

## How to Build a Rain Garden

Stormwater runoff is a leading cause of pollution in our streams and lakes. Impervious surfaces all around us—driveways, roads, parking lots—block water from draining into the ground. Lawns are not much better, unless they have a place where the water can go.

Enter the rain garden. Anytime you have a dip in the landscape that contains vegetation to help soak up and

drain excess water, you have a rain garden. Think of it as a mini wetland. It can fill your backyard or be as small as a baby pool. It can beautify your home and invite birds, butterflies, and beneficial insects, including those that eat mosquitoes. What's more, it's a manageable project that can be built in a weekend.

Here's how.

### 1. Pick the location

Choose a site at least 10 feet from the house, on a gentle slope (less than 12 percent grade) that can catch water from downspouts. Pick a spot with full or partial sun, not under a tree. Don't place the garden where water pools already; the drainage needs to be good. Silty and sandy soils drain better than clay. To test drainage, dig a 6-inch deep hole and fill it with water. If it takes more than 24 hours for the water to soak in, the drainage is not adequate. The average size of a rain garden is 100–300 square feet. The poorer the drainage, the larger the garden should be.

### 2. Map out the garden

Make the length about twice the width of the space; a kidney or teardrop shape works well. Position it so that the longer side faces uphill to catch as much water as possible.

Use a string to outline the perimeter of the garden. Then, use stakes and string to divide the garden into sections. Do this by pounding stakes along the perimeter, tying one end of string to the uphill stake where it meets the ground, and the other end to the corresponding downhill stake so that the string is level. Repeat so that the strings create 5-foot-wide strips across the garden. This enables you dig a uniformly level pit.

### 3. Prepare the pit

Start digging the first section at the uphill side until you've reached the depth you want. A typical depth is 4 to 8 inches below the string; a flatter slope requires less depth. Repeat with each section. Once the pit is dug, use a carpenter's level to make sure it's even.

Next, begin filling the pit. You'll need enough soil to fill it close enough to the string to leave room for the plants. Start by using the soil you already dug out. Get extra soil if you need it. Be sure to save some soil for the next step—creating a berm.



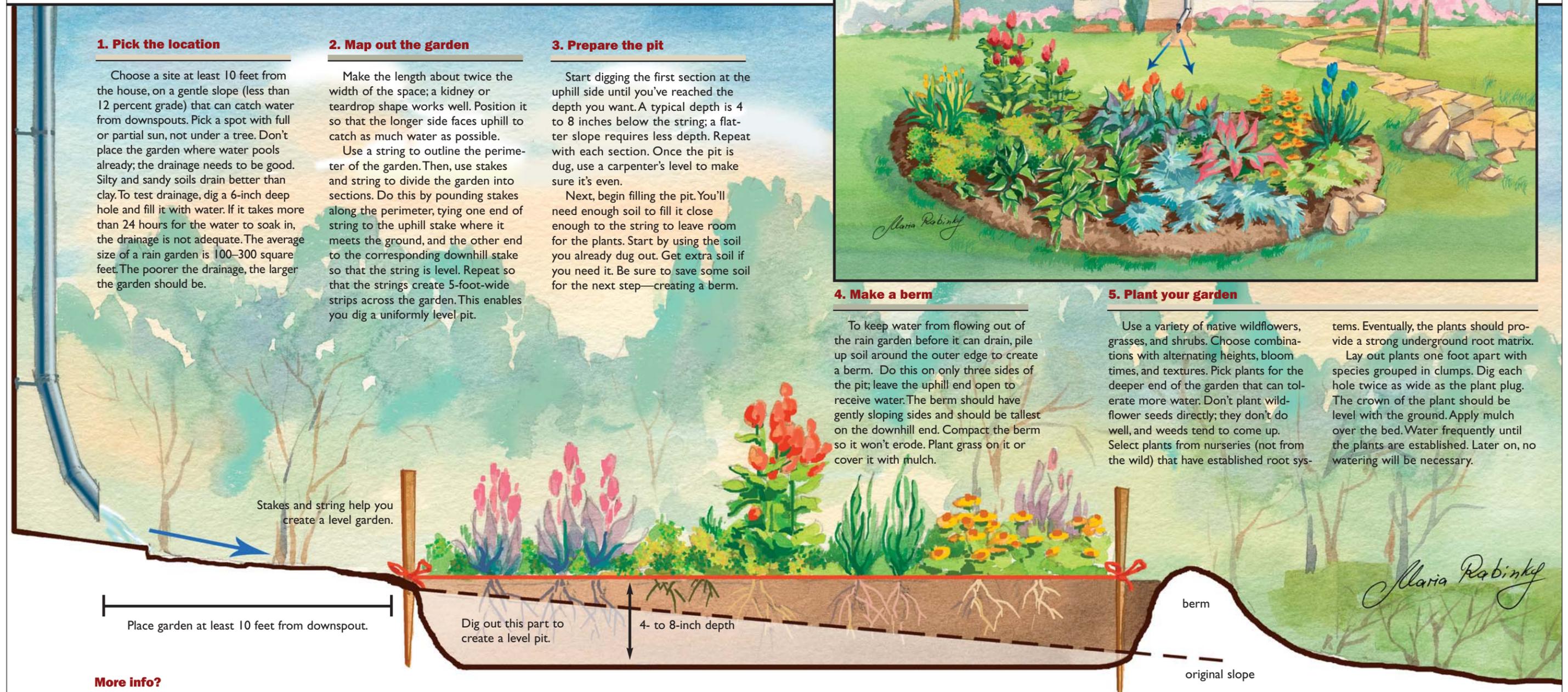
### 4. Make a berm

To keep water from flowing out of the rain garden before it can drain, pile up soil around the outer edge to create a berm. Do this on only three sides of the pit; leave the uphill end open to receive water. The berm should have gently sloping sides and should be tallest on the downhill end. Compact the berm so it won't erode. Plant grass on it or cover it with mulch.

### 5. Plant your garden

Use a variety of native wildflowers, grasses, and shrubs. Choose combinations with alternating heights, bloom times, and textures. Pick plants for the deeper end of the garden that can tolerate more water. Don't plant wildflower seeds directly; they don't do well, and weeds tend to come up. Select plants from nurseries (not from the wild) that have established root systems.

Eventually, the plants should provide a strong underground root matrix. Lay out plants one foot apart with species grouped in clumps. Dig each hole twice as wide as the plant plug. The crown of the plant should be level with the ground. Apply mulch over the bed. Water frequently until the plants are established. Later on, no watering will be necessary.



#### More info?

To learn more about this project, visit [www.iwla.org/oa](http://www.iwla.org/oa).

ILLUSTRATIONS BY MARIA RABINSKY