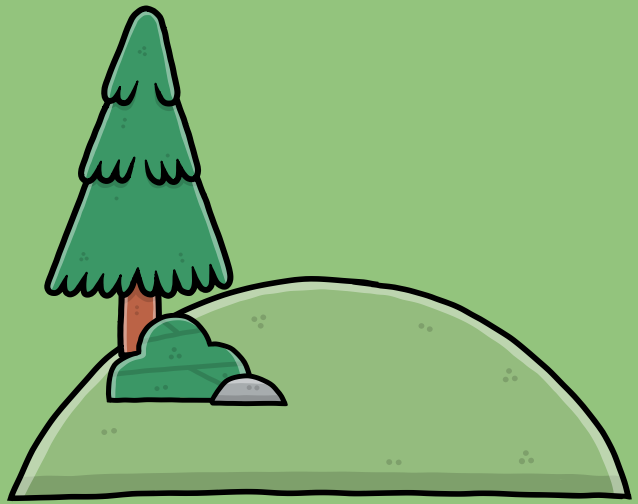
Benefits of Urban Trees

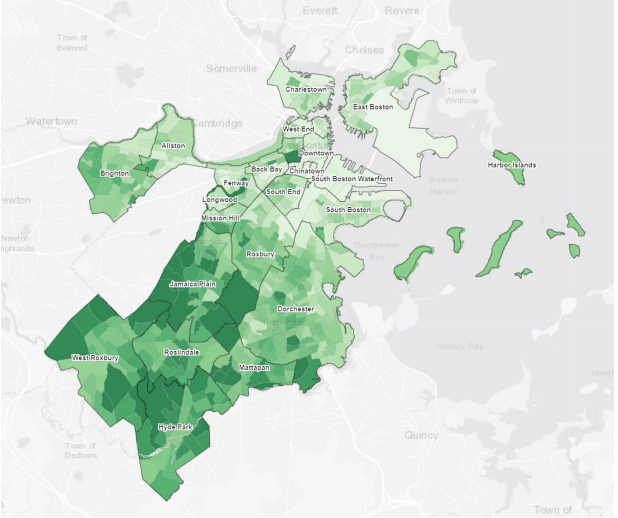
What is an Urban Forest?



Urban Forest = A forest, or collection of trees, that grow in a city.

Includes:

- Parks
- Streets
- Private Property



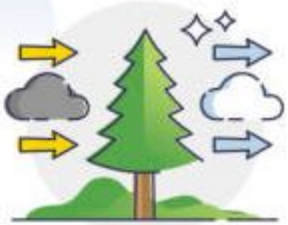
Tree Equity

"Enough trees in specific neighborhoods for everyone to experience the health, economic, and climate benefits trees provide."

Why are Trees So Important?

COOLS THE AIR

REGULATES WATER FLOW AND IMPROVES WATER QUALITY



FILTERS FOR URBAN POLLUTANTS

MITIGATE CLIMATE CHANGE

IMPROVES PHYSICAL AND MENTAL HEALTH

REDUCES AIR CONDITIONING NEEDS

SAVES ENERGY USED FOR HEATING

INCREASES URBAN BIODIVERSITY

INCREASES PROPERTY VALUE

What happens to ecosystems without trees, and how does that affect the people living there?

Affecting Ecosystems

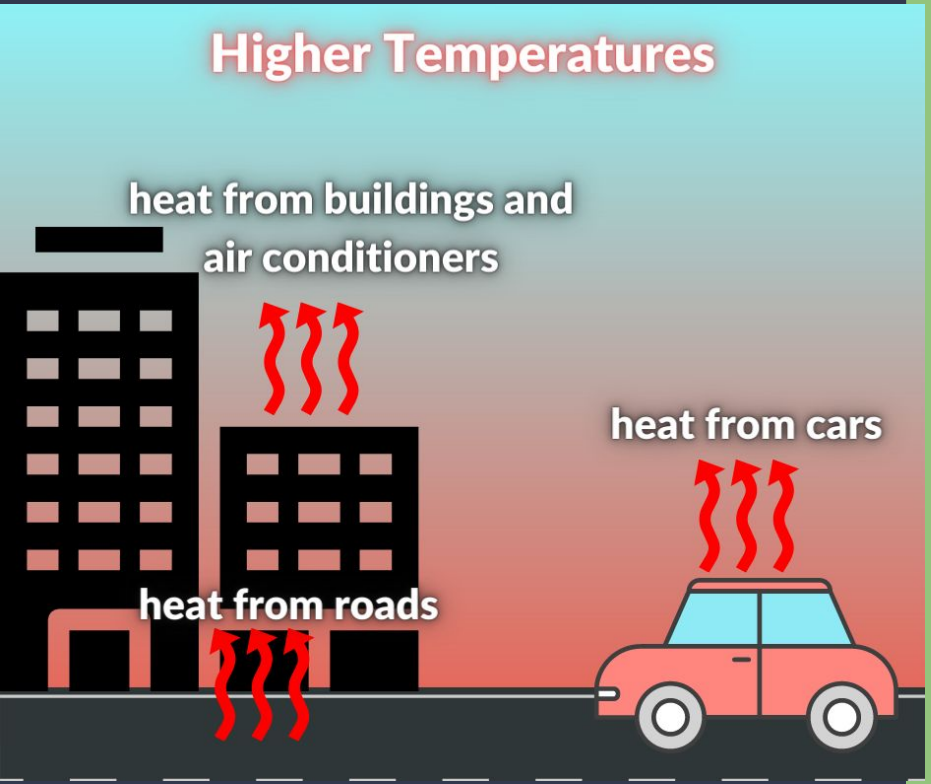
Ecosystems suffer from:

- Increased air pollution
- Disrupted water cycles
- Loss of habitat for wildlife
- Decreased biodiversity

These negative effects lead to a degradation of overall environmental health and resilience


Urban Heat Island

Urban Heat Island Effect

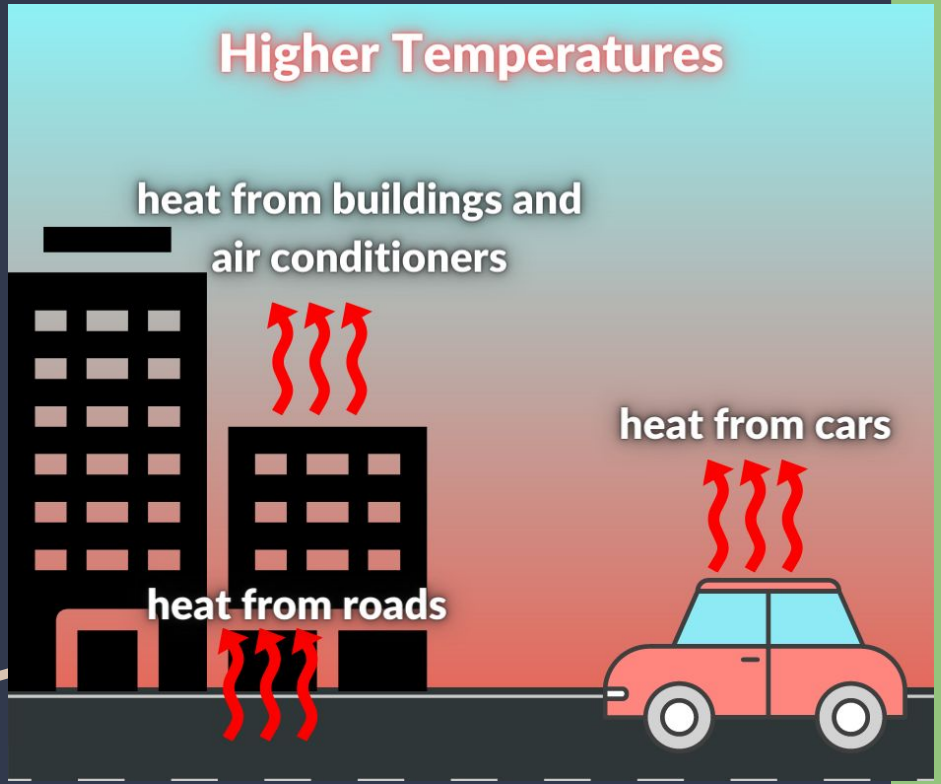


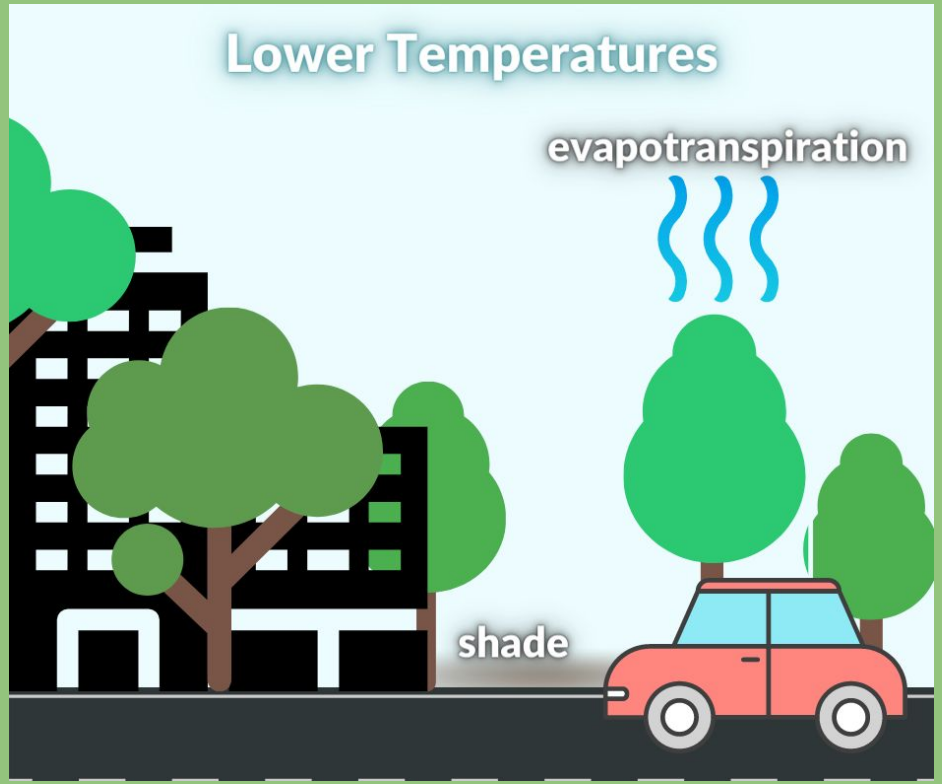
Urban heat island effect happens because…

- Cities use a lot of **impervious surfaces**
- Cities release greenhouse gases and other air pollutants that make it hotter

The cities will have higher temperatures than nearby areas that are more rural.

Urban Heat Island Effect



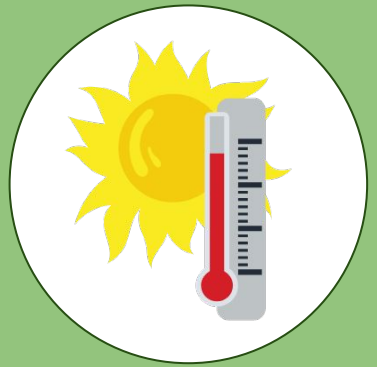


Trees Improve Our Mental Health

- Calm us down
- Cools down environment → Encourages us to go outside
- Block noise pollution, creating more peaceful neighborhoods

Trees Improve Our Physical Health

- Cools down environment → Encourages us to go outside and exercise
- Cleaning the air → less respiratory (lung & air) diseases
- Cools down environment → less heat-related illness & death

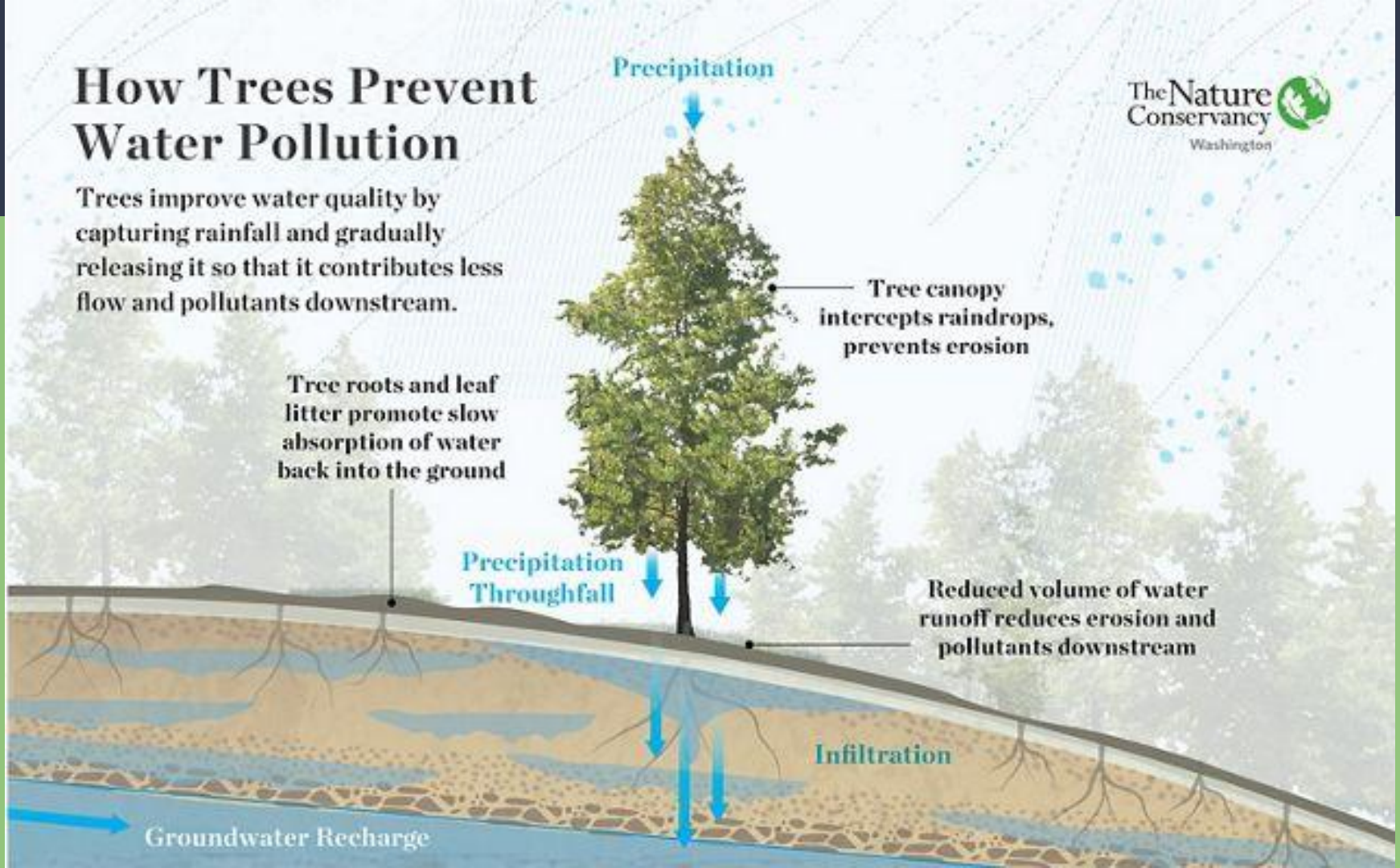


Trees Stop Floods

Trees’ roots take in water that would cause floods.

Tree canopies intercept rainfall and slow it hitting the ground.

When it rains and your feet aren’t soaked, you can thank trees!

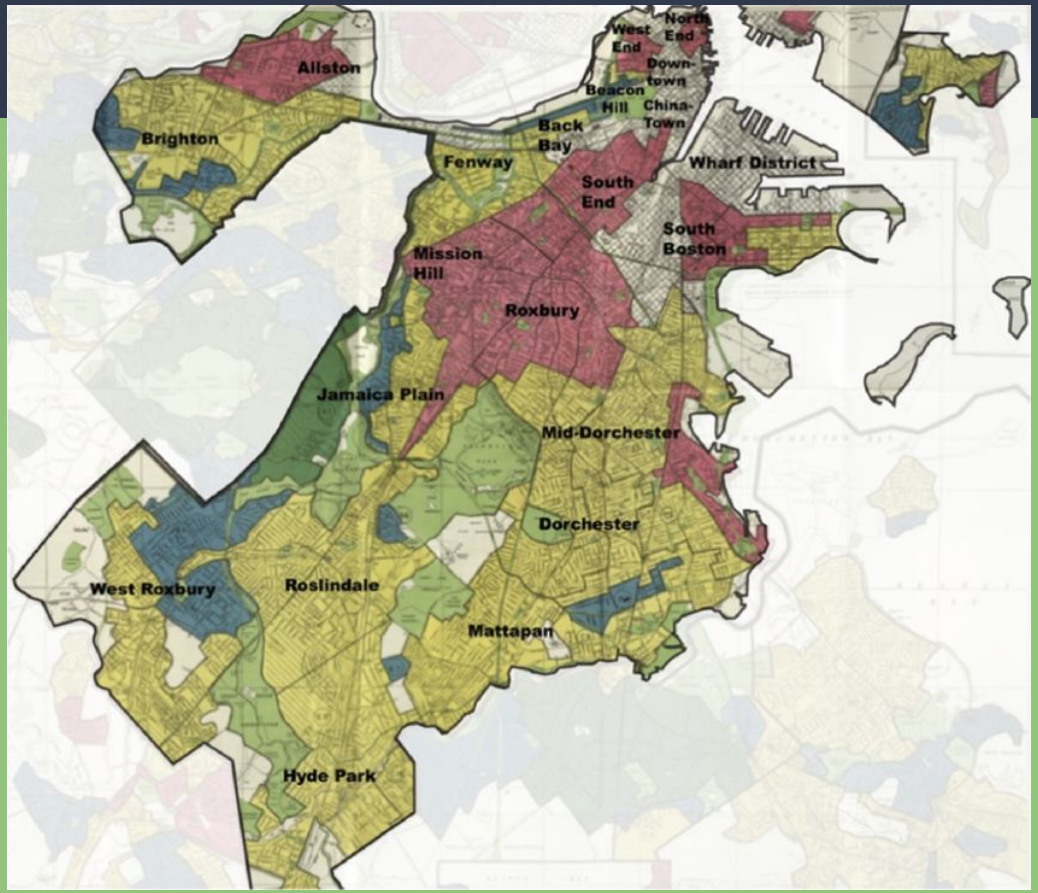

How Trees Prevent Water Pollution
Trees improve water quality by capturing rainfall and gradually releasing it so that it contributes less flow and pollutants downstream.
Precipitation
The Nature Conservancy
Washington
Tree canopy intercepts raindrops, prevents erosion
Tree roots and leaf litter promote slow absorption of water back into the ground
Precipitation
Throughfall
Reduced volume of water runoff reduces erosion and pollutants downstream
Infiltration
Groundwater Recharge

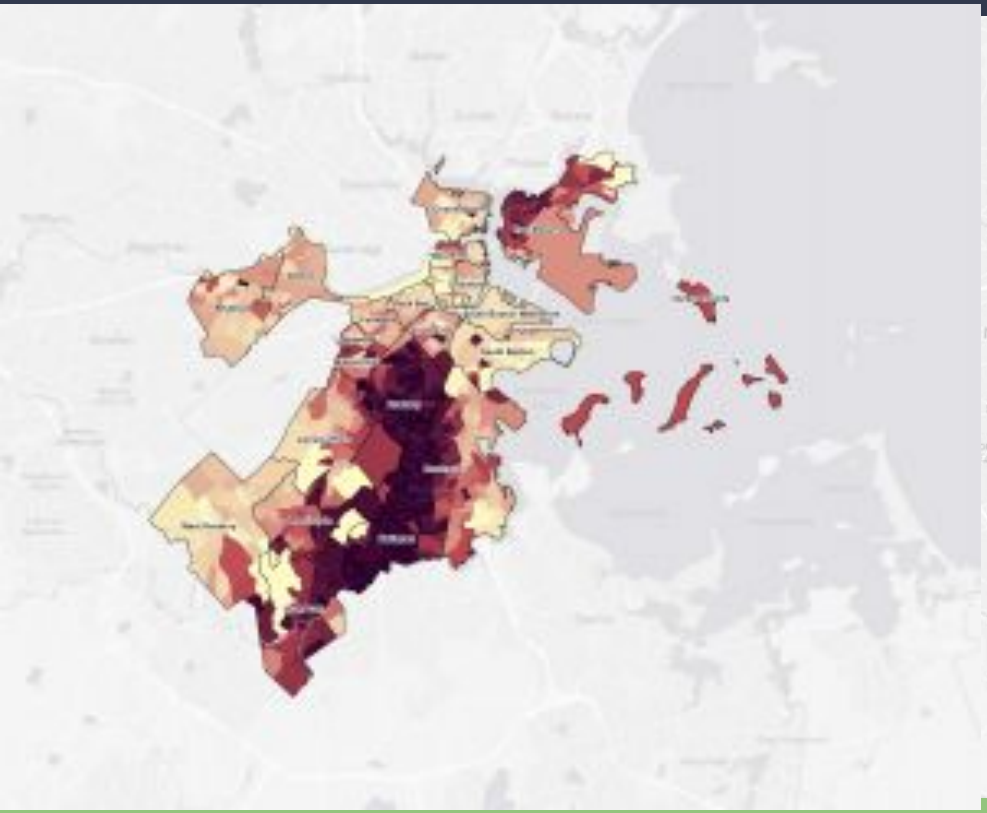
Environmental Justice: What is Redlining?

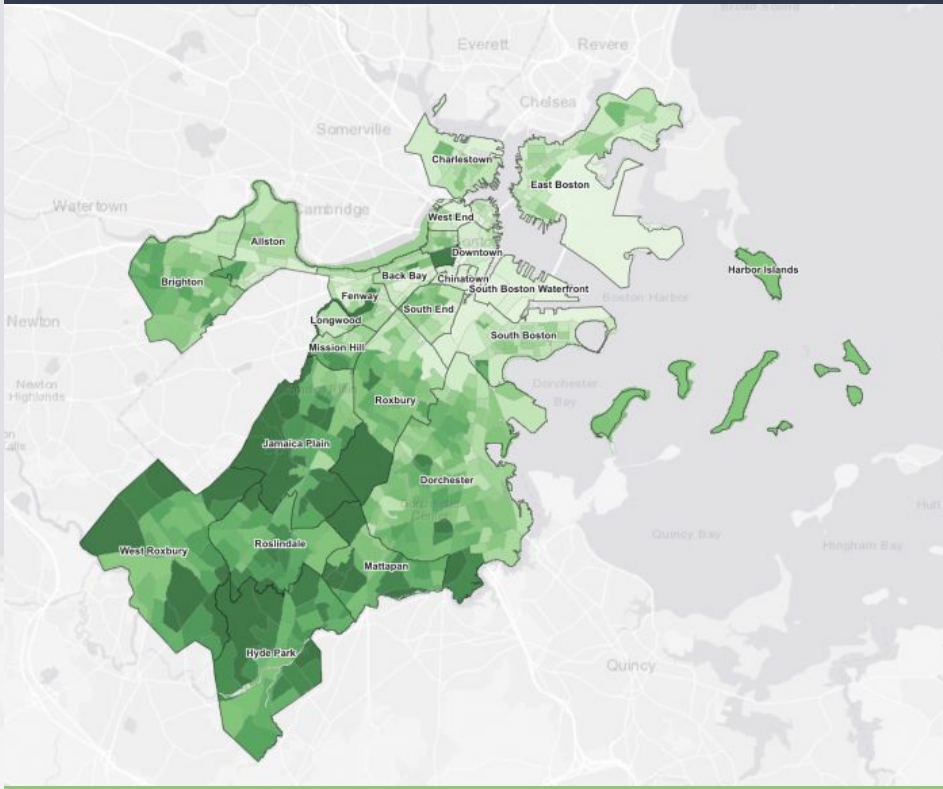
- Redlining = A discriminatory policy that withholds resources and funding from neighborhoods considered “hazardous” to investment. Designed to harm racial and ethnic minorities and low-income residents.

- One outcome is redlined neighborhoods have significantly fewer trees.

Environmental Justice: What is Redlining?

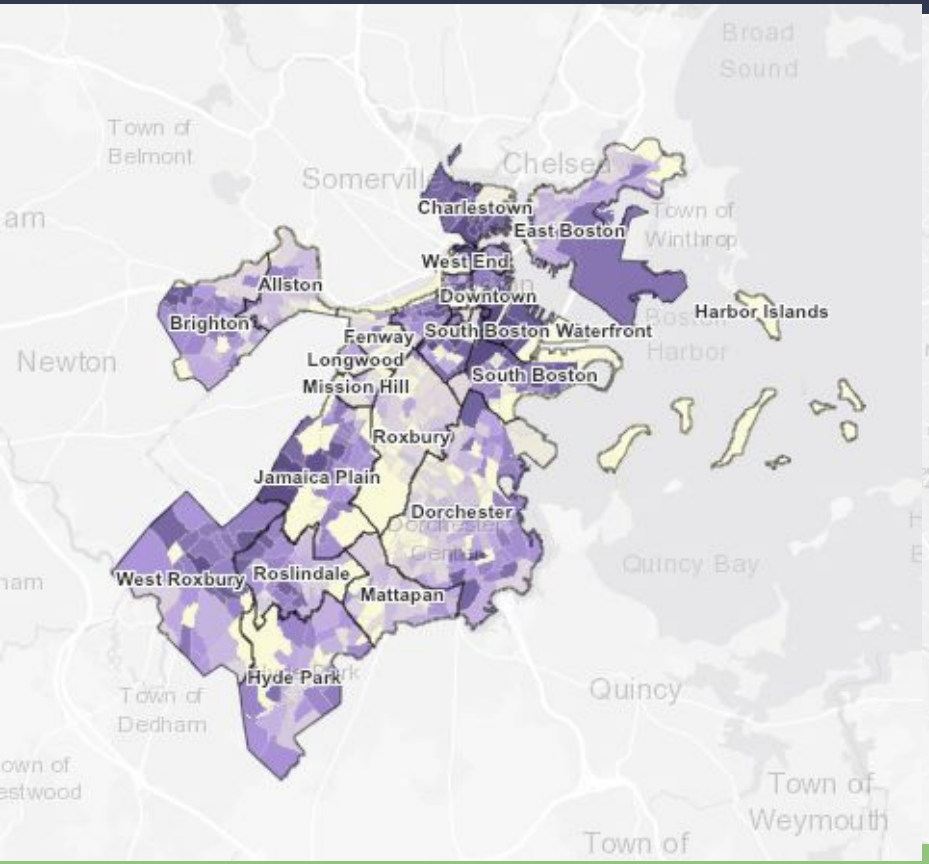


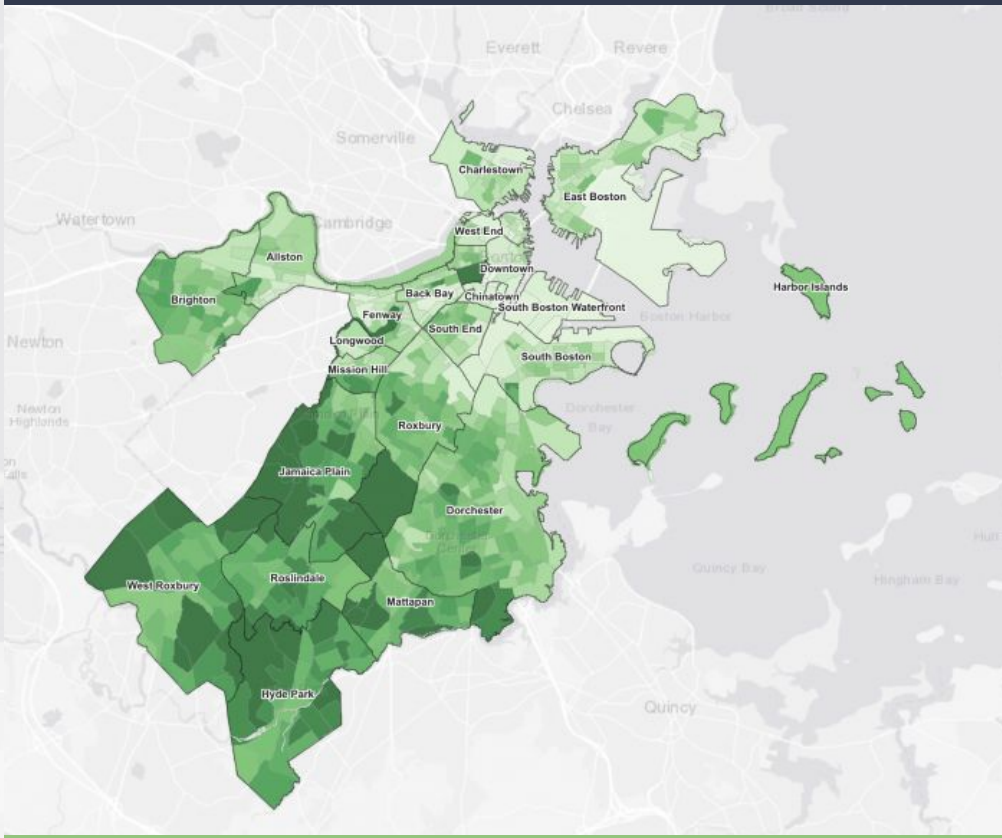




Dark Red = Higher minority population, Lighter = Lower Population

Darker green = More trees, Lighter green = Less trees





Darker Purple = Higher income, Lighter = Lower Income

Darker green = More trees, Lighter green = Less trees

Activity Time!

Draw one benefit or function of trees

Examples:

- Tree on the street reducing the heat
- Cleaning the air
- Someone picking fruit from a tree


AMERICAN FORESTS
- SINCE 1875 -
THE POWER OF OUR URBAN FORESTS
ABSORBS HEAT
HELPS COOLING COSTS
OFF
BOOSTS LOCAL RETAIL SALES
CAPTURES AIR POLLUTION
OPEN
CREATES JOBS
SHADES THE STREET

Reflections & Discussion

1. What did you draw and why?
2. What benefits do you view as most important to your community?
3. In which ways do you think Redlining has most harmed poor communities and communities of color?
4. What else did you learn today?