

## Rain Garden

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A rain garden should be an effective and beautiful way to catch the runoff from the south half of the roof of your house. The rain garden should be 10 inches deep, and have an area of at least 62 square feet. I have calculated the necessary area for the garden base according to its drainage area.

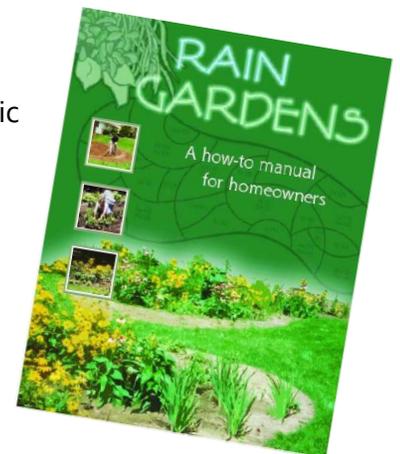
The proposed rain garden is drawn on the site diagram, but the specific shape and location are approximate. They can be adjusted slightly. Be sure to avoid the use of heavy equipment in the proposed rain garden location; it will compact the soil and decrease infiltration.

In order for the proposed rain garden to collect the water from your roof, the downspouts from your gutters will have to be redirected to drain into the garden. This can be done by rerouting the downspout. If you prefer to divert the water underground, you can bury 4-inch PVC pipe or drain tile from the downspouts to the gardens.

### Installing rain gardens

The process for installing the rain gardens is outlined in detail in the *Rain Gardens: A how-to manual for homeowners* publication. The basic steps are as follows:

1. **Contact Diggers Hotline.** At least 3 days before you plan to start digging, contact Diggers Hotline to make sure that your excavation won't interfere with any underground utility lines. You can call them at 811 or do an online Email-a-Locate from the following website:  
<http://www.diggershotline.com/disclaimer.htm>
2. **Install a silt fence.** A silt fence should be installed before any soil is moved or exposed. This is essential in order to prevent sediment from washing into the lake.
3. **Dig the rain garden** (page 12). Your rain garden should end up being 10 inches deep and perfectly level at its base. The edges of the garden should slope from ground level to the garden's base at a ratio of approximately 2:1. An additional foot is excavated and filled with a sand/compost mix.
4. **Level the rain garden** (page 12). It is essential that the base of the rain garden is flat in order to prevent uneven pooling of water within the garden. To maximize infiltration capacity, the water must soak into the ground evenly throughout the garden's base. The top edge should be equally level as well; a



low spot could cause channelization of the overflow. Again, prevent soil compaction by avoiding the use of heavy equipment.

5. **Making the berm** (page 14). A berm on the downslope side of the rain garden will prevent water from over-topping the garden's sides and flowing down the slope and into the lake. The soil removed to dig out the base of the garden may be used to create the berm. See the site diagram for cross-section sketches with berm height. The berm design includes planting with Pennsylvania sedge, but it could also be planted with lawn grass. An erosion control blanket, such as a Futerra® F4 Netless® excelsior blanket, should be used until the grass has taken root.
6. **Plant the rain garden** (page 16). The garden should be planted with species from the lists provided. The base of the garden should be planted with species from the Rain Garden list. The edges should be planted with species from the Garden Edge list. Begin by laying down 2 to 3 inches of shredded bark mulch. To plant, separate the mulch, dig a hole, sprinkle organic fertilizer, and place the plant plug in the hole. Press the soil gently around the plug and replace the mulch, being careful to keep mulch ½ inch from the stem of plants. Seedlings should be planted at a density indicated on the design sheets. Water immediately after planting.
7. **Water immediately after planting**. Plan to water daily for the first few weeks or until the plants are well established. If plants wilt or droop, a repeated watering during the day may be necessary. Once plants are established, water only if prolonged dry periods occur.

Information for maintaining your rain garden is also included in the Rain Gardens publication (page 17). Like all gardens, it will require some weeding and watering. This is especially important during the first year or so after the garden is installed. Since the plants are native, however, they should require minimal care once established.

### **Helpful hints to ensure the success of your rain garden**

- ***Plant seedlings*** between May 15 & June 15 or August 15 & September 15.
- ***Place live plants in the ground soon after you they are brought to the site.*** If you must keep them a few days before planting, keep them in an area with partial sun such as on the east side of a building or under a deciduous tree. Do not leave them in a dark area for long periods; this will weaken plants. Water to keep packs moist once or twice a day.
- ***Plant in the cool hours of the day.*** Plants will have a greater survival rate if planted on a cool day or during the morning or evening hours.

- **Fertilize.** *A small amount of organic, phosphorus-free or very low phosphorus fertilizer is recommended. The second number on the fertilizer label indicates the percentage of phosphorus. For a 6-0-6 NPK ratio, place 1 teaspoon in each plant hole. Excess fertilizer will encourage weed growth.*
- **Plant at least 30 percent grasses** to stabilize the soil and provide an attractive backdrop for flowers.
- **Plant seedlings in clumps** of 3 to 6 of the same species to create a natural appearance and increase the impact of the flowers.