Greening Our Streets, Buildings, and Parking Lots

What is Stormwater Pollution?

In natural landscapes, most of the rainwater soaks into the soil. However, in our urban areas, paved surfaces such as driveways, sidewalks, roads, and streets prevent rain from soaking into the ground. As rainwater flows over these surfaces, it can pick up pollutants such as motor oil, metals, pesticides, and litter. It then carries these pollutants into storm drains which flow directly to local creeks and the San Francisco Bay, without any cleaning or filtering to remove pollutants.

Green Stormwater Features Can Reduce Flow and Pollution

Cities and towns in Santa Clara Valley are working together to create *sustainable* or *green* streets, buildings, and parking lots that mimic natural landscapes, by incorporating *green stormwater features*. These features allow rainwater flowing over buildings, streets, and parking lots to soak into the ground and be filtered by soil. This reduces the quantity of water and pollutants flowing into storm drains and local creeks.

Street runoff flowing into vegetated areas that capture and treat polluted stormwater *(Image courtesy of Callander Associates and the City of Campbell)*

What are Green Stormwater Features?

The following green stormwater features are being integrated into local projects:

Spreading Stormwater Runoff into Landscaping

Landscaped areas can be designed to collect stormwater runoff from building roofs and paved areas. Stormwater soaks into these areas, and pollutants are filtered out or broken down by the soil and plants.

Landscaped drainage areas along a walkway

Bioretention Areas or Rain Gardens

Bioretention areas or rain gardens are landscaped areas that use a special soil mix to remove pollutants from stormwater runoff. They are planted around buildings, in parking lots, curb extensions, park strips, traffic circles, along street edges, and in medians.

Biotreatment area in a curb bulb-out in the Southgate Neighborhood, Palo Alto

Rainwater Harvesting

Rain barrels or cisterns can be used to collect and store rainwater for use in landscape irrigation and toilet flushing.

A rain barrel at a single-family home in Palo Alto

Green Roofs

Building roofs covered in soil and vegetation enable rain water infiltration, storage, and evapotranspiration. In addition to stormwater benefits, Green Roofs can also mitigate urban heat island effects while improving air quality and building energy efficiency.

Green roof at 1460 North 4th Street Apartments, San Jose

Pervious Concrete, Porous Asphalt, and Pervious Pavers

Pervious surfaces let rain soak into the soil. They are generally used in crosswalks, sidewalks, plazas, driveways, parking spaces, street edges, and emergency vehicle access lanes. Pervious surfaces include the following:

- Pervious concrete or porous asphalt
- Grid pavers with gaps filled with gravel or turf
- Interlocking pavers made of pervious material
- Solid interlocking pavers that have gaps between them

Pervious pavers at Rosita Park, Los Altos

How You Can Use Green Stormwater Features in Your Yard, Garden, and Neighborhood

- Replace concrete in driveways, patios, and walkways with pervious pavers.
- Build a rain garden. The native and drought-tolerant plants used in rain gardens reduce the need for irrigation, and attract beneficial wildlife like butterflies and hummingbirds.
- Install a rain barrel to capture rainwater for landscape watering.
- Direct rain gutter downspouts to landscaped areas instead of concrete driveways.
- Support your local municipality's efforts to include green stormwater features in neighborhood improvement projects.
- Take a tour of local buildings and streets that include green stormwater features. Find a map at www.MyWatershedWatch.org

This fact sheet was developed by the Santa Clara Valley Urban Runoff Pollution Prevention Program (SCVURPPP). For more information, visit www.scvurppp.org or call 1-866-WATERSHED