

HARVEST FROM THE SKIES

BY NATE DOWNEY | ILLUSTRATIONS BY GEORGE LAWRENCE

Not everyone is cut out for horse-plow farming. A precious few abide by the motto "grid-free or die." Not many refuse to use cars, buses, trains or planes. But anyone can harvest rain, and herein lies the key to our sustainability.

The broad field of precipitation redistribution can be divided into four categories: passive water harvesting, active water harvesting, wastewater harvesting and community water harvesting. There is something for everyone when it comes to rain, snow, sleet, hail, dew, fog and the thousand names for airborne condensation. Since our water situation is abysmal (both locally and globally), the time is now to find an effective niche in the forthcoming water har-

vesting revolution. Fortunately, this is easy.

Passive techniques include ecological landscape design, composting, sheet mulching, land contouring and swale construction, check-dam building and countless other means of slowing the flow of runoff and storing water in soil. This is the stuff of water-conscious gardening in all of its raging beauty and impressive efficiency.

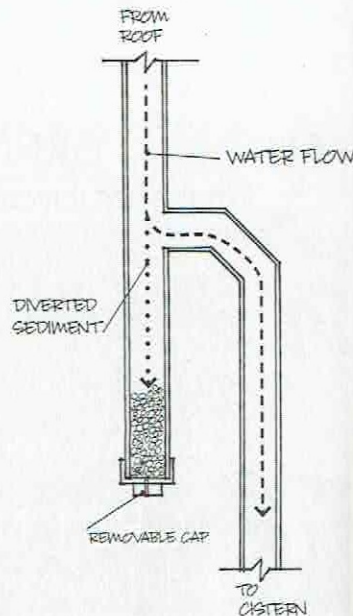
Active systems incorporate water-storage tanks for indoor and/or outdoor

use. These cisterns can be aboveground, underground or partially buried. The term *active* refers to the moving parts (pumps, pressure tanks, valves and float switches) that are often required in the water harvesting process. Although it's important to connect all of these parts properly, it's Plumbing 101, not brain surgery.

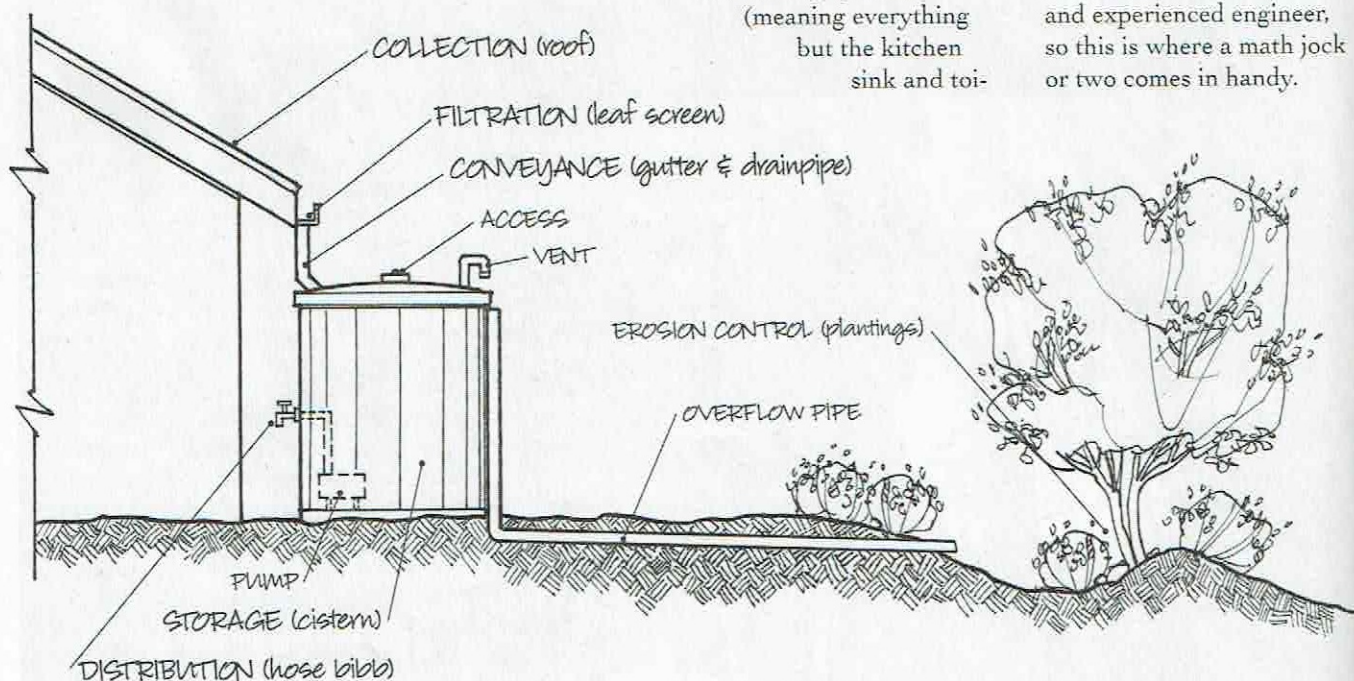
Wastewater reclamation reuses sewage via a wide variety of safe and productive methods. In accordance with New Mexico state law, greywater

(meaning everything but the kitchen sink and toi-

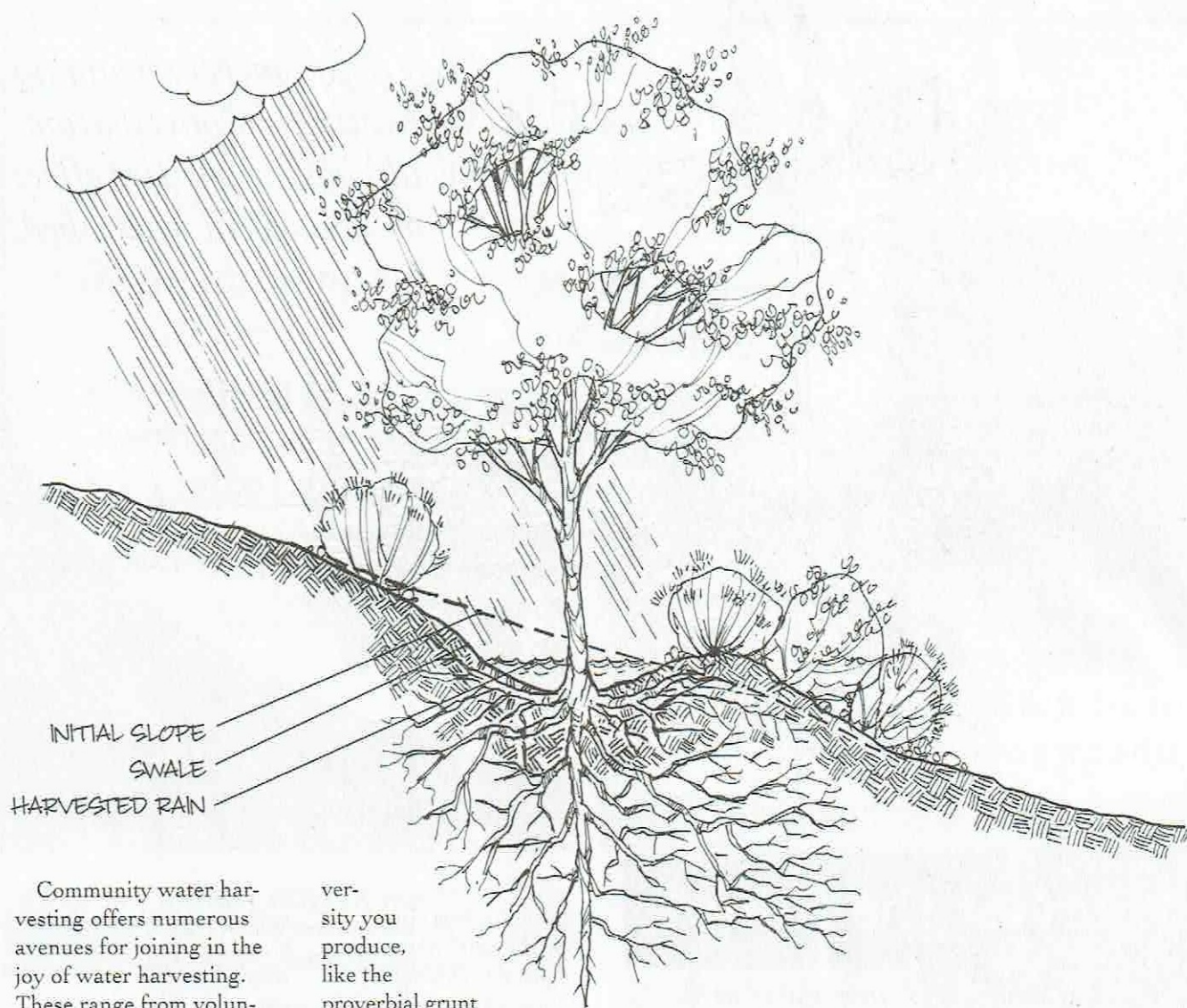
let) should be directed *passively* to plants in the landscape *without* tanks, pumps or man-made filters. Simple biological strategies for treating blackwater can be inexpensively connected to an existing septic system and end up providing irrigation-quality water almost overnight. Some systems definitely require a licensed and experienced engineer, so this is where a math jock or two comes in handy.



FIRST-FLUSH DIVERTER



ABOVEGROUND CISTERN SYSTEM



AN ON-CONTOUR SWALE

Community water harvesting offers numerous avenues for joining in the joy of water harvesting. These range from volunteering for a local watershed group to donating money to an ecologically focused organization. Within this spectrum, there are dozens of easily distinguishable opportunities available for those who are less inclined to tend gardens, fit pipes or work with the cosine of α .

I'm a firm believer in the power of talk. Even if you merely bring up water harvesting in conversation, you could have a positive effect on your local watershed and, as you help your bioregion heal, you save the world. By the example you set, by the level of increased sustainability you generate and by the biodi-

versity you produce, like the proverbial grunt around a water cooler in Taos who sets off a chain of events that reforms the World Bank (One can hope!), words have the power to promote the change we need.

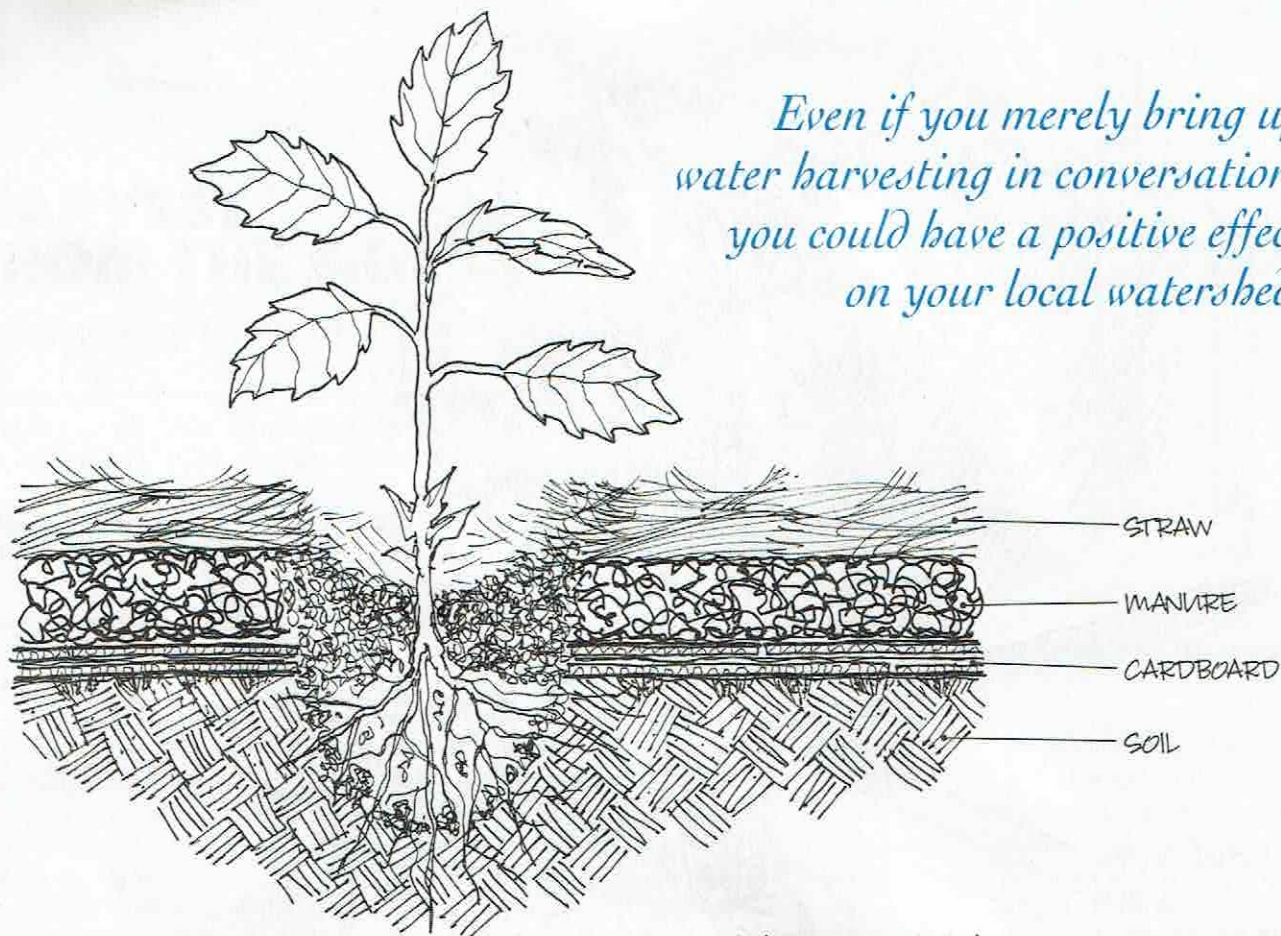
One of my contributions to this conversation is a concept called "gradual greening." Described in greater detail in my upcoming book, *Harvest the Rain* (Sunstone Press), the idea is that 10 minutes of water harvesting (or any other ecological activity) per day is all we need to save the world. The catch is that we must add an additional 10 minutes every year to our average daily green routine. If we follow this

course, in 30 years we will be greening the Earth for the same amount of time that we currently spend watching video screens. This means that, in a generation and a half, our average ecological commitment would become four hours per person per day—enough to chart a course toward sustainability in any bioregion.

Yes! This requires a paradigm shift in our thinking, a new perspective on precipitation, but it also depends on both a renaissance in our understanding of patience and an

increased long-term sense of obligation to future generations. Along with the slow food movement already underway, I happen to believe that water harvesting, because of its power and simplicity, has an excellent chance of motivating the masses toward a sustainable future.

Cisterns, quite literally, are the heart of the matter. Each system's capillaries can be seen as the roofs and other surfaces that collect the precipitation. The system's veins correlate to the gutters, downspouts, canals and pipes that con-



SHEET MULCH

Harvest the Rain

Harvest the Rain is the book I have been waiting for: a detailed "how to" for people and communities wanting to take a major step in saving the world's water written by a passionate water conservation advocate. Let this practical, entertaining and challenging book be your guide to your own—and the world's—water-secure future.

— MAUDE BARLOW, author of *Blue Covenant* and Senior Advisor on Water to the President of the United Nations General Assembly

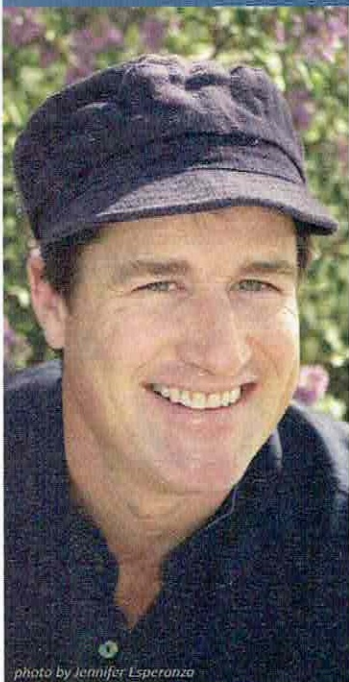



photo by Jennifer Esperanza

order Nate Downey's groundbreaking book at:
www.harvesttherain.com

vey runoff to the cistern. From the tank, water is pumped through branched arteries, which are literally the distribution piping used to get water where it's needed. Along the way, our lungs treat our blood, just as sediment traps cleanse water in the system.

Similarly, you might think of yourself as a drop of blood or a gallon of rainwater. Like a capillary or a roof, this Guide first attracted you, and now your mind is being conveyed to the heart of the matter, and the conclusion of this essay. Soon you will be pumped back into the real world, teeming with life force, ready to distribute wisdom far and wide.

As a water harvester, you can personify the antithesis of the second law of ther-

modynamics. You can generate life wherever you roam. Just slow down the rain a tad. That's the key. And gradually increase your time commitment over a period of three decades. That's the handle and the way to let sustainability percolate smoothly into your life, your bioregion and the world we are borrowing from our children. 

Nate Downey discovered his penchant for ecological landscape design back in 1992 when he started Santa Fe Permaculture. *Permaculture in Practice*, the column he's written for more than a decade, can be found in the Santa Fe New Mexican's monthly "Real Estate Guide;" (www.sfermaculture.com).