Applying sealant - Apply silicone rubber sealant on the outside of the barrel at the brass hose bibb and the elbow adapter for overflow.


Situate colander - Place colander right side up in hole on top of barrel. No need to permanently attach to top.

## Step 3: Set Up Rain barrel and Modify Downspout

Select downspout for placement of rain barrel. Set concrete blocks under downspout. Place barrel on blocks. Measure and cut off downspout with hacksaw so that the bottom of the downspout will fit inside the colander. Place barrel directly under downspout so that water from the guttering drains directly into the colander.

## TIPS

- Contact your local farm supply store or beverage company to obtain barrel.
- Drain water for use on a regular basis.
- Use water for plants, washing cars.
- Avoid keeping water in barrel too long to prevent mosquitoes from breeding. Try placing MOSQUITO DUNKS® in barrel.
- At end of growing season, empty barrel and leave hose bib open. Affix flexible downspout tubing and direct roof runoff away from house for the fall and winter.


Funded by a grant from the Virginia Environmental Endowment with re-printing paid through a grant from the Virginia Department of Environmental Quality (319-2011-P10-PT and 319-2011-P13-PT) to the Upper Tennessee River Roundtable, Inc., a nonprofit organization dedicated to restoring clean water in the Clinch, Holston and Powell rivers in the Upper Tennessee River watershed from Lee County to Wythe County in Southwest Virginia.

## Upper Tennessee

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How to Build and Install a Rain Barrel

## What is a Rain Barrel?

A rain barrel collects and stores rainwater from a rooftop. The water can be used for watering plants or washing cars. Without a rain barrel, rain water runs through a downspout, onto a lawn and sometimes onto a paved surface that eventually goes into a storm drain and into a waterway. Rainfall can carry pollutants, such as oil, fertilizer and pesticides, from paved surfaces and yards into nearby streams.


## Why use a Rain Barrel?

Rain barrels conserve water and save money. One inch of rainfall on a $30^{\prime}$ by $40^{\prime}$ roof can generate 700 gallons of water. A 28 gallon barrel, such as the one shown above, fills very quickly even with a small amount of rainfall. A 55 gallon barrel also fills fairly quickly. Rain barrels also reduce water pollution by reducing storm water runoff.

## Supplies Needed

130 to 55 gallon plastic barrel 1 plastic colander
Cardboard
1 tube silicone rubber sealant
1 tube quick set epoxy
$1 / 2$ inch brass hose bibb
$11 / 16$ to $11 / 4$ inch metal clamp 1 inch PVC straight adapter insert (either male or female)
1 inch PVC elbow adapter insert (either female or male, but opposite of straight adapter)
$1 / 2$ inch plastic lock-in nut
26 to 42 inch section of 1 inch sump pump tube, depending on barrel size
2 to 4 cinder blocks

TOOLS NEEDED

| Drill | $1 / 4$ inch drill bit |
| :--- | :--- |
| Jigsaw | $3 / 4$ inch spade drill bit |
| Hacksaw | $11 / 4$ inch spade drill bit |
| Adjustable wrench | Black marking pen |
| Tape measure | Scissors |
| Screwdriver | Pocket Knife |

## Step 1: Cut Holes in Barrel

Cut opening in top for colander - Make a template by putting the colander upside down on a piece of cardboard and trace around it with a black marking pen. Cut out the template approximately $1 / 4$ inch inside the traced outline with scissors. Place this template on top of the barrel close to one side and trace around it with the pen. Using a $1 / 4$
 inch bit, drill a hole at inside edge of traced line. Then, using a jigsaw, start at this hole and cut out colander opening. Check to be sure the colander fits inside this opening. If dirty, rinse barrel thoroughly with water before proceeding.


Cut lower drain hole for hose bibb - On side of barrel directly opposite the colander opening,

measure about one inch above bottom of barrel where barrel begins to rise toward top. Using a $3 / 4$ inch spade bit, drill a hole through the barrel side.

Cut upper overflow hole - With the lower drain hole as reference, go straight vertically to top of barrel, then one quarter of the way around the barrel to the right or to the left. Next, mark the upper overflow hole about three inches below the band rim on side of the barrel. Using a $11 / 4$ inch spade bit, drill a hole through the barrel side.

## STEP 2: AsSEMble Parts

Attach hose bibb to bottom drain hole - Insert hose bibb into bottom hole and turn until back is flush with barrel. Put some quick set epoxy on the $3 / 8$ inch lock-in nut and put it on the back of the hose bibb inside the barrel. Secure tightly with wrench. Be sure to align hose bibb so that outlet is straight down.

Insert overflow - Put 1 inch elbow adapter into overflow hole on outside of barrel. Then, on inside of barrel, attach 1 inch straight adapter to back of elbow adapter. Be sure open end of elbow adapter is directed straight down.

Attach sump pump tube to top overflow holeAttach 1 inch sump pump tubing to open end of elbow adapter. Put metal clamp on tubing to

