

# Rain Barrels:

*A Capital Idea  
in Capturing  
and Reusing  
Roof Runoff*

**The District of Columbia  
Rain Barrel Program**



GOVERNMENT OF THE DISTRICT OF COLUMBIA  
**DOH**  
DEPARTMENT OF HEALTH

**ALLIANCE**  
*for the*  
CHESAPEAKE BAY

*Rain barrels are a centuries-old technique used by many cultures to collect rainwater from rooftops for later use.*

**Benefits of rain barrels are:**

- Free rainwater = lower water bills and reduced water usage
- Reduced stormwater run-off (and associated pollutants) into local rivers and the Chesapeake Bay
- Conserving water during hot, dry summer months
- Chlorine-free water for greener gardens.

Water from your rain barrel can be used for watering lawns and gardens, washing cars and household windows, and bathing the family pet. In an urban setting such as the District of Columbia, over 40% of the domestic water supply is used outside the home. *Please note: Water collected in a rain barrel is not for human consumption.*

Rain barrels are most effective if combined with other innovative storm water techniques such as rain gardens, green roofs, grassy swales and pervious pavers.

**Stormwater and the District of Columbia:**

*Why rain barrels can help*

Approximately 65% of the District's natural groundcover has been replaced with impervious surfaces, such as roads, buildings, and parking areas. Even lawns and playing fields can be mostly impervious due to heavily compacted subsoils.

When it rains, these surfaces generate large volumes of surface runoff. This runoff, often contaminated with pollutants

(fertilizers, pesticides, sediments, and heavy metals), flows untreated into the Anacostia River and Rock Creek through storm drains and from sewage treatment plant's overflow.

Installation of rain barrels helps to slow down the rate and/or reduces the total volume of stormwater by capturing and detaining it before entering the system.

**Pre-installation tips**

- The overflow from the barrel must be directed into a landscaped bed or lawn area on your property at least four feet away from the foundation.
- The barrel must be placed on a flat and level surface.
- The barrel should be raised about two feet off the ground in order to enhance gravity flow into a hose, to easily fill a watering can and/or to empty it for cleaning and winter storage. Cinder blocks, landscaping blocks, or a well built wooden box or platform will provide a good base for the barrel.
- Clean your gutters on a regular basis to prevent the buildup of organic debris (i.e. leaves). This will reduce debris from filtering into the rain barrel.
- Make sure your gutters are draining properly to prevent mosquitoes from breeding in the gutter. If mosquitoes lay eggs in the gutter there is a chance of them being flushed into the barrel during a rain event. However, the likelihood of this occurring is reduced as a result of a screened lid provided with each rain barrel. In addition, mosquitoes larvae require 6 to 9 days in standing water to become adults that can spread West Nile Virus, making it even less likely that this would be a concern. *See resource section for website information on West Nile Virus.*



## How to install your rain barrel

Before placing the barrel under the downspout, install the hose fittings per the instructions that come with the barrel. The following are general instructions to retrofit an external downspout to the barrel. This may vary depending on the position and style of your downspout. A hacksaw will be needed to cut the downspout material to size.



### Step #1

Remove the bracket that fastens the elbow and lower section of downspout. Measure the height of the barrel and the surface it will sit on. Also, allow one to two inches for the elbow to sit above the barrel.

### Step #2

Use a fine toothed hacksaw to cut the downspout based on the measurements in Step #1. It may be necessary to "pinch" the four corners of the downspout for it to fit inside the elbow.

### Step #3

Reinstall the elbow, then the downspout clamp.

### Step #4

Install the rain barrel under the downspout. Attach a hose to the top overflow connection and keep the valve open to divert excess water into a landscaped area. Remember...all water from this barrel must remain on your property.

## Maintenance tips...

### Early spring

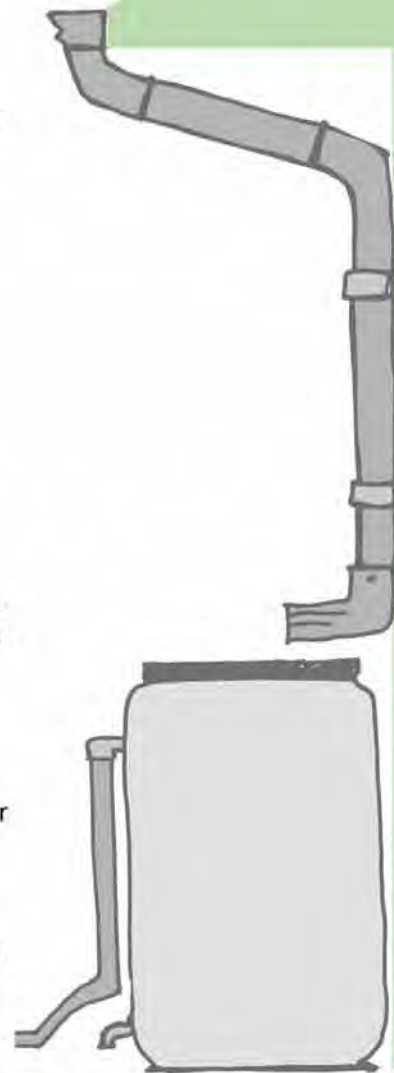
Place the rain barrel under the downspout and begin collecting water for the growing season.

### Late spring through early fall

- Visually inspect the barrel to make sure that connections and fittings are in proper working order and the screen is clean of pollen and/or debris from the gutter;
- Refrain from using the brass spigot or the other fittings as a means to lift and move the barrel;
- If the rain barrel is full, make sure the top valve is open to allow overflow. The excess water must remain on your property; *and*
- Make sure the screen is securely attached to the barrel to prevent mosquitoes (eggs) from entering the rain barrel.

### Late fall

Before hard freezes begin, fully drain the barrel by first opening the water spigot, then open the bottom drain plug. Remove the lid and screen and turn the barrel upside down to finish draining the barrel. Rinse the barrel with fresh water to remove any seasonal organic debris. Because an empty barrel is light weight and winter winds can blow it away, either secure the barrel or store it in a protected place. *Note: If the barrel contains water and is allowed to freeze, it may crack or be damaged.*



*Place your rain barrel under the downspout, ensuring that the ground is firm and level, and the overflow is directed away from your house!*

## Resources

### *D.C. Greenworks*

<http://www.dcgreenworks.org/LID/rainbarrels.html>

### *Harvest Water with Rain Barrels*

<http://rainbarrelguide.com/>

### *Building a Simple Rain Barrel*

Maryland Department of Natural Resources

<http://www.dnr.state.md.us/ed/rainbarrel.html>

### *Out of the Gutter — Reducing Polluted Runoff in the District of Columbia*

Natural Resources Defense Council, July 2002.

[www.nrdc.org/water/pollution/gutter/gutterinx.asp](http://www.nrdc.org/water/pollution/gutter/gutterinx.asp)

### *Rain Gardens: Harvesting the Heavens*

Montgomery County, MD.

<http://www.montgomerycountymd.gov/mc/services/depl/rainscapes/home.html>

### *West Nile Virus information*

[http://dchealth.dc.gov/information/fact\\_sheets/westnilevirus.shtm](http://dchealth.dc.gov/information/fact_sheets/westnilevirus.shtm)



This publication was produced by the Alliance for the Chesapeake Bay, a regional non-profit organization that builds and fosters partnerships to restore and protect the Bay and its rivers.

For more information visit

**[www.AllianceChesBay.org](http://www.AllianceChesBay.org)**



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