

Excessive Water Over Sidewalks

Castle Rock Water suggests these steps to troubleshoot excessive water issues

It is normal for water to periodically flow over sidewalks and driveways due rain, snow melt, and sump pump discharge. If water continues to flow over your sidewalk, it could become a nuisance, creating algae growth in the summer and ice in the winter. When water becomes a nuisance, it is the homeowner's responsibility, by law, to eliminate hazards.

Step 1: Find the source

Overwatering is the primary cause of excessive water flowing over sidewalks. The first step in mitigation is to check your irrigation

- Have you observed water flowing in the spring, winter and fall? If the excessive water only appears during the summer, this could signify an overwatering issue.
- During irrigation season, follow the every 3rd day watering schedule outlined by the Town of Castle Rock. The schedule is found at CRgov.com/WaterSchedule.
- Do not overwater. Find how much to irrigate each landscape bed with interactive tools on CRconserve.com.
- Program for cycle and soak irrigation, especially with new landscaping. Ensure the generous application of water for new plant material is not running off.
- Is your property in a new development? Have you recently installed new landscaping? It will take several years for you and your neighbors' plant material to become fully mature.
- Learn more about efficient watering techniques at a Water Wiser workshop. Workshop registration can be found on CRconserve.com.

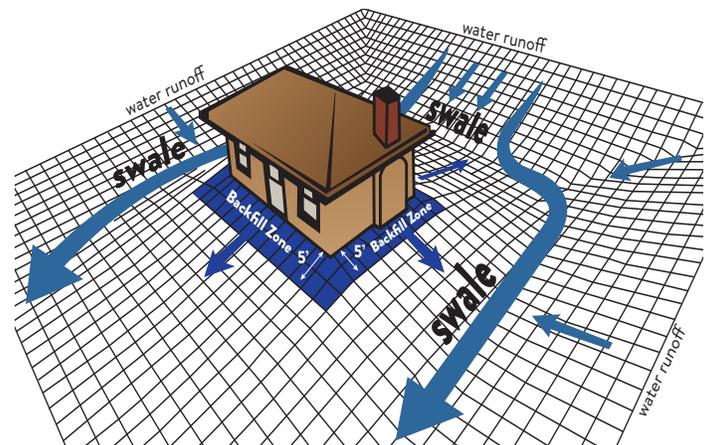
- Verify that all sprinklers, drip heads and other irrigation is greater than 5 feet away from the building foundation. This allows water to flow more readily through drainage swales.
- Check that your irrigation system is not leaking. See how to find if you have an irrigation leak at CRconserve.com.
- If you feel a leak is in the service line and not within your home, call for flow detection service from Castle Rock Water: 720-733-6000.

Step 2: Ensure good drainage

Improperly placed discharged pipes and obstructed swales can affect drainage flows

- Check that sump pump and down spout discharges are positioned more than 5 feet from the foundation, away from the backfill zone, to prevent water from re-circulating through the drainage system.
- Verify the gutters on your home have positive drainage to downspouts along the entire gutter. Low points within the gutter system would overflow and land in the backfill zone.

- Do not bury downspouts. If they must be buried, ensure they daylight and are not obstructed.
- Keep discharges at least 10 feet from the sidewalk. Discharge flow should run through a landscape area prior to draining to the street. Routing discharge pipes to plant material can reduce irrigation demand and runoff.
- Make sure the builder-certified swale grades are maintained and not blocked by paths, fences and plant material.
- Swales are designed to accommodate potential drainage from surrounding properties through your property.
- Use appropriate landscape materials, such as rock, in concentrated flow areas.
- Make sure the ground slopes away from the foundation walls by a minimum of 10 percent for the first 10-foot fall.



Step 3: Reduce contributing conditions

Take steps for algae control

- Fertilizer is the primary nutrient that allows that slimy, green algae to thrive. If fertilizer is used, apply sparingly and use a fertilizer that does not contain phosphorus (the middle number should be zero).
- A soil test can be conducted to determine the type of fertilizer, if any should be used, or if soil amendment is recommended. Good, fertile soil absorbs water more readily than clay soil.
- Dispose of grass clippings and yard waste instead of mulching.



Improper discharge

Handle snow removal appropriately

- During snow events, prevent ice build-up by removing the snow regularly and often from sidewalk, curb, gutters and driveways. It is the homeowner's responsibility to remove ice on sidewalks and driveways (*Municipal Code 12.16.030*).
- When removing snow, place it in the yard and not the street. This allows the snow to melt into the yard for better drainage and reduces ice build-up in the street.
- Contact Public Works at 720-733-2462 for concerns about ice build up in the travel lane of the road or visit CRgov.com/snow.
- Remove accumulated snow from the backfill area to reduce the amount of water percolating into the foundation drainage system and sump pump.

Step 4: Work collaboratively

Excessive water is often not isolated to a single property

- Talk to your adjacent neighbors about following the steps outlined in this brochure.
- If your property is next to an open space, talk to your HOA about overwatering and drainage remedies.
- Work with your builder to address drainage issues, through the warranty process.
- Consult a landscape professional for site specific solutions to optimize drainage.



Remove ice and snow often

Step 5: Still having problems

When proper irrigation and matured landscaping doesn't mitigate excessive water

Should nuisance water still persist during dry weather conditions, a chase drain installation may be recommended. A chase drain is a metal drain placed within the sidewalk to direct water flow through the sidewalk instead of over it.

- Work with your builder to request a chase drain.
- In qualified situations, the Town of Castle Rock may install a chase drain.



Maintain swales



Castle Rock Water
175 Kellogg Court
Castle Rock, CO 80109
720-733-6000
CRgov.com/Stormwater
CRconserve.com

Stormwater Hotline

720-733-2235
stormwater@CRgov.com

Contact us to:

- Inquire about excessive water
- Report dumping or discharge of any substance into the stormdrain, immediately
- Learn about stormwater projects that mitigate flooding and drainage issues in Town

Municipal Code 12.16.030 Curbs, Gutters and Sidewalks: It shall be the further responsibility of all property owners in the Town to maintain all curbs, gutters and sidewalks on or adjacent to their property free from all obstructions, snow and other hazards