

Rain Garden Basics

Rain gardens are multi-benefit landscape features that reduce stormwater impacts to our regional creeks, rivers, and the Pacific Ocean. These gardens capture rain and infiltrate it into the ground, allowing water to be retained on site to support soil moisture and healthy plant growth. Rain gardens are incentivized by the Watershed Protection Program and can be designed as a dry creek bed or filled with plants to add beauty and support local biodiversity. **Please read this entire guide before starting.**



Step 1



Step 2



Step 3



Step 4



Step 5



Step 6

Basic Steps to Success

Step 1: Plan your project

Is a stormwater garden right for your site? Observe how stormwater drains across the roof and landscape. Estimate the square footage of the roof, identify permeable areas, and select a location with a level surface. Identify what size garden is best with this [Garden Sizing Guide](#). Ensure there is an setback of 5 feet minimum (10 feet preferred) from buildings, paved areas, walls. A property line clearance should be at least 10 feet.

Step 2: Perform a soil infiltration test

Test and record the soil infiltration rate: [Soil Drainage Test](#)

Step 3: Put it on paper

Using a scaled plan drawn on grid paper or an aerial view of the property, draw in the location of the proposed garden(s), the existing + proposed downspouts, and how the water will be sent to the garden. Sloped swales or buried piping may be used.

Step 4: Mark edges and clear the area

- Outline the perimeter of the garden using a rope or hose.
- Remove all existing vegetation and other items. Follow manufacturer's recommendations if herbicides are used.

Step 5: Dig out the swale and garden basin

Contour the soil by creating a gently sloping path to the main garden basin's infiltration area.

- The preferred depth should not exceed 1 foot, measured from the existing surface grade
- Basin side slopes should not be steep or vertical, aim for a maximum of 1 foot rise over 3 feet in distance.
- Use the Photo Guidance document to show the depth.

Step 6: Add rock and planting

- Amend the soil per the guidance included in this document.
- Add plantings or 3 inches of rock mulch to fill the garden.

Additional Information

Refer to the following rain and rock garden diagrams for more installation information:

- [Rain Garden Diagram](#) or [Dry Creek Rain Garden Diagram](#)
- [Tree in Rain Garden Diagram](#). Also see [Tree Planting & Staking](#) & [Boulder in Landscape Diagram](#) details
- Visit our [Waterscape Rebate Program Resource Page](#) for additional helpful information

Soil Preparation and Amendments:

1. Loosen any compacted sub-soil to enhance water infiltration (scarification).
2. Use caution when adding woody plant cuttings to fill large voids; these will not support healthy plant growth and will decompose causing the soil to sink over time. Cuttings must not be visible when complete.
3. For container plantings, dig a hole as deep as the container and two times as wide preserving the removed native soil in a large bucket or wheelbarrow.
4. Amend the native soil by adding mature compost or other organic soil amendment at the following depths:
 - Mix 3-inches of compost into the top eight inches of soil for typical plant species.
 - Mix 1-inch into the top eight inches of soil for California native plants or most succulent plant species.
5. For small groundcover planting areas amend the whole planting area with a 3-inch-deep layer of compost and mix it to a 6-inch depth, either by hand or with a rototiller.
6. Water the planting area well and install container plants using the amended backfill.
7. Water again after planting and throughout the plant establishment period, which is the first two rainy seasons after planting in arid climates.

Rain and Rock Garden Maintenance Checklist:



After Each Storm:

- Verify the garden is infiltrating water; it may take up to 48 hours for water to be fully absorbed in the soil.
- Check for erosion, and repair or replace plants as needed.
- Remove any debris deposited into the basin.

Weekly/Monthly:

- Irrigate plants according to the plant type, irrigation type, and season. Create an irrigation schedule here: calculator (<https://www.bewaterwise.com/calculator.html>)
- Check for any irrigation system leaks or breaks.
- Prune plants and remove weeds to keep the garden tidy.
- Remove any accumulated trash, debris or excess sediment.

Seasonally/Annually:

- Replace any dying or dead vegetation.
- Update the irrigation schedule each season or use a smart control system, which does this automatically.
- Replenish organic mulch as needed to maintain a 3-inch deep layer. Check online for free mulch and compost giveaways.