

Simple Guide to Rain Barrels

Collecting rainwater is an easy way to conserve water — and save money on your water bill. During the drier season, when water consumption often doubles, using collected rainwater also reduces the strain on the water supply and keeps more water available for fish and wildlife.

Rainwater is also naturally “soft” and free of minerals and chemicals, making it ideal for plants and lawns. Using a rain barrel to collect rainwater also helps reduce stormwater runoff that might otherwise run down storm drains and into our streams, rivers, lakes and bays. Stormwater runoff can cause flooding and erosion, and carry pollutants into our waterways.



Location

Before installing rain barrels, take a moment to consider how the rain barrels will be used, how much water will be needed (especially during drier months), how many are being installed and how overflow will be handled. Also, make sure rain barrels are clean and free of debris before installing them. If the rain barrel(s) will be attached to a downspout, choose a convenient, easy-to-access location.

Bases

A full, 55-gallon rain barrel can weigh up to 450 pounds! Rain barrels bases should be strong, sturdy and flat, and can be made from:

- Cinder Blocks
- Bricks
- Stones
- Wood
- Cement

Barrel(s) should be placed high enough off the ground – generally a foot or more – to be able to fill a watering can, or attach a hose and get good pressure. Place the barrel(s) on the base with the intake hole closest to the downspout.



Rain Barrel Parts

- 55 Gal. Poly Drum (Recycled & Food-Grade)
- 3/4" Hose Bibb
- 1" Flat Washer (Steel)
- 3" x 4" x 4" PVC Downspout Adapter (White)
- 4" PVC Drop-In Grate (White)
- 5/8" – 3/4" Male Hose Repair Kit
- 6"x 6" Aluminum Window Screen Material
- 1 Sheet Metal Screw

Downspout Disconnection

There are a number of ways to connect the downspout to the rain barrel. Where you cut the downspout will depend on the type of connector material you choose.

You can also use a downspout elbow, a section of straight downspout crimped on one end to fit into the hole. A flexible downspout extender makes an easy transition, eliminating the need for exact measurement because it bends and stretches. Or a chain that hangs from your gutter and drains directly into the rain barrel.

Cut the downspout, then secure one connector end to the downspout and position the other on top of, or in, downspout adaptor. Use screws (if needed) to attach the downspout connector to the downspout.

Overflow

One inch of rain falling in one day on 1,000 square feet of roof can produce over 600 gallons of water!

As your rain barrel(s) fills, you will want to consider what to do with any overflow. Sections of garden hose, pipe or downspouts can all be used to handle overflow via the overflow valve.

Overflow can be directed back down the old downspout. If allowed to flow naturally, it must flow onto a landscaped area or lawn large enough to filter the water – generally an area about 15 square feet. Overflow must be directed at least 10 feet away from any foundation or impervious surface (like a driveway or sidewalk) and five feet away from a neighboring property or right of way.



Multiple Rain Barrels

Multiple rain barrels can be installed in one location. Connect two or more rain barrels via an extra intake hole on top or through the overflow fitting near the top and side of the barrel(s). Starting with the main rain barrel (the one connected to the downspout), connect overflow hoses to each additional rain barrel. When you reach the last rain barrel, make sure overflow is directed away from your house or neighboring property.

Painting or Decorating

Start with a clean, dry rain barrel. Scuff the surface with sandpaper so the paint has something to adhere to. Prime, let dry, then paint with exterior house paint. More than one finish coat may be needed depending on the original color of your barrel and the paint color.

Maintenance

Rain barrels are low tech and low maintenance, but there are a few things you will want to do to keep your rain barrel(s) working properly:

- Check your rain barrel on a regular basis to make sure all openings are clean, free of debris and flowing freely.
- During severe rain storms, check your rain barrel to make sure the overflows are working properly.

- During months when temperatures are below freezing, you might want to disconnect the barrel from the downspout to avoid the formation of ice which can damage your rain barrel. **Avoid repeated freezing and thawing as this can weaken your barrel.**
- Consider draining your rain barrel for the winter. Store upside down so ice doesn't form inside and crack the barrel.
- Maintain the intake grate and fine mesh screen to prevent debris, mosquitoes or other bugs from getting inside your rain barrel.

Safety Tips

- Only use food-grade barrels.
- Avoid collecting rainwater from roofs that have been treated with chemicals (moss killers, zinc strips, etc.).
- Never use your rain barrel water for drinking or washing. If you choose to use collected rainwater for growing edible fruits, vegetable or herbs, always rinse with tap water before consuming.
- Mosquito control is important due to West Nile Virus. You can also help prevent mosquitoes from breeding by placing a tablespoon of vegetable oil in your barrel.
- Be sure to place your rain barrel(s) on a strong, sturdy, and flat base.



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SOURCE: Special thanks to the city of Bellingham Water Conservation Program for their support. (www.COB.org)

Build-Your-Own Rain Barrel

Step #1

Drill a 7/8 inch hole several inches up from the bottom of a food-grade barrel. Make sure the size of the hole will accommodate the size of your water faucet.

Step #2 (optional)

Squeeze adhesive (marine glue or water-resistant silicone caulking) around the hole rim.

Step #3

Place a flat, galvanized washer over the threaded end of a brass water faucet. **CAREFULLY** screw the faucet into the hole. You do not want to cross-thread your hole.

Step #4

Decide which side of the barrel will have the overflow valve, then rotate the barrel a quarter-turn. Drill a hole near the top of the barrel, matching the size of the hole with the size of the overflow valve.

Step #5

Squeeze adhesive around the hole rim (optional). Tap the narrow end of the overflow valve into the hole using a rubber mallet. The side with wider threading is for connecting a hose.



Step #6

If the barrel does not have a hole on top, cut one. Use a plastic grate to cover the hole. This helps keep leaves and other debris out of the barrel. To keep insects out, cover the grate with a fine mesh screen. Next, slide the downspout adapter over the grate, which helps secure the screen in place. Trim any excess screen with scissors. (Optional) Drill a small hole through the downspout adapter and into the grate, then use a screw to lock all three pieces together. Insert grate/screen/downspout piece into the cut barrel hole. Done!



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Tools

- Drill
- Saw (Hole or Jig)
- Screw Driver
- Rubber Mallet
- Silicone Caulk



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