

LA officials use green infrastructure to fight stormwater pollution

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Molly Peterson/KPCC

Elmer Avenue is one of a growing number of streets in Los Angeles city and county that demonstrate principles of low-impact development.

Stormwater's one of the worst polluters of coastal waters. That's a big reason why state and local officials have cracked down on rainwater runoff that can foul the ocean. In Los Angeles, a dense, sprawling watershed complicates those pollution controls. Public agencies are trying to lower the impact of development.

Trotting out of an orange house on this Sun Valley street, a guy named Luis interrupts his morning exercise to point at the sidewalk and ask a question.

"Is this dead?"

He's talking about some new plants on this street, and he's talking to Edward Belden, who works for the Los Angeles San Gabriel Rivers Watershed Council. Wearing a floppy sun hat, Belden never gets very far without people asking him for advice on the care and feeding of new plants along Elmer Avenue.

Belden bends down. "This is the one you want to keep," he says, touching it, but leaving it buried. "But this one, this one you can actually pull," he says, demonstrating.

These plants are just one sign of what planners call "low-impact development" – ways of controlling storm water that mimic what nature would do in an unpaved world. Rain on 37 acres of foothills pours down onto Elmer Avenue. Belden says now it will drain into a catch basin at the top of the street.

"This is really where the majority of water can come into the system and allows those pollutants to settle out," he says. "It's an infiltration gallery that you can't see buried but takes up about two-thirds of the street, and that's where all this water's able to go and slowly infiltrate into the ground."

That's where the plants come in.

Belden says he's neither botanist nor gardener, but he's worked on this project for some time; he identifies lavender, iris, kangaroo pod, and some native grasses. Crews have added still-young California-friendly greenery, along with new soft-bottom swales – ditches next to a meandering path.

Good-looking, flood-controlling and they have a pollution-fighting purpose. "The soils and the roots break down some of the pollutants in the water and here we have really sandy soils," he says, "and the water just percolates down into the ground, and that also will recharge our basin."

Beyond the sidewalk, more than half the people who live here – including Luis – signed up to add plants or water-permeable driveways at their houses. In the orange house, Luis likes what he sees.

"Before it was like dead. Now it looks better," he says, shrugging his shoulders. "We're going to save a lot of water, I guess."

Elmer Avenue looks very different now than the blocks around it. A long list of agencies, from the federal Bureau of Reclamation to the city of L.A.'s sanitation department, had a hand in demonstrating new ways to manage stormwater here.

The head of the L.A.-San Gabriel rivers watershed council, Nancy Steele, says tests proved they'd work. "We monitored the water quality in six places, at the surface, as it goes through the soil, and when it hits the groundwater," she says. "And what we found at those six locations was the water quality was either stable or improved as it got to the groundwater."

This demonstration changed one block – just a quarter mile out of 6,000 or 7,000 miles of L.A.'s paved streets. The project cost just under \$3 million.

But the president of L.A.'s Public Works board, Paula Daniels, says it's vital to limit and clean water in the storm system for a simple reason: "When it does rain it causes a whole lot of pollution in the ocean."

That's why Daniels says L.A. already pushes green infrastructure in larger and commercial buildings. She's championed a low-impact development ordinance that applies to more properties, including residential expansions.

City officials will consider it this fall. "When it first rains the water looks as dark as coffee," she says, a little disgust creeping into her voice. "So what we're really directing is that that first flush be captured. After that it can run off, so if the property can be designed so that the first three quarter inches of rain can be captured or reused, then we've accomplished a lot – and we can do it here."

Any ordinance L.A. passes will also need to pass muster with regional water quality boards that enforce federal standards. Those regulators have updated similar runoff rules in San Diego, Orange County and Ventura – where builders have challenged them.

The Building Industry Association's Holly Schroeder says changing runoff rules can send costs and confusion through the roof for construction projects. "What we find many times is that a rule from one agency might be at cross purposes with a rule from another agency," she says. "And that can create real problems when you're actually trying to build a house or an apartment building or something of that nature."

But the Natural Resources Defense Council's Noah Garrison says tighter runoff controls are long overdue. Federal rules, called "stormwater permits," incorporate and supercede local efforts, so Garrison says they're a better way to enforce controls.

But local limits are a good beginning. "These ordinances are in general terms weaker than what would be required under stormwater permits, but they represent large steps forward for the cities and a terrific effort in the cities to take their own initiative in requiring low-impact development."

New rules aren't the only way Southern California cities and counties try to manage stormwater runoff. Public officials say federal stimulus money could help the cause, so they're pursuing that too.



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