



Rain Drain

» A drywell is the simple solution to rainwater runoff

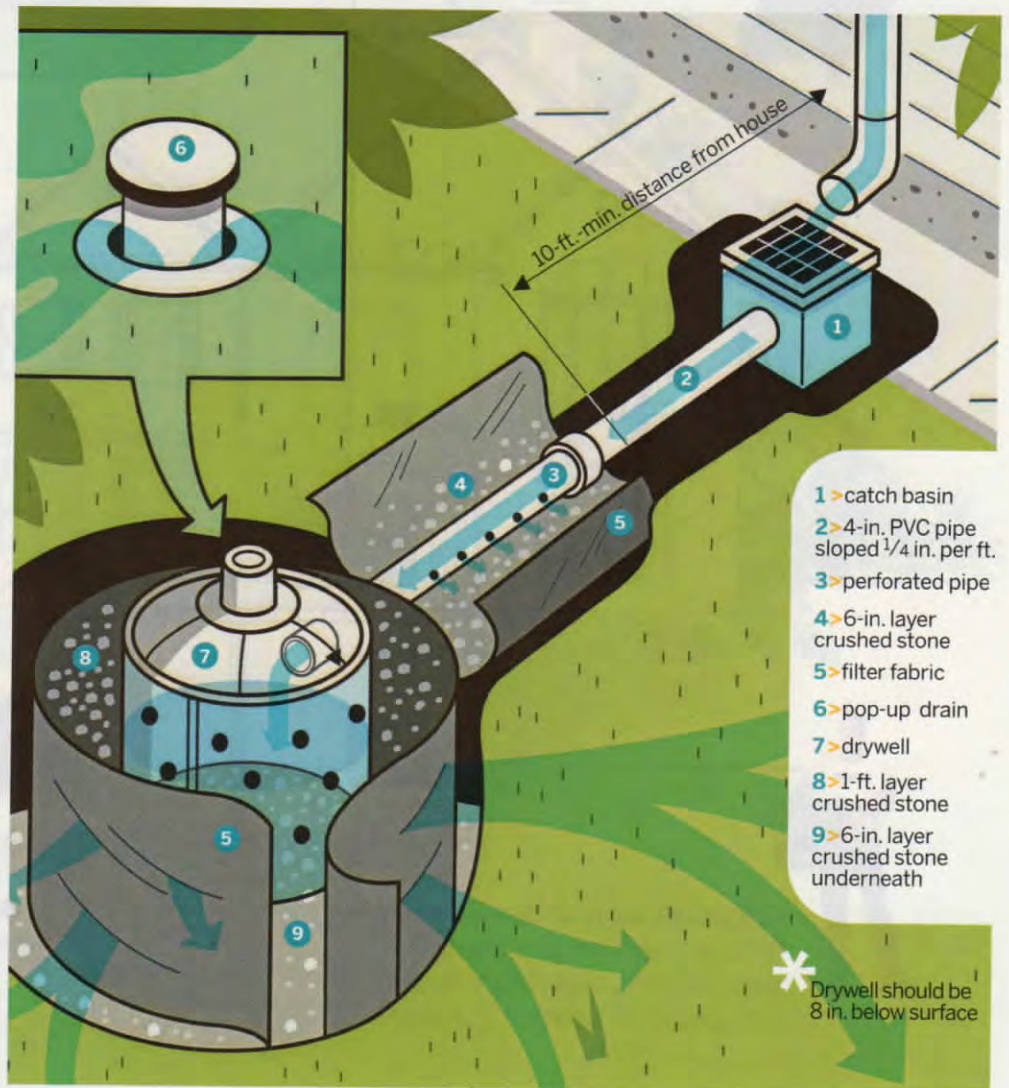
BY SAL VAGLICA ILLUSTRATION BY HARRY CAMPBELL

GUTTERS AND DOWNSPOUTS do a great job of channeling rainwater from the roof to the ground. But if all that runoff has no place to go, the results can be disastrous: flooded basements, eroded hillsides, and lawns turned into soggy swamps. That's when you need a drywell—a glorified hole in the ground that receives and safely discharges surplus H₂O.

The typical drywell system has three basic components: the drywell itself, which is a bottomless container buried 6 to 8 inches below grade; a catch basin positioned under the downspout to filter out leaves and other gutter debris; and an underground plastic pipe connecting the two. The catch basin and pipe convey the water to the drywell, where it collects long enough to percolate gradually into the surrounding soil. To promote drainage and to keep the drywell from getting clogged with mud, the whole assembly is encircled by a layer of crushed stone wrapped in filter fabric.

The most common type of drywell is shaped like a barrel, with an open bottom and perforated sides to provide water with a means of escape. Properly installed, a 24-inch-diameter barrel can handle the runoff from an inch of water per hour falling on a 1,000-square-foot roof, provided the soil drains reasonably well. If you have a bigger roof or live in an area with drenching rains or nonporous soil, you may need the larger capacity of a half-pipe-type drywell, which looks like a miniature Quonset hut and sits in a long, shallow trench. (Don't know what type of soil you have? Go to thisoldhouse.com/shortcuts for instructions on how to test it yourself.)

Drywells should be at least 10 feet away from the foundation and trees, and 3 feet from neighboring property lines. If the distance from the house is greater than 10 feet,



- 1 > catch basin
- 2 > 4-in. PVC pipe sloped 1/4 in. per ft.
- 3 > perforated pipe
- 4 > 6-in. layer crushed stone
- 5 > filter fabric
- 6 > pop-up drain
- 7 > drywell
- 8 > 1-ft. layer crushed stone
- 9 > 6-in. layer crushed stone underneath

* Drywell should be 8 in. below surface

This Old House landscape contractor Roger Cook bridges it with perforated drainpipe. And as a precaution against overflow, he also installs a pop-up drain atop the barrel at ground level. Once the installation is complete, that little pop-up is the only visible sign of this subterranean water-management system. ■



ONLINE VIDEO

Watch a video of *TOH* landscape contractor Roger Cook installing a drywell: thisoldhouse.com/shortcuts

Calculate the size drywell you need: thisoldhouse.com/shortcuts