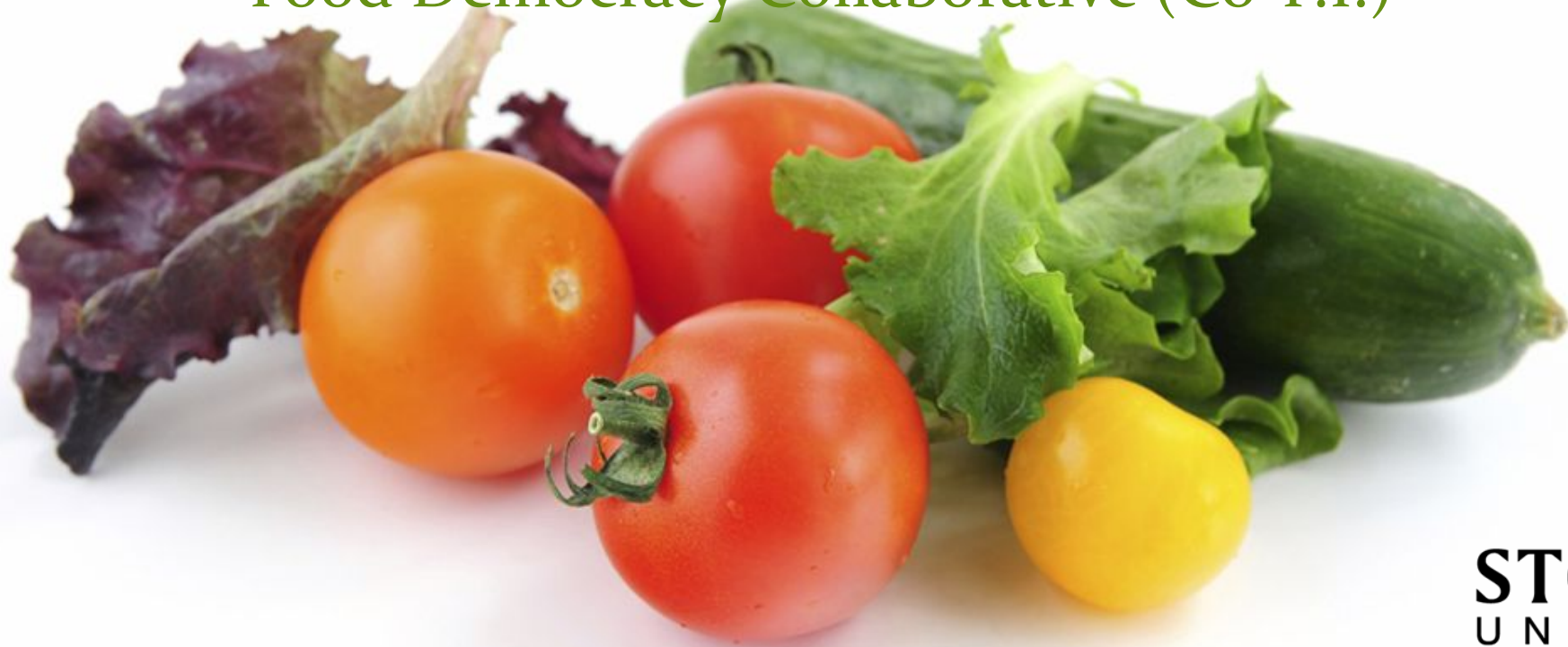# NJ Food Asset Inventory & Mapping Project

Together North Jersey | December 8, 2022

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Food Democracy Collaborative (Co-P.I.)

STOCKTON
UNIVERSITY

Overview

- **Background & Funding:** NJ Department of Environmental Protection, Recycling Enhancement Act (REA) Higher Education Research Grant (2021); CH4 reduction through excess food redistribution and food waste recycling

- **Objective:** Develop an interactive GIS online mapping tool to serve the needs of excess food recipients or facilitators

  – Can be used in statewide planning for better food/organic waste management

  – Can help facilitate tech innovation to connect generators and recipients of excess food

Project Team

Stockton University (Lead)
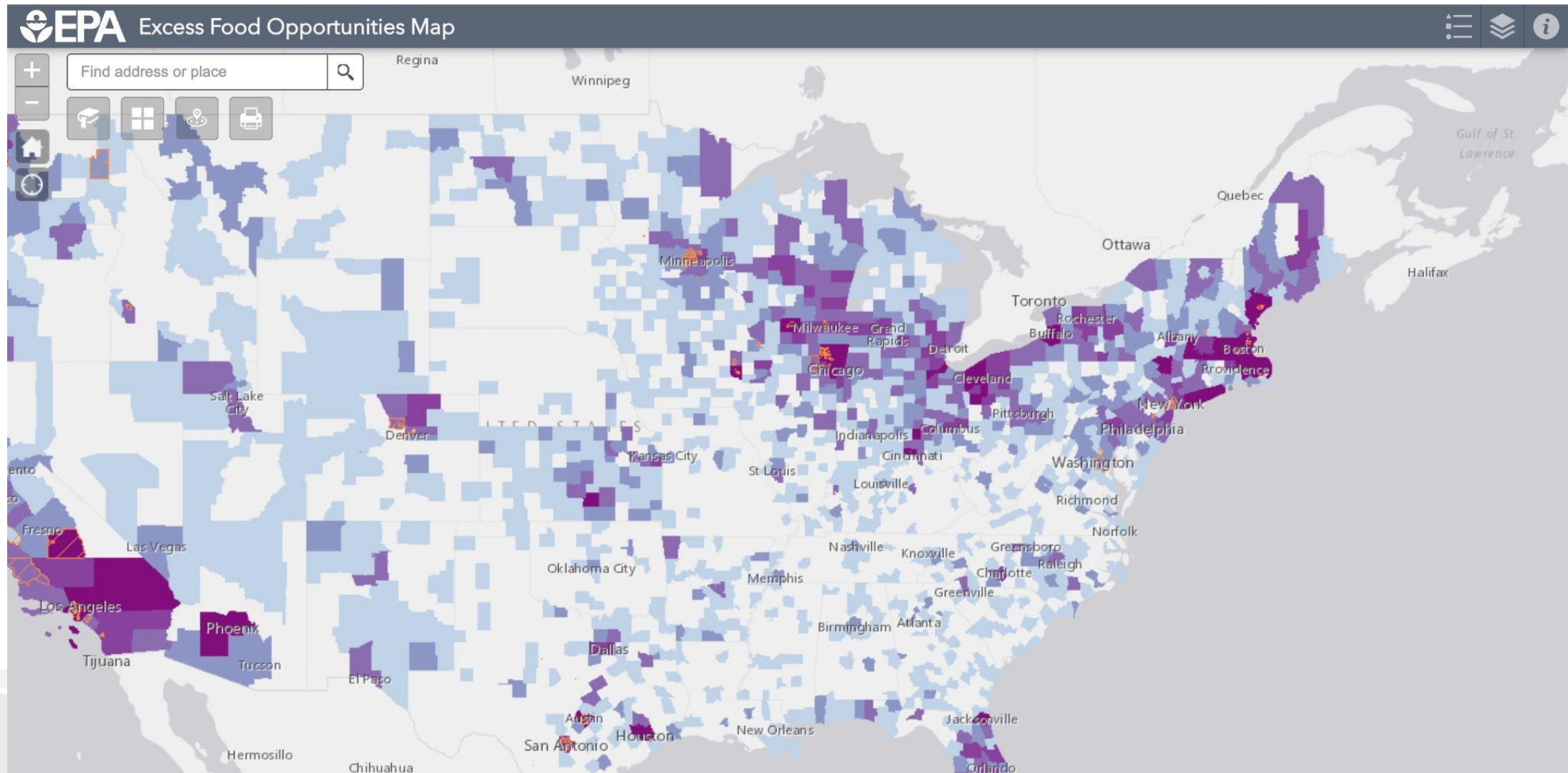
Rutgers University

Center for EcoTechnology (CET)

Bayshore Recycling

NJ Food Democracy Collaborative (NJFDC)

2022-2024

Objective: Improve & Update EPA Excess Food (EF) Opportunities Map, Make it NJ-Specific

Overview

- **Phase I:** Develop sector-specific food asset inventory for NJ from modeling and refine it through sector interviews.

- **Phase II:** Use inventory to develop interactive GIS web-mapping tool showing NJ food asset spatial distributions

Food Asset Inventory Categories

Excess Food & Food Waste Generators	Excess Food Distributors	Food Waste Processing (Recycling) Facilities
Food & Beverage Manufacturers	Food Banks	Compost Pick-Up Businesses
Wholesalers & Distributors	Food Pantries	Aerobic & Anaerobic Digestion Facilities
Grocery Stores	Soup Kitchens	Co-digestion Facilities
Restaurants & Food Service	Faith-based Organizations	Food Waste Recycling Facilities
Hotels & Motels	Non-profit Organizations	Composting Facilities
Casinos	Food Rescue Organizations	
Event Venues	Food Delivery Organizations	
Major Private Employers		
K-12 Schools		
Post-Secondary Schools		
Healthcare Facilities		
Correctional Facilities		

Food Asset Inventory Development
Roles of Project Team Members

Rutgers University

Project team: Jeanne Herb, Marjorie Kaplan, Jennifer Fogliano, Benjamin Goldberg

1. Develop methodology for database assembly & food waste estimations
2. Assemble & organize datasets with necessary fields
   a. EF Generator Data Collection
   b. EF Recipient Data Collection
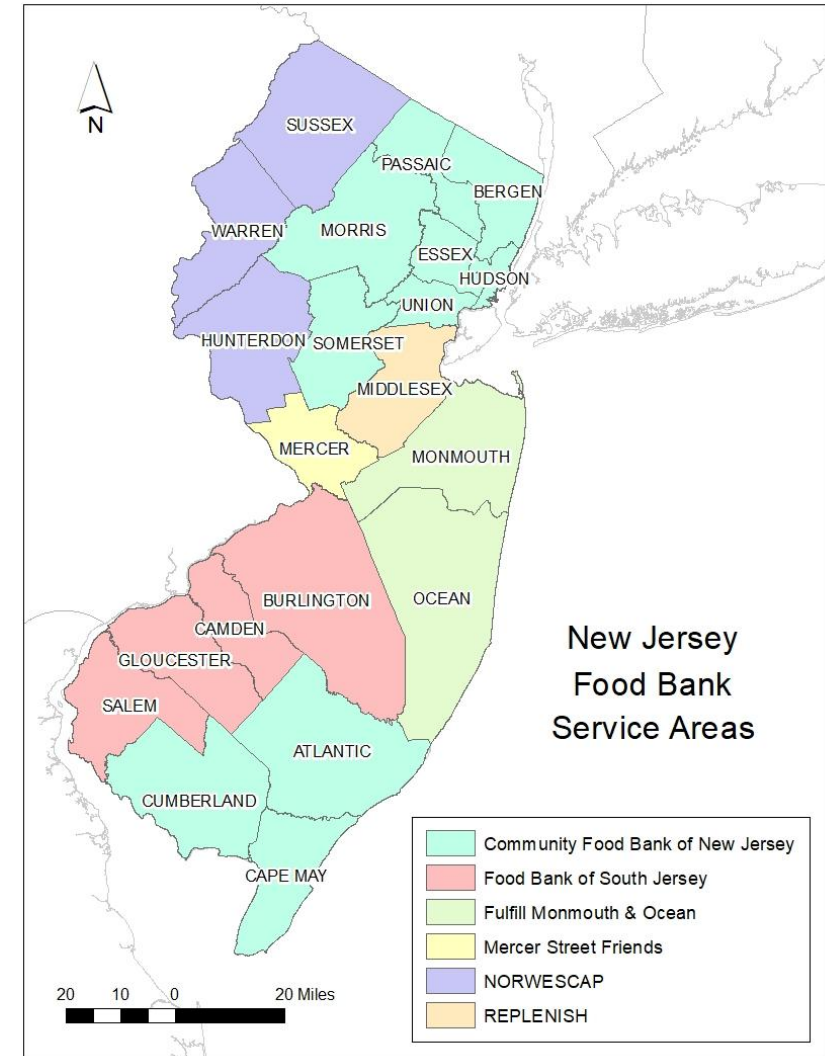3. Calculate estimated annual food waste using EPA formula

Generator Data Collection

- 13 categories of generators, commercial and institutional

- Business data sourced from Data Axle Reference Solutions, businesses identified by NAICS code

- Institutional data sourced from various public databases (e.g., NJ Dept of Health, US Dept of Education)

- EF/Food waste estimates calculated using sector-specific formulas, sourced from USEPA reports

Recipient Data Collection

- 5 main categories
  - Food banks, food pantries & soup kitchens, food rescue and transportation services, compost collectors, composting facilities

- Data Sources
  - Pantry data from food banks (3 food bank partners to date)
  - Supplemented by data from county government and community colleges

New Jersey Food Bank Service Areas

Legend:
- Community Food Bank of New Jersey
- Food Bank of South Jersey
- Fulfill Monmouth & Ocean
- Mercer Street Friends
- NORWESCAP
- REPLENISH

Generator Data Sources & Totals

Data Source	Generator Sector	Dataset Total
Data Axle Reference Solutions (using NAICS codes)	Food & Beverage Manufacturers	1,872
	Wholesalers & Distributors	977
	Grocery Stores	6,047 (Supermarkets) 67 (Supercenters)
	Restaurants & Food Service	18,321 (Full-Service) 5,816 (Limited-Service)
	Hotels and Motels	1,596
	Casinos	28
	Event Venues	1,005
	Major Private Employers (>500 Employees)	743
National Center for Education Statistics (NCES)	K-12 Schools	3,274
	Post-Secondary Schools	165
NJ Department of Health	Healthcare Facilities	968
NJ Department of Corrections Federal Bureau of Prisons	Correctional Facilities	13
NJ Department of Agriculture	Farms and Fisheries	1,436
	Farmers Markets	131

Excess Food/Food Waste Estimation Factors (EPA & CET)

Generator Sector	Avg. Food Waste Generation Factor
Food & Beverage Manufacturers	0.095 lbs/annual revenue/year
Wholesalers & Distributors	0.01 lbs/annual revenue/year
Supermarkets	2.04 tons/employee/year
Supercenters	0.39 tons/employee/year
Restaurants (Full-Service)	3,050 lbs/employee/year
Restaurants (Limited-Service)	2,751 lbs/employee/year
Hotels and Motels	
Casinos	1,138 lbs/employee/year
Event Venues	0.45 lbs/visitor*
Major Private Employers	169.85 lbs/employee/year
K-12 Schools	163 meals/student/year*0.43 lbs/meal
Post-Secondary Schools	Residential: 285 meals/student*0.4 lbs/meal Non-Residential: 108 meals/student*0.4 lbs/meal
Healthcare Facilities	653.14 lbs/bed/year
Correctional Facilities	1.12 lbs/inmate/day
Farms and Fisheries	Unavailable
Farmers Markets	Unavailable

Food Asset Inventory Development
Roles of Project Team Members

Center for Eco Technology

Project Team Lead: Steven Bandara

- Improve the accuracy of metrics applied to the various types of large food waste generators
- Cross-sector interviews on factors influencing inventory estimations in NJ
- 90-120 interviews across sectors: grocery stores, restaurants, hospitals, healthcare facilities, and colleges & universities, correctional facilities, hospitalities, etc.

# Food Asset Inventory Development
Roles of Project Team Members

- NJFDC: Gather qualitative data from EF recipients
  - Surveys to be deploy and interviews to be conducted with most excess food recipients or facilitators to better understanding the challenges, capacity, and opportunity for redirecting excess food from generators
  - Focus group discussion to be conducted with the gleaning community, food banks, pantries and farmers.

- Stockton University: Develop GIS Food Asset Map
  - Data accuracy assessment by checking and cross-referencing with other publicly accessible database
  - Development of an interactive GIS web-mapping tool
  - It will present the potentials of excess food generated at a municipality or census tract level as well as the capability or infrastructure of excess food being rescued or redistributed to its intended destinations

Introduction   Method   Food Insecurity Index Map
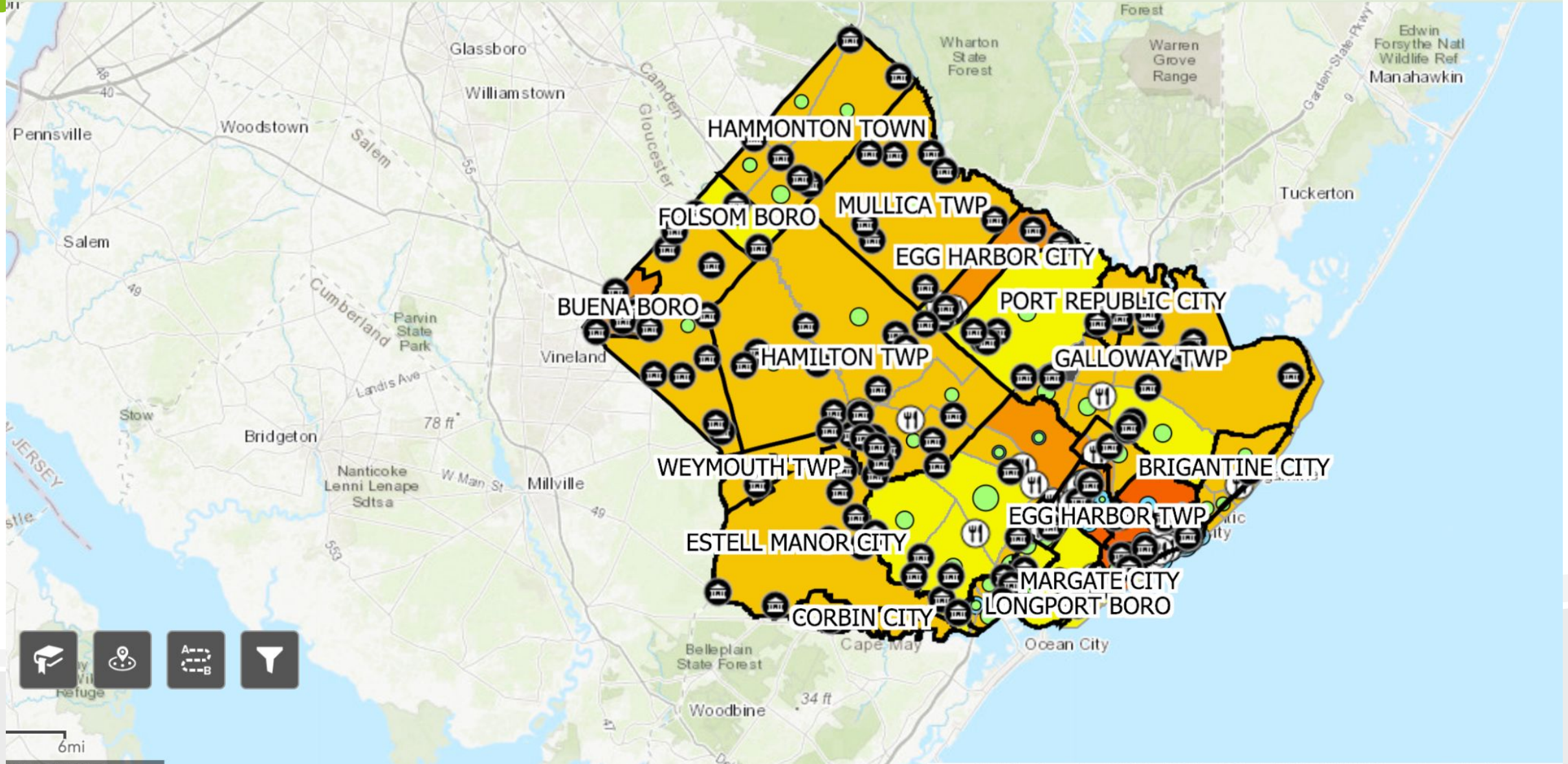
Questions?

Thank you!

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