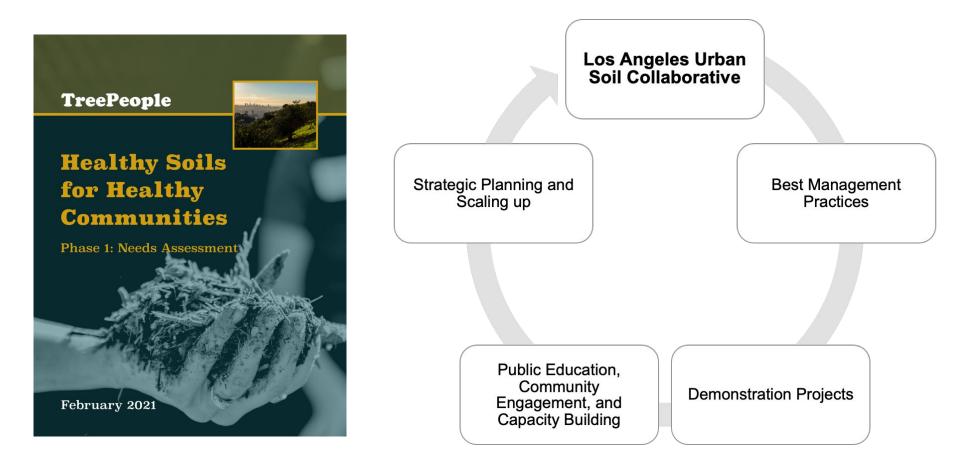


### An Overview of Urban Soil Best Management Practices

2nd Los Angeles Urban Soil Symposium Lia Soorenian & Devon Campos October 26, 2021



### Los Angeles Urban Soil Collaborative: Soil Connects Us All



### METHODOLOGY

- Literature Review
- Case Studies
- Interviews with Experts

# INTERVIEWS (13) ACADEMIA NONPROFITS

### **BEST MANAGEMENT PRACTICES (BMPs)**

### Urban Soil

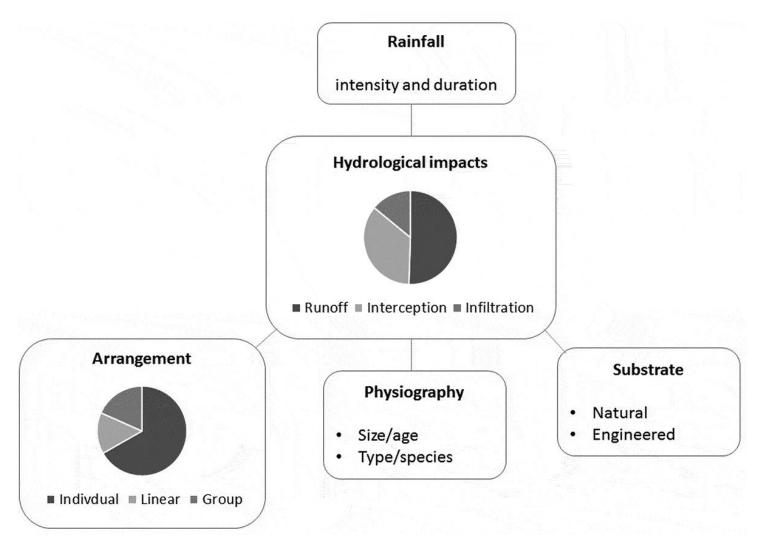
- 1. Tree Canopy
- 2. Urban Agriculture
- 3. Stormwater Management
- 4. Soil Remediation
- 5. Carbon Sequestration/GHG
- 6. Biodiversity



TreePeople, 2021

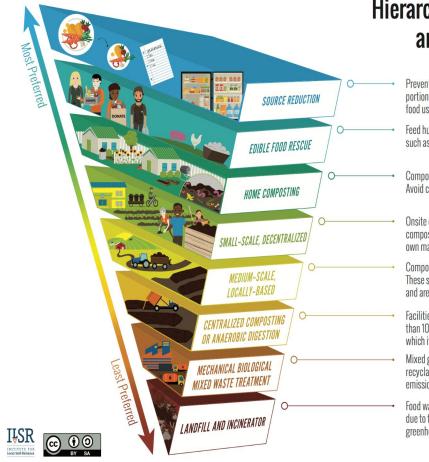
**BEST MANAGEMENT PRACTICES (BMPs)** - A practice or combination of practices, that is determined to be effective and of practical means of promoting soil health.

### **BMPs: TREE CANOPY**



Baker et al., 2021

### **BMPs: URBAN AGRICULTURE**



#### Hierarchy to Reduce Food Waste and Grow Community

- Prevention. Do not generate food waste in the first place! Reduce portions, buy what you need, and organize your fridge for optimal food usage.
- Feed hungry people. Divert food not suitable for people to animals such as backyard chickens or to local farmers' livestock.
- Composting in backyards or in homes. Avoid collection costs!
- Onsite composting or anaerobic digestion, and community composters can accept material from off-site or simply process their own material.
- Composting or anaerobic digestion at the small town or farm scale. These systems handle typically between 10 and 100 tons per week and are designed to serve small geographic areas.
- Facilities serving large geographic areas that typically handle more than 100 tons per week. Material generally leaves the community in which it is generated.
- Mixed garbage is mechanically and biologically processed to recover recyclables and reduce waste volume and the potential for methane emissions before landfill disposal.
- Food waste should be banned from landfills and trash incinerators due to their high capital costs, pollution, and contribution to greenhouse gas emissions.

Virginia Streeter, Institute for Local Self-Reliance, 2017

### **BMPs: STORMWATER MANAGEMENT**



Arlington County, 2021

### **BMPs: STORMWATER MANAGEMENT**

- Measure W and gray infrastructure in Los Angeles
- Over 50% of Los Angeles is impervious
- Incentivizing permeable surfaces





LAist, 2018

## **BMPs: GHG / CARBON**



LASAN, 2021

- How can we increase carbon in soils?
- LASAN "Guidelines for applying Organic Soil Amendments in the City of Los Angeles"

## **BMPs: SOIL CONTAMINATION**



UC Agriculture and Natural Resources Photo: A. Baameur

- Soil contamination and public health
- Testing soils at brownfields and proposed urban agriculture sites
- UC Agriculture and Natural Resources
  "Soils in Urban Agriculture: Testing, Remediation, and Best Management Practices"

### **BMPs: BIODIVERSITY**

- The impact of soil on biodiversity
- "30 x 30" goal for CA
- Urban areas
- Soil community



Lindsay Rosa & Jacob Malcom, Defenders of Wildlife, Center for Conservation Innovation, 2021

### RECOMMENDATIONS

- BMPs overview
- Knowledge gaps
- Next steps





# **THANK YOU!**

