*: Special schedules for non-residential properties may be granted based on a demonstrated hardship at the discretion of the Program Administrator. Castle Rock Water registered landscape contractors shall administer special schedules. See Section 5 for information regarding registration of landscape professionals.

F. *Other*: Other exemptions may be granted should the program administrator determine a hardship or special circumstance exists for an applicant, due to irrigation requirements that cannot be met under previously outlined criteria, including but not limited to:

1. Residential customers that do not have programmable irrigation systems that are going on vacation, have a family emergency, or similar demonstrated hardship may receive an exemption to alter their assigned watering day on a time-limited basis as approved by the program administrator.
2. All non-residential properties will water on their designated days during the overnight hours of 10 p.m. – 6 a.m.

Exemptions allowing daily watering as needed, on any individual day are applicable only to the areas designated on the exemption application. Non-applicable areas are not included under the exemption and may not be exempted from designated irrigation requirements.

3.4 Special Circumstances

3.4.1 Low Pressure Areas

Certain existing areas of Town have blocks of homes with addresses ending in the same digit. With the water system infrastructure being designed with the every-third day schedule, several residential addresses within a limited area, watering at the same time can create low-pressure situations. Assigning alternate symbols to the impacted homes mitigates this situation. Special schedules are given to these homeowners each year. See *Exhibit 7* for these impacted areas, as well as the letter and special schedule that is distributed to these homeowners in Founders Village.

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3.4.3 Hand Watering

Watering plant material while holding a hose in hand is allowed at any time, on any day, as long as water waste is not occurring. Hand watering does not include irrigation with a hose and sprinkler, or manual operation of an automated irrigation system.

3.4.4 Water for Entertainment

Water used for entertainment purposes, e.g. children running through sprinklers, is allowed so long as persons are present **and water waste does not occur**.

3.4.5 Pressure Washing

Pressure washing may be allowed according to the following criteria:

- A. High efficiency and low water use equipment ~~are~~ **is** required.
- B. Water waste shall not occur.
- C. No excessive runoff shall leave site where water is being applied.
- D. Equipment and application shall meet all Castle Rock Water Cross-Connection Control Program criteria.

3.4.6 Street Washing

- A. *Streets*: Application of water to streets for the purpose of street washing shall occur by use of water efficient street sweeping equipment only. Use of fire hydrants is not allowed. Use of water trucks for the purpose of street sweeping is not allowed.
- B. *Drive-Through Restaurants*: Application of water to impervious surfaces related to drive-through restaurant food service areas may be allowed under the following circumstances:
 - 1. Town may request owner/operator of facility to obtain a letter from the Tri-County Health Department requiring cleaning of prescribed areas. A copy of such shall be submitted to Castle Rock Water, and a copy shall be posted on-site.
 - 2. Water waste shall not occur.
 - 3. No excessive runoff shall leave site where water is being applied. High efficiency and low water use equipment ~~are~~ **is** required.
- C. *Sidewalks/Driveways*: Application of water to sidewalks and driveways by homeowners for the purpose of cleaning is discouraged, and may be considered water waste. Whenever possible, areas should be swept to eliminate site debris. Such water use may be allowed under the following circumstances:
 - 1. Water waste shall not occur.
 - 2. No excessive runoff shall leave the site where water is being applied.
 - 3. Automatic shut off spray nozzles on hoses; such as pistol grip sprayers shall be used.

4. Cleaning of the surface cannot reasonably be accomplished without the use of water.

5. Sidewalk poses a safety hazard that cannot be resolved without water.

3.4.7 Car Washing

A. Commercial car wash installations shall meet the following criteria:

1. Newly constructed facilities, whether full-service, in bay, or self-serve shall use water recycling systems or weep recovery systems.
2. Demand management tools, consistent with curtailment identified in Section 3.6, shall apply to all commercial car wash systems.
3. Existing car washing systems that are being expanded, repaired, or rehabilitated shall conform to recycling requirements.

B. Homeowner car washing:

1. There are no limitations for hours or days a homeowner may wash vehicles.
2. Water waste shall not occur.
3. Require use of automatic shut off spray nozzles on hoses, such as pistol grip sprayers.
4. Recommend parking on turf areas during car washing so all runoff is beneficially used by plant material.
5. Recommend use of bucket and cloth/sponge to apply soaps, clean major portions of vehicle, and use hose for final rinse only.

3.4.8 Fountains

Decorative fountains shall be recirculating and designed to reduce water losses through evaporation. Use of fountains is subject to additional demand management tools identified in Section 3.6.

3.4.9 Irrigation System Repair

Operation of any irrigation system outside of its established watering schedule may be allowed for repairs or routine maintenance without incurring a violation under the following circumstances:

- A. *Residential:* The owner or operator of the system ~~has notified Castle Rock Water by telephone, or by e-mail at least one (1) hour BEFORE operation of the system. An operator must be present at all times when the system is in operation for routine maintenance or repair purposes outside of the established watering schedule.~~
- B. *Non-residential:* The owner/responsible party/landscape contractor may post an "Irrigation System Check in Progress" sign in the immediate vicinity of the water use. Operation of the system shall be for routine maintenance (i.e. checking zones for broken heads, timer operation, etc.) and shall be limited to the briefest time to observe and detect malfunctions. An operator must be present and visible at all times when the system is in operation for routine maintenance or repair purposes outside of the

established watering schedule.

3.4.10 Water Waste

Water waste violations can be issued at any time and are independent of the watering restriction calendar. The following examples serve as illustrations of situations that shall be cited as violations of water waste prohibition. Similar situations as observed by Town of Castle Rock staff will also be cited at their discretion:

- A. Continuous irrigation resulting in ponding, ~~or pooling, of water~~ or runoff.
- B. Failure to repair any irrigation system that is leaking.
- C. Application of water intended for irrigation to an impervious surface, such as a street, sidewalk, or driveway.
- D. Using potable water to wash ~~down~~ outdoor impermeable surfaces.
- E. Letting water run unrestricted from a hose or faucet.
- F. Operation of any irrigation system when demand management tools of Section 3.6 of this policy have been invoked.
- G. ~~Non-residential~~ Irrigation during a storm event.

For water waste violations due to leaking or damaged irrigation components, the customer will be allowed a defined amount of time to repair the condition without incurring subsequent violations:

- Residential customers shall complete necessary repairs within five (5) days of violation, or before the system is used again ~~for irrigation~~.
- Non-residential areas shall complete necessary repairs within twenty-four (24) hours of notification or at a minimum before the system is used again ~~for irrigation~~.
- Notwithstanding the enforcement provisions set forth in Town Code, extreme water waste may result in discontinuance of service. Associated service charges for disconnection and reconnection shall be applied to the account.

3.5 Enforcement

Enforcement of the watering schedule is for demand management, eliminating water waste, and promoting water conservation. This code enforcement is conducted to protect the interests of the public, and protect public health and safety. As the focus of the program is encouragement of compliance, first violations are issued as warnings with no surcharges applied, and subsequent violations are on a graduating scale. Town of Castle Rock staff are authorized to issue violations, but also receive training in educating water customers about the purpose of the program with the intent to encourage compliance.

3.5.1 Seasonal Water Monitors

Water monitors are employed as part-time temporary positions during the water restriction period, and are hired through standard Town of Castle Rock employment procedures.

Wages are budgeted through the Water Resources Enterprise Fund. Since the watering schedule is a demand

management measure, it is not directly associated with the Water Conservation Program. Funds must be allocated at the identified wage for adequate coverage of the water system. Coverage may be required to include 24-hours, seven days per week, and is dependent on water system conditions.

Water monitors drive throughout the Town and monitor water use, including irrigation and water waste. Water monitors will receive training, as defined in **Exhibit 8**, during their first week of employment: 1) in customer service, public education; 2) operation/care of Town equipment; 3) irrigation system operation training; 4) information logging and violation processing; and 5) safety training.

Water monitors note date, time, and type of watering violation. Monitors note if personal contact was made with the customer and what level of public education took place, including distribution of schedule, and water conservation materials. Personal contact in issuance of violations is encouraged if the monitor feels safe in approaching the customer during daylight hours only.

3.5.2 Evidence of Violation

Violations of the regular and approved alternative watering schedules are violations of municipal code and are subject to surcharges and potential discontinuance of service for non-compliance. Violation issuance hierarchy is confined to the current irrigation year, January through December, and will not be carried over from one year to the next. New customers are not subject to pre-existing violations for that specific address.

The party issuing the affidavit must witness the violation. For example, the monitor must see the out of compliance irrigation or water waste.

Although not required by municipal code, monitors may take photographs and/or video of the violation, documenting date and time. Should the violation be appealed, this data may serve as additional evidence the violation actually occurred, and may be supplied to the customer upon request.

3.5.3 Warning/Surcharge Issuance Process

Violations requiring surcharge issuance are copied daily to Castle Rock Water Billing Division and will be applied to the appropriate ~~utility~~ **water** billing account.

Violations are noted as legal documents (see **Exhibit 9**). These forms are then processed on a daily basis, during regular business hours on standard forms that will be sent by U.S. Mail to the owner or responsible party.

Town staff makes every attempt to notify responsible parties of non-compliance so the situation may be corrected as soon as possible. It is, however, not the Town's responsibility to notify any individuals not listed on the water billing account information. At no time is bias applied in enforcement actions.

Private parties may contact Town staff to notify them a violation is occurring. As determined by staff availability, this may be immediately investigated and documented accordingly.

Due to the size, public exposure, and potential negative impact to the water system, common and/or public

areas, responsible parties, i.e. landscape contractors, may be ~~immediately~~ notified by telephone or email of the violation so it may be immediately addressed. This is accomplished during regular business hours. Should the violation be blatant and considered waste, a violation will be issued and the service may be discontinued until the responsible party or contractor addresses and/or repairs the cause of the violation, i.e. leaking heads or zones going off at a non-approved time. If/when Castle Rock Water is required to disconnect or reconnect irrigation services, a \$45 charge may be assessed.

The warning/surcharge issuance process is as follows:

All violations are processed and mailed to the aforementioned parties within 24 hours (during regular business hours) of the violation. Failure to do so however does not impact the validity of the enforcement action. Surcharges shall be applied to customer accounts within one week of the date of the violation.

1st Violation – Warning, no surcharge incurred

The enforcement form is processed with the appropriate violation and mailed via U.S. Mail, to the **account holder** ~~appropriate parties~~. See **Exhibit 11** for the sample letter mailed in case of warning issuance.

2nd Violation – Surcharge

The enforcement form is processed with the appropriate violation and mailed via U.S. Mail, to the **account holder** ~~appropriate parties~~. Second violations will not be issued during the five (5) day period following the first violation, allowing the customer time to rectify the situation once they are notified of the problem.

3rd Violation – Surcharge

The enforcement form is processed with the appropriate violation and mailed via U.S. Mail, to the **account holder** ~~appropriate parties~~. Third violations will not be issued during the five-day period following the second violation to allow the water customer time to rectify the situation upon notifications of the most recent violation.

4th Violation – Surcharge

The enforcement form is processed with the appropriate violation and mailed, via U.S. Mail to the **account holder** ~~appropriate parties~~. Where possible and appropriate, the program administrator may attempt to notify the water customer.

5th Violation – Surcharge

The enforcement form is processed with the appropriate violation and mailed, via U.S. Mail **with notice** that irrigation service may be discontinued should non-compliance persist, and a copy is sent to the **account holder** ~~appropriate parties~~.

Subsequent Violations

The enforcement form is processed with the appropriate violation and mailed, via U.S. Mail, with notice that irrigation service may be discontinued without immediate compliance, and a copy is sent to the **account holder** ~~appropriate parties~~.

Exhibit 10 is a copy of the enforcement form.

3.5.4 Surcharge Values

Per Chapter 13.15.050 of Municipal Code, surcharges may be issued against owners or responsible parties for watering schedule non-compliance or water waste. The Town reserves the ability to immediately terminate irrigation or other water waste for due cause, and not to be reinstated until the system or use comes into compliance. Current policy guidelines outline the following charges to be applied to the appropriate Castle Rock Water billing account.

<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

For common areas where water charges are paid for by the Town of Castle Rock, yet landscape management is accomplished by a private entity such as a district or homeowner’s association, the private party that is managing the project is responsible for adhering to the criteria outlined in this policy and all charges incurred for non-compliance.

Public irrigated areas and facilities managed by the Town of Castle Rock ~~Parks Department~~ are not exempt from surcharge issuance and are subject to all levels of enforcement.

3.5.5 Appeal Process

The appeal process does not apply to warning issuance. Appeals of violations with associated surcharges may be brought before the program administrator in written form. If a party believes that a surcharge has been assessed erroneously, the party may submit a letter of appeal. This appeal must be submitted, in writing, within ten days of the mailing date of the violation notification to the Water Use Management Program Manager at 175 Kellogg Ct., Castle Rock, CO 80109. The appeal letter should include a thorough explanation of why the customer believes the surcharge is in error and any other reasons why the surcharge should be waived, and must include the following information:

- Specific violation in question including violation number, date, and time.
- Reason for the infraction proving it to be outside of the control of the owner, or responsible party.
- Or why the party thinks the violation did not take place as identified on the violation notification.
- Requested action by the Town.
- Signature of owner or responsible party.

- A. *Timing of Appeal Request:* Appeals must be received within 10 days of the mailing date of the violation notification. Any appeal received after that date will not be considered, and the associated surcharge will not be removed from the account.
- B. *Timing of Response to Applicant:* The Town shall respond to the customer within 10 business days of receipt of an appeal request.
- C. *Crediting Criteria:* Associated surcharges must be paid by the customer by the billing due date of their water bill. If the customer's appeal is approved, the related surcharge will be credited to their water billing account within the subsequent billing cycle.

Should the Water Use Management program manager deny the appeal, the party may appeal to the Director of Castle Rock Water. Subsequent appeal requests may be reviewed by the town manager. As with other code violations, ultimate authority over such cases lies in the Municipal Court system. Timing of appeal notifications shall be consistent with Chapter 13.14.080 of municipal code.

3.5.6 Appeal Approval Criteria

Appeals may be approved and subsequent surcharges may be waived based on the following standard criteria:

- A. ~~Loss of Power: Loss of power to an automatic irrigation system due to area power outages. This type of appeal may only be used for a one-time appeal approval and may not be used for subsequent violations.~~
- B. Mechanical Failure. Evidence of a verifiable mechanical failure of programmable timer, or other irrigation system components. This type of appeal may only be used for a one-time appeal approval and may not be used for subsequent violations.
- C. Hardship. Demonstration of extreme hardship as approved by the Program Administrator.
- D. Special Condition. As deemed appropriate by Program Administrator.

Owners are responsible to ensure their properties meet the watering-use management regulations. When a homeowner is on vacation, or otherwise unable to make this assurance, it is recommended the owner designate a responsible party to oversee the property during their absence.

Irrigation during storm events is **not allowed** ~~discouraged~~. Public, non-residential, and common areas will be cited for water waste under these circumstances, and shall have properly functioning moisture-sensing equipment on all systems.

3.5.7 Customer Assistance Programs

The Town of Castle Rock offers the community various opportunities to conserve water. Please see www.CRconserve.com for current program information.

~~3.5.8 Consumption Restrictions~~

~~At the discretion of the Director of Castle Rock Water, flow restriction devices may be placed on large irrigated~~

~~area service connections to ensure consumption volumes do not exceed those identified on schedule submittals. These devices may be installed at the expense of the account holder and/or responsible party, to include cost of equipment and staff resources for installation.~~

3.6 Demand Management Tools

Under drought conditions, Castle Rock Water may implement one or more of the demand management tools shown below. See Town of Castle Rock [Drought Management Plan](#) for more information.

3.6.1 Curtailment/Discontinuance of Public/Common Area Irrigation

(As approved by the Director of Castle Rock Water)

3.6.2 Discontinuance of Line Flushing

(As approved by the Director of Castle Rock Water)

3.6.3 Discontinuance of Bulk Water Sales

(As approved by the Director of Castle Rock Water)

3.6.4 Alteration of Regular and Approved Alternative Irrigation Schedule

(As determined by the Director of Castle Rock Water, Town Manager, and Town Council)

- A. Curtail issuance of exemptions for new seed/sod installation
- B. Further limiting times and dates of irrigation.
- C. Discontinuance of car washing, decorative fountains, and water used for entertainment.
- D. Discontinuance of all exterior water usage, including irrigation.
- E. Discontinuance of all non-essential water usage.



Section 4. Database Management

4.1 Database Management

The water use management program information is maintained and managed in the Castle Rock Water billing system, including alternative irrigation schedules, exemptions, and enforcement actions.

This information is managed on an annual basis. Alternative schedule requests ~~and non-residential maintenance submittals~~ must be resubmitted and approved for each applicable irrigation season. Enforcement action is accomplished on an annual basis as well, and water waste enforcement occurs throughout the year.



Section 5. Registration for Landscape Professionals

5.1 Registration for Landscape Professionals

Irrigation of non-residential areas not only creates a large volume demand on the water system, it is a high profile activity for the residents and business owners in the Town of Castle Rock. In the past, lack of program awareness and non-compliance of non-residential areas has resulted in extensive amounts of staff involvement, large numbers of violations and surcharges, including service discontinuance, as well as large amounts of negative public feedback.

Compliance with the irrigation schedule requirements is necessary to:

- Maintain adequate water service volumes.
- Maintain positive public relations with the community.
- Ensure adequate water supply for the community.
- Manage peak water demand.
- Ensure wise use of a limited resource.
- Maintain sustainability of our water supply for generations to come.
- Ensure non-residential customers use water in the most efficient manner.

Therefore, it is necessary the landscape professionals that design, install, and maintain these properties be thoroughly aware of all operational criteria. In order to address these issues, non-residential irrigated areas shall be installed and managed by landscape and irrigation professionals registered with the Town of Castle Rock **Water**. For full registration program details and upcoming registration opportunities, please visit CRgov.com/landscapers. For further information, contact waterconservation@crgov.com.

The registration process shall include the following:

- A. Attendance at a registration workshop ~~an annual seminar~~; and
- B. Passing score (75% or better) on a test formatted to identify level of knowledge of the Water Use Management Program and Town of Castle Rock Landscape and Irrigation Performance Standards and Criteria Manual. (See **Exhibit 11**.)
- C. **Successful completion of the secondary requirement as outlined on CRgov.com**

The curriculum for the seminar shall include at a minimum:

1. Program intent and objectives.
2. Designation of non-residential irrigated areas.
3. Non-residential irrigation schedule parameters.
4. ~~Acquire submittal requirements.~~
5. Enforcement parameters and consequences for non-compliance.
6. Demand management tools.
7. Related landscape regulation and principles components.

Testing process shall be open-book and based on parameters related to each module of the **workshop seminar** curriculum.

5.2 Soil Inspection

All new landscapes are required to pass a soil inspection prior to **approval and issuance of** ~~for~~ an irrigation exemption.

Residential soil inspections will be completed after amendment, tilling, and finish grade is established, irrigation system is installed. This will include inspection/verification of the following items:

- Four cubic yards of amendment (Class I or Class II compost) per 1,000 square feet
- Tilled to a minimum depth of six inches
- Finish grade to be within 2/10 of a foot, all rocks, dirt clods, and construction material/debris larger than ¾" to be removed, slope not to exceed 3:1
- Sub-surface drip irrigation (SDI) inspection, where applicable, to be completed prior to backfilling
- Sprinkler heads must be consistent with Town requirements, see Landscape and Irrigation Performance Standards and Criteria Manual. 6" minimum pop-up height with internal pressure regulation and check valve. Application rate not to exceed 1.25" per hour
- Smart controller
- Rain/weather sensor

All residential soil inspection requests must be scheduled through eTRAKiT. Access to eTRAKiT is only available to landscape professionals registered through Castle Rock Water.

Non-residential soil inspections consist of the following items:

- Sub-surface drip irrigation (SDI) inspection, where applicable, to be completed prior to backfilling
- Compost inspection
 - Four cubic yards of amendment (Class I or Class II compost) per 1,000 square feet, visually inspected prior to incorporation into the soil
- Tilling/grading inspection
 - Tilled to a minimum depth of six inches, finish grade to be within 2/10 of a foot, all rocks, dirt clods, and construction material/debris larger than ¾" to be removed, slope not to exceed 3:1

All non-residential soil inspections should be scheduled through Castle Rock Water: 720-733-2306.

~~In order to access eTRAKiT, you must be a Castle Rock Water registered landscape professional and have a PIN number.~~



Section 6. Rain Water Collection

6.1 Rain Barrels

On Aug. 10, 2016, it became legal to capture rainwater. According to Colorado law, homeowners can have two 55-gallon rain barrels to be used for outdoor purposes. For more information, visit: <http://water.state.co.us/SURFACEWATER/RAINWATERCOLLECTION/Pages/default.aspx>

A fact sheet is also included as *Exhibit 12*.

FREQUENTLY ASKED QUESTIONS

Who can collect water under this law?

Any single-family residence or multi-family residence with four or fewer units. Each home in a row of homes joined by common side walls, such as duplexes, triplexes, or townhomes, is considered a single-family residence.

Do I need a permit through the Division of Water Resources before I start collecting precipitation? No permit or other approval is required for capture and use of precipitation in rain barrels with a combined storage capacity of 110 gallons in accordance with HB16-1005.

Where can I collect the water from?

From the roof of a building that is used primarily as a residence.

How much water can I collect?

You can fill and refill two rain barrels with a combined storage capacity up to 110 gallons.

What can I collect the water in?

Water must be collected in rain barrels (up to 110-gallon total capacity) with sealable lids.

What can I use the water for?

Outdoor uses, such as lawn and garden irrigation, on the property where the water was collected. Though the rainwater can legally be used for a variety of outdoor uses (car washing, livestock watering, hot tub filling, irrigation, etc.) rainwater users should evaluate the quality of the collected rainwater to ensure it is appropriate for the proposed outdoor use. The water cannot be used for drinking water or indoor household purposes.

Will standing water in the rain barrels create a mosquito problem?

Rain barrels must have sealable lids to prevent insects or other pests from using the stored water.

Table of Contents:

Added 2.1 Education

Removed Exhibit 4 Non-residential Maintenance submittal. **The non-residential schedule makes the maintenance submittal obsolete.**

1.1 This program operates in concert with the Town of Castle Rock Landscape and Irrigation Performance Standards and Criteria Manual, the Water Efficiency Master Plan, **and the Drought Management Plan** to encourage the wise use of a finite resource.

1.3 Definitions:

Common area: ~~Streetscaping, whether publicly or privately owned, managed, or maintained.~~ **An area available for public use. May be whether publicly or privately owned, managed, or maintained.**

Water budget: The water budget is the amount of water available to each account, each month. **The average winter monthly consumption (AWMC) is calculated for each customer by averaging the total potable water consumption used by the customer in the months of November through February in accordance with standard operating procedures maintained by Castle Rock Water.** ~~and depends on indoor use and through the growing season—April through October.~~ The **outdoor** water budget is determined by the **irrigable irrigated** area, landscape type, and historical local evapotranspiration rate, April through October.

2.1 Administrative/grammatical clarification. No content changes.

3.2.1 “Intentionally left blank” removed.

3.2.2 Administrative/grammatical clarification. No content changes.

3.2.3 D. Remove Maintenance schedule submittal requirements. **The non-residential schedule makes this obsolete.**

3.3 Alternative Irrigation Schedules: Remove “applicant must complete and submit an application for such an exemption. (See *Exhibit 5* and *Exhibit 6*) Beyond hand watering, irrigation will not be allowed between the hours of 8 a.m. and 8 p.m.” **This is explained in the next section “3.3.1 Exemptions”.**

3.3.1 The exemption allows for ~~daily~~ watering **as needed, on any individual day**; however, designated hours and water rates still apply.

F. *Hydro-seeding*: Installations **in non-residential landscapes** must be performed by a Castle Rock Water registered landscape contractor. Exemptions may be granted to allow ~~daily~~ watering **as needed on any individual day** for establishment of hydro-seeded areas., ~~which shall include areas used for:~~

1. ~~Stormwater retention~~

2. ~~Re-vegetation of over-lot areas~~

Exemptions allowing ~~daily~~ watering **as needed, on any individual day** are applicable only to the areas designated on the exemption application.

3.4.2 “Intentionally left blank” removed

3.4.4

Water used for entertainment purposes, e.g. children running through sprinklers, is allowed so long as persons are present **and water waste does not occur.**

3.4.9 A. Remove that the owner or operator of the system ~~has notified Castle Rock Water by telephone, or by e-mail at least one (1) hour BEFORE operation of the system. An operator.~~ **It’s fully acceptable to do irrigation system repair as long as someone is present while the system is running, notification to us is not needed.**

3.4.10 Water Waste: G. Remove “Non-residential” irrigation during a storm. This also applies to residential accounts.

3.5.3 Warning/Surcharge issuance process: 1st violation through Subsequent violations Change “appropriate parties” to “account holder”. We’ve had several landscape companies and others with interest in the property request copies of violations and with our current BillMaster system, we don’t have the capability to send more than one violation postcard, which is always sent to the account holder.

3.5.4

No change proposed for 2019. Consider increasing residential violation surcharges by ten percent? Twenty percent? in 2020.

3.5.6 Appeal approval criteria: A. Remove “Loss of power: Loss of power to an automatic irrigation system due to area power outages. This type of appeal may only be used for a one-time appeal approval and may not be used for subsequent violations. as an appeal to remove a watering violations.” We do not allow this appeal since all irrigation systems have the ability to have a battery backup and it is expected that the battery is in working condition.

3.5.8 Consumption Restrictions: Remove “At the discretion of the Director of Castle Rock Water, flow restriction devices may be placed on large irrigated area service connection to ensure consumption volumes do not exceed those identified on schedule submittals. These devices may be installed at the expense of the account holder and/or responsible party, to include cost of equipment and staff resources for installation.” Flow sensors are required on non-residential projects, making this statement obsolete.

4.1 Database Management: Remove “and non-residential maintenance submittals”. The non-residential schedule makes the maintenance submittal obsolete.

5.1 Registration of Landscape Professionals: 4. Remove “Acquire submittal requirements”. The non-residential schedule makes the maintenance submittal obsolete.

5.2 Soil inspection: No new requirements. Added soil inspection process consistent with existing requirements in Landscape and Irrigation Performance Standards and Criteria Manual.

Outside of the above mentioned items, there were some minor administrative changes to clarify and correct what was previously written.

2018 Violations Summary

ATTACHMENT C

Violations:

1st Residential Watering Violation: violations 1,791
2nd Residential Watering Violation: 234 violations, \$5,300.00
3rd Residential Watering Violation: 34 violations, \$1,600.00
4th Residential Watering Violation: 8 violations, \$700.00
5th Residential Watering Violation: 1 violation, \$200.00

1st Non-Residential Watering Violation: 154 violations
2nd Non-Residential Watering Violation: 61 violations, \$6,100.00
3rd Non-Residential Watering Violation: 20 violations, \$4,000.00
4th Non-Residential Watering Violation: 10 violations, \$4,000.00
5th Non-Residential Watering Violation: 6 violations, \$4,800.00
Subsequent Non-Residential Watering Violation: 10 violations, \$7,600.00

Grand total: 2329 violations, \$34,300.00

2017 Violations Summary

Violations:

1st Residential Watering Violation: 1608 violations
2nd Residential Watering Violation: 186 violations, \$4,425.00
3rd Residential Watering Violation: 15 violations, \$700.00
4th Residential Watering Violation: 2 violations, \$200.00

1st Non-Residential Watering Violation: 153 violations
2nd Non-Residential Watering Violation: 48 violations, \$2,350.00
3rd Non-Residential Watering Violation: 16 violations, \$1,600.00
4th Non-Residential Watering Violation: 6 violations, \$1,200.00
5th Non-Residential Watering Violation: 3 violations, \$1,200.00

Grand total: 2037 violations, \$11,675.00

2016 Violations Summary

Violations:

1st Residential Watering Violation: 432 violations
2nd Residential Watering Violation: 27 violations, \$675.00
3rd Residential Watering Violation: 3 violations, \$150.00

1st Non-Residential Watering Violation: 25 violations
2nd Non-Residential Watering Violation: 4 violations, \$200.00

Grand total: 491 violations, \$1,025.00