

Amidst December storm, a lesson in rainwater harvesting

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Drew Harwell, Garden Manager, and Sherri Osaka, Landscape Architect, discuss rainwater harvesting at the Common Ground Demonstration Garden

Downpours and drizzle, interrupted by dripping and dampness.

The drenching weather is perfect for water-lovers, such as the happy crowd that gathered Saturday in Palo Alto to learn about rainwater harvesting.

Their mantra is simple: As it falls, catch it. Then when drought hits, pour the collected liquid booty into your garden. Rainwater harvesting is easier and less regulated than recycling of "gray water" from sinks, showers and washers.

"It is a great way of taking care of yourself and being in charge of your own water," said San Jose-based landscape architect Sherri D. Osaka in a presentation sponsored by the Palo Alto-based Common Ground Education Center.

While harvesting rain saves precious water, it costs serious money. That's because water is now so cheap. The value of water in a 100-gallon barrel is about 29 cents, at current San Jose prices (748 gallons for \$2.21). So you'll fill up the \$150 barrel many times to break even. For now, harvesting — which required investing in tanks, filters, piping and other apparatus — is for those who can afford it.

Devotees say it's a lot like growing your own food. It creates self-sufficiency and puts you in touch with nature and the seasons. And they insist, that as the population grows, rain harvesting could be life-sustaining. If widely adopted, harvesting could replenish our aquifer, ease demand on storm sewers and reduce water drained from the Sierra Nevada and local reservoirs, said Osaka.

On what was a thoroughly soaked Saturday, rivulets rolled down the windows as the crowd swapped tales of flushing, filtering and flow rates.

This autumn has been wetter than last year, but remains near the historic average. A total of 4.03 inches have fallen in San Jose since July 1, compared to 1.25 inches by this date last year. But we're just a fraction above what would be considered average — and with 15 inches of average rainfall annually, we still have a long way to go.

The wettest place on Saturday was Ben Lomond, with 1.96 inches; Moffett Field, by comparison, only received about one-tenth of one inch.

More wet stuff

Showers are expected to continue today, with high temperatures reaching the mid-50s. Skies will start to dry by this evening, but the chance of rain will continue, with persistent clouds throughout the week.

With winter still a week away, its signs were on display nearly everywhere. Gusts of wind tore faded leaves from trees. Rainbows appeared, then vanished.

Atop Mount Hamilton, there was only fog.

"I can see to the edge of the parking lot, and that's about it," said Wendy Hansen of the observatory's gift shop. Most of last week's snow has melted, she added.

In Santa Cruz, waves were knee-to-shoulder high, too soft and inconsistent for good surfing. There's been a fading of last week's big swell, that broad

and deep undulation of the ocean caused by a distant storm. But hopes are high for the arrival of a new one early next week.

Elephant seals are breeding at Ano Nuevo State Park, so the rookery is closed to all viewing until Monday; guided walks start next week.

Migratory birds like cedar waxwings are arriving at Stanford and brown pelicans are flying in to sites like the Palo Alto Flood Control Basin and the San Francisco Bay.

In the Sierra Nevada, snowfall was so steady that it forced the closure of the ice skating rink at Northstar ski lodge.

In the Los Angeles area, at least 40 homes were evacuated Saturday night in the La Cañada Flintridge, La Crescenta and Big Tujunga Canyon areas of the San Gabriel Mountains as heavy rain continues to bear down on the area burned by last summer's Station fire, prompting flash-flood warnings and sending minor mud and debris flows onto foothill roads, according to the Los Angeles Times.

Additionally, firefighters worked to rescue people from 90 vehicles stuck in the mud along a 12-mile stretch of Angeles Crest Highway near the burn area. The National Weather Service issued a flash-flood warning for the area.

Meanwhile, flooding has closed a three-mile stretch of southbound Pacific Coast Highway in Huntington Beach until this morning.

Demand will grow

Although the storm has pushed our seasonal rainfall to average levels, California remains in its third year of drought. The Colorado River, which supplies much of Southern California's water, has run low nine out of the past 10 years. Two-thirds of San Jose's water comes from the Sierra Nevada snowpack, but it is projected to be depleted by at least one-quarter because of climate change. An estimated 11 million more people will be living here by 2025 — and water supplies aren't increasing.

Water rates are climbing. To discourage high water use, San Jose and a growing number of water agencies are using tiered rates of billing. While the "Tier One" water for basic needs is likely to remain cheap, the price quickly climbs the more water you use.

"We all need to save more water. There are some really well-thought out ways to reduce our impact," said Susan Stansbury of Palo Alto. "It might be our next project."

Paul Rogers contributed to this report.

Rain harvesting

Untreated rainwater is considered non-potable water, meaning it is not treated to drinking water standards and not meant for human consumption. But it may still be used for many other purposes such as irrigation.

Collection involves a relatively simple contraption. Rainwater flows down a spout from the roof until it reaches a filter, which catches leaves and particulate matter. Water is then directed into the collection tank. Tanks do not allow light and are sealed so they don't collect dirt, microorganisms or algae. They can also be fitted with internal mechanisms to further ensure the cleanliness and safety of the rainwater collected. (There is also a "first-flush" tube, which traps the first water of the season, which tends to contain the most pollutants.)

From the tank water can be later piped into gardens. If elevated, there may be enough pressure to send water into a garden soaker hose. However, it can not power a sprinkler or high-flow drip irrigation system. For that, you need a pump.

When the tank is full, the overflow runs into the ground, artfully managed with grading, such as swales, basins, berms and terraces.

For more information:

Sherri D. Osaka, landscape architect at www.sustainable-landscape.com

"Rainwater Harvesting," three volumes of books by Brad Lancaster

www.commongroundinpaloalto.org

www.treepeople.org.

www.harvest20.com

www.arcsa.org

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