

# A GRCx Event: Building an Equitable, Healthy, Climate Resilient Future for Boston

## Part 1: Our History – Understanding the Context Behind Today’s Climate Injustices and our Health

*GRCx is an interactive program series from the Boston Green Ribbon Commission designed to accelerate the implementation of the City's Climate Action Plan by providing high-quality, useful content on climate resilience and carbon mitigation to the Boston community.*

GRCx

GREEN RIBBON COMMISSION  
Climate Action  
Exchange

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# Introductions

**Jennie Stephens**  
Professor & Director  
School of Public  
Policy & Urban Affairs  
Northeastern  
University



**Julian Agyeman**  
Professor of Urban &  
Environmental Policy  
and Planning  
Tufts University



**Cate Mingoya**  
Director of Capacity  
Building  
Groundwork USA



**Maria Belen Power**  
Associate Executive  
Director  
GreenRoots





Introducing  
**Just Sustainabilities**  
Policy, Planning and Practice



**Julian  
Agyeman**

**Just Sustainabilities**  
Policy, Planning and Practice

# Just Sustainabilities in Urban Planning and Practice

Professor Julian Agyeman

**uep** Urban + Environmental Policy + Planning

**Tufts**  
UNIVERSITY

**Cities@Tufts**



@julianagyeman #justsustainabilities

# Land recognition

I am presenting on the traditional territory of the Wôpanâak (Wampanoag) and Massa-adchu-es-et (Massachusetts) people. I pay my respects to their Elders, their past, present and future, and commit to a principle of respect and care as part of this meeting.



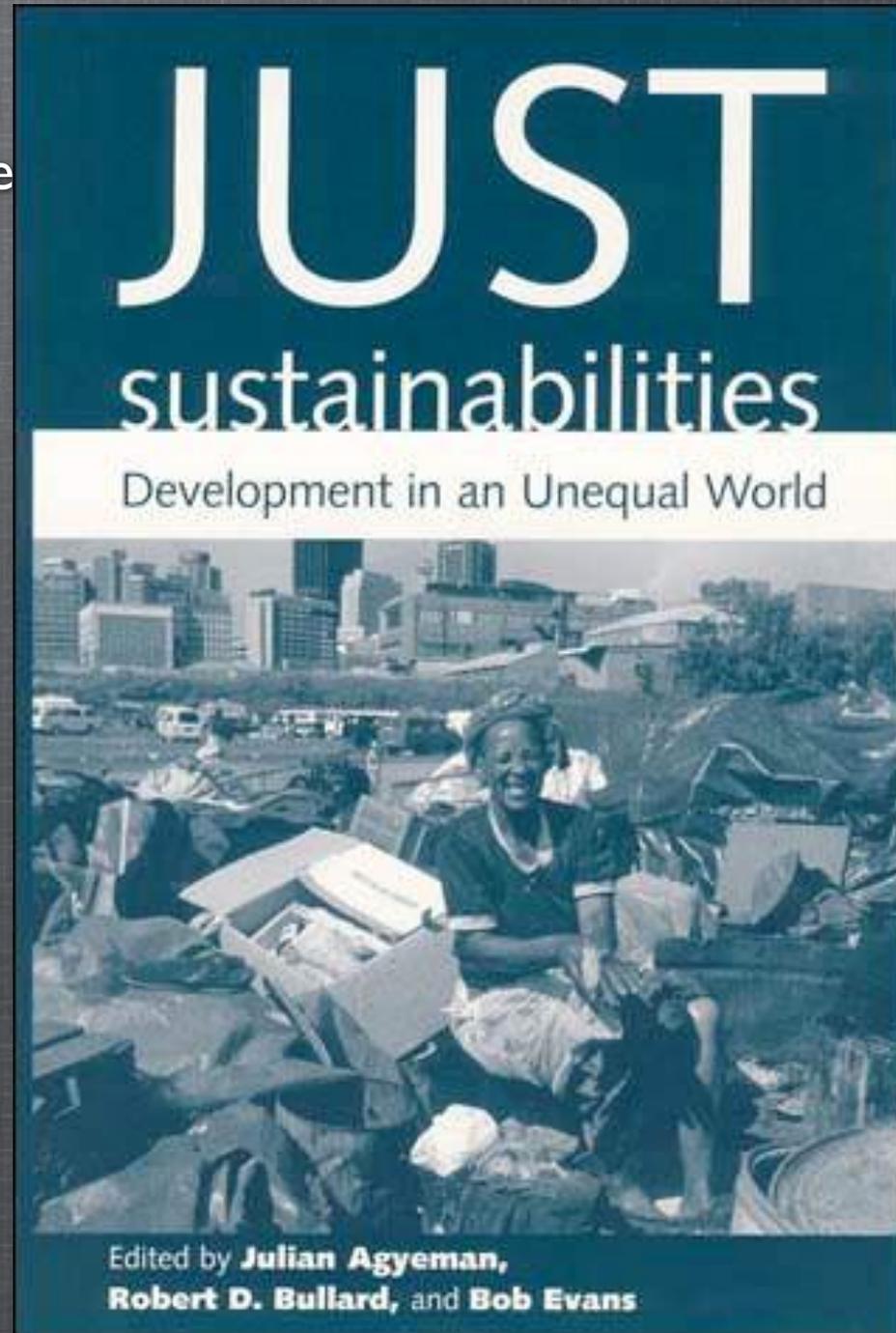
# Just Sustainabilities: The history

It is now 18 years since the publication of my first book. In that book we broke new ground by embarking on a sustainability and sustainable development-based discourse, but one that focused explicitly on *equity* and *justice* – on the links between *environmental quality* and *human equality*.

We argued that:

“Sustainability cannot be simply a ‘green’, or ‘environmental’ concern, important though ‘environmental’ aspects of sustainability are. A truly sustainable society is one where wider questions of social needs and welfare, and economic opportunity are integrally related to environmental limits imposed by supporting ecosystems.”

*Agyeman et al. 2002, 78*



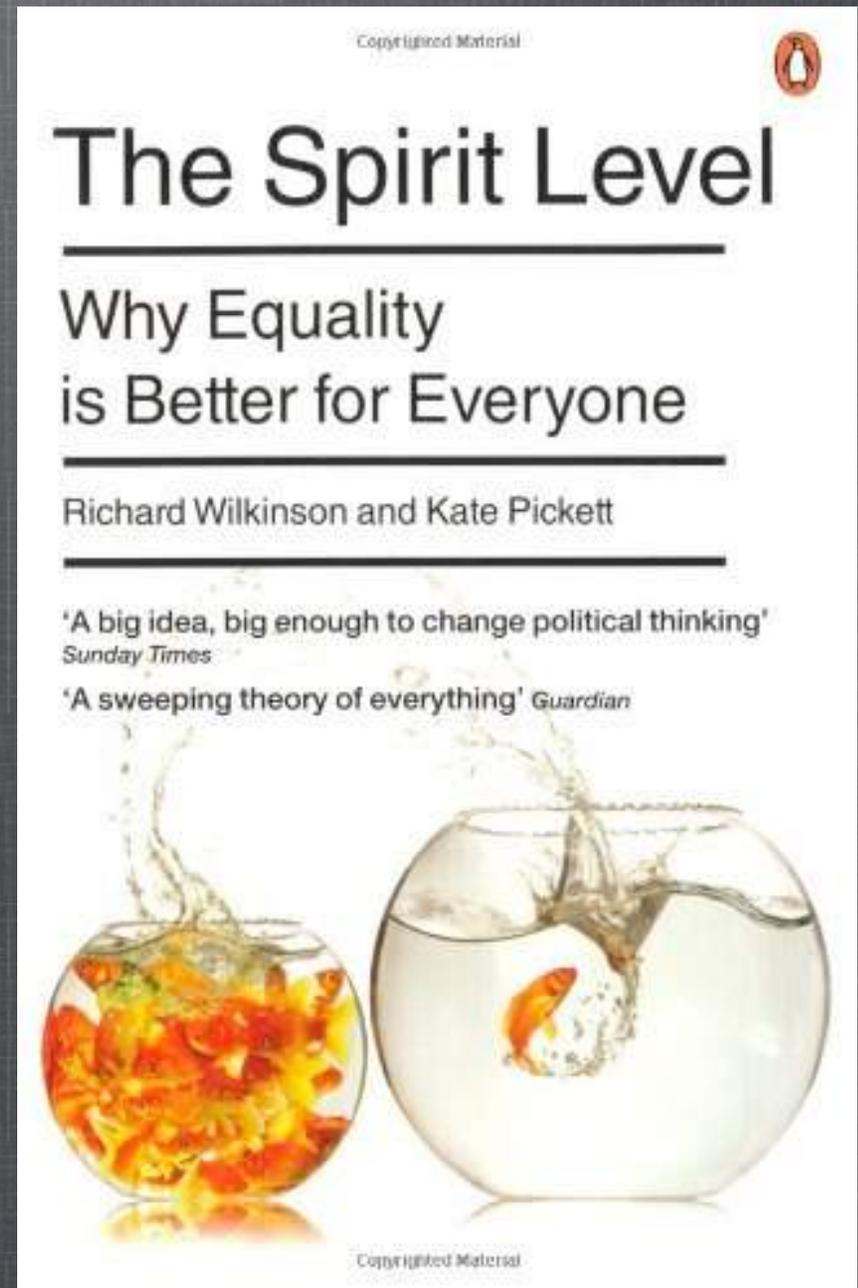
# New evidence today: human equality and environmental quality are related

The most compelling evidence to date.....

“Inequality...heightens competitive consumption”

(Wilkinson and Pickett 2009)

If we REALLY want to understand sustainability our focus should be on both *human equality* and *environmental quality* TOGETHER.



# Defining Just Sustainabilities

*“The need to ensure a better quality of life for all, now and into the future, in a just and equitable manner, whilst living within the limits of supporting ecosystems.”*

There are four ‘conditions’:

- 1) improving our quality of life and wellbeing;*
- 2) meeting the needs of both present and future generations (intra-generational and intergenerational equity);*
- 3) justice and equity in terms of recognition, process, procedure, and outcome;*
- 4) living within ecosystem limits (‘one planet living’)*

# Two overarching thoughts on urban planning:

*“managing our co-existence in shared space” (Healey, 1997).*

“[This] speaks with equal clarity about environmental, transport, housing and other conflicts, reminding us that, whether we like it or not, we do share space on the planet with others who in many ways are not like us, and we need to find ways of co-existing in these spaces, from the next-door neighbor to the street, neighborhood, city and region”  
(Sandercock 2000).

*What is the relationship between belonging and becoming?*

Are we urban planners as good at fostering *belonging* (recognition, reconciliation, difference, diversity, inclusion) as we are at developing prescriptions for what our cities can *become* (smart, sharing, resilient, sustainable etc)?

Just sustainabilities, *‘humane-scaled’* as opposed to solely *‘human scaled’* planning, helps us think through BOTH, together.

# Just Sustainabilities in policy, planning and practice.

Two examples:

*Spatial justice:* how do we allocate rights in urban spaces and places?

*Minneapolis:* How does one of the most green, liberal cities in the US end up as the epicenter of our current introspection over structural racism?

# Spatial Justice



*“Just as social justice requires that life chances are not distributed along class lines, spatial justice requires that they are not distributed geographically” (David Lammy, British Member of Parliament 2004)*



# Spatial (in)justice

## Zip code better predictor of health than genetic code

August 4, 2014 — In St. Louis, Missouri, Delmar Boulevard marks a sharp dividing line between the poor, predominately African American neighborhood to the north and a more affluent, largely white neighborhood to the south. Education and health also follow the “Delmar Divide,” with residents to the north less likely to have a bachelor’s degree and more likely to have [heart disease](#) or [cancer](#).



The "Delmar Divide," St. Louis, Mo.

**A TALE OF TWO ZIP CODES**

with **GEORGE TAKEI**

**MEET DEB & MARIA**

Deb & Maria live one mile apart, but Deb will live 18 years longer than Maria.

Watch to find out why!

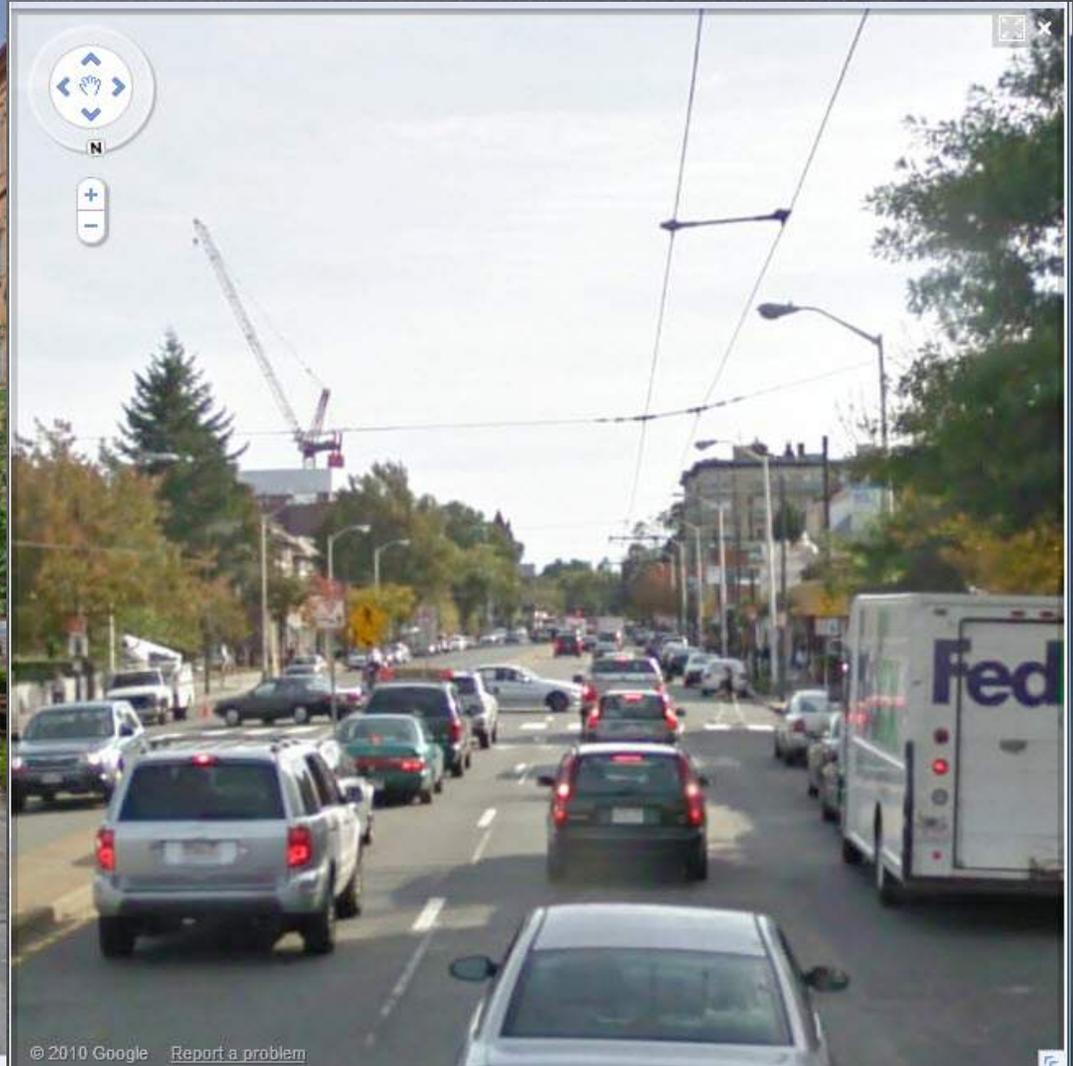
**A ZIP CODE SHOULD NOT DETERMINE A CHILD'S FUTURE.**

Many variables can shape a child's outcome in life—like the zip code where a child grows up. That's because not all neighborhoods have the same opportunities and resources, such as quality schools, transportation, housing, healthcare, food and jobs. The good news is that there are many ways to improve our communities so that everyone has a fair chance to succeed, regardless of zip code. You can play a vital role in your local community.

# *Spatial justice: Rethinking urban streets*

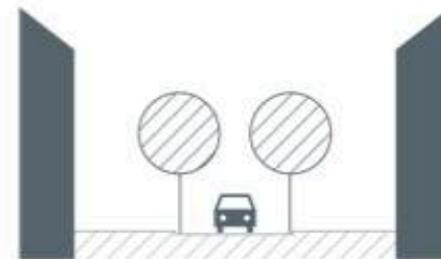
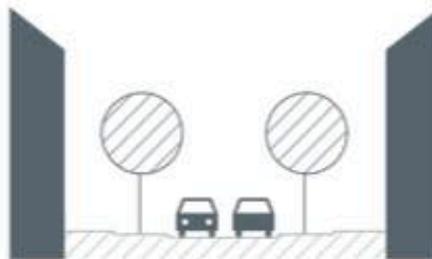
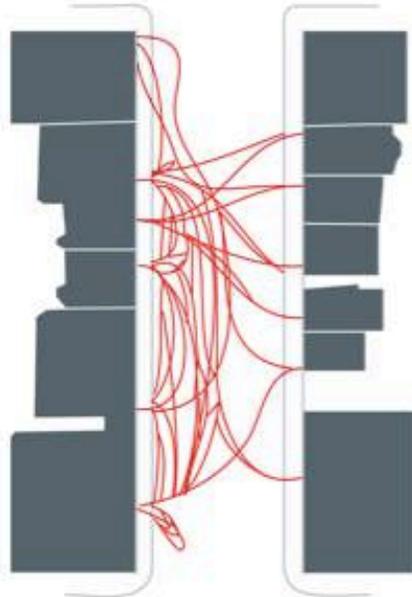
Södra Vägen, Gothenburg, Sweden

Massachusetts Ave, Cambridge, MA



The street is our most commonly used public space. It has been democratized on Södra Vägen but not on Massachusetts Avenue. What does this say to adults, children who use these streets daily and become acculturated to spatial justice on Södra Vägen or spatial injustice on Massachusetts Avenue?

# Street Traffic and Social Interaction



## Heavy traffic

16,000 vehicles / day  
1,900 vehicles / peak hour

0.9 friends per person  
3.1 acquaintances per person

## Medium traffic

8,000 vehicles / day  
550 vehicles / peak hour

1.3 friends per person  
4.1 acquaintances per person

## Light traffic

200 vehicles / day  
200 vehicles / peak hour

3.0 friends per person  
6.3 acquaintances per person

# *Spatial justice*: Rethinking urban parks

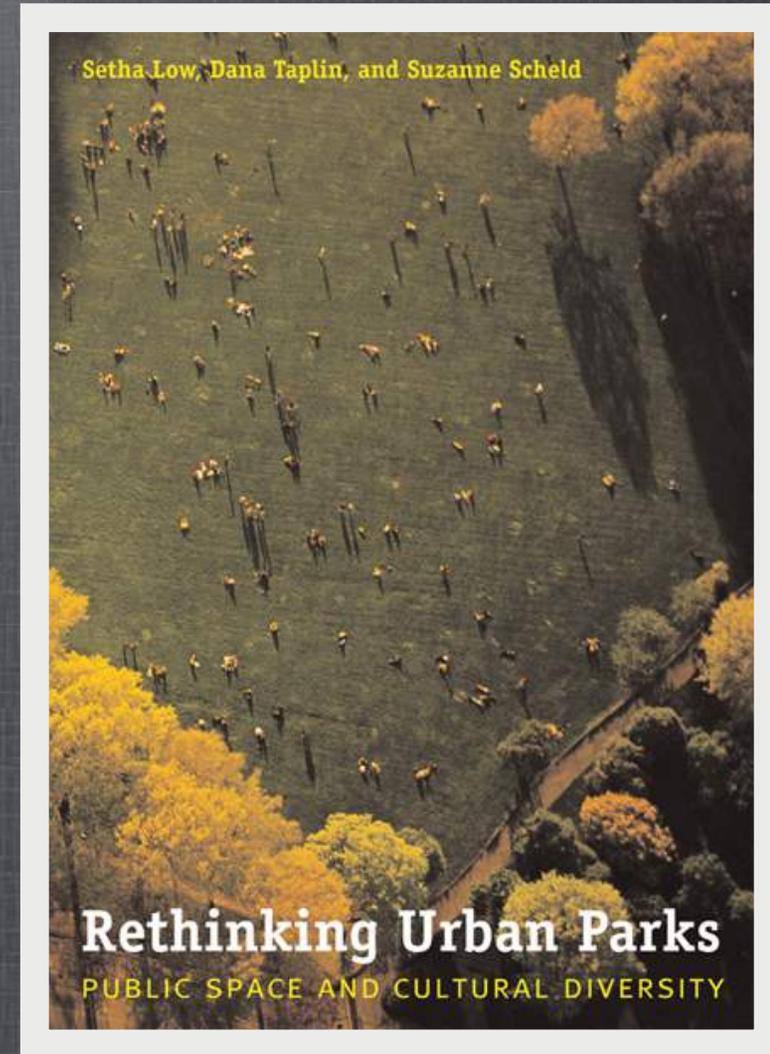
“In this new century, we are facing a different kind of threat to public space-not one of disuse, but of patterns of design and management that exclude some people and reduce social and cultural diversity”.

(Low, Taplin and Scheld 2005)

“contact theory posits that...interracial interactions that occur in leisure settings have the potential to be more genuine and sincere compared with the more obligatory interactions that take place in formal settings”

(Shinew, Glover and Parry 2004)

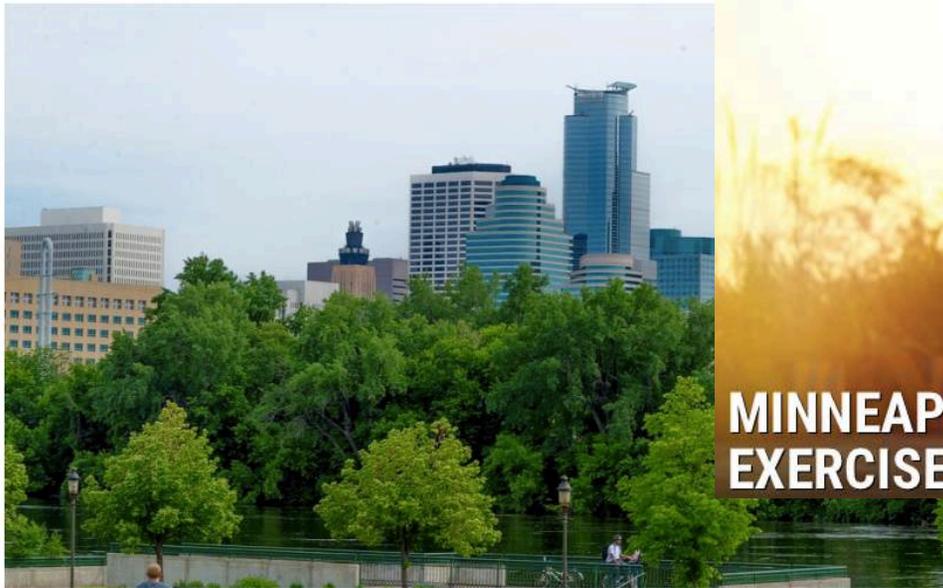
In the 1980s, environmentalists in Bristol, UK, persuaded the local Parks Department to create wildflower meadows. These are environmentally sound, but are they socially just?



# Minneapolis: Green utopia?

## Minneapolis Named Best City Park System in U.S. on Trust for Public Land's Annual ParkScore Index

Posted on 20 May, 2020



**MINNEAPOLIS ONE OF THE BEST CITIES IN THE US FOR EXERCISE**

## The Miracle of Minneapolis

No other place mixes affordability, opportunity, and wealth so well. What's its secret?

DEREK THOMPSON MARCH 2015 ISSUE

## US Cities with the Most Bike Commuters per capita



MATT CHASE

# Minneapolis: Racist hell?

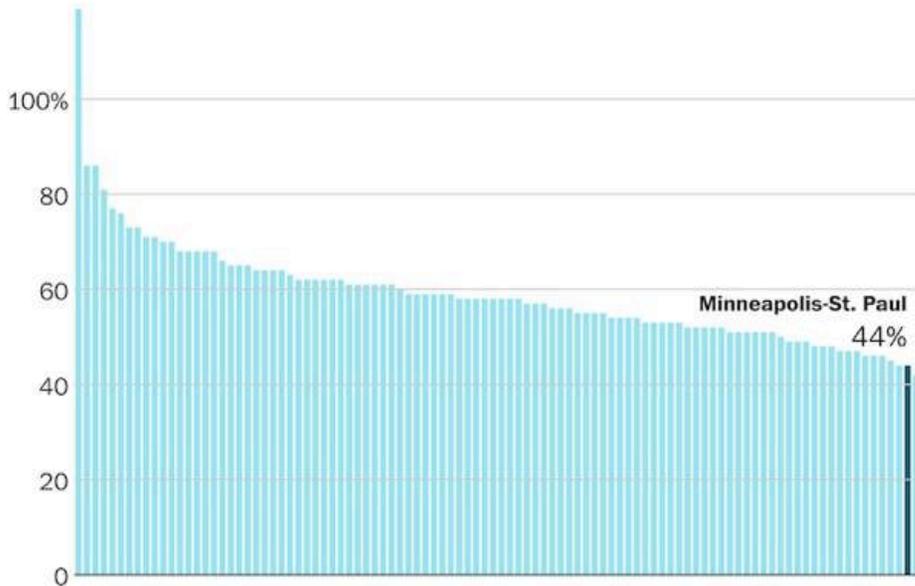
## Racial inequality in Minneapolis is among the worst in the nation

The economic gulf between black and white families is higher in the Minnesota city than nearly anywhere else in America, data show



## The black-white income gap

Median black household income as a percent of median white household income, 100 largest metro areas

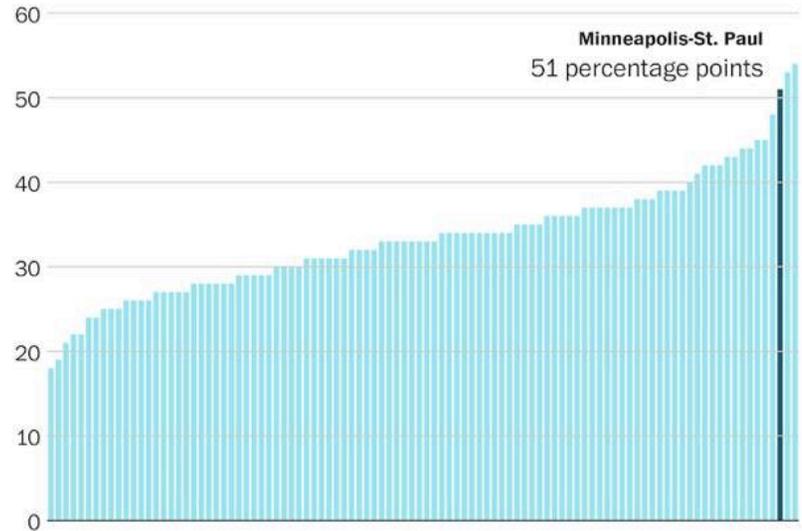


Source: American Community Survey

THE WASHINGTON POST

## The black-white homeownership gap

Percentage point gap between black and white homeownership rates, 100 largest metro areas



Source: American Community Survey

THE WASHINGTON POST

## Minnesota's Opportunity Gap: K-12 racial achievement gap, 2014



**SAINT PAUL COLLEGE**  
A Community & Technical College

Source: Minnesota Compass and Minnesota Department of Education

# Minneapolis: Why?

“All that civic rhetoric about Minneapolis being a model metropolis at the cutting edge of great urban planning obscures some *darker truths* about the city,”

*Kirsten Delegard, Minneapolis historian and Mapping Prejudice project co-founder.*

Racialized covenants (early 1900s -1960s)

+

Exclusionary/single family zoning (70% of residential land)

+

Redlining

=

**RACIAL SEGREGATION, THEN, AND NOW.**

# Minneapolis: What now?

“There’s a direct linkage between those practices in the late 19th, early 20th century and today’s modern zoning plans. Part of the impetus for changing how we view land use is to try to undo some of those impacts.”

*Heather Worthington, Director of Long-Range Planning.*

Put another way.....

“Urban planning is the spatial toolkit for articulating, implementing, and maintaining white supremacy, and we can do something about it.”

*Julian Agyeman*

# Minneapolis 2040

In 2018, Minneapolis was the first large US city to vote to end single-family zoning, allowing duplexes and triplexes on single-family lots. This, among a package of reforms such as “inclusionary zoning” — requiring new apartment projects to include 10% of units for moderate-income households, is part of the Minneapolis 2040 Plan

minneapolis | 2040

**1. Eliminate disparities:** In 2040, Minneapolis will see all communities fully thrive regardless of race, ethnicity, gender, country of origin, religion, or zip code having eliminated deep-rooted disparities in wealth, opportunity, housing, safety, and health.



minneapolis | 2040

**3. Affordable and accessible housing:** In 2040, all Minneapolis residents will be able to afford and access quality housing throughout the city.



# Just Sustainabilities in Urban Planning and Practice: summary

“managing our *co-existence in shared space*” (Healey, 1997);

fostering *belonging* (recognition, difference, diversity, inclusion) and thinking about what cities can *become* (smart, sharing, sustainable);

fostering engagement, belonging, using ‘*deep ethnographies*’;

engaging *intercultural, culturally competent* planning and policymaking

practicing '*humane-scaled*', and '*human-scaled*' urban planning and design;

*Above all, social justice never simply ‘happens’ in planning processes and outcomes. It must be intentional, implicit and front and center in our work.*

Thank you!





**Hot, Wet, and Racist  
GRCx  
Urban Resilience  
Cate Mingoya- Groundwork USA  
March 16, 2021**



# The Groundwork Network



# The consequences of a changing climate are not being felt equally

The screenshot shows the NPR website interface. At the top, there are navigation links for 'NEWS', 'ARTS & LIFE', 'MUSIC', 'SHOWS & PODCASTS', and 'SEARCH'. Below this, a 'SPECIAL SERIES' section is titled 'Heat and Health in American Cities'. The main article headline is 'As Rising Heat Bakes U.S. Cities, The Poor Often Feel It Most', dated September 3, 2019, at 5:00 AM ET. The authors listed are Ned Anderson and Sean McInnis. At the bottom of the article preview, there are buttons for 'LISTEN', 'PLAYLIST', and other media controls.

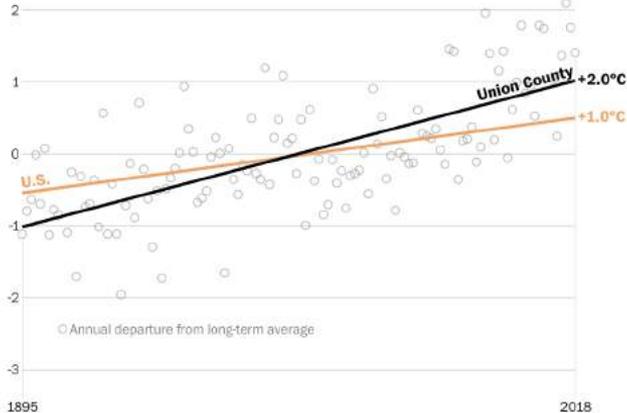
FIND YOUR COUNTY

Union County, New Jersey

+2.0° Celsius

Annual temperature change, 1895-2018

3°C above long-term average county temperature



A Chicago resident struggles with triple-digit temperatures during a heat wave in 2012. AP PHOTO/ SPENCER GREEN

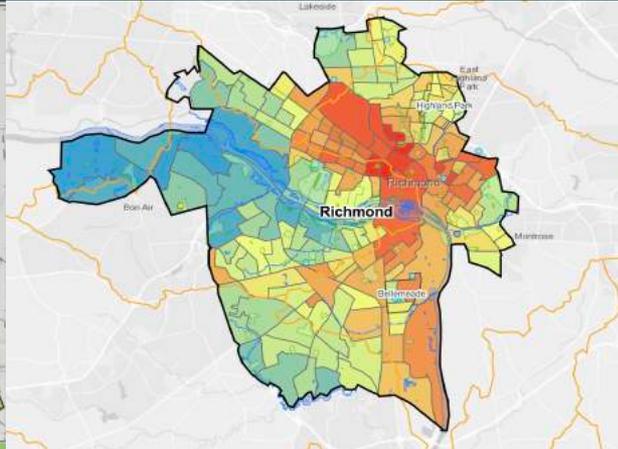
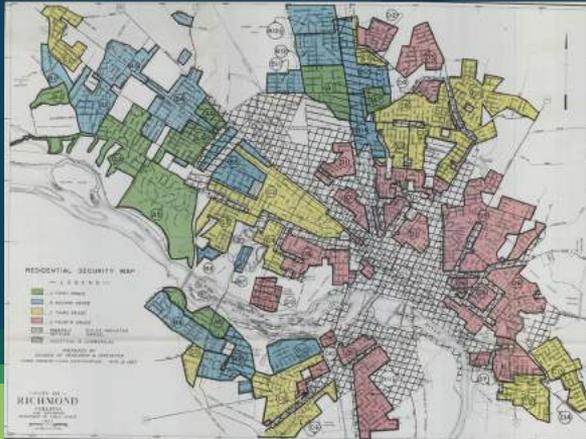
Can We Turn Down the Temperature on Urban Heat Islands?

..and that's not a coincidence

Source: Washington Post:

<https://www.washingtonpost.com/graphics/2019/national/climate-environment/climate-change-america/>

# Is there a relationship between historical redlining and modern risk to heat and flooding?





GROUNDWORK  
USA

CHANGING PLACES  
CHANGING LIVES



# CLIMATE SAFE NEIGHBORHOODS

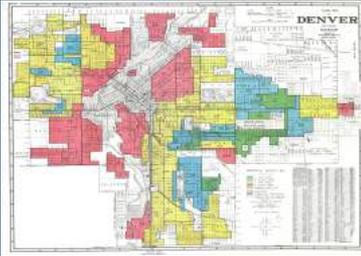
What does housing discrimination have to do with climate change? Click the images below to learn how Groundwork communities are using maps and data to build resilience to extreme heat and flooding.

ABOUT THE PROJECT

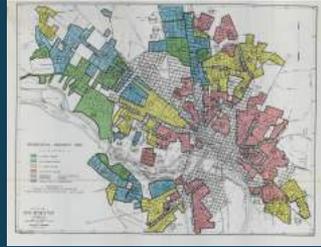


Check out the initiative at: <https://groundworkusa.org/focus-areas/climate-safe-neighborhoods/>

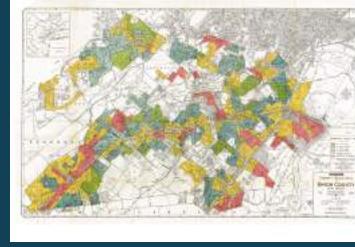
# Nine City Partnership



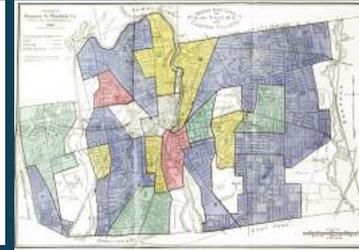
Denver, CO



Richmond, VA



Elizabeth, NJ



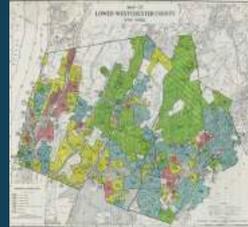
Central Falls, RI



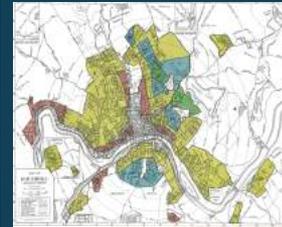
Cincinnati ,OH



Richmond, CA



Yonkers, NY



Lawrence/  
Haverhill, MA

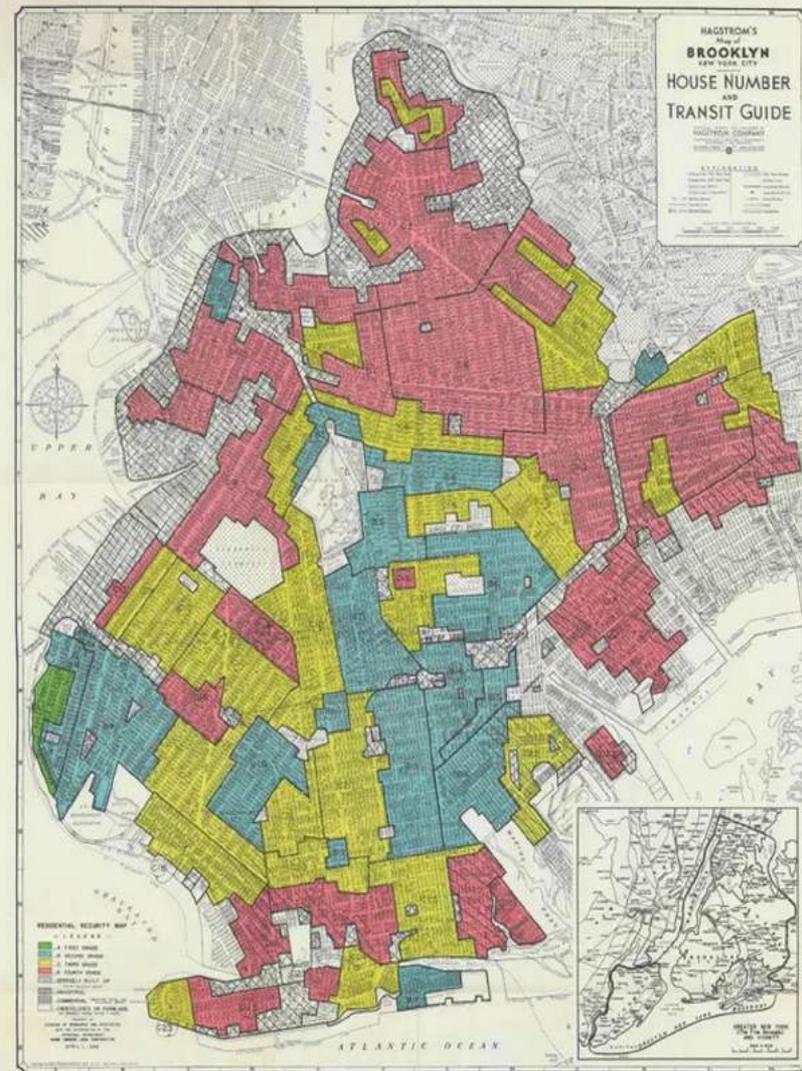


San Diego, CA

# Redlining 101

## Commissioned by Federal Government

- **Federally Backed Mortgages**  
Policy to make lending easier and safer and promote wealth building.
- **Can't Buy, Can't Sell, Can't Leave**  
Maintains pre-1917 segregation, current owners can't sell, POC can't buy in other neighborhoods.
- **Financial Disincentives to Invest in Neighborhoods**  
Sewage, water, housing stock, parks.



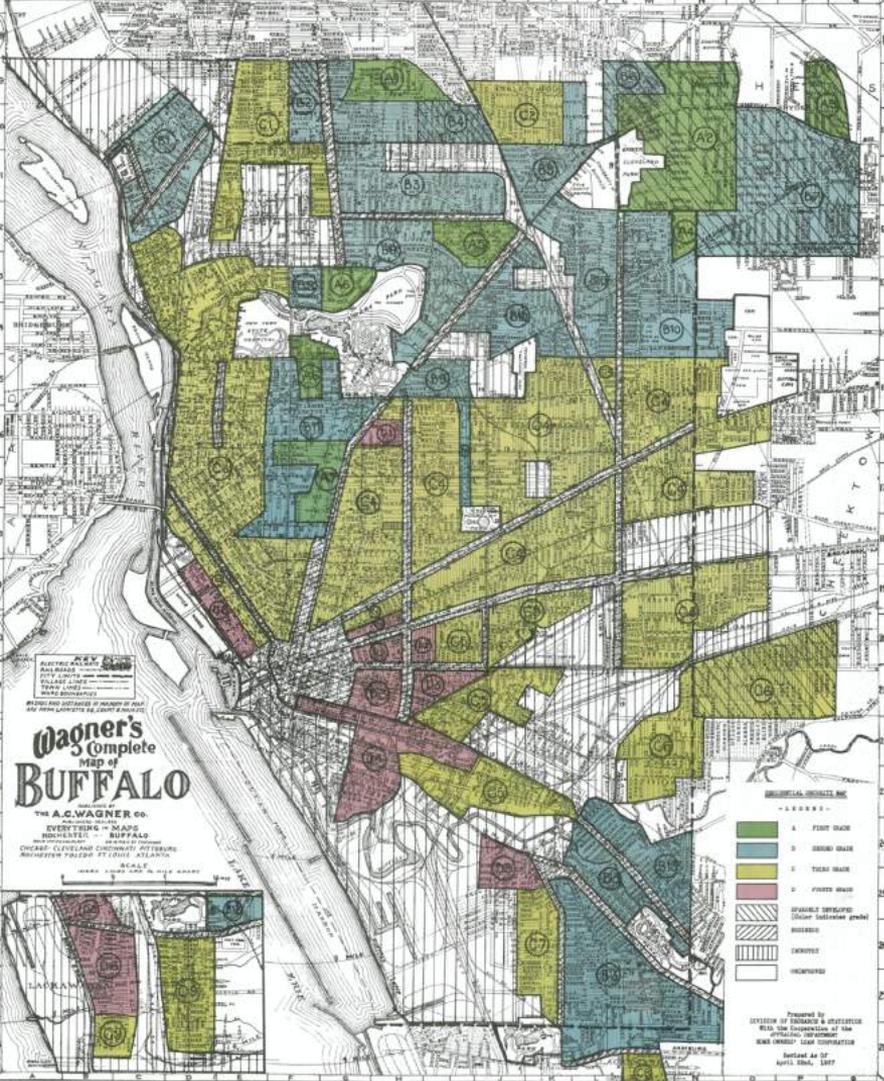
# How old are you?



Richmond, CA housing and community center- National Archives



Richmond, CA housing near railroad tracks- 1949- National Archives



Green = A= First Grade (white, good housings stock)

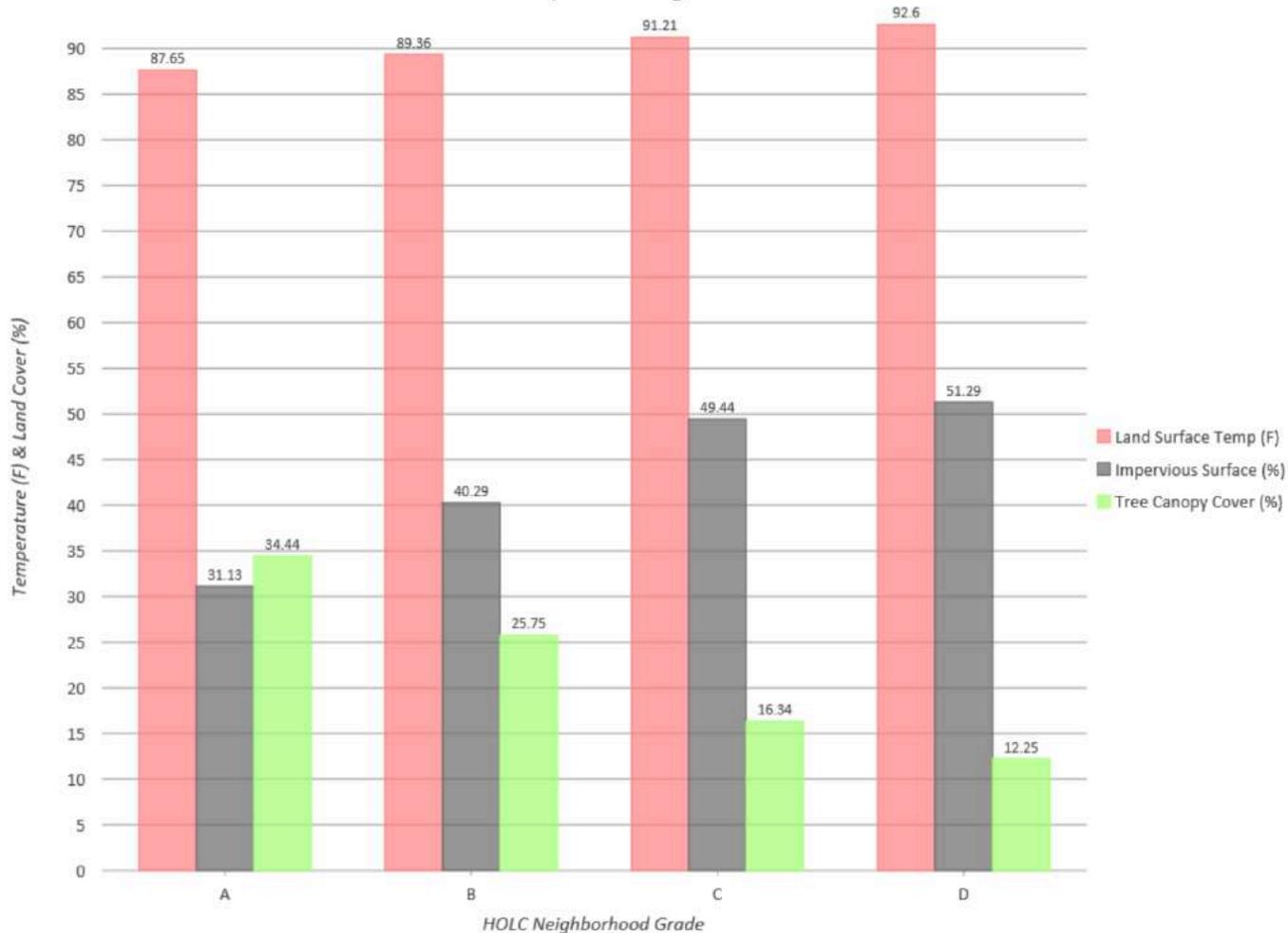
Blue= B= Second Grade (white-ish, ok housing stock)

Yellow = C= Third Grade (*might* be white now, poor housing stock, immigrants, mixed race)

Red=D= Fourth Grade (POC, poor housing stock)



## Environmental Risk Factors by HOLC Neighborhood Grades for All CSN Cities



Land Surface Temperature and Impervious Surface Increase as HOLC grade decreases while Tree Canopy increases with grade.

(Source: NLCD & Landsat 8 data summarized by HOLC grade by Groundwork Milwaukee.)

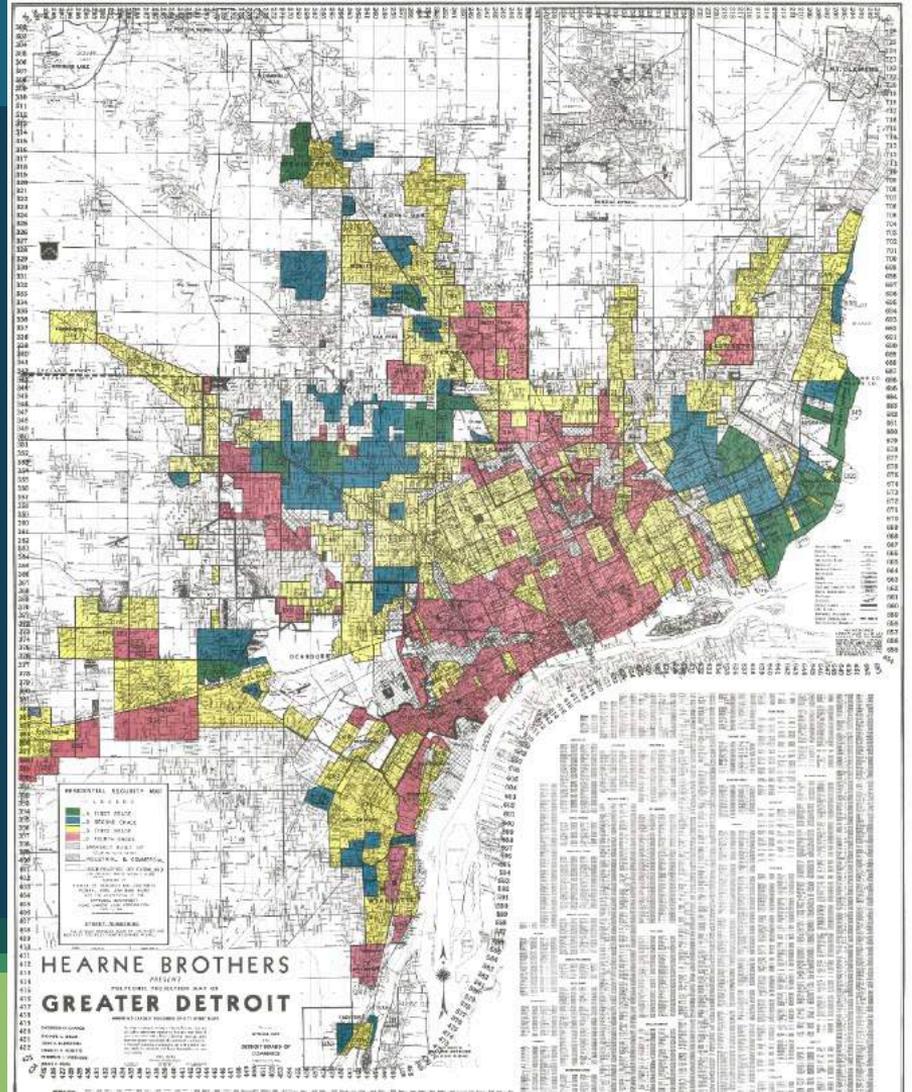
# The Punchline



Today...

75% of D graded neighborhoods are low/moderate income

64% of D graded areas are minority neighborhoods

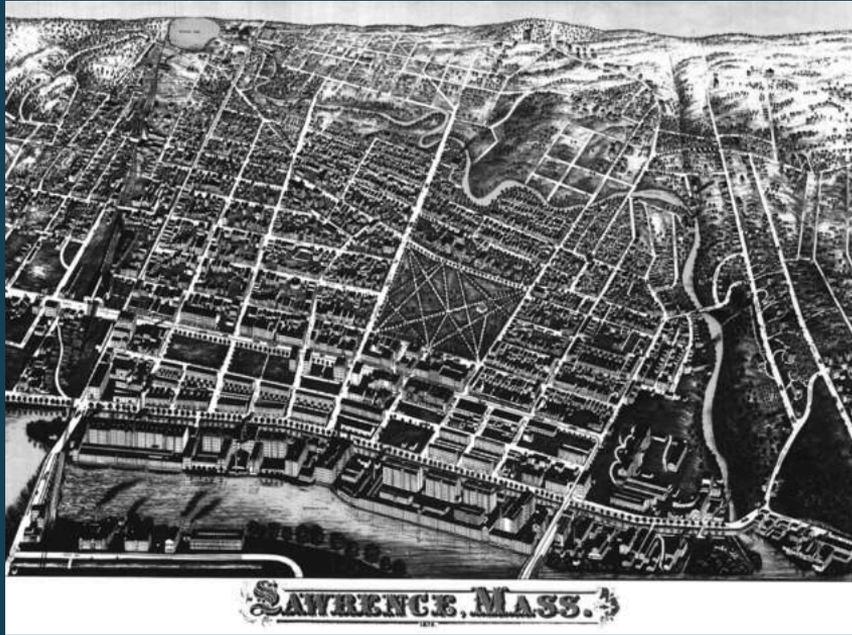


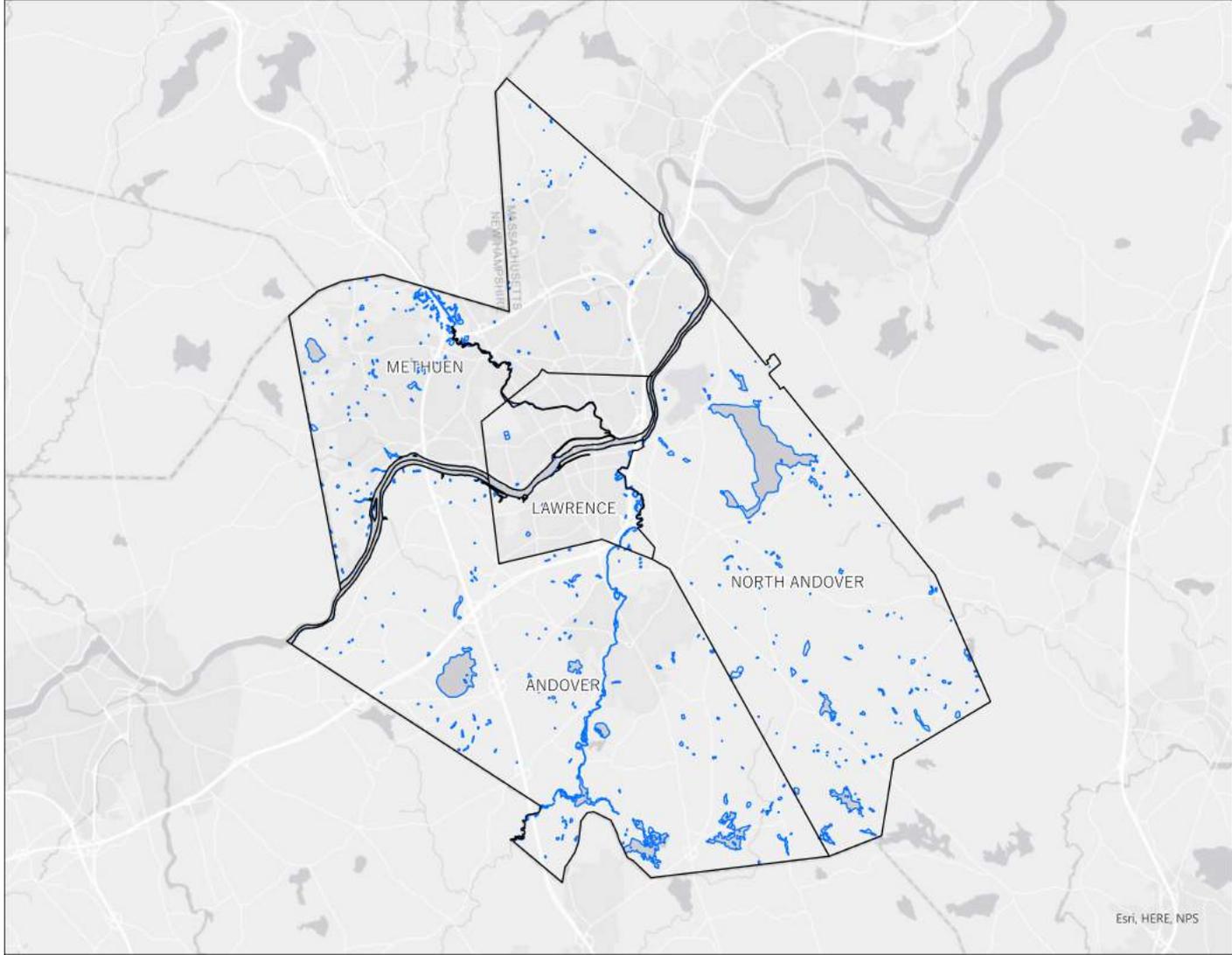
*Disappointed*

**BUT NOT**

**SURPRISED**

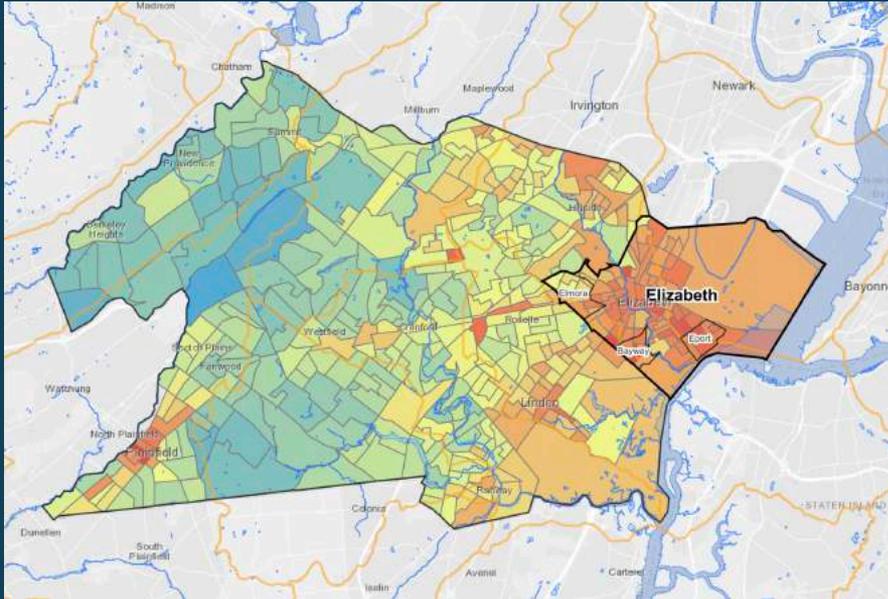
What if my  
Community Wasn't  
Redlined?



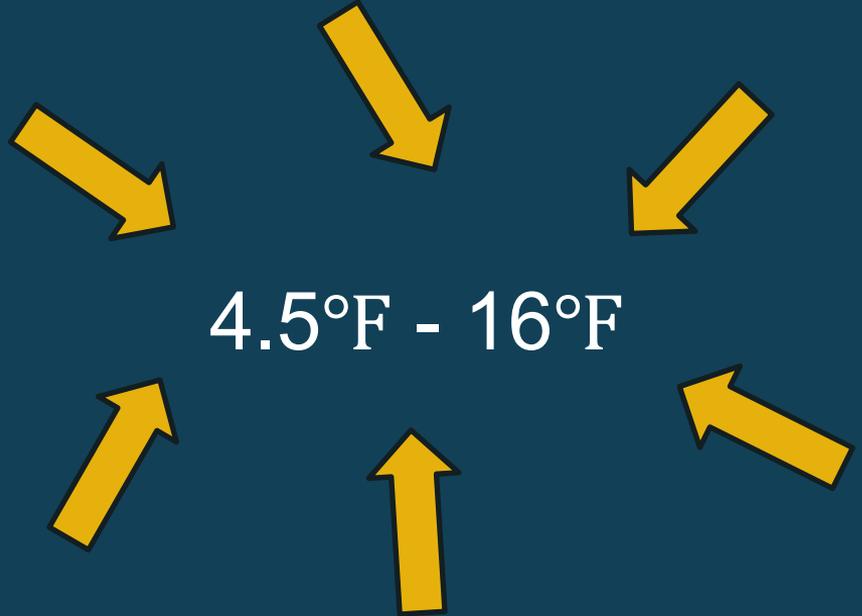




# Summertime ...



4.5°F - 16°F





Got it!  
Plant  
Things!



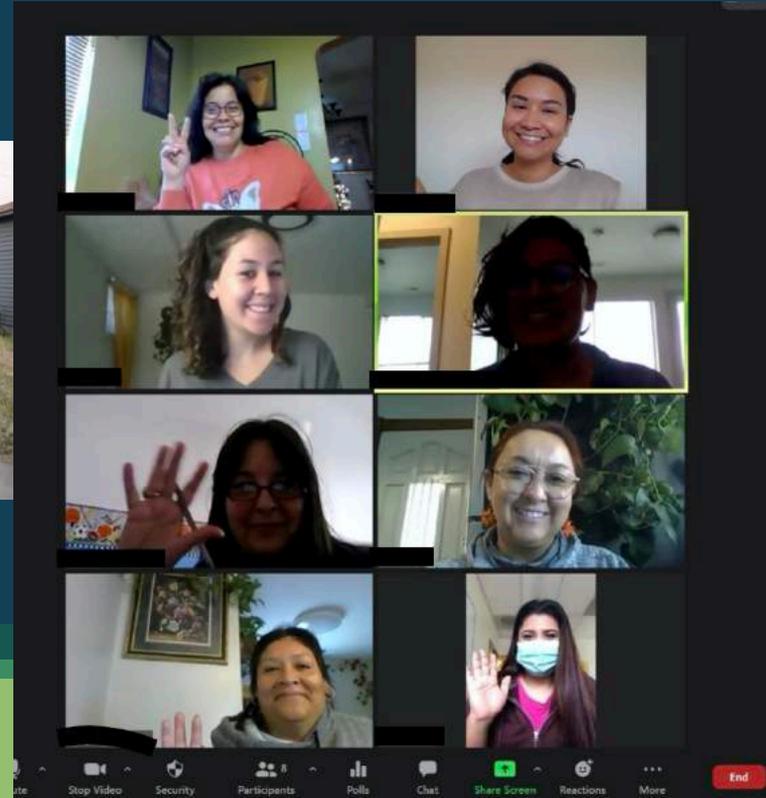


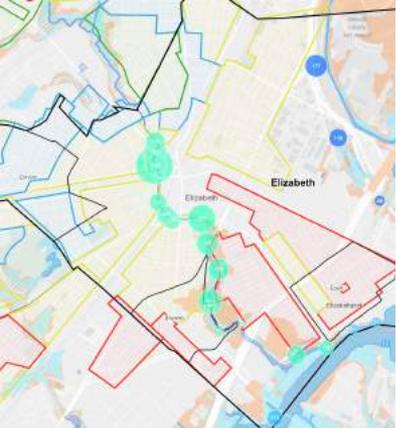
Well...kind of...



Why Hasn't this Already  
Been Done?

# Organizing Residents for Systems Change





# THE IRON TRIANGLE NEIGHBORHOOD COUNCIL



RICHMOND CA



## YES ON 2A



HEALTHY PARKS AND  
RIVERS FOR EVERYONE

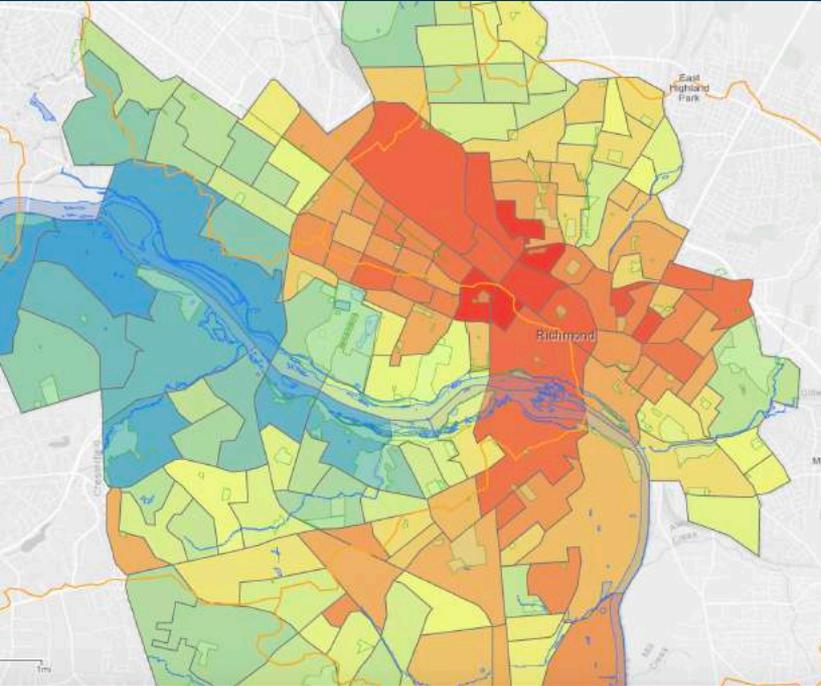
RICHMOND

# 300

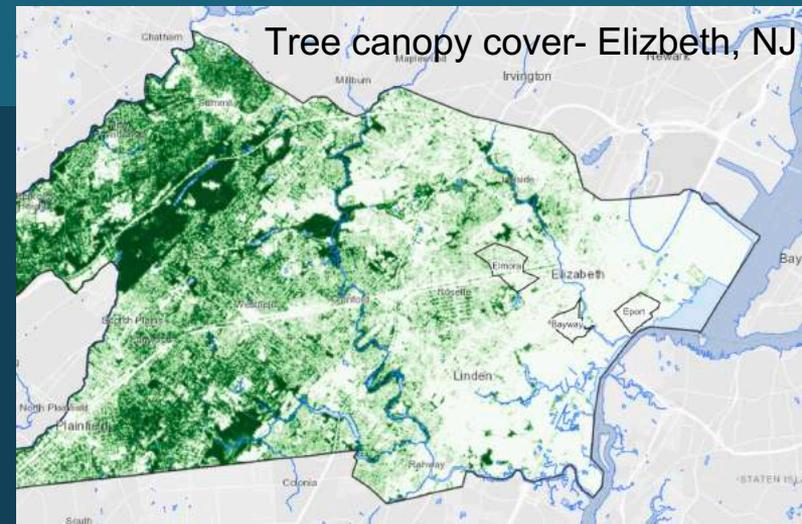
A GUIDE FOR GROWTH

- **Organize** stakeholders
- **Learn** about WHY our communities look this way
- **Prioritize** mitigation measures
- **Intervene** in policy and planning systems
- **Self advocate** for climate safe neighborhoods

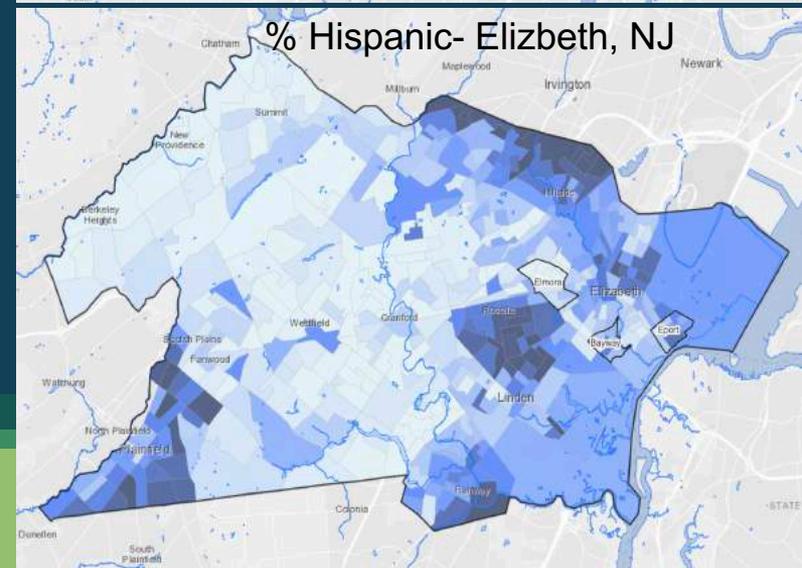
# Responding to unfairness



Heat vulnerability index- RVA



Tree canopy cover- Elizabeth, NJ



% Hispanic- Elizabeth, NJ

# YES ON 2A

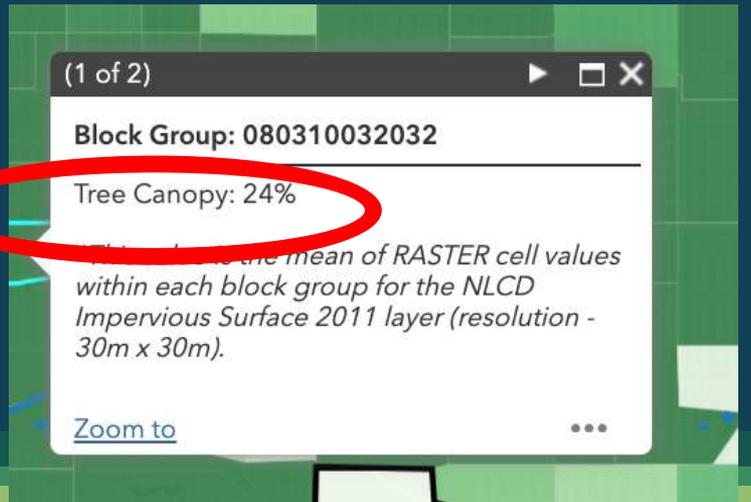
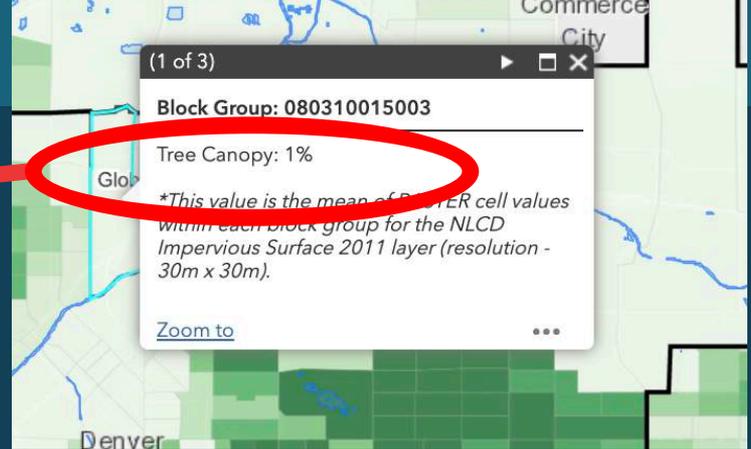
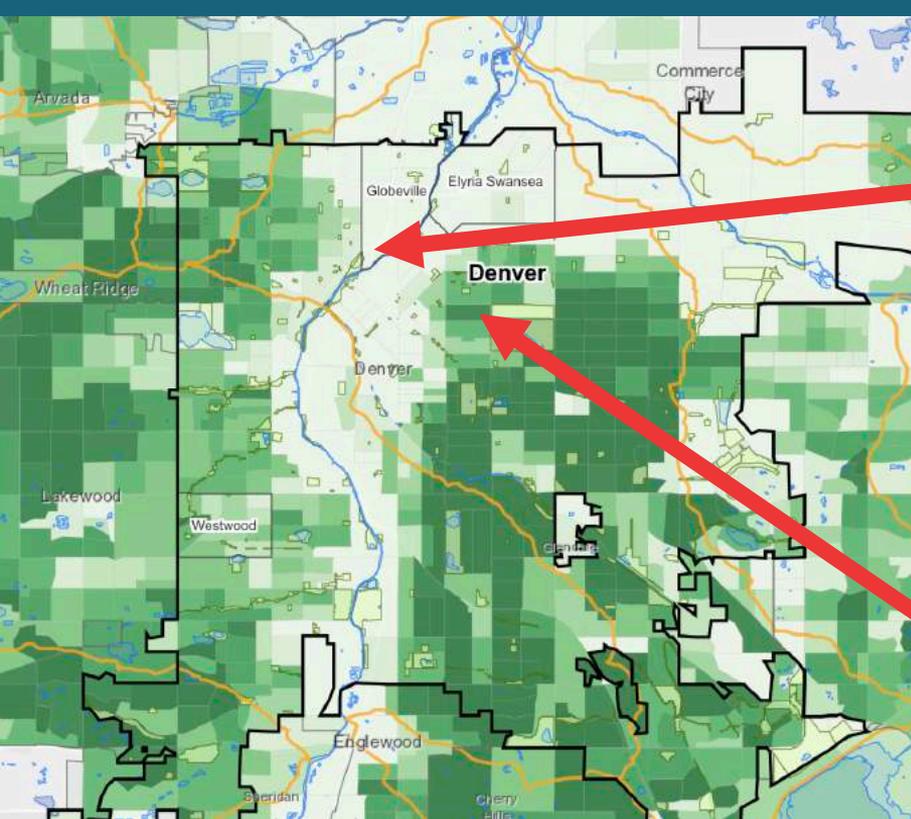


HEALTHY PARKS AND  
RIVERS FOR EVERYONE

## Denver, CO

- \$ for parks/cap backlogs
- 5-Year cycle
- Globeville Neighborhood

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The ask: 10,000 trees in 10 years and a say in funding distribution

# Richmond 300 Changes

**Goal 17 Resilient & Healthy Communities:** Positively adapt to the effects of a changing climate via RVAgreen 2050, and ensure that all residents have equitable access to nature and a healthy community.

- Objective 17.2 Increase city-wide tree canopy from 42% to 60%
- Objective 17.3 Reduce urban heat, prioritizing areas with a high heat vulnerability index rating.
- Objective 17.5 Reduce the effect from heavy rainfall events and sea level rise.

Grassroots efforts  
CAN meet  
community need



**There's no single 100% solution**

# Short Term: Grassroots Mitigation Measures

A/C swaps



Sprinkler loans

Cooling credits

White roof painting

Bus shelters

Depaving parties/ Greening

# Medium Term: Systems change

Fund, build, maintain GI

Rethink relief packages

Keep jobs in the community

Education campaigns



# Invest in communities



Groundwork Denver



Groundwork RVA



Groundwork Elizabeth

# Thank you!



Learn More: [Groundworkusa.org](https://Groundworkusa.org)

Reach out: [Cate@Groundworkusa.org](mailto:Cate@Groundworkusa.org)



Lower Price Hill, Cincinnati



Lower Price Hill, Cincinnati



**Who makes the rules?**

**Who has a right to the city?**



# Maria Belen Power Associate Executive Director





# CHELSEA AND EAST BOSTON

## Chelsea:

- 1.8 square miles
- 45,000+ residents
- 73% ethnic minorities
- 24% live below poverty line

## East Boston:

- 5 square miles
- 55,000+ residents
- 53% Latino
- 17% live below poverty line

# ENVIRONMENTAL AND SOCIAL JUSTICE



CHELSEA DESERVES  
CLEAN AIR!



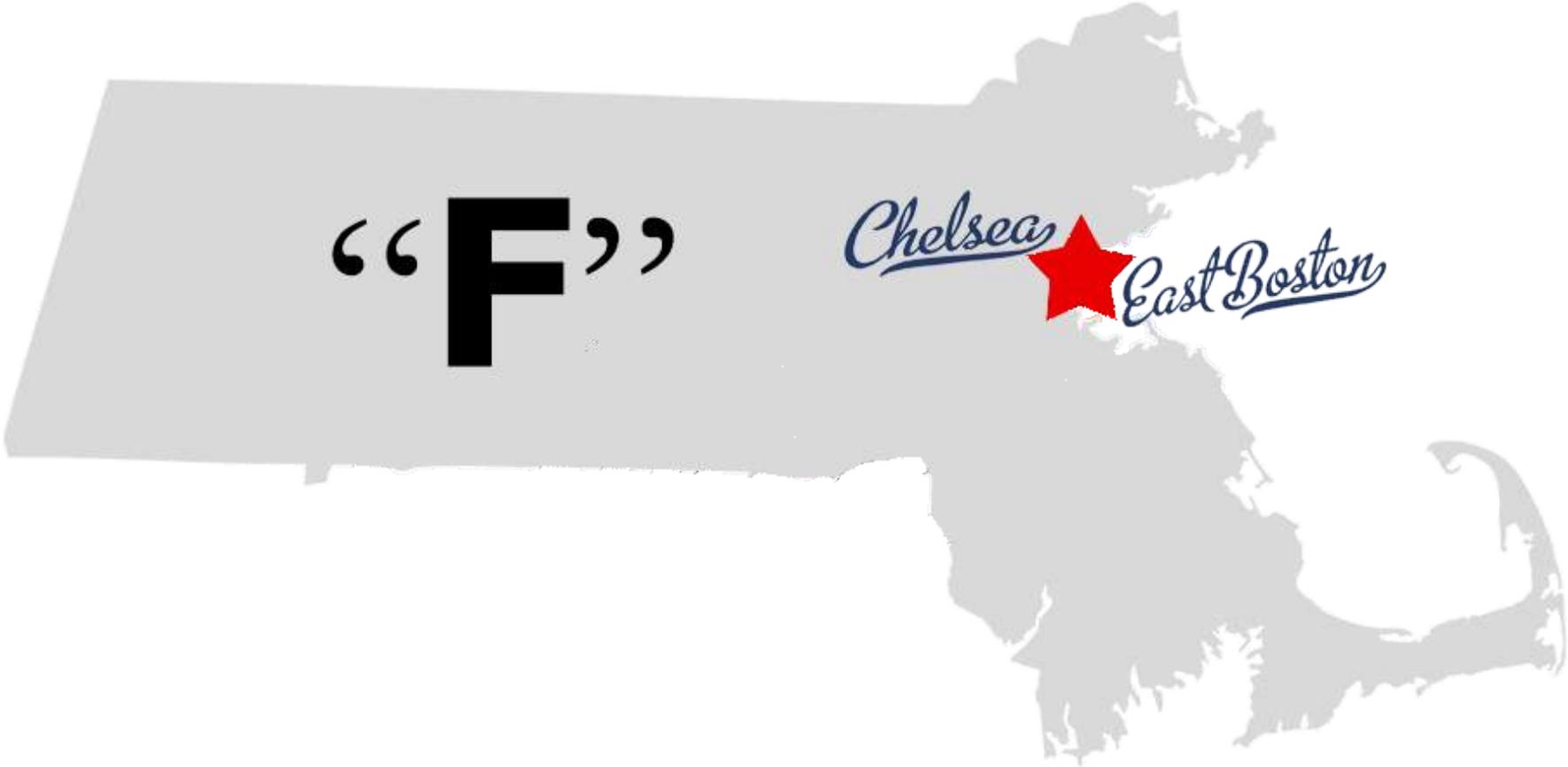
# Unequal Distribution of Environmental and Public Health Burdens







# Compromised Public Health



# Collaborative and Innovative Solutions



**Eliminated 2,000 tons  
of annual air pollutants**

**Improved public health  
outcomes**

**Reduced health care  
costs**

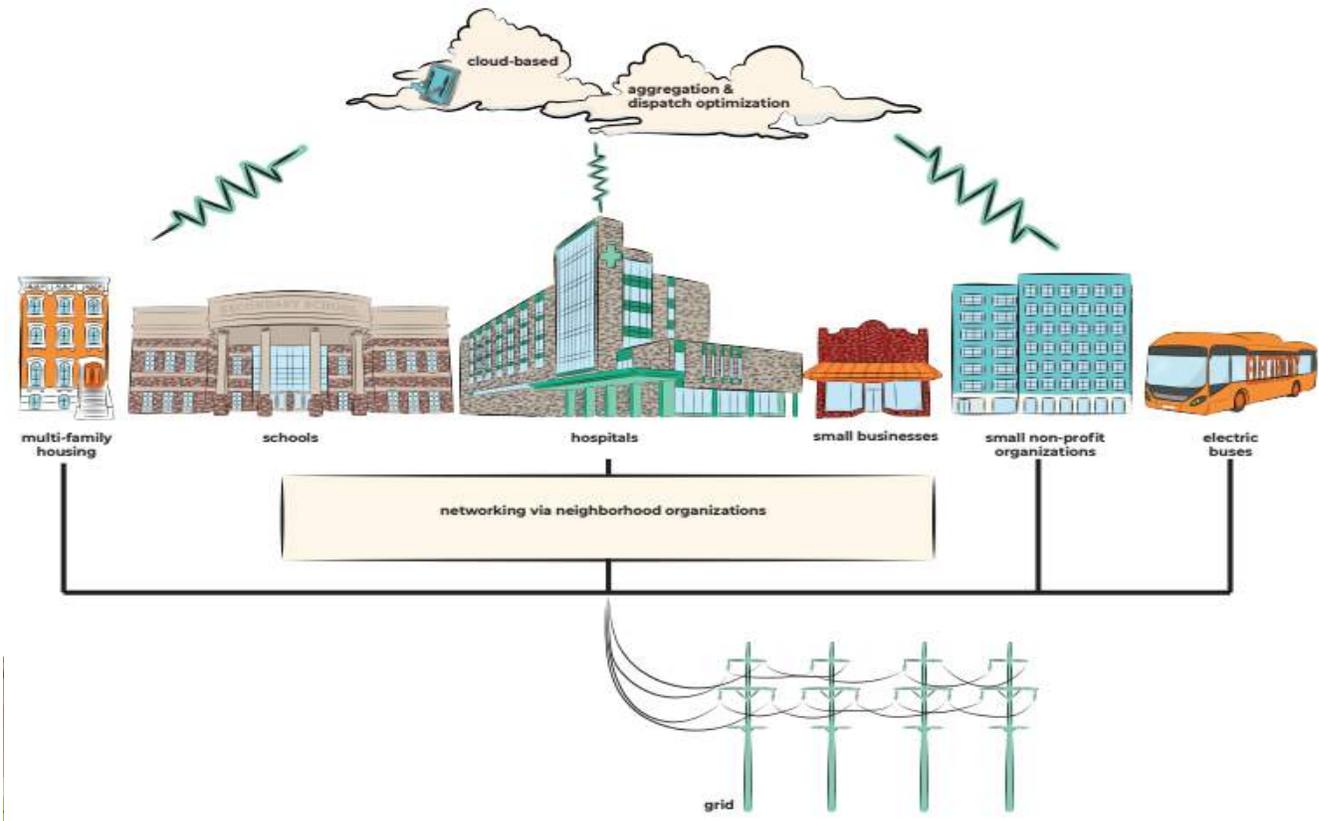
**What could have been...**



# What it is...







# The Boston Globe

YVONNE ABRAHAM

## In Chelsea, the deadly consequences of air pollution

Coronavirus isn't just a health crisis in Chelsea. It's also an environmental one.

By [Yvonne Abraham](#) Globe Columnist, Updated April 29, 2020, 6:43 p.m.



## Massachusetts communities with dirty air are coronavirus hotspots

By [Zoe Greenberg](#) Globe Staff, Updated April 29, 2020, 7:33 p.m.

# CommonWealth

NONPROFIT JOURNAL OF POLITICS, IDEAS & CIVIC LIFE

## COVID-19's link to environmental racism

Even now it's happening along Chelsea Creek

## A Look Inside Chelsea, The State's Top Coronavirus Hotspot

# The New York Times

## *In a Crowded City, Leaders Struggle to Separate the Sick From the Well*

Chelsea, Mass., has an infection rate higher than any other community in the state. With families in cramped housing, it is difficult to contain the spread.

COMMENTARY

## You May Not Realize It, But Chelsea Makes Your Life Better. Now It's The Epicenter Of COVID-19 In Mass.

*Democracy Dies in Darkness*

## A Look Inside Chelsea, The State's Top Coronavirus Hotspot

News, Opinion, Community

PUBLIC HEALTH

### BU Public Health Researchers Aid Chelsea, Epicenter of State's COVID-19 Outbreak

"Every person counts," says epidemiologist whose data show the city's rate of confirmed cases is higher than rates in Manhattan and Brooklyn



# Thank You! Next GRCx:

April 7th from 8:30am - 10:00am EST: GRCx Anchor Institution Strategies to Advance Climate Action

April 27th from 11:00am - 12:30am EST: GRCx Building an Equitable, Healthy, Climate Resilient Future for Boston Part Two: Present – Climate Change, Health and Equity: Current Research and Opportunities for Progress

GRCx

GREEN RIBBON COMMISSION  
Climate Action  
Exchange