



#### Disclaimer

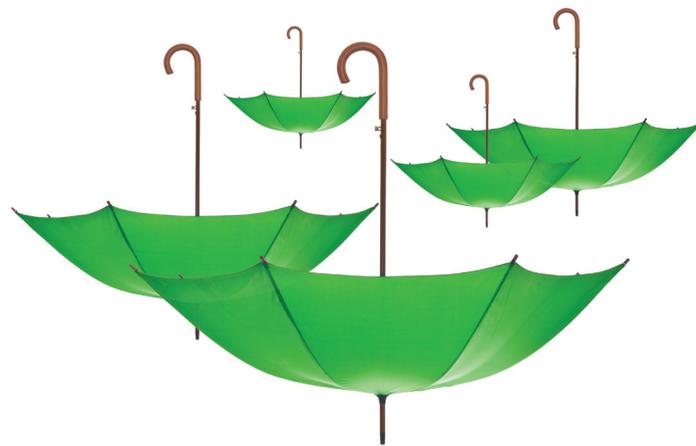
This sheet contains general principles only and they may not be appropriate for every property or project. You assume the risk and are responsible for any modifications to your property or drainage flow, for legal compliance, and for necessary permits and authorizations. Check with your municipality if you are unsure of regulations or requirements.

#### For More Information:

CRD Hotline  
250.360.3030  
hotline@crd.bc.ca

CRD Stormwater, Harbours  
and Watersheds Program  
250.360.3256  
stormwater@crd.bc.ca  
www.crd.bc.ca/watersheds

# Rainwater Harvesting



Rainwater harvesting is simply the collection and storage of rainwater. Collecting rainwater from your downspouts to use on your lawn and garden helps to slow stormwater runoff and encourage infiltration. Rainwater harvesting is a perfect fit with other natural yard care techniques, such as going pesticide free, building healthy soils, using native plants, using plants appropriate for your soil type and sun exposure, and using water wisely.



Collecting rainwater helps to protect our watersheds, streams, creeks and the nearshore environment by reducing the volume of water entering the stormwater system. During rainfall events, large volumes of rainwater enters the stormwater system, causing erosion and habitat destruction when it is discharged downstream. When rainwater is collected and used on lawns and gardens it helps recharge aquifers and groundwater supplies. In cases where roof leaders are connected to the sanitary sewer system, collecting rainwater can also reduce inflow to the sanitary sewer, which reduces the volume of wastewater that needs to be conveyed and treated.

## Storing Rainwater

There are many types and sizes of storage containers for rainwater, look for one that is durable, rot resistant and opaque. Other important factors to consider:

- Kid, pet and pest-proof lids or covers
- Valves for hose attachments
- Screens and/or filters to keep debris out of the container and to prevent mosquitoes from breeding

**Note:** it is important to use a downspout connection kit to ensure water is directed back down the downspout when the container fills, or have an overflow hose directed away from your house for heavy rainfalls

## Water Conservation

Because of the dry summers in the Capital Region, smaller sized containers, such as a 200L rain barrel will not collect enough water over the summer to help reduce your water bill. To increase water savings and environmental benefits, consider installing several rain barrels connected together or use a larger container.

## How Much Rainwater Can Be Harvested?

- The annual rainfall for the Capital Region is about 1000 mm, with the majority falling from October to March. An average of 200 mm falls from April to September.
- To calculate the amount of rain your roof will collect, determine the area of your roof, and the depth of rainfall in mm.

$$\text{Rain collected (litres)} = \text{rainfall amount (mm)} \times \text{rooftop area (m}^2\text{)}$$

- Remember to divide the amount by the number of downspouts you have to determine how much will be collected from each downspout.
- Connect storage containers together to increase your harvesting capacity.
- **Warning:** do not use untreated rainwater for drinking, cooking or bathing.



## Installing Your Rainwater Harvesting Container

Consider the following when placing your container:

- On level ground, close to your downspout and near the plants you want to water
- Raise the container to provide easier access to the spigot
- Use a downspout connection kit
- If you are not using a downspout connection kit, use a section of hose to direct overflow water away from your house into a vegetated area, such as a rain garden, but not towards neighbouring property
- If your house is on a steep slope, ensure you direct the overflow back into your existing drainage system



## Maintaining Your Rainwater Collection System

- It is important to clear off leaves and other materials from the screen and overflow to prevent clogging.
- Clean your gutters regularly.
- Do not let the water sit for longer than a month.
- Empty and clean the container annually; typically during a dry period.
- If your container fills during a heavy rainfall, check to make sure the downspout connection kit or overflows are working properly.
- Remember to use the water you collect - drain the vessel between rainfall events.



## Roof Types

If you are collecting water from the following roof types, only use the water to irrigate lawn and ornamental plants:

- Wood shingles or shakes treated with chemicals (i.e. chromated copper arsenic) to make them resistant to moss, lichen and algae growth
- Copper roofs
- Zinc (galvanized metal) roofs
- If your roof has been treated with any chemicals in the last several years
- Asphalt shingle roofs