

Rain, Rain, come again...

Rain barrels, sometimes called cisterns, are aboveground water storage vessels. They capture rain runoff from a building's roof using the gutter and downspout system.

A typical house has a roof area of 1,200 square feet and four downspouts that will each drain about 300 square feet of roof. That means a rainfall of 0.3 inches will fill a 55-gallon rain barrel placed under each downspout.

Rain barrels with a drainage valve can store water for use between rain events. When the valve is opened, the water empties out slowly, thus reducing runoff and increasing infiltration.

Rain barrels are a type of Best Management Practice (BMP) also referred to as Rainwater Harvesting that also includes cisterns, irrigation storage, and evaporative controls. Using Rain Barrels and Cisterns also follows the principles of Low Impact Design (LID).

Demo.

Want to see a rain barrel system at work? Go see our demo at City Hall located at 1565 1st Street on the 1st Street entrance. Thanks to Rotary of Sarasota Bay and EcoEssentials for helping to make the project possible.

Want to get a pre made kit? City of Sarasota will be selling pre-made Rain barrel kits soon. Until then please contact one of these suppliers.

Please call first:

Manatee County Utilities Department
(941) 792-8811
Charlotte County Extension Service
(941) 764-4340

Applications

Divert water from storm drain systems and thus reduce pollutants and the velocity of water

Direct overflow water away from building foundations to more desired locations

Reduce water and sewer bills, as well as electrical bills from sump pump usage.

Provide high quality water for gardens

Remember to use native landscaping whenever possible. Use Florida Friendly Landscape always. Don't water on hot days as water will evaporate. Water only during designated watering times. Water after the sun goes down to ensure less evaporation. Use the water from your rain barrel to save money and our precious resources.

CITY OF SARASOTA PUBLIC WORKS DEPARTMENT

FOR MORE INFORMATION
Michele Mician
Sustainability and Recycling Coordinator
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Rain Barrel HOW TO



Rain Barrel Assembly Basic Instructions

A thirsty crow peered into an earthen pitcher. There was water at the bottom. "Dregs," it cawed, alarmed. But it was thirsty. It began to drop pebbles into the pitcher. Drop by drop, the water rose to the top. The crow drank and flew away sated.

When we use our ingenuity and find the value in a resource traditionally underutilized. We can stop cawing our alarm and fly away!

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RAIN BARREL HOW TO STEP-BY-STEP

Building A Rain Barrel

The Barrel. A rain barrel system can be relatively simple to build, requiring only basic tools and skills. To start, look for 55-gallon food grade plastic drums which often available from food manufacturers, feed stores, or similar businesses for reasonable prices. (For fancier alternatives such as whiskey barrels, you will pay more and may require modifying fittings.) Calling around takes a little time, but it saves a lot of money. No, plastic trash cans do not work since they will not support the weight of the water (water weighs about 8 pounds per gallon). Barrels used to store cleaning supplies or other toxic chemicals should not be used, since the substances may leach out into the water.

List of Materials and Tools

- ◆ 55-gallon plastic food grade barrel
- ◆ Adjustable wrench
- ◆ Standard hose bib with 3/4" male thread
- ◆ Power drill with 1" bit
- ◆ 6" by 6" wire screen with 1/2" mesh
- ◆ Keyhole or saber saw
- ◆ 6" by 6" window screen (to keep mosquitoes out)
- ◆ Plumber's putty
- ◆ 3/4" threaded fitting Hack saw
- ◆ Wood screws or rivets Locking pliers
- ◆ Short length of 3/4" garden hose
- ◆ Power drill with 1" bit
- ◆ Hose clamp

Single Rain Barrel System Assembly.

1. Cut a 5" diameter hole in the top of the barrel using the keyhole or saber saw. This will be the fill point from your downspout.
2. Sandwich the window screen and 1/2" mesh together with the mesh on top, place over the hole, and secure with wood screws or rivets.
3. Drill two 1" diameter holes in the barrel, one approximately three inches from the top (for overflow) and one approximately three inches from the bottom (for watering).
4. Smear the hose bib with plumber's putty and screw it into the hole in the bottom.
5. Put plumber's putty on the 3/4" fitting and screw into hole in the top.

Multiple Rain Barrel System Assembly

1. Drill a 1" diameter hole about three inches from the bottom of each barrel and 90 degrees from the hole for the hose bib.
2. Install a 3/4" fitting into the hole in each barrel
3. Cut a scrap length of standard 3/4" garden hose to length and clamp onto each fitting to join the barrels together.

Installation.

Place the rain barrel(s) on top of level concrete blocks. These blocks raise the barrels to provide better gravity flow (pressure). To increase the pressure, add another layer of concrete blocks. Once the rain barrel is in place, cut the downspout approximately one foot above the top of the rain barrel. In most cases, you will be able to re-install the L downspout fitting to direct water into your rain barrel. Next, clamp a length of standard 3/4" garden hose to the overflow fitting at the top of the rain barrel and direct the hose at least 8 feet away from the foundation of the home. While many people choose to simply fill a watering can from the rain barrel, a hose can be used but may need more than one layer of concrete blocks to increase water pressure.

Maintenance. Check the screen on top of the rain barrel periodically and remove any debris present. Clean the inside of the rain barrel at least once a year to remove sediment that may build up in the bottom of the barrel.

For every gallon of water you use from your rain barrel, you'll save the equivalent amount from your water bill. Fifty-five gallons is a lot of water, and can really add up over the course of a long, hot Summer. The water you collect from your rain barrel is also free of chlorine, fluoride, and any other chemicals that might be floating in your municipal water system, which is something your garden will appreciate.

Notes: Be sure to use/drain your rain barrel at regular intervals, and before the winter season. Keep rain gutters clean of debris to prevent mosquito eggs and larvae from entering your barrel. Check connections routinely; clean debris from the Grate Assembly when needed.

