Moving Beyond the Rain Barrel

Helping homeowners collect rain right

BY **PAT PAPE**

Drought-plagued states and ecological homeowners are having a love affair with the rain barrel as some municipalities provide big rebates — or distribute free barrels — to citizens who promise to harvest rain. Eventually, two things will happen. Some users will become diehard supporters of rainwater collection; others will be disenchanted with a free-standing plastic barrel that can only hold 50 gallons of water.

"Frequently, people tell me they want a rain barrel," said Steven Sweeny, president of Rain Harvesting Supplies, Inc., a national online retailer of water tanks and components, and an accredited professional with the American Rainwater Catchment Systems Association (ARCSA). "I ask them how much water they use to water their garden. They always know how long it takes to do the job, but they never know how much water they use.

"They're shocked when I tell them that a 50-gallon rain barrel will collect enough water so they can run their garden hose for about 10 minutes," he said. "That's how far the basic rain barrel goes. It's a good idea in theory, but it's comparable to an electric car."

PUBLIC EDUCATION

Those 50-gallon barrels are an ideal starting point for a newbie who wants to save rain. They collect water that would otherwise run into a storm sewer, and help refresh gardens when the skies are sunny. Professionals in the rainwater business want to encourage greater acceptance of rain harvesting, but they also are working to inform the public that a lone rain barrel — or even five — won't reduce their water bill or provide a lot of water.

During his years as owner of Texas Land & Water Designs in Round Rock, Texas, and president of the Texas Rainwater Catchment Association, Paul Lawrence has worked with a variety of clients. He believes there are three categories of residential rainwater harvesters: the Hobbyist, the DIYer and the Off-the-Gridder.

Although they'll have better quality water for their landscaping, and maybe even drinking water for their family, typical homeowners won't see a return on investment until they install a 10,000-gallon-plus tank.

The Hobbyist wants to store 50 to 250 gallons of rain to use on vegetable and flower gardens and a few potted plants. The DIYer wants 300 to 5,000 gallons in either a single or multiple tanks, and may use a pump to move the water. DIYers use water much like the Hobbyist, but are open to other possibilities, such as foundation moisture control. Off-the-Gridders need a tank that holds 5,000 gallons up to 30,000 or more. These homeowners require an independent, pressurized supply of potable water that can be used inside the home, because municipal water or quality well water is not available.

"Most individuals who eventually commit to one of the larger systems generally started with a single rain barrel positioned under a downspout," said Lawrence, a landscape designer, licensed irrigator and ARCSA accredited professional. "I've found that people who've had success with a rain barrel often graduate to larger systems because they're no longer willing to accept the limitations that the smaller storage receptacles present."

TELL IT LIKE IT IS

Working with rainwater customers can be a challenge. Chris Maxwell-Gaines, president of Innovative Water Solutions, LLC of Austin, Texas, tries to screen potential clients so he doesn't invest a lot of time doing detailed estimates for those who will suffer sticker shock when they learn the price of a rainwater harvesting system.

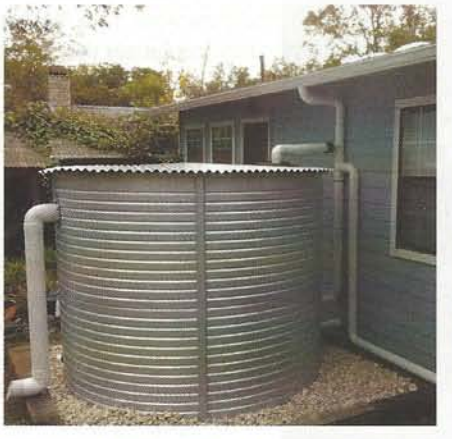
When Maxwell-Gaines first started his business, he'd visit potential customers and ask them, "What are you thinking?"

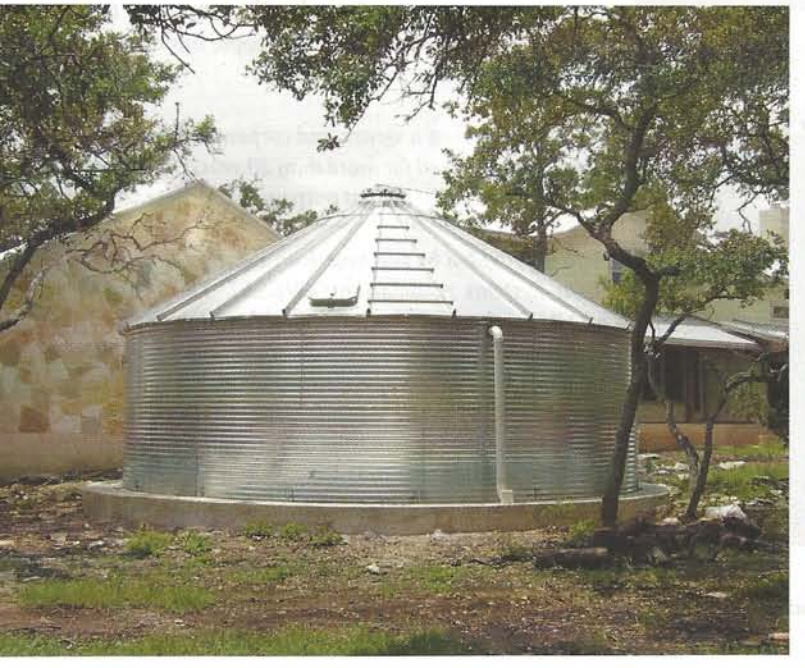
"They'd expound from there, and I'd put together an estimate based on what they said," recalled Maxwell-Gaines, a licensed engineer and ARCSA accredited professional. "Later, they'd go, 'Whoa! That seems expensive. I read on the Internet that a rain harvesting system costs $1 a gallon.' Then you'd have to explain, 'Well, we must go under your sidewalk, and we have to do this, and we have to do that.'"

Most homeowners appreciate the concept of collecting rain, and see it as a good way to conserve a limited resource. Yet the majority don't know what it will cost to invest in a substantial system. "Maybe if you buy the tank and all the components, you can do it yourself for $1 a gallon," said Maxwell-Gaines. "That $1 figure has become an old wives' tale."

Today, when Maxwell-Gaines visits a potential client, he first asks the owners where they want to place the tank. "Based on that,

PHOTOS ON PAGE 25 BY CHRIS MAXWELL-GAINES





we explain what would be the most efficient collection method," he said. "We've changed from having people tell us what they want to us saying 'Let us tell you what will be the most cost-effective method to catch the most rainwater.' We want to serve the customer, but they're relying on us. So we tell them the best way to do it."

SAVING MONEY

"You must give them good explanation for the costs for an adequately sized system," Lawrence said of clients. "You must explain that when you move into this [larger] category, you'll need these components and why. I give them the benefit of my experience and leave it to the client to make an informed decision. I suggest that people in the 300- to 5,000-gallon range choose a poly tank from a purely economy standpoint. If they choose a metal tank, I let them know that the cost will be significantly more."

Although they'll have better quality water for their landscaping, and maybe even drinking water for their family, typical homeowners won't see a return on investment until they install a 10,000-gallon-plus tank.

"And in those applications, we're talking about installing a rain harvesting system in place of drilling a well," said Lawrence, who typically recommends the most economical systems so customers don't base their rain harvesting decisions on ROI alone.

"They end up enjoying benefits far and beyond just having the quantity of water they need," he said. "It's the quality of water as well."

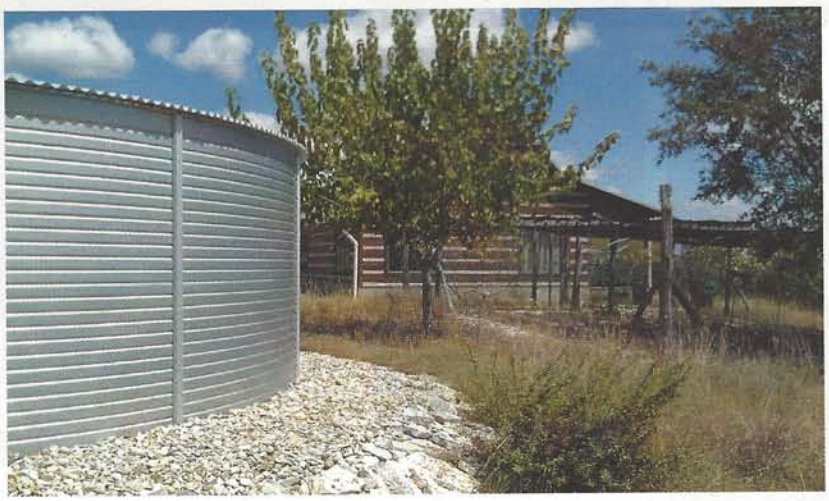
LOOKING AHEAD

In Western countries, residents have been convinced that the monetary value of a product or service is the only way to consider its value. Comparing the cost of rainwater harvesting with the price of municipal water from the kitchen tap is like comparing apples and oranges, according to Sweeney.

"Serious rainwater harvesting will continue to be a valuable way for people to have a dependable water supply when they can't get water any other way," he said. "But it also will continue to be initially expensive. The cost of water where I live is $3.18 per 1,000 gallons. Go anywhere else in the world and try to get water as good as what comes out of the tap in the U.S. You'd be paying an arm and a leg for it."

Some states are already making waves about water. In 2014, California declared it a crime to waste water by washing a sidewalk or another unnecessary chore. Las Vegas has paid more $200 million over the past decade to get home and business owners to eradicate their lawns. Like other experienced rain harvesting professionals, Sweeney recognizes that bargain-basement water prices won't continue forever — or for even a few decades — and more states will be forced to promote rainwater harvesting in something bigger than a rain barrel.

"The most recent projections for Texas indicate that the 2014 population of 27 million could more than double by 2050," Sweeney said. "People will have to decide that harvesting rain is how we'll get some of the water we need. The powers who plan the future of our water — like the Texas Water Development Board — will have to decide rainwater harvesting is part of that future. People don't measure how much water they use. They turn on the tap and use it. We need to help people understand how far their water will go."



PHOTOS ON THIS PAGE BY PAUL LAWRENCE

Pat Pape has been a writer and corporate communications professional for more than 20 years. Her writing portfolio can be seen at patpape.wordpress.com.

Article provided by the American Rainwater Catchment Systems Association (ARCSA). The mission of ARCSA is to promote sustainable rainwater harvesting practices to help solve potable, non-potable, stormwater, and energy challenges throughout the world. ARCSA is the national leader in promoting the training and installation of rain harvesting systems, in educational programs and in the development of standards and codes for the safe use of harvested rainwater.