

RAINWATER HARVESTING

Rainwater catchment or rainwater harvesting are catch-all terms for collecting, storing, and later using precipitation from rock out-crops, roofs, and other surfaces. Across the globe, rainwater is used for many purposes, including drinking water, irrigation, agriculture, air conditioning, groundwater recharge, and fire fighting, to name a few. It has been utilized for many centuries. With increased concern over water pollution and depletion of the water resources, there has been renewed interest in the self sufficiency of harvesting rainwater.

Rainfall is free of most water quality hazards and contains almost no dissolved minerals or salts that typically clog plumbing and appliances. Rainfall has a pH slightly below neutral and its acidity can easily be neutralized. You'll want to have your water tested by a certified laboratory to ensure it meets standards for drinking water. Results will help determine if your system will need to employ treatment techniques such as screening, settling, filtering or disinfecting.

The design of your rainwater harvesting system should take into account how much water you will use. One inch of rain on one square foot of catchments area yields 0.62 gallons. To calculate how much rainwater you can catch each year, multiply the square footage of your roof catchments area by 0.62 gallons by the average rainfall.

The most common roofing material used for a rainwater harvesting system is metal because it is smooth, durable and affordable. The catchments area is the same square footage as the footprint of your building, as long as the entire roof has gutters. Gutters should have leaf screens and overhanging tree branches should be pruned back.

Typically, a rainwater harvesting system will cost more than drilling a well, and the break-even point may be 15 to 30 years. However, rainwater is historically reliable and the

quality is unsurpassed. A rainwater harvesting system would be an asset to any home, and a healthful investment for an ecologically sustainable future.

The Permian Basin Underground Water Conservation District invites you to view their website at www.pbuwcd.com for more information on Rainwater Harvesting. You can also call their office at 432-756-2136 or email them at permianbasin@sbcglobal.net.

Source: Ladybird Johnson Wildflower Center