

# Positive Futures Through Climate Gardening

## The Potential for More Robust Residential Landscapes and Climate Engagement in Los Angeles Through a Sociological and Human Health Behavioral Approach

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### Introduction

Considering the continual drought cycle present in California, alongside the realities of the state's limited and costly water access and lack of water sovereignty, it has been long advertised to and understood by, southern Californians in particular that low residential landscaping water consumption is rewarded, and identified as pro-environmental and eco-conscious behavior. This has resulted in a widespread adoption of non-biological zero-scapes and low-biological significance landscapes, particularly under the guidance of CA's "Brown is the New Green Campaign." Considering CA's struggles with urban heat islands, and the reality of urban soils being critical resources in the climate resilience of densely populated regions, this preliminary qualitative analysis of the Residential Landscape Diversity Study by TreePeople's Research and Policy team, aims to understand the connections between pro-environmental motivation, intention, and barriers, so as to better promote and engage residential landscape managers in tangible climate action.

### Methods

This study examines a highly climate-motivated sample of 26 total sites, drawn from applicants already affiliated with with TreePeople, a community-based environmental non-profit organization in Los Angeles County. These preliminary results analyze 19 of the 26 total sites. Participants included residents of rented and resident-owned properties and landlords who rent to tenants aside from themselves.

Participants were selected to represent a variety of residential landscape types that included lack of soil cover, non-organic soil covers, and organic soil covers that included both high and low biological significance. Within the sample, primary covers were 89.47% organic & 10.53% inorganic, and secondary covers were composed of 68.42% organic & 21.05% inorganic covers, while the remaining 10.53% remained void of any soil cover.

Participant interviews were primarily conducted and recorded in-person by a TreePeople researcher at the site, while additional TreePeople & U.S. Forest Service researchers collected additional quantitative data. Interview transcripts were subsequently coded for primary themes arising in the realms of residential landscape climate motivation, soil cover type, perceived residential landscape benefits, management styles, desired residential landscape modifications, and barriers to modification.

Considering the unique population and methodology employed, 94.75% of participants expressed climate motivation in the upkeep of their site, whether from themselves, or other land managers.

### Preliminary Results & Analysis

In this sample, between 70.59% and 73.68% of respondents express a positive attitude towards yard work (dependent on if tenants without formal landscaping responsibilities are included within the sample). Notable soil management considerations included: cost considerations (57.89%), water conservation capacity (78.95%), maintenance considerations (36.84%) and time available for gardening (68.42%). Notably desirable functions of residential landscapes included: increased biodiversity and/or native plant integration (63.16%), cooling of the property through shade and/or evapotranspiration (84.21%), and a variety of personal satisfaction functions, the most compelling of which include aesthetic capacity (89.47%) and recreational capacity (94.74%).

Residential landscapes were indicated by respondents to be strongly affiliated with social interaction considerations (89.47%), with negative potential (57.89%), positive potential (57.89%), privacy/barrier functions (57.89%), and entertainment capacities (57.89%). To promote social harmony both within the residence and within the community at large 78.95% of participants considered social impact when deciding upon implemented landscape modification behaviors. Additionally, amongst all those indicating desired modification of the residential landscape (94.74%), 77.78%, indicated personal action modification due to increased positive climate impact potential, while 83.33% indicated personal action modification from a desire for or consideration of social cohesion. Trees in particular, arose as a source of both personal and social concern, with participants noting visible disease and/or death, leaf litter, roots, lack of information and/or adequate maintenance skill sets, and potential for structural harm as crucial aspects to this.

Additional barriers to personal action in landscape modification included the accessibility of third-party gardening assistance (ex. hired arborists, gardeners, etc.). Only 52.63% of our sample reported using third-party gardening assistance in maintaining their residential landscapes, but those utilizing such reported time-cost concerns at 26.32% and maintenance barriers at 36.84%, while the wider population reported these factors at 68.42% and 36.84% respectively.

### Notable Goals

- **Positive Climate Impacts** (94.75%)
  - Low Water Consumption (78.95%)
  - Biodiversity/Native Plants (63.16%)
  - Cooling Through Shade or Evapotranspiration (84.21%)
- **Personal Enjoyment**
  - Aesthetic (89.47%)
  - Recreation (94.74%)
  - Entertainment (57.89%)
  - Safety (47.37%)
    - Child and/or pet use of landscape
    - Infrastructure (personal or neighbors')
  - Privacy (57.89%)
    - Visual
    - Auditory
  - Wildlife Interaction (47.37%)
  - Food Harvesting (63.16%)
  - Infrequent but greatly impactful themes
    - Parking (26.32%)
    - Property Expansion (10.53%)
      - Inhibition concerns
      - Desired change

### Key Barriers

- **Water Use Concerns** (78.95%)
  - Perceived Cost
  - Perceived Legality
  - Perceived Climate Impact
- **Social Conflict or Nonconformity** (57.89%)
- **Maintenance** (68.42%)
  - Financial Cost (57.89%)
  - Time Cost (68.42%)
  - Third-party Gardening Assistance Utilization (52.63%)

### Land Manager Archetypes

These two archetypes are neither exclusive nor definitive. Instead, they aim to identify and group primary themes, and describe key roles that climate-engaged and motivated land managers play. In identifying these archetypes, we aim to facilitate future intervention strategies, in both their programmatic and outreach materials.

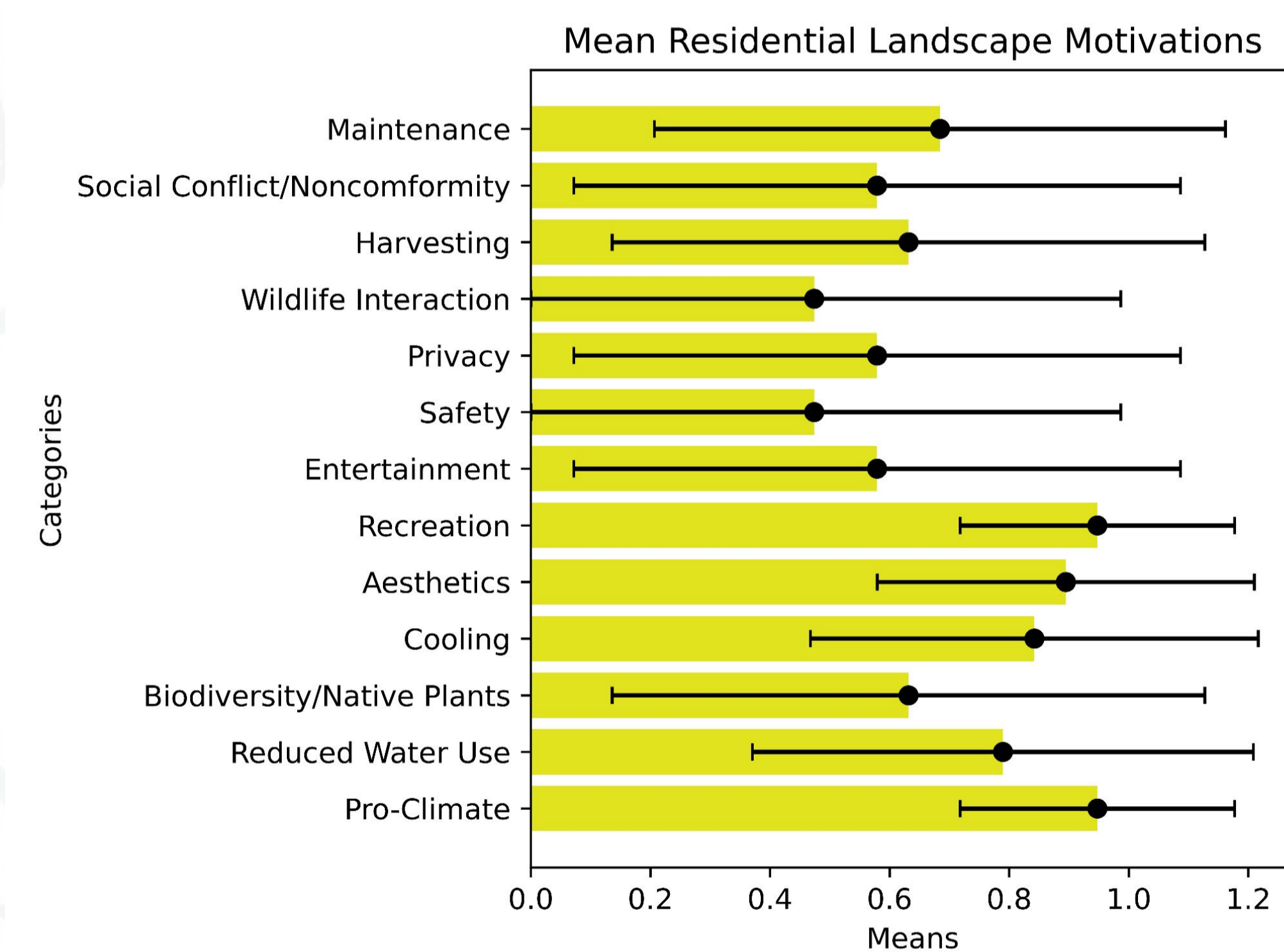
- **Climate Stewards** (31.57%)

*"I am conscious that I am making change in a neighborhood that I want to be a part of... I would like to have the neighbors see that this [biodiverse native plant wildscape] is pretty."*

  - Acknowledge and experience both positive and negative social potential of residential landscapes (36.84%)
  - Modify or plan to modify landscapes with regard for climate impact (73.68%)
  - Enjoy gardening (73.68%)
- **Convenience Gardeners** (33.33%)

*"Lawn is high maintenance, high resource, low use... I want a pollinator garden—I don't want to water the grass... [My landlord] is nervous."*

  - Prioritize low cost (57.89%), low maintenance (68.42%), and social harmony (78.95%) potential in residential landscapes
  - Can enjoy gardening, but prioritize safety (47.37%) and time management (68.42%)



### References

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### Our Conclusions, Applications, & Future Opportunities

Our preliminary quantitative analysis of the TreePeople Residential Landscape Diversity (RLD) data reveals a profound intersection between intensive climate motivation and its manifestation into active interest and participation in residential landscape gardening among LA County residents engaged with TreePeople. This unique convergence suggests that the residential landscape managers in our study are not only motivated by the traditional aesthetic and recreational aspects of gardening, but further, engage in gardening as a means of personally contributing to broader environmental and climate goals.

It has been established that, in regards to residential landscaping practice changes, particularly when climate-motivated and/or visually distinguishable from traditional turf lawns, social acceptance as well as implementation of the practice develops in clusters.<sup>1</sup> As engagement in climate conversations and action are notoriously difficult to encourage and manifest, particularly without emotionally visceral cues to action and on the individual scale,<sup>2-4</sup> our findings highlight the potential for leveraging this pre-existing motivation and low barrier to action, to promote soil health and sustainability through targeted educational initiatives.

Awareness and prioritization of soil's potential as a climate mitigation tool remains relatively low among not only our exemplary climate-engaged participants, but presumably the general public. Future educational efforts should target influential "Climate Stewards," who understand and are willing to challenge the social implications of becoming "nodes" for igniting residential landscape change, through Metropolitan Water District Turf Replacement Program gardening sessions, and more intensive non-profit based programming. This provides a strategic entry point for further engagement of pro-climate, but socially adherent "Convenience Gardeners," who defer so social acceptability and low barrier management options. In capitalizing on these pre-existing assets, we can foster a deeper understanding of how soil stewardship directly supports climate resilience and aligns with gardeners' various, overarching values.

Continued analysis of the RLD data should include a mixed-methodological approach in which soil health indicators are analyzed alongside the qualitative interview results for each site. Future research efforts should undoubtedly continue exploration into the specific and regionally determined barriers and facilitators guiding or inhibiting gardeners' adoption of climate-friendly soil practices. Further, longitudinal studies could assist in illuminating the effectiveness of tailored educational interventions in sustaining and enhancing gardeners' engagement with soil, particularly those who further embrace the Health Belief Model

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