

Guidelines (continued)

4. **Plants:** Replace any grass with select native plants accustomed to SoCal's Mediterranean climate. Plant when soil is dry and amend soil with organic compost to enhance soil health quality and water holding capacity. Separate your garden into three subsections (base, mid-slope, berm) and determine which section your plants belong in.

- a. Base plants --> able to withstand flooding in winter and aridness in the summer.
- b. Mid-slope plants --> small and capable of handling wetter conditions.
- c. Berms --> small shrubs and trees tolerant of dry summer conditions (succulents and other xeriscape plants recommended in SoCal).

5. **Maintenance:** During storm events, observe whether or not water flows where intended and adjust accordingly. Periodically remove any debris, sediment buildup, or weeds as you move forward. The first months should be a very dynamic process for your rain garden. After a year and if tended to properly, your bioretention basin should be much more self-sustaining and less grower dependent.

Water SUPPLY SECURITY



UCCE (South Coast Research & Extension Center)

📍 7601 Irvine Boulevard,
☎ 858-282-6737
🌐 <https://ceorange.ucanr.edu/>
✉ enmosase@ucdavis.edu

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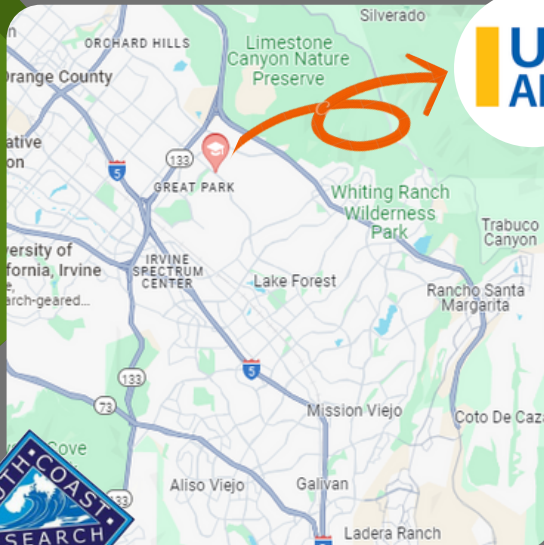
Daniel Gonzalez II

Daniel is serving as an associate research extension specialist at SCREC under the GrizzlyCorps Fellowship. He focuses on developing nature-based solutions for stormwater management practices in Southern California.



**Dr. Esther
(Mosase) Lofton**

Esther is an Urban Watershed Resilience Advisor serving Orange, LA, San Bernardino, and Riverside Counties. Her research and extension focus on drinking and environmental water quality, water use efficiency, and water supply security and water equity.



Rain Gardens



A Sustainable Solution
for Stormwater
Management

WATER SUPPLY SECURITY

Stormwater Management via NBS #2

Why RAIN GARDENS?

- Rain gardens are shallow landscapes repurposed for collecting rainwater from adjacent roofs, driveways, and streets within urban settings.
- They can help...
 - Reduce runoff pollution
 - Increase groundwater recharge
 - Enrich habitat biodiversity
 - Revitalize natural hydrological systems that existed prior to urbanization



REVIVAL OF
BIORETENTION BASINS

How Rain Gardens IMPROVE WATER QUALITY & REDUCE RUNOFF

- Removes pollutants like fertilizers, pesticides, animal waste, dirt, chemicals, oil, and bacteria from stormwater runoff by filtering collected rainwater through layers of plants, soil, and sand as it soaks into the ground.
- Compared to a conventional lawn, this best management practice allows for approximately 30% more water to infiltrate into the ground and contribute to regional underground aquifer recharge.
 - Unlike ponds, the water that rain gardens capture after a storm event typically drains into the soil within an hour.
 - Further protecting residents against flooding, erosion, and other drainage problems.

Examples of Successful Rain Garden Projects



LA StormCatcher



Crescent Farm



ActiveSGV

Guidelines (NOT RULES) for Rain Garden Design and Installation

1. **Find a Good Location:** Identify existing drainage patterns in your landscape during rainstorm events. Locate natural depressions or flat surfaces that will direct water, via gravity, from high points into your rain garden. Downslope areas naturally receiving stormwater runoff from roofs/streets are ideal, but flatter surfaces are easier to dig.
 - a. **AVOID** installing in areas that are within 10 feet of house, often saturated, exhibiting large tree roots, holding ponds, located over septic systems, or under heavy shade.
2. **Be Creative:** Choose a size and shape complementary to the layout of your yard. The slope of your foundation should determine depth of your garden. Different soil types will have different requirements, but your rain garden should generally be large enough to capture 1 inch of rain. Draw a sketch and evaluate your landscape's slope to assess overall redirection of water.
3. **Catchment & Channel:** Utilize gutter systems, downspouts, rain chains, or vegetated swales for efficient water capture. Rocks, stones, and vegetation can stabilize areas susceptible to soil erosion. For good water flow, channels should exhibit a slope of at least 2% (1/4 inch per foot). Do not forget to create an overflow route for further risk reduction of flooding.