



## Adopt-A-Stream

The Adopt-A-Stream Program is a citizen-based monitoring and litter prevention initiative intended to protect the health and serenity of our local waterways. Here's how you get started helping:

- 1) Gather a team and select a coordinator.
- 2) Pick a section of stream to adopt.
- 3) Commit to **annually** conducting:
  - 1 **visual assessment based on USDA protocol**
  - 1 **pipe and drain ditch inventory**
  - 2 **stream cleanups**
  - 3 **stream watches**
- 4) Contact Adopt-A-Stream.

The coordinator will attend a training and arrange and monitor annual activities for the team. The time commitment is minimal and the impacts are limitless!



Adopting a stream is a great way to protect your local environment, give back to the community, and preserve our natural waterways.

For more information, contact John Shubzda at [\(865\)215-4134](tel:8652154134), or visit the website <http://waterqualityforum.org>.

\* Sources: [www.mlgw.com/images/2010Comparison.pdf](http://www.mlgw.com/images/2010Comparison.pdf), KUB [www.kub.org](http://www.kub.org)

## Small Steps...

- ◆ **Put food coloring in your toilet tank.** If it seeps into the toilet bowl without flushing, you have a leak. Fixing it can save up to 1,000 gallons a month.
- ◆ **Install aerators on your faucets.** They release less water without compromising water pressure.
- ◆ **Shorten your showers by a minute or two.** Doing so can save up to 150 gallons each month.
- ◆ **Turn off the tap when brushing your teeth.** This can save up to 8 gallons per day.
- ◆ **Only run the dishwasher and clothes washer when you have full loads.**

## Did you know?

Water use is "double counted." Utility companies must charge for the water used, and then charge the user to clean that water. Reducing your water use helps save money and resources.

An average Knoxville house uses 15 CCF (100 cubic feet or 750 gallons) of water each month. Based on 2010 utility rates, consumption of 15CCF costs \$49.95, and waste water rates for 15CCF is \$108.41. If a family were to save 1,000 gallons (1.33 CCF) in a month, savings would be \$9.12, or 5.75% savings.\*



## CITY OF KNOXVILLE

*Citizen's Guide to Sustainability*

## Water Quality and Conservation



## CITY OF KNOXVILLE

Office of Energy and Sustainability  
City County Building, Room 655

Phone: 865-215-2029

Fax: 865-215-3035

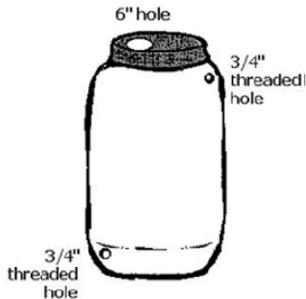
E-mail: [Sustainability@cityofknoxville.org](mailto:Sustainability@cityofknoxville.org)

# Big Steps... Make a Rain Barrel

## TOOLS

- 1x 55-gallon food grade recycled barrel
- 1x Drill with 29/32" bit
- 1x 6" hole saw
- 1x 3/4" pipe tap
- 1x 3/4" hose adapter
- Teflon tape or all-purpose caulk
- 1x 3/4" brass faucet
- 1x 6" Louvered screen
- 2x concrete blocks for a raised base
- 1x Plumbers pipe strap
- 4x Deck screws

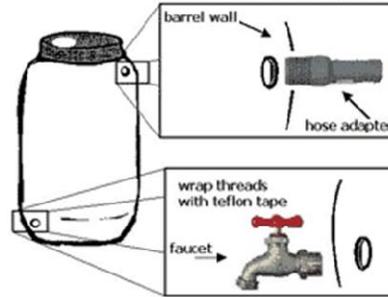
**1. Cut holes:** 6" round hole on top of barrel and two holes with a 29/32" drill bit, one towards the top for an overflow and one towards the bottom of the barrel for the faucet.



**2.** Next use a 3/4" NPT pipe tap and **twist it into the upper 29/32" hole**, then untwist the tap and back it out of the hole, then repeat the same process for the lower 29/32" hole.

**3. Twist threaded side of hose adapter** into 3/4" threaded hole towards top of the barrel.

**4. Wrap tightly** threaded side of brass faucet with Teflon tape, until all threads are covered; or apply a thin ribbon of caulk. **Then twist faucet into hole** at bottom of barrel.



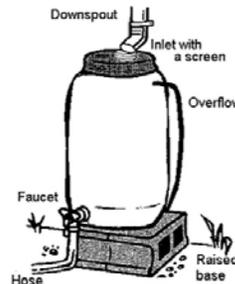
**5. Cover 6" hole** in the top by placing 6" louvered screen onto the barrel with louvered side up and screen side down.

**6. Place 2 concrete blocks** under selected downspout as a raised base.

**7. Cut your downspout** about 4" above the top of the barrel, **add an elbow**, and make any final adjustments to the base and barrel.

**8. Slide a hose onto hose adapter** at top of barrel to direct overflow water away from your home. Add a hose on the faucet or keep it available to fill a watering can.

**9. Secure your rain barrel to the house** with aluminum banding & screws. Enjoy your rain barrel!



## WHERE TO BUY A RAIN BARREL

**Ft. Loudon Lake Association**—\$40 provides you with a workshop on how to install and maintain barrels and provides you with the barrel and accessories

**Sam's Club**—\$80 for a plain barrel

**Earth Fare**—\$80 for a plain barrel



In the summer an estimated 40% of a home-owners bill is used in watering lawns and gardens. East Tennessee receives 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! *(Ft. Loudoun Lake Association)*