

# Leafing a Mark: Exploring the Intersection of Modern Tree Canopy and Historic Redlining for Inclusive Community Revitalization

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Jayne Renfro

Associate Professor

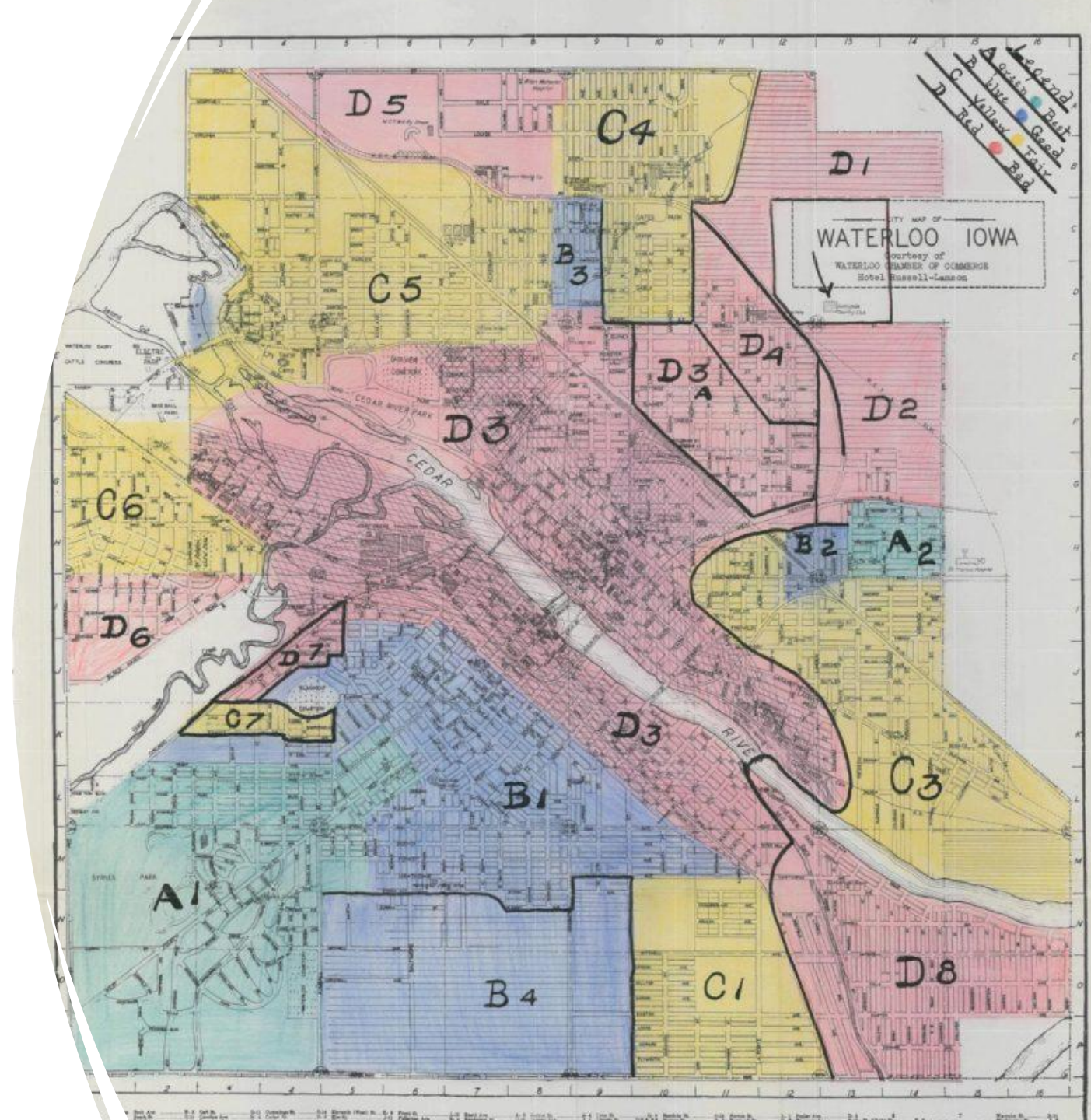
University of Northern Iowa

Department of Political Science



# My Challenge

- “Race and Public Policy”
- Personal interest in redlining
- Focus on applied learning in PA major
- Avoid controversy



# Center for Energy and Environmental Education

The Center for Energy & Environmental Education (CEEE) creates opportunities for UNI students, faculty, and staff to work with community partners and leaders to arrive at evidence-based, solution-oriented responses to the problems they wish to address. We offer technical assistance, educational programs, and leadership in energy conservation, renewable energy, environmental conservation, and community-based agriculture. The CEEE serves Iowa cities, counties, school districts, teachers, farmers, businesses, elected officials, state agencies, community leaders, citizen organizations, and individuals.





# CEEE

- Local Food Programs
  - A Garden in Every Lot
  - Regional Food and Farm Network
- Environmental Health Programs
  - Farming for Public Health
- Green Iowa AmeriCorps
  - Neighborhood Trees

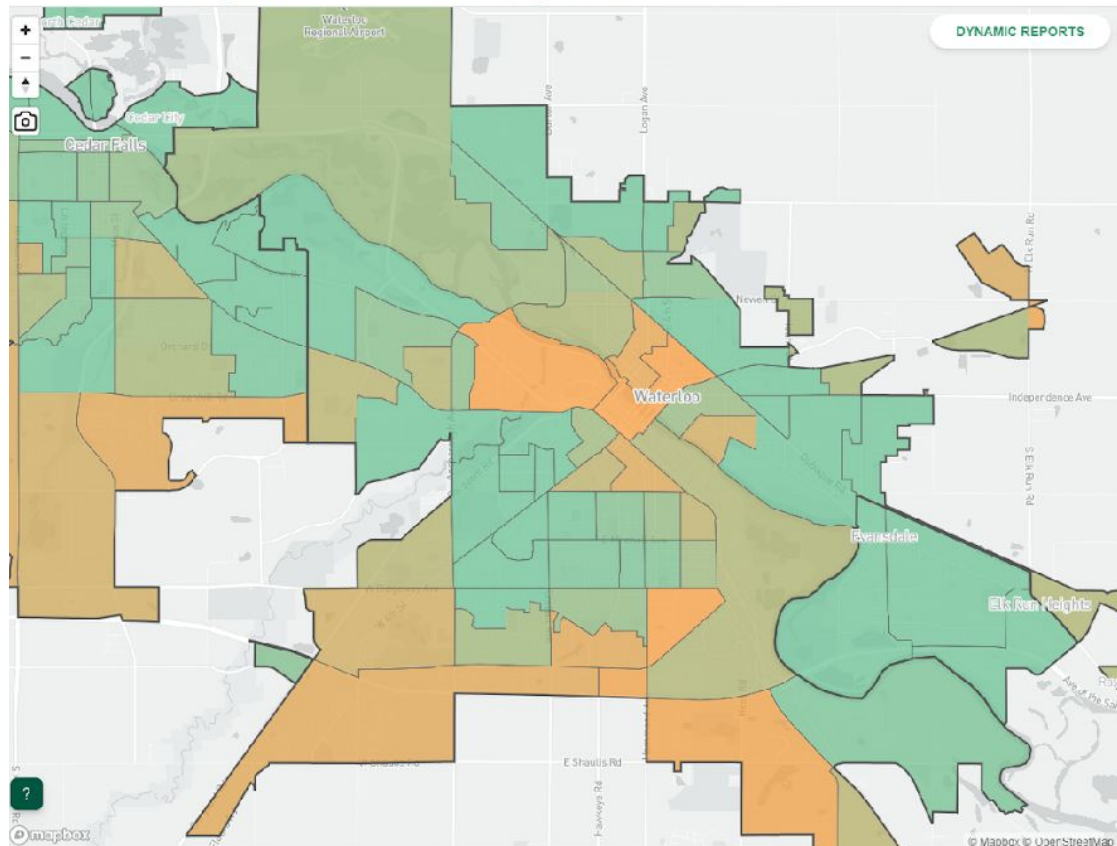
# Why Trees?

- Studies have consistently found that formerly redlined neighborhoods often have significantly lower tree canopy coverage compared to non-redlined areas. These disparities are a direct result of historical disinvestment and discriminatory policies that limited resources for tree planting and maintenance in these communities.
- Environmental Benefits: Increasing tree canopy in these areas can provide multiple environmental benefits, including improved air quality, reduced urban heat island effects, and enhanced stormwater management. Trees also contribute to biodiversity and provide habitat for wildlife.
- Social and Health Impacts: Research has shown that a lack of tree canopy in redlined neighborhoods is associated with a range of negative social and health impacts. Residents in these areas often face higher levels of air pollution, heat-related illnesses, and stress.
- Property Values and Economic Benefits: Studies have demonstrated that investing in tree planting and maintenance in formerly redlined neighborhoods can increase property values and stimulate economic development. This can lead to improved housing conditions and increased community vitality.

# Our Research



# American Forests Tree Equity Scores



Tree Equity Score combines information from a variety of sources to create a single measure from 0 to 100. The lower the score, the greater the need for investment.

  
TREE CANOPY

  
BUILDING DENSITY

  
INCOME & EMPLOYMENT

  
RACE

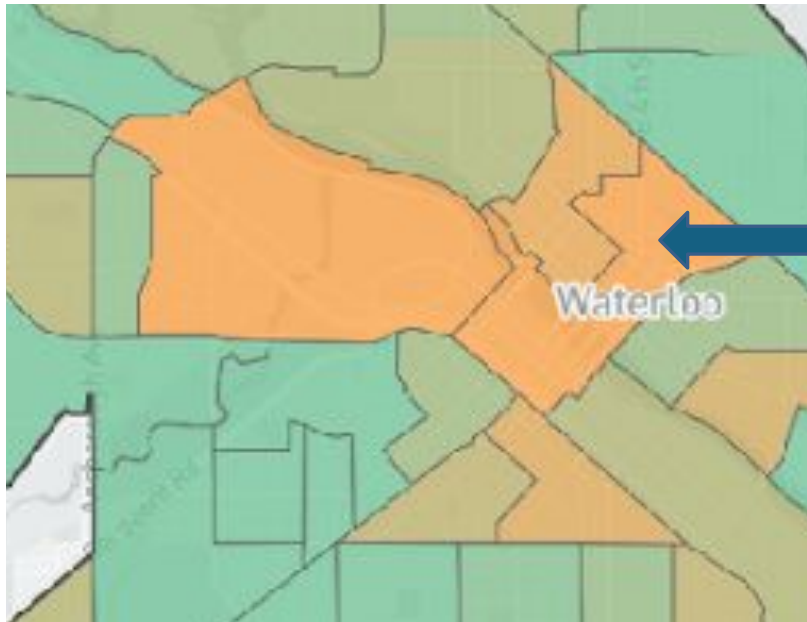
  
SURFACE TEMPERATURE

  
HEALTH

  
LANGUAGE

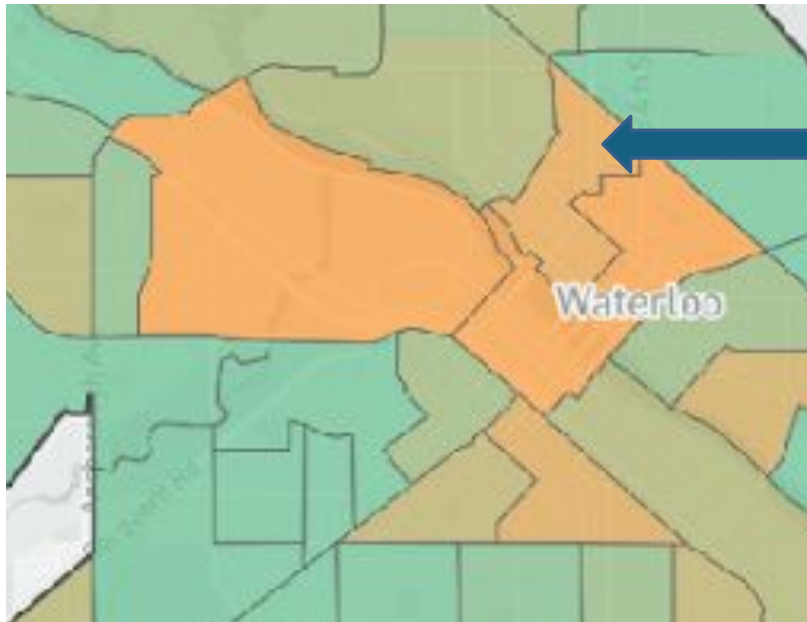
  
AGE

# Waterloo Tree Equity



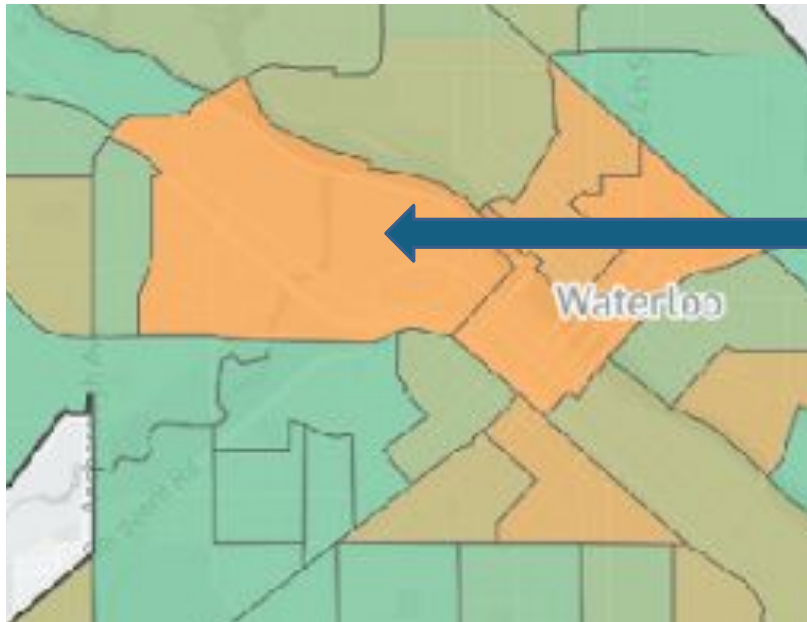
- 32% POC
- 29% unemployment
- 64% under the poverty line
- +10 degrees heat disparity
- Current canopy 5%
- Canopy cover goal 30%

# Waterloo Tree Equity

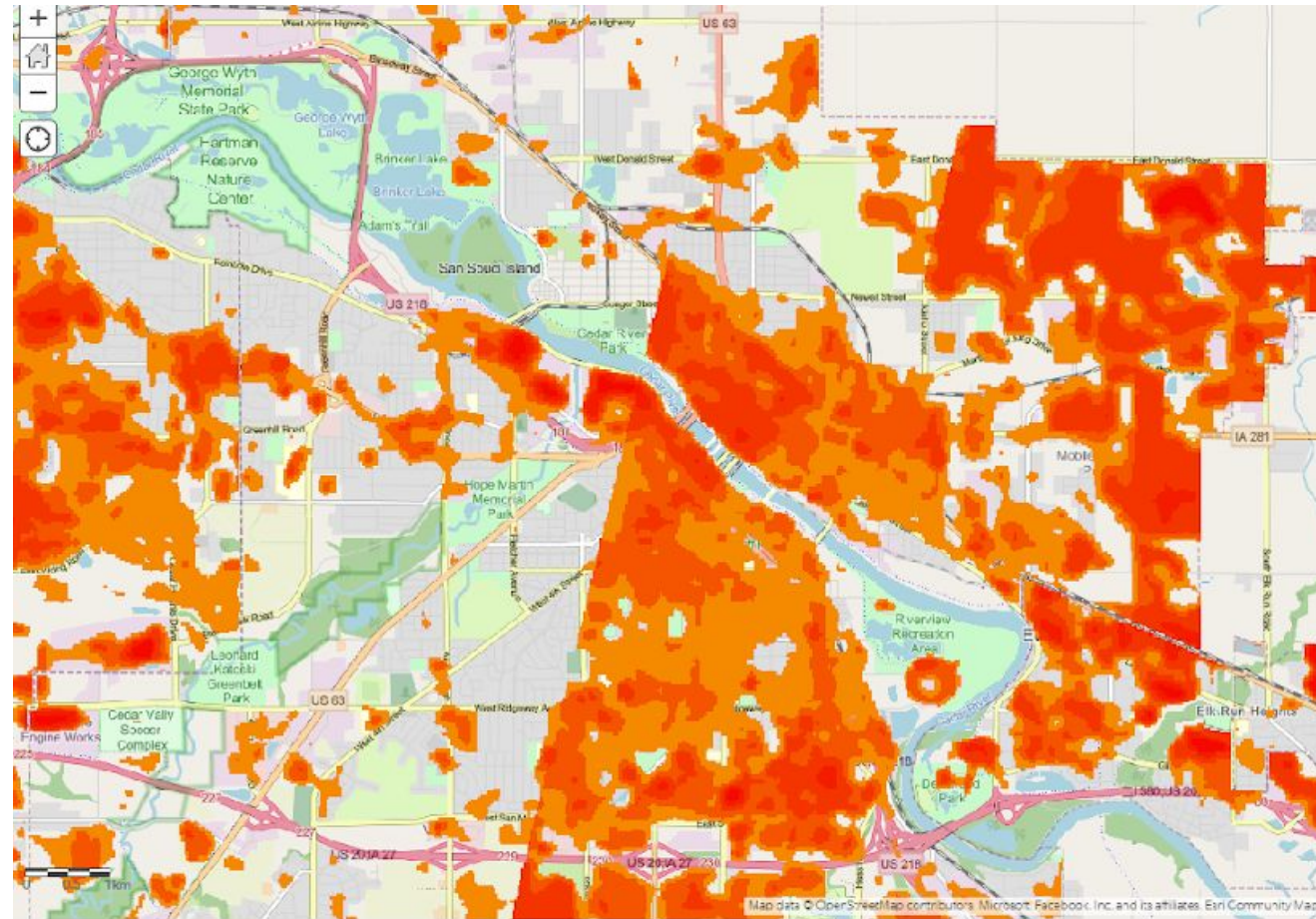
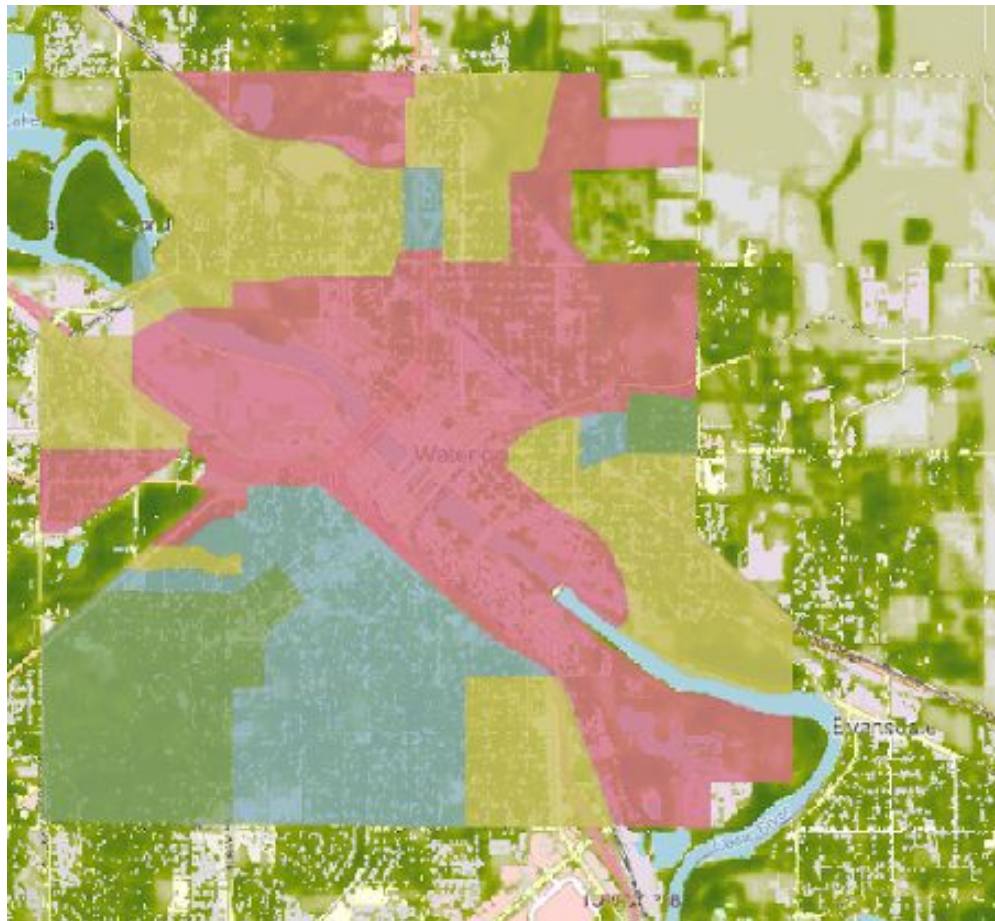


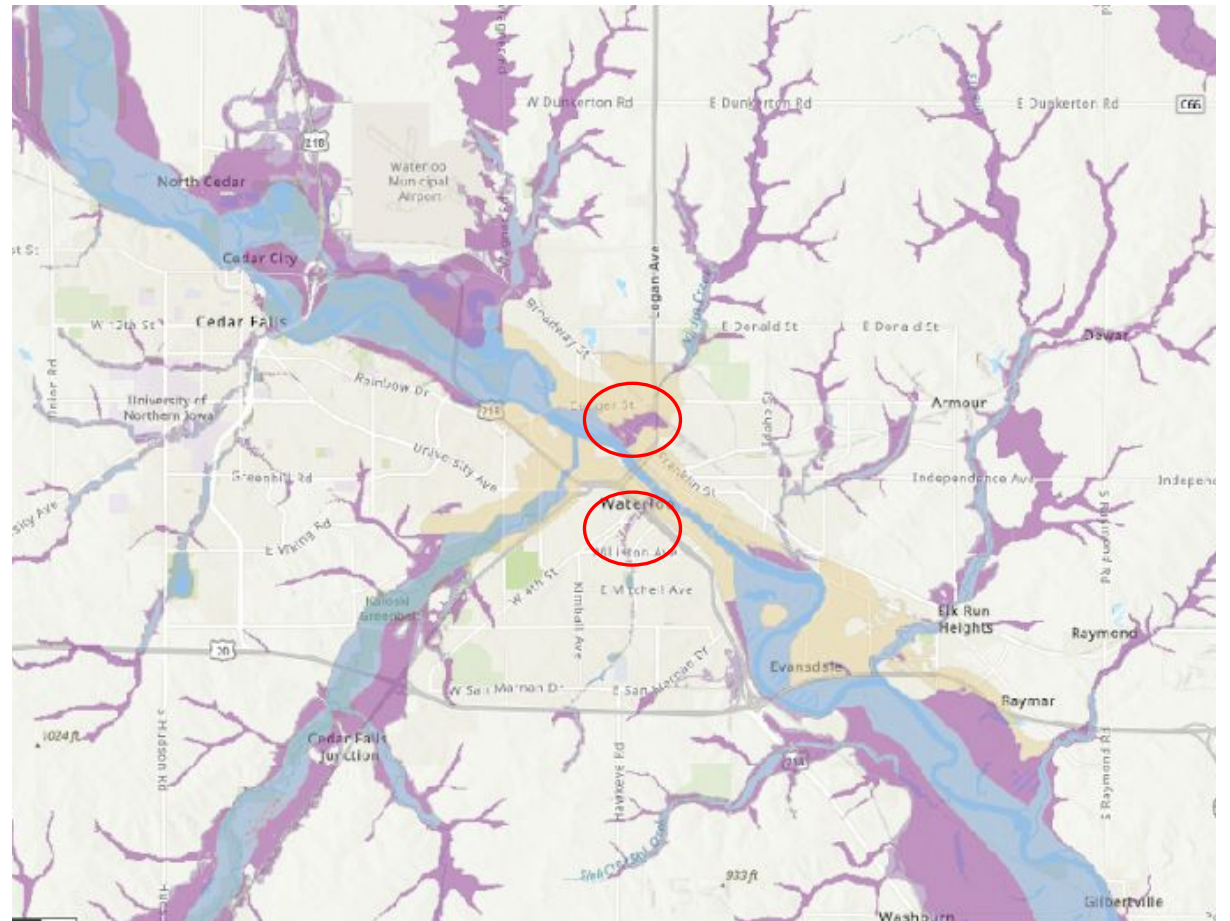
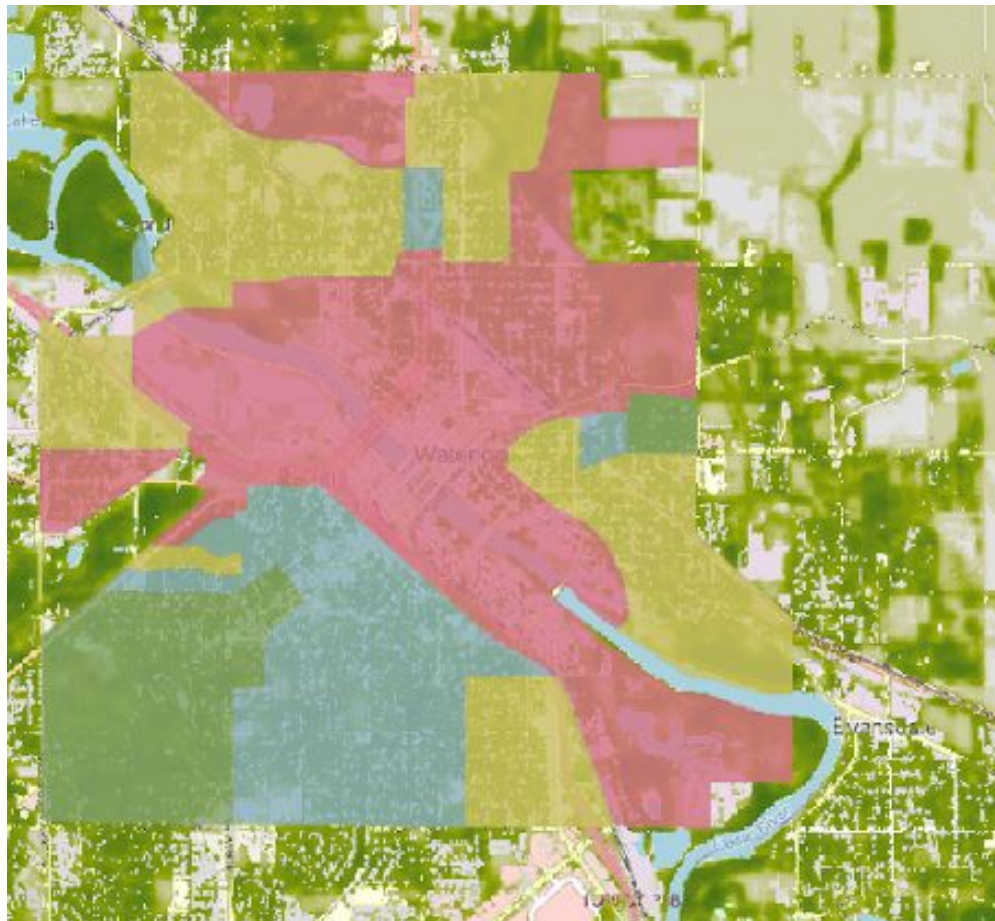
- 71% POC
- 32% unemployment
- 74% under the poverty line
- +6 degrees heat disparity
- Current canopy 20%
- Canopy cover goal 30%

# Waterloo Tree Equity



- 10% POC
- 10% unemployment
- 60% under the poverty line
- +9.2 degrees heat disparity
- Current canopy 8%
- Canopy cover goal 30%





# Media and Fundraising

## Trees for Cedar Valley

### ROOTING FOR CHANGE

Trees for Cedar Valley is working to bring trees to formerly redlined areas of Waterloo, equitably expanding the tree canopy and combating environmental racism. Together we can Leaf a Mark!

Hoping to help? Please fill out our volunteer interest form, linked below, and we'll be in touch as opportunities are scheduled.

We're also currently seeking community partners! If your organization is interested in being a larger part of Trees for Cedar Valley, please contact us at [trees4cedarvalley@gmail.com](mailto:trees4cedarvalley@gmail.com) or (319) 284-9811.



[Volunteer Interest Form](#)

## Community Partners

[Iowa Army National Guard](#)



**Trees Cedarvalley**

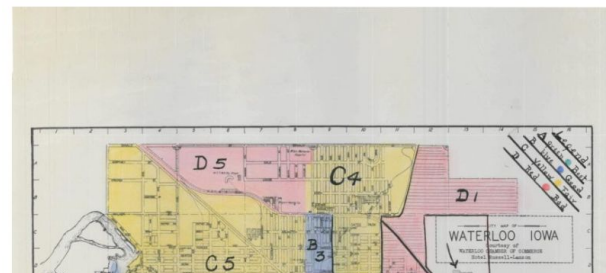
45 followers • 7 following



## Uprooting Redlining

UNI class's tree planting project aims to offset effects of redlining in Waterloo

CAROLINE CHRISTENSEN, Executive Editor • Apr 24, 2024



Talk of Iowa

## UNI students plant trees in formerly redlined neighborhoods

By [Charity Nebbe](#), [Danielle Gehr](#), [Samantha McIntosh](#), [Kate Perez](#)

Published April 18, 2024 at 7:00 AM CDT

Instagram



trees4cedarvalley

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29 posts

77 followers

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Trees for Cedar Valley

Together we can Leaf a Mark! 🌳

[csbs.uni.edu/trees](https://csbs.uni.edu/trees)



Documentary



Events



Press



Fun Facts!

## Trees and their benefits aren't distributed equitably in Iowa

The strategic addition of trees in urban areas is a low-cost investment that yields high returns economically, environmentally, and socially.

**Jayne Renfro** Guest columnist

Published 5:54 a.m. CT April 20, 2024 | Updated 5:54 a.m. CT April 20, 2024



### Key Points

- Jayne Renfro is an associate professor at the University of Northern Iowa and the advisor to a student-led group Trees for Cedar Valley.

In many urban landscapes across the United States, including in Iowa, an invisible line divides not just neighborhoods but also their access to nature's bounty — specifically, their tree canopy coverage. This division often traces back to historical discrimination policies like redlining, resulting in stark disparities in environmental quality and access to green spaces between affluent and lower-income communities. Addressing this inequity is not just a matter of ecological justice but also economic necessity.



**The Postdoctoral**

@thepostdoctoral



Trees, their benefits aren't distributed equitably in Iowa - The Des Moines Register - Jayme Renfro is an associate professor at the University of Northern Iowa and the advisor to a student-led group Trees for Cedar Valley. In many ... -



[desmoinesregister.com](https://www.desmoinesregister.com)

Trees and their benefits aren't distributed equitably in Iowa  
Opinion: Tree canopy coverage is often less in areas that historically were subject to redlining and other ...



Housing Act there are still things that happen because of those

# Results

- 64 trees planted in East Waterloo
- 100 saplings potted for future planting

