Rain Harvesting Costs

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Our most frequently asked questions are about cost and, because there are so many variables, they are our most difficult questions to answer. Since there are many types and sizes of rain harvesting systems available, finding the right fit to your requirements is challenging, especially when you have tight budget limitations. In this month's article, we'll present rough costs of the most popular components of rain harvesting systems.

Most critical is knowing what you will be using the water for; it helps determine what components you need and what you can do without. The following is a list of components you can include in your rain harvesting system.

Roof Surface: We have not included roofing costs because you will have or already have one; we just included this to show that you need a roof to harvest rain, and if you are planning a new roof, metal standing seam roofing works best.

Gutters (required), Leaf Guards (optional): Cost - Between $15.50 and $17 per lineal foot for installed 6" K-style gutters. Considering that the average home has about 200 feet of gutter, homeowners should expect to pay about $2,700 - $3,400 for professional gutters & leaf guard installation. Recent bids for 6" gutters & leaf guards with downspouts for two separate single-story roofs were ~$1,800 for 1,770 sq ft and ~$2,600 for 4,400 sq ft.

First Flush Diverter (optional): Cost - $50 each. Installed in the pipe that is coming from your gutter to your tank, they are designed to separate the initial "dirtiest water" that comes off your roof from the "cleaner water" that comes off later in the storm. Although not essential for landscaping or irrigation applications, first flush systems (tank type) are recommended for potable uses.

Tank Base: Choose between road base with gravel or sand, and concrete; concrete will be more costly. Tank underlayment with base, gravel, and sand cost - $400 to $2,500 depending on the amount of rock excavation involved.

Tank: Choosing the right size tank depends on rainfall amounts (Bulverde/Spring Branch gets about 30" per year), how much water your family consumes, and how much room you have for the tank. Water storage tank cost varies widely from 250-gal poly tanks at $400 to a 30,000-gal tank installed on a pre-prepared base at $17,000. Your collection system should keep a 3-month supply of your consumption demand in your storage tanks.

Flaps on overflow pipes (optional): Cost - $16 each. These prevent insects and critters from entering your tank through overflow pipes which often lay on the ground and are usually 4" to 6" diameter PVC.

Pump system (optional): Cost - $550 to $850. Having a pump to distribute your water gives you flow and pressure. You can then pressurize the water for inside or outside use.

Filters and UV protection (optional): Cost - $600 to $1,500. Fitting filters after your pump (e.g., 20-micron pleated filter followed by a 5-micron carbon filter followed by a UV light) will help reduce residual sediment, color, taste, odor, and pathogens. For potable water, we highly recommend UV filtering.

Tank Gauge (optional): Cost - $50-$175. Having a gauge attached to your tank allows you to monitor the tank's water level.

Pipes & fittings: These costs vary dramatically because it always depends on distances, foliage, elevations, how much rock is encountered on the property, and whether your tank is close to your collection point.

We can help you understand any of these elements. Our public service rain harvesting consulting services are offered to the public without charge. Visit us at https://www.rainbees.com/.