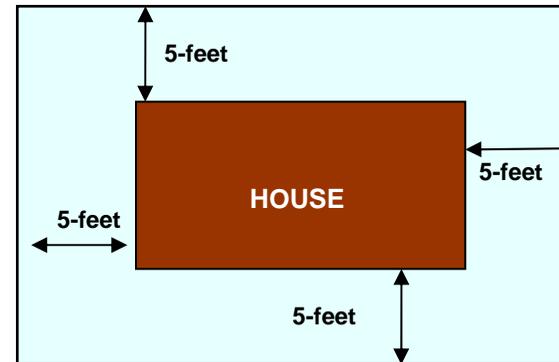
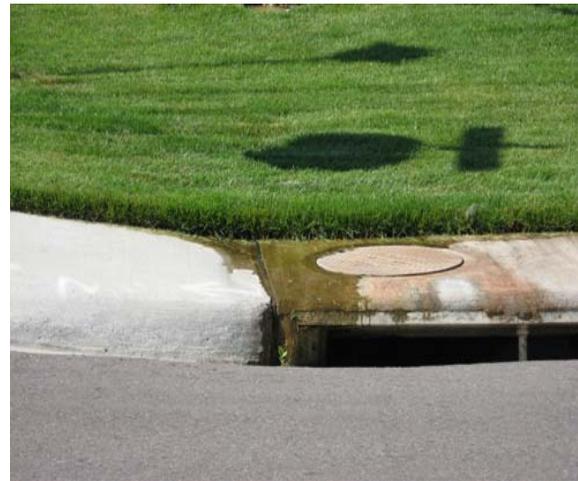


Important troubleshooting facts to address excessive water, ice and algae growth concerns.

- In the summer, follow recommended watering guidelines as defined in the Water Use Management Plan. For more information, see our Web site at www.CRgov.com. Be aware that you may not be seeing excessive water over your sidewalk, but you may be contributing to the problem elsewhere.
- Make sure sump pump and downspout discharges are located outside backfill zone (typically 5-feet from the foundation walls) without extending the discharge pipe to the back of sidewalk.
- Avoid burying downspouts. If buried make sure they daylight outside of the backfill zone.



Modifications done to use sump water across green area



Typical backfill zone

- Verify gutters on home have positive drainage to downspouts. If there is a low point within the gutter system not located at downspout, water will overtop gutter and land in backfill zone.
- If possible, drainage swale should not be located in backfill zone.
- Make sure ground slopes away from foundation walls (10% minimum per DESC) for the first 10-feet away from the foundation wall (or to property line if less than 10-foot setback).

- Do not combine downspout flow with sump pump discharge pipe.
- When removing snow from sidewalks and driveways place removed snow in yard to promote water flow in the street gutter area and reduce ice build-up in the street.
- During snow events, remove snow accumulation from backfill area to reduce the amount of water percolating into the foundation drainage system.
- Soil test should be done to determine what type of fertilizer should be used, if any.



Large algae growth due to grass clippings and fertilizers

Excessive Water Over Sidewalks

What you can do...

Contact the Stormwater Hotline
720-733-2235

Where is all this water coming from?

It is normal for water to periodically flow over sidewalks/driveways due to landscape irrigation, snow



Excessive water flowing over sidewalk

melt and rain events. Due to soil conditions, excessive watering and stormwater run-off, you might be experiencing additional discharges from your sump pump and roof drainage systems. Sometimes this additional water leaves your property and runs over your sidewalk creating slippery conditions both in the summer and winter months.

The following information is provided as suggestions to assist the homeowner in addressing their concerns in regards to algae and ice build-up on the sidewalk.

The nuisance of excessive water in your area will appear as algae growth in the summer and ice in the winter.

So, what do I do about the ice?

By law, it is the homeowner's responsibility to keep the sidewalk clear of tripping and falling hazards. Some of the methods you

can use to keep ice from forming on your walk are early and often removal of snow from sidewalk and gutter area for proper flow of discharges into the gutter area; remove snow from walk and drive areas to your lawn areas - do not shovel into gutter and street; remove snow accumulation from backfill zone around house as this will reduce water infiltrating through backfill area and into the foundation drain.



Ice is more prominent on the north side of the house or where shadows do not allow for solar melting

The ice is gone - what should I do with this slimy stuff growing on my sidewalk?

The green stuff (algae) are microorganisms that grown in the presence of water, phosphorus and/or nitrates and light. The slimy feel is from the organism moving. Excessive phosphorus is one of the major factors in increased algae blooms in our waterways and reservoirs. Some of the leading contributors to excessive phosphorus in our waterways is fertilizers, homeowners mulching their lawns instead of bagging the cut grass, and homeowners not cleaning up dead grass and leaves on their property.

When purchasing fertilizer, look at the middle number in the formula combination. This number represents phosphorus and should be zero.



Okay - now, what can I do with the excessive water?

The excessive water exiting your sump pump discharge can be discharged on your property green areas as long as it is discharged beyond the backfill zone. Some suggestions are:

- A hard, open-ended PVC pipe could be attached to the sump pump discharge to carry the flow to a front lawn or landscaped area.
- A perforated pipe could be added to the hard PVC pipe to discharge the water across a broader portion of the lawn and landscaped areas of your lot.
- Sump pumps and roof drains are not to be discharged directly onto the sidewalk and must run through a landscape area prior to draining to the street.

Please remember to keep this water out of the backfill area!

I am still having problems, what's next?

If you are still having problems with excessive water over your sidewalk after trying all the suggestions, contact one of the following:

- Your builder to discuss drainage issues.
- Your homeowner association to discuss drainage and neighborhood concerns.
- Town of Castle Rock Stormwater Hotline to request installation of a chase drain. Requests are monitored for a period of one year before being added to the wait list, if approved
- Town of Castle Rock Stormwater Hotline to discuss overall drainage concerns for your subdivision, or individual drainage concerns.



Utilities Department
Stormwater Engineering Division
175 Kellogg Court
Castle Rock, CO 80109

Visit us at CRgov.com/stormwater