



BOSTON URBAN FOREST PLAN



City of Boston
Parks and Recreation
Mayor Michelle Wu



PROJECT TEAM

Introductions



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URBAN CANOPY WORKS



RACHEL COMTE
URBAN CANOPY WORKS

AGENDA

- INTRODUCTION
- WHAT IS AN URBAN FOREST PLAN?
- ABOUT THE FOREST
- GOALS + RECOMMENDATIONS
- Q&A

WHAT IS THE URBAN FOREST PLAN?

INTRODUCTION

BOSTON URBAN FOREST PLAN

What is an urban forest plan?

**A plan to expand the urban forest both today
and 20 years from now.**

BOSTON URBAN FOREST PLAN

What is an urban forest plan?

What is an urban forest?

All the trees in Boston

What does it mean to expand the forest?

Growing the canopy. Preservation and routine care are some of the most important things we can do. Planting will also be important.

DATA + DISCOVERY

BOSTON URBAN FOREST PLAN

Healthy Places: planning for heat, trees, and open space



HEAT RESILIENCY STUDY



OPEN SPACE AND RECREATION PLAN



URBAN FOREST PLAN

INTRODUCTION

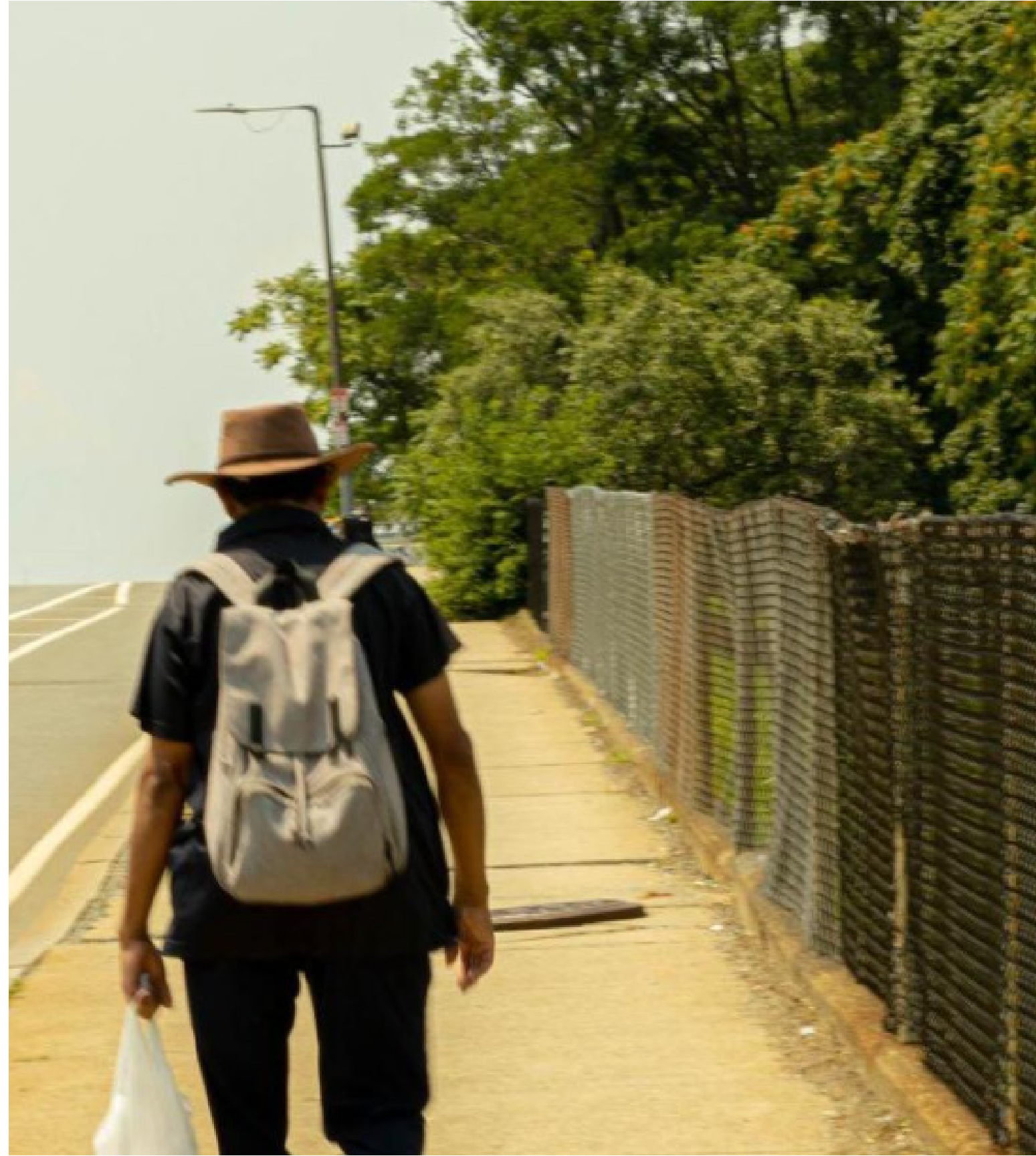
BOSTON URBAN FOREST PLAN

What is the value of a tree?

PUBLIC HEALTH:

- Cultural value
- Lowered heat
- Better air quality from lower temperatures
- Stormwater capture
- Wildlife habitat

Trees need to grow older to provide many of these benefits.



INTRODUCTION

BOSTON URBAN FOREST PLAN

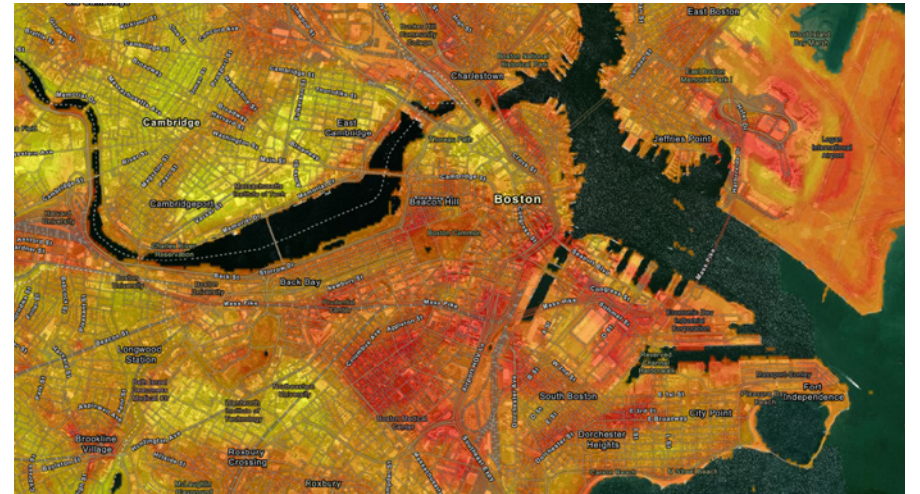
Why an urban forest plan? Why now?



BECAUSE BOSTON IS GROWING AND CHANGING



TO ADDRESS EQUITY AND ENVIRONMENTAL JUSTICE ISSUES

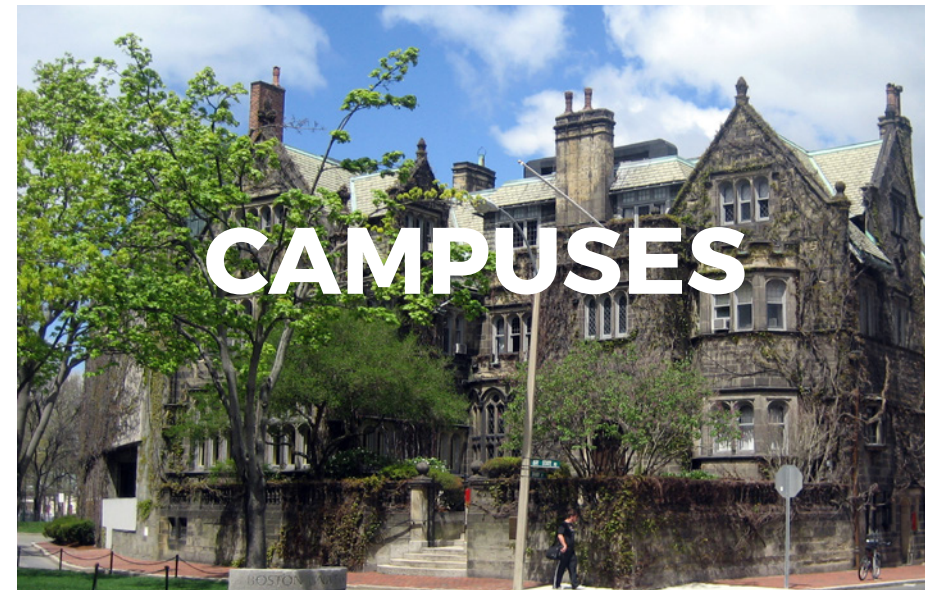


TO MITIGATE CLIMATE CHANGE IMPACTS

INTRODUCTION

BOSTON URBAN FOREST PLAN

What is the urban forest plan?



CARE & MANAGEMENT

Caring for the urban forest takes a community. There are many caretakers and owners.



GOVERNMENT

- City of Boston (ex. Parks Department)
- State (ex. DCR)
- Federal (ex. NPS)



COMMUNITY GROUPS + INDIVIDUALS

- You
- Non-profits
- Community Groups
- Neighborhood Associations
- Developers
- Businesses

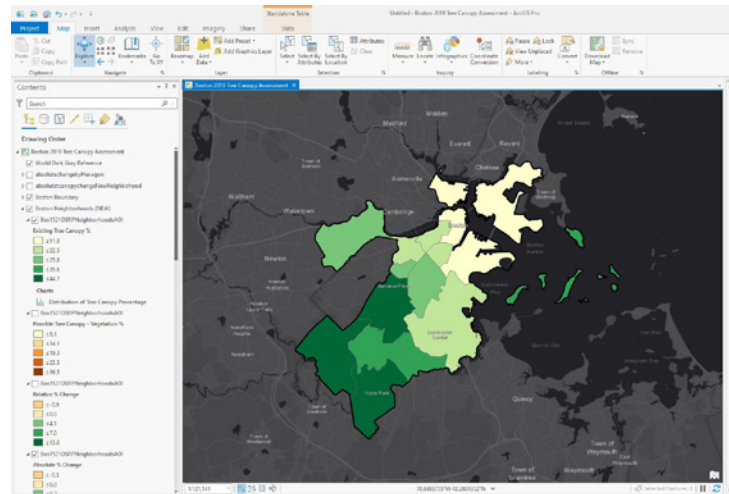


INSTITUTIONS

- Universities (ex. Northeastern)
- Massport (ex. Logan Airport)

DATA + DISCOVERY

KEY DATA SOURCES



CITY GIS DATA

Boston Urban Forest Plan - Equity Council Meeting Follow Up

Name/Nombre

Your answer

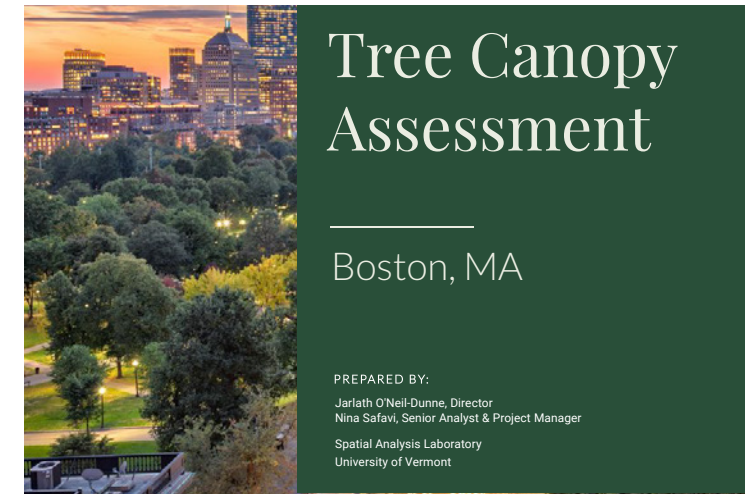
One thing you hope to get out of this process/ Una cosa que se espera obtener de este proceso

Your answer

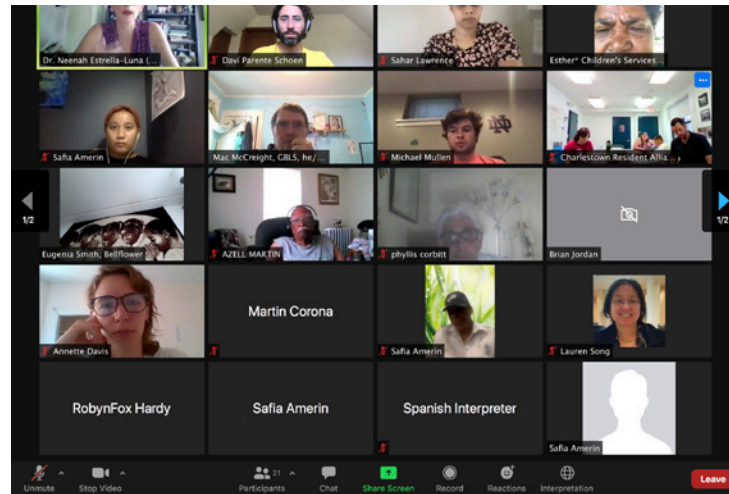
Tell us a story // Cuéntanos una historia

If you did not have a chance to share your full story at our first meeting or you have more to say now that

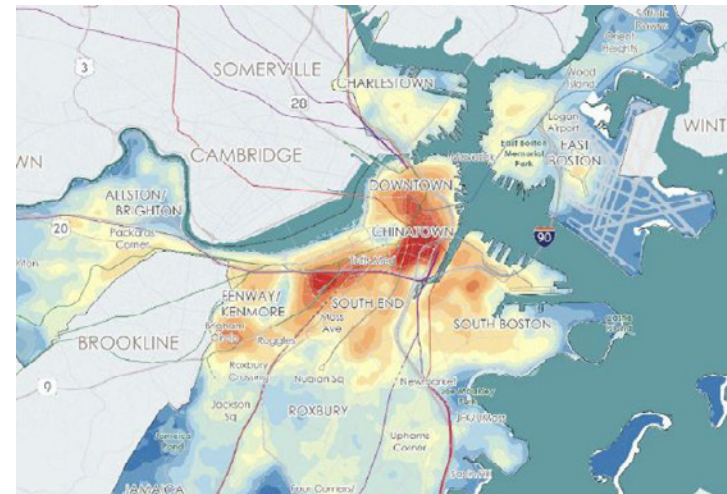
SURVEYS



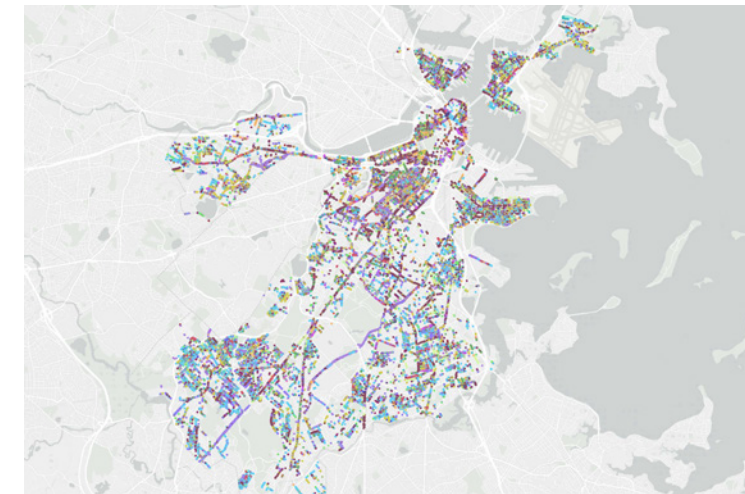
TREE CANOPY ASSESSMENT (2019)



INTERVIEWS



HEAT STUDY

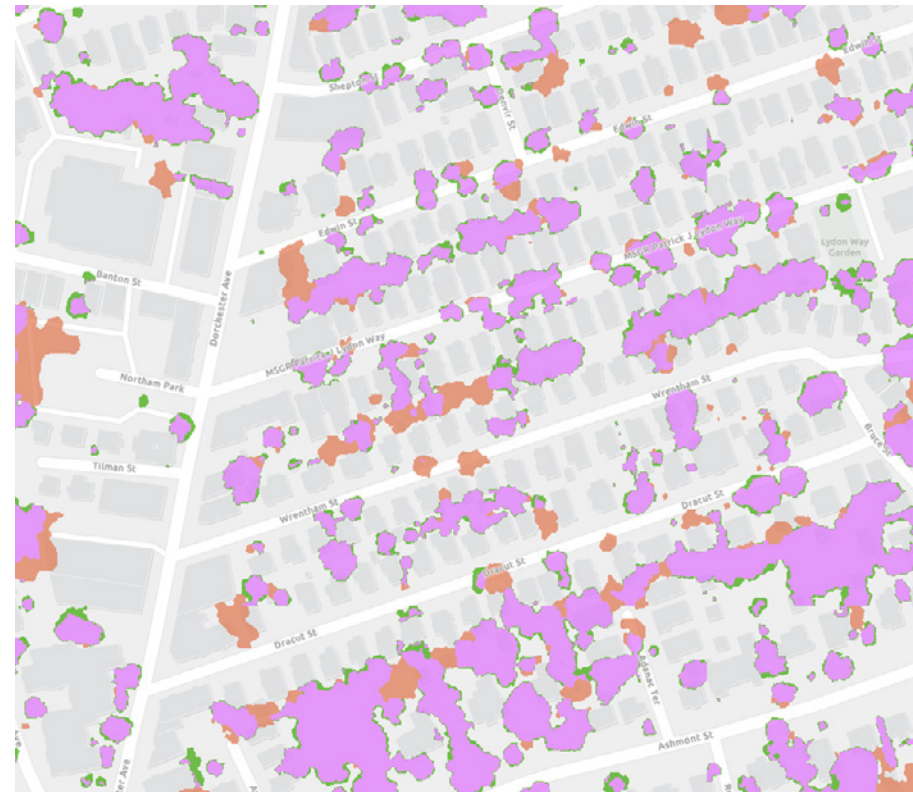


TREE INVENTORY (2021)

MISSING / INCONCLUSIVE / MESSY DATA

EXAMPLES:

- Canopy loss assessment data does not identify causes
- There is no private land inventory data
- There is a lack of granular data on development + canopy impact



Canopy Loss Assessment Data



Was loss caused by disease, drought, development or damage?

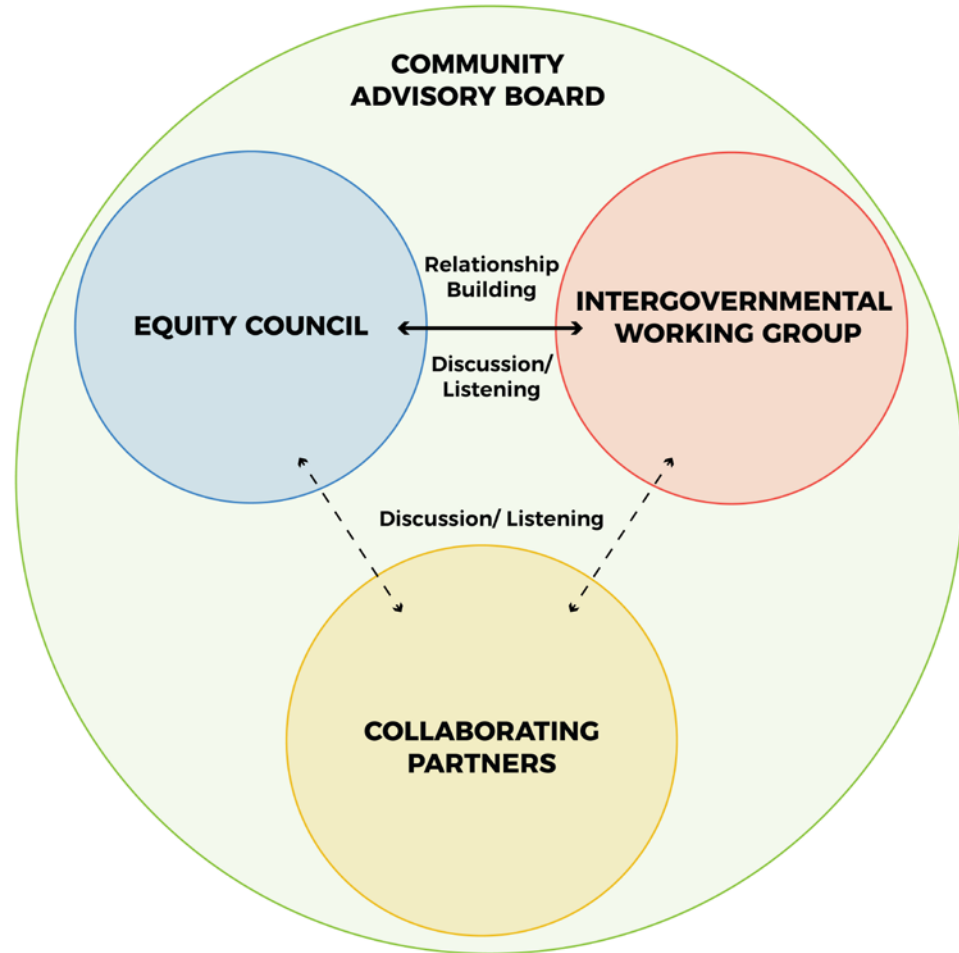
DATA AND DISCOVERY:

TREE INVENTORY

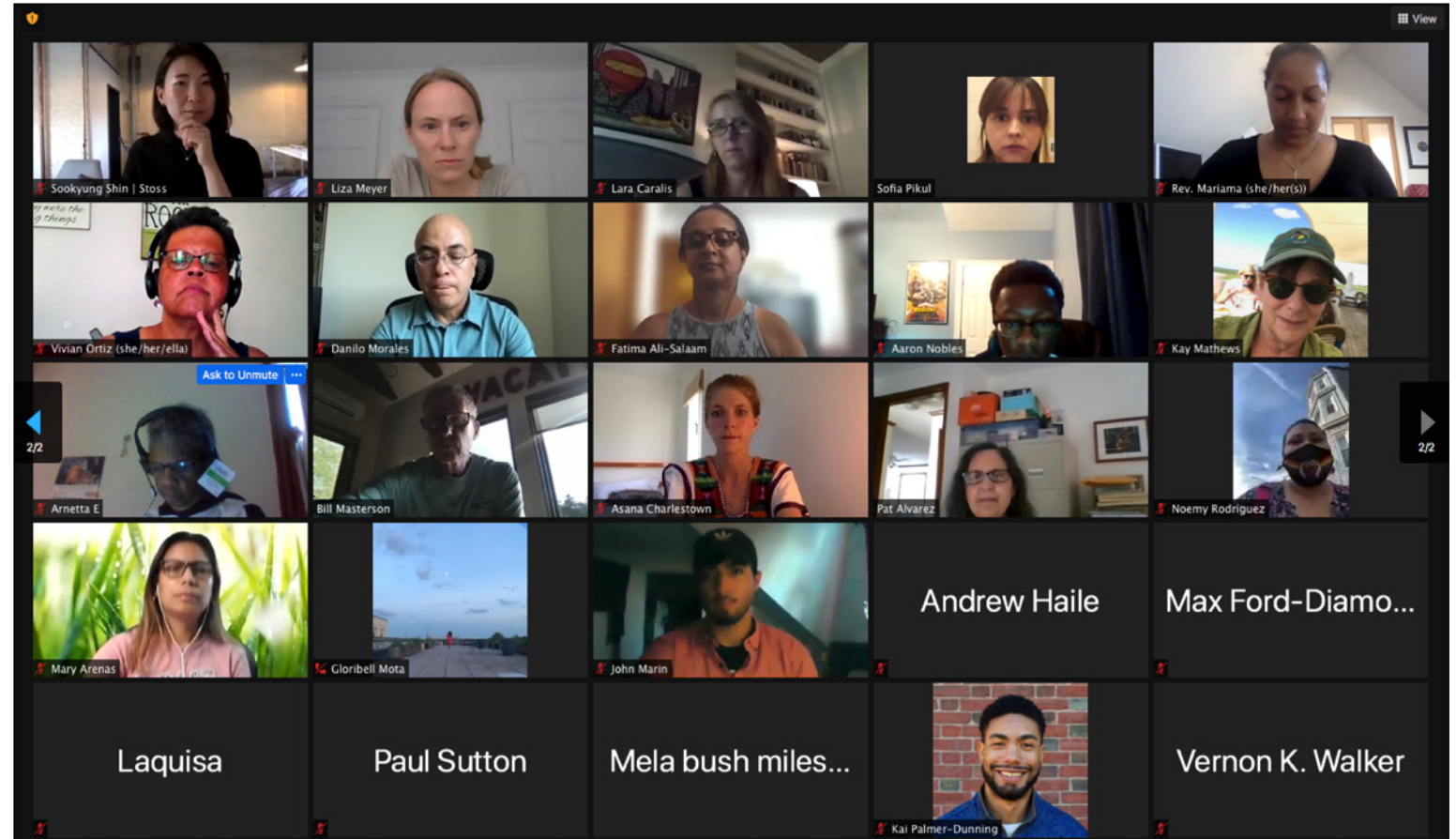
38,273 street trees identified...



EQUITY-CENTERED CAB PROCESS



CAB STRUCTURE



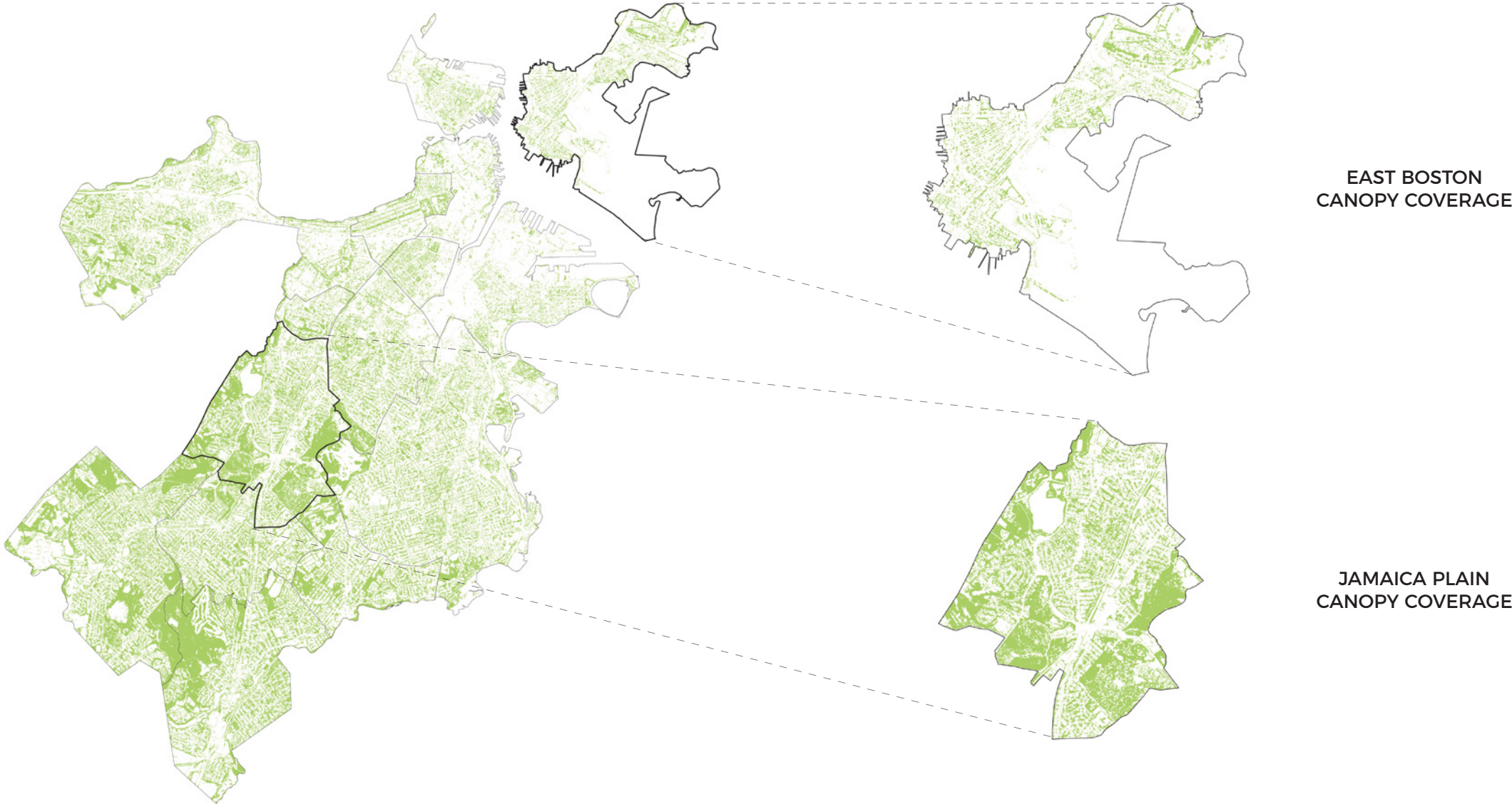
CAB MEETING

CANOPY COVERAGE

CANOPY COVERAGE

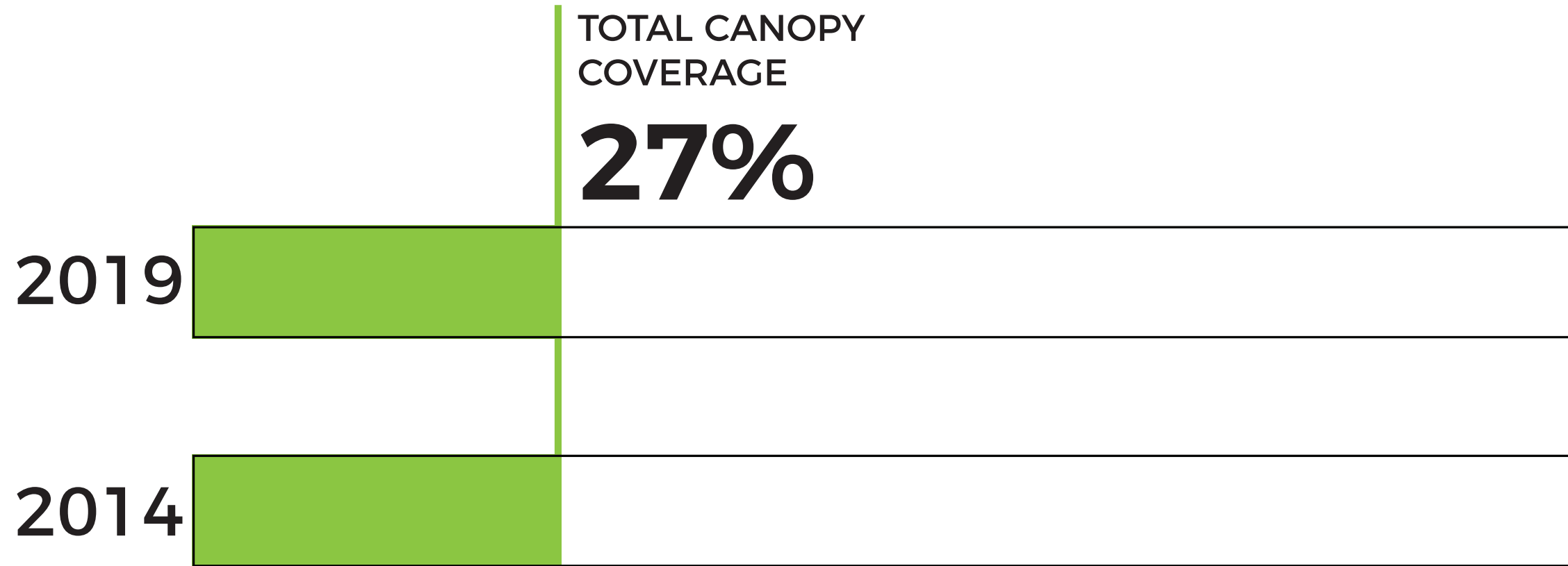
CANOPY COVERAGE

Canopy coverage = area covered by branches and leaves, as seen from above



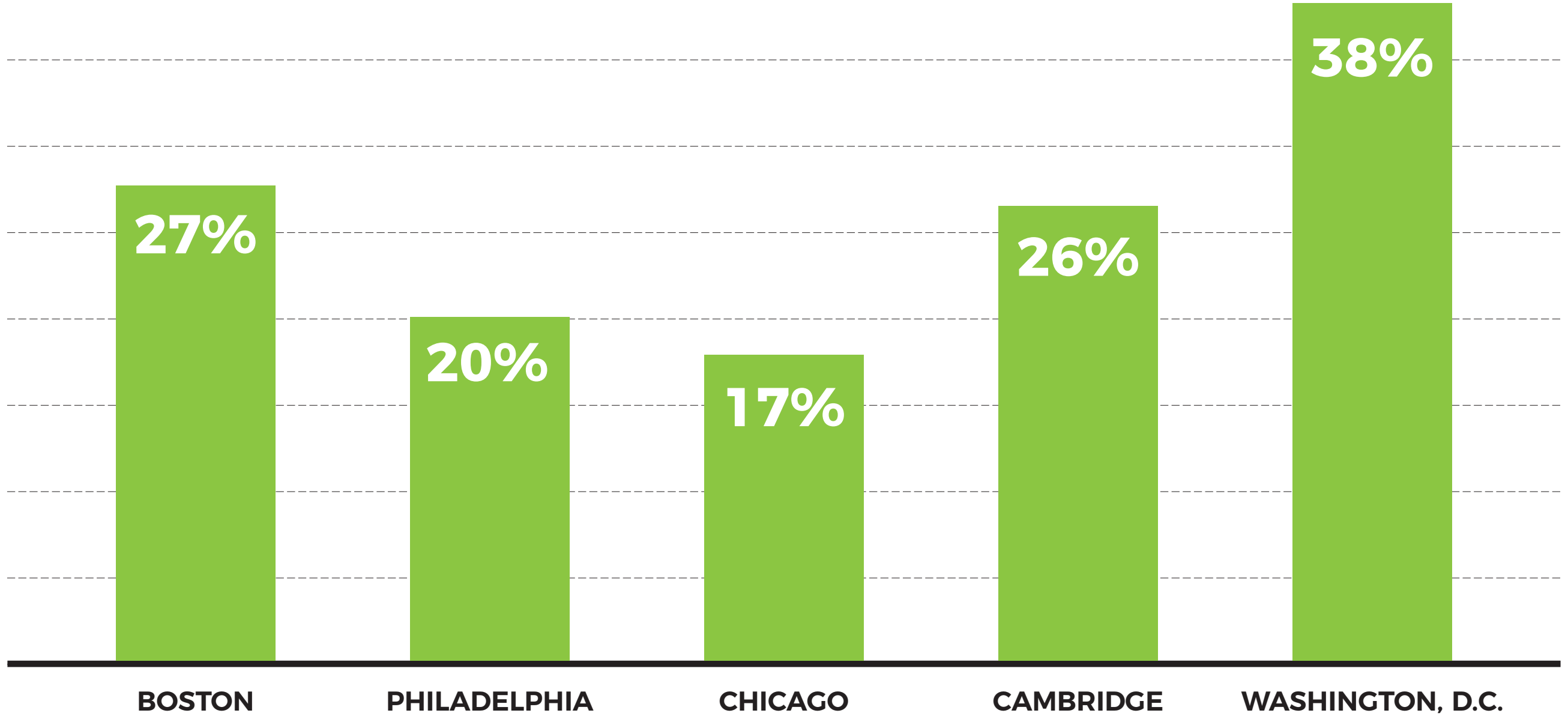
CANOPY CHANGE

Between 2014-2019 overall canopy remained steady...



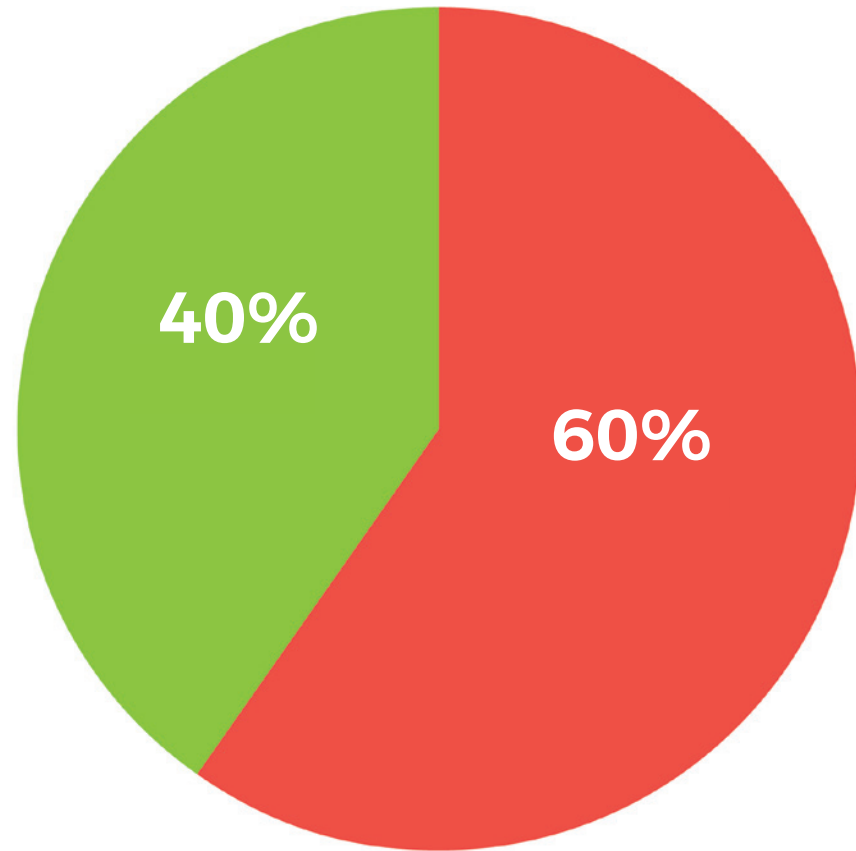
CANOPY COVERAGE

How does this compare?

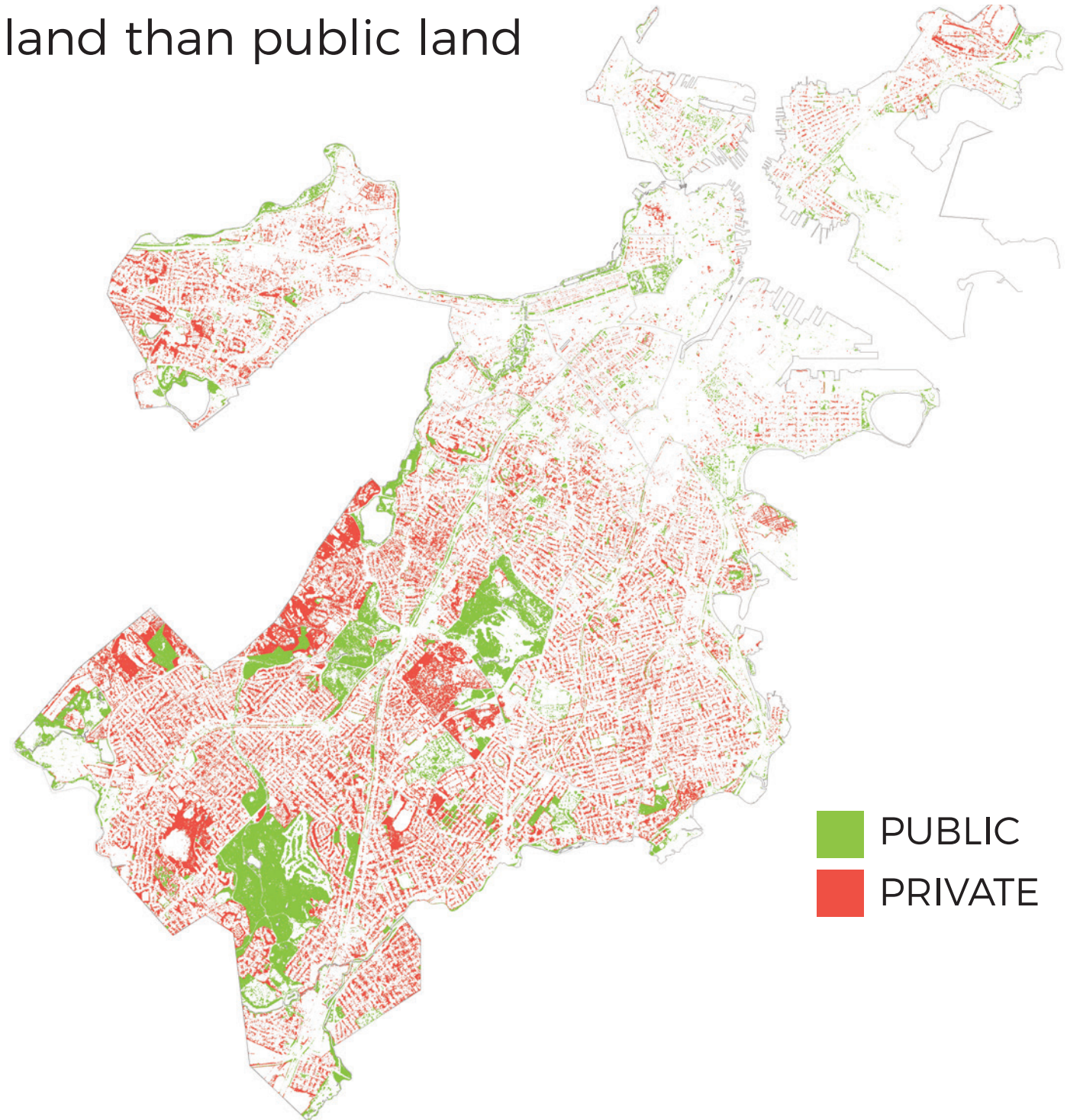


CANOPY DISTRIBUTION + LAND USE

There is more canopy coverage on private land than public land



PERCENTAGE OF CANOPY COVER ON PUBLIC LAND VS. CANOPY COVER ON PRIVATE LAND

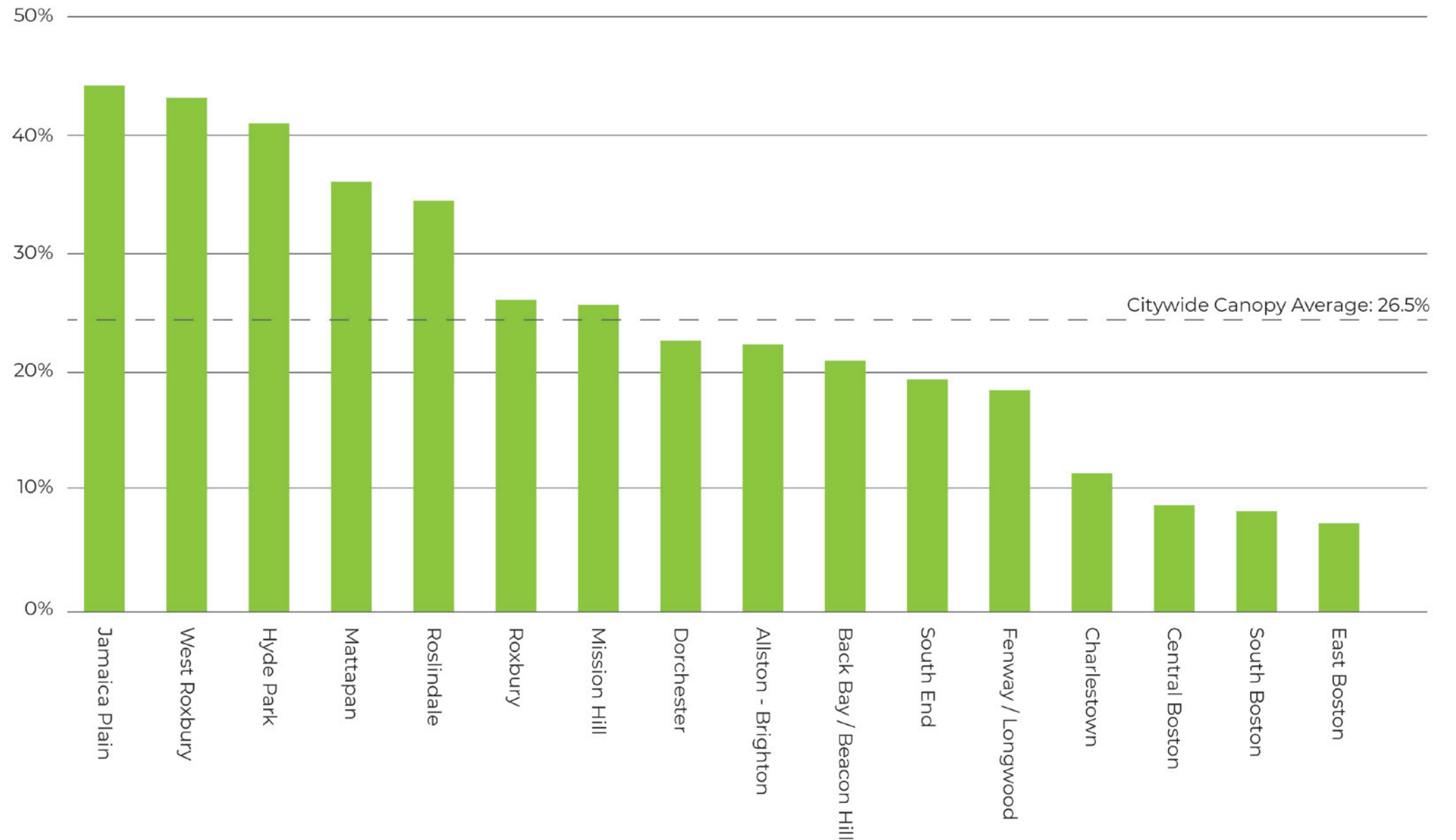


CANOPY DISTRIBUTION

Going beyond “equal coverage”

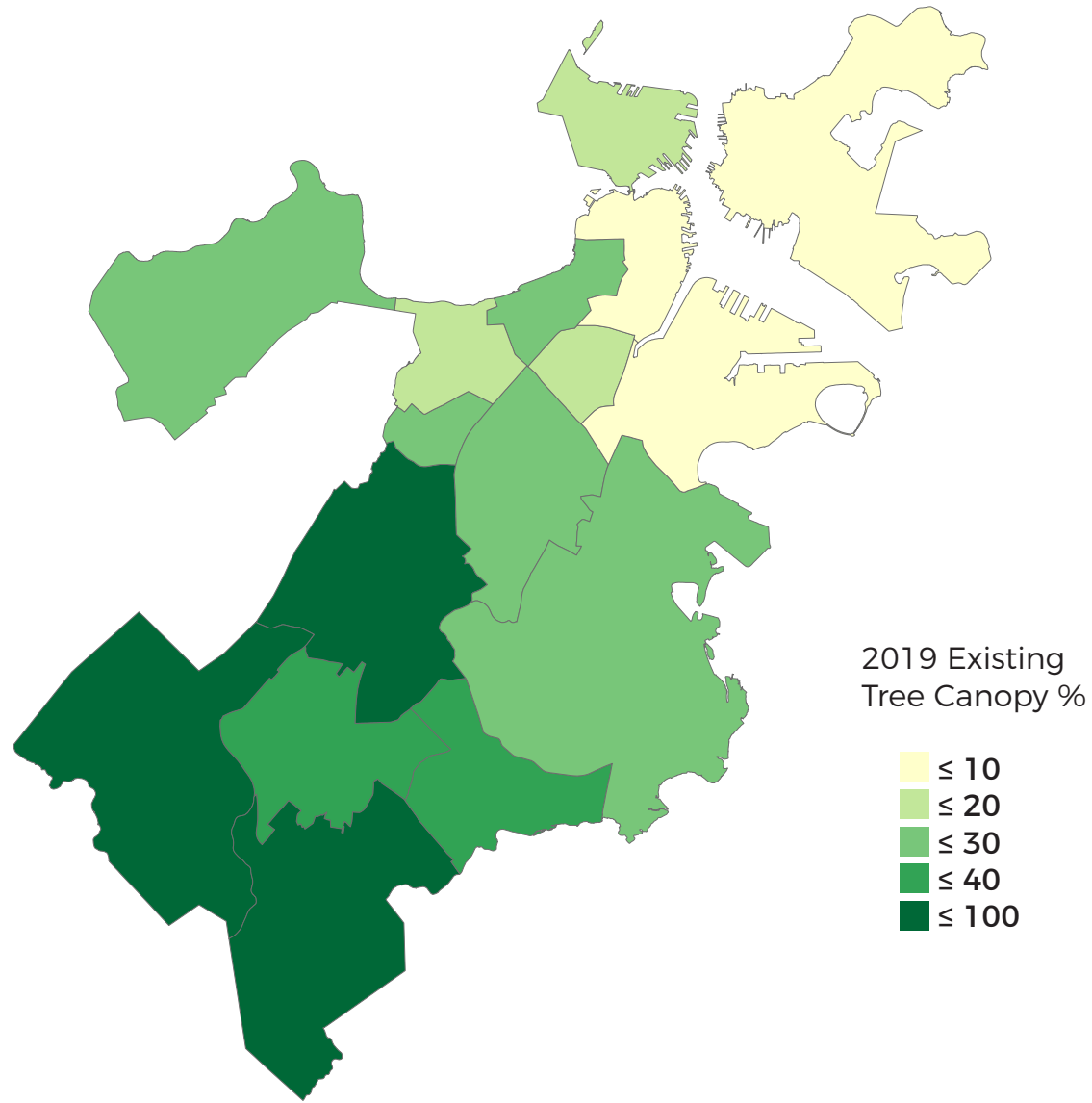
Existing Canopy (2019) Neighborhoods

(UVM Canopy Assessment Data excluding the Harbor Islands)

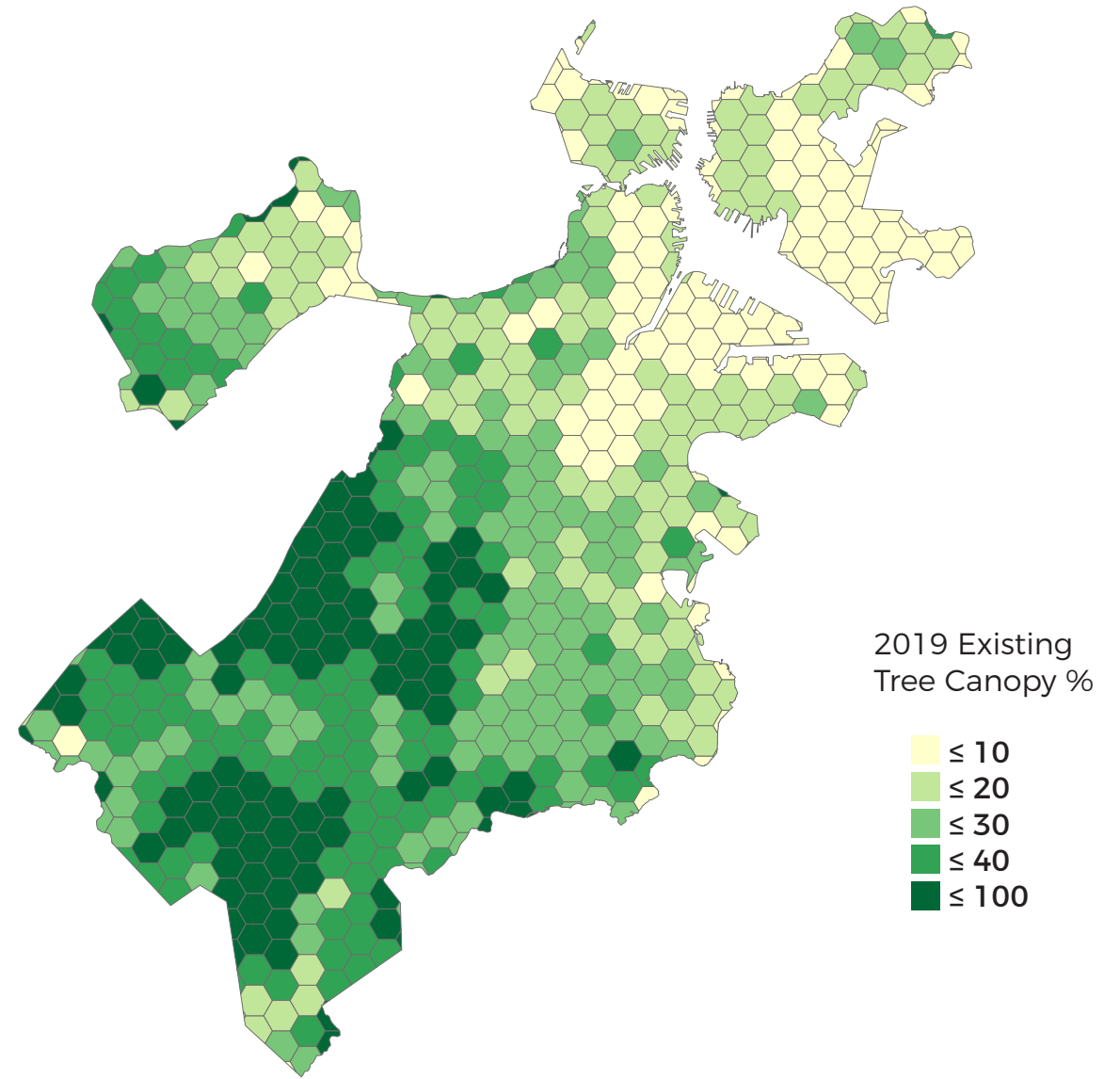


CANOPY DISTRIBUTION

North-South and East-West pattern in canopy coverage



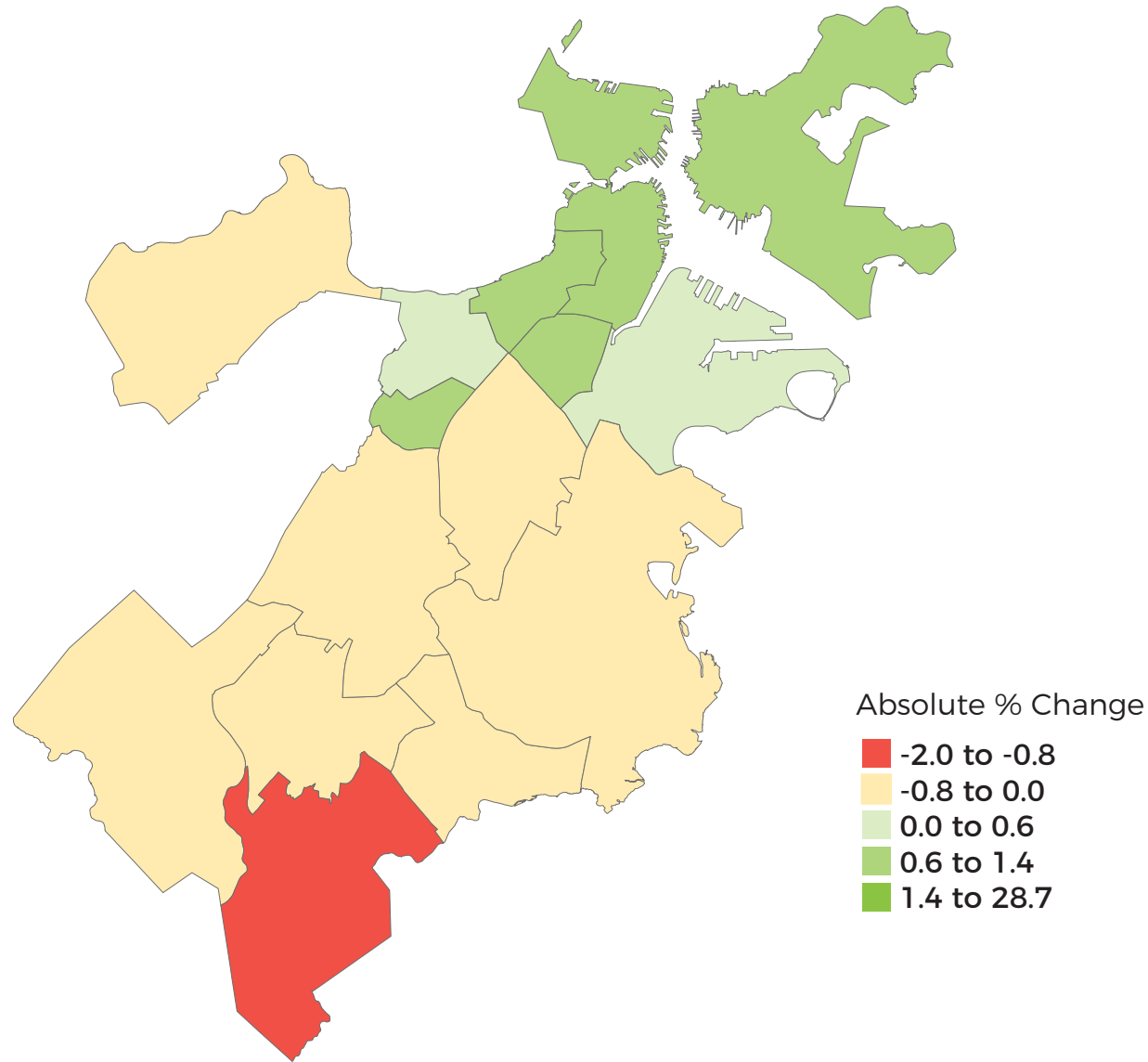
EXISTING CANOPY BY NEIGHBORHOOD



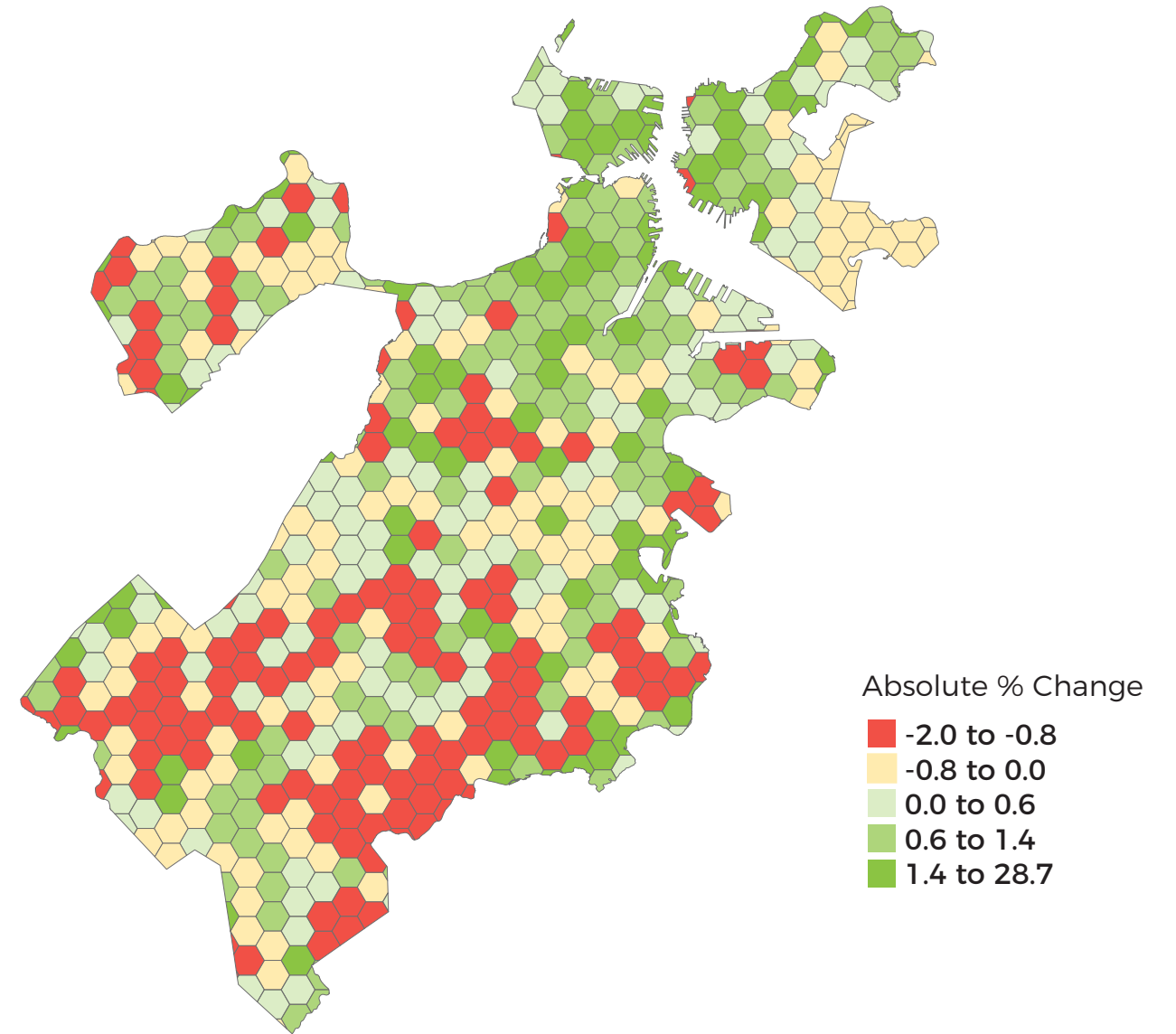
EXISTING CANOPY FURTHER BROKEN DOWN

CANOPY CHANGE

Losses were largely concentrated in areas of high existing canopy, and gains occurred in many areas with low existing canopy



ABSOLUTE CANOPY CHANGE 2014-2019 BY NEIGHBORHOOD

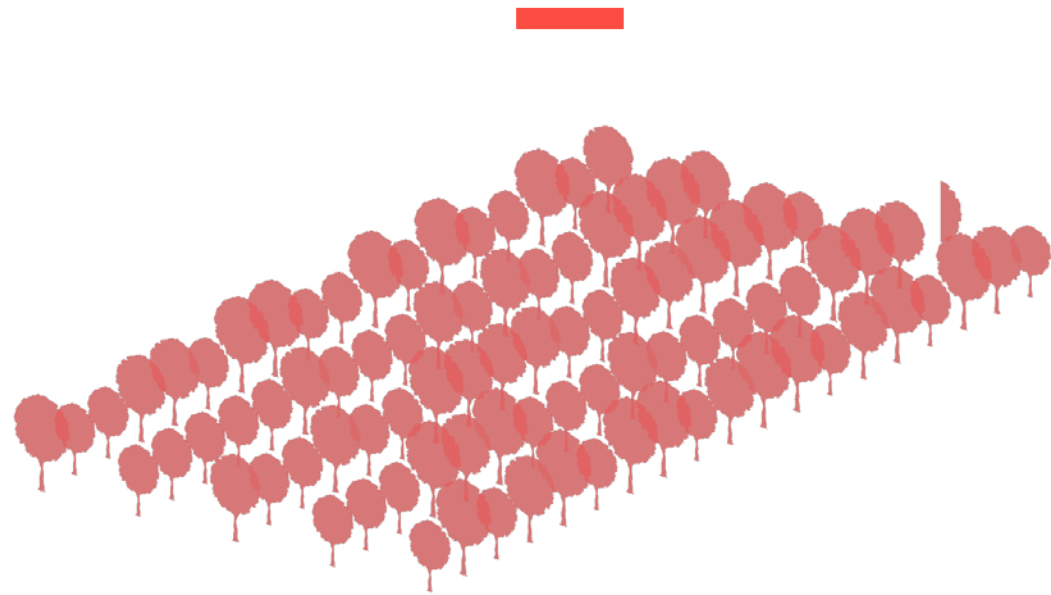


ABSOLUTE CANOPY CHANGE 2014-2019 FURTHER BROKEN DOWN

CANOPY COVERAGE

CANOPY CHANGE

While canopy remained the same overall, significant canopy expansion and loss were experienced.



ACRES OF CANOPY LOST BETWEEN 2014-2019: 920 ACRES*
TOTAL ACRES OF CANOPY 2019: 8,210 ACRES
Causes include:



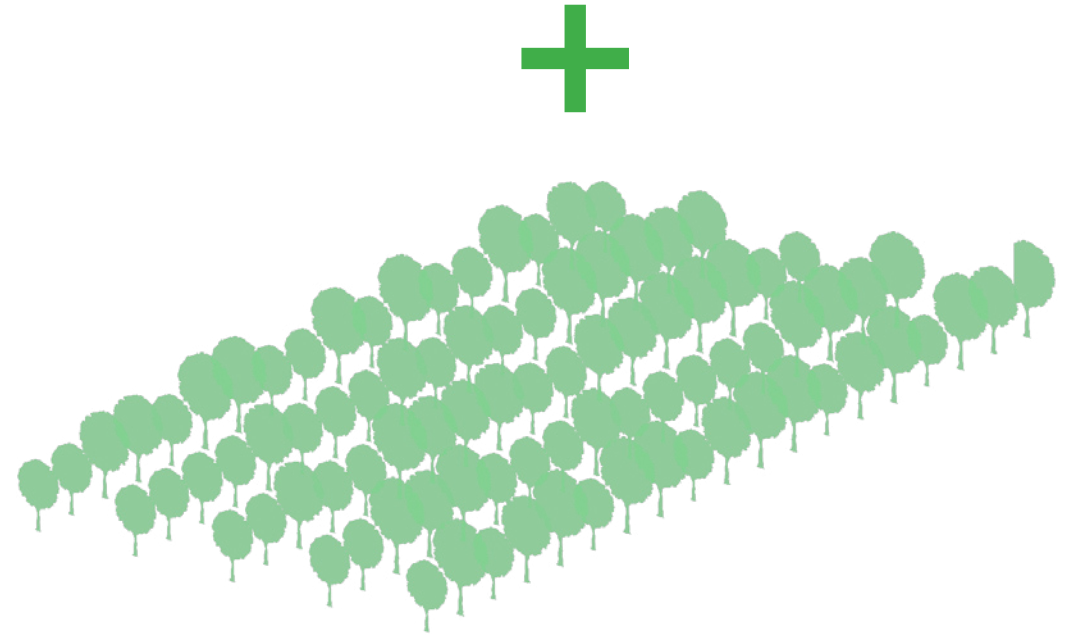
DISEASE / PESTS / STRESS



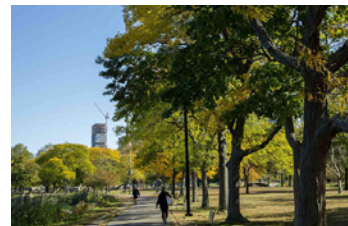
NATURAL PROCESSES
(STORMS / DEATHS)



DEVELOPMENT



ACRES OF CANOPY GAINED BETWEEN 2014-2019: 909 ACRES*
TOTAL ACRES OF CANOPY 2019: 8,199 ACRES
Causes include:



GROWTH



NEW PLANTING

*Each tree is equal to 10 acres

CANOPY DISTRIBUTION + LAND USE

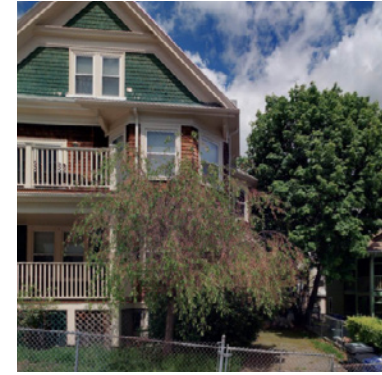
Land use- the way land is used and built on

DIFFERENT CHALLENGES AND OPPORTUNITIES

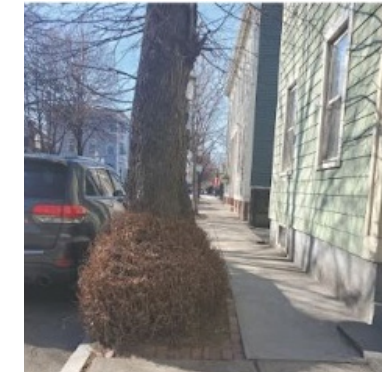
- degree of **protection** (ex. Chp 87 Shade Tree Law)
- how much **space** there is for **healthy** tree growth
- **how many** trees are protected or planted
- **who** takes care of the trees
- **skills and resources** to care for trees as they age
- **exposure** to stressors like foot traffic or vehicle damage



OPEN SPACE



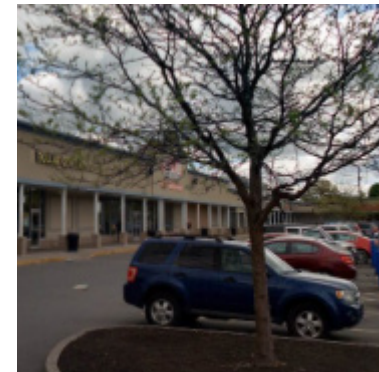
RESIDENTIAL



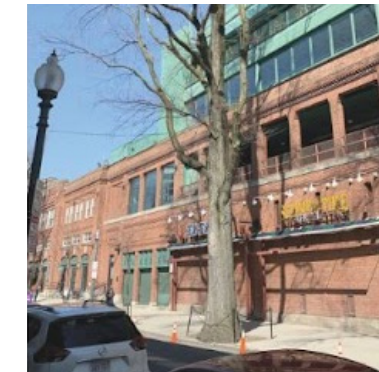
PUBLIC RIGHT-OF-WAY



INSTITUTIONAL



COMMERCIAL



MIXED USE

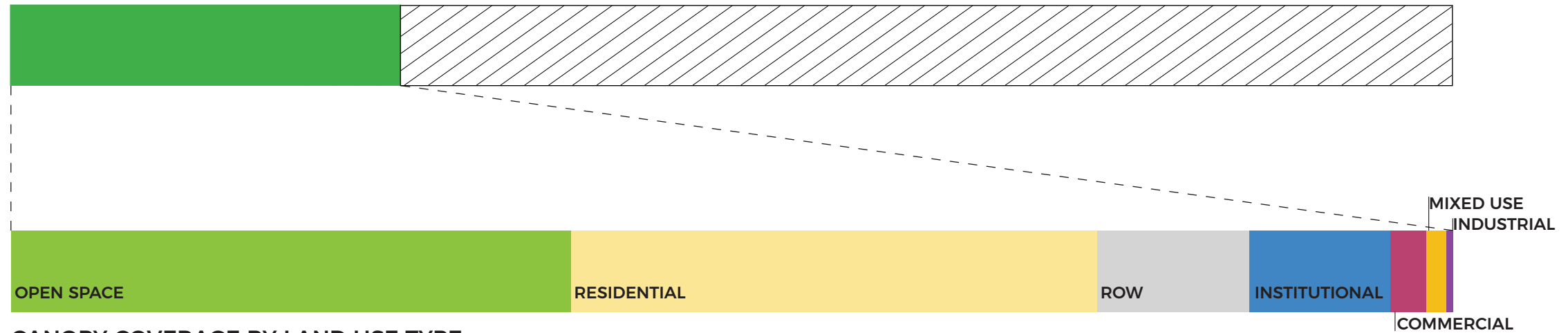


INDUSTRIAL

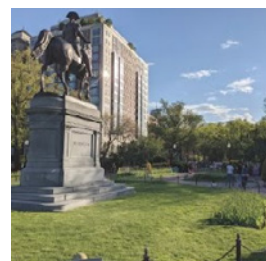
CANOPY DISTRIBUTION + LAND USE

Open space and residential land uses makeup ~75% of existing canopy

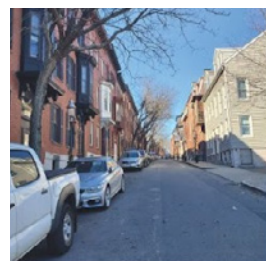
CANOPY COVERAGE IN BOSTON



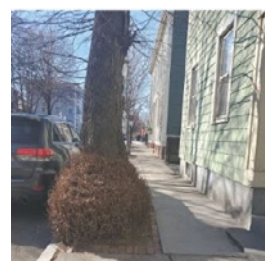
CANOPY COVERAGE BY LAND USE TYPE



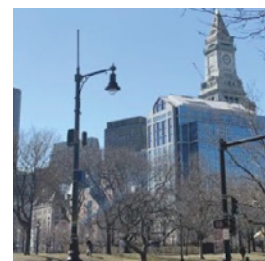
OPEN SPACE
38.9%



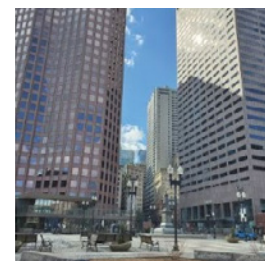
RESIDENTIAL
36.5%



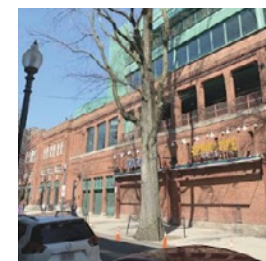
ROW
10.6%



INSTITUTIONAL
09.8%



COMMERCIAL
02.5%



MIXED USE
01.3%

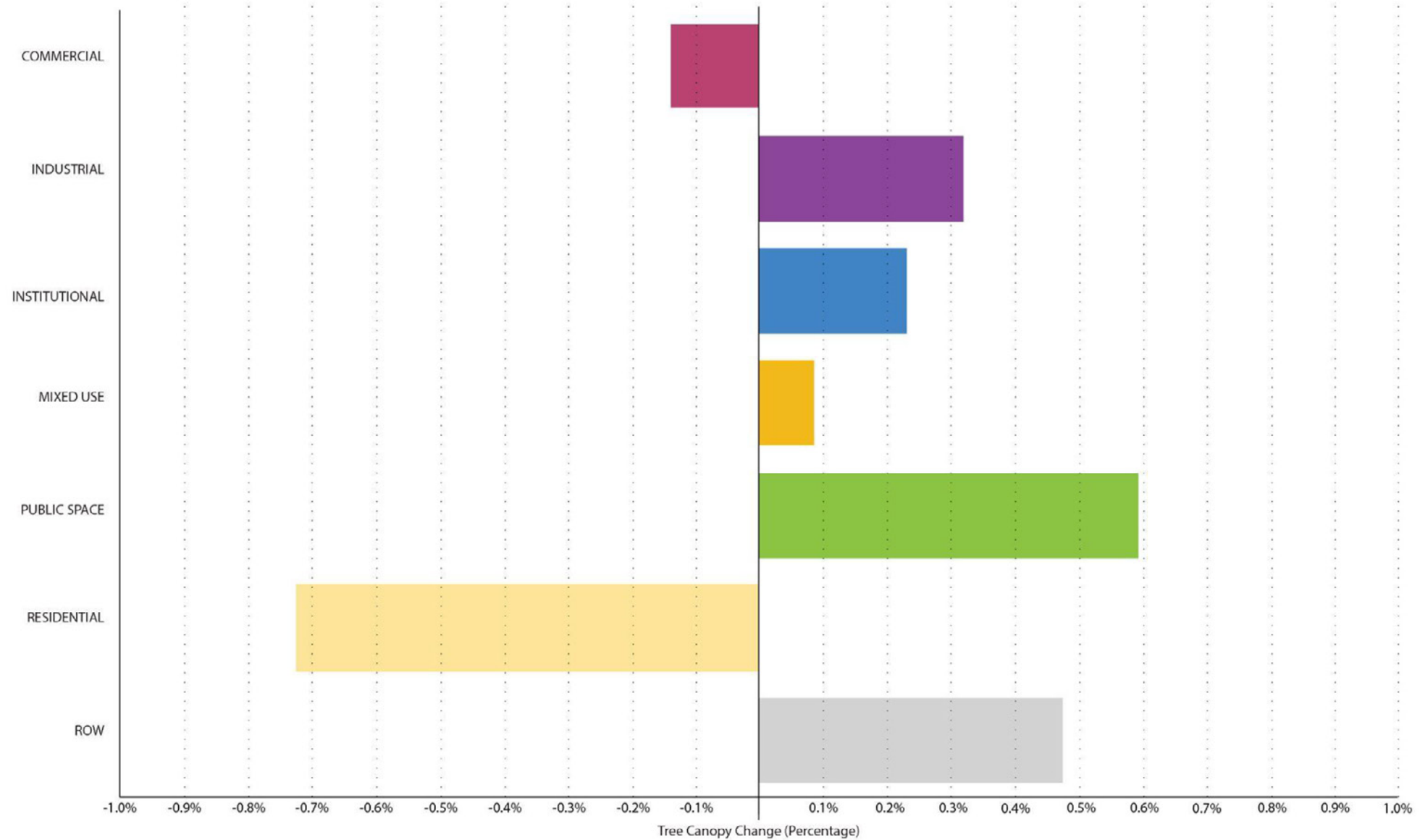


INDUSTRIAL
0.40%

CANOPY DISTRIBUTION + LAND USE

Residential land saw the greatest net loss of canopy

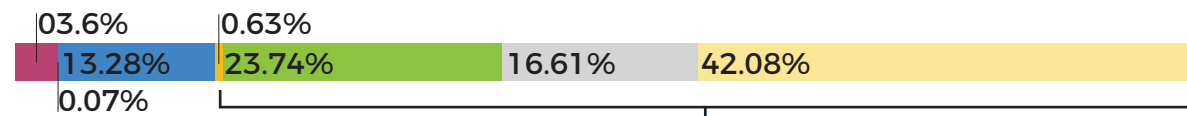
TREE CANOPY CHANGE BY LAND USE - ABSOLUTE



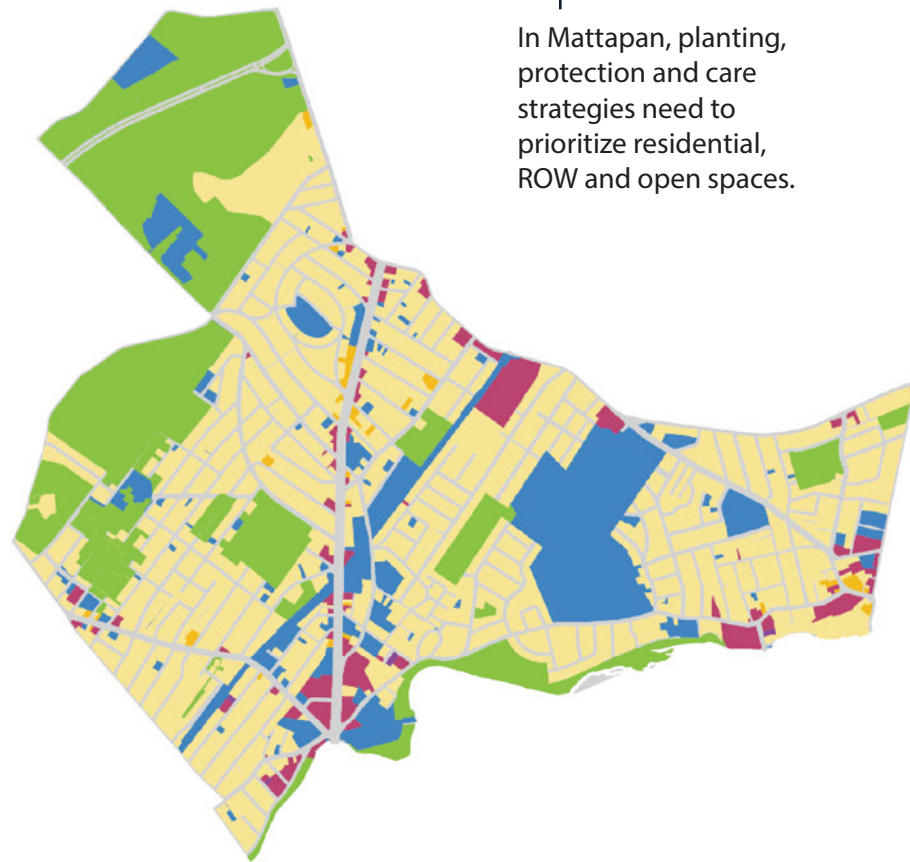
CANOPY COVERAGE

CANOPY DISTRIBUTION + LAND USE

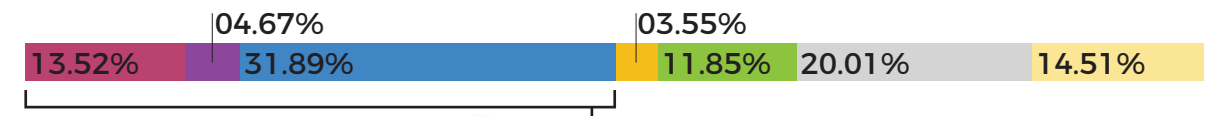
Every neighborhood has a different land use make up, and each land use presents different challenges and constraints for the preservation and expansion of the urban forest.



In Mattapan, planting, protection and care strategies need to prioritize residential, ROW and open spaces.



MATTAPAN



In Charlestown, strategies that target Commercial, industrial and institutional lands could have significant impacts.

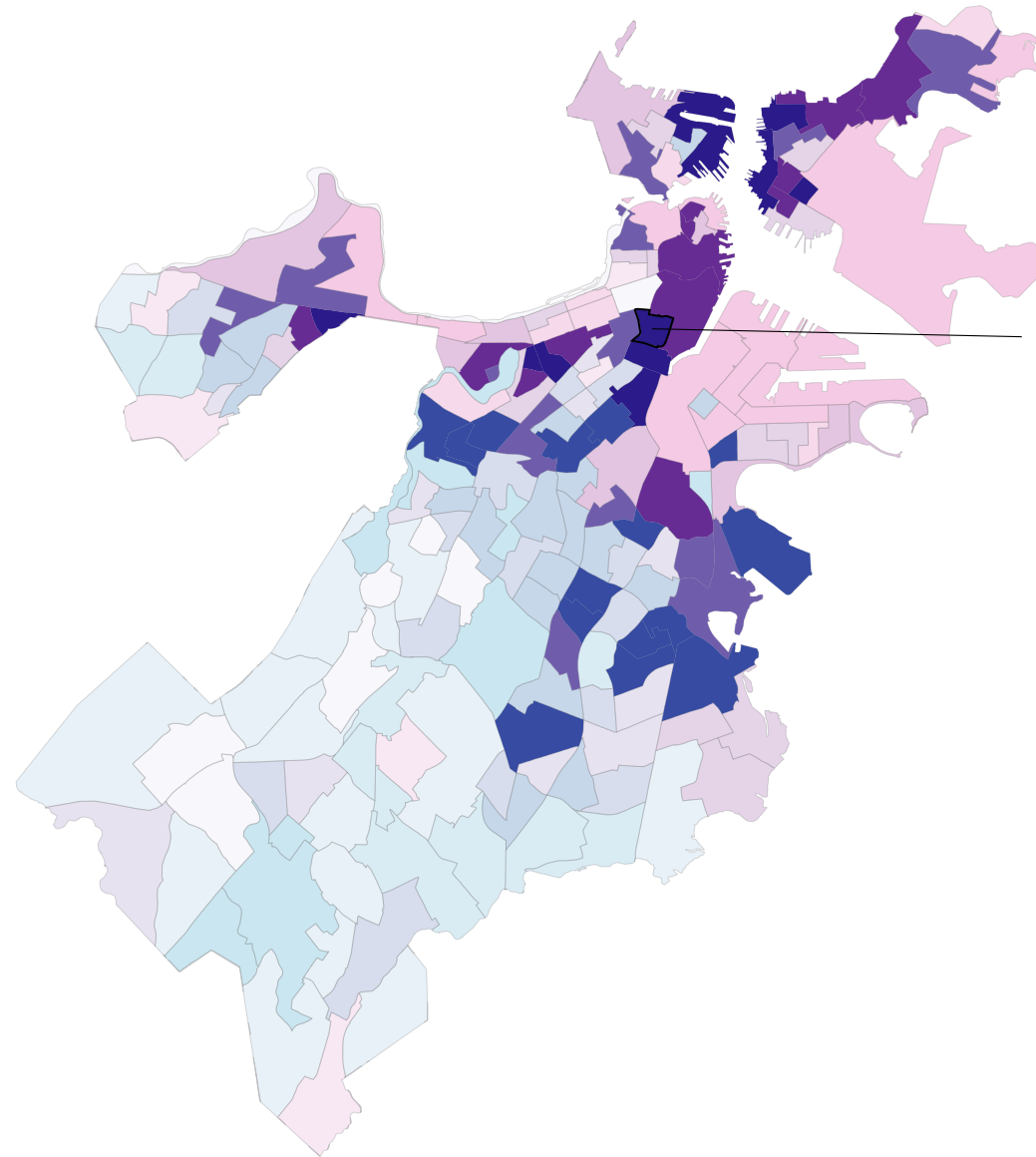


CHARLESTOWN

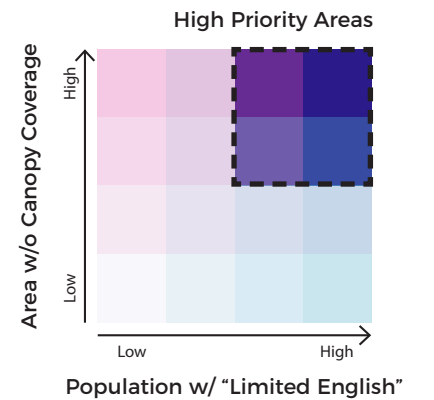


ENVIRONMENTAL JUSTICE + CANOPY

Highlighted areas = high need and socially vulnerable populations



Census Tract in Chinatown
7% canopy coverage
50% of population qualifies
as having limited English



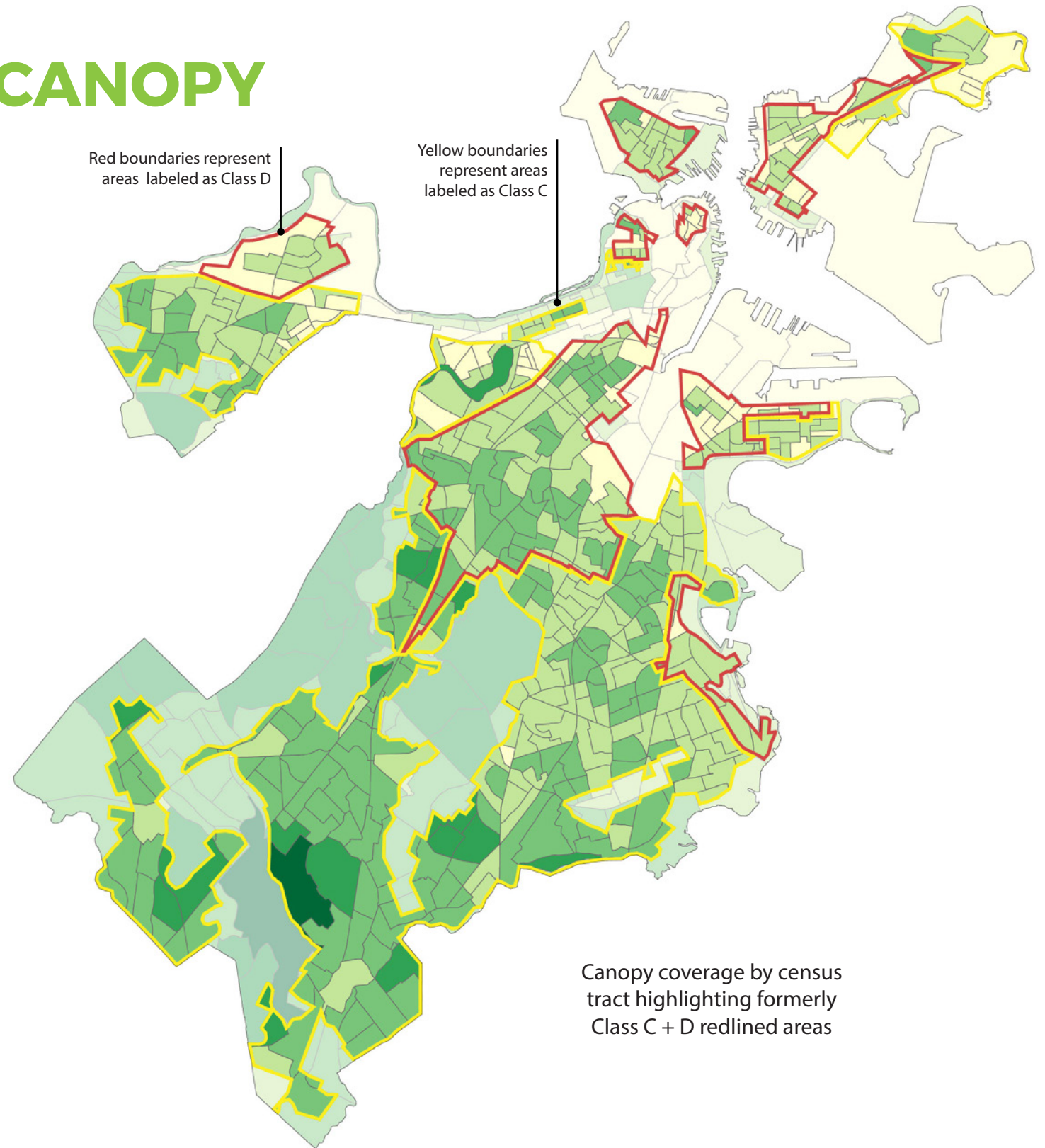
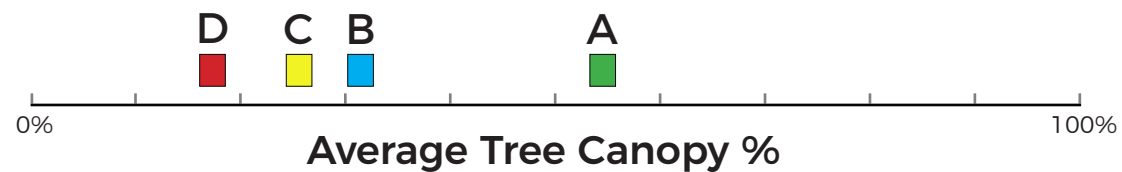
CANOPY COVERAGE

HISTORIC DISCRIMINATION + CANOPY

Numerous policies, systems, practices have compounded historical disinvestment, marginalization and discrimination.

For example, formerly redlined (HOLC rating class D) neighborhoods, on average, have less canopy coverage than other areas.

Class A: average of 54.1% canopy coverage
Class B: average of 31.3% canopy coverage
Class C: average of 25.6% canopy coverage
Class D: average of 17.9% canopy coverage

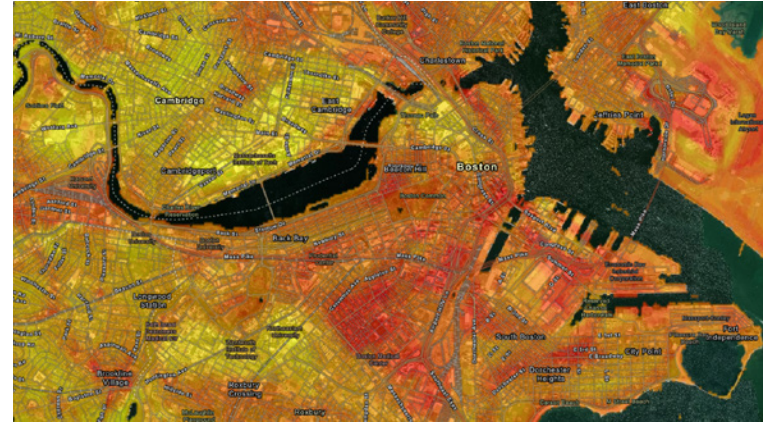


THE URBAN FOREST + CLIMATE CHANGE

A range of threats will bring new risks and challenges to the forest with climate change



STORMS



TEMPERATURE SWINGS + HEAT



DROUGHT



FLOODING / SALINITY



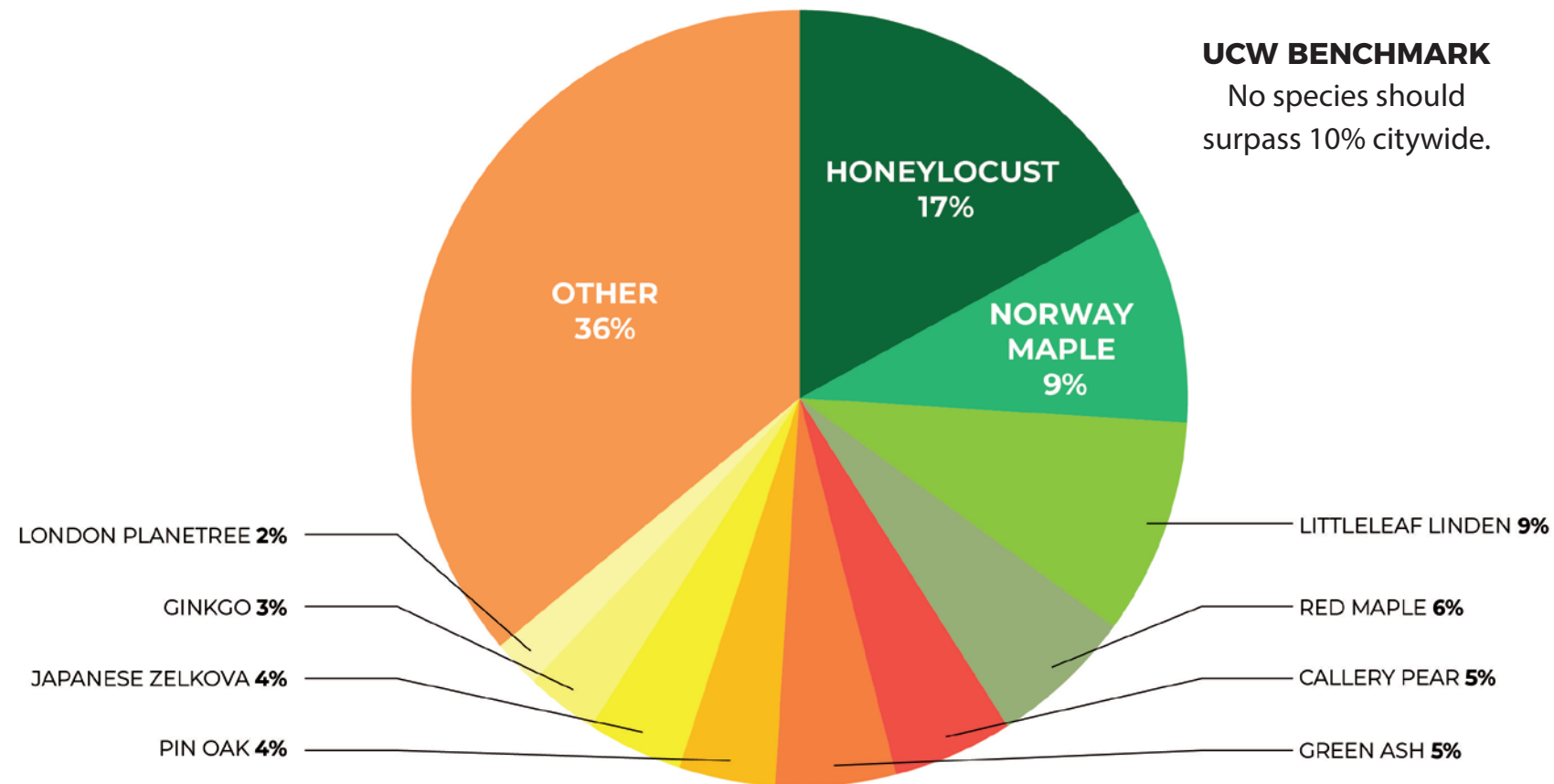
NEW PESTS / DISEASES

STREET TREES

DIVERSITY

Diversity is critical to the health of the urban forest. While we don't have species data for the entire forest, Boston's street trees are moderately diverse, with only one species over 10%.

TOP 10 TREE SPECIES IN BOSTON



HONEYLOCUST
Gleditsia triacanthos



LITTLELEAF LINDEN
Tilia cordata



NORWAY MAPLE
Acer platanoides



RED MAPLE
Acer rubrum

SUITABILITY + CLIMATE CHANGE

Common trees in Boston expected to fare **poorly** as climate warms



RED MAPLE



SWAMP WHITE OAK



BLACK WALNUT



AMERICAN LINDEN

Common trees in Boston expected to fare **better** as climate warms



WHITE OAK



BLACK LOCUST



SUGAR MAPLE

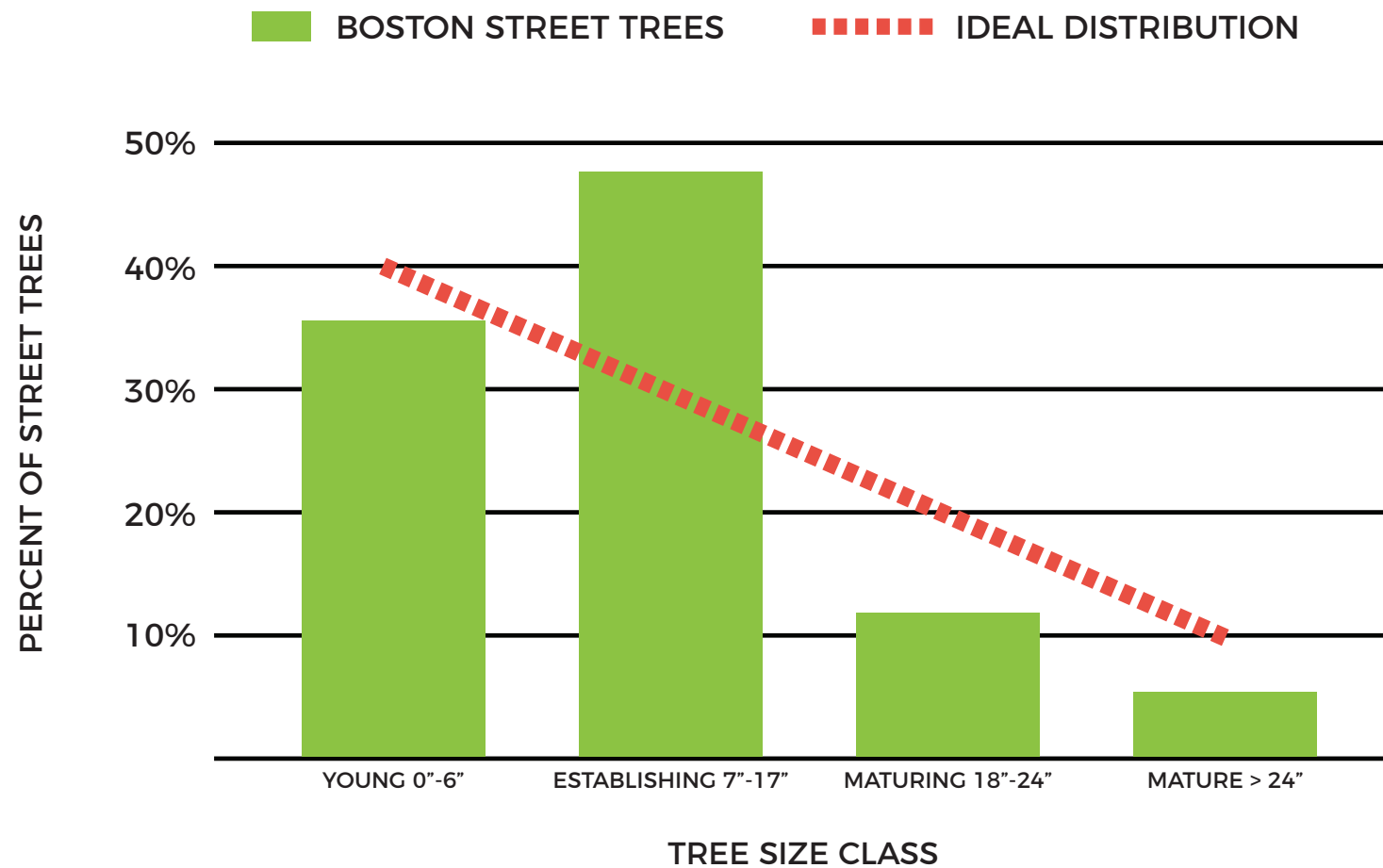


SILVER MAPLE

SIZE + AGE

A diverse distribution of tree age and size lays the foundation for a healthy forest now and in the future.*

SIZE CLASSES OF BOSTON STREET TREES



DISTRIBUTION RATING: FAIR
Boston has too many establishing trees and too few mature and maturing trees.

*Comprehensive tree data is not available for trees living in other locations like private property, parks, or other public property.

CARE + MANAGEMENT

CARE & MANAGEMENT

Caring for the urban forest takes a community. There are many caretakers and owners.



GOVERNMENT

- City of Boston (ex. Parks Department)
- State (ex. DCR)
- Federal (ex. NPS)



COMMUNITY GROUPS + INDIVIDUALS

- You
- Non-profits
- Community Groups
- Neighborhood Associations
- Developers
- Businesses



INSTITUTIONS

- Universities (ex. Northeastern)
- Massport (ex. Logan Airport)

CARE & MANAGEMENT

Sustaining life in a tough environment

Canopy extends across many different property types.

Maintainers: Everyone!

Health challenges: Dog waste, salt, soil compaction, drought, vandalism, mechanical damage, pest/disease, construction, storms, soil volume, shadows, temperature swings, bike locks.

What does a tree need?

- Right place, right species
- Kindness
- Proactive care - pruning is a great way to reduce the chances of storm damage to a tree. Pests and diseases can be caught early on if the tree's health is monitored.
- Watering, especially in the first two years of its life



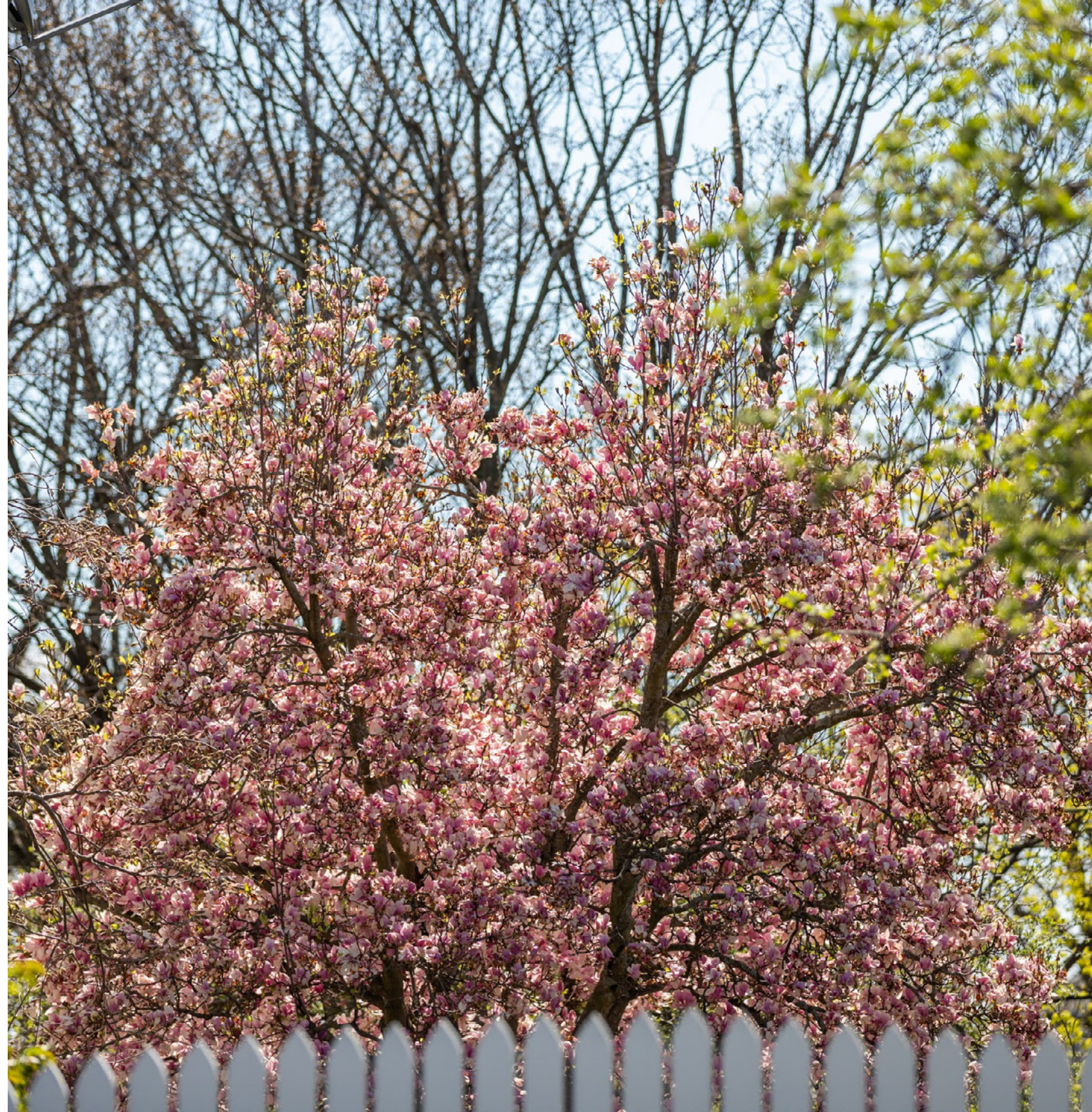
Effects of dog urine on bark. Trees can die from damage to their bark. The sensitive outer layers of a tree acts as a circulatory system, transporting water and sugar up and down the tree. PHOTO: Carrie Maria

CARE & MANAGEMENT

Sustaining life in a tough environment

What does a tree need?

- Right place, right species
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- Proactive care - pruning is a great way to reduce the chances of storm damage to a tree. Pests and diseases can be caught early on if the tree's health is monitored.
- Watering, especially in the first two years of its life



CARE & MANAGEMENT

Parks and street trees

- Boston Parks and Recreation is responsible for public street trees and trees in City-owned parks.
- State Department of Conservation and Recreation owns half the parkland in Boston.



CARE & MANAGEMENT

Non-profits and Community Groups

Non-profits and community groups also play an important role.

- Planting and maintaining trees on public and private lands.
- Community programming
- Workforce development programs
- Advocacy
- Awareness-raising

Examples:

- Tree Eastie
- Climate Crew (CREW)
- Emerald Necklace Conservancy
- Speak For The Trees



CARE + MANAGEMENT

CARE & MANAGEMENT

Institutions

- Institutions and other major landowners like universities and hospitals are major players in preserving and expanding canopy.
 - Much of this canopy is publicly-accessible.
- Includes other publicly-owned land that aren't parks.



CARE & MANAGEMENT

Developers, landowners, and businesses

- Privately-held land is home to 60% of the city's canopy.
- Much of this land is small residential property.
- Often a less stressful environment for trees than sidewalks.



CARE & MANAGEMENT

Individual residents

Residents can support or care for trees almost anywhere! You don't have to be a homeowner to advocate or care for trees.

- Care for a tree near you
- Organizing planting and care on public and private property
- Participating in programming and volunteer opportunities
- Awareness-raising
- Advocacy
- 311 requests for public tree care + planting



COMMUNITY PERCEPTIONS ABOUT TREE LOSS AND LAND DEVELOPMENT

- Development occurring everywhere, and [we have lost significant tree coverage to development.](#)
- [Need policy, tree mandate](#) in our development process.
- They are pulling / removing 20 year old trees to plant a new one and destroying open spaces
- Development is a big issue. [Trees are not considered in the development process](#), existing trees are often cut down.
- Greenspaces should be protected during development (keep what little is left)
- The development community should be involved in pilot projects to prove the success of innovative ways to build and preserve (or make) tree canopy.
- [City can make comment but doesn't have the tools to require developers to do things that are in the best interest of the City.](#)
- We need to put [a sort of tree policy / ordinance into place](#); developing a tree ordinance coincides with the boston wetlands ordinance.
- Interested in having the city take a stronger role in inventorying trees on private land, encouraging planting on private property, and [discouraging cutting as we remove houses and put in more housing.](#)
- [Create an incentive for developers and people to keep trees.](#)

COMMUNITY COMMENTS

- We often look crazy to the community. [Every department is doing something in silos.](#)
- City organization and processes have [too many layers and are confusing](#) to the public.
- There's little coordination and we've found it challenging to work within the city through various departments.
- The impression I get from speaking with those involved with managing the urban forest, is that there are [competing priorities within individual City agencies that make things challenging.](#)
- BPRD values trees, and some BPDA members are tree advocates. However we need to do a [better job of educating other city entitites](#) (ZBA, ISD, BPDA, DPW) on the value of trees. If all city departments were educated on the value of trees, there would be greater alignment on canopy growth.

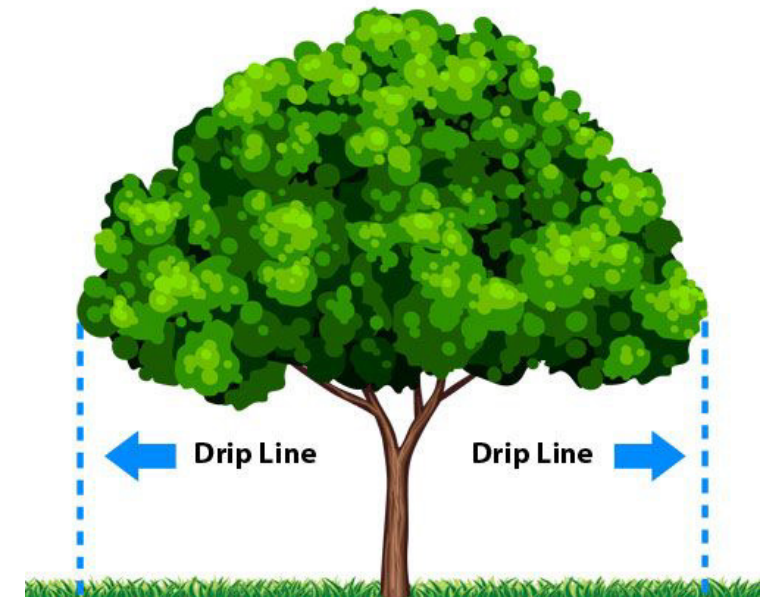
TREE PROTECTION/PRESERVATION REGULATIONS

What are they?

Regulations and requirements that are put into place to preserve and protect a community's trees and forests. Regulations can be in place for **BOTH** public trees and private trees.

Regulated activities can include:

- Tree removal
- Tree pruning
- Tree planting
- Encroachment into drip line or critical root zone
- Preservation of specific tree species and/or tree sizes



PRIVATE TREE PROTECTION ORDINANCE

What can they include?

Restrictions/Requirements

- Restricts tree removal on private property
- Permit or approval required for tree removal on private property
- Requires preservation of trees during development on private property
- Prohibits damage to preserved or protected trees
- Specific species and/or size tree regulated (e.g. 'heritage' or 'significant' trees)

TREE PROTECTION ORDINANCES

What are other cities doing?

Massachusetts Examples

- Concord: Tree Preservation Bylaw
- Brookline: Brookline's Stormwater Management Bylaw (Article 8.26)
Erosion And Sediment Control- Amendment
- Cambridge: Chapter 8.66 - Tree Protection
- Somerville: Tree Preservation Ordinance (Ord. #2019-15)

Other City Examples

- Atlanta, Ga: Article 2 Vegetation
- Austin, Tx: Chapter 28-8 - Environment Subchapter B. - Tree and Natural Area Protection; Endangered Species.
- Seattle, Wa: Chapter 25.11 - Tree Protection

TREE REGULATIONS IN BOSTON

Public tree ordinance

Massachusetts Chapter 87 - Shade Trees

- Establishes Tree Wardens and defines powers and duties
- Prohibits removal of street trees without a hearing
- Allows tree planting on streets
- Prohibits damaging street trees
- Guides utility pruning
- Sets penalties

City of Boston

- Has no separate/additional tree ordinance for public trees
- Operates under the authority given and regulations provided by Chapter 87



TREE PROTECTION REGULATIONS

Private property

Boston's Existing Development Regulations & Guidelines and Trees:

- Article 80 (Development & Review Approval)
- Article 37 (Green Building)
- Boston Wetlands Ordinance
- Climate Resiliency Policy
- Neighborhood District Design Regulations

DRAFT ORDINANCE

Ordinance Establishing Protections for the City of Boston Tree Canopy

Introduced by Councilor Arroyo in August 2021

Proposed to amend City Code of Ordinances Chapter VII Environmental Protection with new Section 7-15

General provisions:

- Staffing
- Community oversight
- Street tree fees
- Permit requirements
- Mitigation
- Exemptions

KEY GOALS + RECOMMENDATIONS

GOAL #1

EQUITY FIRST

Focus Investments and Improvements
in Under-Canopied, Historically Excluded
and Socially Vulnerable Areas

Strategies and recommendations under this goal would include (but are not limited to):

- **Prioritize efforts** in historically excluded communities, places with high concentrations of socially vulnerable peoples, and areas with relatively low canopy cover.
- **Targeted planning, care, planting, preservation, and replanting**, to maximize public health benefits and to adapt to climate change in equity focused communities and areas.
- **Address each neighborhood's unique history** and mitigate physical constraints to tree planting (such as narrow sidewalks).
- **Creating or supporting workforce development opportunities** (training and use of local workforces for various areas of tree work), to create training and career opportunities for residents in tree care work, especially in historically excluded communities, places with high concentrations of socially vulnerable peoples, and areas with relatively low canopy cover.
- **Target tree planting and care in equity focused areas**, in alignment with other strategic objectives, such as improving high traffic pedestrian corridors (e.g., paths to schools or grocery stores), and outdoor waiting spaces (e.g., bus stops).
- **Conduct outreach** on the importance of trees and **provide support** for socially vulnerable residents to protect and care for trees on private property.

GOAL #2

PROACTIVE CARE & PRESERVATION

Ensure Trees/Tree Canopy are Proactively Cared For

Strategies and recommendations under this goal would include (but are not limited to):

- Instituting a **proactive tree care program** for the City which includes resources for staff and contracts, and a strategy for a planting plan that will support tree health and growth of the canopy for BPRD's urban forestry program.
- Initiatives to **improve tree preservation**, including a tree protection ordinance, requirements and incentives for tree protection during development;
- A focus on **protection of mature trees** (guidelines/education) given their critical importance.
- Ensuring other departments and quasi-public agencies **share the same goals** and have resources for proactive care.
- Address hurdles to proactive care on **private lands** (cost and knowledge of large tree care)
- Utilize workforce development grants and training opportunities to help **expand tree care workforce** in the city at large
- **Increase data sharing** and work closely with partners to create robust data sources that serve decision making needs and **increase transparency**.
- "Future-proofing" the urban forest to the **impacts of climate change** - addressing pest/disease issues, species resiliency, adequate growing conditions (soil volume and quality, gas leaks, salt, utility conflicts, etc.), and other evolving care needs (adequate staffing and funding) as conditions change.

GOAL #3

COMMUNITY DRIVEN PROCESSES

Ensure Community Input Informs Urban Forest Priorities, Decisions and Management

Strategies and recommendations under this goal would include (but are not limited to):

- Efforts to ensure the **community has an active role** in guiding tree canopy decisions and operations within their neighborhood, and sufficient City support to do so.
- Develop ways to easily **provide input into decisions** that impact residents' community
- Ensure that community needs, goals, and aspirations are integrated into and prioritized in decisions made. Strategies to support this could include:
 - An **advisory City tree board with representation** that ensures historically excluded, socially vulnerable, and relatively low canopy communities are equitably integrated to represent their own needs, goals, and aspirations.
 - Ensure **transparent communication** lines around tree work.
- Ensuring every community has **access to the best information** to make decisions is key to supporting community led canopy management. Strategies to support this could include:
 - **Create and maintain an urban forest website** with up-to-date science, data and information including the importance of trees, information on the dynamics of managing a living forest, tree health, management programs, policies, etc., And how people can get involved in canopy care.

GOAL #4

TREES ARE PRIORITIZED AND VALUED

Increase awareness and buy-in regarding the importance of trees in Boston, across the public and private sector.

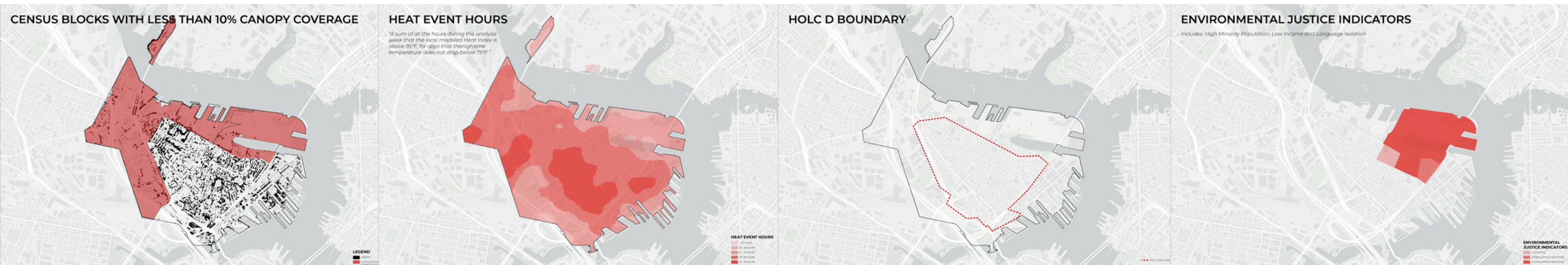
Strategies and recommendations under this goal would include (but are not limited to):

- More outreach and engagement to **increase awareness** of the role of trees and the urban forest to Boston, and develop the relationships integral to implementation and sustained efforts.
- **Improved coordination and alignment** within government departments, to ensure that the value of trees is embedded within other programs, priorities and policies.
- Make adjustments to the **development process** that support retention of existing large trees and increase new plantings
- Continue other city efforts that improve the urban forest:
 - The integration and accommodation of canopy expansion and providing adequate space for healthy trees into mobility efforts (from corridors to **Complete Streets**)
 - Reinforce stormwater management through capture and **green infrastructure initiatives**
- Build upon **current efforts from residents and organizations** to reinforce existing work and build new connections.
- Build structures and communication channels for **regional coordination** on practices, funding, pest response, and other issues that would benefit from combined efforts.

PLANTING PRIORITIZATION

IN PROGRESS

- Less than 10% canopy coverage
- Environmental justice populations
- Heat event hours
- Areas that were historically redlined as class D
- Sidewalk width
- Existing canopy/existing street trees
- Land use
- Open space



NEXT STEPS

NEXT STEPS

CARING FOR A TREE NEAR YOU

- Ask your local neighborhood group or park Friends Group about programming or volunteer opportunities
- Volunteer at Urban Wilds cleanup days:
boston.gov/urban-wilds
- Submit a 311 case to request a tree planting or maintenance
- Keep dogs away from pits
- Keep trash out of pits
- Avoid stepping in pits
- Water young trees during droughts

Learn more about caring for street trees and how to request a street tree or apply for a removal:

boston.gov/trees



WHAT COMES NEXT?

STEP

1

EXISTING CONDITIONS
AND ANALYSIS

STEP

2

WE ARE HERE....

STAKEHOLDER AND
PUBLIC ENGAGEMENT
(STARTING IN MAY)

STEP

3

...AND HERE

GOAL SETTING AND
RECOMMENDATIONS
(STARTING IN FALL 2021)

STEP

4

REPORT AND
IMPLEMENTATION
(STARTING SPRING 2022)

NEXT STEPS

RESOURCES

Caring for our urban forest | maintenance, planting, and street tree removal hearings
[boston.gov/trees](https://www.boston.gov/trees)

Urban Forest Plan | Project notes, data, and news
[boston.gov/urban-forest-plan](https://www.boston.gov/urban-forest-plan)

Call 311 or use 311 app | report issues with public trees, request a planting
[boston.gov/departments/bos311](https://www.boston.gov/departments/bos311)

Healthy Places | Learn about the Heat Resilience Study + Open Space and Recreation Plan
[boston.gov/healthy-places](https://www.boston.gov/healthy-places)

Employment | Two open positions with the Tree Division as of March 9, 2022
Research Analyst (P&R Tree) + General Tree Maintenance Foreperson (listed under Gen Tree Maint Frprs)
<https://www.boston.gov/career-center>

THANK YOU!

ADDITIONAL INFORMATION

STREET TREES

DIVERSITY

A few simple rules help guide a genetically diverse population across the city and for each neighborhood.

SPECIES (10% rule)

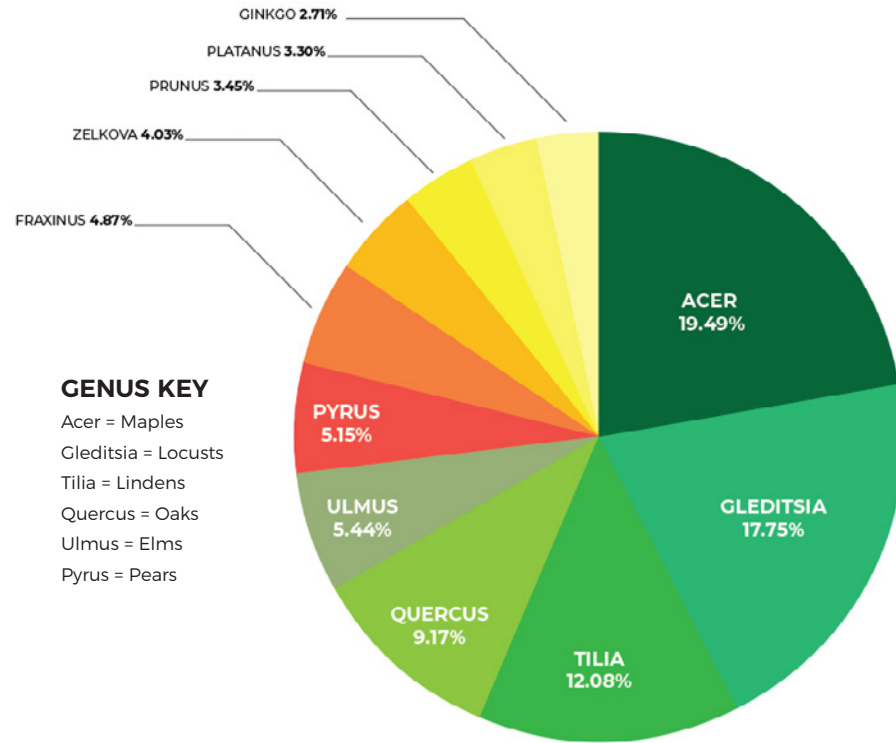
- No species surpasses the 10% citywide.

GENUS (20% rule)

- No genus surpasses the 20% citywide.
- Almost every neighborhood has at least one genus that surpasses the recommended 20% level, commonly Acer and Gleditsia.

FAMILY (30% rule)

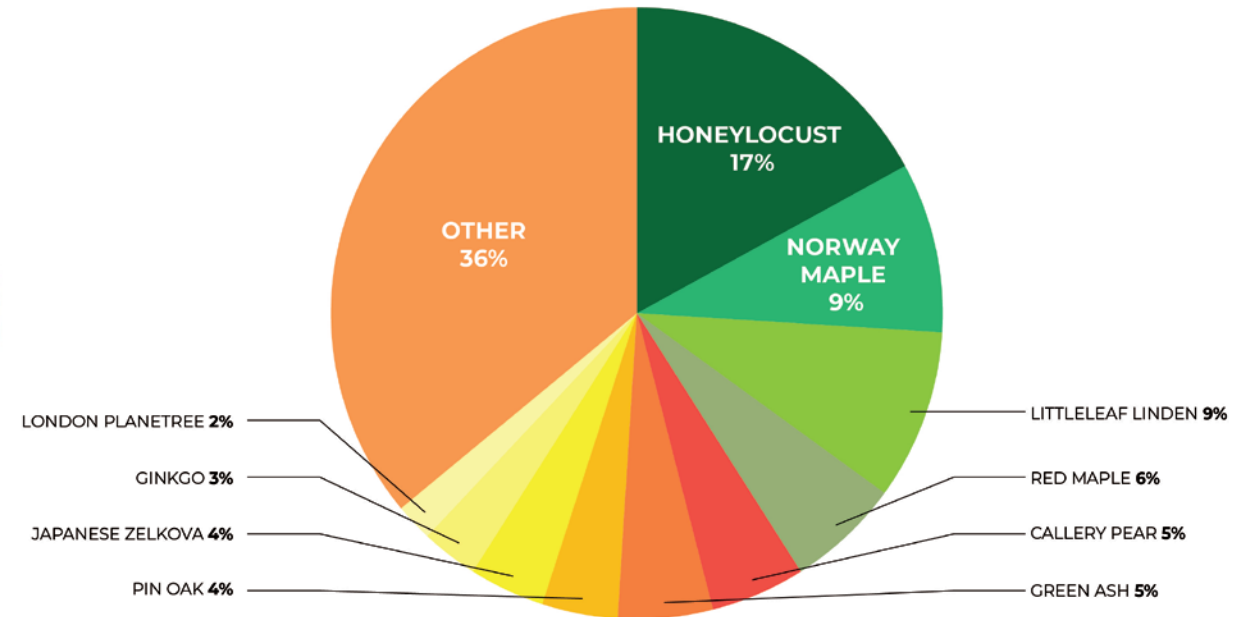
- No family surpasses the 30% rule.



GENUS KEY

- Acer = Maples
- Gleditsia = Locusts
- Tilia = Lindens
- Quercus = Oaks
- Ulmus = Elms
- Pyrus = Pears

STREET TREE INVENTORY BY GENUS



STREET TREE INVENTORY BY SPECIES

SUITABILITY + CLIMATE CHANGE

Common trees in Boston expected to fare poorly as climate warms



RED MAPLE



NORTHERN RED OAK



AMERICAN LINDEN



SWAMP WHITE OAK



SERVICEBERRY



EASTERN WHITE PINE



BLACK WALNUT

SUITABILITY + CLIMATE CHANGE

Common trees in Boston expected to fare better as climate warms



GREEN ASH



PIN OAK



SILVER MAPLE



EASTERN HORNBEAM



AMERICAN HORNBEAM



SUGAR MAPLE



PIGNUT HICKORY



WHITE OAK



BLACK LOCUST



BLACK CHERRY



BLACK OAK



AMERICAN BEECH



BLACKGUM



GRAY BIRCH



EASTERN REDCEDAR



MOCKERNUT



HICKORY



AMERICAN HOLLY



BITTERNUT HICKORY



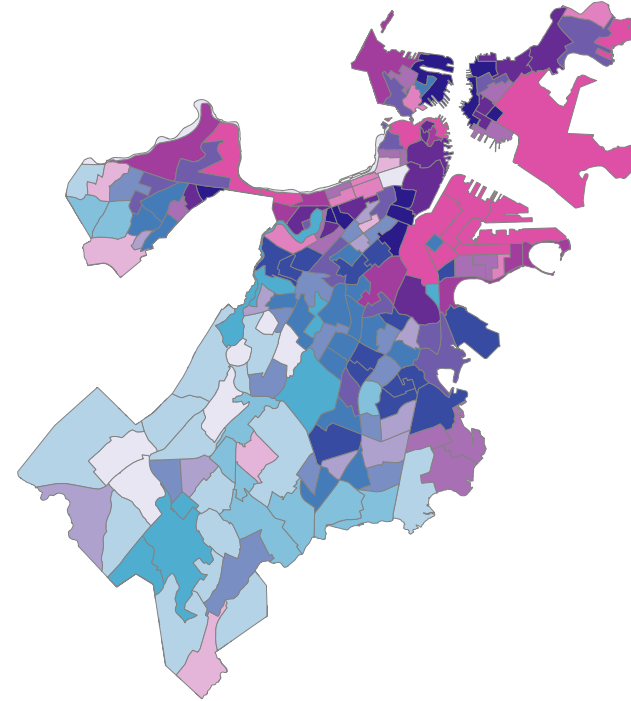
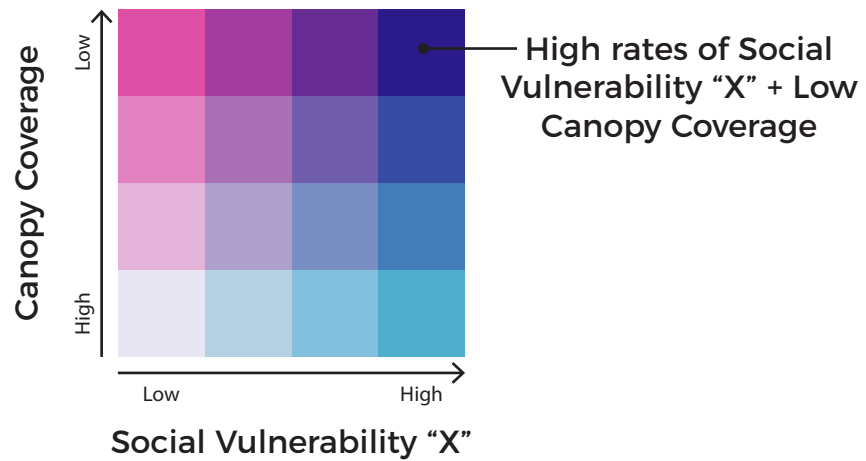
SASSAFRAS



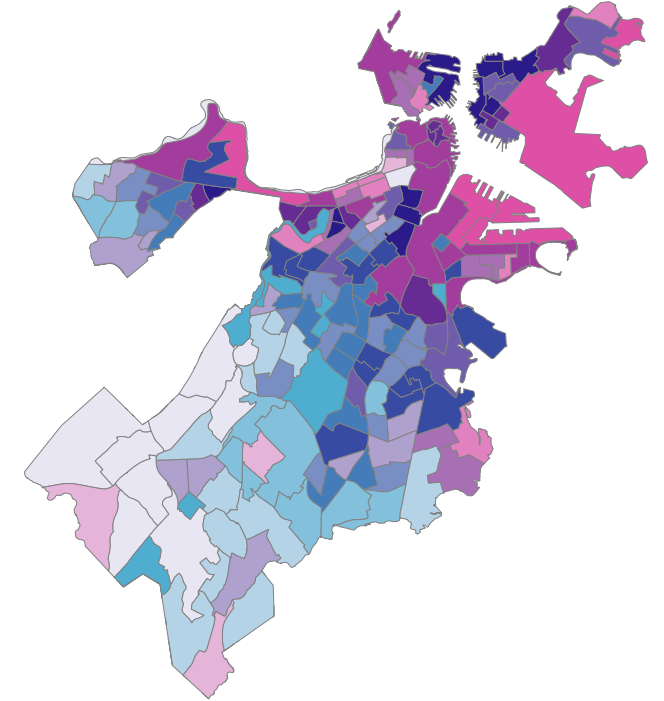
YELLOW BIRCH

SOCIAL VULNERABILITY + CANOPY

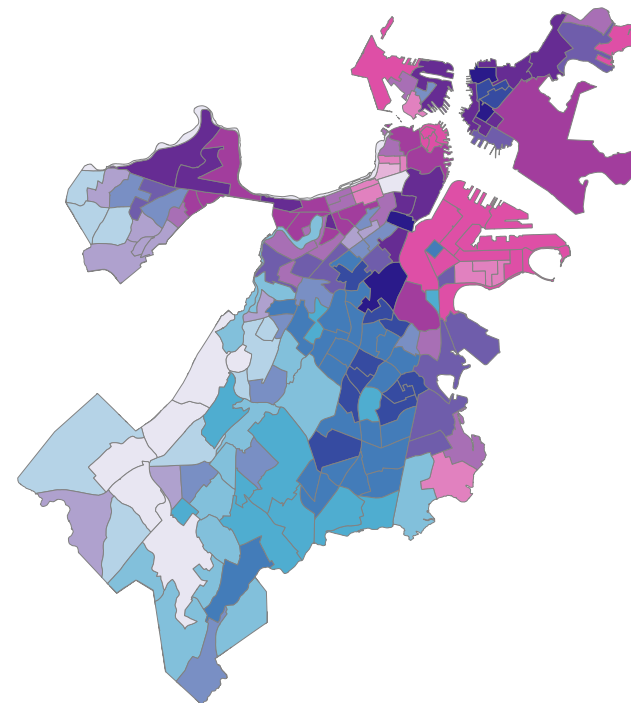
Areas with high concentrations of socially vulnerable populations and low canopy coverage



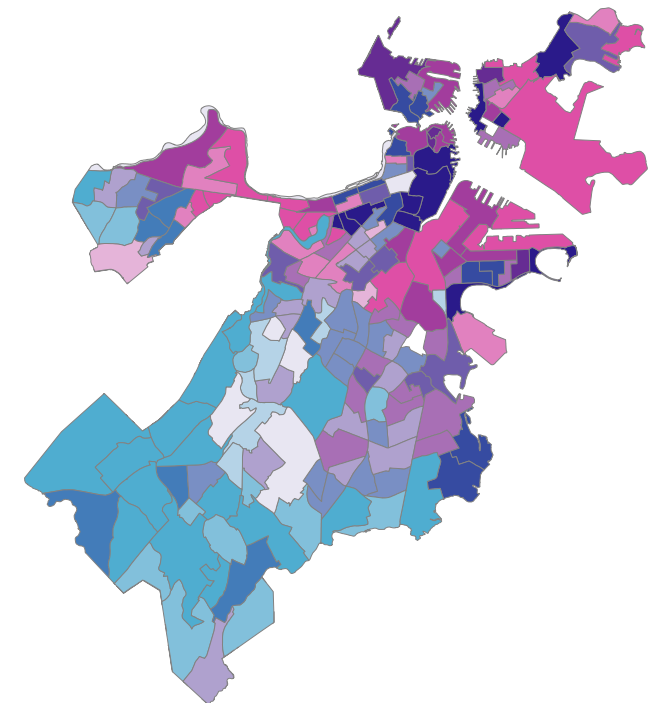
Limited English Population



Low to No Income



Communities of Color



Older Adults

SPECIES DIVERSITY + PESTS

Pests pose a significant risk to the urban forest. A diverse forest also reduces forest-wide pest vulnerability.



EMERALD ASH BORER - IN BOSTON

5% of Boston's inventoried street trees are at risk.



SPOTTED LATERNFLY- NOT HERE. HIGH RISK.

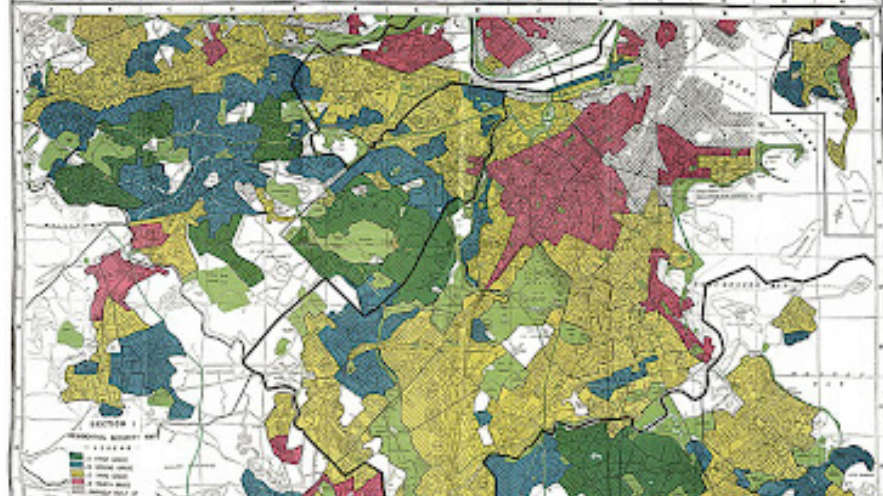
23% of Boston's inventoried street trees are at risk.



ASIAN LONGHORNED BEETLE- NOT HERE. LOW RISK.

29% of Boston's inventoried street trees are at risk.

OTHER KEY CHALLENGES



INEQUITY



PHYSICAL CONSTRAINTS
(STREETS, SOIL VOLUME, OVERHANGS, ETC.)



STAFFING AND FUNDING

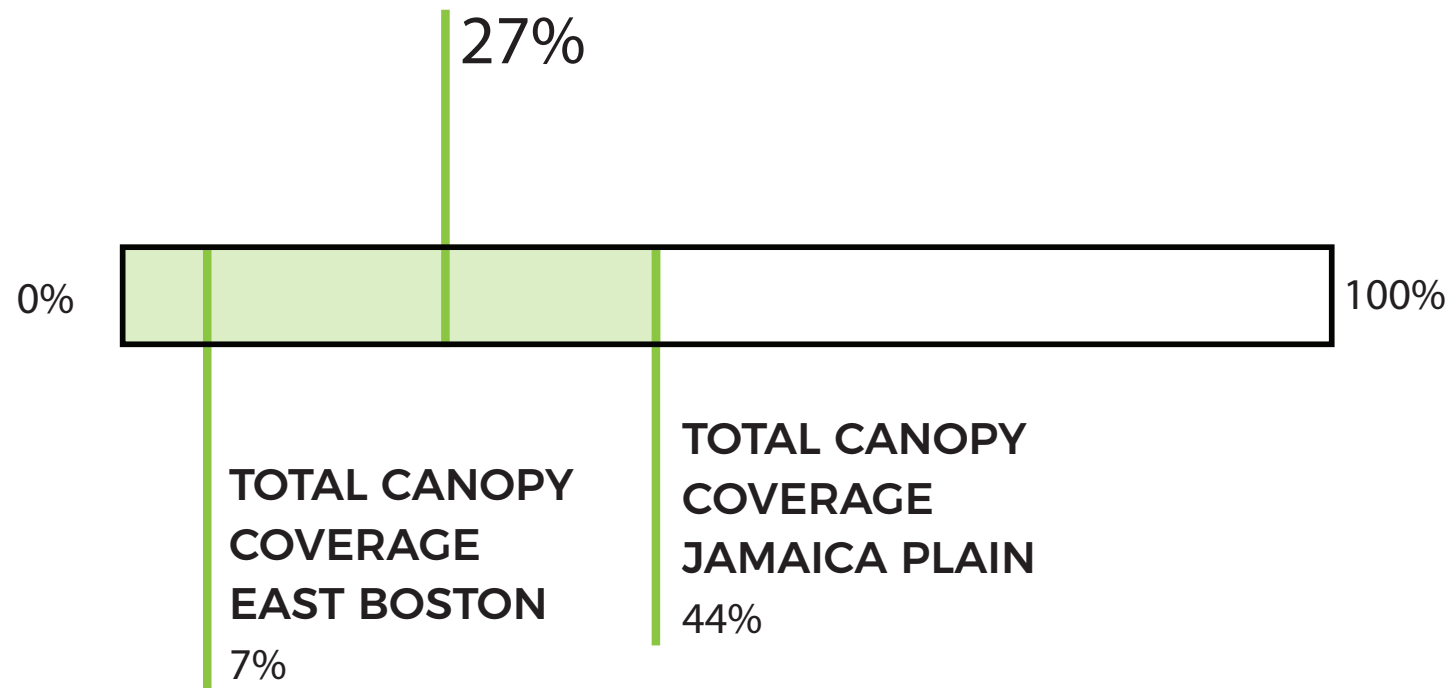


HEALTH IMPACTS OF CLIMATE CHANGE

CANOPY COVERAGE

2019 Canopy Cover was 8,199 Acres

TOTAL CITYWIDE COVERAGE



27%

...OF BOSTON LAND AREA

BOSTON URBAN FOREST PLAN

What is an urban forest plan?

All the trees, all the caretakers, the whole landscape. A-Z: Vision, values, policy, practice, funding, design

- Designing a forest that reflects community ideals
- Supporting community work
- Regulating trees on private properties
- Evaluating changes to City practices, funding, and policies.
- Workforce development: tree care jobs

