



# **Geospatial Development in Government Human and Social Service Programs**

2017 New York State GeoCon  
Lake Placid, New York  
October 19, 2017

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# Topics for Discussion



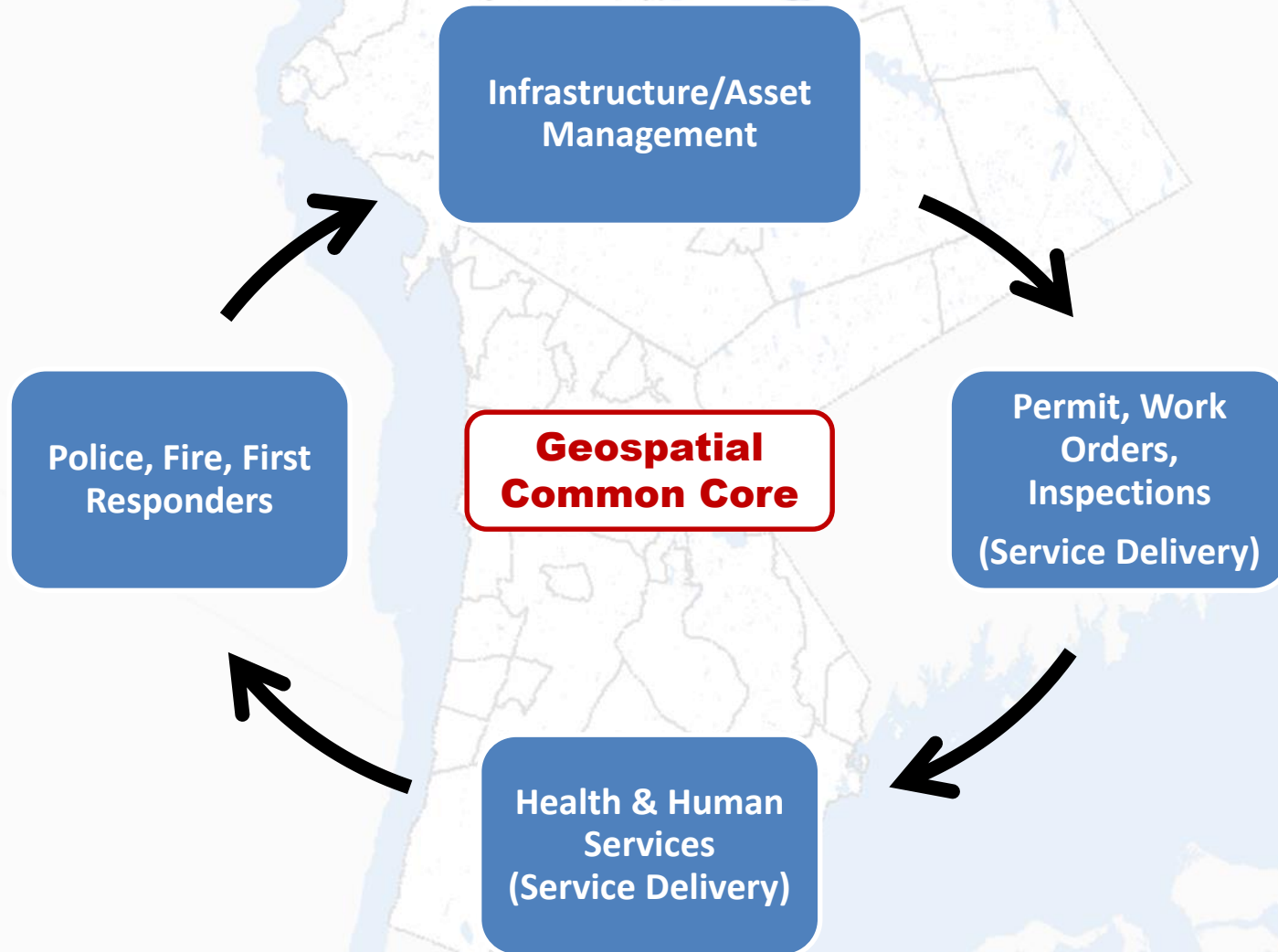
- Westchester County GIS
- Local Government Common Core
- Building HHS Geospatial Capacity
- Q & A

# Westchester County GIS



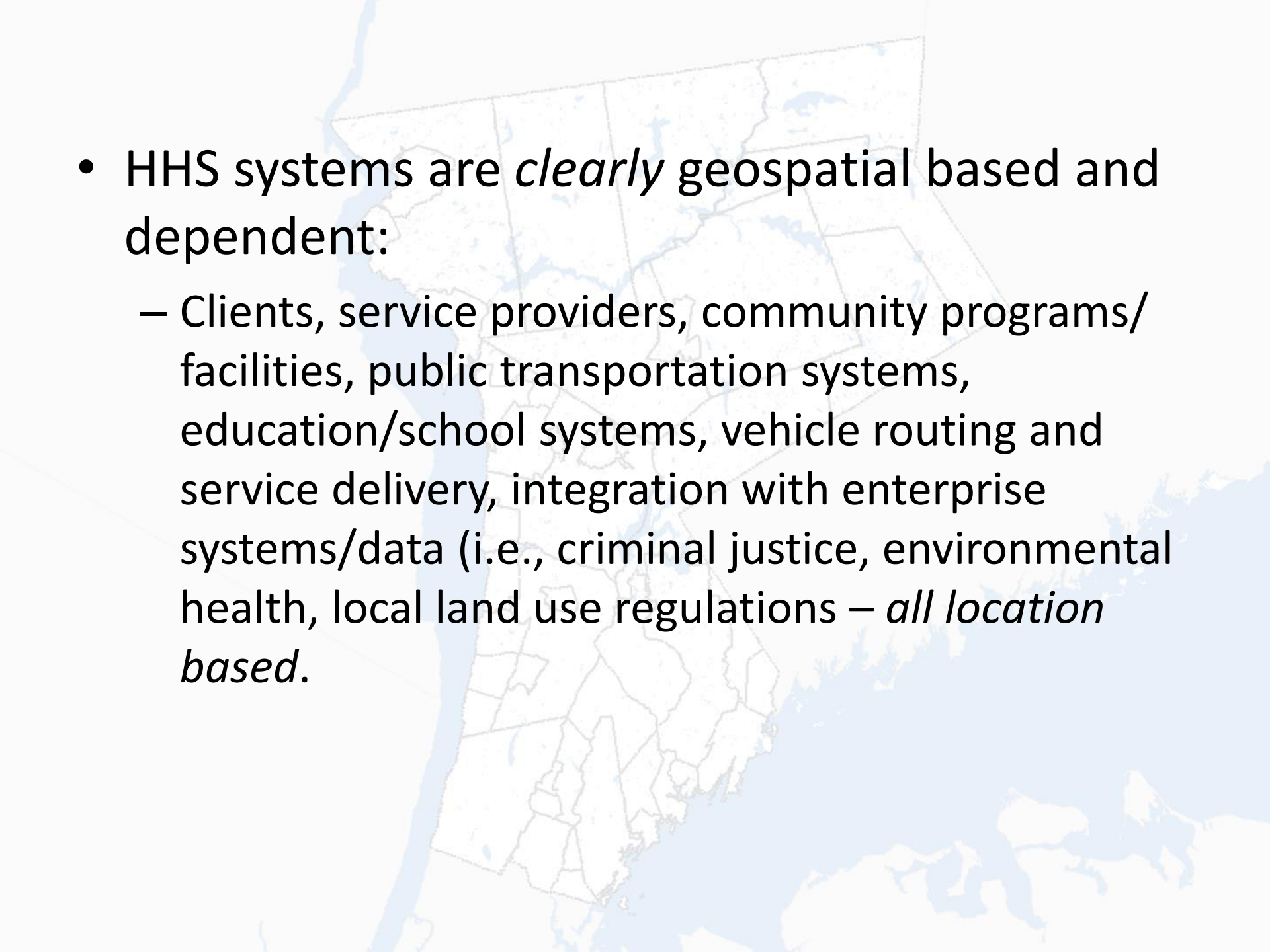
- Est. 1988
- Offices in White Plains / Manage Westchester County footprint; county and 43 municipalities
- Manage authoritative countywide GIS database
- Support geospatial applications in both county and local governments
- ESRI technology
- Seven full-time GIS staff

# Local Government Business Needs



# HHS Geospatial Dossier

- Health and Human Services budgets dwarf other government program areas
- Areas of government with limited geospatial/GIS development
- State-run HHS systems normally run on separate networks
- Significant issues of data confidentiality
- Current vendor systems do not encourage or promote *true* geospatial integration; most business systems come loaded with Google Maps
- Huge bureaucracies with significant staff turnover
- Years and years and years of poor address data management
- Client-based solutions offered no hope of building geospatial capacity

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- HHS systems are *clearly* geospatial based and dependent:
    - Clients, service providers, community programs/facilities, public transportation systems, education/school systems, vehicle routing and service delivery, integration with enterprise systems/data (i.e., criminal justice, environmental health, local land use regulations – *all location based*).

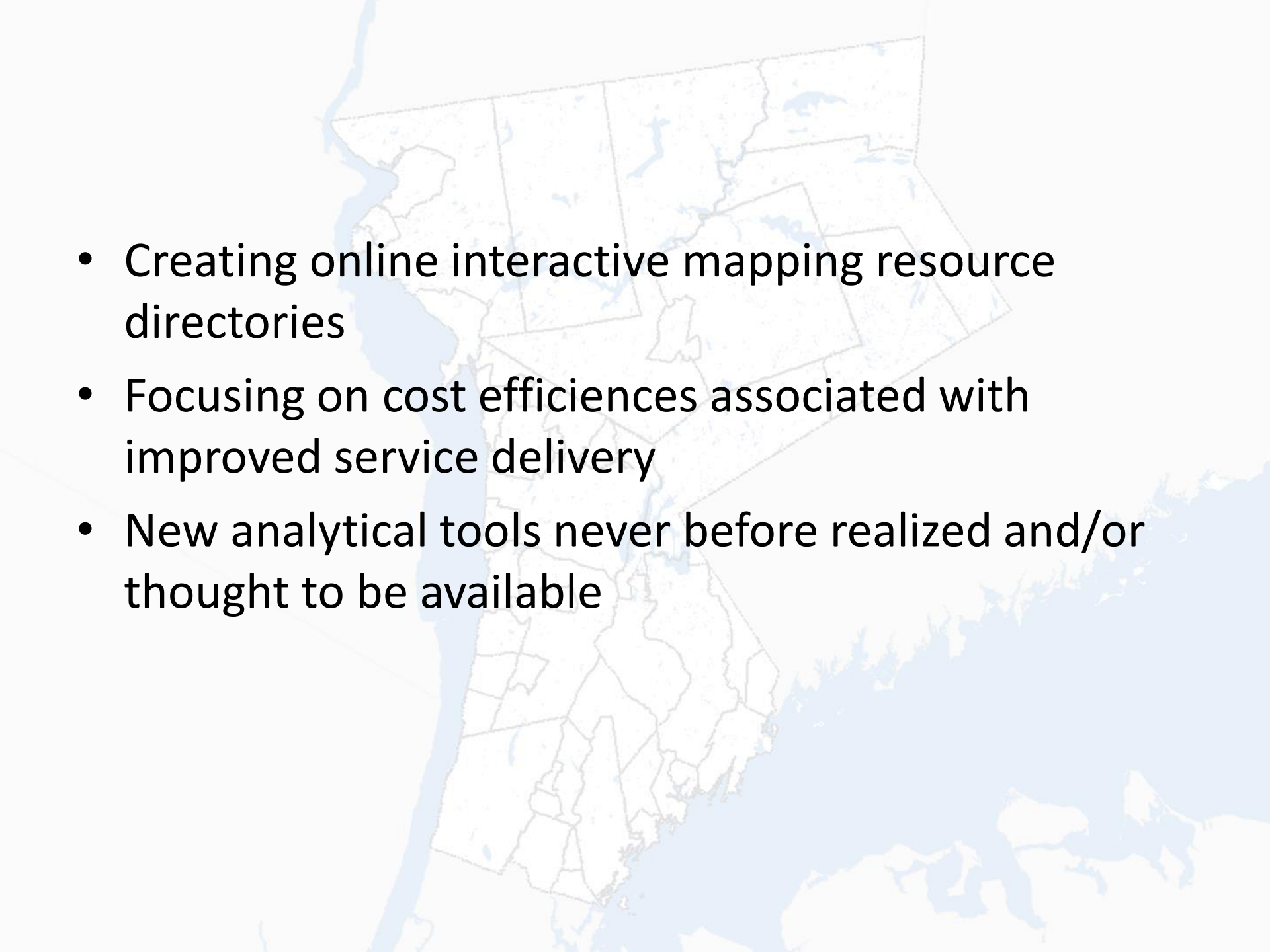
# NYS County HHS 2017 Appropriations

- **Stuben County:** 47% of total appropriations to Health and Economic Asst/Opportunity
- **Ulster County:** 42% of total appropriations to Health & Economic Asst/Opportunity
- **Erie County:** 50% of \$1.4B in HHS
- **Suffolk County:** 30% of \$2.9B in HHS
- **Monroe County:** 50% of \$1.2B in HHS
- **Albany County:** 26% of county workforce (657 of 2,535) in youth, family, health, social services

# HHS Geospatial Sweetspots

- Assigning/optimizing case load on geography
  - Developing associated optimum routes; aka “traveling salesman” routing for case workers and inspectors
- Establishing service provider networks in areas of greatest need and near public transportation infrastructure
- GIS-based analytics provide powerful data visualization (heat maps) for managers; new, never-realized abilities viewing data
- Promoting mobile applications
- Creating leased / mobile facilities in areas of need vs. permanent / fixed facilities



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- Creating online interactive mapping resource directories
  - Focusing on cost efficiencies associated with improved service delivery
  - New analytical tools never before realized and/or thought to be available

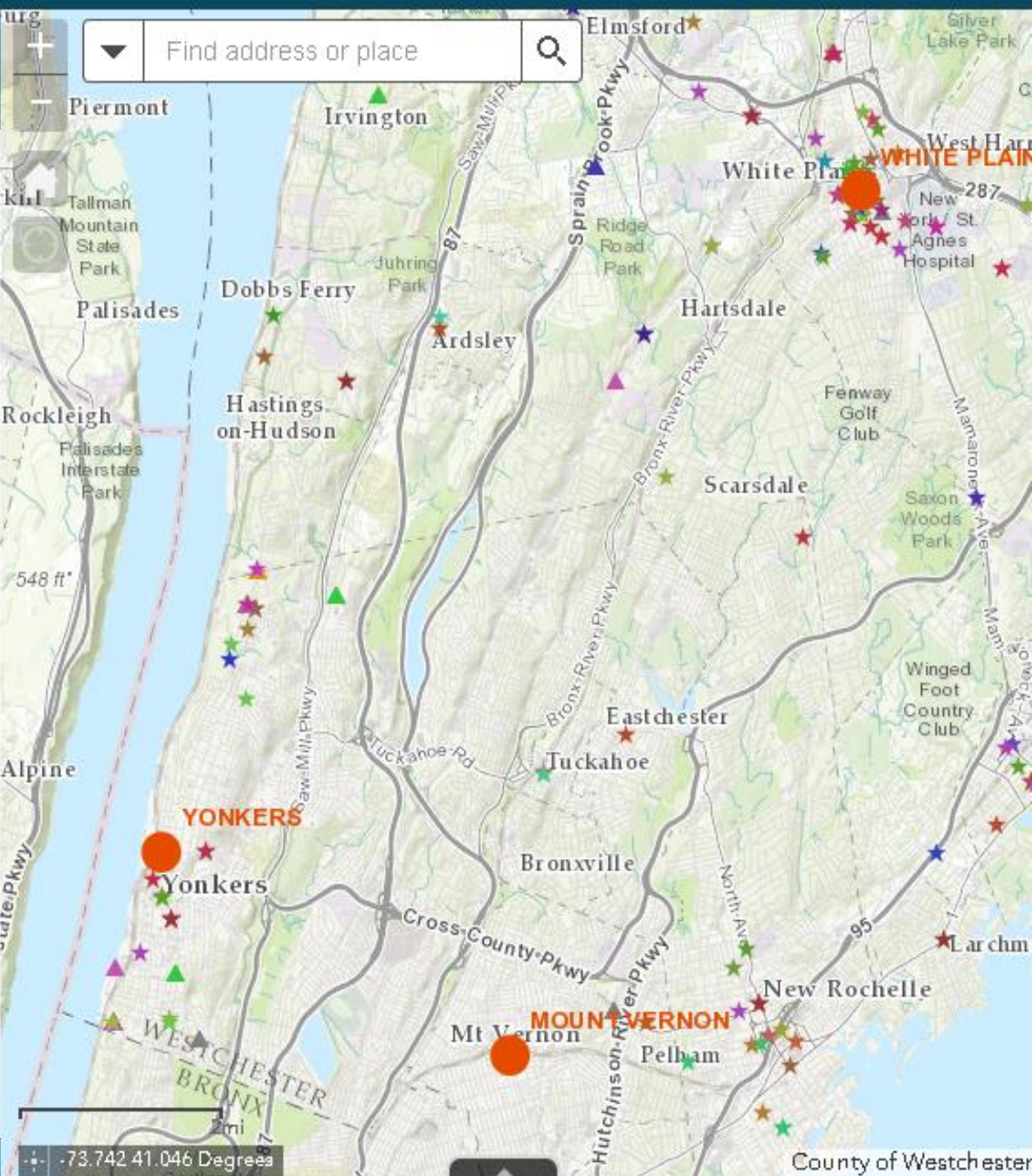
A map of the state of Virginia, showing its county boundaries. The map is rendered in a light blue color. The word "Examples" is written in a bold, dark blue font, centered over the map. The map shows the state's outline, including the Chesapeake Bay and the Atlantic Ocean to the east. The word "Examples" is positioned in the lower-middle part of the state, over the counties of Stafford and Stafford County.

# Examples

Navigation icons: Home, Print, Share, Full Screen

### Layer List

- DSS District Offices
- Service Providers
  - Hudson Valley 211
    - Abuse/Violence Support Services
    - Adoption/Foster Care Services
    - Advisory/Advocacy Services
    - Advocacy Services
    - Alcohol/Drug Abuse Services
    - Assistive Aid/Equipment Services
    - Bereavement Services
    - Business Development Services
    - Case/Care Management Services
    - Child/Infant Care Services
    - Community-Based Services
    - Counseling Services
    - Diagnostic/Screening Services
    - Disease/Disability Care Services
    - Donor Services
    - Early Education

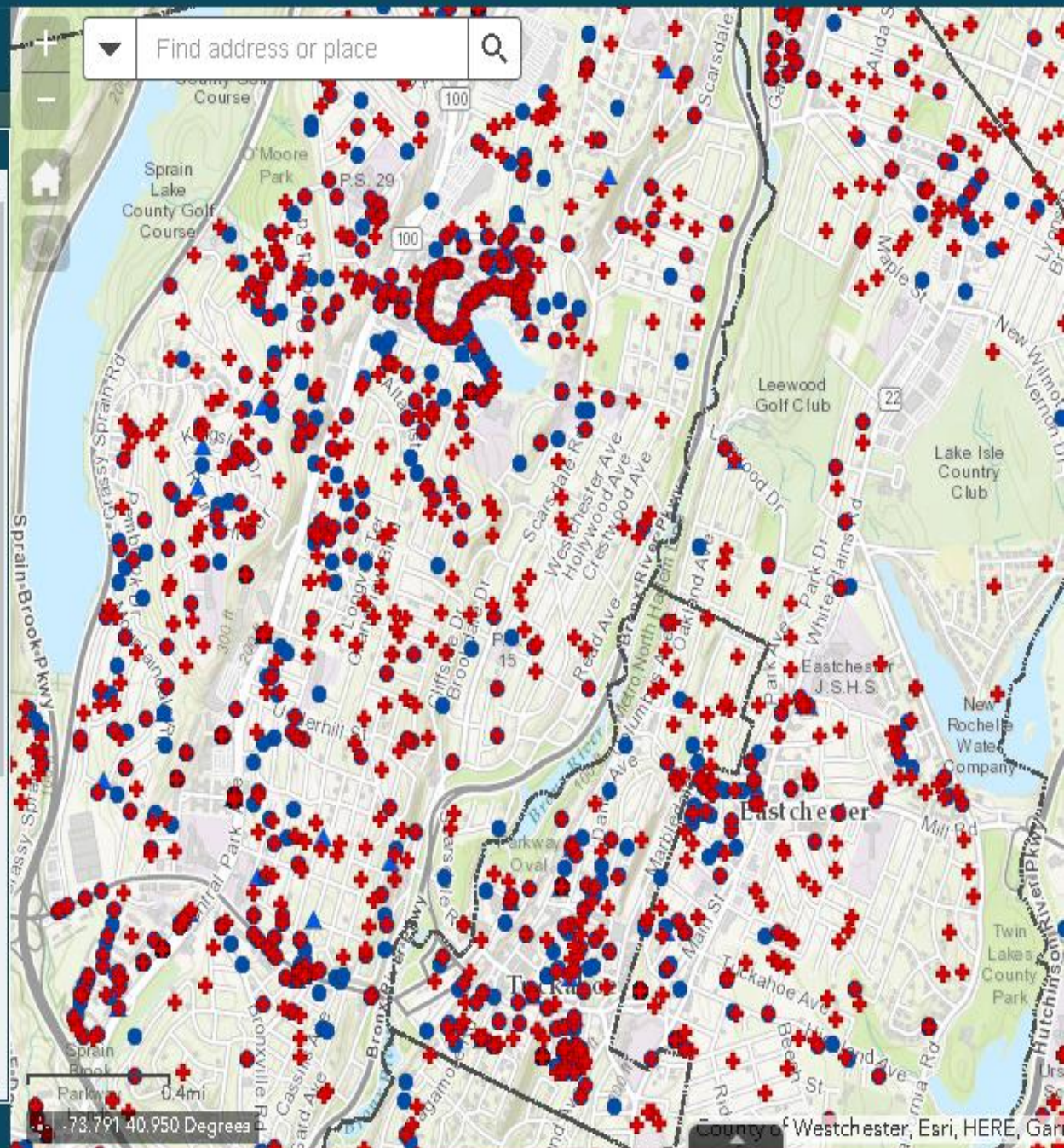




## Layer List

### Operational Layers

- DSS
- Public Assistance Data
- Medicaid
  - Med - Multiple cases at same address
- Food Stamps (SNAP)
  - FS - Multiple cases at same address
- Temporary Assistance
  - TA - Multiple cases at same address
- Zoning

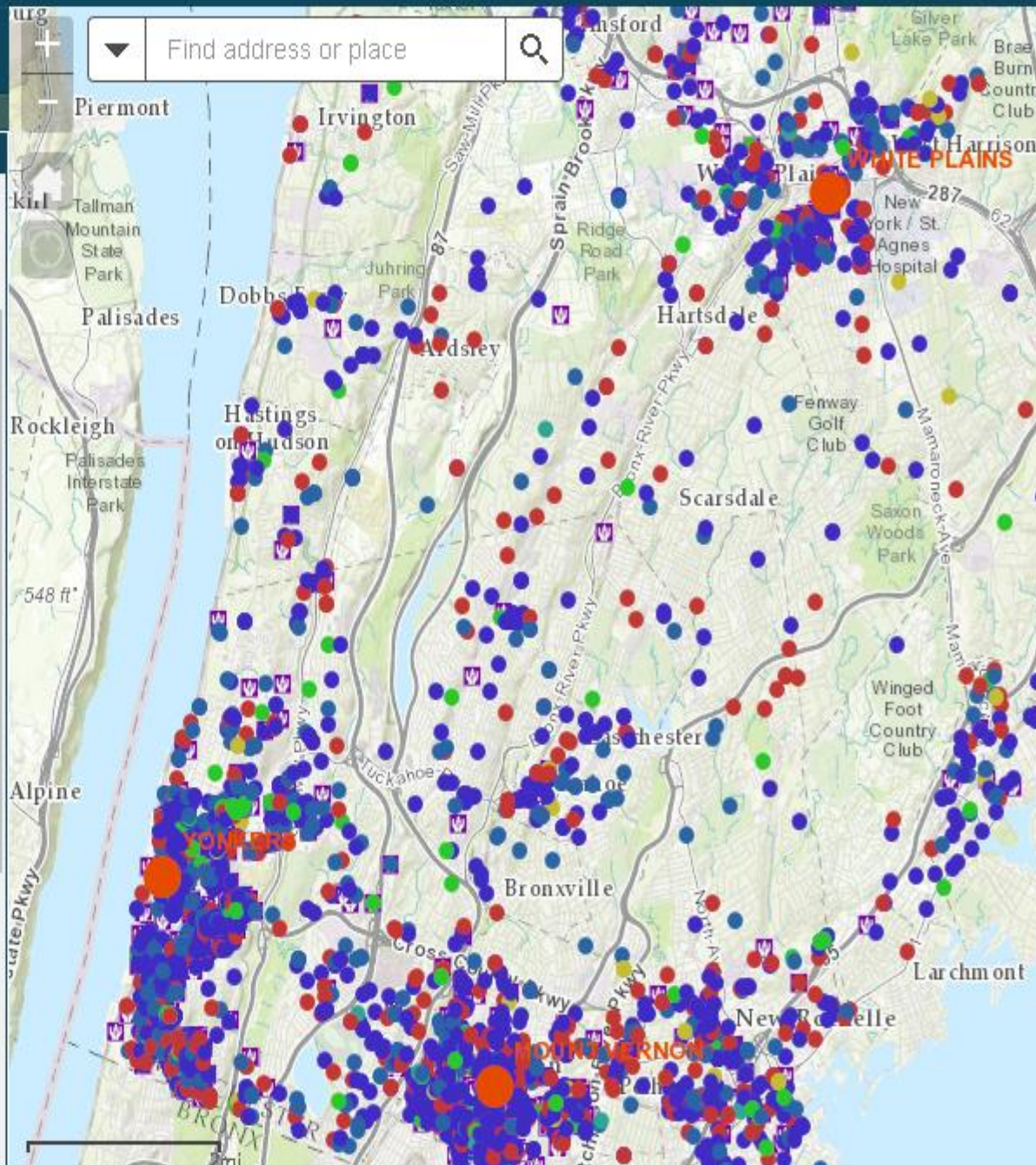


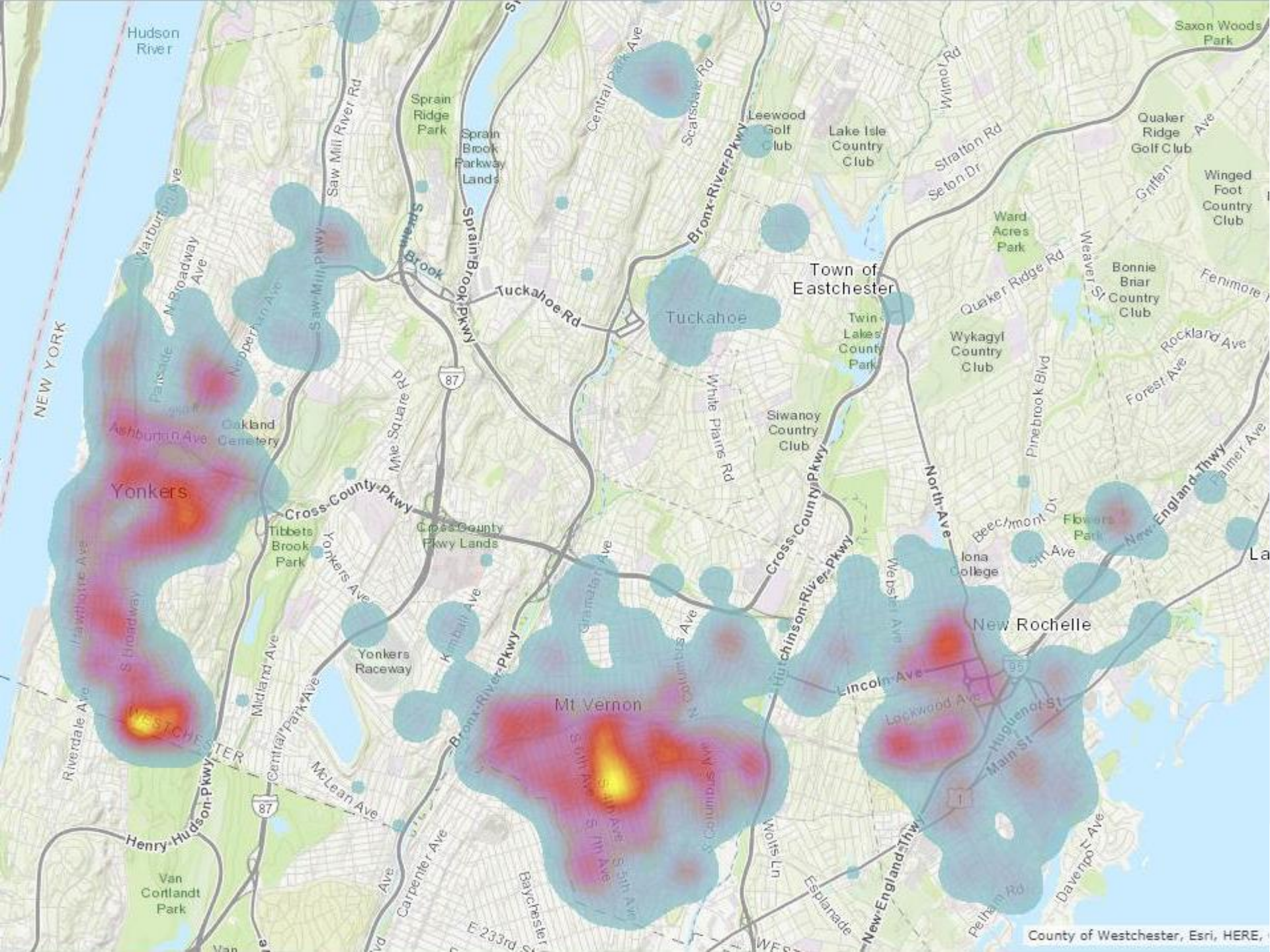
# Community Social Services Data Viewer

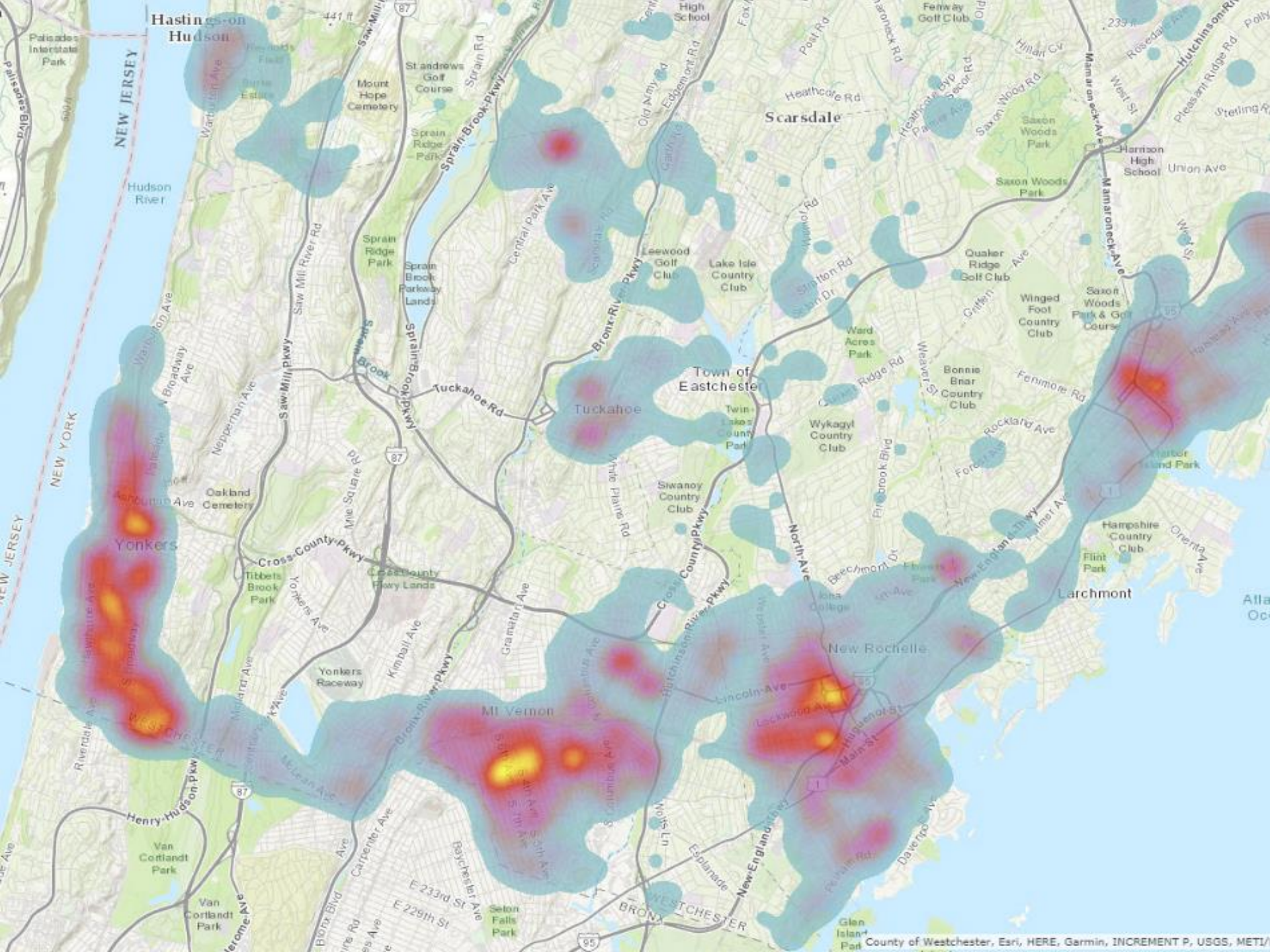


## Layer List

- DSS District Offices ...
- Service Providers ...
- Public Assistance Data ...
- Children Services ...
- Allegation Type ...
  - Medical Neglect
  - Neglect or deprivation of necessities
  - Physical Abuse
  - Psychological or emotional maltreatment
  - Sexual Abuse
  - Other
- Foster Care ...
  -
- Municipal Boundaries ...
- DSS Transportation Zones ...



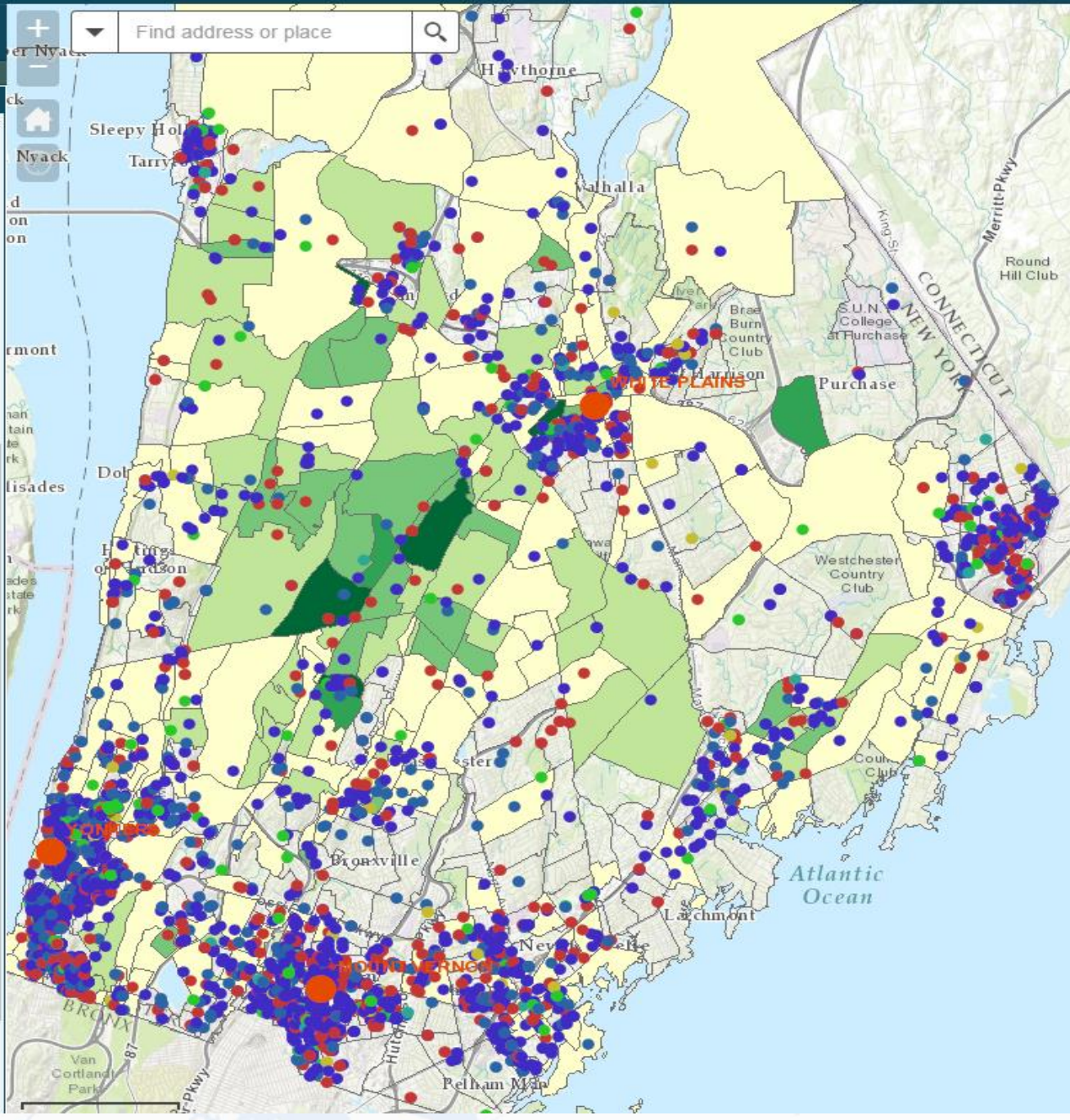




Navigation icons: Home, Print, Share, Full Screen, and a search icon.

## Layer List

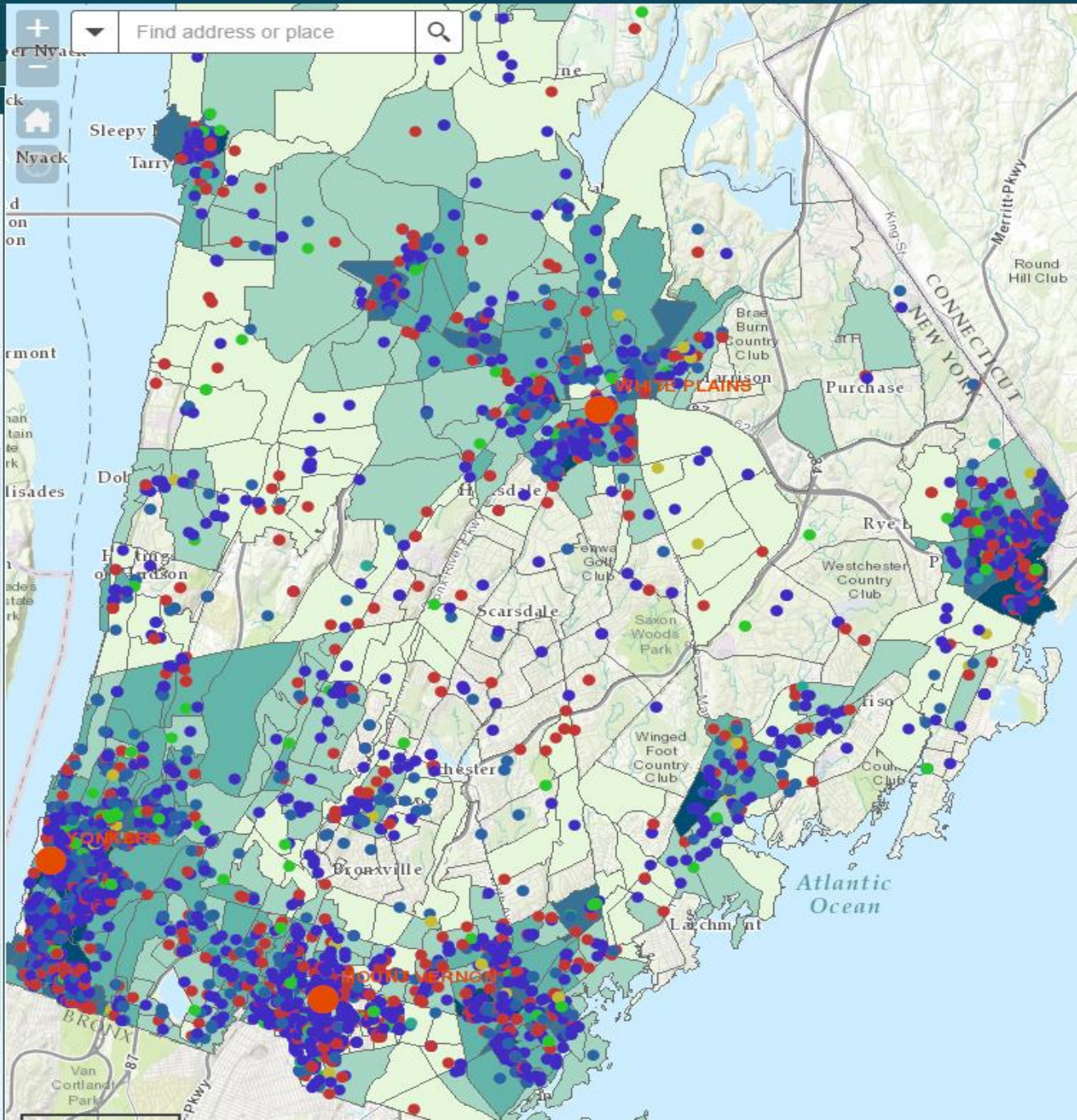
- Foster Care ...
- Probationers and Sex Offenders ...
- Municipal Boundaries ...
- DSS Transportation Zones ...
- DSS District Office Boundaries ...
- District Boundaries ...
- Facilities and Services ...
- Transportation ...
- 2010 Census ...
- 2010 Census Blocks ...
- 2010 Census Block Groups ...
- 2010 Census Tracts ...
- 2010 Census Persons Per Square Mile ...
- 2010 Census White Population ...
- 2010 Census Black or African American Population ...
- 2010 Census Asian Population ...
- Under 5%
- 5% - 10%
- 10% - 15%
- 15% - 20%
- 20% - 25%
- 25% - 30%





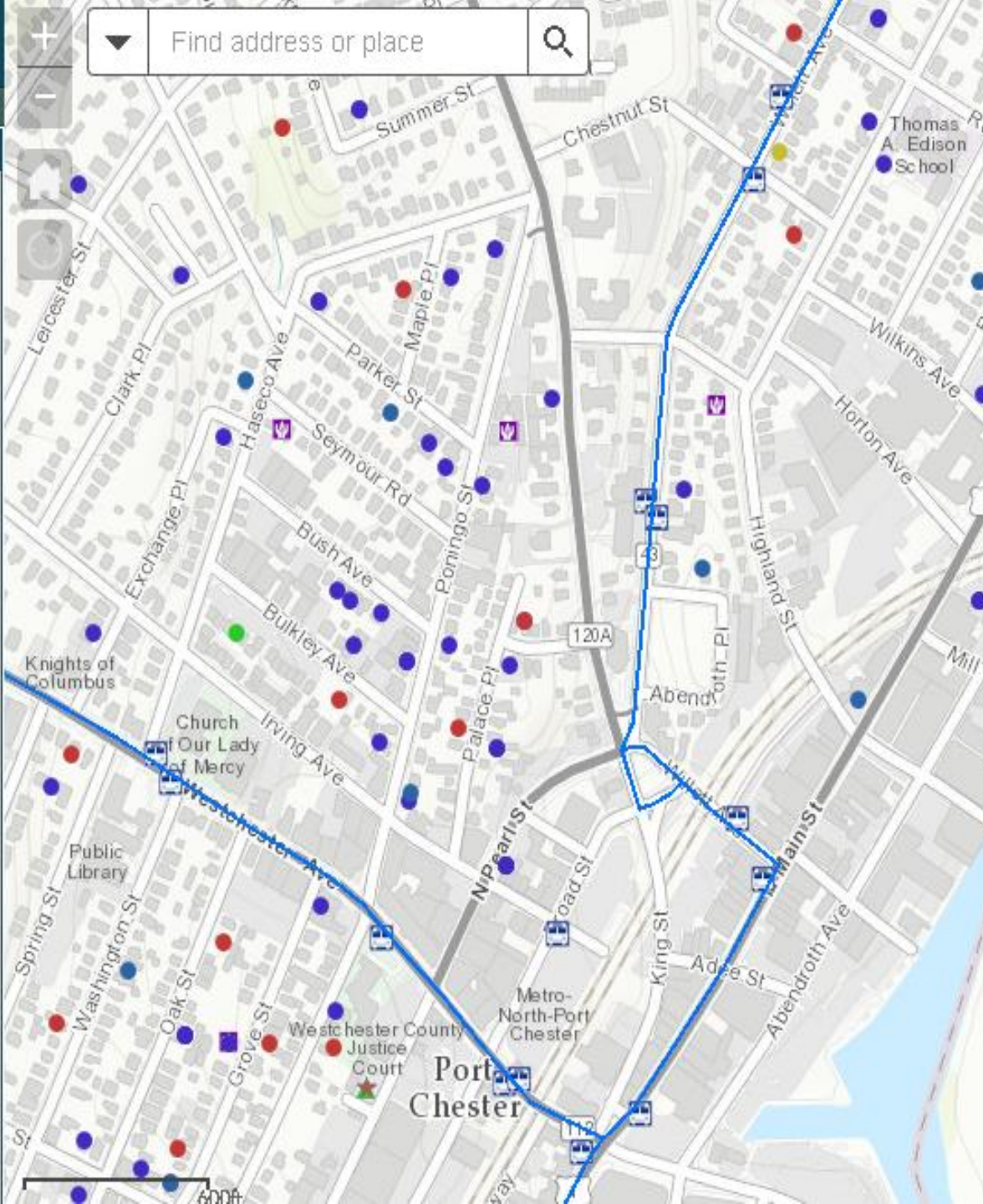
Layer List

- Foster Care
- Probationers and Sex Offenders
- Municipal Boundaries
- DSS Transportation Zones
- DSS District Office Boundaries
- District Boundaries
- Facilities and Services
- Transportation
- 2010 Census
  - 2010 Census Blocks
  - 2010 Census Block Groups
  - 2010 Census Tracts
  - 2010 Census Persons Per Square Mile
  - 2010 Census White Population
  - 2010 Census Black or African American Population
  - 2010 Census Asian Population
  - 2010 Census Hispanic or Latino Population
    - Under 5%
    - 5% - 10%
    - 10% - 20%
    - 20% - 40%



Layer List

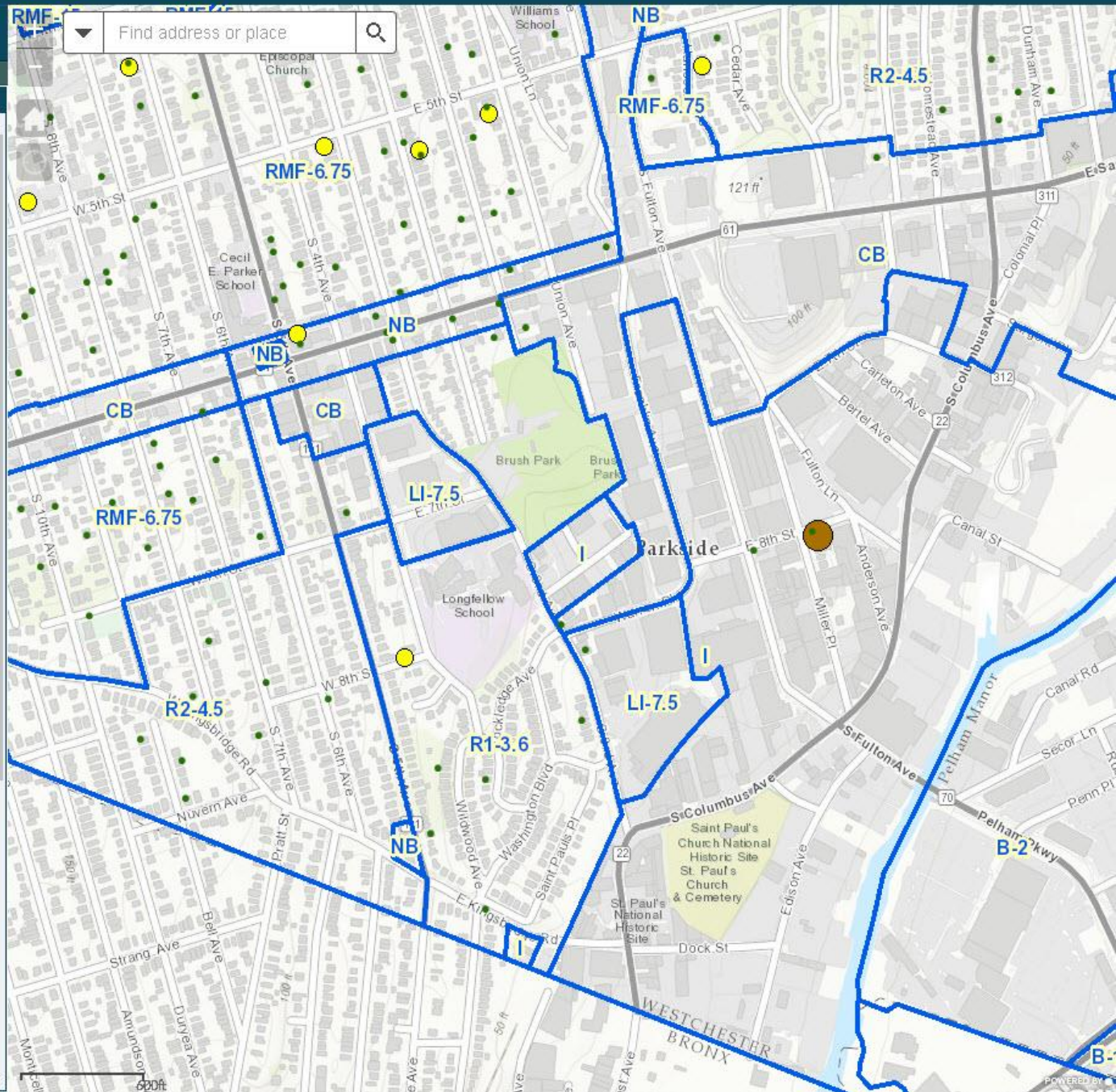
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- Public Assistance Data ...
- Children Services ...
- Municipal Boundaries ...
- DSS Transportation Zones ...
- DSS District Office Boundaries ...
- District Boundaries ...
- Facilities and Services ...
- Transportation ...
- 2010 Census ...
- Local Businesses ...





### Layer List

- #### Operational Layers
- DSSViewer
    - DSS District Offices
    - Service Providers
    - Public Assistance Data
      - Medicaid
      - Food Stamps (SNAP)
      - Public Assistance by Type
      - Multiple cases at same address
        - 1 - 2
        - 3 - 5
        - 6 - 10
        - 11 - 20
        - 21 - 27
    - 24 Hour Shelters
    - Emergency Housing Assistance Program by Vendor
    - Children Services
    - Municipal Boundaries
    - DSS Transportation Zones
    - DSS District Office Boundaries
    - District Boundaries



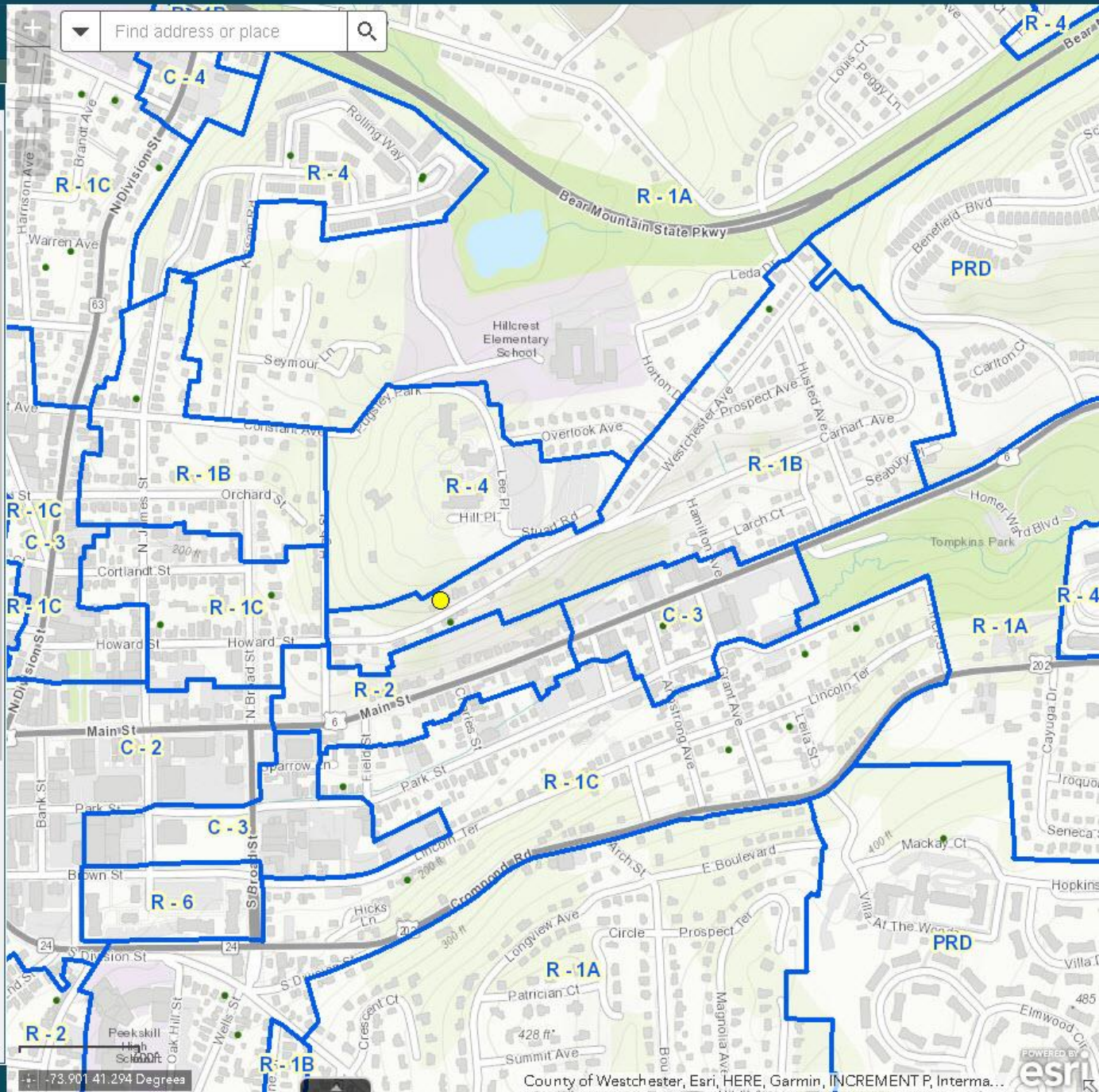


Find address or place

### Layer List

#### Operational Layers

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- DSS Transportation Zones
- DSS District Office Boundaries
- District Boundaries



-73.90141294 Degreee

Map interface showing vehicle locations. The map displays various towns in the New York and New Jersey area, including Montebello, Spring Valley, Nyack, Tarrytown, Hartsdale, and Yonkers. Several vehicles are marked with labels and icons:

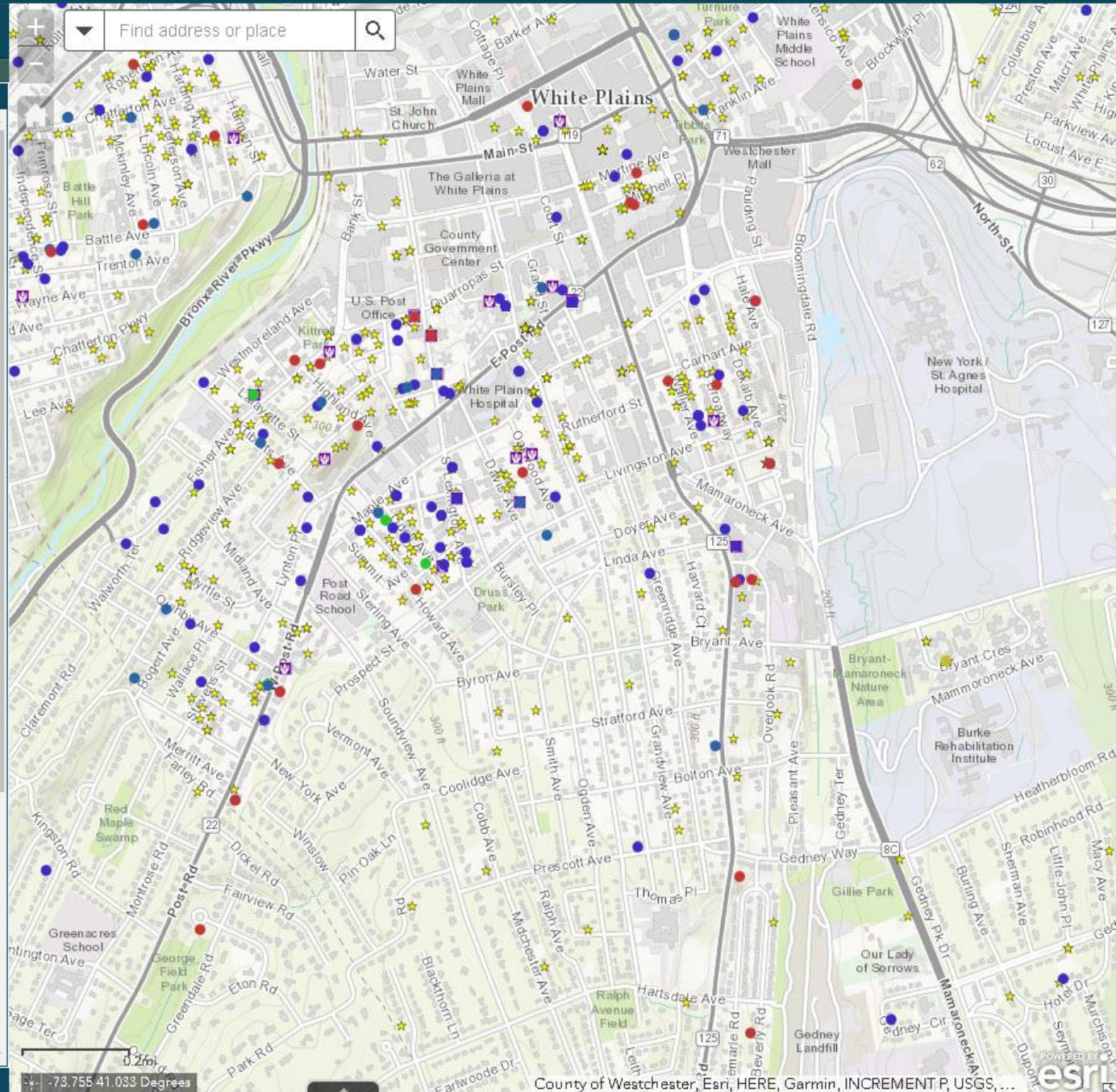
- W0022 - DOH 597446 (Yellow icon)
- W0014 - CP (Orange icon)
- W0013 - CP (Black icon)
- W0025 - CP (Black icon)
- W0019 - PRC (Blue icon)
- DSS Maintenance - W0044 (Blue icon)
- W0038 - General Fleet (Black icon)
- W0036 - General Fleet (Black icon)
- W0039 - General Fleet (Black icon)
- W0006 - IT (Black icon)
- W0023 - DOH 599446 (Black icon with a yellow warning triangle)

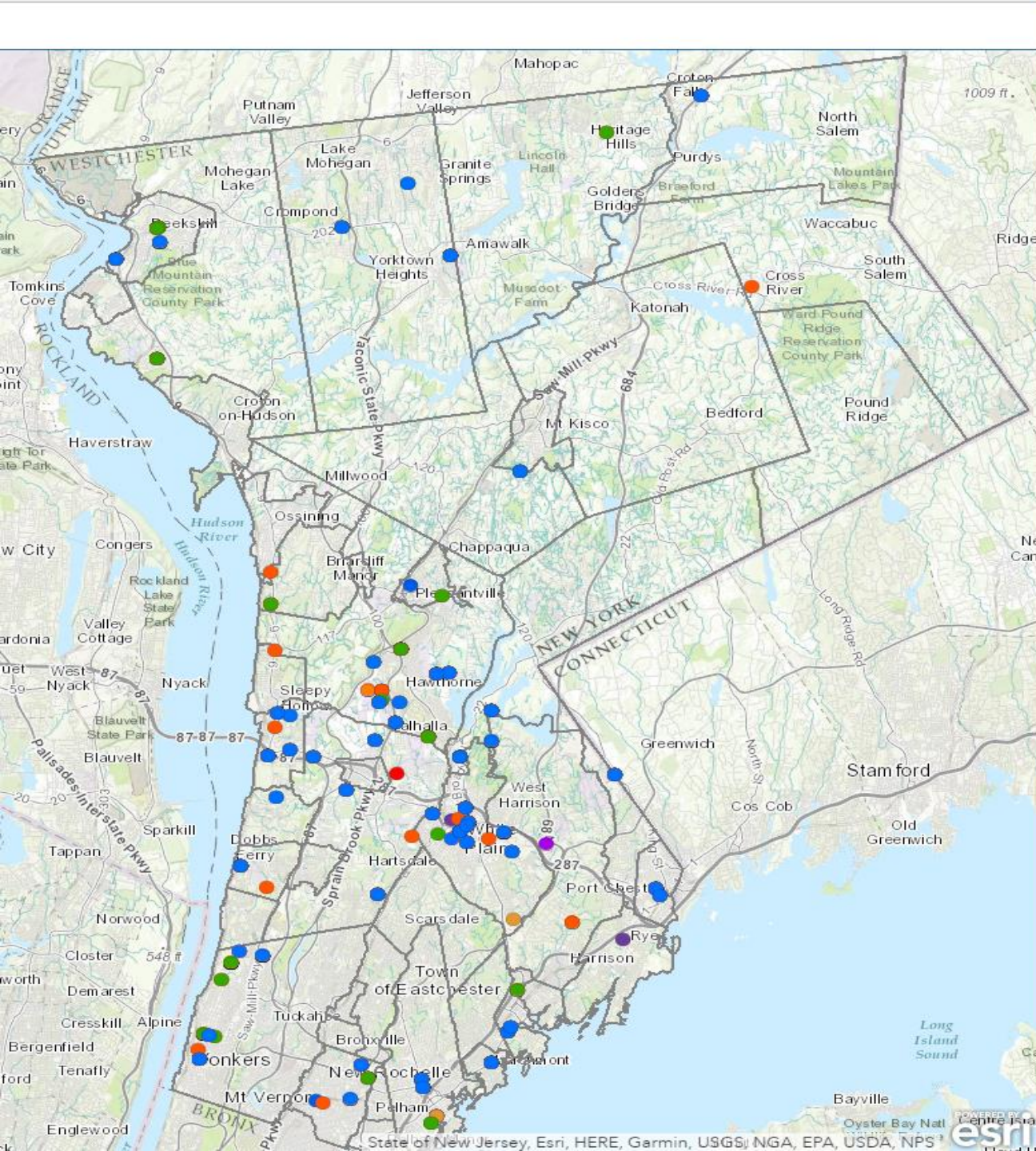
Navigation and map controls include a search bar at the bottom left, a zoom in (+) and zoom out (-) button on the left, and a traffic layer toggle at the top right. A scale bar at the bottom right indicates 2 km. Map data is attributed to ©2017 Google.

Layer List

### Operational Layers

- DSSViewer
- DSS District Offices
- Service Providers
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    - Other
  - Foster Care
  - Probationers and Sex Offenders
- Municipal Boundaries
- DSS Transportation Zones
- DSS District Office Boundaries
- District Boundaries
- School Districts





**Legend**

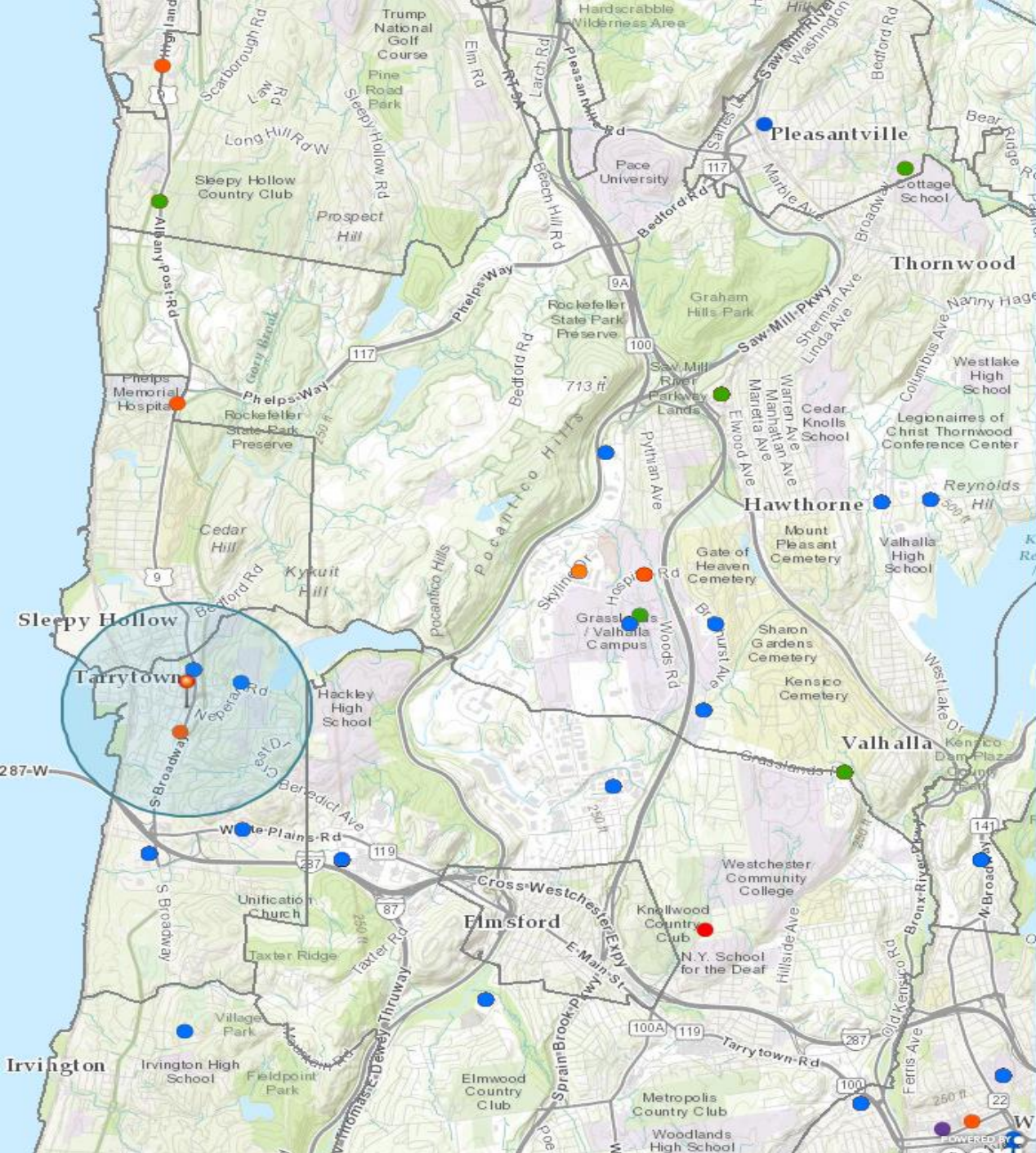
**Resource Guides**

- Autism
- Developmental Disabilities
- Emotional and Psychiatric Disabilities
- Hearing Impaired
- Learning Disabilities
- Medically Fragile
- Physical Disabilities
- Traumatic Brain Injured
- Visually Impaired
- Other Disabilities
- Municipal Boundaries

Map navigation icons: Home, Layers, Location, Print, Share.

Map scale: 1009 ft.

Map data: State of New Jersey, Esri, HERE, Garmin, USGS, NGA, EPA, USDA, NPS.



### Near Me

Search an address or locate on map

5 Main St, Tarrytown, New York

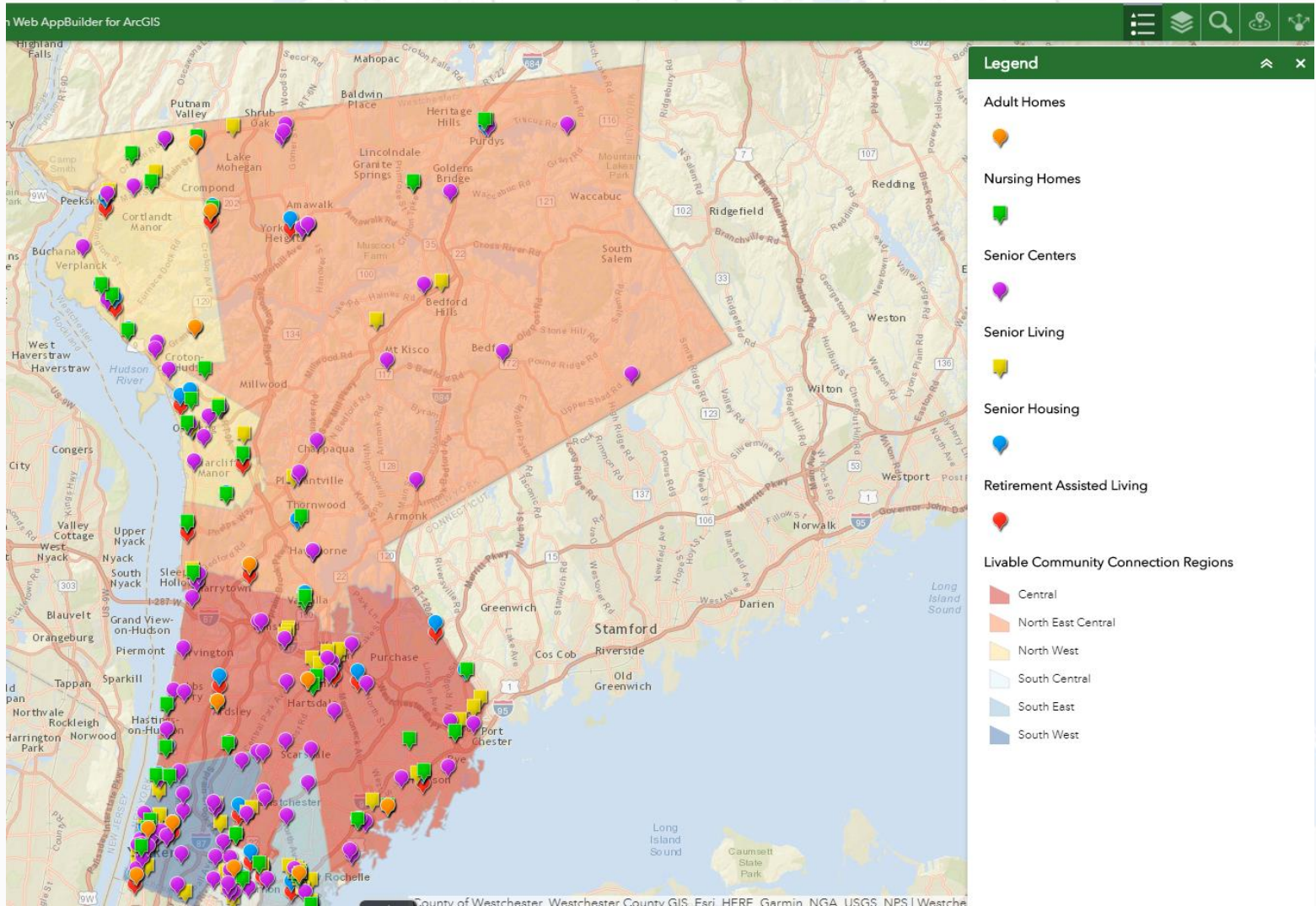
Show results within 1 Miles

Autism	(2)	>
Developmental Disabilities	(2)	>
Emotional and Psychiatric Disabilities	(2)	>
Hearing Impaired	(1)	>
Medically Fragile	(1)	>
Traumatic Brain Injured	(1)	>





# Livable Community Connections (LCC) Housing



Details

Basemap

Share

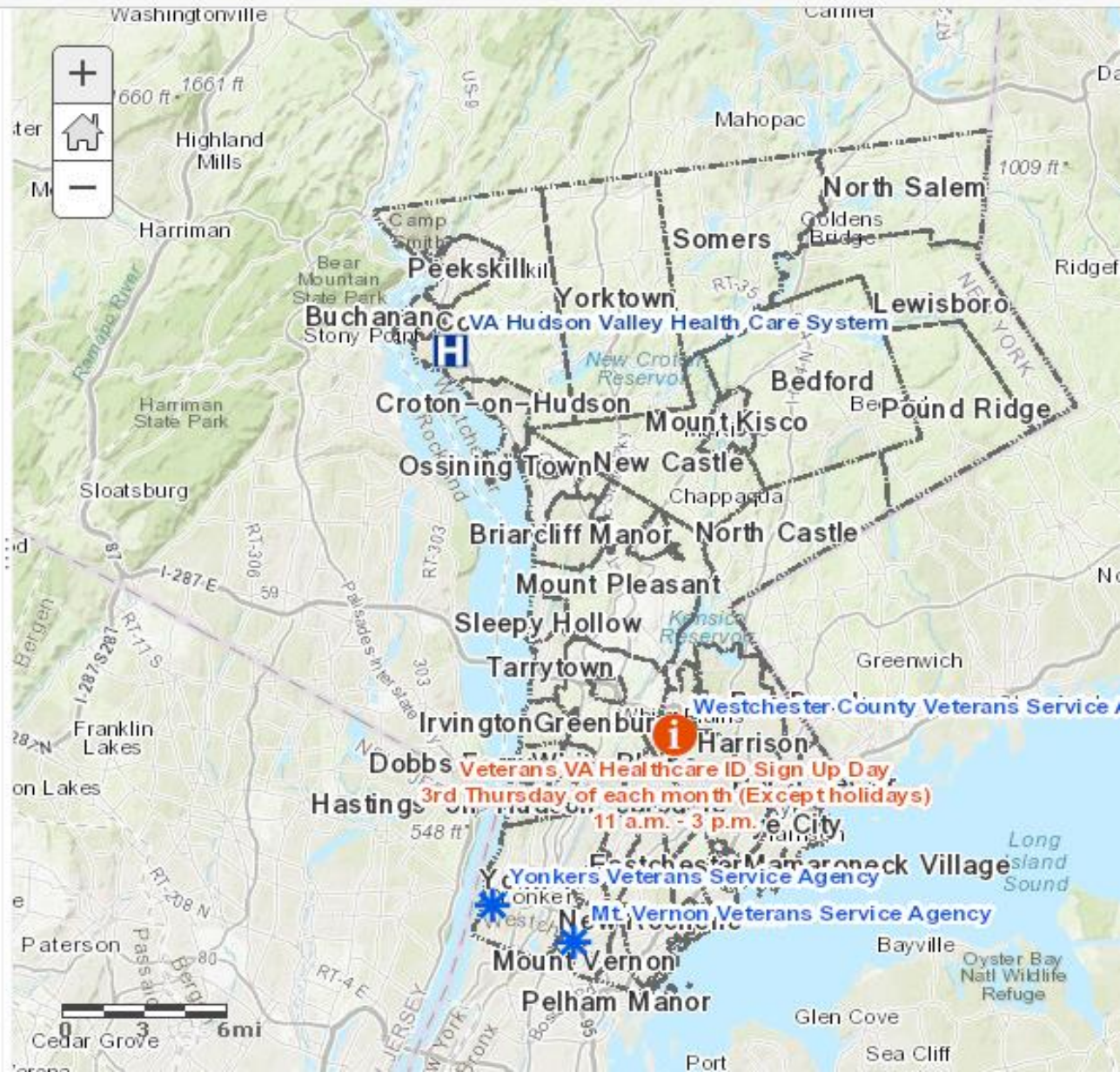
Print ▾

Measure



Contents

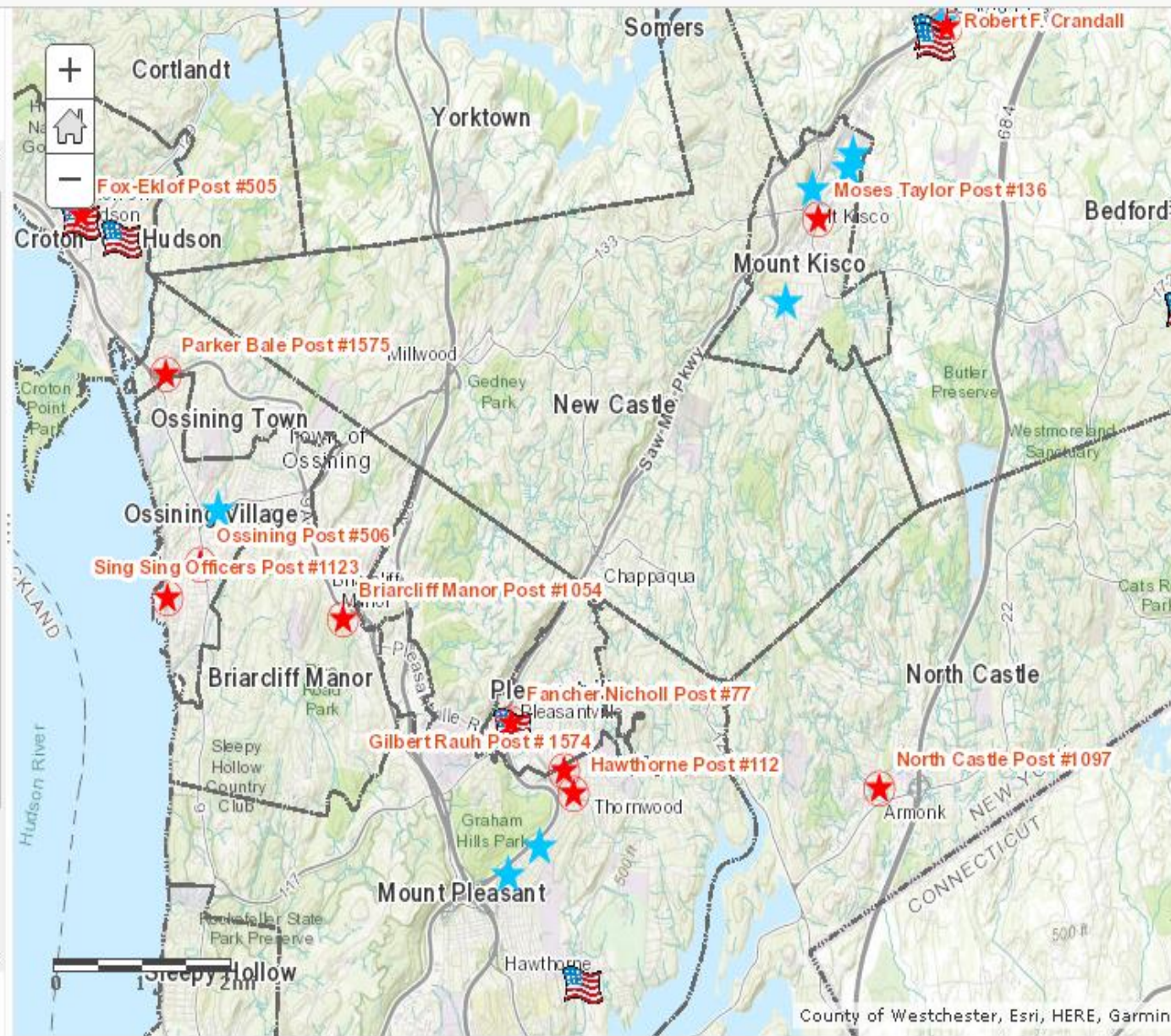
- ▶  Veterans Services and Events
- ▶  Municipal Boundaries
- ▶  ESRI Topographic Map



**Legend**  
**veterans Services and Events**

Events

- Veterans Service Agency
- American Legion Post
- Counseling Service
- VA Hudson Valley Health Care System
- Medical Services
- Veterans Museum
- Monuments
- Find and Assist Veterans of Record (FAVOR) List
- FAVOR List



# Story Maps



- At the Crossroads - <http://arcg.is/1p6dppM>
- Senior Programs and Services - <http://arcg.is/1F0GgxN>

# Providing Unprecedented Access to Data

[Browse](#) and download over 1,400 New York State data resources on topics ranging from farmers' markets to solar photovoltaic projects to MTA turnstile usage. Also check out the [Open NY Dataset Submission Guide!](#)



Economic Development



Education




Energy & Environment



Government & Finance




Health



Human Services



Public Safety



Recreation



TOOLS & INFO

INNOVATION CHALLENGE

CODE A THON

# Welcome to Health Data NY!

Explore the Health Data NY catalog! See all of the available data assets plus keywords, documentation explaining the data (meta data) and much more by clicking on the icons below.



Consumer Resources



Environmental Health



Facilities & Services



Community Health & Chronic Disease



Quality, Safety & Costs



Births, Deaths & Other Facts



Strategic Initiatives

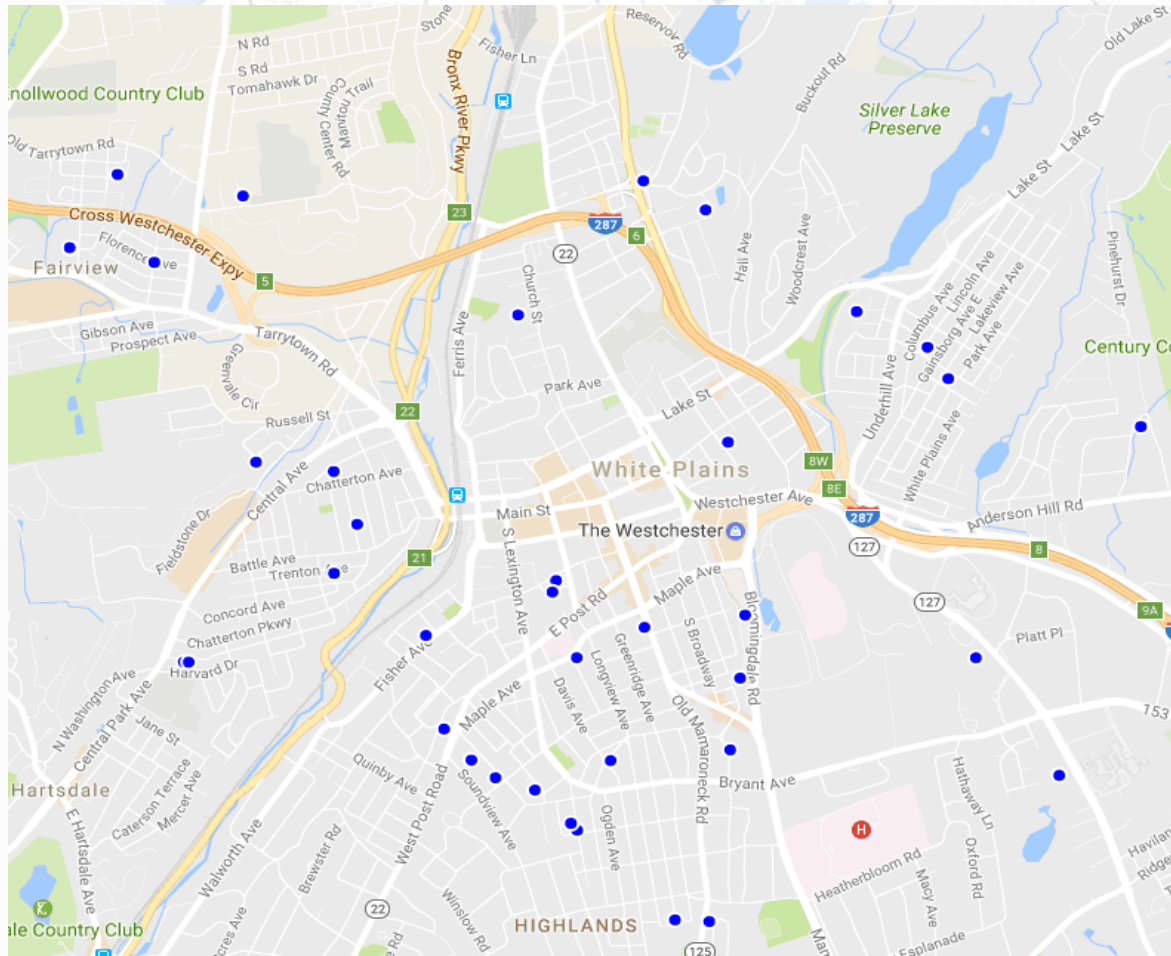


All Data



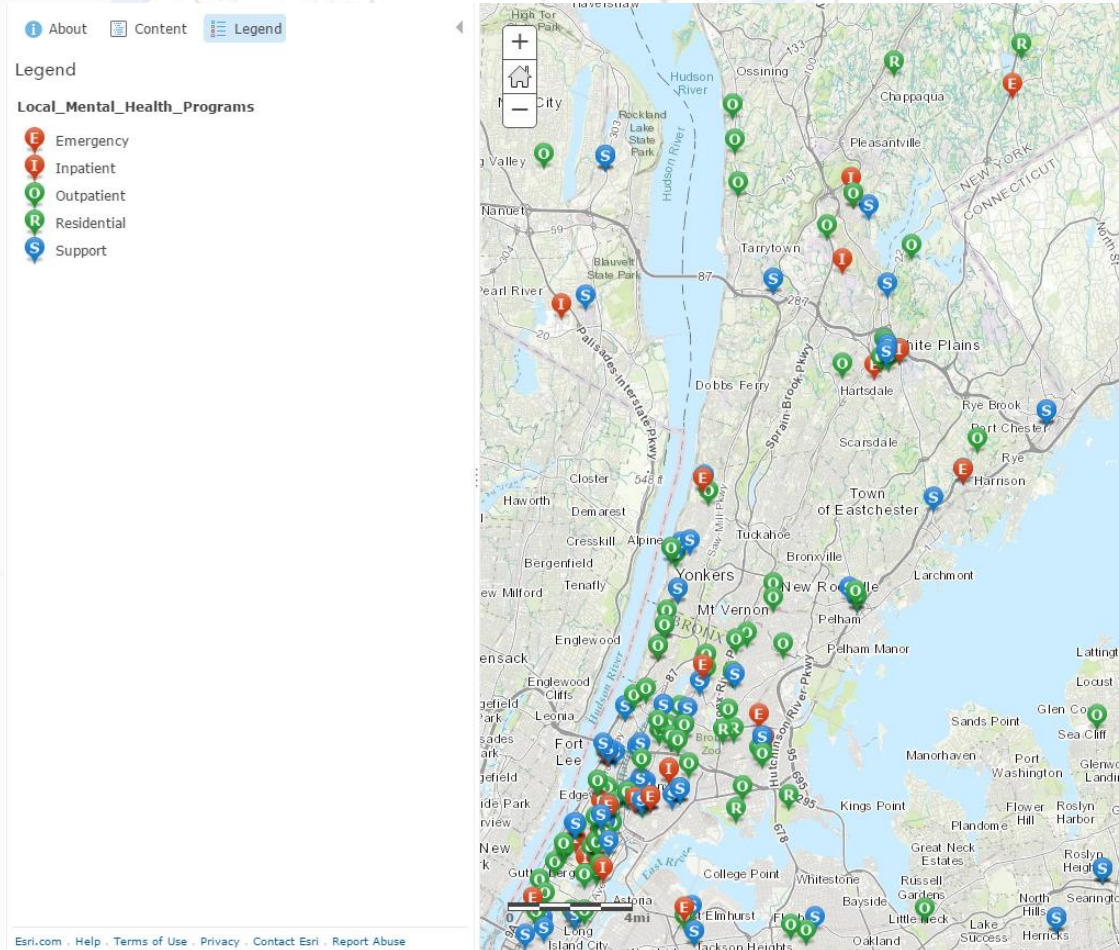
# Child Care Regulated Programs

NYS Council on Children and Families



# Local Mental Health Programs

NYS Council on Children and Families





# Summary

- Social and human service programs have significant geospatial component
- Environmental health programs more geospatially enabled /more common
- HHS systems often state mandated – and often state funded - though programs to date have had limited geospatial emphasis or direction
  - Moving data across systems difficult
  - Huge, costly to migrate from, modify legacy systems
  - Many vendor systems come with minimal mapping capabilities; reluctance to change
  - Significant data confidentiality issues
- Challenges aside, tremendous opportunities for GIS community to build geospatial capacity in these government areas
- Focus needs to be on **improving service delivery**



# QUESTIONS

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