

Democratizing Geospatial Technology:

A Model for Providing Technical Assistance in Community Based Participatory Mapping to Environmental Justice Stakeholder Communities

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David Padgett leading a Deep South Center for Environmental Justice community asset mapping training in Gulfport, MS. Credit: Deep South Center for Environmental Justice.

Activate Windows
Go to PC settings



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“Democratizing Geospatial Technology” Project Goals



The EthicalGEO Fellowship funds will be used to support our Gulf Coast Equity Consortium Community Based Organization (CBO) partners' community mapping objectives (assets, disamenities, EJ SCREEN, etc). Through a collaborative effort, we will develop the main project deliverable - a replicable community-based participatory mapping tutorial for environmental justice stakeholders. The tutorial will be designed to be customized to meet the specific needs of communities in the US and abroad.



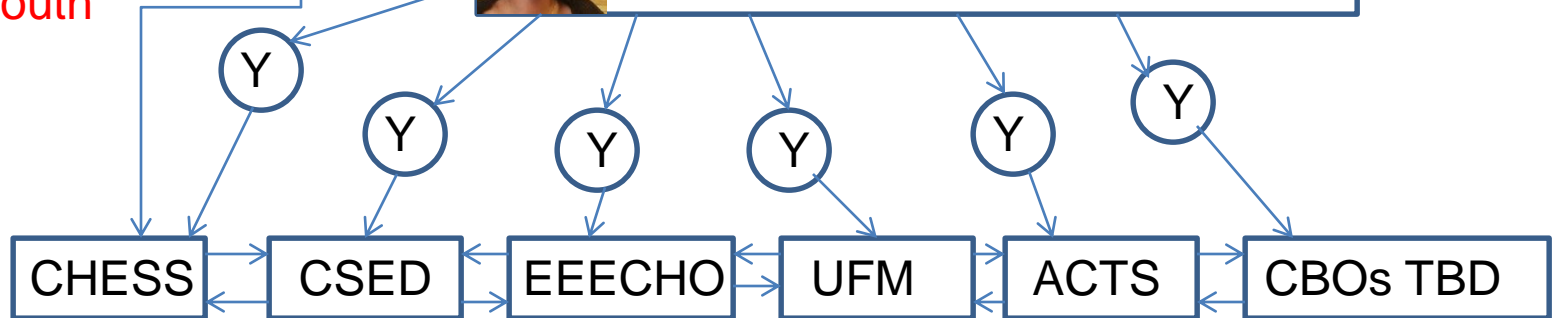
EthicalGEO “Democratizing Geospatial Technology” Project Activities to Date

Project Framework



Ms. Olivia Harbison, Project
Manager and Mapping Liaison

Y = Community
Based
Organization
(CBO) Youth
Mapper



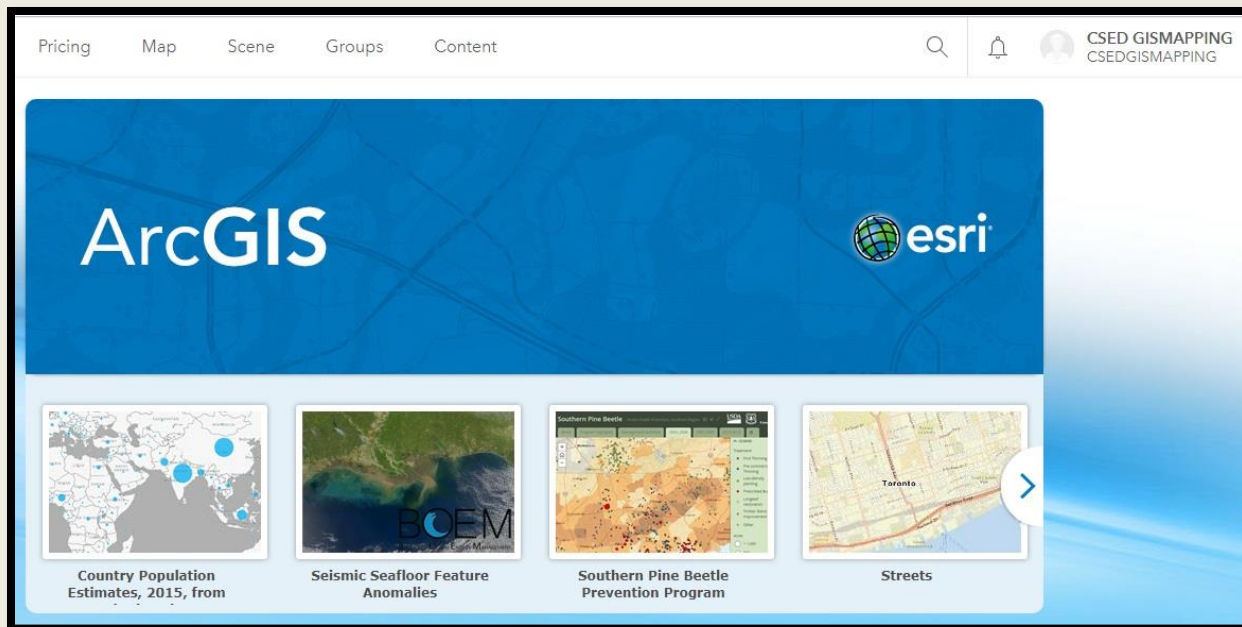
HBCU Gulf Coast Equity Consortium CBOs - Clean Healthy Educated Safe and Sustainable (**CHESS**), Mobile, AL; Lower Ninth Ward Center for Sustainable Engagement and Development (**CSED**), New Orleans, LA; Education, Economics, Environmental Climate, and Health Organization (**EEEECHO**), Gulfport, MS; Unity in the Family Ministry (**UFM**), Pensacola, FL; Achieving Community Tasks Successfully (**ACTS**), Houston, TX

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“Democratizing Geospatial Technology”

Supplies and Technical Assistance for Community Based Organizations

- ArcGIS Online – Organizational Licenses
- GARMIN GPS 78 Handheld Receivers
- Youth Mappers – selected by CBOs



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“Democratizing Geospatial Technology”

Geographic information systems (GIS) workshops at
Community Based
Organization Sites



Collectively Defining “Community Assets”

What are the good land uses in our community?

How can we replicate such good land uses?

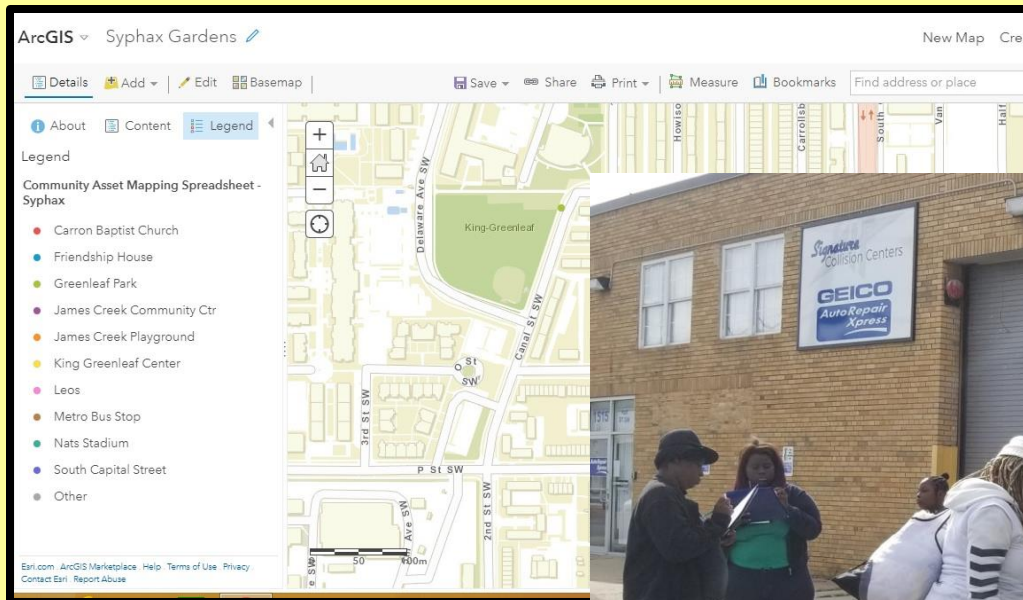
Are there land uses that we might see as negative that could represent opportunities?



Community Asset Mapping Training: Buzzard Point Neighborhood – Washington, DC

“No Tech” Community Walk Throughs

Mental mapping exercise during which community stakeholders determine the objectives and goals of the community asset mapping project. Locations of desirable land uses are identified without global positioning systems (GPS) or geographic information systems (GIS) support.



Community Asset Mapping Training: Buzzard Point Neighborhood – Washington, DC

Vacant/Under-Utilized Property in an Urban Community – Nashville, TN

Asset or Eyesore?



Vacant/Under-Utilized Property in an Urban Community – Nashville, TN

Asset or Eyesore?



Case Study 1: Lower Ninth Ward Community – New Orleans, Louisiana

Community Asset Mapping Data Collection Sheet

Name of Person Collecting Data CSED Date WEDNESDAY, MAY 29, 2019
 Geographic Area Covered _____ GPS Unit Brand/Model Number _____
 Datum _____ GPS Unit Serial Number _____

SPECIFIC NAME OF ASSET	GENERAL ASSET DESCRIPTION (Minority-Owned Business, Historical Site, Public Transit, Large Chain Business, Greenspace, Physical Activity, Food, Anchor Institution, Healthcare Facility, Vacant Property, Under-used Property, Other)	ADDRESS/NEAREST INTERSECTION/GENERAL LOCATION	LATITUDE	LONGITUDE	TIME	NUMBER OF SATELLITES	LOG NUMBER
Sanchez Center	Physical Activity	5501 N.Claiborne	29.9671762	90.0139218	8:43a		1101
MLK Elementary School	School	1611 Caffin Avenue	29.9663296	90.0140454	8:48a		1102
Groundworks Rain Garden	Greenspace Park	1901 Caffin Avenue	29.9694589	90.0130669	8:51a		1103
Bayou Bienvenue Wetland Triangle Observation Deck	Greenspace Park	5595 Florida Avenue	29.9777335	90.0104519	8:59a		1104
Environmental Learning & Research Center at CSED	Education Learning Center	5600 Florida Avenue	29.9774588	90.099572	9:04a		1105
Bush Playground	Recreation	2600 Lamanche Street	29.9765317	90.0100887	9:10a		1106



Sheet-Sea Rise Project-Lower 9th Ward Flood Control

Date 6-23-2019
 GPS Unit Brand/Model Number Android BTE
 GPS Unit Serial Number _____

DESCRIPTION	ADDRESS/NEAREST INTERSECTION/GENERAL LOCATION	LATITUDE	LONGITUDE	TIME	NUMBER OF SATELLITES	LOG NUMBER
sludge	4900 Block of Urguhart	29.9649337	-90.0225195			
Reynes	5000 Block of Urguhart	29.9649337	-90.0225195	12:01pm		
ed	5000 Block of Urguhart	29.9649337	-90.0225195	12:02pm		
Reynes	5000 Block of Urguhart	29.9649337	-90.0225195	12:03pm		
nessie	5000 Block of Urguhart	29.9649337	-90.0225195	12:04pm		
nessie	5000 Block of Urguhart	29.9649337	-90.0225195	12:05pm		
fall	5014 Urguhart	29.9649337	-90.0225195	12:06pm		
fall	5013 Urguhart	29.9649337	-90.0225195	12:07pm		
	5014 Urguhart	29.9649337	-90.0225195	12:08pm		
	5013 Urguhart	29.9649337	-90.0225195	12:09pm		
	5100 Urguhart	29.9649337	-90.0225195	12:10pm		
	5100 Urguhart	29.9649337	-90.0225195	12:11pm		
	5100 Urguhart	29.9649337	-90.0225195	12:12pm		

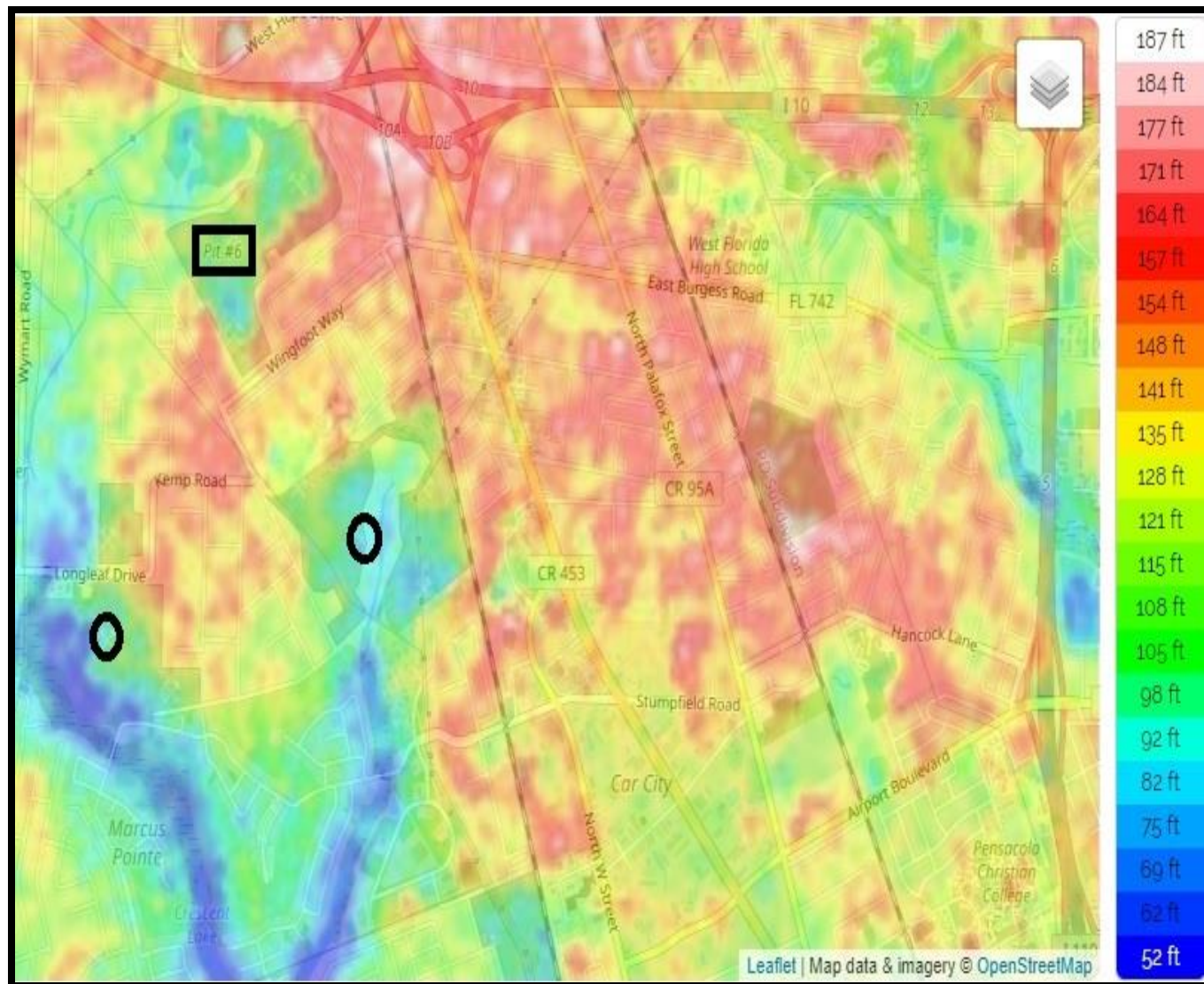
Catch Basin	Not Cleaned
Catch Basin	Forstall + Reynes
Catch Basin	Not Cleaned
Catch Basin	Forstall + Reynes
Catch Basin	Not Cleaned
Catch Basin	Forstall + Lizardi
Catch Basin	Not Cleaned
Catch Basin	Forstall + Lizardi
Catch Basin	Not Cleaned
Catch Basin	Lizardi + Forstall
Catch Basin	Not Cleaned
Catch Basin	Lizardi + Forstall

Summer 2019 – “Youth Mappers” in the Lower Ninth Ward Community are using asset mapping in support of community-based flood mitigation efforts.

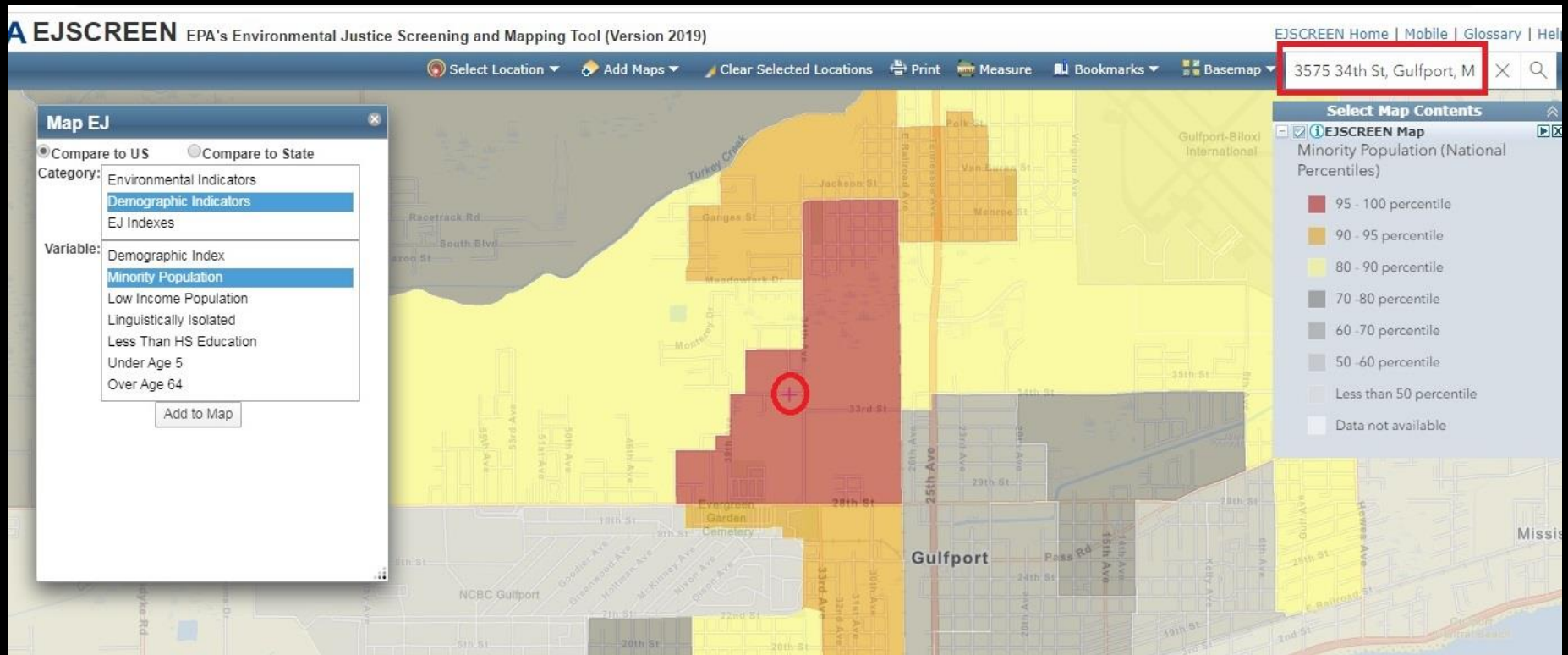
Case Study 2: Wedgewood Community Pensacola, Florida

Fall 2019 -Wedgewood Community stakeholders presented this and other maps at a County Commission meeting to successfully block plans to construct a four-lane highway through their neighborhood.

Source: Topographic-map.com

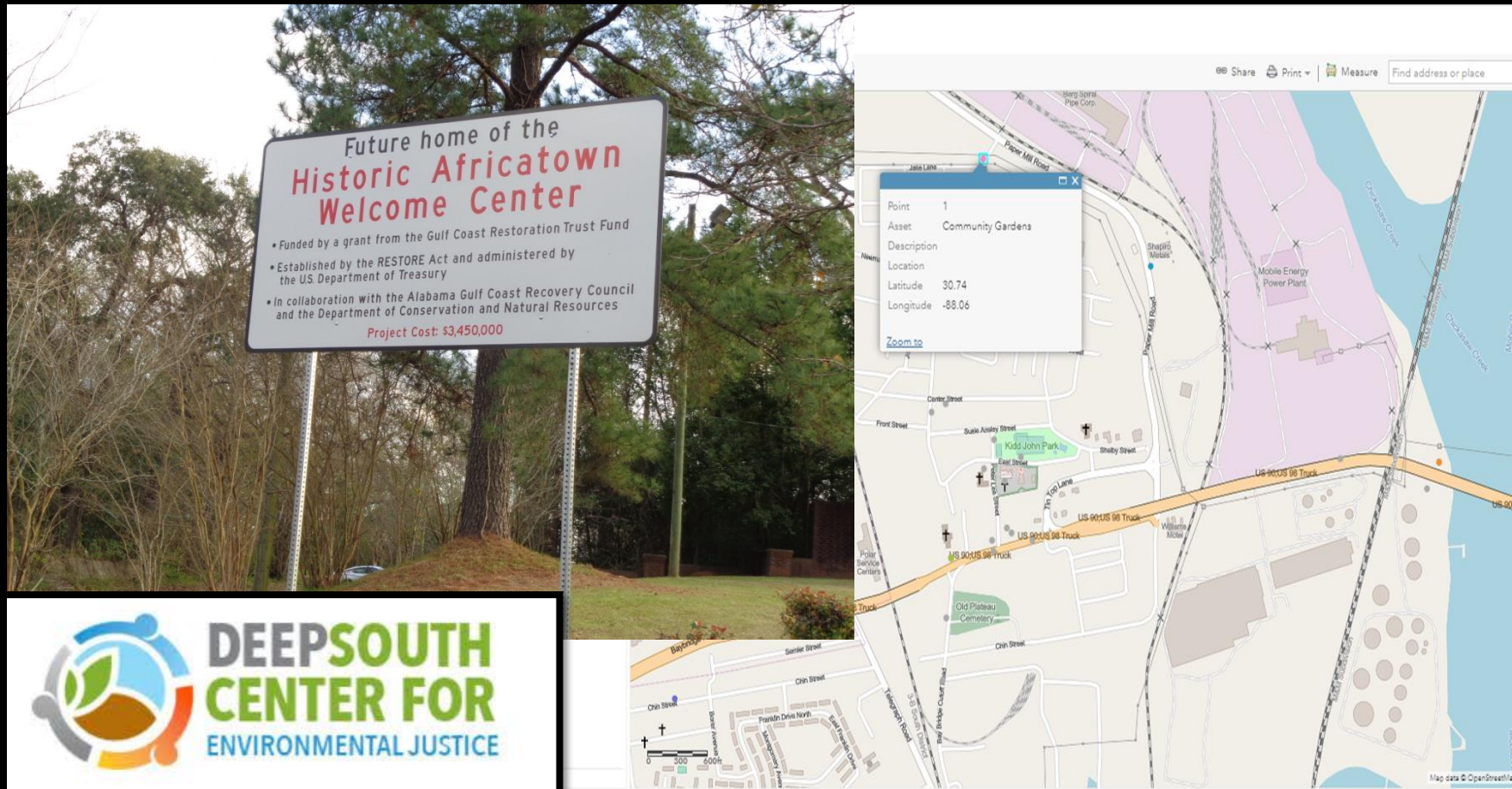


Case Study 3: Turkey Creek Community Gulfport, Mississippi



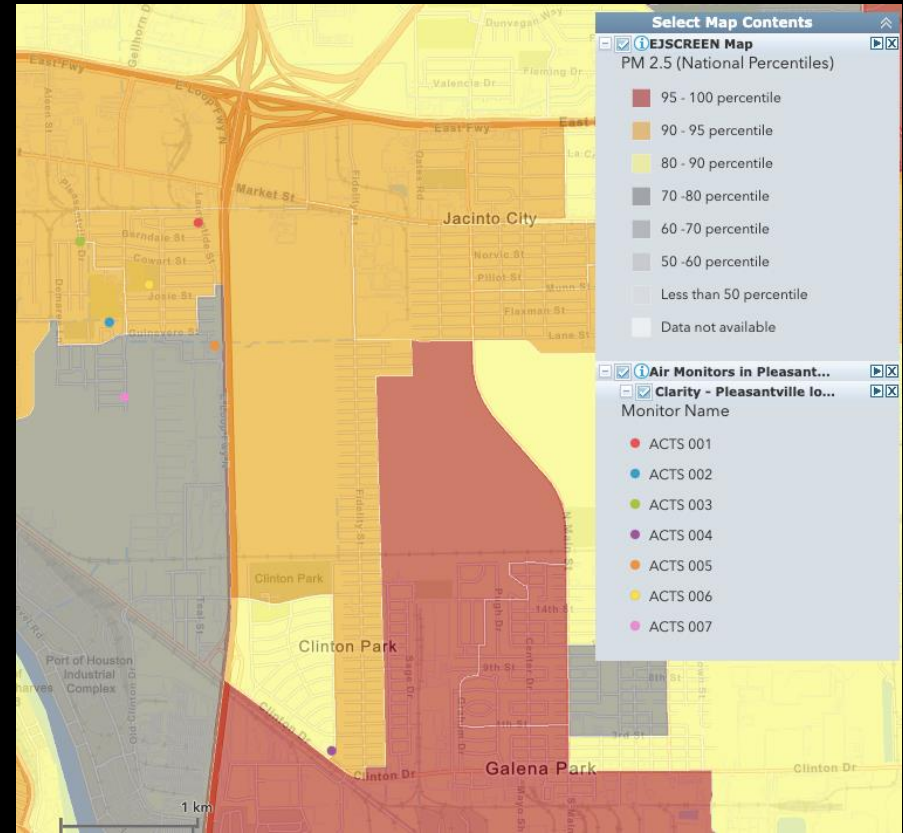
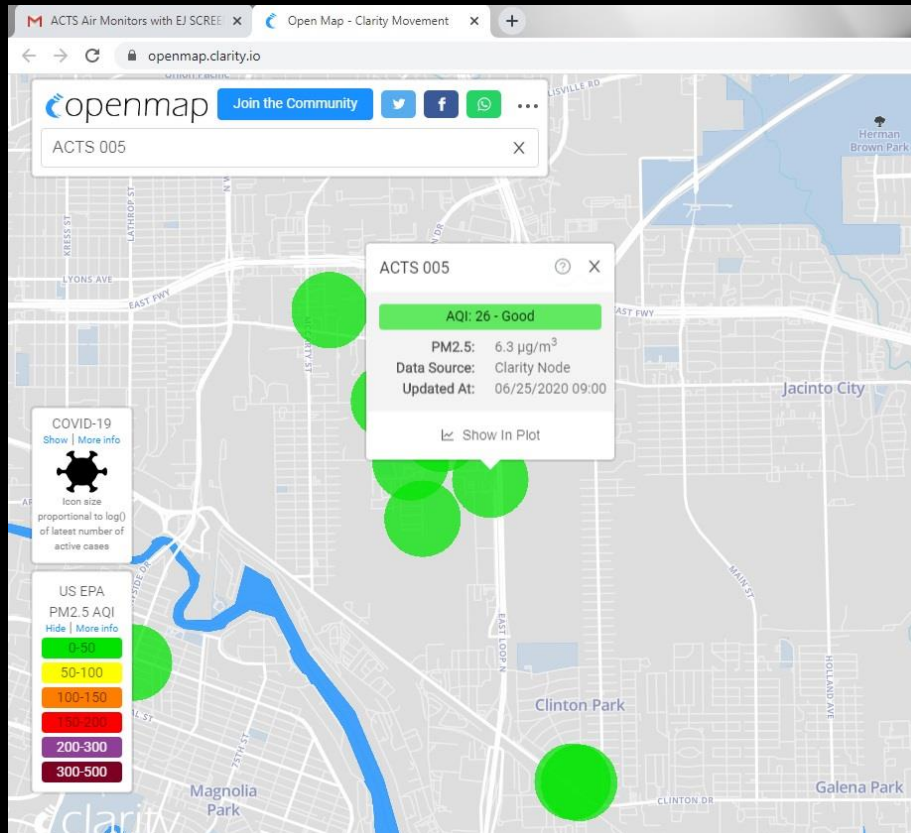
Summer 2020 - The Historical Turkey Creek Community is using GIS maps in support of a legal fight against the planned “North Port Property” development (symbolized by the **red circle**). Out-dated zoning codes designate the community as “Industrial” versus “Residential.”

Case Study 4 - Community Asset Mapping with ArcGIS: Africatown Community – Mobile, Alabama



Summer 2020 – The 2019 finding of the Clotilda, the last ship known to have illegally transported Africans from Africa to the US in 1860, has brought major attention to the Africatown Community. Stakeholders are using GIS to retain control of their local history, culture, and community assets.

Case Study 5: Pleasantville Community Houston, Texas



Summer 2020 – The Pleasantville Community was awarded a grant from the Environmental Defense Fund to locate air quality monitors in their neighborhood and environs. Particulate Matter (PM 2.5) and other criteria air pollutant measurements are available in real time on an online map portal (above left). Air monitor locations are layered onto EJ SCREEN maps to assess relative exposure risks.

Case Study 6: Historic Overtown Community

Miami, Florida



Asset Collection Sheet

GPS Unit Brand/Model
GPS Unit Serial Number

GENERAL ASSET DESCRIPTION Minority-Owned Business, Historical Site, Public Transit, Large Chain Business, Greenspace, Physical Activity, Food, Anchor Institution, Healthcare Facility, Vacant Property, Under-used Property, Other)	ADDRESS/NEAREST INTERSECTION/GENERAL LOCATION
MINORITY-OWNED EMPLOYER	155 NW 6th St
GREENSPACE	NW 2nd Ave & NW 6th St
ARTS	NW 2nd Ave & NW 8th St
HISTORIC SITE	NW 9th St & NW 2nd Ave
HISTORIC SITE	" "

VACANT LOT	VACANT PROPERTY	NW 9th St & NW 3rd Ave	25.78262	-80.19961	836	
MT ZION MISSIONARY BAPTIST CHURCH	FAITH BASED	31 NW 9th St	25.78277	-80.19965	837	
OPKS CHURCH	BUSINESS INCUBATOR	939 NW 3rd Ave	25.78336	-80.19972	810	
JACKSON SOUL FOOD	BOB	950 NW 3rd Ave	25.78353	-80.19966	8142	
JOSEPHINE D.B.	BOB	1028 NW 3rd Ave	25.78414	-80.19978	814	
EBENEZER NATURAL WATER	BOB	1636 NW 3rd Ave	25.78423	-80.19978	814	

Historic Overtown StoryMap Tour

Overtown is one of Miami's oldest continuously populated neighborhoods, coming in second only to Coconut Grove. Many people don't know that Overtown's founding was a direct result of the Jim Crow Laws, which segregation into practice in a number of ways, including the establishment of specific neighborhoods for African-American residents. Initially built to serve as a home for African-American railroad workers employed by Henry Flagler, over the decades, Overtown evolved into a hub for African-American culture, music, and business. By the 1950s, the Overtown neighborhood was considered a Miami hotspot, famous for its nightlife.

Historic Lyric Theatre

Founded and constructed by Georgia native, Geder Walker, in the year 1913, this historic theater has welcomed a star-studded list of cultural icons to its stage. Among the performers who have had audiences at the Lyric Theater are Billie Holiday, Sammie Davis Jr., Count Basie, Louis Armstrong and Josephine Baker. The Lyric Theater is part of The Black Archives. (<https://www.bahf.org/the-black-archives>) which also owns and operates an array of other important historic landmarks in and around the area. Events at the theater are ever-changing, featuring a variety of cultural and art experiences including the monthly Lyric Live, which showcases local talents in a one-of-a-kind interactive performance event.

<https://www.miamilandbeaches.com/things-to-do/history-and-heritage/18-historic-sites-in-miamis-overtown>

Historic Lyric Theatre

Overtown Performing Arts Center

Doris A. Dorsey House

Ward Rooming House

Greater Bethel AME Church

Fokite Village

Historic Black Police Precinct & Courthouse Museum

Jackson Soul Food

Fall 2019 - Spring 2020 – Members of GirlTrek (<https://www.girltrek.org/>), representing the Historic Overtown Community, participated in an asset mapping workshop in the fall of 2019, that evolved into the development of the “Historical Overtown StoryMap Tour” in spring 2020. The online map is being used to protect significant Black historical properties from being lost to gentrification, and in support of “heritage tourism.”

Additional Information

Deep South Center for Environmental Justice

<http://dscej.org/>

EthicalGEO

<https://ethicalgeo.org/>

Catalyst Miami

<https://arcg.is/1fSDLL>

Near Buzzard Point Resilient Action Committee

<https://www.facebook.com/NeRAC/>

Historic Overtown Community Story Map

<https://arcg.is/5WWG4>

Wedgewood Community Hydrological Assessment Map

<https://arcg.is/1fSDLL>

Tennessee State University Geographic Information Sciences Laboratory

<https://twitter.com/TSUGIScLab>



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