

# Healthy Soils for Healthy Communities

## Phase 1: Needs Assessment

**Soil is the foundation of life. How can Los Angeles (LA) come together around its soils?**



### Needs Assessment: Online Surveys

#### LA County Residents

LA County residents value green space: 85% of residents currently maintain a lawn, landscaped area, or green space, and maintain that space by watering and weeding.

73% of residents use the "green bin" for their green waste or allow green waste to compost in some form on the property.

Resident knowledge about factors that affect soil health was low: 70% reported being not at all or only slightly knowledgeable.

The majority of residents (76%) are very or extremely concerned about soil contaminants and pollution in their communities; however, only 12% of them have ever tested their soils.

Interest in soil-related issues is high, with 76% of participants being either extremely or very interested in the topics listed on the survey.

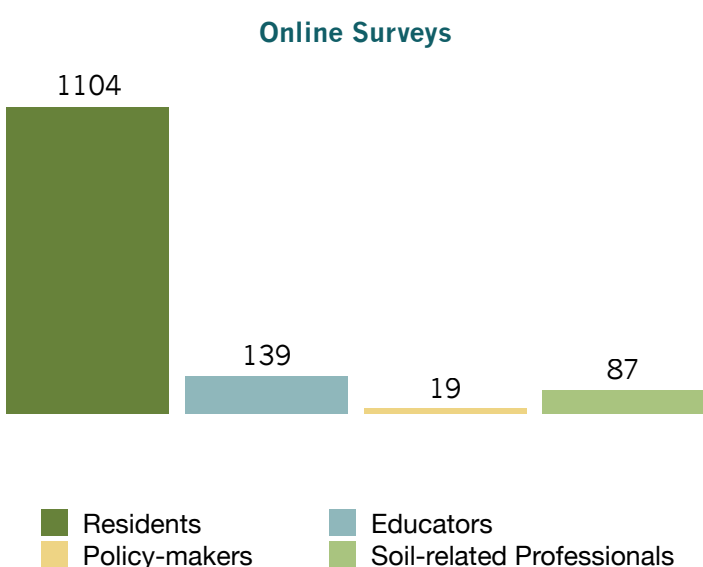
#### LA County Educators

79% of educators reported that their school has a green space or garden.

Almost half of educators said they are not at all or only slightly knowledgeable about composting, and when asked about specific factors that influence soil, 63% said they are not at all or only slightly knowledgeable.

Educators expressed high interest in learning about soil: 81% are very or extremely interested in learning more.

Despite the fact that 88% of educators expressed being concerned about environmental issues, only 48% are concerned about soil contaminants and pollution which is far less than other groups surveyed.



#### Policy-makers

70% of policy-makers are highly concerned about contamination and pollution. However, only 40% believe their constituents feel the same way, when, in reality, 76% do.

Compost and mulching facilities are present in less than 40% of the jurisdictions, and less than 70% of those facilities are maintained by the municipality.

Interest in learning more about soil-related topics is quite high.

#### LA County Soil-related Professionals

77% soil-related professionals are highly concerned about soil contamination, but only 17% of them believe their customers feel the same way.

85% of professionals typically use turf grass in their designs.

Despite 70% of professionals use mulch, only 30% use the green waste from their projects as mulch or compost. Stated barriers to composting include: no facility available (48%), insufficient time (19%), and cost (14%).



### Needs Assessment: Learning from the Community, Experts, and Other Cities

To learn from the community, experts, and other cities, we hosted a virtual Los Angeles Urban Soil Symposium and a Los Angeles Urban Soil Workshop and co-hosted the "Soils: The Living Fabric of Health, 2020 Urban Soils Symposium" with the NYC Urban Soils Institute and RUDN University.



## Current Status of LA Soils

### LA's Land and Soils

44% of LA County was covered by bare soil, which could be restored or sustainably managed.

Soil sealing is another issue, for example, almost 50% of LA City's land is covered by impervious surfaces such as buildings, roads, and other paved surfaces.

LA soils have been highly modified (e.g., 45% human altered soils in southeastern part of LA County).

### Literature Review

Among a total of 124 articles, reports, and other literature published between 1903 and 2020 on LA soils, soil properties and soil contamination were the most studied topics.

A focus of public health and community concern is the presence of soil lead (Pb) throughout the LA metro region, where Pb concentrations in surface soils increased from 16 mg/kg between 1919 and 1933 to 79 mg/kg between 1967 and 1970.

### Soils Analysis

39 soil samples, collected by the U.S. Forest Service from random points across the region, were analyzed by California Polytechnic State University.

The results suggest localized contamination of soils by several trace metals and relatively high soil pH, carbon/nitrogen (C/N) ratios, and carbon.

For all soil properties, the range of test results were wide and variable suggesting the need for additional soil analyses to spatially predict soil properties across the region, especially the potential for soil contamination in areas where vulnerable populations live, including disadvantaged, underrepresented, and underserved communities.



### Needs Assessment: Focus Groups

**Cross-cutting themes** identified include a need for:

Accessible and transparent soil data and testing.

Effective community engagement and streamlined communication that targets underserved communities.

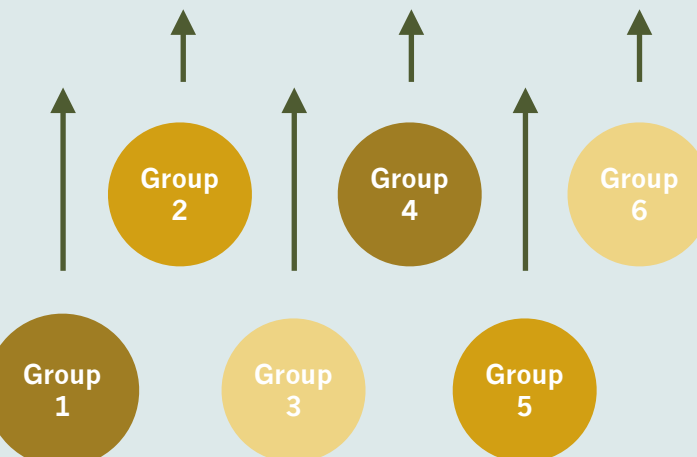
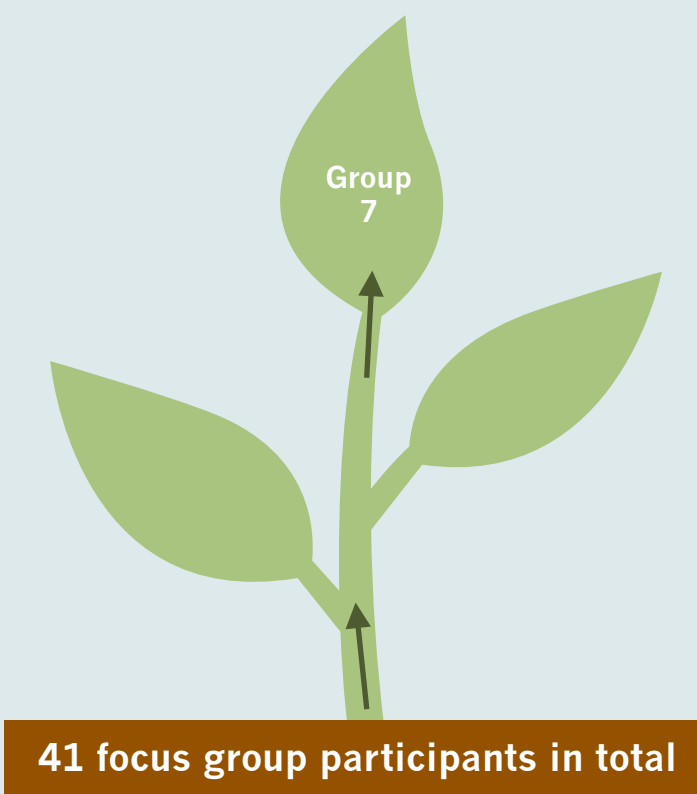
Building alliances among community, policy, and science professionals and leveraging organizations/ individuals/agencies already doing the work (e.g., coordinating composting/food waste diversion).

**High priorities** identified by the synthesis focus group include:

Developing a holistic soil strategy that includes social and ecological dimensions of soil and centers racial justice in urban soil work.

Demonstration projects that address legacy pollution and improved communication strategies for researchers and communities.

Effective engagement that centers communities and emphasizes community leadership through shared power in decision making and resource allocation.



Group	Topic
Groups 1 & 4	Technical and Policy
Groups 2 & 5	Landscape, Gardening, and Urban Agriculture
Groups 3 & 6	Community and Coalition
Group 7	Synthesis Group

## Framework for Next Steps

### Vision: Los Angeles Urban Soil Collaborative



### Funding Agency:

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**For more information, please visit:** <https://www.treepeople.org/healthy-soils-for-healthy-communities-initiative/>