

## What Are Rain Barrels and Why Should I Use One?

A rain barrel is a container that collects and stores the water from roofs and downspouts for future uses such as watering lawns, gardens, and house plants; cleaning off gardening tools; and washing your car.

Rain barrels help to **lower your water bills**, particularly in the summer months by collecting thousands of gallons of free water a year that you don't have to buy!

Rain barrels are also important for our environment because they help reduce water pollution by decreasing the amount of stormwater runoff reaching our streams and rivers. **Think about it.** The average rainfall of one inch within a 24 hour period can produce more than 700 gallons of water that run off a typical house! While it's running from our homes and lawns, this stormwater picks up anything on the ground such as litter, excess fertilizer, pet waste, and motor oil and transports it to storm drains that **DO NOT** treat the water before dumping it directly into our waterways. So, rain barrels play an important role in protecting our water resources by collecting the stormwater runoff from our homes before it reaches our local streams and rivers.

Using rain barrels is a great way to decrease your household's impact on local waterways and to help you become a good steward of our local waterways. This brochure will show you how to make your own rain barrel by following a few simple steps!



## Important Tips for Using Your Rain Barrel

- Do not use collected water for drinking, cooking or bathing.
- Keep lid secure so children and pets cannot fall in and make sure that all other openings are secured to help prevent mosquitoes from entering the barrel.
- The atrium gate should prevent most mosquitoes but eggs could still fall through so for added mosquito prevention add a tablespoon of vegetable oil to the water every season or try a mosquito dunk that kills mosquito eggs but is non toxic to plants and animals.
- When using the overflow valve, make sure water drains away from structures and does not flow onto pavement, sidewalks, or neighboring properties.
- Disconnect the barrel from the downspout during winter months to avoid the formation of damaging ice in the barrel.
- Paint or decorate your rain barrel to make it a distinct part of your yard or garden!

For more information please contact:

Delaware Department of Natural Resources  
and Environmental Control  
Division of Watershed Stewardship  
(302)-608-5458 or [de.gov/nps](http://de.gov/nps)



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## What Do I Need to Get Started?

All of the following items can be purchased at your local hardware store for a **total cost of around \$30** depending on the type of trash can and brand of fittings you purchase.

- Outdoor trash can with lid (any size will work – the larger, the more water you will collect)
- Downspout flex-elbow
- 6 inch atrium grate
- Sump pump drain hose kit (kit includes: one ¼ inch, 24 ft. hose, and one 1¼ inch insert male adapter)
- 1¼ inch PVC female adapter
- ¾ inch spigot with sillcock
- ¾ inch PVC male adapter (do not get CPVC male adapter)
- Electric drill
- 1 inch drill hole saw (type of drill bit)
- 1½ inch drill hole saw (type of drill bit)
- File
- Silicon caulk
- Plumbing tape (also known as Teflon tape)
- Felt tip pen
- Utility scissors or utility knife
- Hacksaw (for cutting downspout if desired)
- 2-4 Concrete blocks

**STEP 1:** Trace the outline of the top of the atrium grate (largest circle) on the top of the barrel with a felt tip pen. Next, with utility scissors or a utility knife, cut a hole out of the lid by following the traced line. The hole should be snug enough to allow the atrium gate edge to sit on top of the barrel securely without falling in. This allows water to flow into the barrel and keep debris and animals out.



**STEP 2:** Drill a 1 inch hole about 1½ to 2 inches from the bottom of the barrel. Leave enough distance between the hole and the barrel's bottom to allow the barrel to sit flat on the ground without the spigot hitting the ground. Insert spigot on outside of barrel. Wrap the ¾ inch PVC male adapter threads with plumbing tape.



Place the adapter inside the barrel and place the threaded end of the adapter through the hole. Screw together the adapter and spigot so that the spigot is tight against the trash can. Use silicone caulk to seal the hole on the inside and outside of the barrel.

# 5 Easy Steps to Make a Rain Barrel

These steps serve as a guideline for the construction of your own rain barrel. Changes can be made based on your personal preferences.

**STEP 3:** Choose the side of the barrel that you want to place your overflow valve, and drill a 1½ inch hole about one to two inches below the top of the barrel. Use your file to enlarge the hole enough to insert the 1¼ inch male adapter from the outside of the hole. Screw together the 1¼ inch female adapter on the inside to the male adapter until the female adapter is flat against the trash can. Place silicone caulk around the hole on the inside and outside of the barrel. Slide the sump pump hose onto male adapter at top of the outside of barrel to direct overflow water away from your home.



**STEP 5:** Congratulate yourself on your hard work and for making a difference in reducing stormwater pollution. Make sure to let all the caulk dry thoroughly before using. Enjoy your rain barrel!

**STEP 4:** Place 2 concrete blocks under your selected downspout as a raised base to allow room for a watering can or to screw on a hose. Cut your downspout about 4" above the top of the barrel lid. Attach the downspout flex-elbow to the downspout. Direct the flex-elbow into the atrium grate on top of your trash can.

