Health and Equity in the Historic West End Green District: A Case Study of Community-Led Monitoring and Advocacy

Daisha Williams, Environmental Justice Manager
Denise Bruce, Citizen Science Manager
August 24, 2022
Presentation Roadmap

I. CleanAIRE NC Overview
   • CleanAIRE NC Mission and Programs

I. Historic West End Green District
   • Community Background
   • Air Quality Sensors
   • Advocacy Activities

I. Moving Forward
   • CleanAIRE NC continued deployment
   • AirKeeper Engagement
   • Cluster Networks
CleanAIRE NC Programs & Initiatives

We advocate for the health of North Carolinians by pursuing equitable and collaborative solutions that address climate change and air pollution.

- Environmental Justice Program
- Health Program
- Policy Program
- Citizen Science Program
Citizen Science AirKeepers Monitoring Program

- CleanAIRE’s monitoring efforts began in Charlotte’s Historic West End (HWE) in the fall of 2016
- To address health inequities caused by air pollution in environmental justice communities
- Use PurpleAir & AirBeam Monitors to measure PM 2.5

Original AirKeepers
Ron Ross, Northwood Estates (L)  Mattie Marshall, Historic Washington Heights (M)  William Hughes, Oaklawn Park (R)
Historic West End Challenges

Historical Place Based Social Exclusion
1935 Redlining Disinvestment Map Crescent

Social Determinants of Health
2012-2016 Public Health Priority Areas

Continued Economic Segregation
2020 Poverty

Sources: 2017-18 Mecklenburg County Health Assessment, 2018 Mecklenburg State of the County Health Report (SCOTCH)
Understanding & Addressing Challenges Through Community Monitoring

- 2017: Community monitoring efforts begin
- Measured levels of PM 2.5
- Connections between social determinants of health and exposure to air pollution
Historic West End Monitors

10/15 PurpleAir Monitors across 6 Historic West End Neighborhoods

Mecklenburg County Commission Approves EPA Monitor in Historic West End as a result of Citizen Science Monitoring

CLEARING THE AIR
CHARLOTTE’S HISTORIC WEST END
Historic Washington Heights
Northwood Estates
Oaklawn Park

FRIENDSHIP MISSIONARY BAPTIST CHURCH,
EPA Federal PM 2.5 Air Monitor

Ron Ross (L), Calvin Cupini (R)
Historic West End Green District: Strategic Tree Planting

Goal #1
Increasing, preserving and improving tree canopy and green infrastructure along the corridor and in sensitive areas
• Installing green roofs, green walls, and other green infrastructure
• Mitigate and reduce health and pollution impacts

Current Projects & Outcomes:
• Wells Fargo ATM Clean Air Garden
• Tree adoption with TreesCharlotte
• Charlotte 2022 Placemaking: HWEGD Green Pillars
• Monitoring around high polluting areas
Advocating for electric vehicle charging stations and more walking, biking, and clean transit throughout the Historic West End, while also providing economic benefits and career opportunities for the community around EV expansion.

Current Projects & Outcomes:

- PoleVolt and associated PurpleAir monitor
- EV Ride and Drive Event (May 21st)
- Deployment of other EV charging sites: Allegra Westbrooks Library
**Goal #3**

Increasing **education** around air quality impacts to propel **advocacy solutions**

**Current Projects & Outcomes:**

- Clean Air Advocacy Trainings (July 2022): covered zoning, permitting, community and regulatory monitoring, and community benefits agreements.
- Healthy Air Education Series (September 2022)
- City, County and other organizational partnerships to advance goals
Statewide Deployment Status

164 Total Sensors
74 Counties

ERG Network Assessment
Moving Forward: AirKeeper Engagement

Ask Me Anything
Quarterly Events

Regular Newsletters

Community Level Emissions Reporting

Report Backs

Cluster Networks
Implementing **cluster networks** of 15-20 sensors near pollution sources in a single county affecting environmental justice communities.

- Charlotte/Historic West End
- Sampson County
- Wilmington/New Hanover County
THANK YOU!

https://cleanairenc.org/

Daisha Williams
Environmental Justice Manager
daisha@cleanairenc.org

Denise Bruce
Citizen Science Manager
denise@cleanairenc.org