

Plant the Water Before the Tree



Help Your Tree Grow and Thrive with Rainwater!



Large rainwater harvesting basins collect winter rains. Notice tree is planted next to basin, so roots will extend away from the tree base outward and create a stronger root system.

Create a Rain Basin

A rain basin is a depression dug into the earth that captures rain flowing off your roof or yard.

Ideally, basins should be placed to encourage tree roots to extend outward. Don't concentrate water right next to the base of the tree. You can create broad shallow basins or narrow deeper basins if space is limited.

We recommend digging basins at least 6 inches deep, and bigger basins can be up to 18 inches deep. Deeper basins will have more capacity to collect large rainfall events and will have plenty of room for adding 2-3 inches of organic mulch across the surface. If you have space, extend the basin out beyond the future mature canopy extent of the tree.

Basins with steeper slopes will need rocks or gravel to help anchor the slope and prevent erosion. In general, basins should be 10ft from structures to ensure that captured water does not infiltrate near building foundations. If you are creating a basin around existing vegetation, try not to disturb the existing root structure.

You can save money, conserve water, reduce flooding, and grow a happier tree with rainwater harvesting! Your tree prefers rainwater over municipal water – which is higher in minerals and salts.

Plants native to the Sonoran desert can survive on local rainfall. Following the establishment of your new tree in your yard, ~2-3 years, they do not need extra irrigation. Creating a rain basin is a simple and inexpensive way to harvest rainwater, allow it to soak deeply into the soil, and provide ample water for your tree.



Narrow basins with steeper sides will need rockwork to stabilize slopes. This basin is capturing storm water off the street.

Create a Berm

Berms are designed to capture rainwater as it runs down a sloped area. Berms are laid perpendicular to the slope of the landscape. Typically, berms are built in a crescent shape and compacted to keep them from eroding. The purpose of a berm is to slow surface runoff to allow infiltration, but not to stop all runoff. Plan an overflow system that allows water to move easily to other landscape features located down slope from the berm.

Add Organic Mulch

Rain basins work best with organic mulch. The mulch protects the soil from the sun and wind, reducing the amount of water lost to evaporation, and retaining soil moisture for the plants. It also creates an organic sponge which allows more rainfall to infiltrate into the soil and prevents erosion. A great source of mulch is chipped plant materials – which is often available from tree trimming companies. Create your own mulch by maintaining leaf litter and chopping tree prunings right into your basin.



Basins (in blue) are often paired with berms (in brown) - as illustrated in this yard.

More Resources

Want to learn more about how to create rain basins and berms? Check out these resources:

- Local guru Brad Lancaster's website and book *Rainwater Harvesting for Drylands*: harvestingrainwater.com
- Attend one of Watershed Management Group's Co-op workshops and learn through a hands-on project: watershedmg.org/co-op



This swale slows down and captures water from the street, irrigating the nearby Ironwood tree.