



Using Mapping Technology to Support Municipal Decision Making

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League of Municipalities Annual Meeting

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CUES PROJECTS

& NJ Population Density
By Census Tract (2010)

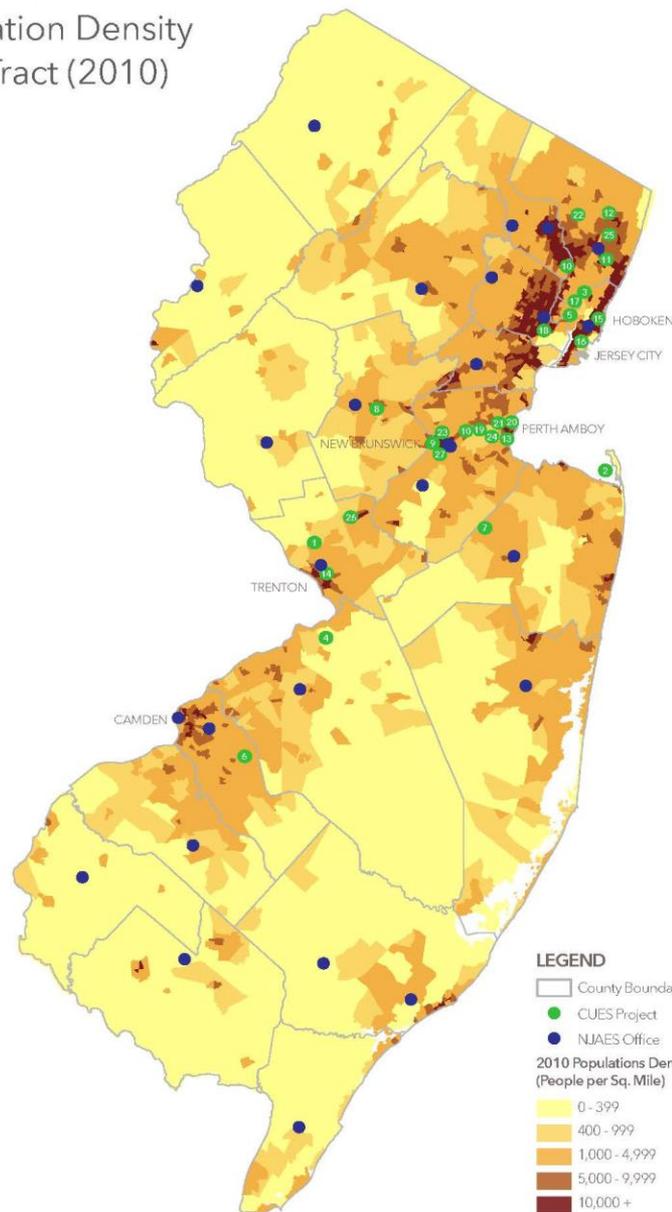
CUES Mission

- Support public decision making and policy development
- Provide scientific research and design expertise
- Educational opportunities

Urban Focus

Project Goal:
Cost Effective, Accurate Data
Collection to Support Public
Policy/Decisions

- 1 CUES-Sustainable Jersey Brownfields Task Force
- 2 Hudson-Raritan Estuary Oyster Reintroduction & Living Shoreline
- 3 Meadowlands District Stormwater Management
- 4 Burlington County Rioreactor Landfill
- 5 Kearny Marsh Freshwater Wetland Restoration
- 6 Voorhees Environmental Park
- 7 Westen Monmouth Utilities Authority Reed Bed Sludge Disposal
- 8 Wetland Design Plan for Somerville Station Area and Landfill Redevelopment
- 9 New Brunswick Urban Gardening
- 10 Microplastic Research in the Passaic and Raritan Rivers
- 11 Teaneck Creek Conservancy Wetland Restoration
- 12 Hackensack Water Works Adaptive Re-Use
- 13 Perth Amboy 2nd Street Park
- 14 Re-Use of Abandoned Properties for Healthy Food Options in Trenton, NJ
- 15 Hoboken Block By Block
- 16 Jersey City Environmental Resource Inventory (ERI)
- 17 Meadowlands Leachate Recovery
- 18 Newark NJ South Street Improvement Project
- 19 Sustainable Raritan River Initiative
- 20 Perth Amboy NJ - Rudyk Park
- 21 Perth Amboy Brownfields Inventory
- 22 Bergen County Parks Master Plan
- 23 New Brunswick Parks Action Plan
- 24 Perth Amboy Healthy Community Plan
- 25 Northern New Jersey Community Foundation
- 26 Drumthwacket Inventory & Master Plan
- 27 Feaster Park Redevelopment



LEGEND

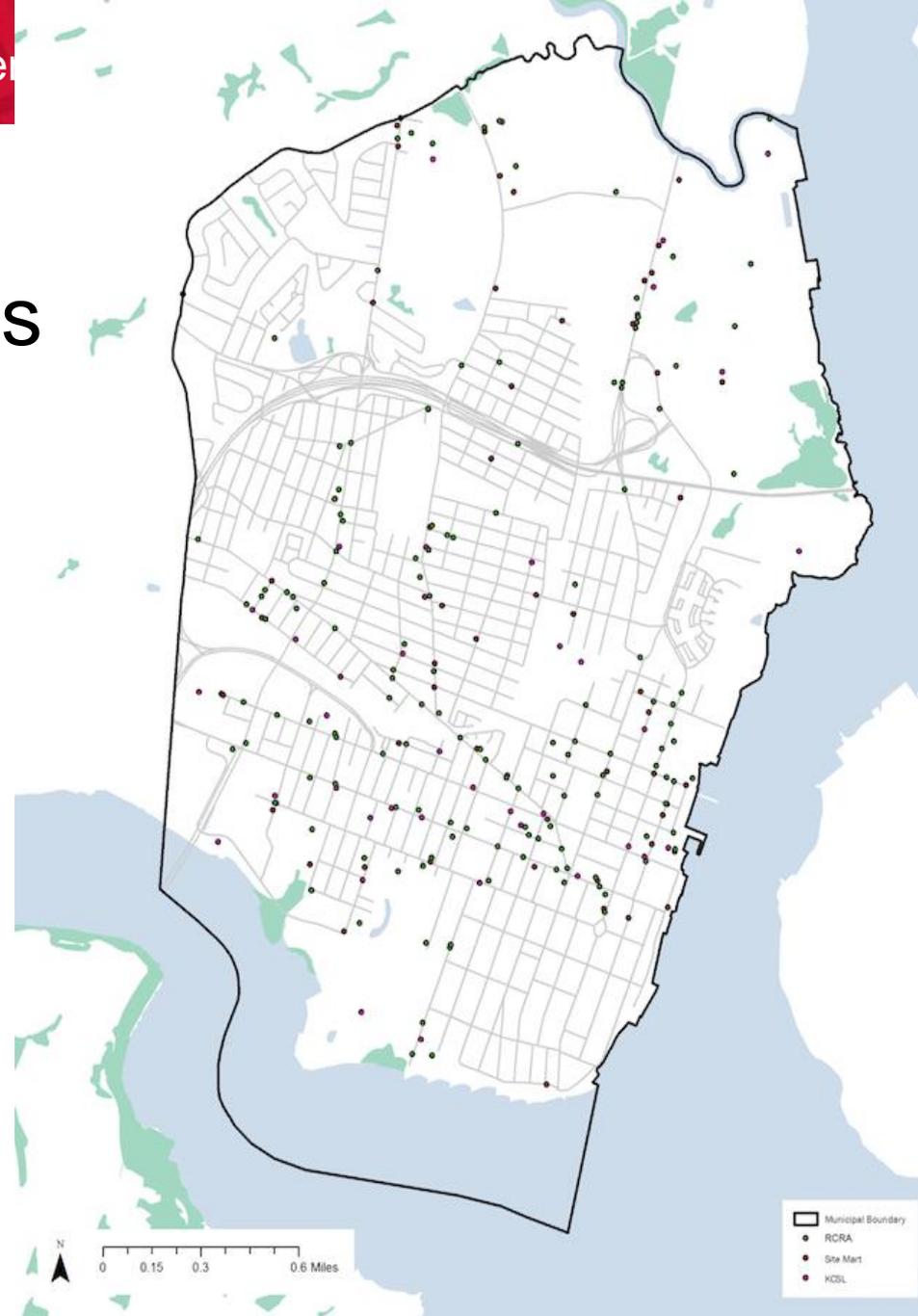
- County Boundary
- CUES Project
- NJAES Office

2010 Populations Density (People per Sq. Mile)

- 0 - 399
- 400 - 999
- 1,000 - 4,999
- 5,000 - 9,999
- 10,000 +

Mapping Perth Amboy Contaminated Properties

- RCRA – USEPA
- KCSL Data - NJDEP
- DataMiner – NJDEP
- Middlesex County Data
- City of Perth Amboy Data



Potential Contamination?



Parcel Data –Field Work

- Neighborhood by neighborhood

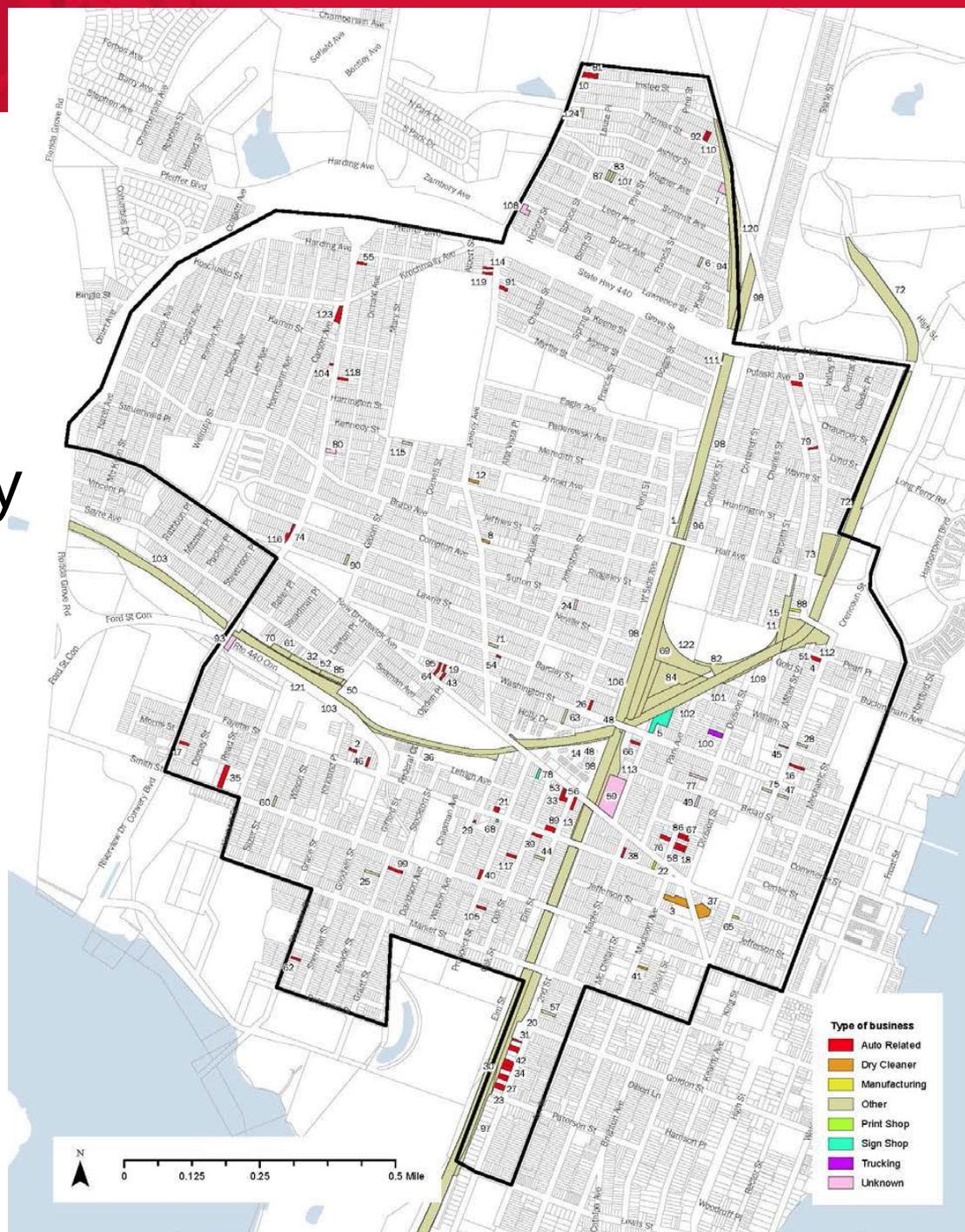


Area
2,536 sq ft

- 7. If on EPA RCRA, is the address and name accurately listed i... >
- RCRA Correction >
- 8. If on Site Mart, Is the site ID, address, and name accurately... >
- Site Mart Correction >
- 9. If on KCSL, is the address and name accurately listed in the... >
- KCSL Correction >
- 10. Is there a sign listing an LSRP? >
- 11. If #9 is Yes, what is the name of the LSRP? >
- 13. Is there a structure on the site? >
- 12. If #9 is Yes, what is the DEP PI number? >
- 14. If #13 is Yes, Existing Site Conditions – Boarded up windo... >
- 15. If #13 is Yes, Existing Site Conditions – Exposed wires/str... >
- 16. Existing Site Conditions – Weeds 2 ft or taller >
- 17. Existing Site Conditions - Shrubs >

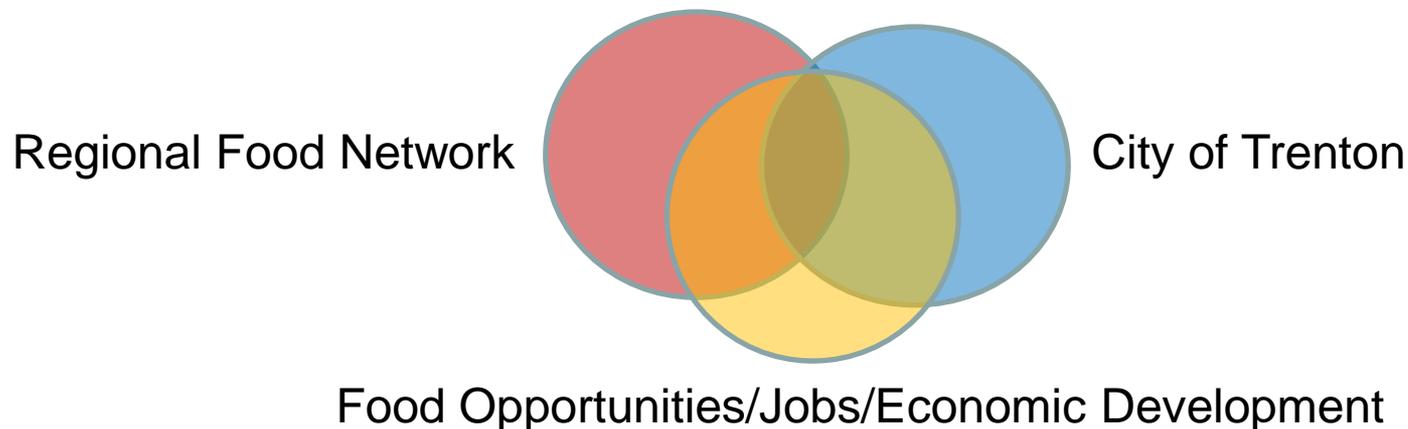


Identified Perth Amboy Unlisted, but Potentially Contaminated Sites



Mapping Trenton Abandoned Properties

- 80,000 Residents
- 2 Supermarket/Grocery Stores
- Unknown Food Assets
- Large Inventory of Vacant/Abandoned Properties
 - Opportunity for reinvestment, healthy food options, and job creation
- Project Partners: Rutgers CUES, ISLES, Inc., City of Trenton



Property Analysis

- Identify Abandoned Properties with ***conversion potential***
 - Commercial Businesses
 - Residences
 - Food Related Uses – Fresh food businesses, Food transportation, Community Gardens, Other

Vacant/Abandoned Property \longleftrightarrow Food Investment Opportunities
Where are the matches?



Physical Criteria for “Abandoned Property”



Cancel [Settings Icon] [Map Icon] Submit

Location
 Lat: 40.199101° Long: -74.753240° [Info Icon]

VACANT BUILDING: VACANT BUILDING

ACTIVE CONSTRUCTION / DEMOLITION >

FOR RENT / FOR SALE SIGNS >

VISIBLY UNSECURED >

ANIMALS VISIBLY PRESENT >

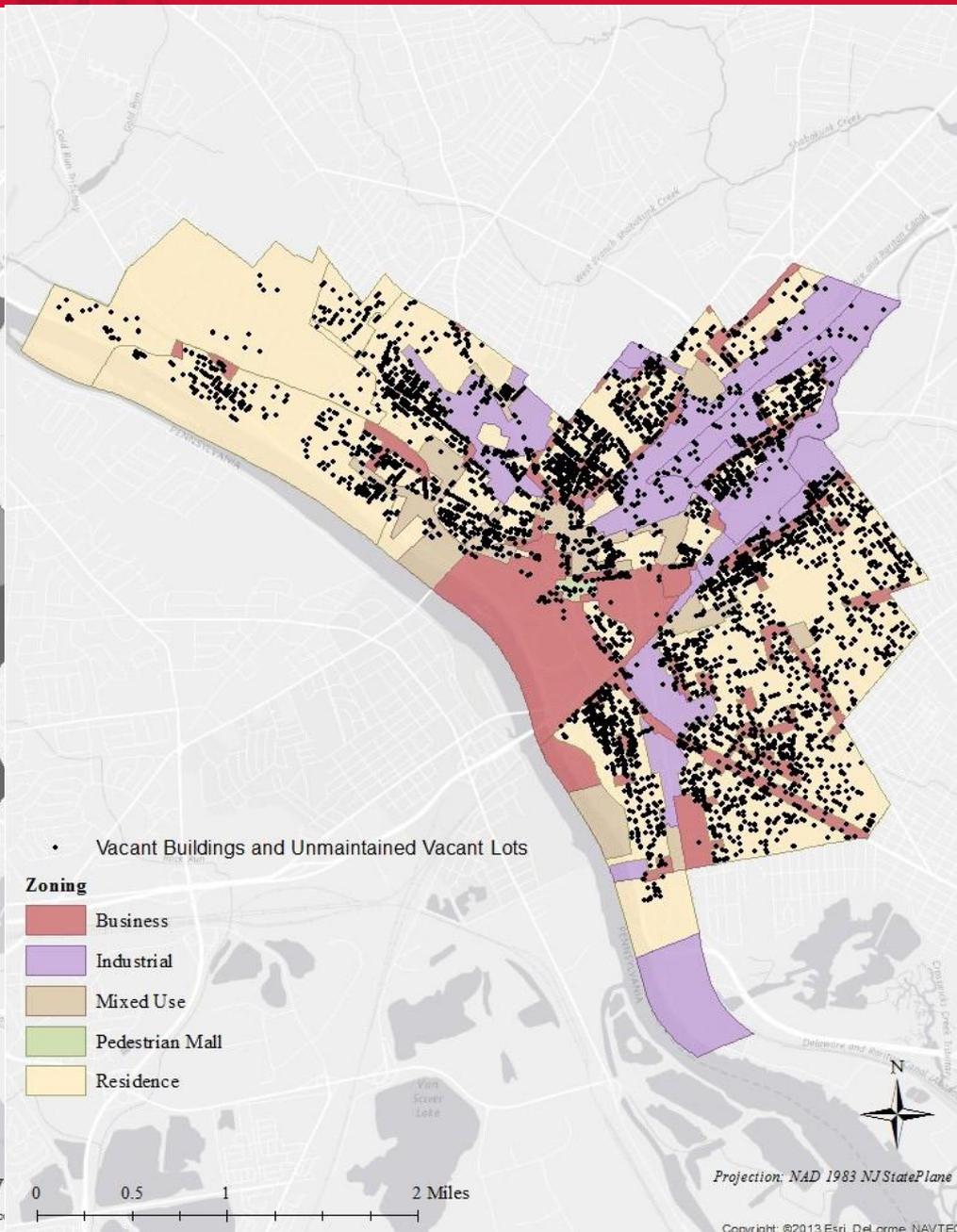
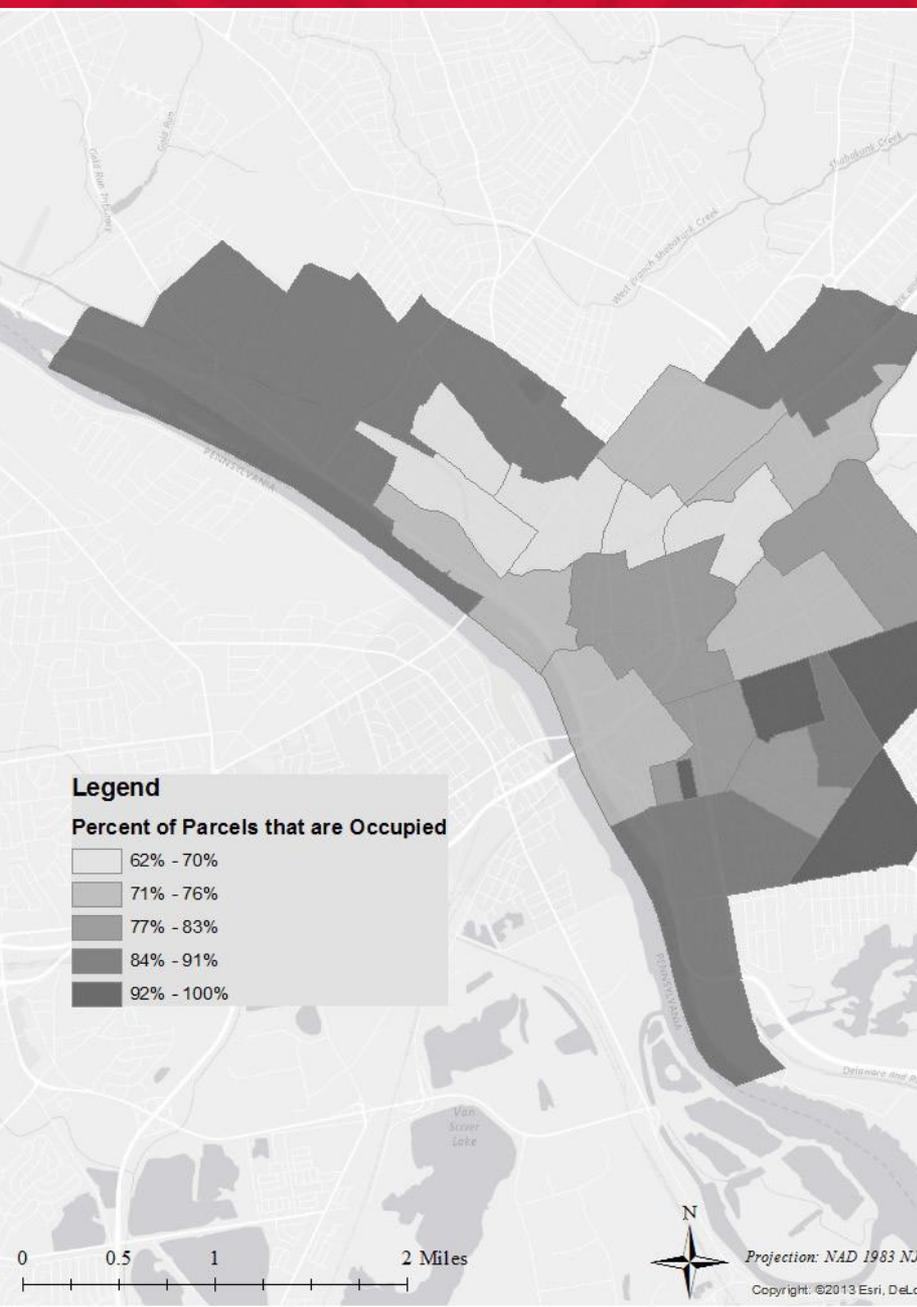
ARE THERE [X]S? >

REHABILITATION NEEDED? >

DUMPING >

TRASH >

NOTES >





By the numbers

14 Student interns

9 Smartphones

7 weeks of data collection

31,161 parcels surveyed @ a cost of **\$.80/parcel**

Field Verified GIS Data

- Updated database files
- GIS files
- Maps showing various property attributes
- Low cost (\$.75 – \$.80 per parcel surveyed)
- Policies developed based on accurate data

References:

Drake et al. (2015). *Urban Greening supported by GIS: from data collection to policy implementation*. *AIMS Environmental Science* 2(4):910 – 934.

Drake et al. (2016). *Developing a vacant land inventory through productive partnerships: A university, NGO, and municipal planning collaboration in Trenton, New Jersey*. *Cities and the Environment (CATE)* 88(2): Article 6.

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