



# BACKYARD CONSERVATION

*It'll grow on you.*

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## RAIN BARRELS



### What Is a Rain Barrel?

A rain barrel is a container system that collects and stores rainwater from your roof that would otherwise run off and eventually be diverted to storm drains, streams, and rivers. It is composed of a 55 gallon drum (plastic or wooden), a vinyl hose, PVC couplings, a screen grate to keep debris and insects out, and other common items. A rain barrel is relatively simple and inexpensive to construct and can sit conveniently under your gutter downspout.

### What Are the Advantages of a Rain Barrel?

Lawn and garden watering make up nearly 40% of total household water use during the summer. A rain barrel collects water and stores it for when you need it most—during periods of drought—to water plants, wash your car, or top a swimming pool. It provides an ample supply of free “soft water” to homeowners, containing no chlorine, lime or calcium. This makes it ideal for gardens, flower pots, and car and window washing.

A rain barrel will save most homeowners about 1,300 gallons of water during peak summer months. Saving water not only helps protect the environment, it saves you money and energy (decreased demand for treated tap water). Diverting water from storm drains also decreases the impact of runoff to streams and rivers. Therefore, a rain barrel is an easy way for you to help protect our watersheds and have a consistent supply of clean, fresh water for outdoor use, for FREE!

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**Before beginning any project, check homeowner association covenants, as well as local and county ordinances. Do not work in a drainage, utility, or other easement without the proper permits.**

**Contact your local county Soil & Water Conservation District for additional information.**

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### Why Is This Important?

Runoff from impervious surfaces (like roof tops, driveways, sidewalks) adds up. Too much water in the streams erodes their channels and destroys habitat. Excess runoff from yards and gardens can cause erosion problems and can wash potential pollutants like lawn fertilizers or pesticides from your yard or oil from your driveway into the stream and eventually to our drinking water.

### Water Harvesting Benefits

- Reduces runoff volumes.
- Conserves water for reuse.
- Provides irrigation water during watering restrictions.
- Saves money and energy.
- Protects watersheds.
- It's clean and fresh (never drink water from a rain barrel or allow your pets to).
- It's FREE!

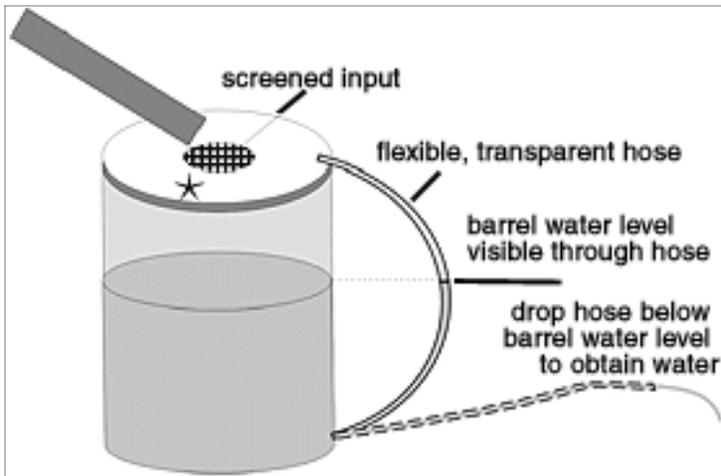
The average U.S. household uses 146,000 gallons of water per year with up to 50 % of that water going towards landscaping during the summer months. By collecting rainwater, one can save energy, water, and money —**as much as \$600 a year**. Rain barrels also help reduce erosion, stormwater runoff

# Make a Rain Barrel System at Home

Building your own rain barrel is relatively easy. The following approach is fairly inexpensive and hassle free (about \$15.00—\$20.00 to build). All of the following materials can be purchased at your local home improvement center or hardware store.

You will need the following materials:

- One 55-gallon drum (wooden or plastic).
- 3.5-foot vinyl hose (3/4" DD x 5/8" ID).
- One 4" diameter atrium grate.
- One 1/2" PVC male adapter (will be attached to bottom of rain barrel).
- One 3" vinyl gutter elbow.
- Waterproof sealant (i.e. plumbers goop, silicone sealant, or PVC cement).
- One 3/4" x 1/2" PVC male adapter (will be attached to end of hose and readily adapted to fit standard garden hose).

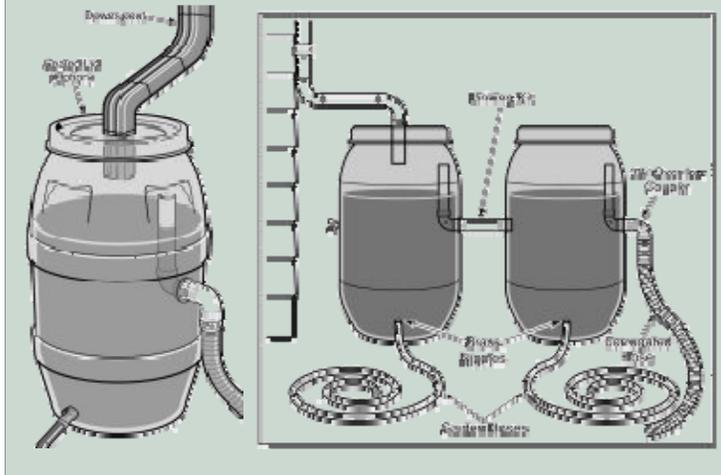


You will need the following tools:

- Drill with 3/4" bit (or use hole saw to cut 3/4" hole).
  - Router, jig saw, or coping saw.
  - Measuring tape.
  - Other items as needed.
1. *Drill holes for fittings.* First, drill three holes in the barrel: one for the spigot to connect your garden house to the barrel and the others to allow for more barrels in the future. One of the barrels must have an overflow fitting near the top of the barrel. If you plan on using 3/4" fittings, use a 1" hole saw to cut the holes. If you have an adjustable hole saw, make it a little smaller than 1".
  2. *Attach fittings.* Place plumbing sealant on a 3/4" galvanized metal nipple and its threads. Using a pair of locking pliers, thread the nipple into the barrel hole for the fitting.
  3. *Cut the down spout at the proper height.* You should place the rain barrel on one or two concrete blocks and then determine the proper height. After cutting the down spout, attach the necessary elbows and extensions to have the down spout reach the barrel. Attach a 4" by 2" ABS plastic converter to the end of the down spout and attach a fine mesh screen over the converter (you can use a paint sprayer filter which you can get at a hardware store for about \$1).
  4. *Add additional barrels.* If you wish to add more barrels, do so at this time. Attach a garden hose Y fitting on the 3/4" nipples. Position the barrels on top of the concrete blocks and cut the right length of garden hose to connect the barrels (with male fittings attached to both ends).
  5. *End product.* Attach an overflow line on the first barrel. Place it near the top of the barrel and attach it to a hose or tube for any overflow. Note that you must remove one of the two fittings on the top of the barrel and cover it with a small screen.

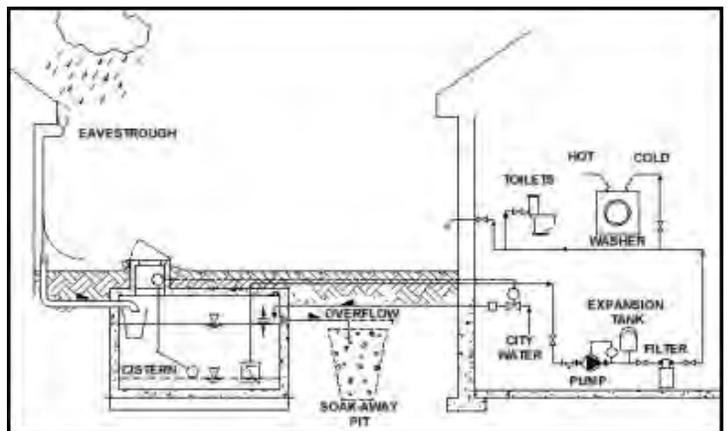
## Commercial Rain Barrel Systems

The Spigot Irrigation System is a kit comprised of a standard hose fitting on a 25' long, 3/4" poly-hose. The kit comes with a 1/16" drill bit for creating holes in the hose where needed. The Overflow Irrigation System is a kit that contains a single 50' long 3/4" poly-hose, a T-connector, and the appropriate fittings and stainless steel clamps. This system is fed by the 1.25" overflow outlet that goes into a T-connector supplying two 25' long hose sections that are able to then distribute water through 1/16" holes.



## Cisterns

Cisterns can be constructed of nearly any impervious, water retaining material and are distinguishable from rain barrels only by their larger sizes and different shapes. They can be located either above or below ground, and in "out-of-the-way" places that can easily be incorporated into a site design. Commercially available systems are typically constructed of high density plastics. Cisterns can either be constructed on-site or pre-manufactured and then placed on-site.



This information is provided by the Hoosier Heartland RC&D Council's Backyard Conservation Committee and its partnering organizations: Soil and Water Conservation Districts, USDA Natural Resources Conservation Service, County Extension Service, and Indiana Department of Natural Resources.

The Hoosier Heartland RC&D Council and its partnering organizations are equal opportunity providers and employers.

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