

# Why Rain Barrels?



- ◆ Rain barrels reduce stormwater runoff, especially polluted “first-flush” runoff
- ◆ Rain barrels save on water bills
- ◆ Rain barrels provide healthy , chemical-free water for irrigation of lawns, gardens, and trees
- ◆ Rain barrels can be connected to a rain garden, further improving our water quality
- ◆ Rain barrels can be an attractive, yet functional addition to the landscape

## Rain Barrels - The Facts

A prolonged drought plagued the Hopkinsville area during 2007 causing the loss of many valuable landscaping plants and prompting water rationing. Water conservation and development of alternative water supplies is necessary to meet a growing demand for fresh water.

Rain barrels are an alternative water supply anyone can construct and use. Rain barrels capture, divert, and store rainwater for later use. Collected rainwater is often used in landscaping, because the water is free of salts and other harmful minerals. It can also be used to provide water for wildlife.



Large rain barrel

Installing rain barrels directly benefits our city by reducing demand on the water supply, and reducing run-off, erosion, and contamination of surface water.

In many communities, 30 to 50 percent of the total water is used for landscape irrigation. Capturing rainwater for use in the landscape makes efficient use of a valuable resource, reducing water bills and reducing demand on water supply.

Capturing rainwater using barrels can also help to prevent flooding and erosion, turning stormwater problems into water supply assets by slowing runoff and allowing it to soak into the ground. Reducing stormwater runoff helps reduce contamination of surface water with sediments, fertilizers, and pesticides.



Urban flooding



Oil spills



Sediment-laden runoff



## Rain Barrels - Frequently Asked Questions

### How large of a rain barrel do I need?

You may start with one small 55-gallon barrel. However, if your garden is sizable, contains vegetables, or you have lots of potted plants, you may use up the entire barrel in one good watering.



55-gallon rain barrel



Linked rain barrels

To increase the storage, link two or more barrels together in a stairstep fashion, or graduate up to a larger rain barrel. Linking barrels together or purchasing one large barrel eliminates cutting multiple downspouts. One 275-gallon barrel comes with a cage, a built-in vine support! Keep in mind neighborhood aesthetics and deed restrictions when purchasing and locating your rain barrel.



275-gallon rain barrel

### How do I make my rain barrel?

You may use the materials list and the instructions provided, you may purchase a rain-barrel from a local or on-line source, or you may stay tuned for a future "make and take" rain barrel workshop.

### How do I maintain my rain barrel?

Rain barrels need periodic cleaning, especially removal of debris deposited from the downspout. Translucent, unpainted barrels may need to have algae cleaned out occasionally. Also, to prevent freeze damage, barrels should be emptied, dried, and stored over-winter.

### Can I paint my barrel?

Yes! Match your house, camouflage the barrel, or be creative.



## Materials List for Basic Rain Barrel

<i>Materials</i>	<i>Cost</i>	<i>Location</i>	<i>Location Details</i>	<i>Comments</i>
(1) 55-gallon plastic barrel (white)	\$12.00	Billy Frogue's	On Hwy 68/80 service road between MM 3 & 4, Todd Co.	Good selection. (270) 265-5007
(1) Small pool skimmer basket	\$9.00	Water Witch	on Pembroke Road between Skyline Drive and Parkway	Allows easy removal of debris and cleaning of barrel
(1) Poly Full-Flow Shutoff Valve for Garden Hose (Gilmour)	\$5.50	Lowe's	in Garden Hose Section (may be seasonal)	Item #213282
(1) 25' 1-1/4" drain hose kit (black), or equivalent***	\$9.00	Lowe's	in Plumbing Section	***Makes 2+ overflow hoses
(1) 1-1/4" Adapter Insert FIPT (dark grey)	\$2.00	Lowe's	in Plumbing Section	Item #54129
Silicone caulk	***	Lowe's	in Paint/Caulking Section	***Can be used on several barrels
Teflon tape	***	Lowe's	in Plumbing Section	***Can be used on several barrels
<b>Basic Rain Barrel Cost Estimate:</b>	<b>\$37.50</b>			
<i>Tools</i>				
Drill w/7/8" and 1-1/4" hole saws; smaller bit for starting hole on barrel top				
Reciprocating saw, jig saw or coping saw				
Screwdriver				
<i>Other Materials</i>	<i>Cost</i>	<i>Location</i>	<i>Location Details</i>	<i>Comments</i>
Flexispout (optional)	\$8.00	Lowe's	in Gutters/Roofing Section	If downspout needs redirection
Fiberglass window screen (optional)	***	Lowe's	in Windows/Doors Hardware Section	***One roll can be used on several barrels
Garden hose (2' to 6')	varies	Lowe's	in Garden Hose Section (may be seasonal)	Keep it short for filling watering cans
Soaker hose (optional)	varies	Lowe's	in Garden Hose Section (may be seasonal)	If rain barrel is adjacent to plantings

- ◆ Cost per barrel goes down when making more than one rain barrel.
- ◆ Locations are only suggestions. Any food-grade drum source, home improvement store, or pool supply store should carry the above supplies.

## Rain Barrel Instructions

<i>Top Hole for Water Input from Downspout</i>	
1	Using bottom of pool skimmer basket, trace circle in top center of barrel with pencil.
2	Cut out the hole for the skimmer basket using a reciprocating saw (wood blade), coping saw, or jig saw.
3	Smooth/sand edges of circle if necessary.
<i>Lower Hole for Garden Hose Shutoff Valve</i>	
1	Starting about 1" - 1-1/2" up from bottom of barrel, drill a hole using the 7/8" hole saw. Use gentle pressure to reduce kickback. Increase hole diameter as needed to fit the shutoff valve.
2	Screw in the shutoff valve, then back it out, apply teflon tape, and a bead of silicone caulk on flange edge to seal. Rescrew back into hole.
<i>Upper Hole for Overflow</i>	
1	Starting about 4"-5" from top of barrel, mark center of overflow hole. Typically this hole is at a 90-degree angle from the lower hole for the garden hose.
2	Drill a hole using the 1-1/4" hole saw.
3	With some force, pop the 1-1/4" Female Adapter for the drain hose into the hole. Seal around opening with a bead of silicone caulk (optional).
<i>Connecting the Barrel</i>	
1	Let all glued and siliconed parts cure for 24 hours before connecting hoses.
2	Position barrel on sturdy platform at least 12"-16" above ground near/under downspout. Raising the barrel facilitates the flow of water and ease of access to lower hole for the garden hose. Cinder blocks can be used and topped with a more aesthetic 24" cement paver. Keep in mind the barrel can weigh up to 400lbs when full of water.
3	Insert pool skimmer basket into hole on top of barrel. Line inside with window screen to protect against mosquitoes (optional). Use PVC cement to attach screen to basket, but do NOT glue basket to barrel.
4	Modify downspout and position into the skimmer basket. Most likely, the downspout will need to be shortened using a hacksaw. A plastic Flexispout can be purchased for maximum flexibility and location options. Use Metal Self-Drilling screws to attach the Flexispout to shortened downspout.
5	Connect the drain hose to the overflow adapter. Trim the hose connector end to the appropriate size, and use the included clamp to fasten. Drain hose away from house foundation.
6	Connect garden hose to the lower hole shutoff valve. Apply teflon tape (optional). Turn valve to OFF until ready to use.
7	Ready!
<i>Options</i>	
1	Paint the barrel. Using a spray paint for plastic, paint the barrel to match the house or the surrounding shrubs. Artistic renderings can also be pretty once the barrel is primed. White translucent barrels can promote algae growth, so painting is recommended.
2	Landscape the barrel on the sides for camouflage. Or, place potted plants conveniently next to their water source to hide the raised base.
3	Connect a soaker hose to the hose adapter and open the valve when needed to slowly water an adjacent garden.
4	Connect two barrels in series to collect more rainwater. Simply connect the upper overflow hose to another lower rain barrel. Second rain barrel must have an overflow.