

AirWatch STL - Community Based Air Quality Monitoring

Beth Gutzler, Lead EJ Organizer



Environmental Racism Report 2019

Is air quality concern different for each community in STL?

- MCU provide stable location for air monitoring (PM 2.5)
- Community Action taken with presentation of results/education
- Increased involvement in building a permanent monitoring map

Qualitative Results

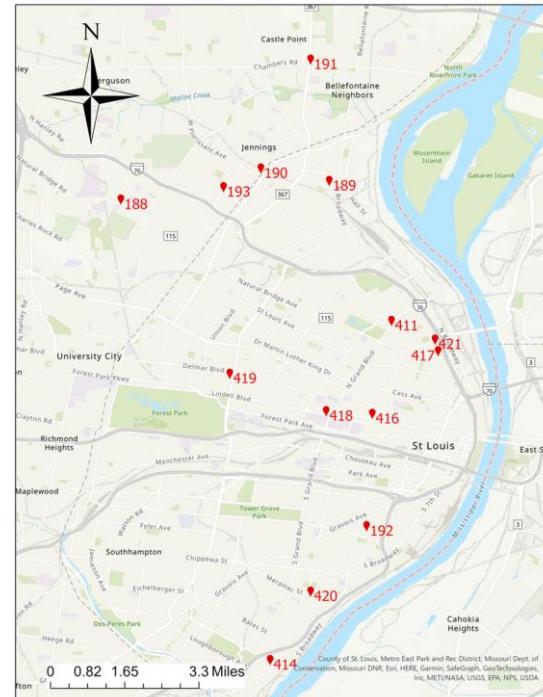
- Other Environmental Factors with Air Pollution Combine Impact



Jay Turner Lab @ WashU STL

MODULAIR-PM Current Network 2021-2022

Site	MODULAIR Serial Number
St. Ann Parish	188
Our Lady of the Holy Cross	189
New Northside Family Health Center	190
Third Presbyterian Church	191
Epiphany UCC	192
Momunument of Faith	193
St John's UCC	411
Webster Groves Presbyterian	413
St Paul's Episcopal Church	414
Central Baptist Church	416
Blair Street	417
St Xavier	418
First Unitarian	419
St Anthony of Padua	420
Most Holy Trinity	421



Regional Community Action

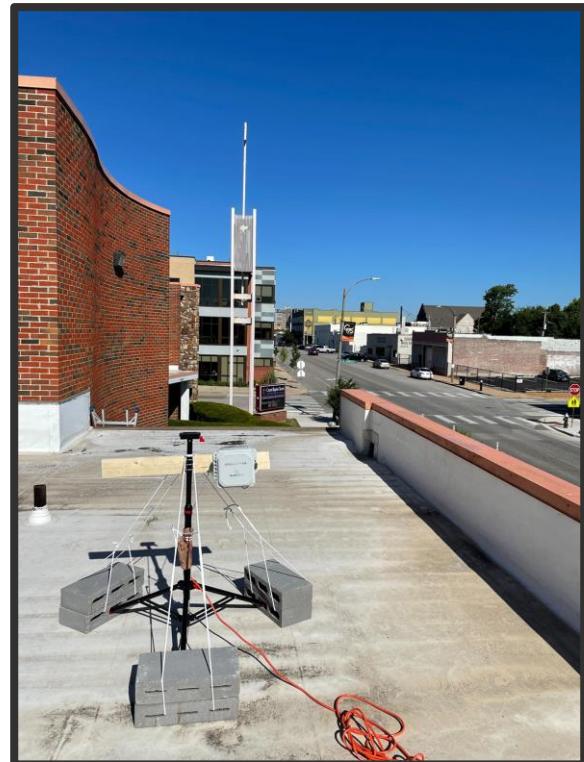
Citizen Voices

- Transparency & Public Hearings
- Planning & Zoning Meetings
- EPA Region 7 - Fire & Smoke Data

Policy Change “2025”

- EPA National Change to “9”
- July 1st Permit Redos - Downgrade to Serious Nonattainment Ozone

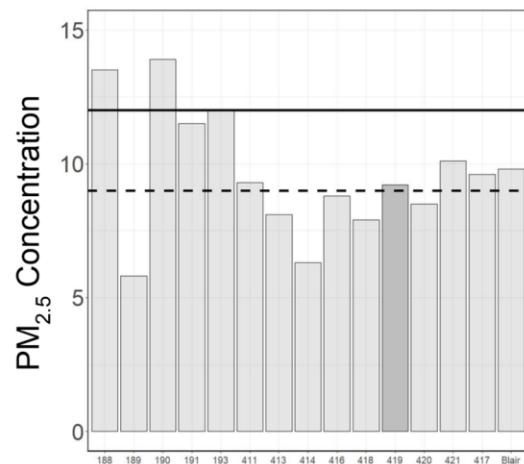
■ <https://cleanair-stlouis.com/no-red-day/>



Monitoring MOVES ACTION

Gamaliel Environmental Justice National Work

Many monitoring locations potentially fail to meet the new
EPA Annual PM_{2.5} Standard, including First Unitarian



Old: 12.0 $\mu\text{g}/\text{m}^3$

New: 9.0 $\mu\text{g}/\text{m}^3$





United
Congregations
of Metro-East



Continue to Build Out the Map

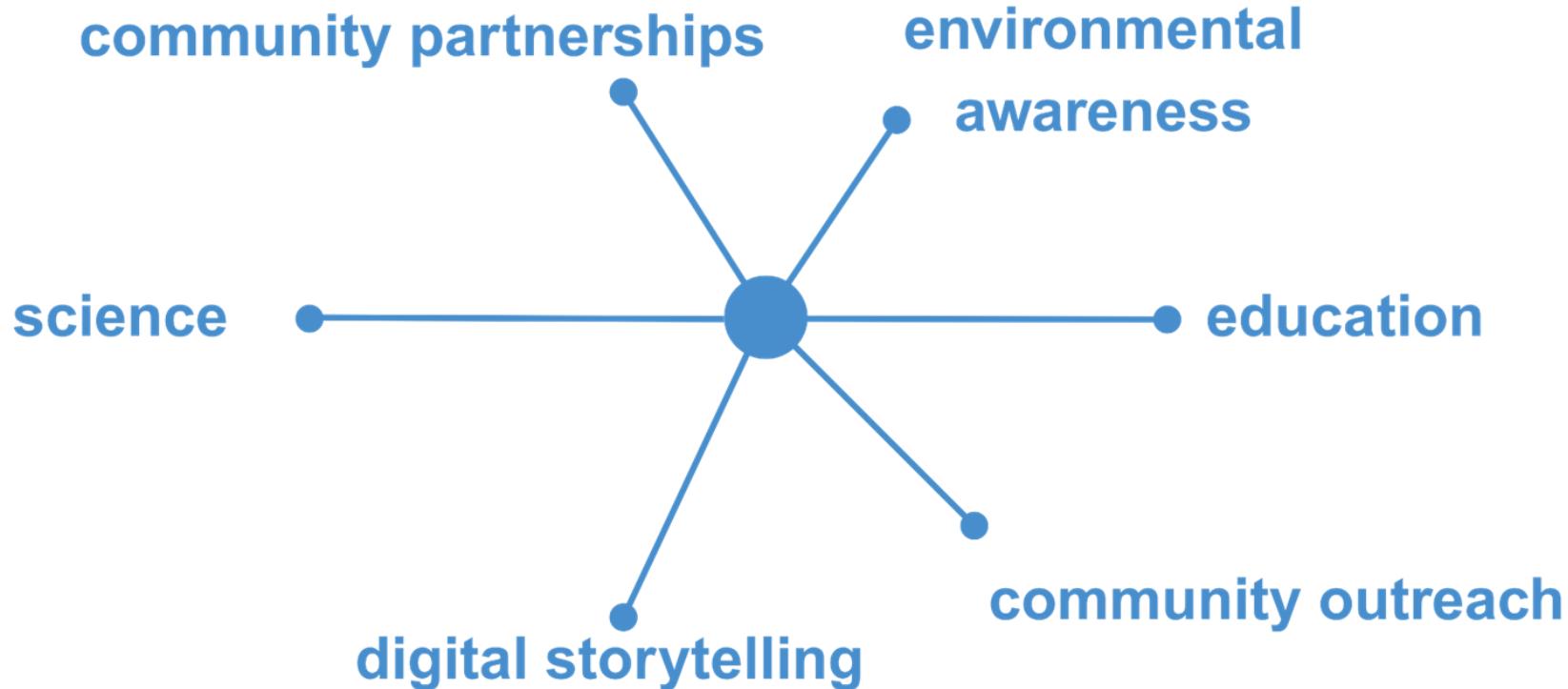
- beth@mcustl.com
- <https://mcustlouis.org/>
- <https://ucmetroeast.org/>





Teaching Air Quality with Stories, Sensors, and Social Media

Taylor M. Harris, PhD
SciStory Collective & Win Win Scientific



Reasons for engaging communities



Educate
Stakeholders
and Students

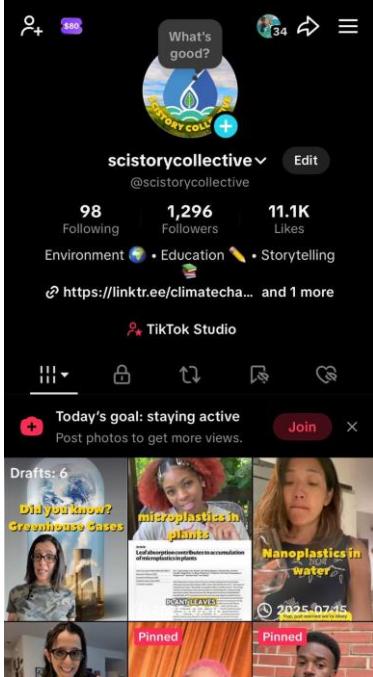


Encourage
Individual/
Community Action



Inform or Change
Policy

Using digital storytelling for education & connection



Why create the content for social media?

- for reach
- to deliver info in simple, short ways
- to meet people where they get info

Things to Consider

- Engagement hacks
- Challenges - Follower count privileges, overcoming on-camera nerves, creating/posting consistently, finding voice

Previous & Ongoing Projects in St. Louis



Black Girls Do STEM
Air Quality & GIS

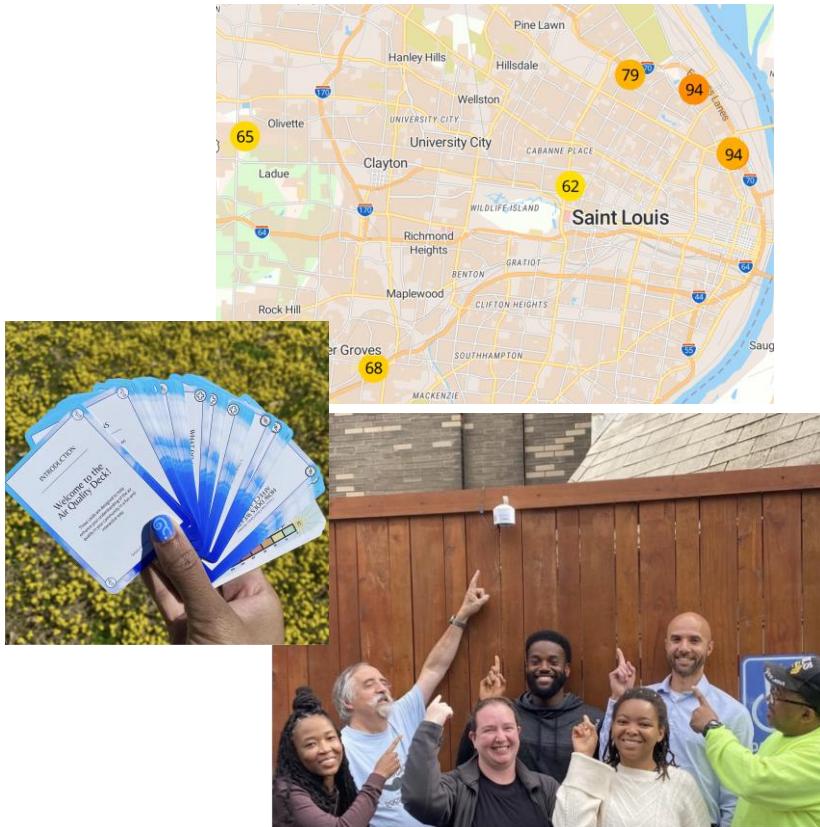


MCU & WashU
Fill the Map
with Air Monitors



Peace Warriors
Climate Advocacy &
NatGeo Slingshot
Challenge

Air Quality Education: fun in-person & online



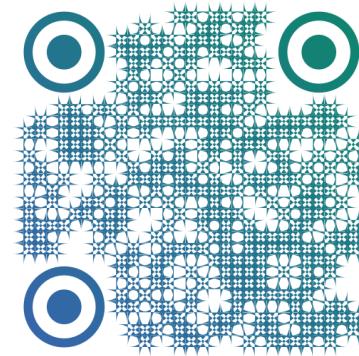
- Installed 8 air monitors, 4 more this year
- Engaged with 140 students in 13 classrooms
- Created over 77 short-form videos on air quality and monitor installations
- Created *Your Health, Your Community*, an interactive, educational card deck



A Challenge for You:
Can you create your own
message for social media?

VIDEO STYLE	10-15s videos? 60s videos? Animation? Narration?
AUDIENCE	Students? Teachers? General public?
MESSAGE & GOAL	?

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@scistorycollective



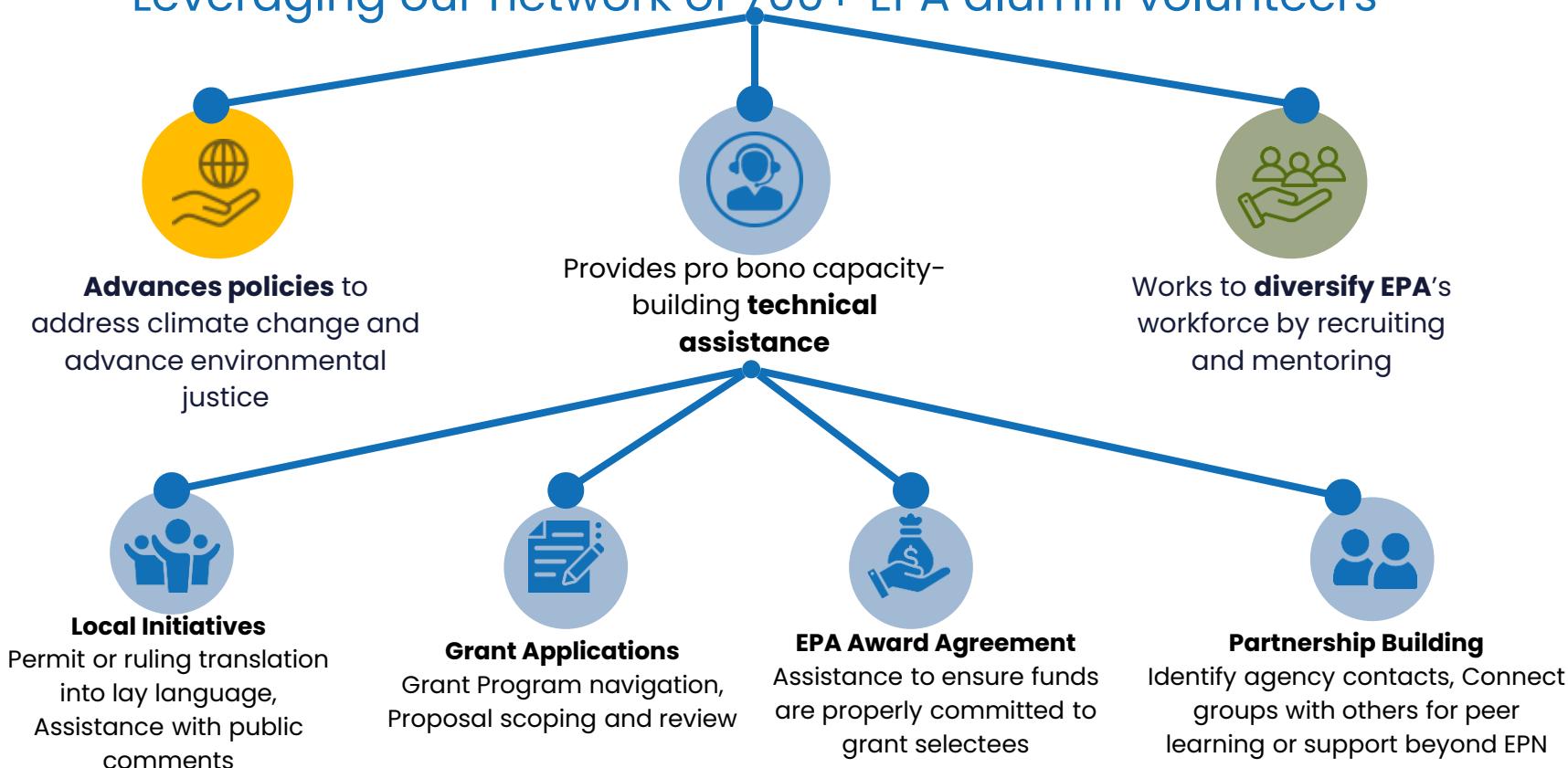
Pro-Bono Technical Assistance to Communities

Rayan Makarem

Community Outreach Associate, Region 7

Environmental Protection Network (EPN)

Leveraging our network of 700+ EPA alumni volunteers



MAIN SUBJECT MATTER TOPICS



AIR

- Air Monitoring
- Air Monitoring Grants
- Air Quality Modeling
- Air Quality & Climate Change
- Air Quality: General, Mobile, and Stationary Source
- Radiation/Indoor Air
- Air Permits
- Particulate Matter (PM)



WATER

- Flooding
- Drinking Water
- Wastewater
- Water Infrastructure
- Water Quality: General, Point Source, and Nonpoint Source
- Water Utilities
- Waters of the US
- Stormwater Management
- Clean Water Act
- Clean Water State Revolving Fund
- Lead in Water



SUPERFUND AND BROWNFIELD

- Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)
- Brownfields
- Cleanup Process
- TAB Programs
- Resource Conservation and Recovery Act (RCRA)



COAL, OIL, AND GAS

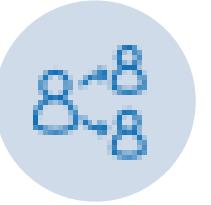
- Coal Ash
- Fossil Fuels
- Oil Refinery
- Petrochemicals
- Carbon Capture and Storage (CCS)



OTHER TOPICS

- Quality Assurance Project Plans (QAPP)
- Climate Action Plans (CAP)
- Federal Grant Support
- Enforcement and Compliance at EPA
- Soil Contamination
- Solar Projects

Technical Assistance in Action: 1:1 Support



Intake Form

Organizations in need of support reach out through our intake form.

Check out the [intake form here](#)

Initial Conversation

Organizations meet with their regional outreach associate to discuss current work, goals and technical assistance needs.

Resource Share, Volunteer Match

EPN provides resources as available and connects organizations with EPA alumni volunteers as appropriate.

Continued Follow Up

Communications continue with EPN outreach associates as long as needed.

- Direct knowledge with community air monitoring from my previous work (air monitoring network in Kansas City, MO)
- Leverage expertise from previous EPA staff to answer questions about your projects
- Funding resources and requirements (federal vs. independent)
- Community data for community science



*Please visit our website,
and use our intake form to
connect directly with an
associate.*



**Environmental
Protection Network**