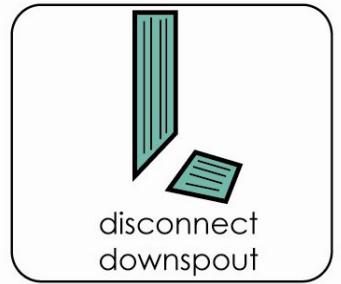


disconnect

for rainwater dispersal

how it works:

A downspout is a vertical pipe used to drain rainwater off a roof. Downspouts from your gutters may be directed directly to driveways or channeled through buried pipes to street or culverts. Downspouts contribute to the heavy influx of rainwater into the stormwater sewer system and eventually, to nearby streams. By disconnecting your downspout and redirecting the runoff onto grass or into a garden the rainwater will infiltrate into the ground more readily, reducing runoff to the stream. It is a very simple, yet effective way to reduce stormwater runoff. Downspouts can also be directed into rain barrels or cisterns.



where will the water go?

Through careful, but simple design solutions, water will be dispersed throughout a chosen area of your landscape. Don't worry, it is not going to erode or disrupt your landscape if done properly! Rainwater will flow through the downspout and onto a rock bed or into an extender that will evenly distribute rainwater into a garden or grassy area. Alternately, the rainwater can be directed into a rainbarrel or cistern. Downspout disconnections should empty and have room to flow for at least 6 feet before contacting the nearest driveway or sidewalk to allow for as much infiltration as possible. Make sure the ground slopes away from the house where the disconnect occurs.

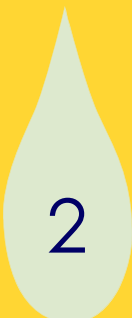
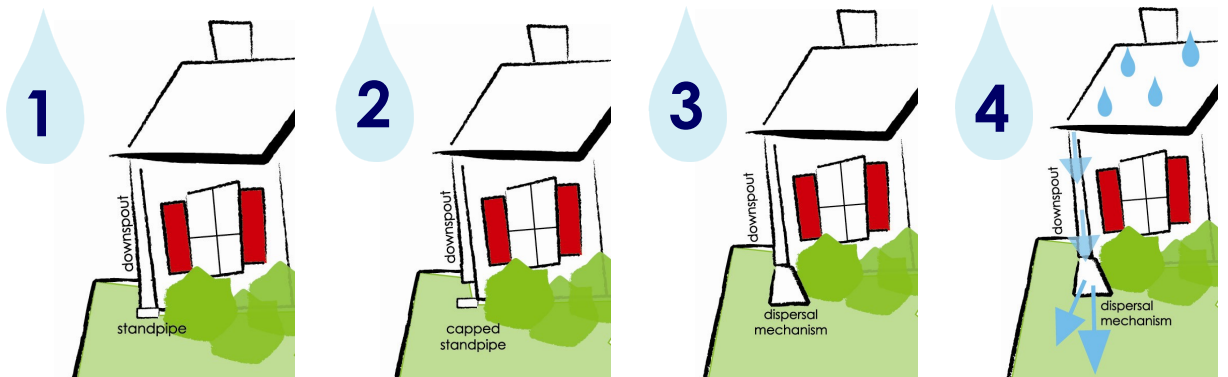
how do I disconnect correctly?

First, you will need the right supplies:

- | | | |
|--------------------------|---------------------|-----------------------|
| fine blade hacksaw | downspout elbow | pliers |
| short sheet metal screws | tape measure | rocks or splash block |
| drill | downspout extension | |

- An important note before you get started:

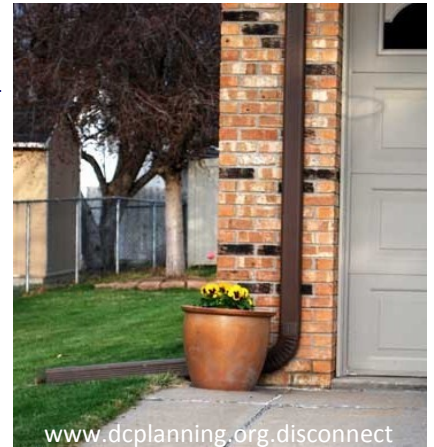
The area receiving the runoff needs to be large enough to accept it before allowing it to runoff. You may need to test this through one or two rainstorms. If you find the water runs off near a neighbors foundation or sidewalk, you may have to reconnect your downspout.



instructions:

1. Observe your site and design your disconnection
 - A. Locate the downspout you would like to disconnect from the stormwater system. Does it lead directly into a pipe or does it flow out onto your driveway?
 - B. If it flows onto your driveway you will direct it onto grass or into a garden area that flows away from your house.
 - C. If it connects directly into an underground drain, you will disconnect it from the drain and let it flow onto grass or into a garden area that flows away from your house.
 - D. Locate the area that water will flow into.
 - E. Water should be allowed to drain at least six feet away from the foundation with a basement and 2 feet away from the foundation with a crawl space or slab.
2. Cut the existing downspout approximately nine inches above where it enters the stormwater connection, (or about 16 inches above the ground) with a fine blade hacksaw.
3. Attach the downspout elbow. First crimp the downspout with pliers to ensure a good fit. Attach the elbow over the downspout, drills holes on either side and secure them together with short sheet metal screws. Do not insert the elbow up inside the downspout or it will leak.
4. Attach the downspout extension over the end of the elbow. Do not install the elbow over the extension or it will leak. (Some downspout extenders come complete with the elbow.)
5. If you purchase a downspout extender kit with directions, follow those directions.

Direct the flow into to a rock bed or stone, concrete or plastic splash diverter to help disperse the force of the water. If a rain barrel or cistern is used, the overflow should also be directed away from the house.
6. If the downspout was connected to a pipe of some sort, (underground, corrugated, PVC, etc) cap off the exposed end of the pipe.



safety considerations:

- Add or remove soil if necessary to ensure that the slope of the ground allows water to flow away from structures, however, do not disconnect downspouts on steep slopes because of the high likelihood of erosion.
- Avoid disconnecting downspouts in an area too small for proper drainage.
- Avoid adding downspout extensions across a walkway, patio, or a driveway to avoid tripping hazards.
- Do not disconnect a downspout within ten feet of a retaining wall.
- Don't disconnect to areas where water sits at the surface in the winter (squishy lawns, springs, puddles)
- Take care not to negatively impact a neighbor's property.

resources:

Environmental Services, City of Portland, OR. *How to manage stormwater: Downspout Disconnection.* www.portlandonline.com
 Environmental Protection, Montgomery County, MD. *Disconnecting Downspouts.* www.montgomerycountymd.gov

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