



# “RAINING” IN THE POWER OF RAIN BARRELS

Impervious surfaces like roofs, parking lots, and roadways act as funnels, turning life-giving rain into damaging stormwater runoff. As it flows, stormwater picks up pollutants including fertilizer, chemicals, gasoline, and silt, and dumps them into streams, rivers, and the Chesapeake Bay. Stormwater is also responsible for erosion and the resulting loss of habitat for plants, aquatic life, and animals.

While a rain barrel is a great tool to use during a drought, it can also help during times of abundant rainfall. Businesses and homeowners who use rain barrels to catch the water from their roofs can stem the tide of stormwater before it begins! Captured rainwater can be stored and used to supply plants between rainfall events, or channeled into rain gardens where it can seep into the ground instead of flowing to surface waters.

*Bricks, cinder blocks or pavers work well for creating a firm base under your rain barrel.*

## Rain Barrel Primer: Yield Formula

It does not take a large roof or a lot of rainfall to add up to a big savings in your water bill.



**1 inch**  
of rain falling  
on 1,000 square feet  
yields approximately  
623 gallons of water!

Rain falling on a  
750-square-foot  
section of roof will  
fill a 60-gallon rain  
barrel with only  
**1/8 inch of rain.**



# DO'S AND DON'TS

Not all rain barrels are created equal, and it pays to know what features to consider when making or purchasing your own.

## Do:

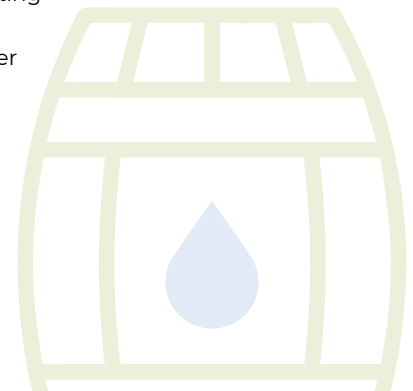
- 1 Select a barrel that is made of non-toxic, dark, UV-stable material. Sunlight plus water equals algae, which can clog the spigot.
- 2 Situate the barrel on a firm, level surface and secure the barrel to prevent tipping. A full 60-gallon rain barrel weighs at least 500 pounds and poses a tipping hazard when placed on an unlevelled surface.
- 3 Elevate the barrel slightly to increase water pressure and improve access to the spigot.
- 4 Ensure the barrel's spigot is made of high-quality metal and located at the bottom of the barrel so that all captured water can be accessed.
- 5 Always screen the rain barrel to discourage mosquitoes from breeding and spreading West Nile Virus.
- 6 Install a large overflow hose for periods of heavy rainfall. A garden hose is too small to handle rainfall rates typical of the eastern U.S.
- 7 Consider using a rain barrel that can be linked to additional barrels to increase storage capacity.
- 8 Make sure overflow hose points away from the foundation of the building to minimize any risk of property damage.
- 9 Monitor the water level in the barrel and return the downspout to normal function when the barrel is full. Heavy rains may cause the barrel intake to exceed overflow capacity.

## Don't:

- 1 Use a plastic trash can as a rain barrel. Even good quality trash cans can warp and split from the weight of collected water. Trash cans are also difficult to make child-safe and mosquito-proof.
- 2 Construct a rain barrel with adhesives or sealants because they eventually fail.
- 3 Collect and store rainwater in an open container, which pose a drowning hazard for humans and animals.
- 4 Allow collected rainwater to be used for human or animal consumption.
- 5 Leave your rain barrel full of water during the winter. Winterize your rain barrel by following these five easy tips from the [ICPRB](#)!

**Important Note!** Before setting up a rain barrel, be sure to comply with all applicable laws, rules, and ordinances pertaining to collecting and storing rainwater. If your town or subdivision does not allow rain barrels, work closely with elected officials or the homeowners association to address concerns and, hopefully, shape a new conservation policy! It is easy to screen rain barrels from view using plants, lattice, or fencing. When drafting guidelines for use, be sure to prohibit collection of rainwater in an unsafe container that poses a drowning and mosquito hazard.

**Resources** // Interstate Commission on the Potomac River Basin (ICPRB)



*Tips for Green Leaders in Frederick County* is a publication of the Frederick County Division of Energy & Environment. For more information on this topic and about our programs, visit [sustainablefrederickcounty.org](https://sustainablefrederickcounty.org), email us at [sustainability@frederickcountymd.gov](mailto:sustainability@frederickcountymd.gov), or call 301.600.1416. Sustainable Frederick County is on [Instagram](#), [Twitter](#), and [Facebook](#).