Using Citizen Science to Identify and Map Environmental Hazard Concerns

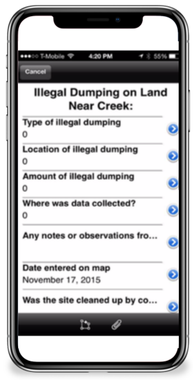
Documenting Environmental Hazards in the Proctor Creek Watershed

What did we want to know?

How can citizens use their own knowledge and lived experience to document the existence of street-level, environmental hazards in their community?

What did we do?

1. Researchers from the Proctor Creek Watershed and Georgia State University partnered to identify environmental hazards in the watershed.
2. These partners co-developed an app to document three types of environmental hazards: standing water, illegal dumping, and faulty stormwater infrastructure.
3. Photo and location data were collected with the app and used to produce a series of maps that document the environmental hazards.



What did we find?

275 environmental hazards were reported in the app

49% Illegal Dumping (on land and in water)

42% Stormwater Infrastructure Issues

9% Standing Water

Map of environmental hazards within the Proctor Creek Watershed

Legend

- Illegal Dumping on Land
- Illegal Dumping in Water
- Stormwater Infrastructure Issues
- Standing Water

What does this mean for you?

- Communities can use maps and photo documentation as an impactful tool to advocate for action
- Community-academic partnerships can improve outcomes by utilizing community knowledge to fill in research gaps and leveraging the resources of academic institutions.

If you want to learn more about the work of the Proctor Creek Watershed residents to address their environmental concerns:

West Atlanta Watershed Alliance website:
http://wawa-online.org

Proctor Creek Story Map:
https://arcg.is/1zLjfP

EPA Story Mapping Resources:
https://www.epa.gov/web-policies-and-procedures/storymap-guidance-and-resources

This infographic summarizes a study led by a HERCULES Stakeholder Advisory Board member and partially funded by the HERCULES Community Grant Program.

Jelks, N. O., Hawthorne, T. L., Dai, D., Fuller, C. H., & Stauber, C. (2018). Mapping the Hidden Hazards: Community-Led Spatial Data Collection of Street-Level Environmental Stressors in a Degraded, Urban Watershed. *International journal of environmental research and public health*, *15*(4), 825. https://doi.org/10.3390/ijerph15040825

@EmoryHERCULES @EmoryHERCULEScenter HERCULES EXPOSOME RESEARCH CENTER elebows@emory.edu http://emoryhercules.com/

HERCULES is funded by the National Institute of Environmental Health Sciences (P30ES019776)