

Water Systems

On-site RWH, flood control, and much more! **20 minutes at this station!**

When the well is dry, we know the worth of water -- Benjamin Franklin

Goal: Alter the urban hydrologic cycle by reducing highly erosive flows, returning water to the land, reducing the need for supplemental water and increasing water available for life. On this landscape, I use:

1. active and passive rainwater harvesting (RWH),
 2. French drains and contouring,
 3. laundry to landscape graywater
 4. house water reuse,
 5. air conditioner condensate collection
 6. small RWH features,
 7. efficient irrigation: Drip irrigation, appropriate watering, rain sensor, and
 8. appropriate plant selection with no turf.
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1. As Master Gardeners, we know that almost 70% our urban water use goes to watering our landscapes, predominantly turf. We also know that to reduce water use we need to irrigate efficiently, reduce turf space, and use appropriate landscape material. All of these are on view in my landscape. In addition, we do not know or maybe even care where our water comes from and we certainly are not worried about the lack of water until the next drought is well upon us. See the introduction folder for general information and if you have time the other folders for specific information.
 2. One of the limiting factors for rainwater harvesting (RWH) is not the amount of rain but the amount of storage capacity. When we use the land to store water, we have an almost unlimited storage. The 550 -gallon tank before you is an example of an active RWH system that uses the land to store water. Overflow from this tank flows underground and waters the west native bed. Overflow from the smaller tank (which you will see in the back) waters the chicken area. Look at the Onsite Water Sources folder for the before and after shots. For both areas, see if you can trace where the perforated pipe goes and where the overflow outlets are. I can store only about 800 gallons of rainwater in my two tanks but by using the ground for storage and all the impermeable collection surfaces, I can “store” roughly ten times as much water as I have in my tanks.
 3. Look back at the front patio where we first gathered. The patio itself is a collection surface which waters the kitchen garden. The plants growing in the patio and along the pathway serve to **slow** and **spread** the rainwater so that it can **infiltrate** into the ground.

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4. The large rock in the front garden (behind the bottle tree) is a small scale RWH water feature. Rainwater from the tank drips onto the rock every morning to provide water for small creatures and provide additional water to water loving Maidenhair Ferns, *Adiantum spp.* and Horsetail, *Equisetum*.
5. Look at the small RWH water feature near where you are sitting. This can be sourced from a rain barrel or from something as simple as a hanging milk jug.
6. Look in the Active RWH folder for the Dottie Woodson simple rain barrels information. There are three in my yard, can you spot them all?
7. Look at the folder on the Laundry to Landscape system. As you go around the corner to the next station, peek into the storeroom to see the laundry to landscape system controls and if you have time, walk down the pathway to peer into a mulch basin.
8. As Master Gardeners, we all know that efficient irrigation techniques, knowledgeable watering, use of xeriscaping principles and appropriate plant selection also help to conserve water use. All these techniques and principles are used in my gardens. Do you recognize them?
9. As you walk to the east side of the house, look for the air conditioner and a simple way to collect air conditioner condensate.