

Collecting rainwater

When receiving water from a downspout, rain barrels can fill up relatively quickly. If this happens, the barrel will overflow. Rainwater diverters are necessary to redirect water when barrels are full. There are many different designs for diverters.



The diverter on the left is a manual diverter, which has a switch that allows the water flow to be changed. This type of diverter may not be the best option, as it requires someone to be present to change the flow. The middle and right pictures show automatic diverters. Once the barrel fills up, the back pressure will force water to continue down the spout rather than into the barrel. These three types of diverters are available from many garden stores for between \$20 to 30.



Another option for diverting overflow is to install an overflow spout on the barrel. Cut a hole in the side of the barrel near the top and attach a spout. The hole must be at least 3" in diameter or the overflow will not work properly. A tube or gutter can be used to direct the excess water away. Any holes cut in the barrel should be covered with screen.

Using the rain barrel

The rain barrel should be allowed to fill beginning in April, after there is no more risk of water freezing. The barrel should be taken out of operation during winter.

Water expands when it freezes, which could damage a full barrel. Depending on the area drained into the rain barrel, it should fill relatively quickly, even in conditions of light rain (5mm).

Since the barrel is affixed with a spigot, this makes it easy to fill buckets or watering cans. If the barrel is at an elevated level, it might be possible to attach a hose to it.



This barrel is in use in the 'innovative garden' section of the Annapolis Royal Historic Gardens. It is attached to a 'drip hose,' which has small perforations that allow water to leak out over the flowerbed slowly but steadily as long as the barrel contains water.

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Clean Annapolis River Project

"To restore and protect the ecological health of the Annapolis River watershed through science, leadership and community engagement."



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How to Make Your Own Rain Barrel



Managing Water Resources in a Climate Changed World

An Annapolis Pilot Project



Clean Annapolis River Project

Rain barrels

Rain Barrels are containers designed to accumulate runoff water. This water can be used for purposes such as irrigation, lawn watering and car washing. This can help to reduce use of potable water and save money. Rain Barrels are often positioned to receive water from the downspouts of eavestroughs and can be fitted with spigots to allow for filling of watering cans.



There are many types of commercial rain barrels available, including ones designed to resemble planters. However, rain barrels can also be constructed using simple items that can be found at a local hardware store.

Items you will need

- Large barrel
- PVC reducer coupling, 4" to 3"
- Screen material
- 4" hose clamp
- Spigot, an o-ring and a faucet lock nut
- Adjustable wrench
- Silicone caulking
- A cutting or boring tool, preferably one that can cut 3" circles
- Downspout diverter



The Barrel



Many types of barrels can be used to make a rain barrel, as long as they have a lid, are clean and will hold water. Barrels can be obtained new or used from many places such as hardware stores, agricultural suppliers or army surplus outlets. The barrel shown in this picture was purchased used from Acadian Seaplants Ltd. in Cornwallis, Nova Scotia. Be wary of using barrels that contained substances like manures, pesticides or detergents.

Preparation of the barrel

Ensure the inside of the barrel is clean, especially if it was previously used for other purposes. Make sure the lid is securely in place. Using the cutting or boring tool, make a hole approximately 3 inches in diameter in the lid. The hole should be placed near the edge of the barrel to allow the downspout of one's house to be easily redirected toward it.



The hole should be large enough so that the narrow end of the PVC reducer can be inserted. The reducer should be fitted across the wide end with a screen, secured with the 4" hose clamp. The screen keeps out insects, leaves and other debris.



Next, drill a smaller hole in the side of the barrel, 1/4 to 1/3 of the way up the barrel. The hole should be the right size for the spigot to fit into. Remove the lid of the barrel and insert the spigot so that the end with the faucet is on the outside of the barrel.

Put some silicone sealant around the threaded end of the faucet on the inside of the barrel and slip the o-ring around this end. Secure the tap in place by screwing the faucet lock nut onto the threaded end of the faucet. Ensure that the o-ring and silicone form a watertight seal. Replace the lid of the rain barrel and insert the PVC reducer. It is now time to put the barrel to use! It must be set up properly to collect water from a downspout.

