Soil Solarization

A portion of the stormwater that is collected in the City is conveyed to the Davis Wetlands where it is used to support this system and all its wild inhabitants.

An easy, organic way to get rid of weeds with solar energy!

Where does the water go?

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What happens to water from storms, landscape irrigation, or car washing? This water, called stormwater or urban runoff, flows into the City’s storm drainage system through over 2500 curb side catch basins - the openings located along street gutters. The water moves through the storm drain piping below our streets to our creeks, sloughs, wetlands, rivers, delta, bay and eventually the Pacific Ocean.

Initially, much of this water fills the City’s detention and wildlife ponds which support an array of wildlife species. Other water flows through drainage ditches towards the northern and eastern edges of the City.

Stormwater pollution can be extremely harmful to the health of the plants and animals with which we share this planet. Help us protect our water resources for current and future generations.

If you are witnessing someone dumping questionable materials down a catch basin, please call 911 or contact the City of Davis Public Works Department.

Would you, your group, or organization like to participate in this pollution awareness program? If so, please contact City of Davis Public Works at (530) 757-5686.

PLEASE KEEP OUR WATERSHED CLEAN!!

The City has installed storm drain inlet markers near each catch basin to remind everyone about the importance of preventing pollution of our stormwater.
Integrated Pest Management

Integrated Pest Management (IPM) - A decision-making process to determine pest levels and tolerance thresholds and combines biological, cultural, physical, and chemical tools to maximize health, environmental, and financial risks. The method uses extensive knowledge about pests, such as infestation thresholds, life histories, environmental requirements, and natural enemies to compliment and facilitate biological and other natural control of pests.

What is Soil Solarization?

Soil solarization is a nonpesticidal method of controlling soilborne pests by placing UV resistant plastic sheets on moist soil during the months of high temperature. The plastic sheets allow the sun's heat to be trapped in the soil, heating the upper levels. This will increase the soil's temperature to levels that kill most weed seeds and seedlings. This process also improves the soil structure and increases the amount of Nitrogen and other essential plant nutrients. Large increases in plant growth often occur in solarized soil. In order to solarize your garden, you must cover the soil for 4 to 6 weeks during the hot period of the year when the soil will receive the maximum amount of direct sunlight. The best time to do this is in June and July. If this is done properly, the soil can reach a temperature of up to 160 degrees on the surface and up to 100 degrees 3 inches deep. Solarization is by far, the most effective way home gardeners have to reduce or eliminate soilborne garden pests. The benefits are healthier and more productive flower and vegetable gardens. This process is better for your plants and the environment since there are no pesticides used.

How to Solarize Your Soil

Till the area to be treated. The soil needs to be broken up in order to enhance the heat conduction through the soil. Rake the surface to allow the UV resistant plastic covering to be placed in close contact with the soil. Then wet your soil, wet soil conducts heat better than dry soil does. Moisten the soil deeply. In moist soils, pest organisms are more active and are also more susceptible to the lethal effects of heat. Next, lay down the large sheets of UV resistant plastic. These can be purchased at hardware and home supply stores. Do not use colored plastic, it does not conduct as much heat as the clear one does. The plastic should be anchored down to prevent heat from escaping. This is done by digging a trench where the sides of the plastic can be pulled tight and covered with the soil in the trench. Leave the covering on for at least 4 to 6 weeks. When solarizing is complete, plant your bed with seed or healthy, uncontaminated plants.

Healthy soils feed and nurture healthy plants that are more resistant to pests. Organic matter fuels these healthy soils through the use of compost and organic fertilizers.

Example of solarization near bike path along Mace channel in East Davis.