



Charles River Watershed Association

A Guide to Planting a Home Rain Garden



What is a rain garden?



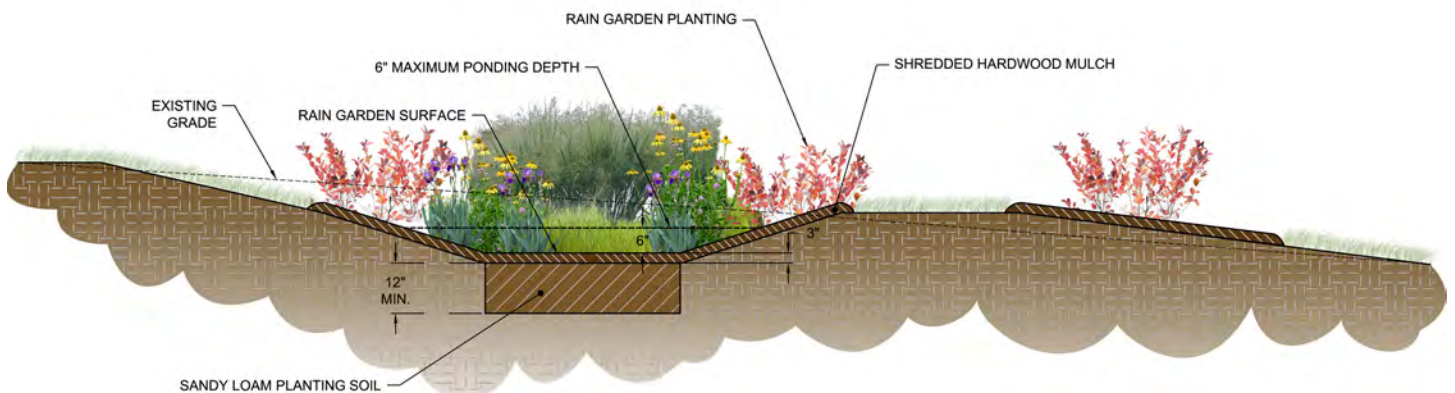
A rain garden is simply a garden designed to collect and filter rainwater running off of driveways, rooftops, or streets. Rain gardens are planted with perennials and grasses that can withstand both wet and dry conditions.

Rain gardens can take many shapes and sizes. Plants can be neatly manicured or more “wild” and “natural” looking. A rain garden adds beauty to your yard while also helping the natural environment.

Why plant a rain garden?



Rainwater that falls onto roofs, roads or driveways cannot soak into the ground. Instead this polluted runoff rushes into storm drains and then directly into rivers and lakes. A rain garden catches polluted runoff, filters it, and allows the clean water to soak back into the ground. This keeps pollution out of our local rivers and replenishes ground water levels. Rain gardens also add beauty to a yard and habitat for wildlife.



How to Plant a Rain Garden

Rain gardens are carefully engineered, but you don't need to be an engineer to build one! Follow these basic steps and you can enjoy your very own rain garden for years to come. Building a rain garden is a simple and rewarding task that will improve your own property and the natural environment. With the right site, design, soil, and plant selection, your rain garden can clean stormwater runoff, improve water quality, build biodiversity and wildlife habitat, and bring beauty to your backyard!



Step 1: Choose your site

Identify a spot for your rain garden that can collect water from your roof or driveway. Sites should be near a downspout to collect roof runoff or downhill of your driveway to collect runoff from it. Avoid steep slopes, rocky areas and areas that often puddle. Set your rain garden about 10 feet away from your foundation and direct any overflow away from the foundation. Once you have selected your site, check your soil to ensure it will infiltrate water (see box at lower right).



Step 2: Design the garden

Sizing a rain garden to hold runoff from a one inch rain storm is a good target, although smaller rain gardens can still make a big difference. To figure out the ideal size for your garden, measure the area in square feet (length x width) of the roof or driveway that your rain garden will collect water from and then divide by 6. This gives you the target size for your rain garden in square feet. Smaller rain gardens will also work, just provide an overflow point where water can exit the rain garden once full.



Step 3: Prepare the ground

Before you start digging, always call 811 to avoid disturbing buried utility lines. Mark out the area where you will build your garden and remove 9-12 inches of soil from that area. If your site is able to infiltrate water in less than 6 hours, mix some of the soil you excavated with compost and add to the garden. Otherwise, use garden soil from a garden center. Do not add fertilizer. Fertilizer will make it harder for the rain garden to do its job. If directing stormwater into your garden via a downspout, position the outlet in the garden and add stones around the opening to help slow the water and avoid erosion, being careful not to block the outlet.



Step 4: Landscape the garden

Garden edges can be sloped or vertical. If the garden edge is vertical, consider reinforcing with edging stones. Lay out the plants in the garden. Avoid blocking short plants with taller plants. For a great looking garden, group plants in odd numbers, and avoid planting in straight lines. Next, dig holes for each plant. Each hole should be as deep and twice as wide as the plant's root structure. If the plants are root-bound, try to loosen up the roots before planting them. Place the plants in each hole and cover with soil. Make sure to water your plants thoroughly.



Step 5: Maintain your garden

For the first 1-3 months, your new rain garden will need extra care. When it does not rain, water your garden once a week with 1 inch of water (about half a gallon of water per square foot). After the plants have been established, you no longer need to water your garden. Weed your garden regularly, especially during the first couple of months. As the plants age, remove any dead branches or plants and prune shrubs and trees as desired. Check the areas where water enters and exits the garden for signs of erosion. Fix any problems and add additional stones if necessary. Check the garden for excess sediment and shovel out as necessary. If your property changes hands, make sure to inform the new owner(s) about the special value and function of the rain garden.

Choosing the best plants

A rain garden best supports plants that can tolerate both wet and very dry conditions. Native plants are well adapted to local conditions and will provide habitat for birds, butterflies and other wildlife. Edible plants should be avoided.

Determine whether your garden is in the sun or shade and choose plants accordingly. Consider during which season the plants will bloom and how they will look together in the garden. When planting, keep in mind each plant's mature size and plan for future growth. Below are some examples of possible plants for your garden.



Blue Flag Iris



Joe Pye Weed



Cinnamon Fern



Cardinal Flower



Switchgrass



Soft Rush



Little Bluestem



Winterberry Holly



Spicebush



Inkberry



Tussock Sedge



Arrowwood

3 easy steps to check your soil

An infiltration test determines how fast the soil can soak up water. Properly draining soil is necessary to prevent standing water from accumulating in your rain garden.



1. Dig a hole 6-8 inches deep and 6-8 inches in diameter at the location you chose for your rain garden.
2. Fill the hole with water.
3. Time how long it takes for the water to soak into the ground.

If it takes less than 6 hours for the water to soak in, then your location is perfect for a rain garden. If it takes between 6-24 hours, you can use the site, but will need to add additional soil. If it takes more than 24 hours for the water to soak in, you should pick a different site for the rain garden.

Supplies and tools

The following supplies can be bought at a gardening supply or hardware store:

- Rain garden plants (see back page)
- Soil and/or compost
- Downspout extender (optional)
- Stones (optional)

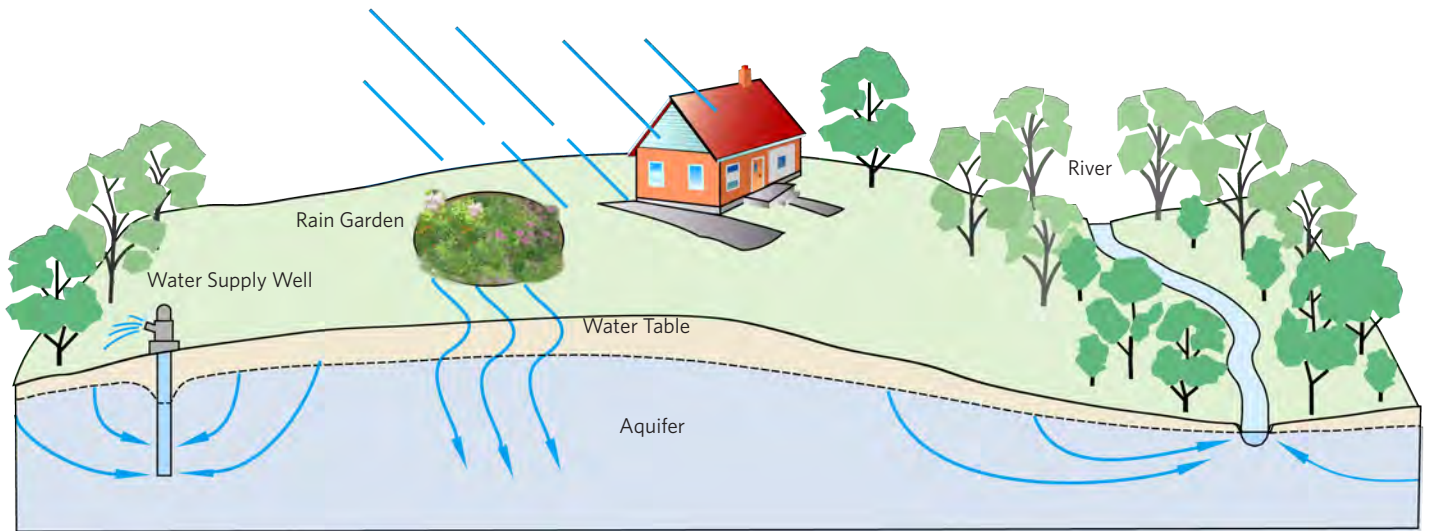
You will also need the following tools:

- Measuring tape
- Shovel and trowel
- Hose or bucket
- Gardening gloves
- Rototiller (optional)

More Information

How will rain gardens help Wrentham?

Rain gardens protect local waterways and help replenish groundwater and local aquifers which supply Wrentham's drinking water. One of the reasons Wrentham has watering bans in the summertime months is because groundwater levels are not high enough to sustain both human water demand and keep enough water in our streams for fish and other aquatic life. Rain gardens planted throughout the town will help recharge groundwater levels.



Additional Resources

For more rain garden resources from Charles River Watershed Association visit www.crwa.org/education

For sizing tools, a plant database, video tutorials and more, download UConn Clear's Rain Garden App from the App Store or Google Play. You can customize the App for Massachusetts. No smart phone? Visit UConn Clear's NEMO Rain Garden Website at www.nemo.uconn.edu/raingardens.



About Charles River Watershed Association

Our mission is to protect, restore and enhance the Charles River and its watershed through science, advocacy and the law. CRWA develops science-based strategies to increase resilience, protect public health, and promote environmental equity as we confront a changing climate. One of our country's first watershed organizations, CRWA formed in 1965 in response to public concern about the declining condition of the Charles River. [Learn more.](#)

Project Partners



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