

Keyport Garden Walk

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**Utilizing Rain water run-off and
sump pump discharge in your
landscape**

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Why should I reclaim rain water ?



During a 1-inch shower, more than 900 gallons of water flow off the roof of a 30-by-50-foot house.

How can we use some of this water to our benefit ?

Benefits of Rainwater Harvesting

Save money on Water Bills by using your own water sources



Watering Gardens



No wasting money on water tankers

No water shortage due to water cuts



24 hour water supply, no need to depend on water timings



Recover installation cost within 2-3 years due to savings in water bills



Bathing

Savings of upto 200 litres of water per family in the society per day.



Cleaning cars

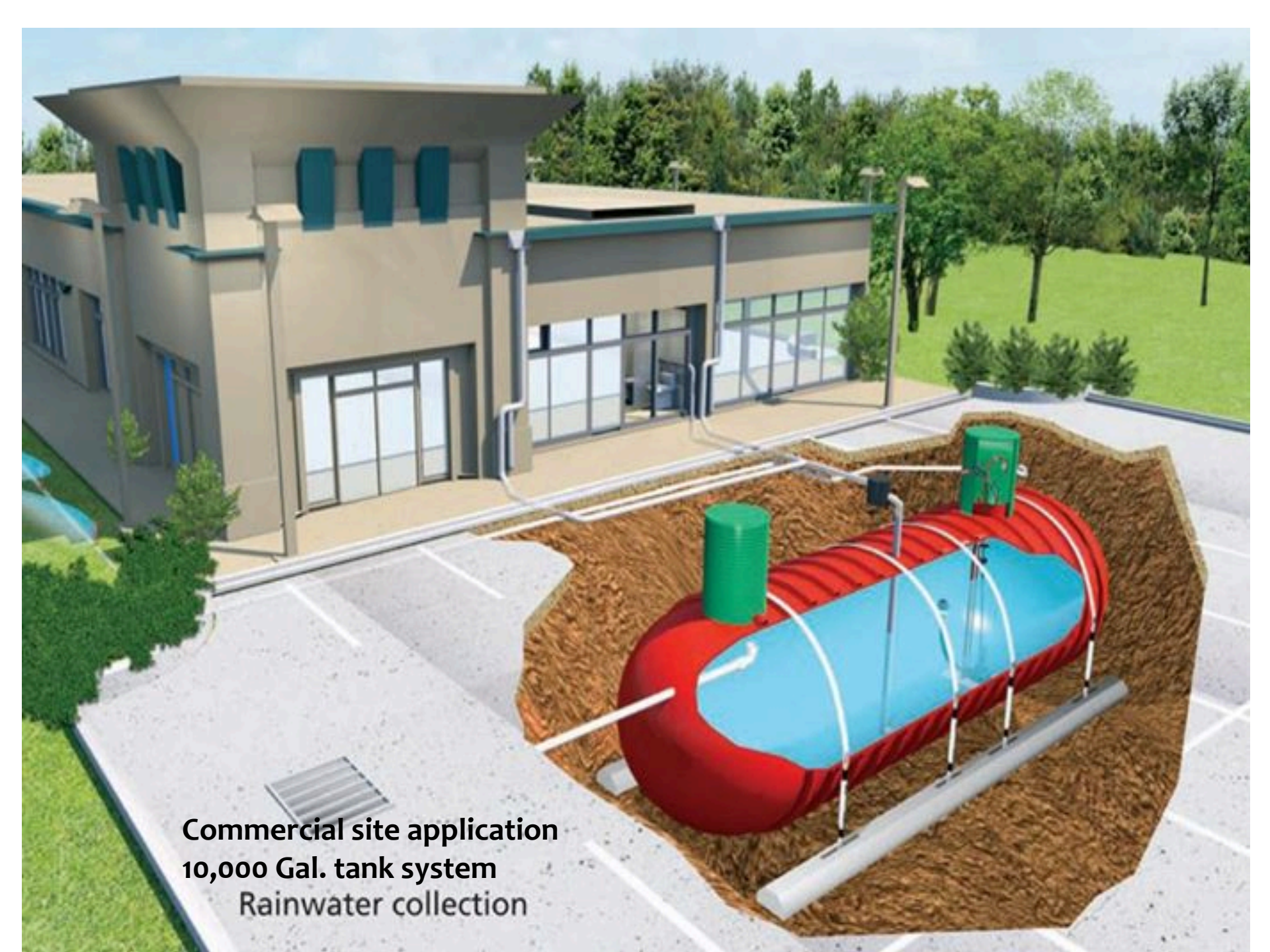


Flushing



What's the right size water catch for me?

- * *This is a question you need to answer before you design your water reclamation system.*
- * *What do you want to use your system for ?*
- * *How much water do I need to accomplish the desired results ?*
- * *How much time and money can I afford to spend on this project ?*
- * *What are your local regulations for*
- * *water reclaiming and use ?*



Commercial site application
10,000 Gal. tank system
Rainwater collection

Large residential site
1,500 gal. tank with pump



Residential dual tank system

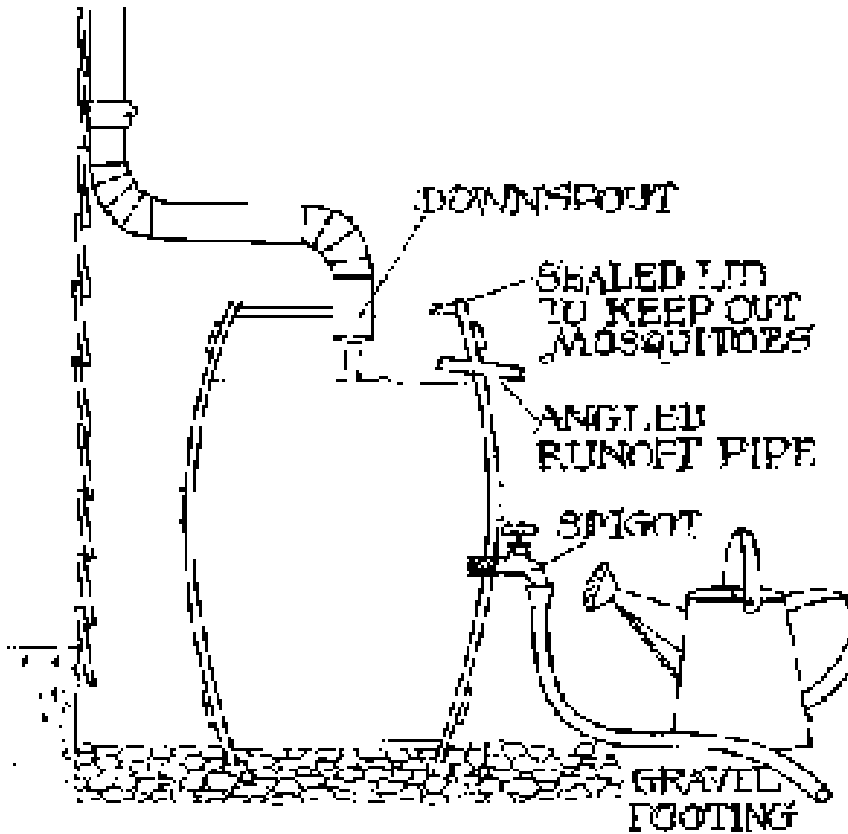
Dual 55 gallon tank system with overflow



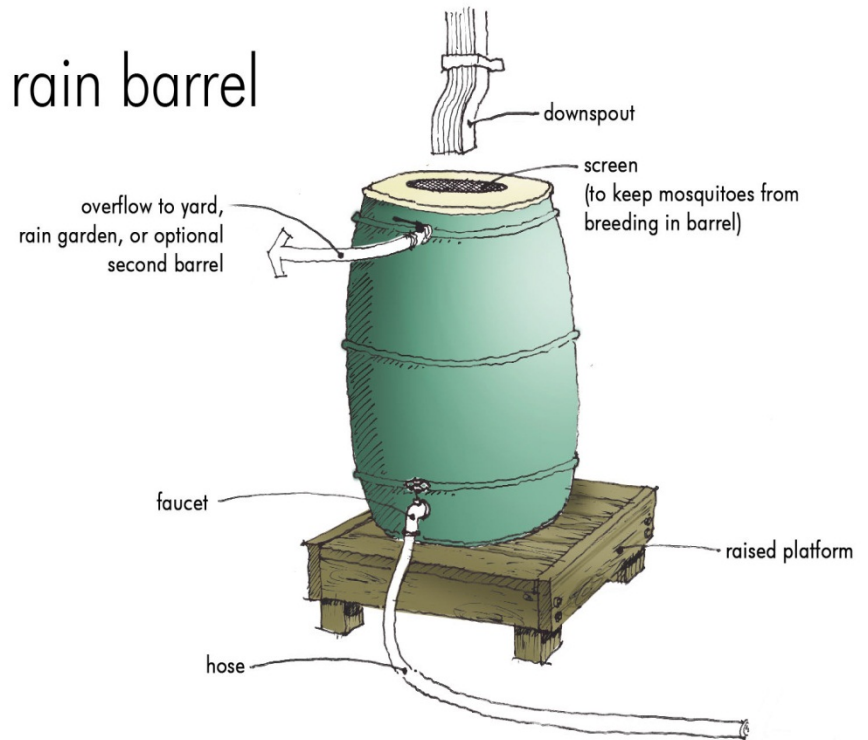
Ready made rain Decorative barrels



What are the components to a basic rain catch system



rain barrel



Personal rain catch.....



Difference between open and closed systems

Open system



Closed system



How can we build our own system?

Parts list

- * 1. Barrel
- * 2. Flexible down spout tubing
- * 3. Screens
- * 4. Male threaded Boiler drain
- * 5. 4" downspout to PVC adapter
- * 6. Thread sealer tape
- * 7. 1" male threaded by slip PVC elbow
- * 8. 1" slip x $\frac{3}{4}$ " female thread bushing
- * 9. garden hoses



Placement and drilling of the Boiler Drain.

Parts and tool needed for this step are:

3/4" male threaded boiler drain

5/16" speed bit

Electric drill

Teflon tape/thread sealer



The hole is drilled
now we thread in the
boiler/hose spicket

When threading in the drain make sure that you screw the drain in straight otherwise it can leak.

Remember don't screw all the way in because the drain has to come out and teflon tape thread sealer has to be applied.



Inserting the drain

Teflon applied



Screwed in and tight



Parts list for this next step:

Marker

Screen

Electric drill

Hand saw or hack saw blade

Silicone or screws

4" PVC down-spout adater

Internal screen

Internal debris screen



Marking the screen so we can cut the whole for screen



Screen installation

Drill holes



Cut out circle



Screen installation

Sealing screen



Seal with either screws or silicone



Screen installation

Sealed tight



Slip on PVC 4" downspout adapter



Down spout connection



Use this flexible down-spout extender as a way to connect to your existing down-spout

Parts for the over-flow installation

1" male threaded x slip PVC 90' elbow

1" slip x 3/4" female threaded bushing

3/4" brass pipe thread to hose thread adapter

3/4" x 3/4' pipe threaded adapter

PVC glue and primer

1 1/4" speed bit

Electric drill

Over flow installation

Parts needed.



Drill hole is the side of the barrel about 3-4" from the top



Overflow installation

**Thread in elbow. Remove
and teflon tape elbow.
Screw in permanent**

**$\frac{3}{4}$ " male thread coupler and
 $\frac{3}{4}$ " pipe to hose thread
adapter**



Overflow adapter installation

Screw in adapter



Add garden hose



Seal your connections



Sump pump connection

Parts needed

Electric drill

Screw driver

1 5/16" bit

1 1/2" male threaded coupler

90 deg. rubber elbow

Sump pump

Drill hole in either top of barrel or 2" plug .



Thread in a 1 ½" male threaded coupler. Remove and teflon tape threads. Screw permanently



Sump pump connection

Screw on 1 ½” 90 deg.

Rubber elbow to 1 ½” threaded
coupler.

Connect sump pump discharge
to elbow



Drip irrigation



Gravity fed drip irrigation.

Class demonstration



