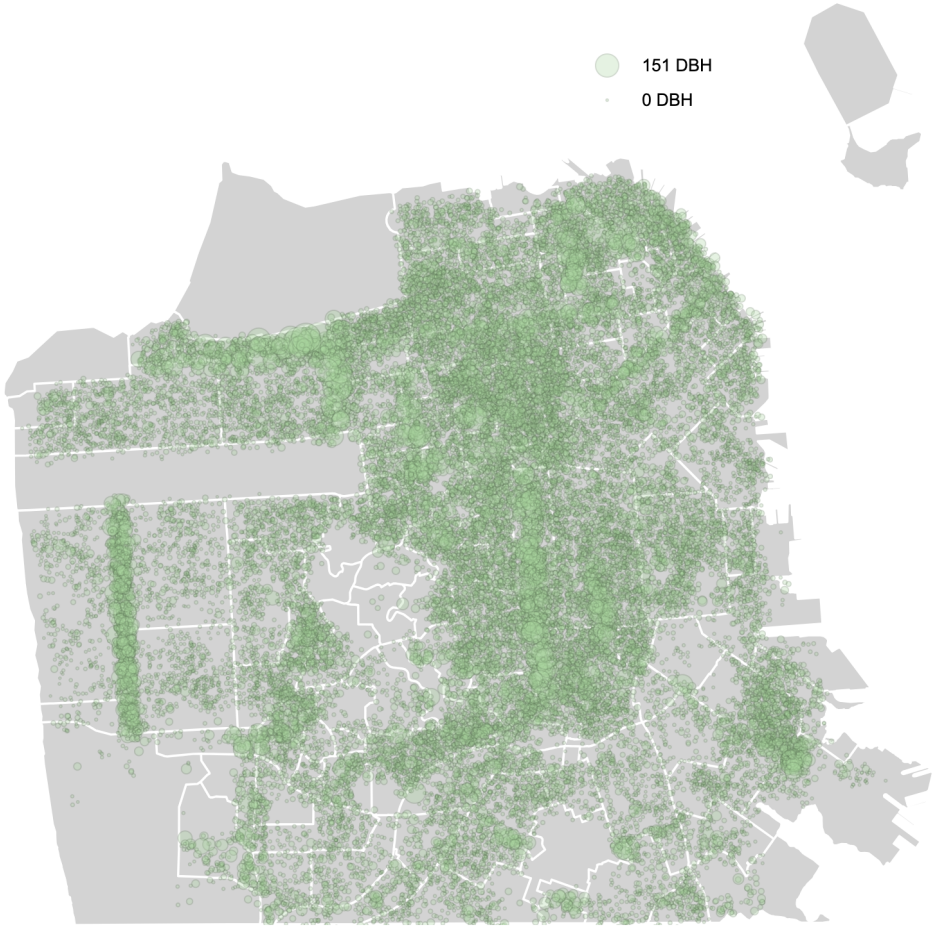
# Breathing Easy: Unveiling San Francisco's Oxygen Oase

**Introduction**

Planting trees is crucial for environmental preservation and reducing CO2 levels. With this in mind, I embarked on investigating factors influencing oxygen production. Research revealed that older, larger trees, and certain species are significant contributors. My objective is to analyze and compare neighborhoods based on these factors, seeking insights into where and who should prioritize tree planting initiatives.

Incorporating geographical data, I plotted each data point on a map, facilitating exploration of spatial patterns and trends. Through thorough analysis and interactive visualizations, my aim is to offer valuable insights to assist the city in making informed decisions regarding tree planting endeavors.

**Visual Encodings:**



In this visualization, I mapped out each tree on the SF neighborhood. The visual channels I utilized are the unaligned vertical and horizontal position on the map– which shows where a specific tree (dot) is planted in the city– and the radius of the datapoint– which shows how a big (DBH from 0-15) a specific tree is.

**Design Choices:**
To establish trust with the viewers of this page, I aimed for familiarity and cohesion through visual elements like colors, fonts, and graphics commonly associated with environmental causes and the concept of growth, particularly trees. Considering my audience comprises government officials and residents of the SF area, I structured the content to include a title, a research question, and clear conclusions for easy comprehension.

In illustrating the estimated oxygen production in different areas, I utilized a circle size to represent tree size, as larger trees produce more oxygen. A map format was chosen due to the absence of neighborhood-wise tree categorization, offering the best visualization of tree distribution and identifying areas with inadequate tree coverage. Including a legend was essential to ensure viewers could interpret the visuals accurately.

In line with this goal, I integrated tree graphics to enhance familiarity and a welcoming atmosphere. Opting for a sans serif typeface was deliberate as it's perceived as more contemporary compared to serif fonts. When designing the data points and map, I experimented with various stylistic choices to ensure clarity and visual appeal. Green was an obvious choice for the data points, symbolizing environmental causes and tree growth. Adding strokes, jitter, and adjusting opacity facilitated the differentiation of overlapping points. The grey fill on the map was selected to allow the points to stand out effectively.

Given more time or resources, I would have explored options to further categorize the data, perhaps by specific neighborhoods or tree species, for improved clarity. Another potential enhancement could have been incorporating a color scale based on the average age and diameter of trees in each neighborhood. However, this was technically challenging because I wasn’t sure what the latitude and longitude ranges of each of the neighborhoods were.