

Santa Monica Park's Toilets, Grass Are Getting New Water Source

BY JEN KINNEY | MAY 26, 2017



Treatment equipment at Los Amigos Park (Credit: City of Santa Monica)

As part of a citywide goal to become **water self-sufficient** by 2020, Santa Monica, California, unveiled a new water reuse system in a park this week. The rainwater and other city water runoff that naturally makes its way to Los Amigos Park will now be captured, treated onsite, and reused for irrigation and to flush park toilets. While Santa Monica has long been at the forefront of reusing dry weather runoff — water that flows into the streets from sprinkler overflow, car-washing and uses unrelated to rain — the city hopes this project will pave the way for more distributed water recapture systems.

“We’ve been facing longer and deeper droughts, seeing those things happen over the years, but particularly in response to the latest drought, realized that we can’t forever rely on importing water from the Colorado River and northern California. It’s not sustainable, but it’s also more expensive

water,” says Dean Kubani, chief sustainability officer and assistant public works director. “So it really only makes sense to capture these resources that we’ve been overlooking for years — and literally letting run down the drain and into the ocean — and reusing those rather than impacting landscapes far away from us to buy water.”

For over 15 years, the [Santa Monica Urban Runoff Recycling Facility](#) has been treating an average of 500,000 gallons a day, which can then be used for irrigation or in buildings equipped to use recycled water. Many of the city’s parks and cemeteries are watered this way. The Los Amigos project is much smaller, predicted to offset about 500,000 gallons of water a year. But it represents a sea change in the permitting and regulation of street runoff reuse projects.

While guidelines had been established for treating stormwater captured from rooftops, Kubani explains that “water running off street is going to be a lot dirtier,” and must be treated differently. Until recently, he continues, “It’s been difficult to permit these types of systems, because there are a lot of public health requirements you have to meet for reusing water, particularly for reuse inside a building. If there’s any likelihood that some person or animal will come in contact with it, you basically have to make it so that it’s almost drinking water safe.”

After years of work with the Los Angeles County Department of Public Health and state Division of Drinking Water, the city was able to refine those requirements while keeping stringent treatment standards intact. Water captured at Los Amigos Park will be filtered of solids and UV-treated to kill pathogens before being used for irrigation and in toilets. The design takes advantage of an existing storm drain line for capture, and stores water below ground. The only visible component will be the treatment equipment, which will be signed for educational purposes. Los Amigos Park is jointly managed by the city and the Santa Monica Malibu School District.

“Mostly what other municipalities or other agencies do is they’ll capture rainwater from the roof or perhaps take runoff from off-site to use for irrigation, but the whole purpose of treating it for indoor use for flushing, that’s the trailblazing aspect of this project,” says Rick Valte, city engineer.

Los Amigos will be closely monitored to inform future projects, with the city tracking how much water is coming in, the quality of the water coming out, and more. “This is going to ultimately help to design better projects like this, bigger projects like this in other locations,” says Kubani.

All of those water recapture projects are part of a larger goal to meet all of Santa Monica’s water needs locally by 2020. Another initiative, the Sustainable Water Infrastructure Project, will aim to catch about 6 million gallons of water in three areas of city, treat it and return it to the groundwater table. Another component of that project will siphon off and treat water from sewer lines. Santa Monica currently sources about 75 percent of its water from groundwater, but with intermittent droughts, that source has not been replenishing itself as quickly as needed to get to 100 percent.

Greater conservation on the part of businesses and individuals will be required too, says Kubani. The city is currently using about 20 percent less water than in 2013, in part due to a strong conservation push during the recent drought. But since Governor Jerry Brown announced the end of the drought emergency earlier this year, usage has been creeping back up. The connections are also more

complicated than they might first appear. Higher rates of conservation also meant less dry weather runoff, as people used less water on their lawns and cars.

“Putting all of it together is what gets us down to be able to live within our means,” says Kubani.

Tom Ford, marine biologist and executive director of the Bay Foundation, says projects like the one at Los Amigos Park also benefit ocean life, as fewer pollutants wash into the bay. Sewage discharge, solids from street runoff and other toxins kill off organisms at the bottom of the food chain, which in turn impacts the animals that eat them, all the way up to top predators.

“If we built more of these, we can knock down the pollutant loading to the bay by capturing water and the pollutants it carries before it gets out there into the surface waters,” says Ford.

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