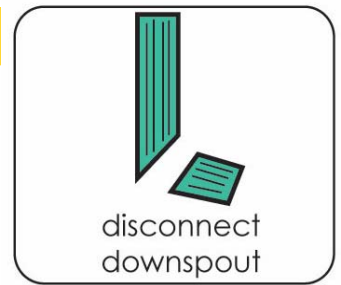


# disconnect

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 to driveways or channeled through buried pipes to street or culverts. Downspouts contribute to the heavy inflow 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, you can interrupt that flow. It is a simple, effective way to reduce stormwater runoff.



## where will the water go?

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 rain barrel or cistern. Make sure the ground slopes away from the house where the disconnect occurs.

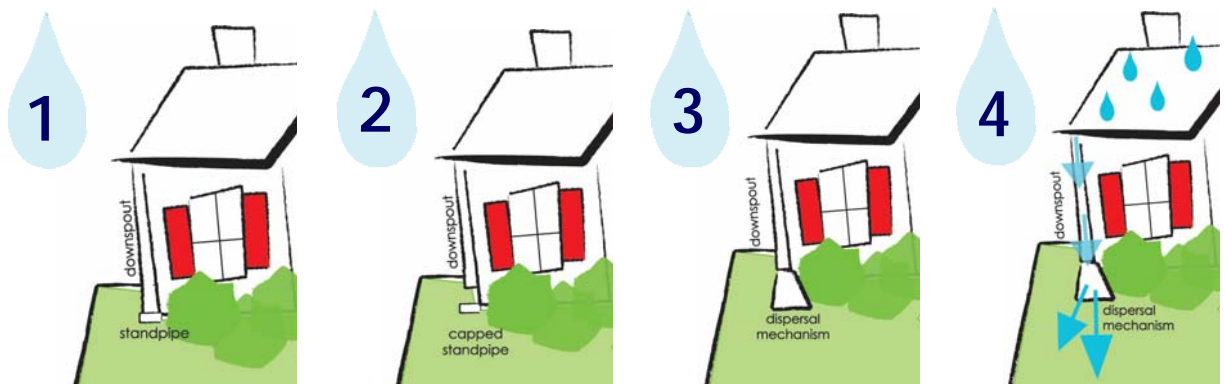
## how do I disconnect correctly?

Tools you will need:

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

An important note before you get started:

The area receiving the runoff needs to be at least 10 feet long, large enough to accept the water and allow infiltration. You may need to test this through one or two rainstorms. If you find the water runs off near a sidewalk, driveway or a neighbor's foundation, you may have to reconnect your downspout.



2

## 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 water flow onto grass or into a garden area that directs water 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 two feet away from the foundation with a crawl space or slab.
2. Cut the existing downspout above where it enters the stormwater connection with a fine-blade hacksaw. The goal is to have room to connect an elbow and downspout extension. Some downspout extender kits come complete with the elbow. If you purchase a downspout extender kit with directions, follow those directions.
3. Attach the downspout elbow. First crimp the downspout with pliers to ensure a good fit. Attach the elbow over the downspout. Drill holes on either side and secure them together with short sheet-metal screws. Do not insert the elbow *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.
5. Direct the flow into a rock bed or onto a concrete or plastic splash diverter to help disperse the force of the water. If you use a rain barrel or cistern, 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.
- Do not add downspout extensions across a walkway, patio or a driveway to avoid tripping hazards.
- Do not disconnect a downspout within 10 feet of a retaining wall.
- Do not disconnect to areas where water sits at the surface in the winter (squishy lawns, springs, puddles).
- Do not negatively impact a neighbor's property.

## resource:

Environmental Services, City of Portland, Oregon. *How to manage stormwater: Downspout Disconnection*: [www.portlandoregon.gov/bes/article/378192](http://www.portlandoregon.gov/bes/article/378192).