

RAINWATER HARVESTING - RAIN BARRELS & CISTERNS

Rainwater harvesting typically collects runoff from rooftops to be stored and used for landscaping purposes. Rainwater is most commonly collected in rain barrels or cisterns. Rain barrels are generally 55-gallon plastic containers or wood barrels installed at the base of a building near a downspout. Cisterns are larger, sealed tanks – above or below ground – with capacity to collect runoff from a significantly larger area of rooftop.

STORMWATER MANAGEMENT

QUEEN ANNES COUNTY, MD

STORMWATER RUNOFF: WHAT IS IT & WHY SHOULD YOU CARE ABOUT IT?

It is water from rain or snowmelt that is not absorbed into the ground, but instead flows over land and paved surfaces. It picks up trash, chemicals, pet waste, and other pollutants. Unlike water from inside your house which is carried via pipes to a wastewater treatment plant or a septic system, stormwater runoff goes straight from the storm drain system to local waterways without being treated. As a result, stormwater runoff is a major cause of polluted water in our local waterways.



Image from Boston Water and Sewer Commission

RAINWATER HARVESTING SYSTEM BENEFITS:

Rain barrels and cisterns collect non-potable water for exterior use such as landscaping. This helps to:

- ↓ Reduce polluted runoff to our local streams
- ↓ Reduce erosion of our streambanks
- ↓ Reduce your water bill
- ↓ Reduce the use of potable water for landscaping
- ↑ Increase water conservation

By maintaining the facility on your property, you are doing your part to help protect local waterways in Queen Anne's County as well as the Chesapeake Bay.

WHAT SHOULD YOU EXPECT IF YOU HAVE A RAINWATER HARVESTING SYSTEM?

The average homeowner uses **300 gallons of water a day** – harvesting rainwater is one way to reduce your usage. A rainwater harvesting system is connected to downspouts and could be above, partially below, or completely underground. Make sure it is properly installed with a secure lid to prevent injury and restrict access by children and/or animals. Make sure to drain your rain barrel/cistern at regular intervals and keep debris clear from the inlet and overflow.

RAINWATER HARVESTING SYSTEM COMPONENTS:

The primary components of a rainwater harvesting system (as shown in Figure 1) include the downspout, inlet with screen, overflow, faucet, and raised base.

- ☼ **Downspout:** collects rainwater from the roof and directs it into the rainwater harvesting system.
- ☼ **Inlet with screen:** prevents debris from entering into the rainwater harvesting system and helps keep put mosquitoes.
- ☼ **Overflow:** allows water to flow out of the practice if the amount of water collected exceeds storage capacity.
- ☼ **Faucet:** allows a hose to be attached for irrigation purposes or for the collected water to be drained and used.
- ☼ **Raised base:** elevates the device to facilitate irrigation activities.

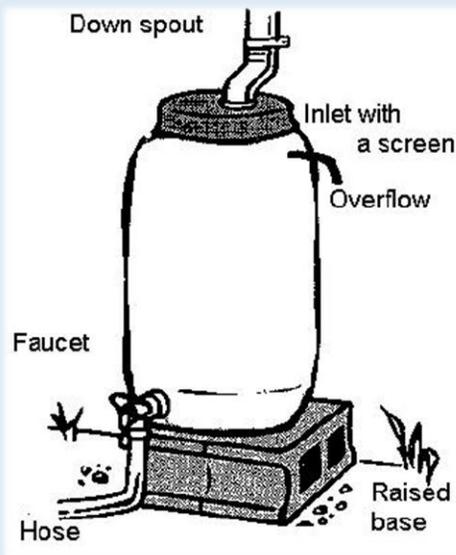


Figure 1

Image credit: Masi, Michelle. (2011)

MAINTENANCE: WHAT, WHEN & WHY?

As the property owner, you are responsible for regular maintenance of the device including:

- ☼ Clearing Debris from Inlet Screen
- ☼ Draining before rainstorms
- ☼ Draining before Winter

Unmaintained facilities will become clogged, stop collecting stormwater, may become damaged, and will no longer function properly.

MAINTENANCE DO'S & DON'TS

Do:

- Clean gutter and remove debris from inlet screen
- Drain the device between rain events
- Check for clogs or other problems that could prevent flow of water in/out of the practice
- Inspect regularly and notify SWM Division if you have concerns

DON'T:

- Don't disconnect a downspout connected to an existing dry well or other SWM practice
- Don't drink the collected water
- Don't move a full rain barrel (55 gallons of water weighs 459 lbs!)
- Don't allow water to collect during winter months and freeze in the practice

Table 1 provides recommended time frames for typical maintenance activities:

TABLE 1:	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Clean gutters and inlet screen	★	★	★	★	★	★	★	★	★	★	★	★
Drain device between rain events				★	★	★	★	★	★	★		
Disconnect to prevent freezing	★	★									★	★
Check for clogs in overflow				★	★	★	★	★	★	★		

Queen Anne's County gratefully acknowledges the Cecil County Stormwater Management Division for sharing these materials

HAVE QUESTIONS OR NEED ADDITIONAL INFORMATION?

If you have questions or would like additional information, please contact the SWM Team at 410.758.0925 or visit our website at: <https://www.qac.org/997/Stormwater-Management>