

RAIN BARREL
DESIGN & INSTALLATION



Photo credit: Reddit.com

DESIGN INFORMATION

DESCRIPTION

Rain barrels are containers used to collect a portion of the rainwater that flows from your rooftop and stores it for uses such as watering your lawn and garden.

BENEFITS

1. Provides a free water source for gardens, lawns, and car washing.
2. Collected water can be used any time, even during periods of water restrictions.
3. Since rainwater is soft, oxygenated, devoid of chlorine and other chemicals it can help improve the health of your garden, lawn, and trees.
4. Cost effective.

DESIGN CONSIDERATIONS

Typical components of a rain barrel include a hose connection at the outlet, a screen trap to filter out downspout debris at the inlet, and an overflow outlet. A range of materials, designs, and colors are available. Locate each rain barrel on a stable, flat surface near the downspout that will be connected to the rain barrel. The barrel should be elevated on cinder blocks or a platform, so that gravity can deliver flow to the area to be watered and to make hose attachment easier.

SIZING CALCULATIONS.

1. Calculate the area of roof draining to the barrels in SF. Divide this area by 100, and multiply by 15 = water quality volume (cubic feet).
2. Calculate the storage volume of the rain barrel (s) gallons (capacity) X .134 cubic feet per gallon; refer to worksheet B for exact calculations.
3. The total storage volume shall exceed the required water quality volume.

SITING

Drainage Area

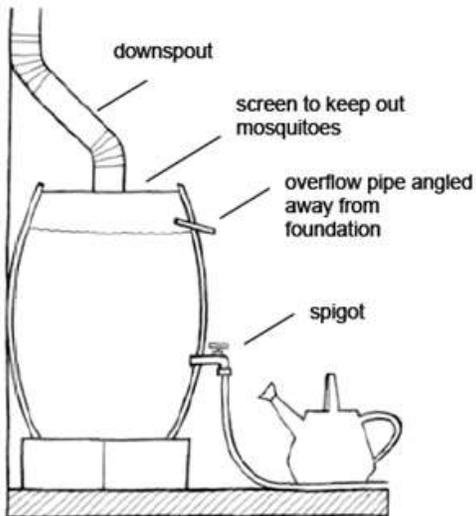
Rain barrels are a good option for homes and buildings with downspouts and where occupant(s) plans to use the captured water.

Space

You can install multiple rain barrels, in series, to a single downspout. You can also connect a single rain barrel to several leaders draining different portions of your roof. **Min. Volume requirement is 100 Gal. storage for multiple SCM credit.**

Topography

Rain Barrels need to be installed on level surface.



Typical Rain Barrel Cross Section
Not to Scale
Diagram credit: clearwater.org

INSTALLATION

MATERIALS

- Gutters are necessary to direct water to your Rain Barrel.
- Only year-round residents or homes with year-round maintenance are acceptable for rain barrels.
- Install downspouts at areas where you want your rain barrel to be.
- Make sure you intend to use the water collected in a Rain Barrel for a purpose in your yard such as watering a landscaped area or vegetable garden.
- Mosquito Prevention can be achieved with a fine mesh screen fitted on the lid of the rain barrel. This will prevent mosquitoes from gaining access and laying eggs.

OPERATION & MAINTENANCE

TO BE COSTRUCTED POST
CONSTRUCTION & ANNUALLY

Drain

Drain Rain Barrels after each significant rainfall from April to November. At a minimum, empty the rain barrel every two weeks.

Cleaning

Clean the rain barrel periodically and inspect it for clogs and leaks. Remove leaves and other debris from the filter screen and ensure that it is not damaged and is securely fastened. IT is recommended to disinfect the rain barrel with bleach once a year. Unless designed for freezing temperatures, the rain barrel should be disconnected and drained for winter.

Remedial Measures

If the Rain Barrel becomes cracked, or any of the materials become worn, replace as necessary to prevent leakages.



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