

# RiverSmart Homes

## Clean Water Starts in Your Yard

# ABOVE GROUND CISTERNS

### Stormwater Runoff and the District of Columbia

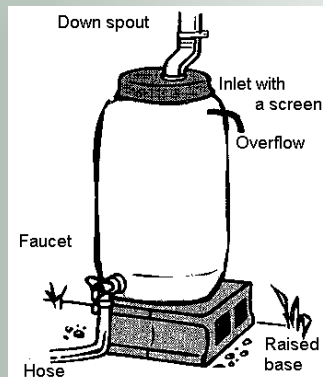
Stormwater runoff is rainwater that flows off impervious surfaces such as rooftops, driveways, roads, sidewalks and sometimes even lawns. Stormwater runoff travels from these surfaces to our streams, picking up pollutants such as oil and grease from our roadways and driveways as it goes. Nutrients from lawn fertilizers and bacteria from pet waste may also be picked up by stormwater and carried to our streams.

**Above ground cisterns in your yard will help reduce stormwater runoff, which will help the District's streams and rivers**

#### Above Ground Cistern Defined

Above ground cisterns, commonly referred to as rain barrels, capture and store the rainwater running off your rooftop. The harvested rain water can be stored for later use, released slowly over time to infiltrate properly, or used immediately for outdoor tasks such as watering lawns and landscaped areas, filling ponds or fountains, or washing cars.

Above ground cisterns come in a variety of sizes and shapes to suit your tastes. Improvements in their design eliminates the threat of basement flooding and also keeps them from becoming a breeding ground for mosquitoes.



*Above ground cistern attached to downspout.*

#### Benefits of Above Ground Cisterns to the Homeowner

Above ground cisterns require little maintenance and—with the rising price of municipal water—are a great way to save money and conserve water as a natural resource. Specifically, with an above ground cistern you can:

- Cut your household use of water during the hot summer months;
- Water your plants with chlorine-free rainwater that they prefer;
- Clean your car, bike, tools, etc. without ever turning on the faucet; and
- Save \$\$ on water bills.

#### Benefits of Above Ground Cisterns to the District

The District is promoting the use of above ground cisterns because they collect runoff from rooftops that runs directly into our streets and storm sewers, carrying it (and the pollutants it collects) directly to the local waterways. Above ground cisterns also:

- Decrease municipal water use, lowering demand for treated water – especially during periods of drought;
- Increase soil moisture levels for gardens;
- Assist in recharging the groundwater table when emptied after rain events; and
- Mitigate the threat of urban flooding when used on a large scale.

#### Did you know?

The 34,300 gallons of rain water that falls on an average roof per year, could potentially be harvested to water the typical lawn 45 times.



DISTRICT DEPARTMENT OF THE ENVIRONMENT



### How to Have an Above Ground Cistern

Above ground cisterns are connected to your downspout. They should be located in an easily accessible area and not too far from the intended use of the stored water (i.e. a garden or driveway). To facilitate the use of gravity, the above ground cistern should be placed on the highest level that is workable, or on a small stand. Cisterns should have an overflow valve that directs water away from the foundation of your house.

### Above Ground Cistern Resources

Rain Barrel Guide: How to use rain barrels for water collection  
[www.rainbarrelguide.com](http://www.rainbarrelguide.com)

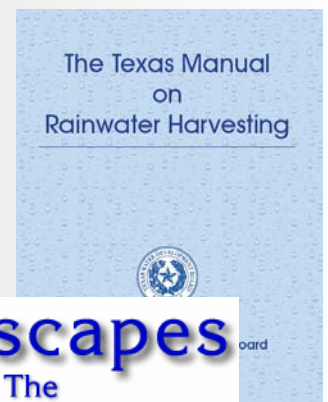
Rainscapes: The Irrigation Professionals  
[www.rainscapes.com](http://www.rainscapes.com)

The Texas Manual on Rainwater Harvesting  
[http://www.twdb.state.tx.us/publications/reports/RainwaterHarvestingManual\\_3rdedition.pdf](http://www.twdb.state.tx.us/publications/reports/RainwaterHarvestingManual_3rdedition.pdf)

**Do-it-yourself Designs for Cisterns:**  
Center for Watershed Protection  
[www.cwp.org/Community\\_Watersheds/brochure.pdf](http://www.cwp.org/Community_Watersheds/brochure.pdf)

Maryland Department of Natural Resources  
[www.dnr.state.md.us/ed/rainbarrel.html](http://www.dnr.state.md.us/ed/rainbarrel.html)

Arlington Echo Outdoor Education Center  
[www.arlingtonecho.net/Restoration-Projects/Rain-Barrels.html](http://www.arlingtonecho.net/Restoration-Projects/Rain-Barrels.html)



*Want an Above Ground Cistern in Your Yard?  
RiverSmart Homes Can Help.*

The District Department of the Environment (DDOE) RiverSmart Homes is a program specifically designed for District residents. The program offers incentives to homeowners interested in reducing stormwater pollution from their properties. Above ground cisterns are one of the environmentally friendly landscaping practices available through this program. For more information, visit: [ddoe.dc.gov/riversmarthomes](http://ddoe.dc.gov/riversmarthomes)