



# Creating a Rain Barrel for Water Conservation

## Fact Sheet # 1721

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### INTRODUCTION

If you have a gutter, downspout system, or roof valley on your house or garage, you can build a rain barrel to gather water for your landscape bed or vegetable garden. A rain barrel allows homeowners to water their landscapes efficiently and reduce stormwater runoff into the roadways and storm systems.

### BUILDING A RAIN BARREL

#### Site Selection

Selecting an appropriate location for your rain barrel is important. To identify your location, consider the following:

1. What do I need to water?
2. Where can I easily collect water for my rain barrel?
3. Can I easily get water from the rain barrel to the landscape or garden I want to irrigate?
4. Are there any codes/covenants that dictate where my rain barrel may be located?

Knowing where you can collect water and where you need to take the water helps select an appropriate site to locate your rain barrel. Double-check any codes/covenants you may have in a Homeowners Association—there may be location restrictions.

#### Finding Supplies

You can find supplies at any big box store or local hardware supply store. I highly encourage homeowners to repurpose old barrels—it helps reduce waste by giving second life to plastics and can save you money. We recommend purchasing a pickle barrel, which can be found at local hardware supply or Feed & Seed stores. Do not use any barrels that once contained chemicals or oil products; only use barrels that have been used for

food storage. Trash cans are great alternatives, if you are unable to get a used barrel. Table 1 shows a complete shopping list with approximate cost for new materials. Many of the items required for the rain barrel could be recycled materials or obtained second-hand.

#### Painted Rain Barrel



#### Assembling Rain Barrel

To assemble your rain barrel, first scrub the inside thoroughly with soap and water to remove any residues. Level the area where you want to place your rain barrel with a spade and set the cinder blocks in place. For extra stability, use a rubber mallet to set the blocks firmly in the soil. The amount of water in your barrel and barrel's height contribute to the water pressure.

Place the barrel on the blocks. Hold the new elbow on top of the barrel against the downspout. The bottom of the new piece should reach just above the barrel — an



inch or so. Mark the existing downspout where you will cut it off. Set the barrel and the elbow aside and measure down 2 inches from the pencil mark on the downspout. That will allow room for the old downspout to fit into the elbow securely. Use a hacksaw to cut off the old downspout. Fit the new elbow over the end of the downspout and fasten it in place with sheet metal screws or pop rivets.

If your barrel has a lid, then cut a hole in it where the new downspout elbow will drain into it. Cover the hole with a small piece of screen. If there is no lid, lay a large piece of window screen over the top. You can leave the barrel uncovered, but you will find that open water is irresistible to mosquitoes.

Apply plumbers tape to all threaded components of the rain barrel hardware. Drill a 3/4-inch hole towards the bottom of the barrel for the spigot. Make sure there will be enough room under the spigot to place a bucket or attach a hose. Slide the reducing washer onto the spigot and apply caulk around hole drilled for spigot, inside and out. Then slide the threaded part of the spigot through the barrel and attach the locknut to the threaded portion of the spigot, inside the barrel. Tighten and position the spigot into the desired, final position.

A couple of inches down from the top of the barrel drill another 3/4-inch hole for the overflow valve. Squeeze some caulk around the hole, inside and out, and slide the hose adapter through the new hole. Tighten the overflow valve with a locknut. With a garden hose connected to this safety valve, you can direct some of the overflow after a heavy rain out into the garden.

Set the barrel on the concrete blocks, make sure the downspout will direct the water properly and sit back and wait for rain.

### IRRIGATING WITH A RAIN BARREL

If you would like to irrigate your landscape or garden with the rain barrel, you can connect a hose to the spigot and water manually or attach dripline irrigation to the system.

To irrigate with drip line irrigation, you can turn on/off manually with a timer or install a battery powered timer. Attach a hose-bib converter for drip line irrigation from any big box store or irrigation supply store for around \$2.00. You can then connect drip line irrigation directly to your rain barrel.

### Rain Barrel Supply List

Item	Quantity	Approximate Cost/Per	Total
Barrel	1	\$25.00	\$25.00
Spigot 3/4" (Boiler Drain, Male)	1	\$9.98	\$9.98
Garden Hose Adapter	1	\$5.00	\$5.00
Cinderblocks	4	\$1.37	\$5.48
Screen (24" x 24" section)*, scrap	24" x 24"	\$0.00	\$0.00
Conduit Locknut 3/4"	2	\$0.28	\$0.56
Reducing Washer 1"-3/4"	1	\$0.36	\$0.36
Clear Window and Door, Silicone Caulk, Tube**	1	\$4.97	\$45.87
Gutter Elbow (Fit according to your existing gutter system)***	1	\$3.50	\$3.50
Grand Total, Estimate			<b>\$54.85</b>

\*It may be difficult to find 24" x 24" of screen mesh because it typically comes in large rolls. It could be easy to find used screen mesh from a local contractor or homeowner that has repaired screen windows or doors.

\*\* You may substitute caulk with four 3/4-inch rubber washers.

\*\*\* Gutter elbows are only needed if you are going to redirect water from an existing gutter system into your rain barrel. You may also purchase special hose attachments that plug into an existing gutter down-spout.