



Catching Rain with gutters or a roof valley

Special points of interest:

- Why Rainwater Harvest
- What is Rainwater Harvesting
- Developmental Impacts
- Water Quality Issues
- How to Make a Rain Barrel

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Developmental Impacts on Water Quality

- Fertilizer
- Pesticides
- Pathogens
- Sediment
- Toxic Contaminants
- Debris
- Thermal Stress

Rainwater Harvesting

“Saving from a Rainy Day”

Why Harvest Rainwater

Rainwater Harvesting is the process of diverting, capturing, and storing rainwater for future use.

Why Harvest Rainwater?

- ◆ Reduces demand on municipal water supply
- ◆ Makes efficient use of a valuable resource
- ◆ Reduces flooding, erosion, and contamination of surface water
- ◆ SAVES YOU MONEY!!



Rainwater Harvesting
 “Saving from a Rainy Day”

What is Rainwater Harvesting

Rainwater Harvesting is the process of diverting, capturing, and storing rainwater for future use.

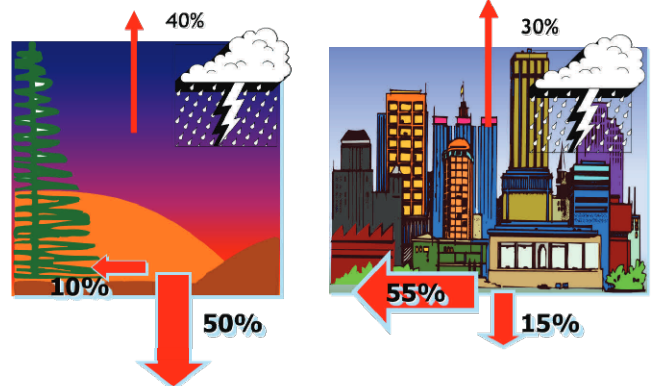
Implementing rainwater harvesting is beneficial because it reduces the demand on the water supply, and reduces run-off, erosion, and contamination of surface water.

Rainwater can be used for any purpose that requires water.

These include landscape use, stormwater control, wildlife and livestock watering, in-home use, and fire protection.

Developmental Impacts

When it rains in a natural environment (still forested and barely touched by humanity) 50% of the rainwater will soak into the ground and 10% may run off the land slowly to end up in local streams. The rest of the percentage evaporates before it hits the earth’s surface or lands on vegetation to be absorbed by the plants or evaporate. In a typical urban environment, the rain has less vegetated area to fall and infiltrate so 55% runs off the concrete and other hard surfaces. It is allowed to pick up speed and erode the land.



Putting the Barrel together



Supply List

- ◆ Barrel
- ◆ Insect netting
- ◆ Faucet
- ◆ Bulk Head Fitting
- ◆ Drill-with hole saw bit
- ◆ Saw – Jig or small hand saw
- ◆ Silicone Caulk
- ◆ Optional
 - ◆ Bungee Cord
 - ◆ Cinder Blocks

Drilling Collection Hole

Create a 5" – 6" hole on the lid using drill & paddle bit for a pilot hole and Jig saw or drywall saw to complete the large hole for collection.



Drilling the Faucet Hole

Create a 1 3/4" hole on the side of the barrel for the faucet, opposite of the collection hole, using a hole saw bit.



Installing Netting

Apply caulk around lid hole and place netting over hole working caulk outward spreading all over netting in contact with lid.



Installing Bulk Head & Faucet

Add a piece of duck tape to end of a yard stick and place bulk head male threaded piece through 1 3/4" hole on side of barrel. Place washer and female piece of bulk head on male end and tighten. Apply pipe tape to faucet thread and insert faucet in the bulk head. Use a pair of pliers to hold the bulkhead in place and turn faucet clockwise. As you tighten the faucet the bulk head should tighten making the connection water tight.

You can harvest 660 gallons of rainwater from a 1000 square foot roof with 1 inch of rain

Connecting to Downspout

Reduce length of downspout as needed. Downspout fittings may be necessary to divert rainwater into barrel.



Additional Storage

Connecting multiple barrels together using allows you to capture more rainwater



Pressure

Elevating your barrels increases the available pressure from the faucet.

