

# Green Inequities in Los Angeles: Recreation and Income Gaps

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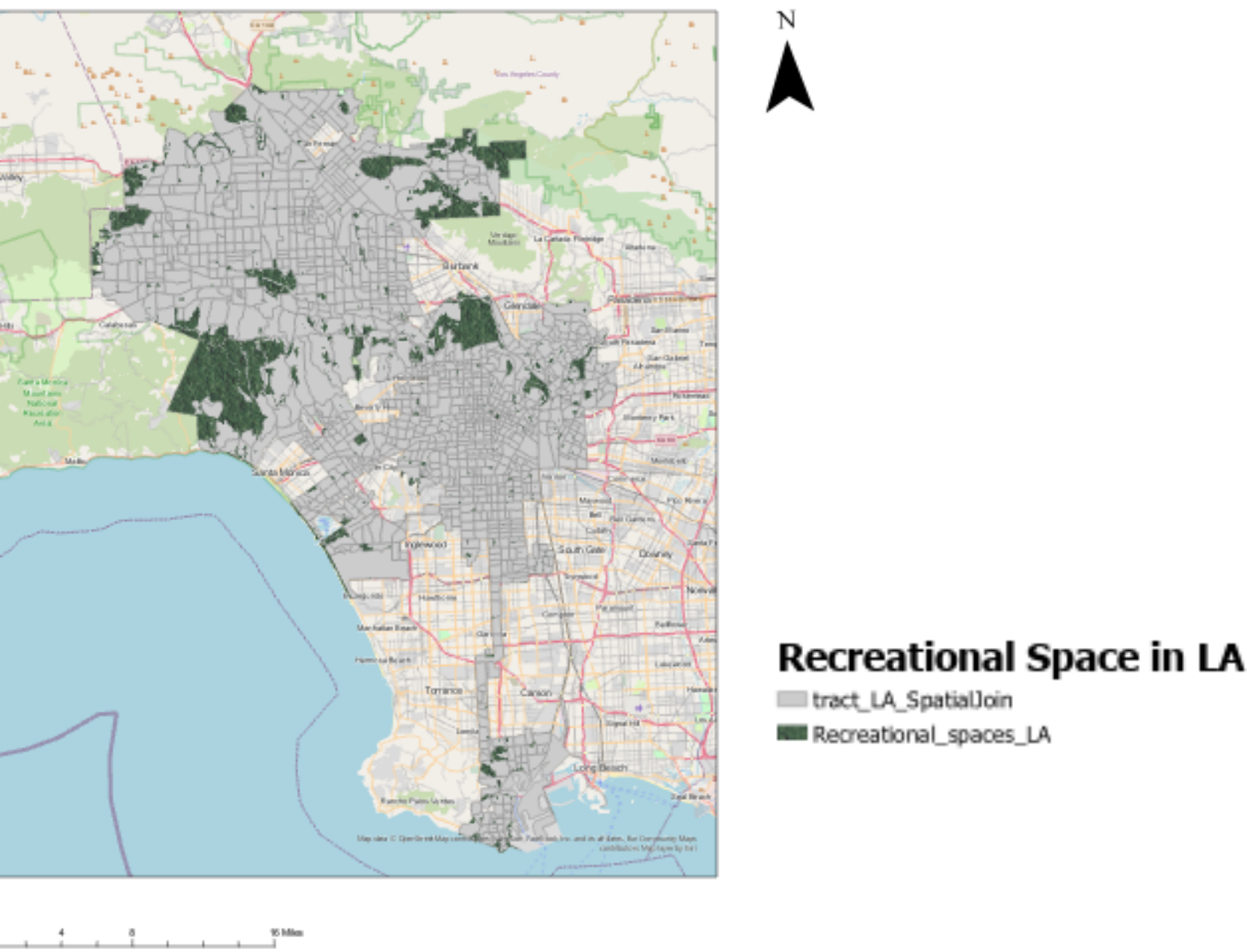
## Introduction

### Background

Access to recreational spaces and urban green areas is a crucial factor in promoting health and well-being, fostering community interactions, and enhancing quality of life. However, not each community has the same accessibility to these resources. The spatial distribution of these areas often mirrors socioeconomic inequalities, including disparities in race, income, and social status.<sup>1</sup>

In Los Angeles, residents in low-income neighborhoods have 30% less access to park space per person than those in the average neighborhood, and 73% less than those in high-income neighborhoods.<sup>2</sup>

This project aims to explore how recreational spaces are distributed across City of Los Angeles, and how does this distribution vary with income levels? By examining current green spaces, planned recreational areas, and their proximity to residential zones, this analysis will help uncover patterns of inequity in access to urban green spaces. And contribute to discussions on equitable urban planning and policy recommendations for enhancing access to recreational spaces for underprivileged communities in LA.



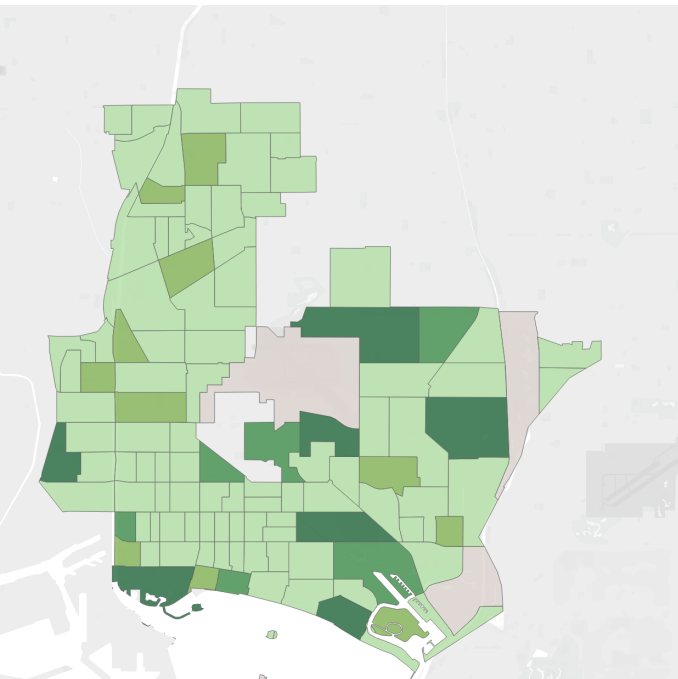
**Figure 1:** The distribution of recreational spaces in Los Angeles (shown in green) overlaid on census tracts

### Focus Area

This study focuses on the City of Los Angeles rather than the broader LA County due to the county's significant diversity and variability.

Los Angeles County has a median of only 3.3 acres of park space per 1,000 residents, falling well below the median of 6.8 acres per 1,000 people in other high-density U.S. cities. Moreover, within LA County, 41 out of 262 neighborhoods have less than 1 acre of park space per 1,000 people, highlighting stark disparities in park access. While City of Long Beach ranks much higher than City of LA, the access to parks still vary significantly.<sup>3</sup>

These disparities make City of Los Angeles a critical case study for examining inequities in recreational space distribution.



**Figure 2:** Acres of parks per 1,000 people in City of Long Beach  
Source: *The National Agriculture Imagery Program (NAIP)*



**Figure 3:** Change of Green Coverage in Los Angeles  
Source: *The National Agriculture Imagery Program (NAIP)*

## Methods

### Data Collection:

Data were obtained from various sources, including the US Census Bureau, the LA Open Data Portal, LA County eGIS, and the Los Angeles Department of Recreation and Parks.

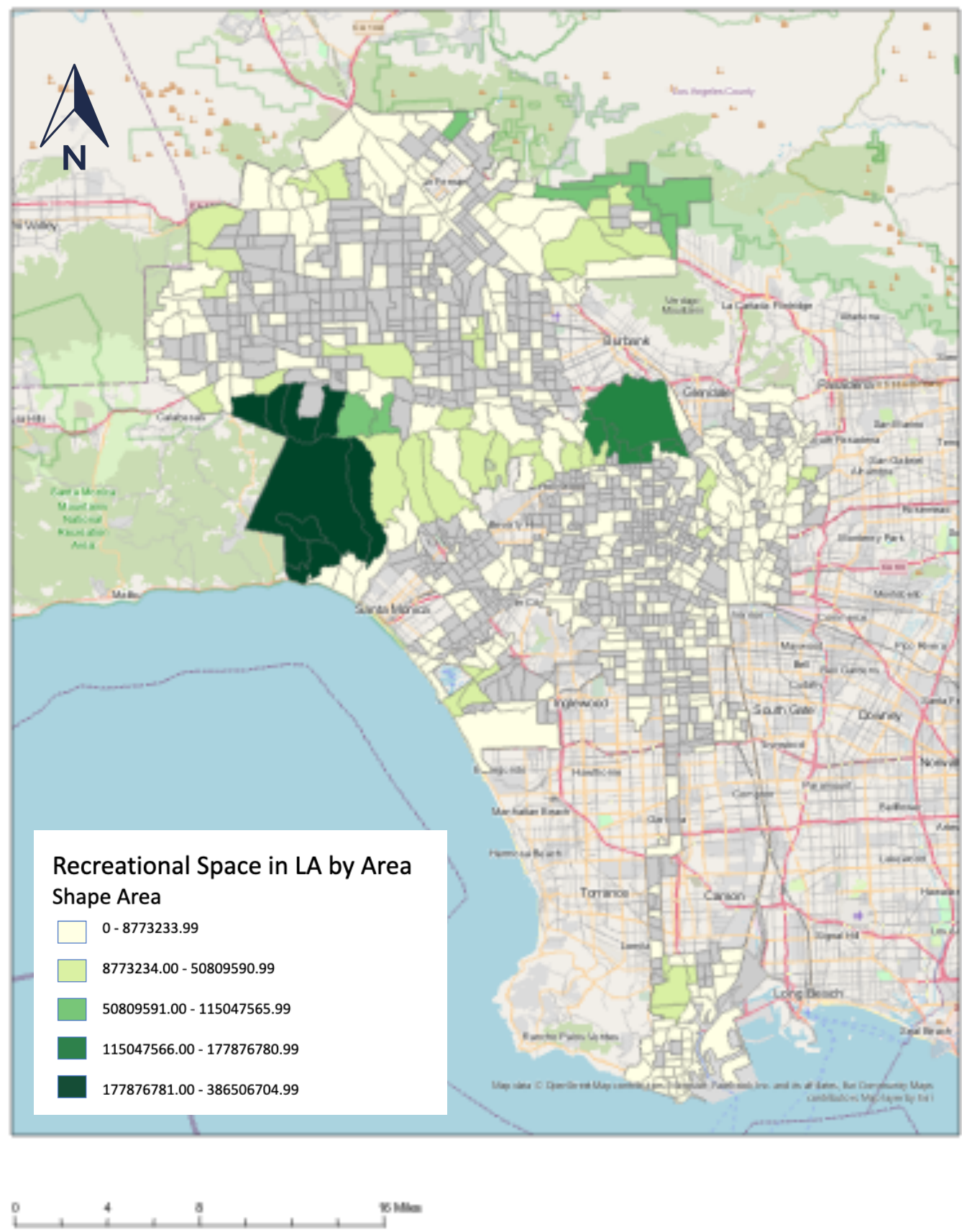
### Data Cleaning and Preparation:

The datasets were cleaned to ensure consistency and accuracy. Income data were merged with spatial data for analysis, and a CSV file was created to catalog information about parks planned for construction in *50 Parks Initiative*.

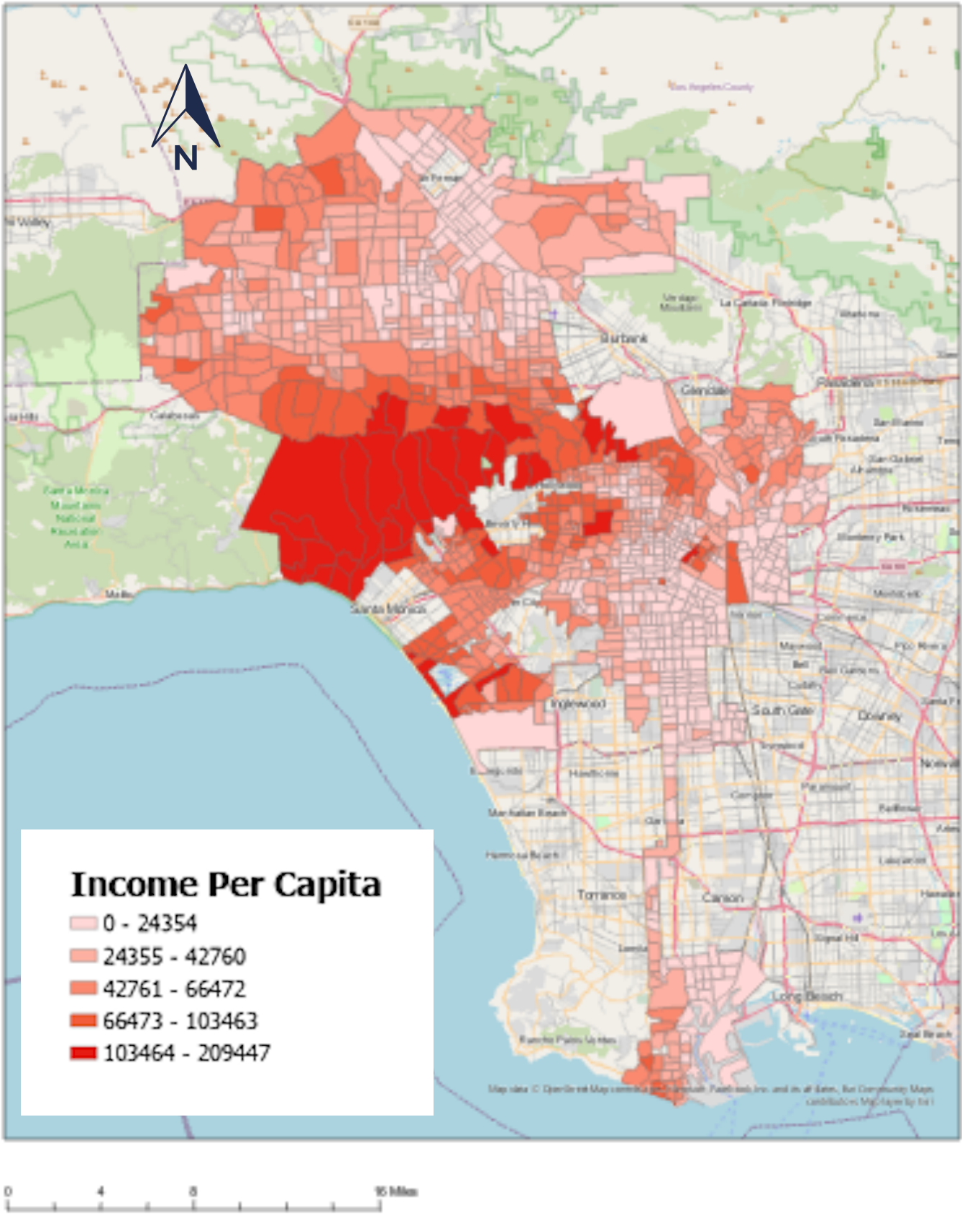
### Analysis Procedure:

Spatial analysis was conducted to examine the distribution of recreational spaces relative to income levels and household density, and the study mainly focus on vector data.

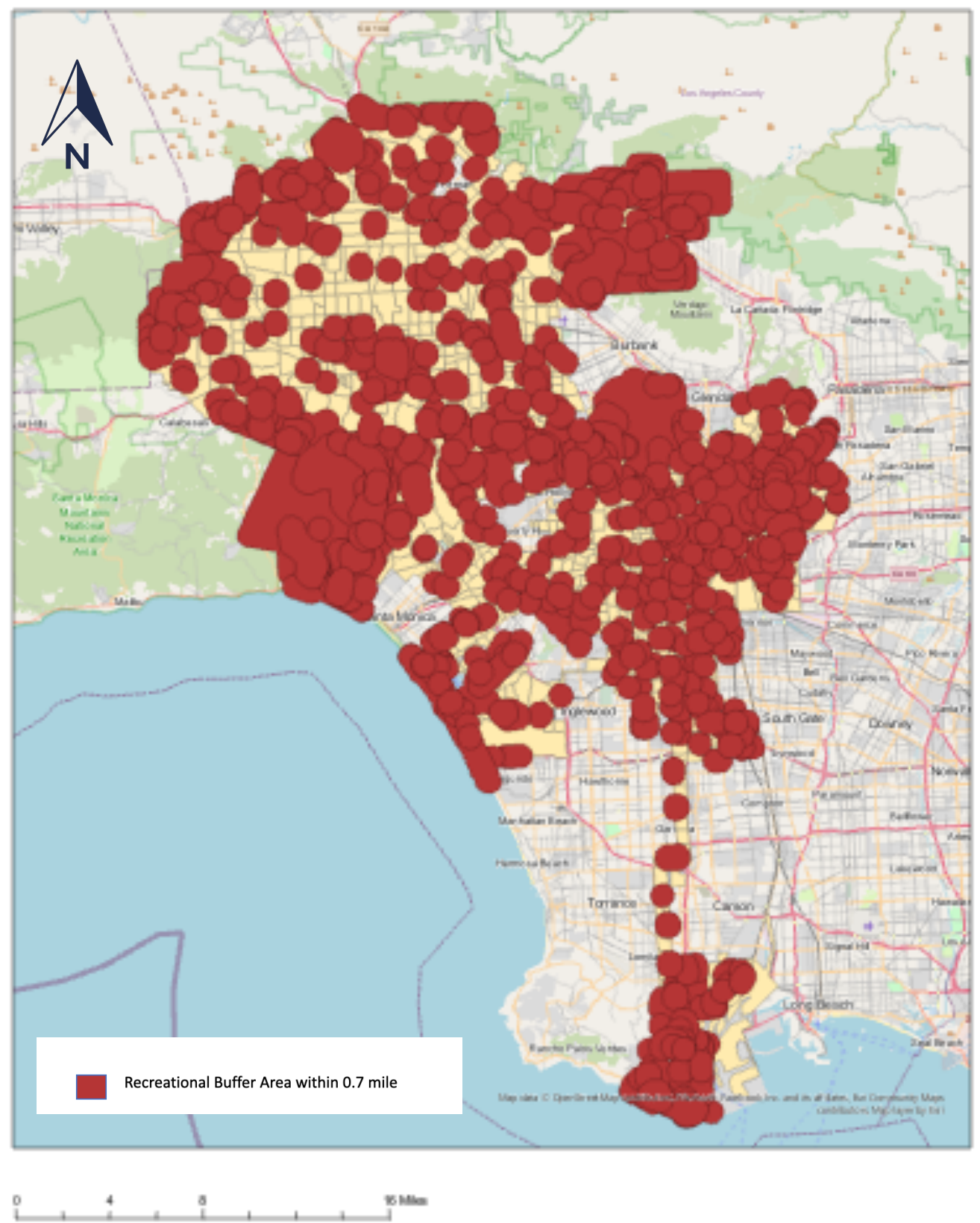
## Results



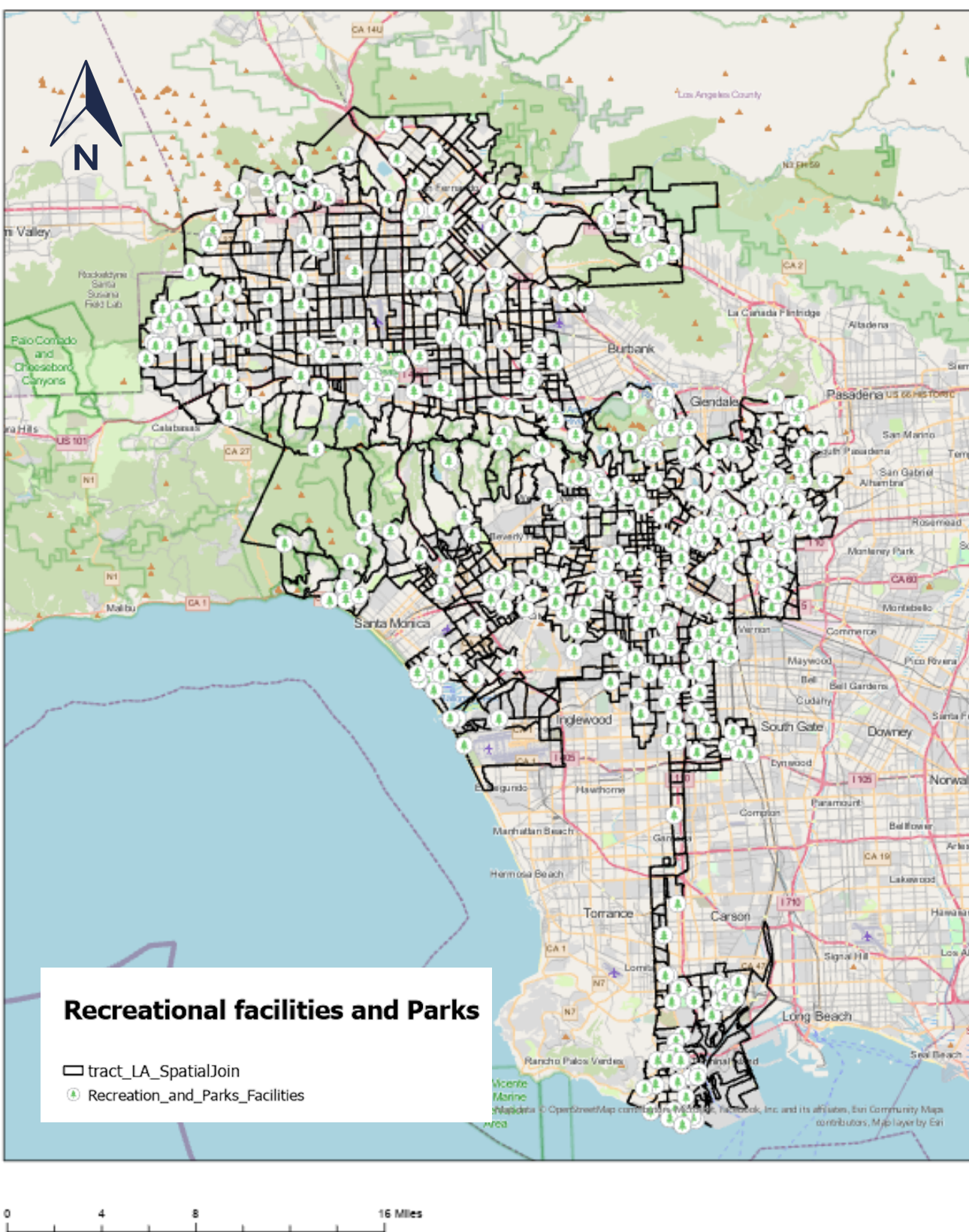
**Figure 4:** Area and Distribution of Recreational and Open Spaces in City of LA



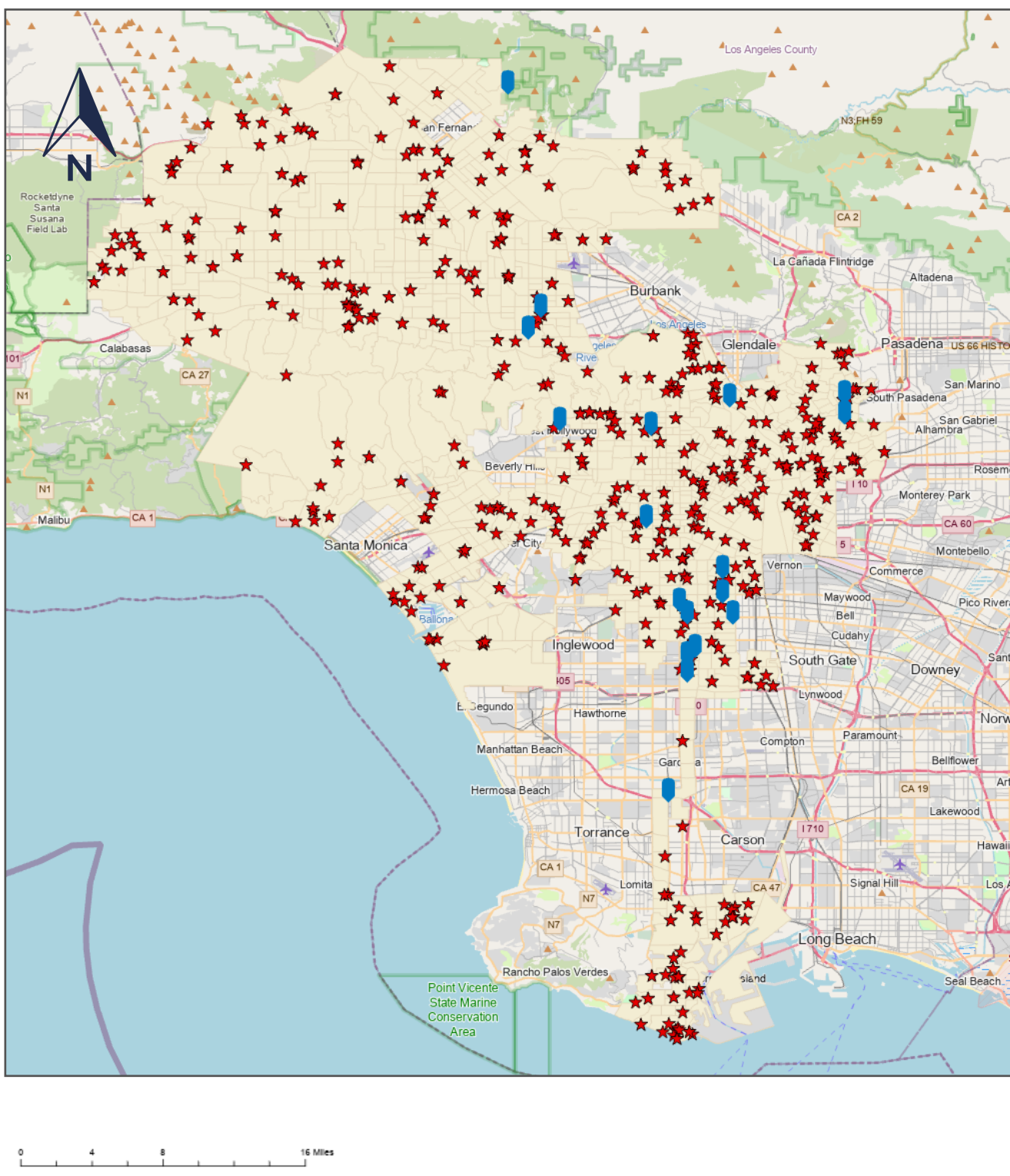
**Figure 5:** Distribution of Income Level by Income Per Capita



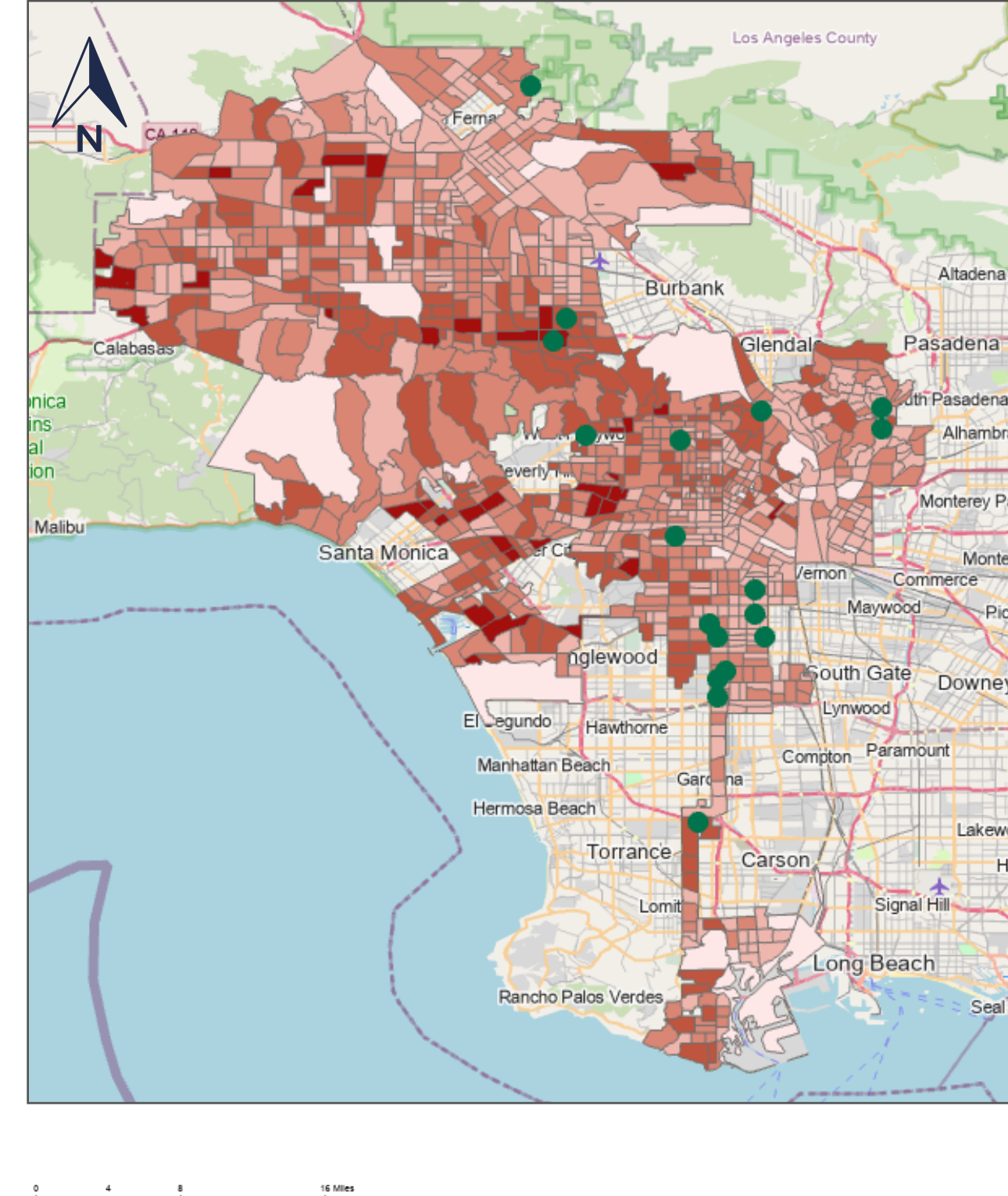
**Figure 6:** Buffer analyses to assess accessibility within a 0.7 mile radius.



**Figure 7:** Location of Public Parks



**Figure 8:** Existing Parks in 2022 and Parks planned to built in 2010 initiative



**Figure 9:** Parks in Initiative plans and household density

## Summary

The distribution of recreation areas and parks in Los Angeles reflects income levels.

Recent maps indicate that the western part of the city, with higher per capita income and larger park areas, also has a lower population density, resulting in more recreational space per capita.

The distribution of parks in Los Angeles is relatively scattered, with many small-sized parks.

In the northwest, the number and size of parks and open spaces are relatively smaller, leaving room for improvement in building more parks in that area.

The park construction plans initiated by Los Angeles in 2010 were primarily concentrated in the eastern and southern parts of the city, targeting areas with higher population density.

## Sources

1. LA Parks. (2014). *The Los Angeles Parks Foundation: A Study of the 50 Parks Initiative*
2. National Recreation and Park Association. (n.d.). *Why Parks and Recreation are Essential Public Service.*
3. Neighborhood Data For Social Change. (2024). *Access to Parks and Green Space*
4. Trust For Public Land. (2024). *Los Angeles, CA.*

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