

episode fourteen: Field Guide to Western Watersheds



In Episode 14 of the Garden Wise Guys, landscape architects Owen Dell and Billy Goodnick show ways to reuse and retain urban runoff, creating a watershed-friendly landscape.

key concepts

Key Point No. 1

Keep water on your property.

Use cisterns, bioswales, green roofs and dry stream beds.

A cistern amounts to a tank that has captured rainwater off the roof. Owen and Billy show a system with two large collection tanks that were uphill from the area that the water would irrigate, comprising a gravity system.



A bioswale refers to natural vegetation in a trough that collects water and lets it percolate into the soil. Lisa Stratton, Natural Areas director at UCSB, leads the Garden Wise Guys on a tour of the Manzanita bioswale that restricts the runoff from the nearby lawns and residence halls. It grows such native vegetation as Basket Rush (*Juncus textilis*), which, like other bioswale plants, can tolerate an inundation of water followed by a dry spell. Sandbar Willow (*Salix interior*) and Golden Bush (*Ericameria*) are two more of the California native plants.



Lisa also shows the hosts a low-lying dry stream bed on campus which helps slow down, aerate, and filter rainwater as the ground absorbs it. Homeowners can use the same tactic on their own properties to increase percolation and reduce erosion during storms.



Two other means of retaining water on site are green roofs and pervious pavement. The hosts visit landscape architect Susan van Atta, who installed a green roof during construction of her home. A green roof amounts to soil and plants that are specially engineered to absorb and retain water. The vegetation on the roof not only keeps water from becoming runoff, it serves as a so-called cool roof.

Owen also takes viewers to his house to see the concrete pavers he installed in his driveway. The pavers were made of cement and gravel but not sand, which left pockets unfilled in the finished concrete. Water drains through those pockets when it rains, compared with a traditional concrete driveway that would cause stormwater to run off into the street and down the stormdrains. For more information, visit www.perviouspavement.org

Key Point No. 2

Utilize Graywater

Daniel Wilson of Wilson Environmental Landscape Design describes to Owen and Billy the laundry to landscape graywater system. Laundry water is the low-lying fruit, as he puts it, most commonly picked for its ease in tying into a graywater setup.

Key Point No. 3

Keep Urban Runoff Minimal and Clean

If water does end up going into the street, make sure it's clean. Even organic fertilizer can be a problem when it runs off the property into the street. Fertilizers can contain nitrates and phosphorous that can cause algal blooms in creeks, suffocating the aquatic life. One solution is to lower the soil elevation two or three inches so irrigation collects and goes into the soil rather than down the street.