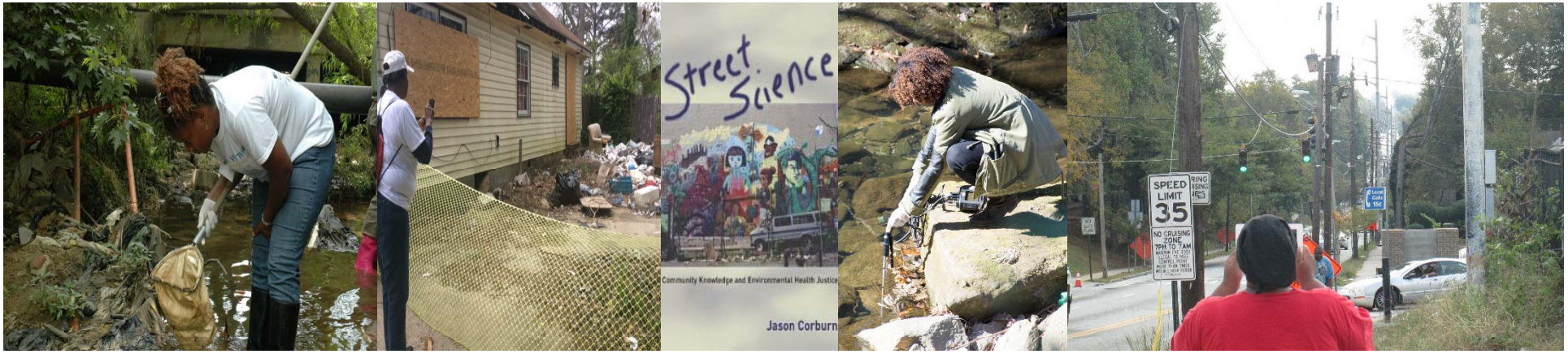


Taking Science to the Streets

LEVERAGING LOCAL KNOWLEDGE FOR COMMUNITY CHANGE

Presenters:

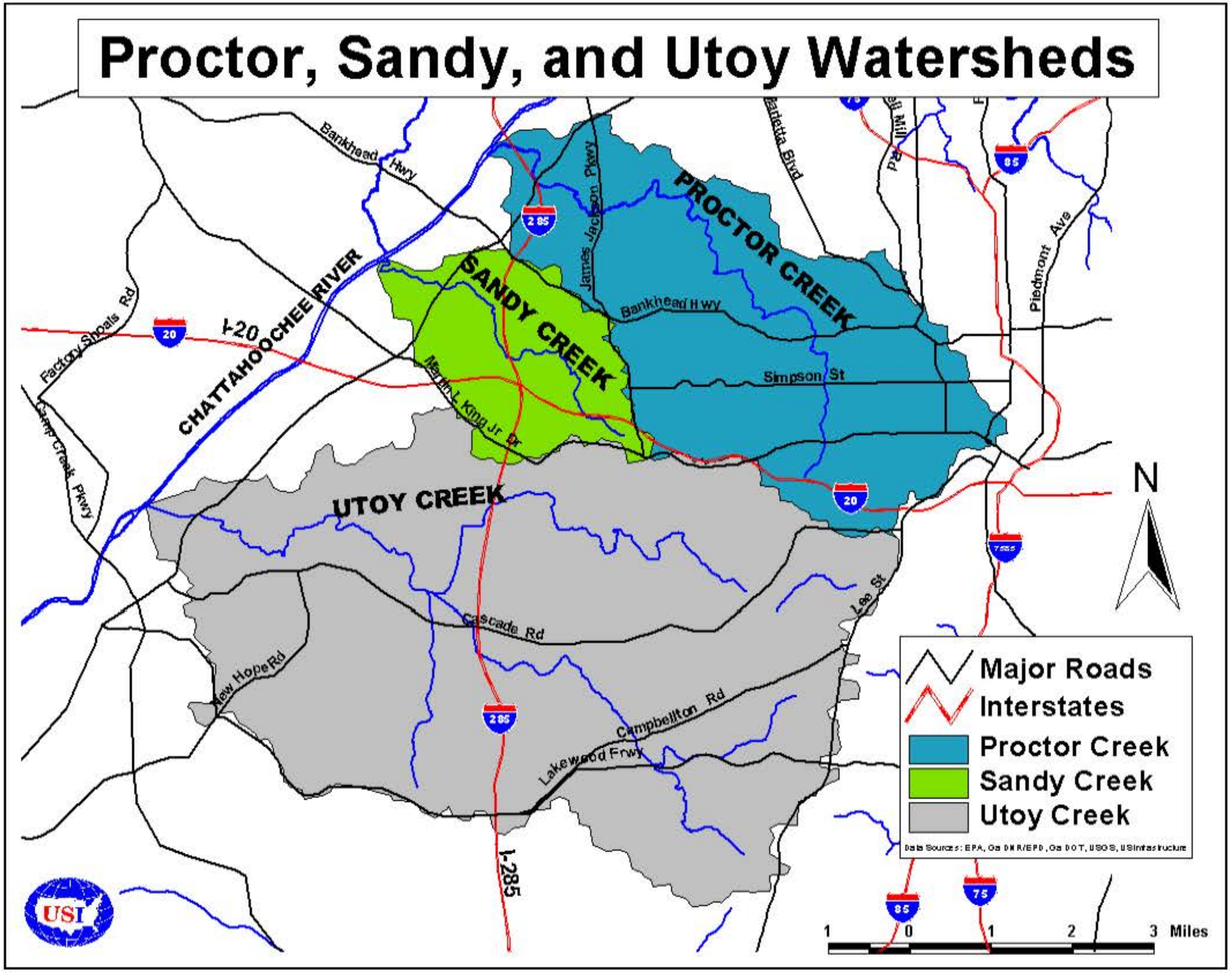
Na'Taki Osborne Jelks, West Atlanta Watershed Alliance/Proctor Creek Stewardship Council/Georgia State University School of

Darryl Haddock, West Atlanta Watershed Alliance/Georgia State University Department of Geosciences

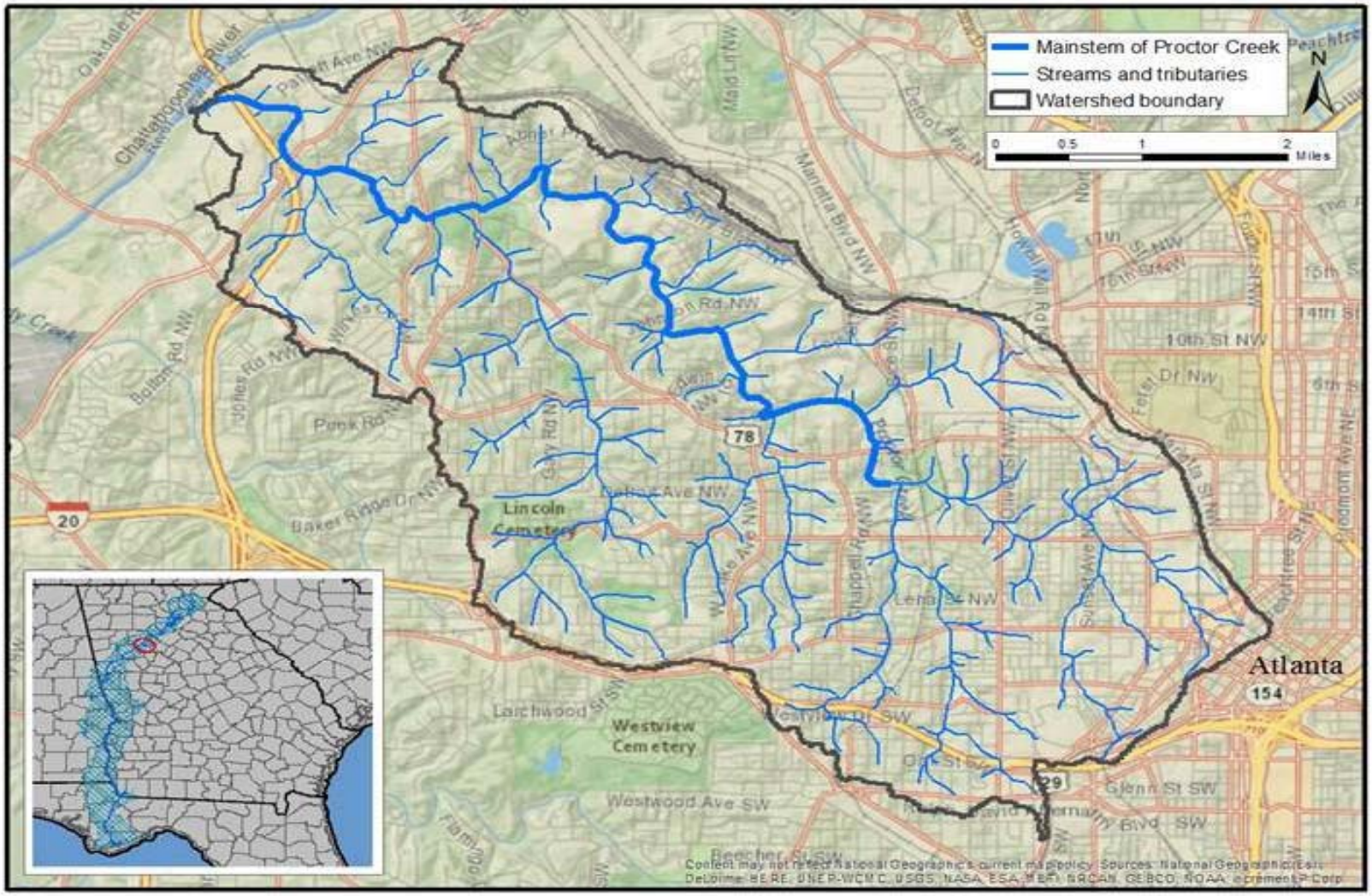
Tony Torrence, Community Improvement Association/Proctor Creek Stewardship Council

West Atlanta Watershed Alliance

Building a Cleaner, Greener, Healthier & More Sustainable West Atlanta


Proctor, Sandy, and Utoy Watersheds
PROCTOR CREEK
SANDY CREEK
UTOY CREEK
CHATTAHOOCHEE RIVER
I-20
I-285
Bankhead Hwy
James Jackson Pkwy
Simpson St
Martin L King Jr Dr
Factory Shoals Rd
Camp Creek Pkwy
Cascade Rd
New Hope Rd
Campbellton Rd
Lakewood Frwy
Lee St
Piedmont Ave
N
Major Roads
Interstates
Proctor Creek
Sandy Creek
Utoy Creek
Data Sources: EPA, Ga DNR/EPD, Ga DOT, USGS, USInfrastructure
1 0 1 2 3 Miles
USI

Setting the Local Context: The Proctor Creek Watershed



A Proctor Creek In Pe

Proctor Creek used to be a source of pride for West Atlanta communities – a place where children played, a place where people could fish, and a place where people were baptized.

Proctor Creek is now one of the most environmentally impaired creeks in metro Atlanta.

- Today, Proctor Creek is impacted by numerous pollution sources and does not meet state-mandated water quality requirements (including that for *E.coli*).
  - The creek does not meet its "designated use" for fishing (ARC, 2011; GA EPD, 2013)
  - A part of the watershed was identified as the #4 hotspot in a list of the top five (5) environmental justice hotspots in The Patterns of Pollution: A Report on Demographics and Pollution in Metro Atlanta (GreenLaw, 2012)

Proctor Creek and its Communities Have Numerous Challenges

The Stadium Effect

An Urban Waters Capacity-Building Grant Supported the Formation of the Proctor Creek Stewardship Council

- *Convened by WAWA*
- *Organized in Collaboration with Community Improvement Association and Environmental Community Action (Eco-Action)*

Proctor Creek Stewardship Council: *Our Motivation*

Watershed residents want to play a role in addressing environmental and human health hazards in the watershed.

The community is seeking to restore its vitality, health, and stability by leading community restoration efforts.

- We believe that **we can** clean up, protect and restore Proctor Creek for ourselves, our children, and our downstream neighbors.
- **We can** become informed and engaged community leaders to rollback pollution, and become advocates for the protection and restoration of the Proctor Creek Watershed.

An Abbreviated Chronology of Events

Pre-1995

COMMUNITY

1998

COMMUNITY

+

West Atlanta Watershed Alliance

• • •

HERCULES Exposome Research Center

Surfrider Foundation, Community-Building Coalition of NW Atlanta

park pride

GEORGIA STAND-UP

West Atlanta Watershed Alliance

ECO ACTION

Community Improvement Association

Environmental Resource Center

CDC

NATIONAL & COMMUNITY SERVICE

USDA

NIEHS

NOAA

CENTER FOR WATERSHED PROTECTION

COMMUNITY

2013-15

THE TRUST for PUBLIC LAND

LAND FOR PEOPLE

Georgia State University SCHOOL OF PUBLIC HEALTH

The Conservation Fund, Georgia Tech, The Path Foundation, Groundwork USA, Atlanta BeltLine, Inc., American Rivers, Clark Atlanta University, HELP.ORG, WALT, Morehouse College

Emerald Corridor Foundation

Spelman College

A Choice to Change the World

Proctor Creek Stewardship Council

wca westside communities alliance

Rivers Alive

CHATTAHOOCHEE RIVERKEEPER

Keeping Watch Over Our Waters

www.chattahoochee.org

The Proctor Creek "Comeback": Urban Waters Federal Partnership Designation (2013)

"Communities in and around the Proctor Creek Watershed have long suffered from pollution caused by Atlanta's aging sewer infrastructure, disinvestment in the urban core, illegal dumping and other environmental and public health hazards. **The strength of the Partnership will be realized through collaboration with residents who have assets, local knowledge, and a history of action focused on restoring the watershed."**

Guiding Principle of Authentic Community Engagement & Collaboration

PROCESS is just as important as results!

Citizens as “Scientists”

In recent years, citizen science in air and water quality monitoring and other community-based approaches have been used to address a wide range of health and environmental justice challenges in community settings (Downs et al, 2008)



Proctor Creek Watershed Photovice Project

The Proctor Creek Watershed Photovoice Project:

- Used a qualitative method, Photovoice to explore local community knowledge and community perceptions of environmental health risks, assets, and community strengths in the Proctor Creek Watershed
- Includes visual data captured through photographs taken by 10 Proctor Creek Watershed residents (Proctor Creek Watershed Researchers)
- Assisted watershed residents in using visual data to influence the development of policy recommendations and strategies to mitigate risks and build upon community assets as means to decrease potential vulnerabilities

What is Photovoice?

"Photovoice is a process by which people can identify, represent, and enhance their community through a specific photographic technique. It entrusts cameras to the hands of people to enable them to act as recorders, and potential catalysts for change in their own communities," (Wang & Burris, 1997).

Photovoice Goals

Goal 1: To enable people to record and reflect their community's strengths and concerns

Goal 2: To promote critical dialogue and knowledge about personal and community issues through large and small group discussions of photographs

Goal 3: To reach policy makers (Wang & Burris, 1997)

Applying Photovoice to the Proctor Creek Watershed helped to answer:

1. What are the environmental health issues facing watershed residents?
2. What are the broader social and economic conditions that contribute to these health issues?
3. How should we prioritize these health and socioeconomic issues?
4. What can we do to address these issues?

Photovoice: Methods

Use of Photovoice, a qualitative method

10 Proctor Creek Watershed Community Researchers

- Recruited through convenience and snowball sampling methods
  - Inclusion Criteria: 18 years of age and live in the Proctor Creek Watershed. The researchers represent each of the five major neighborhood planning units that comprise the Proctor Creek Watershed (NPUs: L,K, T, J & G)
- Study approved by the Georgia State University Institutional Review Board (IRB) in September
- Watershed Researchers trained in Photovoice method, photography and research ethics,
- Watershed Researchers completed 10 3-hour sessions over a 3-month period
- Watershed Researchers compensated at rate of $20/hr

Participatory Data Analysis: SHOWeD Technique

For each photograph selected, the researchers answered the following questions followed by summarization of emergent themes:

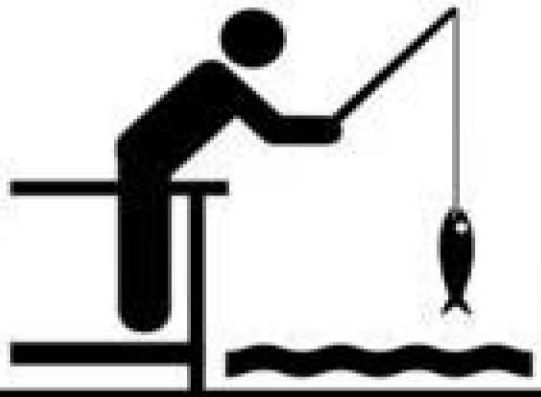
1. What do you **S**ee here?;
2. What is really **H**appening here?;
3. How does this relate to **O**ur lives?;
4. **W**hy does the problem exist?; and
5. What can we **D**o about it (i.e. How can we translate this knowledge into an action plan for change?

(Wang, 1999; Wang et al, 2004; Pies & Parathasrathy, 2008)

IF YOU GIVE SOME-ONE A FISH,

THEY EAT FOR A DAY.

IF YOU TEACH SOME-ONE TO FISH,



THEY CAN FEED THEM-SELVES UNTIL THE WATER IS CONTAMINATED OR THE SHORELINE IS SEIZED FOR DEVELOPMENT.

IF YOU TEACH SOMEONE TO THINK CRITICALLY AND BE POLITICALLY CONSCIOUS,

THEN WHATEVER THE CHALLENGE, THEY CAN ORGANIZE WITH THEIR PEERS AND STAND UP FOR THEIR INTERESTS.

Participatory Data Analysis: 3 Stages

The data analysis was supported by a three-stage process that includes:

1) **Selection:** *Each watershed researcher selected 10 photographs that they feel most accurately reflect the community's concerns and assets;*

2) **Contextualization:** *Watershed Researchers told stories about what their photographs meant in small groups as well as in a large group discussion; and*

3) **Codification:** *Watershed researchers identified the issues, themes, or theories that emerged from their individual and collective body of visual data.*

"Pictures, by creating a clear record of what exists at a particular point in time, can be used to hold policy makers and others accountable,"

(Community Toolbox, 2008).

The photograph is the undeniable, static record of the truth (Harper, 1994).

Mapping Community Knowledge of "Hidden Hazards"

The Proctor Creek Photomapping Project:

- Included the co-development and prioritization of meaningful street-level, neighborhood environmental health indicators that impact environmental quality and quality of life
- Utilized a participatory approach, participatory mapping to collect data:
  - Point locations, photographs, and attributes that correspond to the neighborhood-level environmental health indicators
- Allows residents to "speak the language of decision makers" and prioritize needed action in the Proctor Creek Watershed

"You can't see it if you're not looking for it…"

---Proctor Creek Watershed Researcher

Proctor Creek Photomapping: Methods

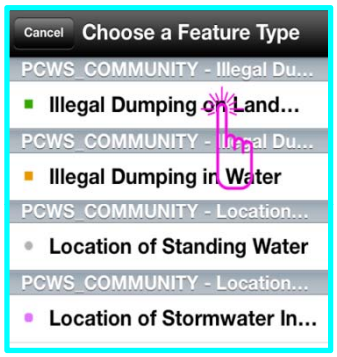
Proctor Creek Watershed researchers responded to the following questions about a map of the watershed displaying publicly available data about environmental hazards:

1. Did you know that the pollution sources displayed on the map exist in the watershed?;
2. How do these pollution sources align with community environmental health concerns in the watershed? (Are these the pollution sources that you and other watershed residents are concerned about?); and
3. Are there any types of pollution sources or other environmental hazards in the watershed that are missing from the map?

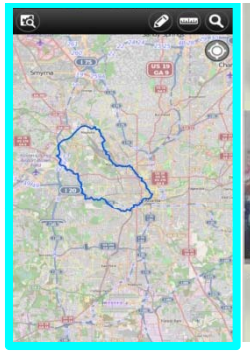
Street-level Neighborhood Environmental Health Indicators

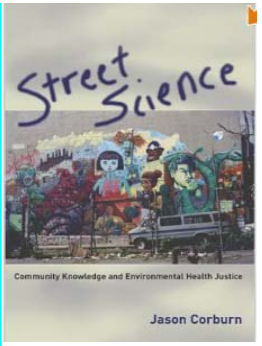
The Proctor Creek Watershed Researchers Selected the following Initial Indicators to Map in the field:

1. Location where there is often standing water/where water pools;
2. Locations where there is dumping (in Proctor Creek and its tributaries or on land in the Proctor Creek Watershed;
3. Locations where there is faulty stormwater infrastructure (clogged or collapsed storm drains, sinkholes/depressions caused by inadequate drainage)



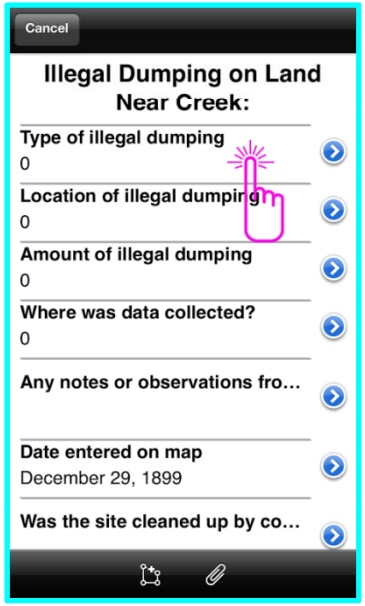
Data Collection

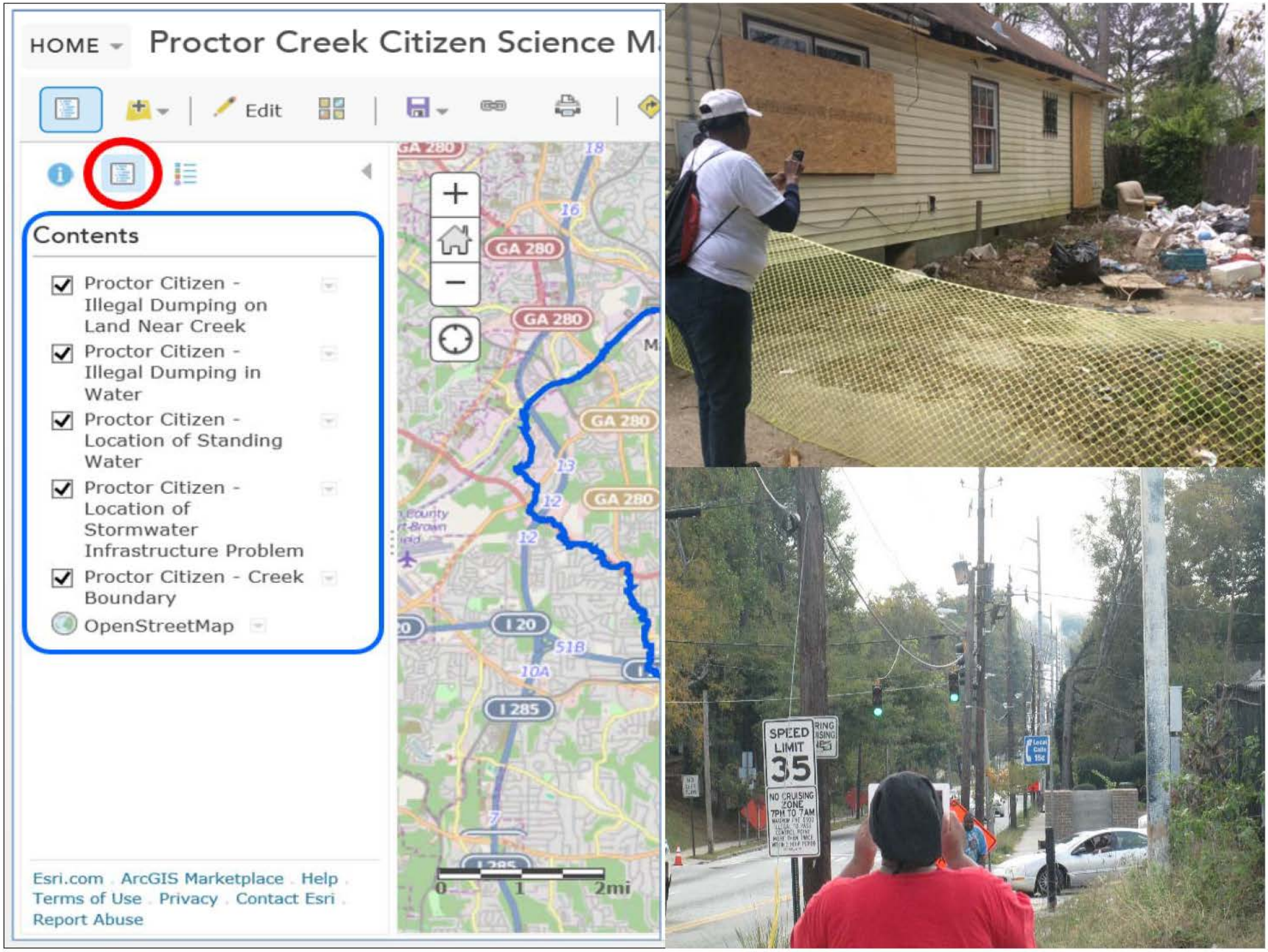




- Watershed researchers geocoded, and took photos of locations in the Proctor Creek Watershed that represent the agreed up environmental health indicators.
  - Use of ARC GIS Online Mobile App downloaded to smart phones and tablets
  - Technical assistance provided by Georgia State University Community Geography Course students

"Maps…convey a sense of authority," (Alcorn, 2000)




HOME
Proctor Creek Citizen Science M
Edit
Contents
Proctor Citizen - Illegal Dumping on Land Near Creek
Proctor Citizen - Illegal Dumping in Water
Proctor Citizen - Location of Standing Water
Proctor Citizen - Location of Stormwater Infrastructure Problem
Proctor Citizen - Creek Boundary
OpenStreetMap
Esri.com . ArcGIS Marketplace . Help .
Terms of Use . Privacy . Contact Esri .
Report Abuse
GA 280
I 20
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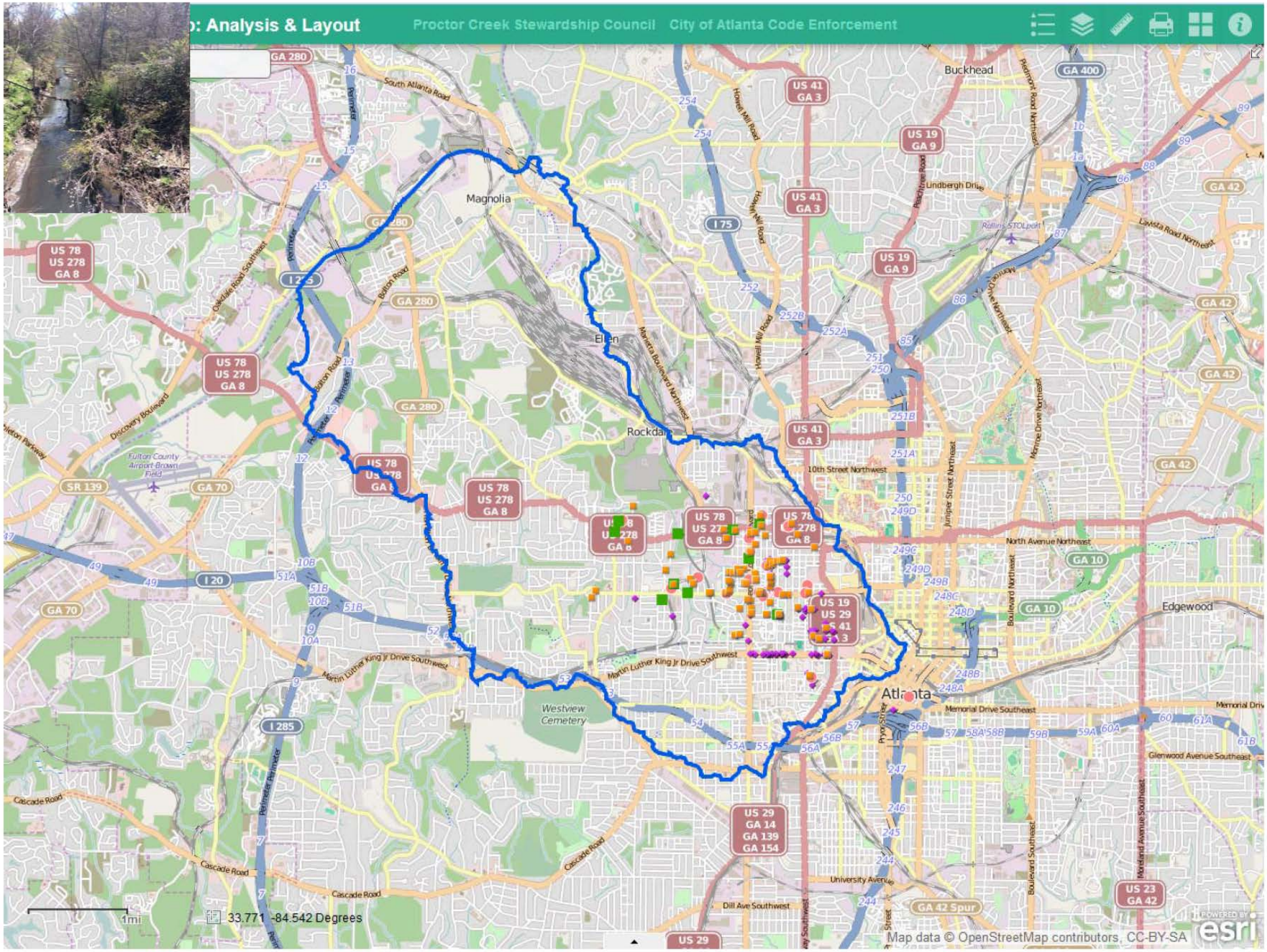
SPEED LIMIT 35
NO CRUISING ZONE 7PM TO 7AM


: Analysis & Layout
Proctor Creek Stewardship Council
City of Atlanta Code Enforcement
Magnolia
Ellen
Rockdale
Buckhead
Atlanta
Edgewood
Westview Cemetery
Fulton County Airport-Brown Field
Rollins STOLport
GA 280
US 78 US 278 GA 8
US 41 GA 3
US 19 GA 9
I 75
I 20
I 285
GA 400
GA 42
GA 70
SR 139
GA 10
US 29 GA 14 GA 139 GA 154
US 23 GA 42
GA 42 Spur
South Atlanta Road
Howell Mill Road
Peachtree Road
Lindbergh Drive
LaVista Road Northeast
Bolton Road
Perimeter
Oakdale Road Southeast
Discovery Boulevard
Marietta Boulevard Northwest
10th Street Northwest
Juniper Street Northeast
Monroe Drive Northeast
North Avenue Northeast
Boulevard Northeast
Martin Luther King Jr Drive Southwest
Memorial Drive Southeast
Glenwood Avenue Southeast
Cascade Road
University Avenue
Dill Ave Southwest
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33.771 -84.542 Degrees
Map data © OpenStreetMap contributors, CC-BY-SA
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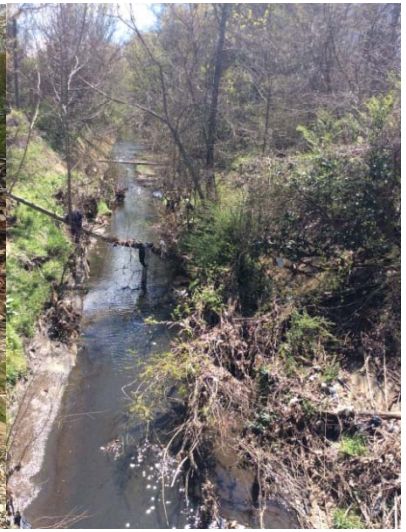
Examples of Data Collected

Standing Water

Stormwater Infrastructure Problems

Illegal Dumping on Land



Illegal Dumping in Water

Community Monitoring & Enforcement Success Story

http://www.wsbtv.com/videos/news/help-may-me-on-the-way-to-clean-up-proctor-creek/vCgc4s/

Community Investigation Leads to DWM Action

72 MARIETTA STREET • 7TH FLOOR • ATLANTA, GEORGIA 30303

Kasim Reed
Mayor

Jo Ann J. Macrina, PE
Commissioner

Scheree Rawles, Director, Communications & Community Relations
Office: 404-546-3200 Cell: 404-971-8899

Press Release

Community Investigation Leads to DWM Action

ATLANTA – The City of Atlanta Department of Watershed Management (DWM) completed a cleanup of illegally dumped tires along Proctor Creek last month. DWM was notified of the abandoned tires by a letter sent to the U.S. Environmental Protection Agency (EPA) from representatives of the Proctor Creek Stewardship Council, Shaheed DuBois and Tony Torrence. The tires have the potential to pose a health risk to the community from increased mosquito breeding habitat and harboring areas for wildlife such as snakes and rodents.

After receiving the notice, DWM sent inspectors and environmental specialists to assess the situation. City staff discovered that more than 5,000 tires were dumped along the sewer easement on property owned by Watershed Management, the Atlanta Housing Authority and the Department of Planning and Community Development.

Crews were able to remove over 20 dump truck loads of tires and other debris in one day. Tires will be delivered to a recycling center and turned into beneficial products. Restoration of the area was completed the following day and additional security measures are being implemented.

There is Value in Local Knowledge

"…local knowledge, inquiry, and organizing can extend the reach and refine the focus of established professional expertise." —John Forester, Professor, Department of City and Regional Planning, Cornell University

"Like a well-informed and motivated patient, a community that actively investigates local health conditions can contribute greatly to better outcomes. But this is a messy and imprecise process, one that is as much about democracy as it is about wellness." In recognizing, "…the value of local knowledge [we] sharpen our understanding of how community residents and health professionals can collaborate effectively to seek a second opinion." —Don Chen, Executive Director, *Smart Growth America*

"You'd be surprised at the knowledge walking that street." -----Juanita Wallace, Resident and Public Safety Chair - English Avenue Neighborhood Association (Atlanta, GA/Proctor Creek Watershed)

Participant Exercises (Small Groups)

A) Identify One Citizen Science opportunity in Your Community;

B) Identify Community Assets on which this opportunity can be built;

C) Identify Non-Community Resources that can be leveraged to advance Community/Citizen Science Efforts;

D) Let's share!


ANSWERS
QUESTIONS