RETROFITS 101:



KNOW YOUR RAIN GARDENS



Stormwater is **collected** and **stored**.

Water **infiltrates** into the soil, ... **evaporates**, and is **transpired** by plants. Groundwater is **replenished**, plant growth **supported**, and stormwater pollution **mitigated**.

O1 WHAT IS A RAIN GARDEN?

A rainwater infiltration garden—or rain garden—is a bowl-shaped depression in the landscape that **collects** and stores runoff from rooftops, yards, sidewalks, and streets.

Rain gardens are an example of **green infrastructure**, implementing stormwater management practices that **mimic the natural water cycle** in the built environment. Implementing green infrastructure can improve air and water quality, provide habitat for local wildlife, and strengthens community resilience.

02 WHAT IS STORMWATER RUNOFF?

Stormwater is **rain or snowmelt that travels across the ground** or **enters storm drains directly from roofs**. It is a major source of urban water pollution, picking up contaminants as it flows over driveways, sidewalks, and streets, with contaminants ultimately ending up in nearby water bodies.

Stormwater runoff from heavy rains can also cause erosion and flooding, and damage habitats, property, and infrastructure.

03 HOW TO MAKE A RAIN GARDEN



01) Test your soil

Identify the **type of soil** in your landscape (e.g., sandy, silt, or clay)—this will determine how quickly water will drain from your garden and its overall size.



03) Decide the size & shape of the garden

Size your rain garden based on your **budget** and **local rainfall patterns**. Most home rain gardens range from 100-300 square feet.



05) Add plants

Choose **deep-rooted native plants** and group them based on **moisture tolerance**: plants that thrive in wet environments should be placed in the center of the garden—where most of the runoff is collected—and those that do well in drier conditions at the edges.

04 COMMON CALIFORNIA NATIVE & DROUGHT-TOLERANT PLANTS



Seaside daisies



Golden yarrow





02) Find a site

Carefully consider how the garden might fit into the existing and future landscape. Keep the garden at least **10-15 feet away from your home** so water doesn't seep into the foundation, and **do not place it near a septic system or underground utility lines**.



04) Build your rain garden

Remove any grass. Then dig a hole that is **six to eight inches deep**, with the lowest point in the center. If the garden is on a slope, use the excavated soil to create a **berm**, or low wall, on the downhill side to retain water.



06) Maintain your garden

Add an even layer of **mulch**. Remove any weeds as needed.

05 WHY RAIN GARDENS?

Pros

- + **Replenish** groundwater
- + Filter pollution
- + Create natural habitats
- + Reduce flooding &
- prevent sewer overflows
- + Protect rivers & streams
- + May qualify for **tax**
- credits (check your local
- municipality) + Enhanced **visual appeal**

Cons

- + May **overflow** during times of heavy rainfall + Improperly designed rain gardens may lead to **increased erosion**
- + Variable costs based on garden size, plant types, & location

Design by Eunice Chung

Sources (click on each one for more info): Sandy Roberston, EcoBlock • U.S. EPA • Home Depot • Horst Excavating • Itasca SWCD • Pacific Nurseries • This Old House • University of Wisconsin-Madison • Wise Geek