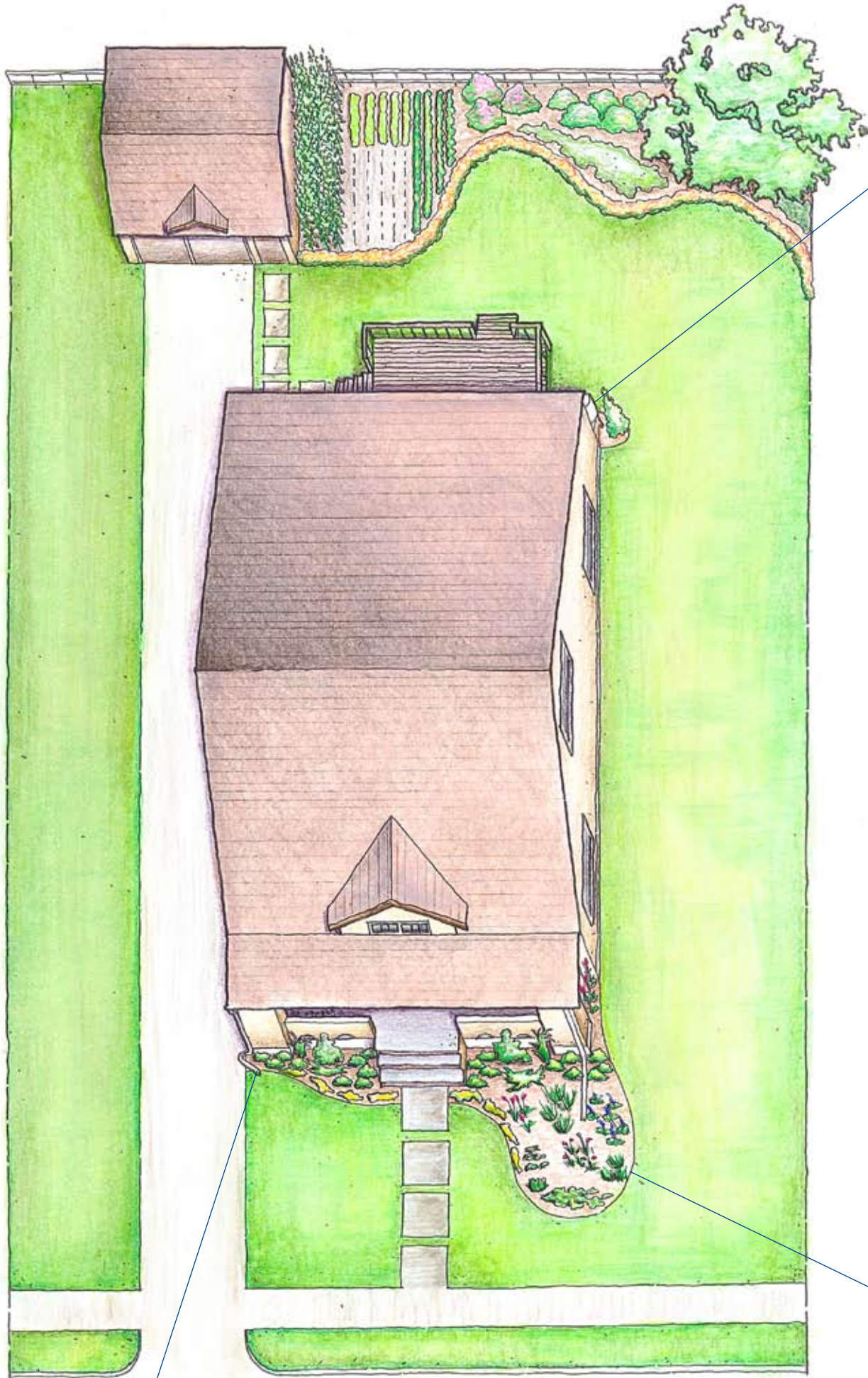


# Get the most out of rain

## Ideas for creating a rain-friendly yard



### Save water with rain barrels

A rain barrel is a container that collects and stores rainwater from downspouts and rooftops for future use watering lawns and gardens. Generally a rain barrel is made using a 55-gallon drum, a vinyl garden hose, PVC couplings, a screen grate to remove debris and keep insects out, and other materials found at neighborhood hardware stores.

Rain barrels can be constructed in a number of ways, but they all serve the same purpose — to collect rainwater and decrease the amount of stormwater runoff that leaves your property.

During the summer months it is estimated that nearly 40 percent of household water is used for lawn and garden maintenance. A rain barrel collects water and stores it for those times that you need it most — during the dry summer months. Using rain barrels potentially helps homeowners lower water bills, while also improving the vitality of plants, flowers, trees, and lawns.

For more information about rain barrels, please visit [www.marc.org/Environment/Water/rainbarrels.htm](http://www.marc.org/Environment/Water/rainbarrels.htm)



### Redirect downspouts

Take full advantage of the rain that comes off your roof by making sure that your downspouts deposit rainwater where it can be put to good use. Redirect downspouts to gardens, grassy areas, rain barrels — places where water can infiltrate the ground and roots of plants, decreasing the amount of water that goes down storm drains.

Rain is naturally soft and devoid of minerals, chlorine, fluoride, and other harmful chemicals. The chemicals and hard water from many of our municipal water systems can add to chemical imbalances in soil and damage sensitive plants. Rainwater from the roofs of houses picks up very little contamination, and is very healthy for plants.

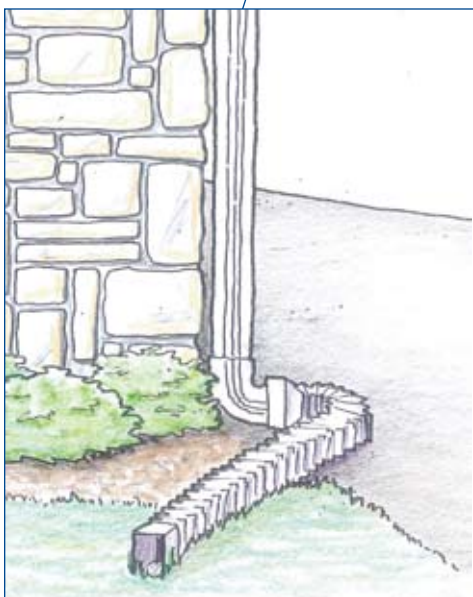
Use extension gutters or splash blocks to help direct the flow of water if your downspout isn't long enough. If directing stormwater to a yard, try to discharge the water at least five feet from foundations to prevent potential leakage into the house.

### Build a rain garden

A great way to complement your rain barrel and increase your property's ability to absorb runoff is through a rain garden. Rain gardens can be a fun and easy way to learn about beautiful native plants as well as help to improve water quality and reduce flooding.

Rain gardens typically absorb much more water than the same size area of lawn. They are drought resistant, winter hardy and less prone to destructive insects and diseases. Rain gardens create a preferred habitat for birds, butterflies and dragonflies. These specialty gardens are versatile; they can be any size or shape imaginable, but to maximize their benefit you should build them in an existing low spot or near the drainage area of your rain barrel or downspout.

For more information on rain gardens visit [www.marc.org/Environment/Water/raingarden.htm](http://www.marc.org/Environment/Water/raingarden.htm)



## Why disconnect your downspout?

Downspouts that connect directly to sewer pipes increase the risk of sewer overflow and flooding. Disconnecting your downspout from a sewer intake pipe (standpipe), then redirecting the flow of water to a grassy area or garden is a simple process that makes a big difference to the environment.

### Supplies

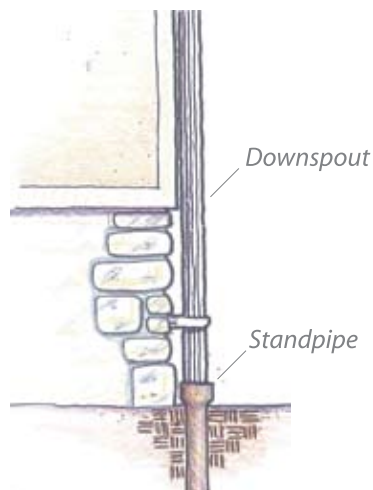
- Hacksaw
- Cordless drill
- Tape measure
- Pliers
- Sheet metal screws
- Downspout elbow
- Downspout extension
- Standpipe cap

There are different types, lengths and sizes, of standpipe caps, so be sure to take measurements before shopping. Capping the standpipe prevents water from going in while keeping pests (such as rodents) from entering/exiting the pipe.

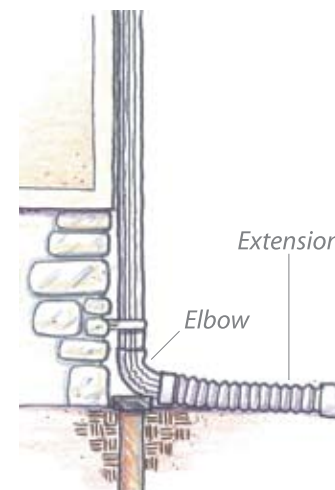
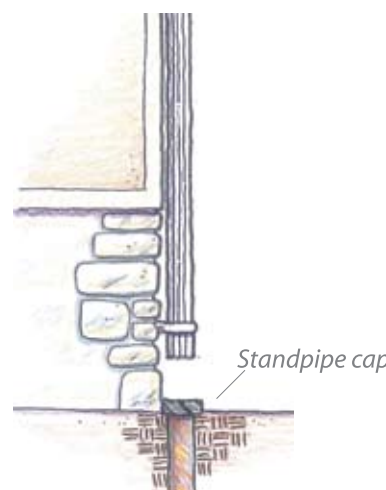


## Instructions

1. Cut the existing downspout approximately 9 inches above the sewer standpipe with a hacksaw.
2. Cap the sewer standpipe.
3. Attach elbow by crimping the downspout with pliers to ensure a good fit. Connect elbow to downspout using sheet metal screws. It may be necessary to pre-drill holes.
4. Attach the elbow INTO the extension and secure with sheet metal screws. Water should drain at least five feet away from the house, so direct the extension accordingly. A splash block may help direct water further away from the house.



Downspout connected to standpipe.



Elbow and extension attached to downspout.

[www.marc.org/water](http://www.marc.org/water)



## Rain, roofs and runoff

**Did you know that each downspout on a house can drain approximately 12 gallons of water per minute during a one-inch rainfall?** If managed properly, the water that flows off rooftops can help keep lawns and gardens green while lowering utility bills during spring and summer months. However, most downspouts send rainwater down driveways, sidewalks, and underground pipes that lead to storm drains or sanitary sewer lines. This "**stormwater runoff**" picks up pollutants from motor oil, lawn chemicals, and pet waste along the way, before entering lakes and streams — **untreated**.

The large amount of untreated water entering the storm sewer system — and eventually our streams and lakes — has lasting health, safety, environmental and economic impacts on communities. Fortunately, there are many things that property owners can do to put rainwater to good use while reducing the amount of stormwater runoff that ends up in local waterways.

For more information, visit [www.marc.org/water](http://www.marc.org/water)

## The problem with pavement

During the construction of homes, roads and office buildings vegetation is often removed and replaced by large paved areas. These surfaces keep rain from infiltrating the soil and recharging groundwater supplies. The infiltration process helps clean water and feed the underground springs that supply drinking water. Paved surfaces also increase the speed and amount of water that rushes into streams, causing stream bank erosion and harming wildlife habitats. Direct the flow of water from downspouts away from paved surfaces whenever possible.

## Combined sewer overflows

Combined sewers are older systems that carry both stormwater and wastewater to treatment plants. When rainstorms fill combined sewers beyond capacity, the result is a Combined Sewer Overflow — a discharge of untreated wastewater and stormwater into local waterways. Combined sewers are costly to replace and still used in older areas of the region. Residents are encouraged to disconnect downspouts from sewer pipes or redirect downspouts to grassy areas or gardens to reduce the rain that enters sewers.

## Disconnect or Redirect Your Downspout



Clean Water. Healthy Life.  
Regional Water Quality Education Program