Compost: An Under-utilized Natural Resource for Capturing and Managing Storm Water Volumes and Improving Water Quality

Depending on the time of year, California has either far too much or far too little water. Valuable storm water run-off coming off impervious landscape surfaces and road-ways leads to flooding, extensive water loss and soil erosion.
When it rains in the winter, concrete infrastructure rushes our scarce water resources out to the ocean, making it impossible for water to percolate and replenish our groundwater supply, creating water scarcity.
Both of these issues can be improved and even eliminated by slowing water down through expanding green infrastructure and applying compost to already existing green spaces in municipalities, along highways, and near riparian zones.

Compost Helps Meet Water Resource Management Objectives:

How can compost improve flood management?

- Compost applied to the soil surface can absorb **80% of a 4 inch rainfall event**, while **reducing stormwater runoff between 60% to 97%** over multiple high intensity, high accumulation storm events, resulting in similar reductions in soil erosion.

How can compost reduce water demand and increase/improve water supply?

- Compost amended soils can **reduce irrigation requirements by 30%**, increasing urban landscape water use efficiency.
- For every 1% of Soil Organic Matter, the soil is able to hold up to **16,500 gallons of water** per acre.
- Using compost (+ vegetation) heals the hydrologic cycle by **filtering pollutants** and recharging surface water, ground water, and increasing water in the atmosphere through evapotranspiration.

How can compost help us meet multiple goals?

- Using compost in stormwater management can also help **reduce other hazards**, like filtering nitrogen runoff from artificial fertilizers, reducing the urban heat island effect, and increasing atmospheric carbon drawdown.
- Increasing compost use can also help CA jurisdictions meet their **SB1383 procurement** compliance requirements that went into effect in 2022.
- Increase stormwater capture, reduce pollutant loads, meet water quality standards and **Water Efficient Landscape Ordinance (WELO) goals**.

Want to learn more? Go to StormwaterAwareness.Org to register for upcoming webinars

Association of Compost Producers