

## RAINWATER FACTS & FIGURES

A recent Texas Water Development Board (TWDB) report concerning rainwater harvesting contains the following facts and figures:

- For Terry County, the maximum number of consecutive days without rainfall is about 100.
- Average annual rainfall for the District is approximately 18 inches.
- About 18,000-19,000 gallons per year may be collected from rainfall runoff using 2,000 square feet of roof area in this region.
- There is a significant untapped potential in rainwater harvesting, particularly in urban areas.

## WHERE DOES OUR WATER COME FROM?

The Ogallala Aquifer is the main source of water here. Both urban and rural residents depend on this underground resource. Water wells produce the supply which is distributed to local residents via pipelines. Currently, the communities of **Wellman** and **Meadow** depend solely on underground water from local wells. In **Brownfield**, local wells supplement a supply which is delivered by the Canadian River Municipal Water Authority (CRMWA). Historically, CRMWA delivered water solely from Lake Meredith in the Texas Panhandle. However, due to declining lake levels, an additional supply of groundwater is now mixed with the lake water. This groundwater is pumped from a well field purchased by CRMWA. In fact, approximately 50% of the CRMWA supply is comprised of groundwater from Roberts County, in the Texas Panhandle. Groundwater recharge in this area is almost negligible, which means the supply may diminish. As a result, it is imperative that local residents use it wisely. Please help conserve this valuable resource.

## WATER SAVING TIPS

- Before pouring water down the drain, consider other uses for it, such as watering plants or a garden.
  - If you have a fish tank, use the old water after you clean the tank to water your plants. It's rich in nitrogen and phosphorous that plants love.
  - Don't let garden hoses and sprinklers water paved surfaces.
  - When you drain your swimming pool for repairs, make sure that the pump releases the pool water onto the grass or other planted areas.

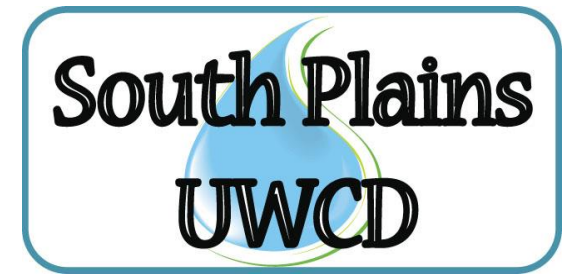
## RAINWATER HARVESTING ON THE WEB

- South Plains UWCD  
[www.spuwcd.org](http://www.spuwcd.org)
- Texas Water Development Board  
[twdb.texas.gov/innovativewater/rainwater](http://twdb.texas.gov/innovativewater/rainwater)
- Texas Cooperative Extension  
[rainwaterharvesting.tamu.edu](http://rainwaterharvesting.tamu.edu)



**WATER CONSERVATION**—Making the most efficient use of our precious water resources.

# *Rainwater Harvesting*



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## RAINWATER HARVESTING

As its name implies, roof-based rainwater harvesting refers to the collection of rainwater runoff from roof surfaces. The captured rainwater may later be used for irrigating plants, trees, shrubs and other landscape items. Some systems are even designed to treat the rainwater so that it might be used for drinking purposes inside the home. This practice is a great conservation tool that may be implemented with only a few necessary items. Figures 1 and 2 illustrate a very basic system of harvesting rainwater.

## WHY CONSERVE WATER?

Growing populations and rising costs for water and wastewater facilities are straining the ability of some communities and utilities to meet demand, especially during the summer.

During the winter, 90 percent or more of household water use occurs inside the home. However, in the summer, lawn watering and other outdoor uses can account for 50-80 percent of home water use. Yet, studies have shown that as much as half of this outdoor use is wasted through poor watering practices.

Typically, wells producing water from the Ogallala Aquifer supply the water needs of communities in the District. Recharge amounts are often lower than the withdrawals, resulting in water table declines. As water levels decline, communities must consider the means of ensuring dependable supplies. Conservation is a key component of groundwater management.



Figure 1



Figure 2

## HOW DO I GET STARTED?

Starting your rainwater harvesting program is not that difficult. All you need for harvesting is a good rain storm and something to catch the runoff from your roof.

However, there are several tips included here which should add to the success of your program.

- Consider starting small. Filling a 5-gallon bucket from the first rainfall event is a great start. Transfer and store the water in containers that are easier to use, like plastic milk jugs.
- Place your storage container in a convenient location, but not at a spot where it will be ignored. It may be necessary to clean the container periodically between rainfall events. Blowing sand and debris may partly fill your storage container, particularly if it has an open top.
- Consider installing a screen on top of your container or at the collection point. This practice will filter some larger debris (i.e. leaves and trash) and also keep rodents out.
- Keep track of your use of harvested rainwater. This will allow you to total your use of “free” water each year. Additionally, this evaluation will help you decide whether to expand the storage system.
- If you expand your system, obtain good design suggestions from a knowledgeable source.