



STAFF REPORT

To: Honorable Mayor and Members of Town Council

Through: David L. Corliss, Town Manager

From: Mark Marlowe, P.E., Director of Castle Rock Water
Mark Henderson, P.E., Assistant Director of Castle Rock Water
Hannah Branning, Water Quality and Regulatory Compliance Manager

Title: **Update: Changes to the Chase Drain Policy** *[Entire Castle Rock Water Service Area]*

Executive Summary

Chase drains are primarily used for nuisance/excess water during dry weather. They consist of an inlet and a metal conveyance system that runs beneath the sidewalk to the street gutter. Since 2008, Castle Rock Water (CRW) has provided chase drains as a courtesy service to homeowners at no charge. To date, CRW has installed 72 chase drains under the program. **Attachment A** shows a map with the locations of the chase drains to date. Under the current policy, homeowners who request a chase drain must be monitored for a minimum of one year to determine if a chase drain is necessary. Water usage, leak detection, and area of influence are also evaluated in an attempt to pinpoint the source of the nuisance/excess water. If approved at the end of the monitoring period, the chase drain is installed, free of charge by Public Works under the Town's pavement management program.

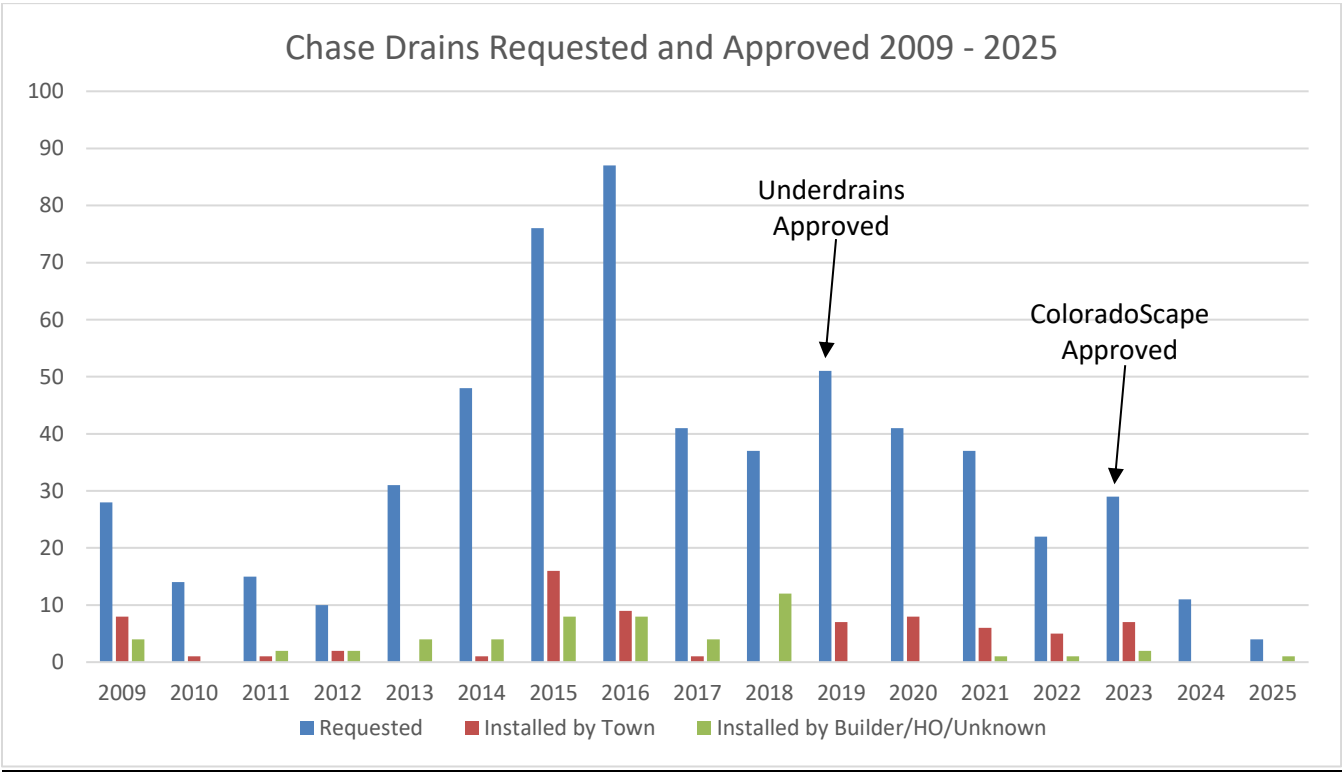
The total average cost of a chase drain plus installation is \$4,500. CRW estimates that a stormwater inspector spends 24 full time equivalent (FTE) hours every quarter managing the chase drain program. This time does not include FTE hours from Meters, Water Conservation, and Field Services Divisions that may also be required. Under the new policy, CRW would eliminate the one-year monitoring requirement and introduce a charge of \$1,500 to homeowners who request a chase drain and installation. Existing program elements including water usage, leak detection, and area of influence evaluations will still be included to pinpoint the source of the nuisance/excess water. The chase drain would still be installed by Public Works under the Town's pavement management program. Removing the one-year monitoring requirement and charging a fee to cover the chase drain and a portion of the pavement management program would result in a more efficient program and save CRW FTE hours and money.

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

CRW presented the changes to the chase drain policy to the Water Commission on April 23, 2025. Commission recommended Council support the proposed changes to policy. Commission also indicated that they would like to see the portion of the cost covered by Castle Rock Water reduced further in the future.

Discussion

Since 2009, CRW has received 583 requests from homeowners for chase drains. Requests often fluctuate with precipitation. In wetter years, CRW receives more requests and in drier years, fewer requests as seen in the chart below. In 2019, the Town approved the installation of underdrains in new developments where nuisance/excess water was a known issue. In 2023, the use of ColoradoScape was approved for all new development to reduce the amount of water used for irrigation.



Under the current policy, homeowners can request a chase drain from CRW. A stormwater inspector meets with the homeowner onsite where the excessive water brochure is reviewed. Water usage is evaluated to determine if over-irrigation or leaks could be contributing to the excess water. If over-irrigation is identified, Water Conservation staff will meet with homeowners to educate them. CRW Meters Department and Field Services check the homeowner’s and service lines for potential leaks. The home is then placed on the monitoring list where quarterly inspections are conducted for a minimum of one year. During the inspections, photos are taken and the inspector documents the presence or absence of water. A determination is made at the end of the monitoring period to either approve or deny the

request for a chase drain. The homeowner is notified of the decision. Approved chase drains are added to a list that is sent to Public Works for installation under the Town's pavement management program. Installations usually occur in mid to late fall. Depending on when the request was received homeowners may wait up to 15 months before a decision is made and up to 18 months before the chase drain is installed. This long wait time often frustrates homeowners. If a homeowner does not want to wait or is denied by the Town for a chase drain, they can purchase a chase drain from CRW, purchase a right-of-way permit from Public Works, and hire a contractor to install. Managing the chase drain monitoring program takes a storm water inspector approximately 24 FTE hours every quarter, reducing the amount of time staff need to spend on core work such as ensuring compliance with the Town's Municipal Separate Storm Sewer System (MS4) permit issued by the Colorado Department of Public Health and Environment (CDPHE). This time does not include FTE hours from Meters, Water Conservation, and Field Services Divisions that may also be required.

A majority of the chase drains installed by the Town since 2009 have dried up. Chase drains often do not work in winter as they get clogged with ice buildup causing an icy sidewalk issue. During spring and summer, algae that was once on the sidewalk is now in the gutter. Chase drains don't eliminate ice or algae, rather they move the issues to the gutter potentially impacting downhill neighbors. Chase drains may also fail due to improper maintenance. In order to function as designed, chase drains must be periodically cleaned of debris such as roots and grass. Homeowners often overlook the maintenance responsibility of the chase drain and when the chase drain no longer works, the Town must go in and repair or replace it. According to the Town of Castle Rock Storm Drainage Design and Technical Criteria Manual Chapter 8 Inlets Section 8.7 Other Design Considerations Subsection 8.7.2 Curb Chase Drain (Sidewalk Chase), *"Curb chase drains shall NOT be used in place of a standard inlet to remove runoff from a street section. Curb chase drains have limited efficiency and have poor long-term performance."*

The chart below shows a comparison of other municipalities around the Denver metro area that have a chase drain program. A majority of the municipalities have the homeowner cover the cost of the chase drain, permit fees, and contractor installation. Aurora is the only city that offers a rebate of up to \$3,000 toward the cost of materials but the homeowner must pay for a permit and contractor. Douglas County Public Works Department requires homeowners to evaluate excess water issues and install a chase drain at no cost. This is only for homeowners in unincorporated parts of the county. None of the chase drain programs reviewed require a minimum one-year monitoring period or quarterly inspections.

Municipality	Chase Drain Program
City of Arvada	Customer must purchase materials, pay permit fee, and hire a contractor to install.
City of Aurora	Offers a rebate program of up to \$3,000 to cover cost of materials. Customer must pay permit fees and use a licensed and bonded contractor.
City and County of Broomfield	Customer must purchase materials, pay permit fee, and hire a contractor to install.
Douglas County (unincorporated)	Customers must evaluate water issues and request from Public Works to install at no cost.

City of Lone Tree	\$1,200 fee paid by customer and install done under yearly concrete contract.
Town of Castle Rock	Monitors for a minimum of one year to determine if one is needed and will install at no cost.
Town of Parker	\$1,500 fee paid by customer and install done under yearly concrete contract. Public Works handles chase drain requests.

After evaluating the current CRW program as well as comparing to other municipality's chase drain programs, CRW would like to change the current chase drain policy by removing the one-year monitoring requirement, charging customers \$1,500 fee to cover the cost of the chase drain and help subsidize the cost of the installation under the Town's pavement management program. The proposed new policy is provided as **Attachment B**. CRW would require homeowners to sign a release (see **Attachment C**) that the operation and maintenance of the chase drain is their responsibility and should the chase drain fail, they could be responsible for the repair or replacement. These changes to the policy would make the program more efficient, save homeowners the frustration of waiting for approval, focus staff FTE hours on core work, and save CRW money in the long term.

Budget Impact

CRW has budgeted \$180,000 each year for chase drain installations from 2025 through 2029 totaling \$900,000. CRW spends approximately \$20,000 to \$30,000 every other year when ordering chase drain materials. This does not include the amounts reimbursed to Public Works for installation. The cost of installation that CRW reimbursed to Public Works in 2024 for 11 chase drains was \$38,610. Under the new chase drain policy, CRW can reduce the chase drain budget to \$30,000 every other year from 2025 to 2029 totaling \$90,000. This would save CRW \$810,000 over the course of five years.

Attachments

Attachment A: Map of Chase Drains
Attachment B: Chase Drain Policy 2025
Attachment C: Chase Drain Release