NDS
We put water in its place

S5: Case Study

Paola Residence

Fast Facts

Products
EZflow, Flo-Well, Pop-Up Emitter

Application
Residential drainage

Address
606 Marine St.
Santa Monica, California
90405

Owner
Paola Vezzulli

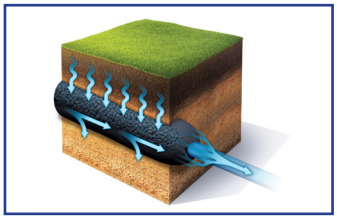
Project Cost: $3,500

Project Information

During the construction of a two-story addition to her bungalow, Paola was required to put in a water flow management system. The City of Santa Monica requires the infiltration or retention of 100 percent of stormwater runoff from new development projects, but Paola's property was too small for an infiltration system or an engineered natural treatment. At first, Paola just paid the city's $8,000 fee to discharge the runoff into the street, but then began pursuing other options since releasing water so close to the ocean can be hazardous. The city recommended a concrete cistern, whose final cost could have ranged anywhere from $10,000 to $30,000. Then an industry civil engineer guided Paola to NDS, a much more cost-effective and sustainable stormwater solution.

Products

EZflow – A lightweight and all-in-one drainage solution, EZflow requires no gravel. Polystyrene aggregate completely surrounds the outside of a drainage pipe, providing a consistent infiltrative area for the absorption and removal of water. Uniform size and shape of the aggregate delivers optimal permeability.

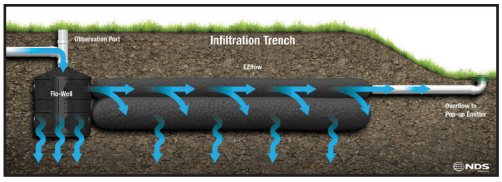


Paola Residence

Products

Flo-Well – Easy to install, Flo-Well manufactured dry wells are made from 100 percent recycled materials and offer a sustainable way to manage stormwater runoff. Capable of operating independently or as part of a larger stormwater management system, Flo-Well units collect, retain and direct stormwater on a site without the need for gravel and a traditional dry well. Modular units can be connected in a series or stacked to accommodate a variety of needs and site limitations.

Pop-Up Emitter – Acting as the discharge point of a drainage system, Pop-Up Emitters release water from the drain pipe away from structural foundations in order to help manage water overflow. A spring-loaded cap opens when it senses the hydrostatic pressure of water flowing through the pipe, and it closes again when the flow decreases. The pop-up style keeps rodents and debris out of the system, and the low-rise height won't get in the way of mowers.



NDS Advantages

The S5 Sustainable Stormwater Solution by NDS provides a scalable and flexible way to meet today's performance standards for onsite stormwater management. Based on the five core principles of conservation, flexibility, replenishment, management and mitigation, the S5 system met the requirements for water management on Paola's property. S5 is a single-source solution that simplifies water-management projects on a commercial or residential level.

The quick and easy installation process is one defining advantage of an S5 system. Minimal excavation is needed for most NDS systems, and complete installation on Paola's property took only about two weeks. Since Paola's primary issue was limited yard space, NDS's scalable and flexible nature made it easily adaptable to the specifics of the project, as a concrete cistern would have been too invasive for her property. To conserve even more space on the property, NDS added piping to the side lawn segments above the EZflow, instead of alongside it.

The S5 system on Paola's property is designed to convey water from the south to the north, which takes place in the narrow portions of yard on both sides of Paola's home and drains into two Flo-Well units that retain and direct stormwater without the need of a traditional dry well. To prevent stormwater overflow, Pop-Up Emitters were installed to release excess water into the street. Since Paola installed the NDS system in 2012, she has not experienced any overflow and now uses NDS products for all of her real estate development projects.