

# Benefits of Using a Rain Barrel

## Reduce Water Usage

- ◆ The average Hilliard household uses approximately 5,000 gallons of water and pays \$100 per month on their water bill.
- ◆ Watering the lawn, plants, and other outdoor tasks can account for up to 40% of household water usage during the summer months.
- ◆ By using water collected in rain barrels rather than tap water to accomplish these chores, you can significantly reduce summer water usage – and save on your water bill.

## Reduce Stormwater Runoff

- ◆ During a single 1-inch rainfall, more than 700 gallons of water can run off your roof.
- ◆ Excessive runoff causes flooding, increases the rate of erosion, and carries pollutants into streams, rivers, and lakes.
- ◆ Capturing the water that comes off your roof can help reduce runoff.



Hilliard Environmental  
Sustainability Commission

3800 Municipal Way  
Hilliard, Ohio 43026  
(614) 876-7361

[www.hilliardohio.gov](http://www.hilliardohio.gov)

# How to Build a Rain Barrel

Hilliard Environmental  
Sustainability Commission



3800 Municipal Way  
Hilliard, Ohio 43026  
(614) 876-7361

[www.hilliardohio.gov](http://www.hilliardohio.gov)

## Overview

A rain barrel consists of a container to collect rainwater as it drains from a downspout. A filter at the top of the barrel keeps out debris (leaves, mosquitos, etc.), and a spigot at the bottom allows for easy connection to a hose. Water pressure is maintained by gravity.

## Materials Needed

- ◆ **A barrel** — typically a large, clean, plastic barrel between 45 and 80 gallons. A removable lid is best, as it allows for easy assembly and cleaning. You can purchase appropriate barrels from various internet retailers.
- ◆ **One 3/4" hose bib spigot**
- ◆ **Two 3/4" galvanized locknuts**
- ◆ **Two rubber washers with 1" inner diameter**
- ◆ **Teflon tape**
- ◆ **Superglue**
- ◆ **Silicone sealant**
- ◆ **One 3/4" brass MPT x MHT hose adapter** (overflow valve)
- ◆ **Fiberglass mesh screen**
- ◆ **Drill (with 1" bit or hole saw), utility knife, and wrench**
- ◆ **Elbow joint for the downspout**

All of these supplies can be found at most hardware stores.

## Assembling Your Rain Barrel

1. Drill a 1" hole in the side of the barrel approx. 1-inch *above the bottom of the barrel*.
2. Drill a 1" hole in the side of the barrel approx. 1-inch *below the bottom of the lid*.
3. Drill an opening at in the lid (this can either be several 1" holes or one big opening).
4. Wrap the threaded portion of the end of the spigot that goes inside the barrel with Teflon tape. Insert the spigot into the bottom hole.
5. Apply Superglue to one side of a washer. On the inside of the barrel, install the washer with the glued side flush against the side of the barrel.
6. Screw locknut in place on the back side of the spigot and firmly tighten with a wrench to ensure a waterproof seal.
7. Wrap the longer end of the overflow valve with Teflon tape. Insert into the top hole.
8. Repeat steps 5 and 6 to complete installation of the overflow valve.
9. Apply silicone sealant around the holes on the outside of the barrel at both the spigot and the overflow valve.

10. Cut a piece of fiberglass mesh screen slightly larger than the size of the lid.
11. Attach the screen to the lid with Superglue or screws. Or, if you have a screw-on lid, simply cover the opening of the barrel with the screen and screw your lid back in place. Trim away any excess screen.

## Installing Your Rain Barrel

1. Find a downspout location near where you will be using the water.
2. Set your rain barrel on cinder blocks next to the downspout. This will keep the bottom of the barrel off the ground.
3. Cut your downspout to the appropriate height.
4. Attach an elbow to the downspout to allow water to flow from the downspout into the top of the barrel.
5. Attach a hose to your overflow valve. This will allow you to direct overflow away from the building.

## Using Your Rain Barrel

1. Attach a hose to spigot.
2. Wait for rain. A single 1-inch storm will easily fill most rain barrels.
3. Use for typical outdoor chores such as watering the lawn.