



MEMORANDUM

To: Planning Commission

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

Re: Water Use Management Plan

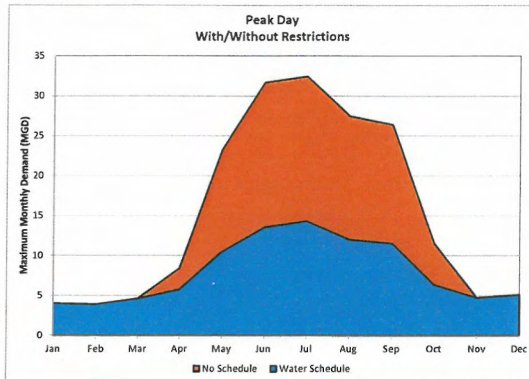
The Water Use Management Plan (WUMP) outlines watering guidelines to manage peak demand and increase conservation, enforcing the Town's commitment to wise development and use of water resources.

Attached for your information is a copy of the proposed changes to the WUMP, and an outline of the primary changes to the 2018 update.

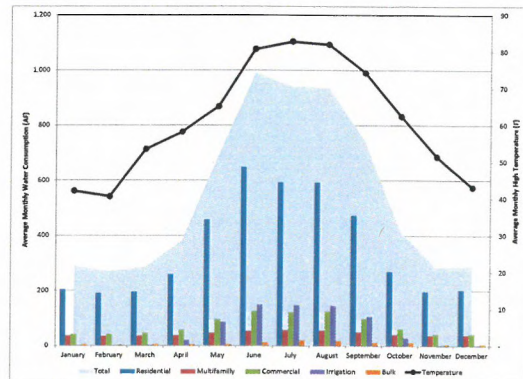
T O W N O F C A S T L E R O C K

Water Use Management Plan - 2018 update

Watering guidelines manage peak demand and increase conservation enforcing the Town of Castle Rock's commitment to wise development and use of water resources.



Restrictions level out peak demand



Residential customers account for 73 percent of water use

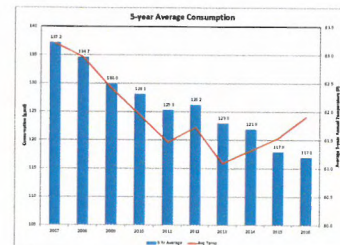
Primary changes to plan

- 5-year expiration for Water Wiser exemption
- Non-residential customers watering schedule further defined
- Non-residential customers water waste violations increased
- Tighter window of violation repair
- Water waste violation monitoring extended to all year
- Irrigation (sod/seed) exemption further restricted
- Landscape professional registration expanded



JULY

Sun	Mon	Tues	Wed	Thur	Fri	Sat
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				



Sign up for updates at CRgov.com/NotifyMe.



Come in, walk around, join the conversation.

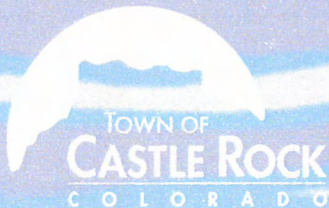
Ask questions. Town staff is here to assist with any questions you might have.



CRgov.com/Water

WATER USE MANAGEMENT PLAN

_____, 2018



Utilities Department
175 Kellogg Court
Castle Rock, CO 80109
720-733-6000
CRgov.com

CASTLE ROCK
Water
Securing our future drop by drop

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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. allow adequate volumes and pressures to the water distribution system during landscape irrigation season.~~ This program operates in concert with the Town of Castle Rock Landscape and Irrigation Performance Standards and Criteria Manual and the Water Efficiency Master Plan to encourage 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. are staggered on an every third day format along with designated irrigation times. This format allows positive pressure to be maintained throughout the water system while maintaining appropriate fire flows, as well as allocates time for storage tank volume recovery.~~

Program administration and implementation has traditionally been accomplished through Castle Rock Water of the ~~Town of Castle Rock.~~ The Town's water 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. On an annual basis, water conservation staff reviews and updates this policy for review and approval by Town Council, as needed.~~

Components of the Water Use Management Plan

- ~~Regular days/hours for irrigation.~~
- ~~Alternative schedules.~~
- ~~Special watering circumstances.~~
- ~~Enforcement.~~
- ~~Appeals process.~~

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 that do not meet~~ the regular schedule criteria ~~as outlined in this policy that~~ ~~and~~ have been approved by the program administrator.

Common area: Streetscaping, whether publicly or privately owned, managed, or maintained.

Curtailment stages: As defined in the Drought Mitigation 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: ~~May~~ April 1 through ~~September 30~~ October 31.

Landscape maintenance contractor: Designated by owner or responsible party to ~~irrigate~~ operate, manage and maintain ~~property and irrigation system of a~~ 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 ~~water service application and Town of Castle Rock~~ ~~W~~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 ~~Town of Castle Rock~~ ~~Water utility~~ ~~Water~~ utility billing records.

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

Restriction period: Time period when ~~every third day watering is~~ designated watering days and hours are enforced. See current year calendar for specific ~~details~~ ~~dates~~.

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

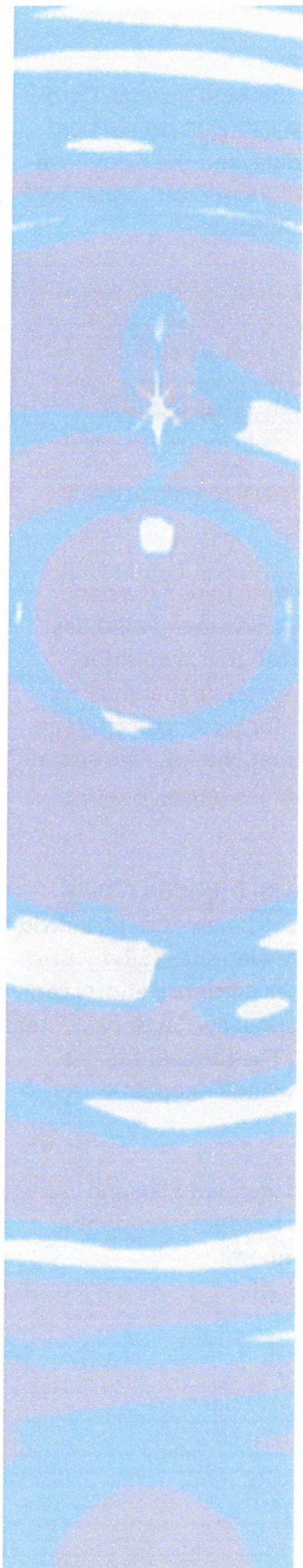
~~Tap size:~~ ~~Size of tap meter service serving a property or address.~~

Water budget: The water budget is the amount of water available to each account each month and depends on indoor use and in-effect through the growing season – April through October. The water budget is determined by the irrigable area and the historical local evapotranspiration rate.

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

- Continuous irrigation to any area resulting in ponding or pooling of water;
- Runoff of water not absorbed into the ground or soil which flows away from the area being irrigated;
- ~~Failure to repair~~ 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 to drainage;
- Application of water to impervious surfaces such as street washing applications;
- Operation of any irrigation system when curtailment stages have been invoked.

Xeriscape design: Use of low water consumption landscape design.



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 is~~ ~~are~~ the keys to ~~success~~ ~~compliance~~. ~~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 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.

~~Education efforts will focus on informing customers of the Town of Castle Rock's ongoing water conservation program and to aid landscape professionals to be more water efficient.~~

The ~~water delivery system~~ WUMP is designed for management of peak demand by ~~designating days and hours for residential and non-residential customers.~~ ~~staggering landscape irrigation on an every third day format.~~ This reduces the necessary amount of water system infrastructure, water resource acquisition, treatment, distribution, and storage. Adherence to the ~~every third day~~ ~~designated schedule that peak demand is spread evenly throughout the week during the irrigation season and allows for water storage tank recovery time during non-irrigation periods.~~ ~~format ensures adequate system pressure and fire flow capacities.~~ The designated watering hours also ensure customers irrigate at the times where 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 ~~is~~ ~~are~~ trained on the basics of this program. ~~annually.~~ Seasonal water monitors receive additional in-depth training ~~on water efficiency and conservation.~~ ~~The focus of the program is compliance to protect the integrity of the water system, and to provide safe and adequate water to all customers.~~

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~~ ~~management~~, and ~~the as well as~~ 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 water use management program and policy~~ is reviewed on an annual basis, and submitted to the Castle Rock Water Commission for review. Program and policy changes are ~~then~~ forwarded to Town Council for adoption. ~~as needed. The Town Council may alter this program and its implementation as deemed necessary.~~

3.2 Regular Irrigation Schedules

3.2.1 ~~Intentionally left blank~~ Demand Use Management Period

~~During designated months, watering use management criteria shall be implemented.~~

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 ~~an assignment~~ addresses ending in zero (0) through three (3) are designated by a square.
 2. Properties with ~~an assignment~~ addresses ending in four (4) through six (6) are designated by a circle.
 3. Properties with ~~an assignment~~ 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. 8 p.m. to 8 a.m.~~ 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. the irrigation season.~~ 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 at least twice in a newspaper of general circulation.~~ 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 web site.
 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 edu-

cational materials through a new homeowner welcome packet. ~~between the time the watering schedules were mailed and the end of the peak demand season are given watering schedules and educational materials upon application for water service.~~

- E. *Residential Homebuilders:* Homebuilder landscape contractors that install and/or maintain residential landscaping shall be registered with the Town of Castle Rock to ensure that those managing the properties are thoroughly versed on Water Use Management Plan and Landscape and Irrigation Performance Standards and Criteria Manual. See Section 5 for information regarding registration of landscape maintenance professionals. ~~Until the homes are sold to the individual owner, these homes shall be designated as non-residential, and shall be billed as such.~~

3.2.3 Non-Residential/Common Area/Public Area Irrigation

Non-residential, common, and public irrigated areas shall be considered as any property that is managed or owned by the same group or individual. ~~, including single or~~ 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 Address 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) Address assignment for the entire property will be based on the last number of the property address as designated by the responsible party. Watering shall be limited to every third day in accordance with the aforementioned procedure. Day is dictated by the day which irrigation will begin for that daily cycle.~~
- B. *Permissible Hours of Irrigation:* Permissible hours of irrigation for regular non-residential, common, and public areas shall ~~begin no earlier than~~ between the hours of 10 p.m. on your assigned day and be completed no later than 6 5:00 a.m. the following day. Under no circumstances, beyond hand watering, will irrigation be allowed between the hours of 8 a.m. and 8 p.m.
- C. *Application Rates:* Total water application shall not exceed 1.5-inches per week, per irrigation zone. ~~Information confirming application rates must be submitted.~~
- D. *Maintenance Schedule Submittal Requirements:* All irrigation schedules for non-residential properties must be submitted to the Town of Castle Rock Water for review and approval. These schedules must be submitted within ten (10) days of system activation; and no later than May 15 April 30 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 Non-Residential Schedule Application, Exhibit 5.)

Submittals shall include:

- ~~1. Completed application, including landscape contractor and responsible party signatures and contact information.~~
- ~~2. Designated start day (square, circle, diamond) and total peak time required to complete the programmed run time~~
- ~~3. If property is utilizing a "Smart" controller, indicate make, model, scheduled run days, and confirm ability to water within the designated watering window.~~

- ~~4. Designated area maps are not required if current GIS image is accurate and up to date.~~
- ~~5. Specific location.~~
- ~~6. Number, size and location of water meters serving property.~~
- ~~7. Identification of standard irrigation checks and procedure identification.~~
- ~~8. Identification of response time following notification of irrigation system malfunctions by staff.~~
- ~~9. Town of Castle Rock registered landscape professional maintenance contractor registration number.~~

- 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~~ is subject to incur the associated charges.
- F. *Registered Landscape Professionals —Maintenance:* ~~Non-residential property maintenance management agencies~~ Landscape and irrigation installation and maintenance contractors working for non-residential customers shall be registered ~~with~~ by the Town of Castle Rock Water to ensure that those managing the properties are thoroughly versed on Water Use Management Plan and Landscape and Irrigation Performance Standards and Criteria Manual. ~~Regulation and Principles criteria.~~ See Section 5 for information regarding registration of landscape maintenance professionals.

3.2.4 Parks / Athletic Fields

Information to be determined

3.3 Alternative Irrigation Schedules

3.3.1 Exemptions

~~Exemptions to the Alternative irrigation schedules every third day format~~ may be granted for hardship and/or special circumstances. The applicant must complete and submit an application for such an exemption. The application shall contain the applicant's name, the address of the premises requiring the exemption, the reason requiring the exemption, the approximate square footage requiring irrigation and a description of the type and form of plant material requiring irrigation. (See Irrigation Exemption Application; Exhibit 6 and Exemption Placard, Exhibit 7.) ~~Under no circumstances, bBeyond hand watering, or approved hydro seeding, will irrigation~~ will not be allowed between the hours of 8 a.m. and 8 p.m. ~~Per Municipal Code an administrative fee up to \$25 may be charged for processing of exemption applications.~~

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 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 ~~may~~ will be charged for processing of exemption applications.

Should the administrator of the WUMP determine that granting ~~an~~ the exemption would not significantly impact the water system, the administrator may issue an exemption, stating appropriate conditions thereon. These conditions ~~are specifically to include~~ the effective date, expiration date, designated address, ~~designated areas for exempted irrigation~~, required hours of irrigation, and any other special criteria associated with the exemption. ~~The exemption allows for daily watering; however, designated hours and water rates still ap-~~

ply. These exemptions may be revoked at any time should it be deemed necessary by the Town of Castle Rock Water, such circumstances including but not limited to the exemption compromises the ability to provide water to deliver domestic or other water services.

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 ~~the duration of up to 30~~ 21 days for new sod/~~ground covers/perennials/trees and up~~ not to exceed 30 45-days for new seed or other plant material provided an exemption a permit is obtained through Castle Rock Water. Conditions for this exemption issuance of this permit include:

- a.—Verification through site inspection by the Program Manager or designee Administrator, through certification by accredited landscape architect or the builder, through documentation by receipt or invoice, or through other means deemed acceptable by the Program Administrator, Manager that prior to seeding or sodding of turf, soil amendment at a minimum of four (4) cubic yards pure organic matter per one thousand (1,000) square feet or deemed by soil analysis, and has been tilled or by other means made soil loose to a minimum depth of six-inches, which will result in optimal water utilization for turf root systems. Acceptable Approved soil amendment must be organic matters includes Class I or Class II compost, aged compost, wood humus from soft/nontoxic trees, sphagnum moss (excluding that from Colorado origin), or aged/treated manures.
- b.—Evidence that an irrigation system backflow prevention assembly has been installed, and tested and approved. or will be tested within ten (10) days of bringing the irrigation system into operation.
- c.—Permit is displayed so it is clearly visible from the street.

~~Watering occurs between the hours as established by the Program Administrator in Section 3.2.~~

- B. *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. A certificate that identifies the duration of the exemption will be issued and must be displayed so that it is clearly visible from the street.

- C.—*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. It is not necessary to have the applicant place a certificate in a visible location due to the short time frame allowed by this type of exemption. This will be tracked internally in the water use management database.

- D. *Hydro-seeding*: Installations shall be performed by a Town of Castle Rock Water registered landscape contractor. s.—Exemptions may be granted to allow daily watering for establishment of hydro-seeded areas, which shall include areas used for:

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

~~Exemption requests are reviewed on a case-by-case basis, and shall meet the following criteria:~~

- ~~a. Be installed and maintained during establishment period by a Town of Castle Rock registered landscape maintenance contractor.~~
- ~~b. Shall complete special schedule application and submit associated irrigation management information.~~

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

- E. *Special Schedules for Non-Residential Properties:* Special schedule applications for non-residential ~~properties~~ areas may be granted for areas installed prior to 2002, based on a demonstrated hardship at the discretion of the Program Administrator. Applications shall include all submittal requirements identified in ~~Exhibit 5 Section 3.2.3. Town of Castle Rock Water~~ registered landscape maintenance contractors shall administer special schedules. See Section 5 for information regarding registration of landscape maintenance professionals.
- F. *Other:* Other exemptions may be granted should the program administrator determine that 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/small commercial customers with large lots, between 5,000 and 10,000 square feet of landscaped area, and limited irrigation systems that cannot irrigate the landscaped area effectively within the allotted hours. For example, the customer may then seek to split the property into two or more designated symbol watering days. However, no more than 1.5 inches of water per week may be applied.~~
 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 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 every-third-day 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 in mind, several residential addresses

within a limited area, watering at the same time can create a low-pressure situations. Assigning alternating symbols to the impacted homes mitigates this situation. Special schedules are given to these homeowners each year. See Exhibit 8 for these impacted areas, as well as the letter and special schedule that is distributed to these homeowners in Founders Village.

3.4.2 Master Metered Properties Intentionally left blank

~~For those properties that have one meter for several addresses or buildings, additional schedules may be mailed or hand delivered to each resident of the property to ensure that they receive notification of the restrictions. An example of this is the Castle Park Trailer Park.~~

3.4.3 Hand Watering

Watering plant material while holding a hose in hand is allowed at any time, on any and 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. ~~If no persons are present, water monitors shall attempt to verify whether irrigation devices or systems in operation have been used for entertainment purposes by evidence of presence of toys, etc.~~

3.4.5 Pressure Washing

Pressure washing may be allowed according to the following criteria:

- A. High efficiency and low water use equipment are required.
- B. Water waste shall not occur.
- C. No excessive runoff shall leave site where water is being applied. ~~High efficiency and low water use power washers and/or street brushing systems are required.~~
- D. Equipment and application shall meet all Town of 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 the Town of 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 power washers and/or street brushing systems are 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.

~~The Town shall consider incentive-based programs for retrofit of existing systems as identified in the Water Conservation Program.~~

- 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. ~~No excessive runoff shall leave the site where water is being applied.~~ 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 that all runoff is beneficially used by plant material.
5. Recommend use of bucket and cloth/sponge to apply soaps, and clean major portions of vehicle and use hose for final rinse only.

3.4.8 Fountains

Decorative fountains shall be ~~recycling~~ **circulating** 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 Utilities Department** either by telephone, ~~(in person or by message)~~ or in writing or by e-mail at least one (1) hour **BEFORE**

operation of the system. ~~Any operation of the system for longer than five (5) minutes per zone will be considered to be in violation of the watering schedule.~~ An operator must be present at all times when the system is in operation for routine maintenance or repair purposes outside of ~~the~~ its 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. ~~Any operation of the system for longer than five (5) minutes per zone will be considered to be in violation of the watering schedule.~~ 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~~ its 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~~ water monitors will also be cited at their discretion:

- A. Continuous irrigation ~~to any area~~ resulting in ponding or pooling of water or ~~in-runoff water not absorbed into the ground or soil which flows away from the area being irrigated.~~
- 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 ~~to drainage.~~
- 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 ~~seven~~ five (5) days of ~~viol~~notification, or before the system is used again for irrigation.
- ~~Non-residential customers shall complete necessary repairs within two (2) days of notification.~~
- Non-residential Public areas managed by the Town of Castle Rock Parks Department 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. the Program Administrator may order a shut off of water service to property if the Program Administrator reasonably finds that an extreme waste of water is occurring on the property, with service charges for ~~Associated service charges for disconnection and reconnection shut off and turn-on of service~~ shall be applied to the account.

3.5 Enforcement

The purpose of Enforcement of the watering schedule is for demand management, eliminating water waste and promoting water conservation. ~~is to maintain the integrity of the water system during peak demands. usage to ensure that positive pressure exists and fire flow demands are met.~~ 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. ~~Water monitors and all other 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. Members of the public can submit affidavits of witness of out-of-compliance irrigation, upon which the Town may issue a violation.~~

3.5.1 Seasonal Water Monitors

Water monitors are employed as part-time temporary positions during the water restriction period, and ~~Monitors are hired through standard Town of Castle Rock employment procedures. (See the current iteration of the Personnel Guidelines, or contact the Human Resources Department.~~

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 9, 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; ~~and 6) to make inspections of soil preparation for new sod or seed installations that require an exemption to the watering schedule, as outlined in 3.3. The water monitor is first charged with personal safety, then with water schedule compliance. See Exhibit 9 for the water monitor training procedure and criteria.~~

Water monitors note date, time and type of watering schedule violation. Monitors note if personal contact was made with the customer and what level of public education took place, including distribution of schedules, and water conservation materials. Personal contact in issuance of violations ~~of the watering schedule is encouraged if the owner is visually seen on the premises during the violation, and if the monitor feels safe in approaching the customer during daylight hours only. for the monitor's protection and is allowed during daylight hours only.~~

~~As necessary, water monitors may also be trained to inspect for adequate soil preparation as per the requirements for the watering schedule exemption permit for new seed or sod. As monitors inspect for these requirements, they may disseminate educational material for water customers regarding water conserving landscaping practices.~~

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 that the violation actually occurred, and may be supplied to the customer upon request.

3.5.3 Warning/Surcharge Issuance Process

Violations ~~that require~~ surcharge issuance are copied daily to **Castle Rock Water Billing Division and will be applied** ~~the Utility Billing section of the Utilities Department to apply~~ to the appropriate utility billing account.

Violations are noted as legal documents (see Exhibit 10). 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.

- ~~Owner/Responsible Party~~
- ~~Occupant~~

~~Copies of violations may be sent at the Program Administrator's discretion to the landscape contractor at the contractor's expense.~~

Town staff makes every attempt to notify responsible parties of non-compliance so that 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.

~~Although monitors or other Town staff will document most violations, private parties may also fill out affidavits. Private parties may also contact Town staff to notify them that a violation is currently 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 of large, common and/or public areas, responsible parties, i.e. landscape contractors, may be immediately **notified by telephone or email** ~~through office, cell or pager numbers~~ of the violation so it ~~the violation~~ 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:

~~*Note:~~—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**, ~~first class~~, to the 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**, ~~first class~~, to the appropriate parties. Second violations will not be issued **during the five (5) day period** ~~until five (5) business days following the mailing date of the first violation~~, **allowing to allow** 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**, ~~first class~~, to the appropriate parties. Third violations ~~for customers will not be issued~~ **during the five day period** ~~until five (5) business days following the mailing date of the second violation~~ to allow the water customer time to rectify the situation upon notifications of the **most recent** ~~first and second~~ violation.

4th Violation – Surcharge

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

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 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 appropriate parties.

Exhibit 12 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 wasting** 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 ~~utility~~ **Castle Rock Water billing** account.

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

<u>Residential</u>	<u>Non-residential</u>
1 st – Warning, no surcharge	1 st – Warning, no surcharge
2 nd - \$25.00 surcharge	2 nd - \$50.00 \$100 surcharge
3 rd - \$50.00 surcharge	3 rd - \$100.00 \$200 surcharge
4 th - \$100.00 surcharge	4 th - \$200.00 \$400 surcharge
5 th - \$200.00 surcharge	5 th - \$400.00 \$800 surcharge
Subsequent - \$200.00 surcharge	Subsequent - \$400.00 \$800 surcharge
Subject to service discontinuance	Subject to service discontinuance

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~~ **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 ~~feels~~ **thinks** that the violation did not take place as identified on the violation notification.
- Requested action by the Town.
- Signature of owner ~~and~~ **or** responsible party.

~~See Exhibit 13, the form for processing a surcharge waiver.~~

- 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.
- Timing of Response to Applicant:* The Town shall respond to the customer within 10 business days of receipt of an appeal request.
- 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~~ **Administrator** 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. This type of appeal may only be used for a one-time appeal approval and may not be used for subsequent violations.
- C. Post Office Error. ~~Failure to receive the violation notification through U.S. Mail.~~ Hardship. Demonstration of extreme hardship as approved by the Program Administrator ~~Utilities Director~~.
- D. Special Condition. As deemed appropriate by Program Administrator.

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

Irrigation during storm events is 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 Mitigation Plan for more information. ~~to avert loss of~~

~~fire flows and/or positive water system pressures upon proper approval.~~

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 exemption permits 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.



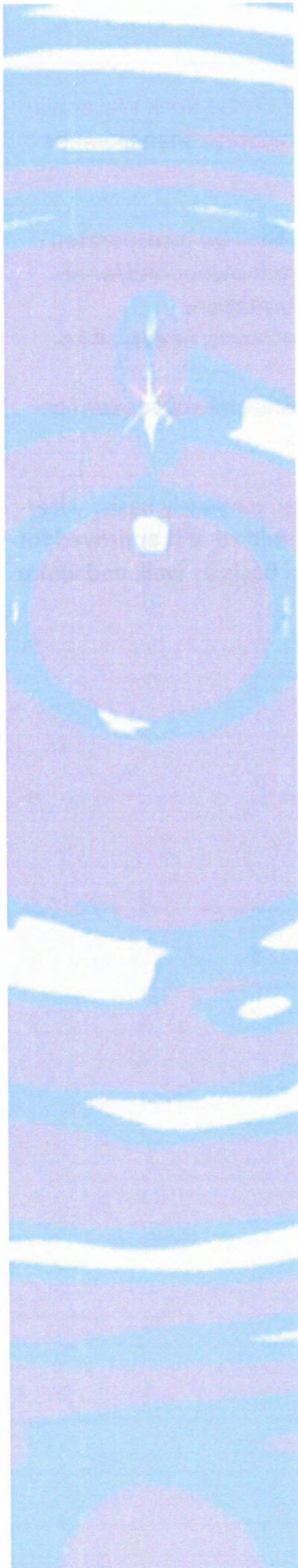
Section 4. Database Management

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.** ~~management system consists of several tools. These include:~~

- ~~• Alternative irrigation schedules and non-residential maintenance submittals shall be incorporated into a computer database that includes copies of all information mailed to each owner and/or responsible party, schedule application, approved schedule and all contact information.~~
- ~~• Exemption computer database that reflects all approved exemptions and cross-references, all account activity associated with enforcement.~~
- ~~• Enforcement computer database that reflects all warnings, surcharges, appeals and subsequent actions associated with property, inclusive of telephone and personal contacts.~~

This information ~~Water use management program information~~ is managed on **an annual** ~~yearly~~ basis. Alternative schedule requests and nonresidential 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 Maintenance

5.1 Registration for Landscape Professionals —Maintenance

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 have 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 that 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 Town of Castle Rock Registered landscape and irrigation professionals registered with the Town of Castle Rock.

The registration process shall include the following:

- A. Attendance at 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 Regulations.
(See Registration of Landscape Professional Form, Exhibit 14.)

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 irrigated 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 that related to each module of the seminar curriculum.

For full details, see Landscape and Irrigation Performance Standards and Criteria Manual.

5.2 Soil Inspection

All new landscapes are required to pass a soil inspection prior to being approved for an irrigation exemption. All soil inspections should be scheduled through eTRAKit.

In order to access eTRAKit, you must be a Castle Rock Water registered landscape professional and have a PIN number. If you are not registered, please visit CRgov.com/landscapers to register for an upcoming class. If you have any other questions, contact waterconservation@crgov.com.



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** irrigation purposes. For more information, visit: <http://water.state.co.us/SURFACEWATER/RAINWATERCOLLECTION/Pages/default.aspx>

A fact sheet is also included as Exhibit 16.

FREQUENTLY ASKED QUESTIONS

Who can collect water under this law?

Any single family residence or multi-family residence with **four** 4 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 throughout the year.

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.