

# RAIN BARRELS CAPTURE WATER AND PREVENT POLLUTION

Rain nourishes our yards, gardens and agricultural fields. It replenishes our reservoirs and wells. With rain's benefits, however, comes a downside: *stormwater pollution*.

Stormwater runoff occurs when rain flows over impermeable surfaces like rooftops, driveways, sidewalks and streets. These surfaces prevent stormwater from naturally soaking into the ground. Stormwater runoff can carry pollutants like excess nutrients, oil, pesticides, sediment and bacteria into storm drains that channel it directly to streams and lakes, where pollutants can threaten aquatic habitats, recreation and drinking water. By capturing water running off your roof in a rain barrel, you can save water for outdoor use when you most need it and reduce the amount of stormwater entering local water bodies.



Two rain barrels in sequence capture water off a roof about 19x12 feet in size, providing a ready water source for lawn and garden. Photo courtesy of the University of Rhode Island Cooperative Extension Healthy Landscapes Program.

A rain barrel is a simple rain catchment that collects and stores rain for later use watering your lawn and garden. The University of Rhode Island estimates that residential water use increases 40 to 50% during summer months due to outdoor water use. A rain barrel can save homeowners roughly 1,300 gallons of water during the peak summer months. By decreasing their demand for treated tap water, a rain barrel saves city residents money on their water bill. A rain barrel helps residents on wells use that water wisely.

A ready-made rain barrel can be purchased typically for \$90-140 depending on size and style, or you can construct one on your own for less. If you construct one from a used barrel, be sure that the barrel is food-grade to ensure that it has not held chemicals that could contaminate water and soil. A rain barrel consists of a large drum for holding the water, a fitted lid that keeps mosquitoes from breeding, an atrium grate that prevents debris from getting into the barrel, a gutter elbow that redirects water towards the barrel, and a hose that diverts overflow away from your house in case of a heavy rain. Teflon tape and waterproof sealant are used to fit the pieces of the barrel together.

For more information about rain barrels and instructions to construct your own, visit the University of Rhode Island Cooperative Extension Healthy Landscapes Program at [www.uri.edu/ce/healthylandscapes/rainbsources.html](http://www.uri.edu/ce/healthylandscapes/rainbsources.html) or the Maryland Environmental Design Program at [www.dnr.state.md.us/ed/rainbarrel.html](http://www.dnr.state.md.us/ed/rainbarrel.html).

*By Tania Schusler, environmental issues educator at Cornell Cooperative Extension of Tompkins County, and Laura McIntyre, environmental education intern. Summer, 2005.*