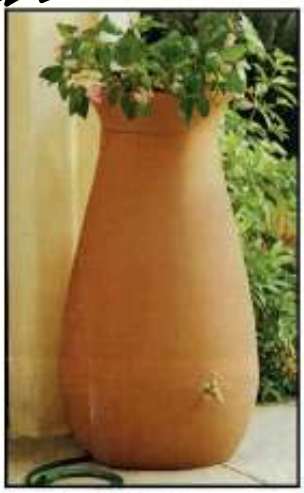
Stormwater Corner
Rain Barrels



Contemporary 65 Gallon Urn
Made of UV-stable, scratch and chip resistant polyethylene. Removable top has a recessed basin for storing watering accessories or displaying a potted plant.

English-Style 40 Gallon Rain Barrel
A built-in screen filters debris. 25% recycled plastic.

Paint options for the 55 gallon size

55 gallon rain barrel before painting. Re-used food container; barrels made of heavy duty plastic.

Rain barrels are an easy and inexpensive way to catch and reuse the water that would usually run off of your roof during a storm event. Normally when it rains, water runs off of your roof into your gutters and eventually into the storm drain system. Anyone who has installed rain barrels on their home can capture that water and use it during dry conditions.

Rain barrels prevent one of the largest sources of surface water pollution, Storm-water runoff. When rain hits a roof, drive-way, or any impervious surface, it picks up any pollutants such as sediment, motor oil, fertilizers, or trash and carries it to storm drains. The water that enters a storm drain is not treated before it enters our waterways and so carries all those pollutants with it. When rain barrels capture the rain, it also means less erosion because there is less water running off the surfaces of our yards.

Rain barrels also conserve water and save you money in the long run. In the summer an esti-mated 40% of a home-owners bill is used in watering lawns and gardens. East Tennessee re-ceives about 47 inches of rainfall per year. With a one inch rain event a 1,000 square foot roof will have 623 gallons of runoff, more than enough to completely fill 4 rain barrels!

Rain barrels are designed to be easy to use. It is a simple container attached to or placed under the downspout of a gutter system. It has a mesh cover or strainer to prevent insects, animals and leaves from entering the barrel, an overflow for when the barrel fills with water and a spigot that a hose can be attached to. During a rain event, the roof run-off is stored in the barrel and can be used during dry periods for watering a yard or a garden.

If you are interested in having rain barrels installed at your home or have more questions, please contact the Fort Loudoun Lake Association at 865-523-3800 or Rachel@FLLake.org. Even if you want to purchase only one barrel, you will have water for future use and you will stop a lot of stormwater from entering our storm drains and waterways. We sell several types and sizes of

Stormwater Corner
Rain Barrels

rain barrels (shown here). 55 gallon rain barrels are constructed at our office from containers that previously held food materials. These barrels are $125 for unpainted and $150 painted. They are blue or white before painting and can be painted in dark brown, almond, river rock or brick red. In addition, we also carry a 40 gallon English style rain barrel for $150 and a 65 gallon urn style rain barrel for $250. Price includes delivery and installation. Additional delivery charges may apply for those living outside the Knoxville metro area. Installation is generally standard but may require additional charges between $5-$65.

The idea of storing water for later use has been around for a long time. In the past, people stored water in cisterns and ponds for use. Modern rain barrels are simply an updated version of a very old idea.

All of the proceeds from the sale of the rain barrels will go to the Fort Loudoun Lake Association to help us continue our mission of cleaning up the water in Fort Loudoun Lake.

To determine how many rain barrels you need to effectively capture the water that comes off your roof, simply follow the steps below. When determining how much water runs off of your roof, the standard rule is to assume that 1 inch of rainfall on a 1000 square foot roof will create 623 gallons of runoff.

1. Step One: Determine the square footage of your roof.

2. Step Two: Calculate the runoff of your roof using the following equation:

   --(square footage of your roof x 623) divided by 1000 = gallons of runoff per average storm.
   --Example: (960 sqft x 623) / 1000 = 598 gallons per storm.

That sure is a lot of water! But, rain barrels are not 100% effective. Most rain barrels are in-between 70% and 90% effective. To factor this into your equation, follow step three.

3. Step Three: Determine minimum and maximum amount of runoff that can be collected during an average storm using the following equation:
   --gallons of runoff per storm x 0.7 (70%) = min gallons per storm that can be collected

Stormwater Corner
Rain Barrels

--ex. 598 gallons x 0.7 = 419 min gallons per storm that can be collected
--gallons of runoff per storm x 0.9 (90%) = max gallons per storm that can be collected
--ex. 598 gallons x 0.9 = 538 max gallons per storm that can be collected

So, a rain barrel in East Tennessee could collect a minimum of 419 gallons and a maximum of 538 gallons of rooftop runoff from a 960 square foot roof in from a 1- inch rain event.

4 Step Four: Determine how many rain barrels you need.

--min gallons per storm that can be collected divided by 55 gallon rain barrel = min number of rain barrels
--ex. 419 gallons per storm divided by 55 gallon rain barrel = 7.6, or 8 rain barrels
--max gallons per storm that can be collected divided by 55 gallon rain barrel = max number of rain barrels
--ex. 538 gallons per storm divided by 55 gallon rain barrel = 9.8, or 10 rain barrels