With the heat wave that engulfed the country this month, no doubt many Americans have taken the liberty of letting the sprinkler run a tad bit longer than usual.

We hope people have been paying as much attention to the calendar as they have to the weather, because July also happens to be Smart Irrigation Month.

In honor of the occasion, Landscape Management takes a look at the recycled water movement that’s emerging in the U.S., especially in the dry West.

**WATER-MINDED PEOPLE**

“Sustainability seems to be such a strong buzz word today,” says Richard Restuccia, director for water management solutions at ValleyCrest Cos. “I’m talking to a lot of commercial building owners and managers. I try to show them the benefits of what’s happening in this global movement right now toward sustainability.”

That movement, Restuccia says, is gaining momentum. “There’s starting to be some water awareness that we haven’t seen before,” Restuccia says.

He points to the water blog he started in June 2011. The day he launched it, it received 185 hits. One year later, Restuccia’s receiving about 5,000 hits a day. That’s no coincidence. Higher water prices in the U.S. largely are responsible for increased water awareness, Restuccia says. In Arizona alone, he adds, water prices
skyrocketed by 72% overnight, and homeowner associations are spending hundreds of thousands of dollars on water annually.

Water awareness is building among Heads Up Landscaping’s clientele as a result of higher prices, too, says Andrew Key, president of the Albuquerque, NM, company. Key’s customers more frequently are inquiring about rainwater catchment on their properties, and it’s a service he is proud to provide.

“Water is expensive and getting more expensive,” he says. “In the Southwest and more arid regions, the cost of water is probably not going to go down.”

On top of that, he says, many water utility companies have aging infrastructure that they’ll have to replace soon, which will drive rates up even more.

DEMAND CLIMBING FOR RAINWATER HARVESTING

Jud Griggs, director of garden development for Dallas-based Lambert Landscape Co., which installs and maintains rainwater harvesting systems on residential properties, says demand for rainwater harvesting in the region is high thanks to a pervasive water consciousness among residents and businesses in the area.

“They’re trying to preserve natural resources and not overburden what will become more and more a limited water supply,” he says.

Consider that Texas is among the fastest-growing states in the country “and that’s going to put a real dent in our water supply,” he says. “It’s inevitable that the growth will outstrip our water resources.”

Consequently, more clients are asking about Lambert Landscape Co.’s rainwater harvesting services, whether they are small rain barrels or 200-gallon cisterns.

“The long and short of it is that there may come a day in the Dallas area where there is no water to water your landscapes, but it’s always going to rain,” says Griggs’ counterpart, Lambert Director of Garden Services Jodi Joseph. “If you have that rainwater harvesting tank and you’ve made that investment, it’s going to rain eventually, and it will fill up.”

The interest in water conservation in the Southwest can be seen in the number of rainwater catchment systems that have popped up in the region during the last six years, Key says.

He attributes that growth to commercial construction businesses striving to achieve LEED certification. “That really opened the door for rainwater catchment systems,” he says. “Almost continued on page 11
any project that is going for LEED certification is going to consider installing a rainwater catchment system.”

GRAYWATER DEFINED
Not as widely used, but gaining momentum, is the emerging graywater movement. Graywater is wastewater from dishwashers, laundry machines, sinks and bathtubs, which is then flowed through pipes to the exterior landscape, where it irrigates plants, shrubs, grass and trees.

“I really believe it’s the future,” says Leigh Jerrard, principal of Greywater Corps, a Los Angeles-based company specializing in installing residential graywater systems.

Washing machine water has ample nitrogen and phosphates. And though both create harmful algae blooms in water, they’re beneficial to plants on land, Jerrard says. Graywater, therefore, he adds, “keeps chemicals out of liquid ecosystems and keeps them in the earth, which is a lot better.”

Jeremiah Kidd is the director of San Isidro Permaculture in Santa Fe, NM, specializing in designing and creating sustainable landscapes. The company focuses on services such as edible gardens, rainwater catchment systems and graywater reuse systems.
“Graywater has a lot of nutrients for plants,” Kidd says. “It’s almost like a fertilizer for a lot of plants.” Many of Kidd’s clients reuse graywater and harvest rainwater in tandem together. “It’s a good balance,” he says. “It might not rain here for a month, but you’re always going to be producing graywater in your home. Graywater is the perennial resource, and the rainwater might be just in certain seasons.”

But use of graywater for irrigation often is controversial; the dirt and particles in it can grow and multiply bacteria if graywater is stored. That’s why it needs to be reused right away. “If you use graywater as you produce it and drain it out to the trees, then the trees and plants use those nutrients and actually clean the water,” Kidd explains. “It’s very safe. You just don’t want to store it.”

Graywater reuse in irrigation was green lighted in New Mexico and California within the last few years. Kidd would like it to become standard operating procedure for new construction and hopes it will become a normal building practice in the next 15 or 20 years. “More places are going to be catching on,” he says. “I would encourage people to explore it more. It can be a very safe and effective method for irrigating property.”

For residential properties, perhaps. But ValleyCrest’s Restuccia makes an important point. “You’d be hard pressed to find a commercial landscape contractor...
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tor who’s actively reusing graywater,” he says. “From a commercial standpoint, I have to say I don’t see very much of it at all. I really haven’t seen any of it. I think it’s still in the process of being figured out. It can be very costly.”

Kidd says in his experience, the average price for installing a graywater reuse system on a home ranges from $2,000 for a retrofit to $5,000 for new construction.

Smart controllers are a much more viable alternative to graywater reuse, Restuccia says, because they’re more affordable and have an average return on investment of two years.

A SPECIAL PROJECT

Roscoe Klausing is doing his part for the water conservation movement. The president of Klausing Group, a landscaping company in Lexington, KY, recently received a $320,000 grant from the City of Lexington to work on a water-efficient parking lot project at Klausing Group’s headquarters.

The grant came to be after the Environmental Protection Agency sued the City of Lexington to clean up polluted streams. The $320,000 grant awarded Klausing Group was among the highest the city awarded.

The project, set to begin next month and end in October, centers on the restoration of two Klausing employee parking lots using permeable pavers. Among the project’s features: stormwater storage beneath the parking lots, rainwater harvesting and an oil and water separator.

The grant’s purpose was twofold: Clean the water before it leaves the property and reduce the amount of stormwater runoff produced on the property.

“Because of the way these permeable pavers are built, you’re actually getting better quality stormwater that’s...
cleaner,” Klausing says.

Klausing Group will also install a 12,000-gallon rainwater harvesting tank on its property. About 13 feet around and 13 feet tall, the tank will have a large pump system. The company will pump the water out of the cistern into water tanks, load them onto its trucks and haul them to one of its many job-sites that don’t have irrigation systems.

“In our market, most properties are not irrigated,” Klausing explains. “Customers have to pay people to transport water to their site, so right now we buy treated water and use it in our work.”

Klausing says as few as 25% of commercial properties and 5% of residential properties in Lexington have any type of irrigation system. “It’s not a big deal around here,” he says. “I don’t know why it’s not. We need it.”

VALUE MEASURED NOT JUST BY THE DOLLAR

Hey! Tanks LA installs and plans rainwater harvesting and graywater systems on residential and commercial properties in Los Angeles. Owner Scott Mathers stresses that before investing in rainwater harvesting or graywater systems, clients must assess their needs.

“Some people do it to save money, others just want to feel good about it,” Mathers observes. “So whatever their goals are, graywater might be better for them, or rainwater might be better for them, or they might benefit from both.”

It depends on how clients intend to use the water and how large their properties are, Mathers explains. “Don’t spend the money on a rainwater tank unless you have efficient landscaping,” he warns. “You can’t have a huge lawn and have a rain tank. It doesn’t make sense. Forget it.”

Rainwater harvesting cisterns are more expensive to install and maintain than graywater systems, but they produce better quality water, Mathers adds. “It’s not a cheap investment,” says Joseph. “Sometimes you don’t see the investment returned for many years to come.” I think it’s a commendable effort that these individuals are making.”

Key agrees rainwater catchment isn’t cheap. Small commercial rainwater catchment systems can run from $20,000 to $30,000, while large commercial systems usually cost between $100,000 and $150,000.

The bottom line, says Mathers, is that to be cost effective, both graywater and rainwater systems need to be looked at based on use.

“There’s not a one-size fits all,” he says. “It’s what’s the design, what’s the demand, is it a business or is it a family? You have to look at the supply and demand.”