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Saving from a rainy day

With rain a rarity, harvesting systems help you put every drop to use

Never mind saving for a rainy day. What about saving for a dry one?

After a series of parched summers and high water bills, you might have watched runoff from our last recent rain showers pour down your driveway and wished for a way to hold on to some of it. If you had found a way to catch the liquid gold, for every inch of rain that fell on 1,000 square feet of your roof, you could have collected 550 gallons of water.

Collecting or "harvesting" rainwater is actually a very old idea: Just a generation or two ago, rainwater supplied drinking water for many Texas households. It's a low-tech practice once again finding favor in these high-tech times.

Thanks to new materials and financial incentives, many modern Central Texans are giving it another look.

— Christine Stephenson, American-Statesman Staff

5 best reasons to harvest rainwater

1. Rainwater tanks, also called cisterns, remind you of your grandparents' house.
2. This is the fourth year out of five that our region has seen drought conditions, reminding you what a valuable resource water is.
3. Dripping Springs has become a misnomer, your well just ran dry and you need to create another water source, pronto.
4. You want to water your plants or wash your clothes with naturally soft water that doesn't contain chemicals, minerals or salt.
5. You might be able to cut your costs with a rebate from the City of Austin, even if you live outside the city limits.


LIFE&ARTS

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Classic styles suit Laura Bush

'Bette' sitcom could be divine or a miss

Spend as much or as little as you like

Free: A clean garbage can set under the drip line on your roof or at a downspout will collect water for your potted plants or garden. (See safety notes.)

Up to $10: Even without rain gutters, you can still direct rainwater off the roof and into a container with a rain chain, a decorative chain sold through gardening supply stores and catalogs. Ornate Japanese rain chains sell for around $120, but inexpensive chains from a hardware store will do.

Up to $100: A plastic rain barrel will collect up to 75 gallons and will include a tap for connecting your garden hose. For slightly more, you could spend $175 for a 4-by-4-foot black tank that holds 300 gallons, and get $45 back through the City of Austin rebate program.

Up to $1,000: A 3,000-gallon polyethylene tank ($860, minus a $450 rebate from the City of Austin) could collect rainwater for your landscape, and you'd have enough spare change to install new rain gutters, solid PVC downspouts, a roof washer or other filter — and still buy a pump so you could use drip irrigation or a sprinkler.

Up to $10,000: A 12-by-12-foot, 10,000-gallon fiberglass tank costs less than $5,000 delivered, minus a $500 rebate from the City of Austin. With this kind of budget, you could provide

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an entire household with water or splurge on cistern materials such as stone or wood. A system for potable water will also require a pump, filters and purification system such as reverse osmosis or a combination of ozonation and UV light.

Getting tanked

Water tanks come in a variety of materials and price ranges. Some are easily movable, others are permanent structures. You can put a tank on any level, hard-packed soil that can support it and the water, which weighs about 8 pounds per gallon. Rainwater collection may seem complicated, but is actually very low-tech. "Water flows downhill," Dick Peterson, conservation program coordinator for the City of Austin, reminds users, so the tank will fill as long as its inlet is lower than the rain gutter.

Pocket a rebate for your efforts

The City of Austin has two rebate programs to encourage people to collect rainwater for nonpotable uses such as watering their landscapes.

Water is still relatively cheap, so it's not practical to invest in a system for potable water if you have a municipal water supply, Peterson said. But that could change in coming decades as cities grow faster than existing water supplies.

Rain barrel rebate: Participants receive $30 per barrel for up to two approved rain barrels. Sold at garden and environmental stores, catalogs and online, rain barrels can be anything from recycled 55-gallon drums to 75-gallon plastic containers made to resemble old-fashioned wooden barrels. They range in price from $39 to $130 and are a simple option for beginners, who can place them under an existing downspout. Rain barrels that have been approved for this program must pass inspection after they have been installed before you will receive the rebate.

Rainwater harvesting rebate: To qualify, a system must store at least 300 gallons, whether that's all in one tank or in a series of smaller tanks. Applicants must submit a plan showing how they will operate and maintain the system, have the finished system inspected and agree to participate in two public tours. In return, they'll receive a rebate of 15 cents per gallon, for a maximum of $500.

Who's eligible: Anyone who gets water from the City of Austin is eligible, whether they live in Austin or in outlying areas where their Municipal Utility District or other water supplier buys all of its water wholesale from Austin. Examples are Wells Branch, the Millwood area, in North Austin MUD No. 1, and the cities of Rollingwood and Sunset Valley, but there are too many neighborhoods to list here. Ask your water supply company or call the City of Austin's conservation department at 499-2199.


The Art of Living

Liquid assets

What should you use?

Information on and off the Web

Rain collection system

But is it safe?

This story was a centerpiece in the biweekly Art of Living section and jumped from the cover to a doubletruck.

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(cont.)

What should you use?

A variety of materials can be used to collect rainwater.

Plastics

30 cents to $1 a gallon, more for fiberglass.

Polyethylene or polypropylene: Economical, lightweight and movable, polyethylene tanks are available in translucent white that allow algae to grow unless they are painted; black or green polyethylene and polypropylene tanks block light and don't need to be painted.

Fiberglass: More expensive ($1,400 for 750 gallons), fiberglass tanks have a food-safe resin coating inside and a UV-protective coating outside

Metal

40 to 60 cents per gallon, plus a liner

Galvanized steel: Attractive and old-fashioned, galvanized cisterns will rust over time and therefore aren't covered by the City of Austin's rebate program. "The thickness of galvanizing has been decreasing over the years, so it's not as tough as what the farmers used to use," Dick Peterson said.

Steel: Recycled steel drums are available, but can rust. Make sure any recycled drums, including plastic ones, were not previously used for toxic materials.

Concrete

35 cents to $1 per gallon

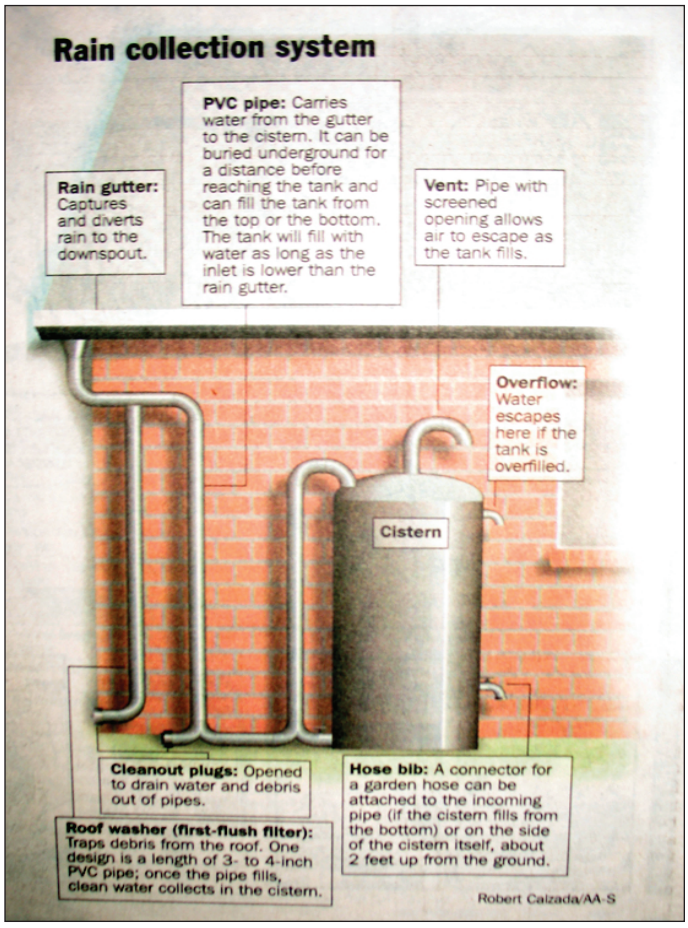
Ferrocement: Constructed on-site with rebar, lath and plaster, like a swimming pool, these permanent structures can be built above or below ground.

Poured concrete: Like ferrocement, these are permanent structures and are poured in place into forms.

Wood

$1 to $1 per gallon

Tanks made from rot-resistant wood such as redwood or cypress hold a plastic liner that contains the water. Timber Tanks are a brand imported from New Zealand, where they are made to hold as much as 2 million gallons for municipalities, and distributed nationwide by a company in Austin.



Stay safe

Commercially available tanks and rain barrels are all sealed and have a grid to keep out children and animals. If you're improvising a system from trash cans or wood barrels, "You need to think about how safe is it for children or grandchildren who are playing in my yard," said Dick Peterson.

Mosquito dunks, available at nurseries, are floating disks containing Bacillus thuringiensis to inoculate standing water against mosquitoes. One dunk will treat 100 square feet of water surface for 30 days, but it can be broken into smaller pieces and dropped in rain barrels, ponds, bird baths and even dog dishes. The dunks are safe for fish, birds and mammals. Use screen wire to cover all openings to prevent mosquitoes from calling the container home. Better yet, keep it covered, which will help prevent algae growth.

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Systems in action

On Oct. 7, the City of Austin will sponsor a tour of rainwater collection systems and xeriscapes at homes and businesses in the Austin area. But if you can't wait and want to see some examples of rainwater systems small and large, try visiting one of these four models.

The Lady Bird Johnson Wildflower Center, 4801 La Crosse Ave. An impressive series of collection tanks and aqueducts transport and store 70,000 gallons of rainwater used for the center's gardens.

Sunset Canyon Pottery, 4002 E. Texas 290, Dripping Springs (a stone's throw from houses where wells began going dry in May). A 46,000-gallon ferrocement cistern stores all the water used by the pottery studio.

The Natural Gardener (formerly Garden-Ville), 8648 Old Bee Caves Road. A 750-gallon fiberglass tank collects water off the roof of a shed on the grounds.

American Botanical Council, 6200 Manor Road. The council has a very large rainwater collection system consisting of several tanks, ranging from a few hundred to 10,000 gallons.

Summit Elementary School, 12207 Brigadoon Lane. A 500-gallon polyethylene tank painted by the students collects rain from the roof of an adobe-style strawbale playhouse; rainwater is used to irrigate an educational Xeriscape garden.

More information

• City of Austin Planning, Environmental and Conservation Services Department, 499-2199 or www.ci.austin.tx.us/watercon/rainwaterharvesting.htm. The Web site has information on the rebate programs, a diagram of a collection system, publications you can download and print out and a list of local contractors.

• Sustainable Building Coalition, www.greenbuilder.com/sourcebook/rainwater.html

• Austin Energy Green Building program: Richard Morgan at 499-3469, or www.ci.austin.tx.us/greenbuilder/

• "Rainwater Harvesting for the Mechanically Challenged," a witty primer by Richard Heinichen and Suzy Banks, the owners of Tank Town in Dripping Springs, is sold in local stores.

• "Texas Guide to Rainwater Harvesting" is a 66-page book from the Texas Water Development Board and the Center for Maximum Potential Building Systems. Download it at www.twdb.state.tx.us/rio/hydro/pdf/RainHarv.pdf; or pick up a copy (free for the first copy, $2 for additional copies) at 1700 N. Congress Ave., Room 439. To have a copy mailed to you, call 463-7955; e-mail pwaters@twdb.state.tx.us; or write to Texas Water Development Board, Attn: Patsy Waters, P.O. Box 13231, Austin, Texas 78711-3231.

• The City of Austin provides a list of area companies and contractors as a service, but does not endorse any in particular. Look on the Web at www.ci.austin.tx.us/watercon/contract.pdf.