

CHARGING INFRASTRUCTURE MAPPING AND MODELING

2022 ELECTRIC VEHICLE DC FAST CHARGING COMMUNITY SOLICITATION

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION (DEP)

BUREAU OF MOBILE SOURCES

BACKGROUND & DEVELOPMENT

Geographic and Demographic Considerations:

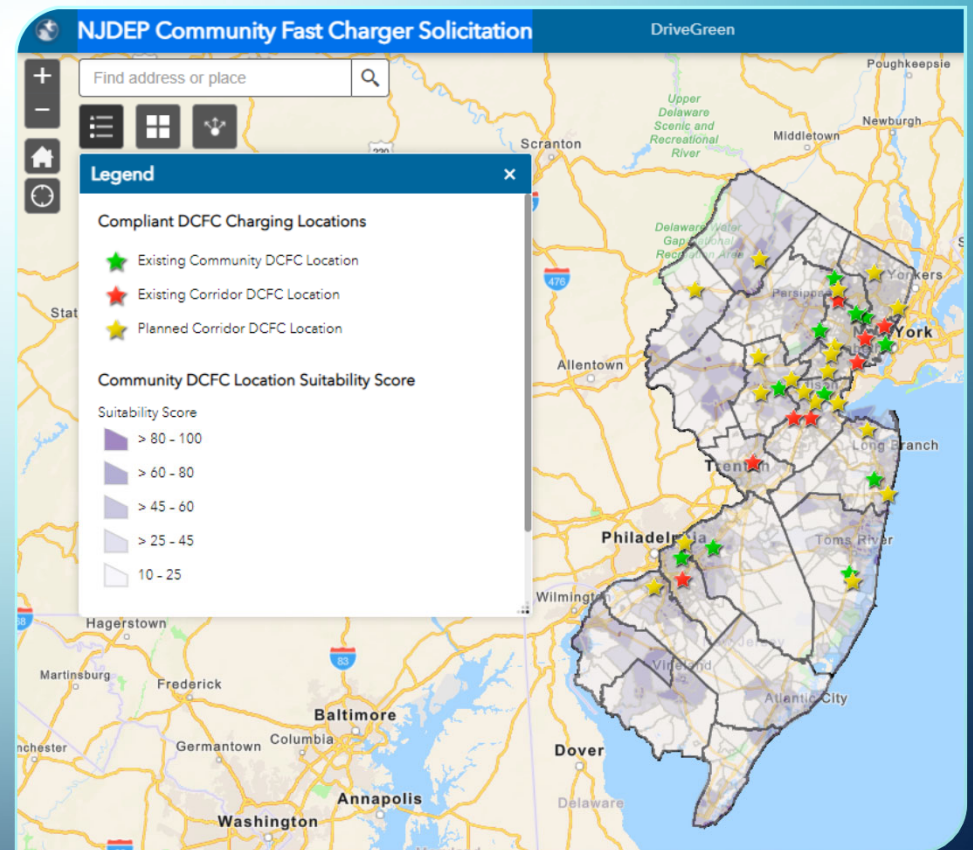
- MJBradley & Associates developed a tool (ILIT) to evaluate what locations may be suited for electric vehicle fast charging infrastructure.
- DEP unitized ILIT to receive a “suitably score” for each census tract within all NJ counties. Each tract was given a score out of 100 based on their population density and commercial activity relative to each other tract in the county.
- Locations of planned and existing compliant (50kw or greater) DCFC stations are mapped.



NJDEP COMMUNITY SOLICITATION GIS MAP

- **Map Overview**

- This interactable heatmap displays the suitability score for each census tract and displays the locations of the DCFC infrastructure.
- Each tract is assigned a color corresponding with the its suitability score, the darkest tracts having the highest scores.
- Census Tracts and DCFC Infrastructure are automatically overlaid on the map. Each of these tracts and location points can be clicked on, which will pull up more information



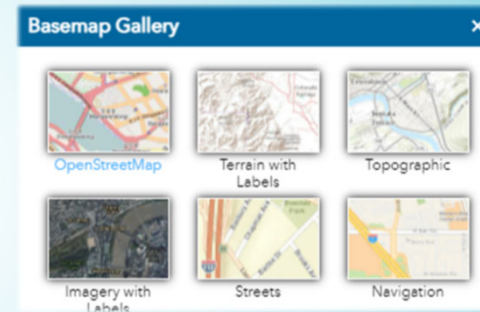
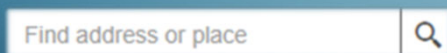
FEATURES

- **Layer List** - This tool allows specific layers to be selectively displayed. The tract data, charging locations, county boundaries, and municipality boundaries may be switched on or off.

Tool Icon:



- **Search Tool** – This search function can input an address or place, pinpoint the location, and zoom in.



- **Base Map Gallery** – This tool will display the section of base maps of which there are 6 map options. There are 2 Base Maps of note:
 - *Navigation* – This Base Map is selected by default and best displays the Census Tract colors to be the most visible by contrast.
 - *OpenStreetMap* – This Base Map can be used to easily locate businesses, public spaces, and other locations details by use of zoom function.

Tool Icon:



EXCEL DATA TABLE

- This table displays Suitability Score data generated with the ILIT Model and includes the same tract data as the DEP map.
- Tract data is grouped alphabetically by county. Utilizing the dropdown menus for each column, user can sort and filter data.
- These table tools can be used to:
 - Find the tract score of a specific municipality
 - Isolate the highest suitability scores through the state
 - Organize the data in whatever way is most suited to the user

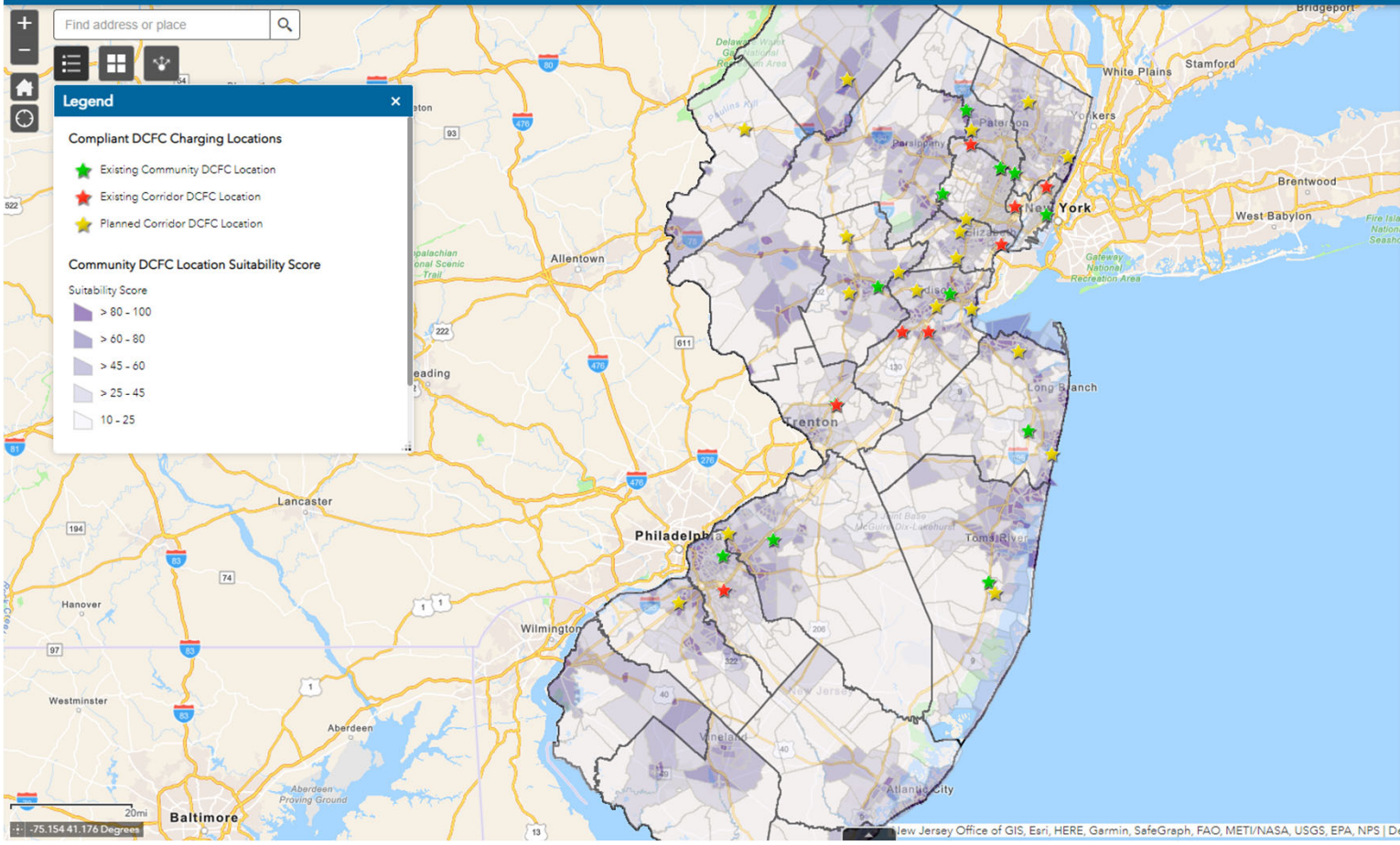
NJDEP Bureau of Mobile Sources 2022 Community Solicitation Data Table

Main Phone #: (609) 292-7953 / E-mail Address: drivegreen@dep.nj.gov

County Tier	County Name	Tract ID Number	Municipality	Final Score
Tier 1	Atlantic	Tract 5	Atlantic City	100
Tier 1	Atlantic	Tract 11	Atlantic City	100
Tier 1	Atlantic	Tract 15	Atlantic City	100
Tier 1	Atlantic	Tract 2	Atlantic City	95
Tier 1	Atlantic	Tract 3	Atlantic City	95
Tier 1	Atlantic	Tract 4	Atlantic City	95
Tier 1	Atlantic	Tract 12	Atlantic City	95
Tier 1	Atlantic	Tract 19	Atlantic City	95
Tier 1	Atlantic	Tract 23	Atlantic City	95
Tier 1	Atlantic	Tract 25	Atlantic City	95
Tier 1	Atlantic	Tract 24	Atlantic City	90
Tier 1	Atlantic	Tract 14	Atlantic City	85
Tier 1	Atlantic	Tract 119	Pleasantville	85
Tier 1	Atlantic	Tract 1	Atlantic City	80
Tier 1	Atlantic	Tract 122	Pleasantville	80
Tier 1	Atlantic	Tract 128.01	Somers Point	80
Tier 1	Atlantic	Tract 101.02	Brigantine	75
Tier 1	Atlantic	Tract 131.01	Margate City	75
Tier 1	Atlantic	Tract 131.02	Margate City	75
Tier 1	Atlantic	Tract 101.04	Brigantine	70
Tier 1	Atlantic	Tract 101.05	Brigantine	70
Tier 1	Atlantic	Tract 121	Pleasantville	70
Tier 1	Atlantic	Tract 127.01	Somers Point	70
Tier 1	Atlantic	Tract 130	Margate City	70
Tier 1	Atlantic	Tract 132.01	Ventnor City	65

LIVE DEMONSTRATION





Legend

Compliant DCFC Charging Locations

- Existing Community DCFC Location
- Existing Corridor DCFC Location
- Planned Corridor DCFC Location

Community DCFC Location Suitability Score

Suitability Score

- > 80 - 100
- > 60 - 80
- > 45 - 60
- > 25 - 45
- 10 - 25

About



In accordance with the New Jersey Partnership to Plug-In, "Partnership" (signed June 3rd, 2019), the Department is developing mapping that that will help inform strategic placement of electric vehicle (EV) charging infrastructure. Further, Public Law 2019, chapter 362, "EV Law" (signed January 17th, 2020), prescribes more specific requirements for EV charging infrastructure, with regard to number, power, and distribution of charging stations.

This mapping shows both current and proposed DCFC locations that are compliant with the EV Law, along with the Community DCFC Location Suitability Score developed for each 2010 Census Tract in the state.

Contact us at drivegreen@dep.nj.gov with any questions or comments

NJDEP Community Fast Charger Solicitation DriveGreen

Find address or place

Basemap Gallery

- OpenStreetMap
- Terrain with Labels
- Topographic
- Imagery with Labels
- Streets
- Navigation

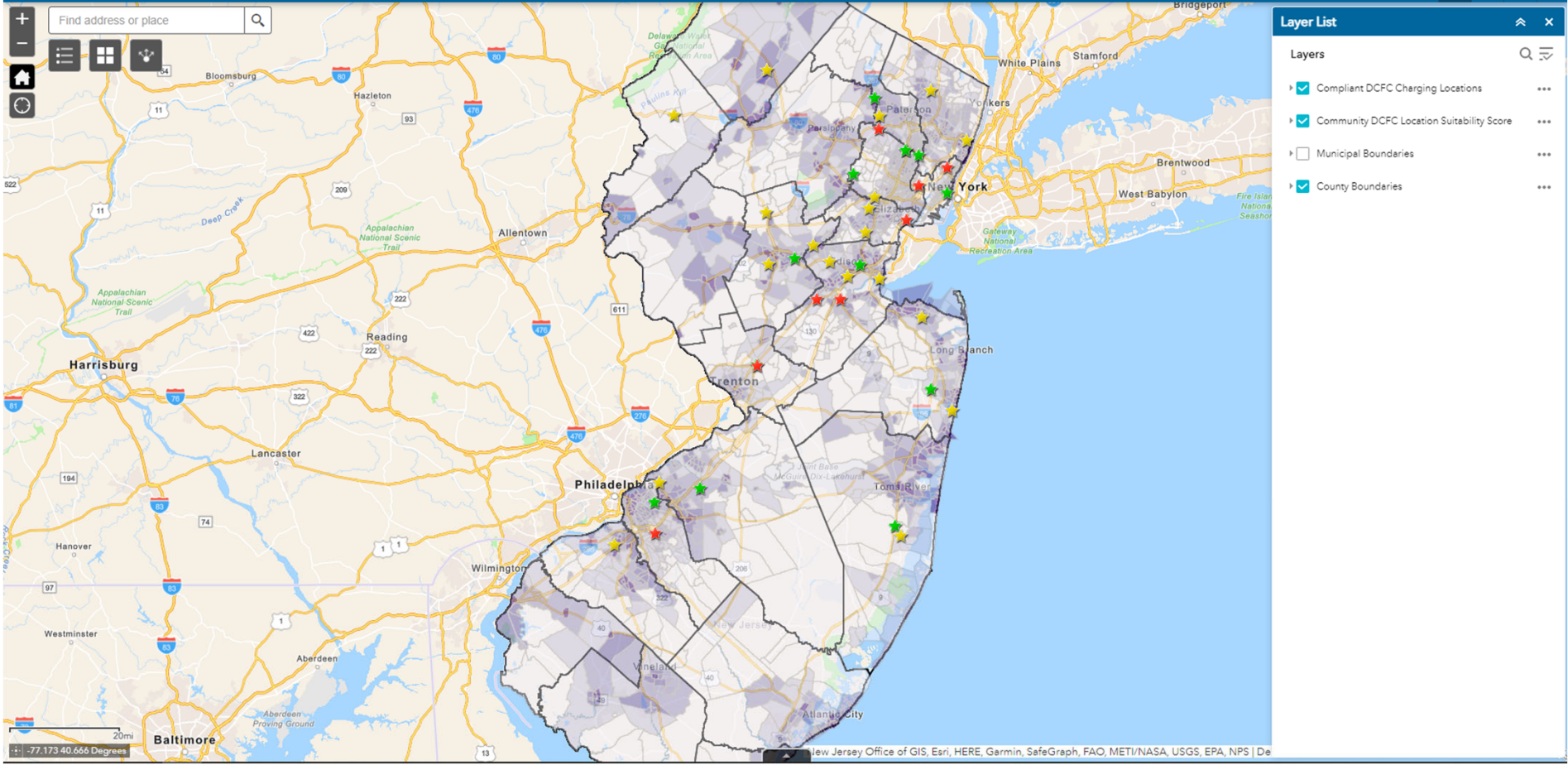
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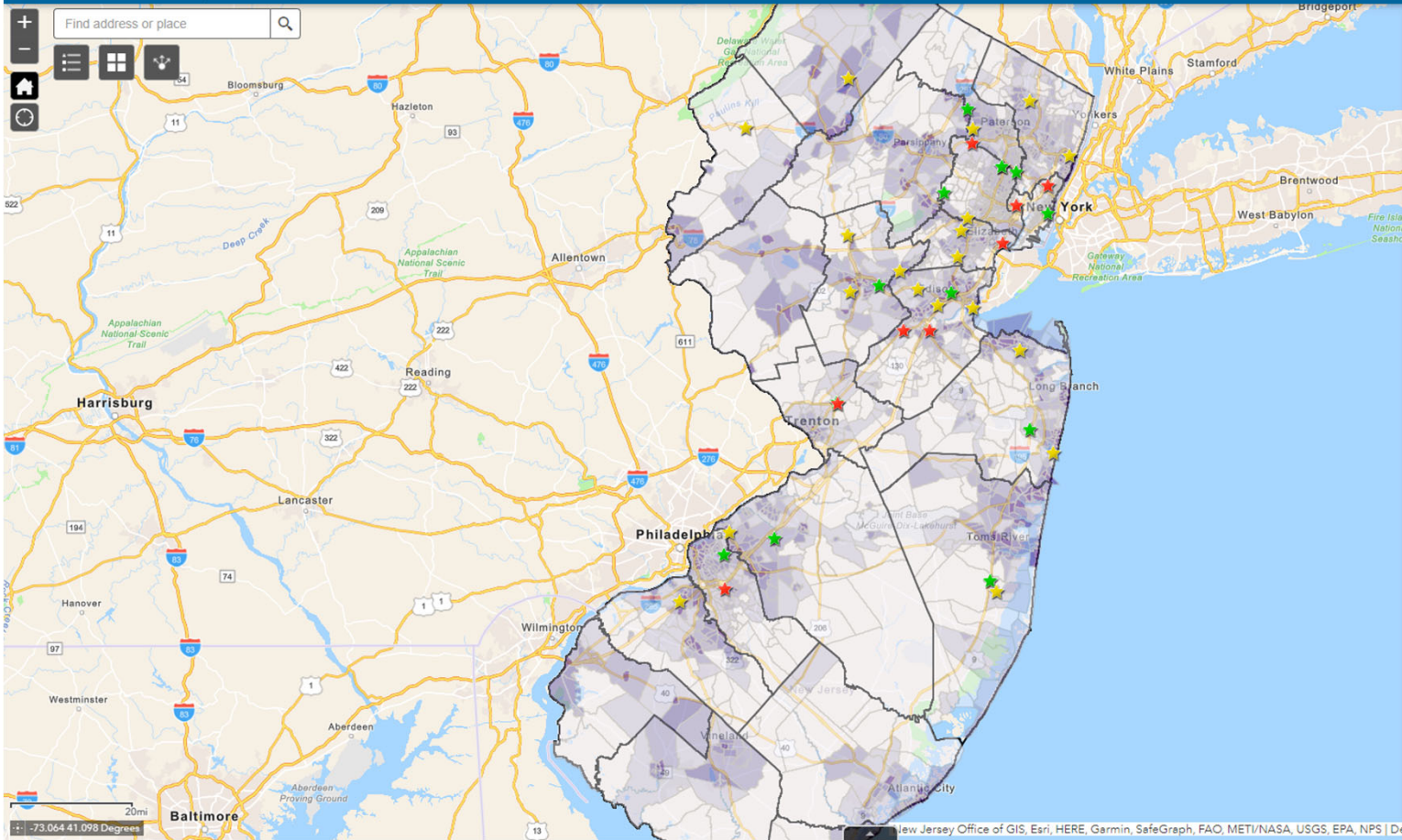
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New Jersey Office of GIS, Esri, HERE, Garmin, SafeGraph, FAO, METI/NASA, USGS, EPA, NPS | De



- Layer List**
- Layers
- Compliant DCFC Charging Locations
 - Community DCFC Location Suitability Score
 - Municipal Boundaries
 - County Boundaries

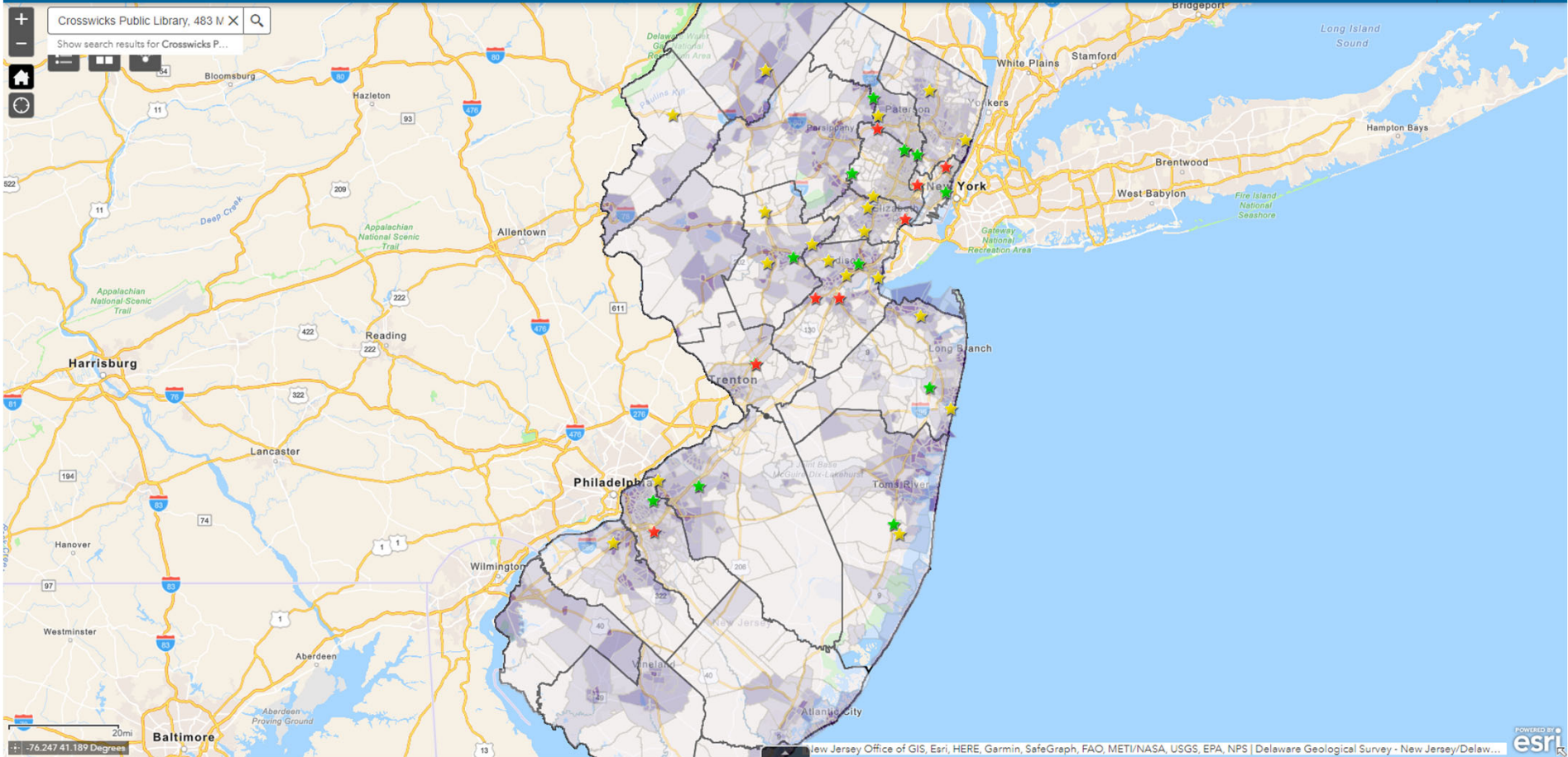


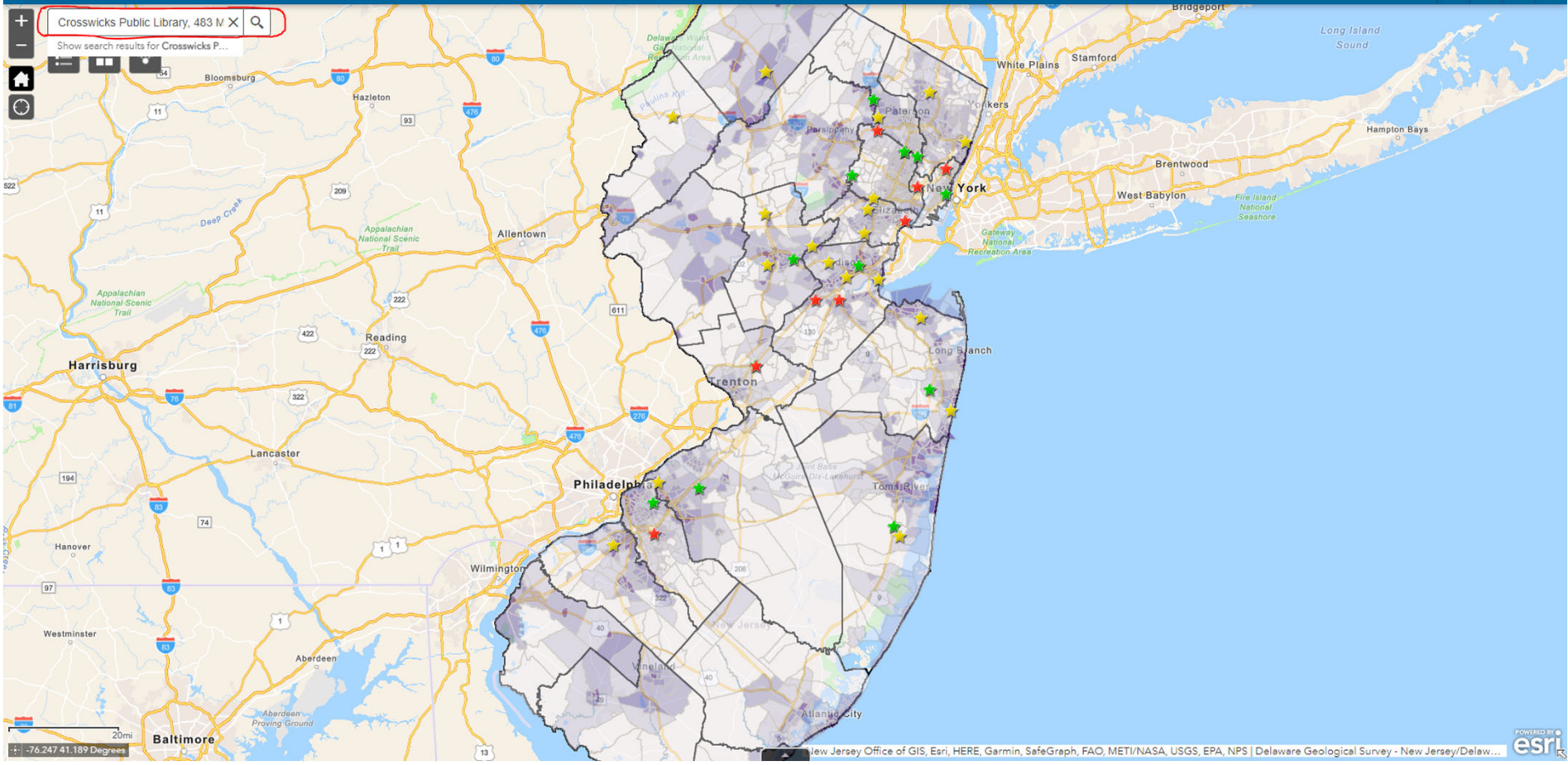
Near Me

Search for an address or locate on map

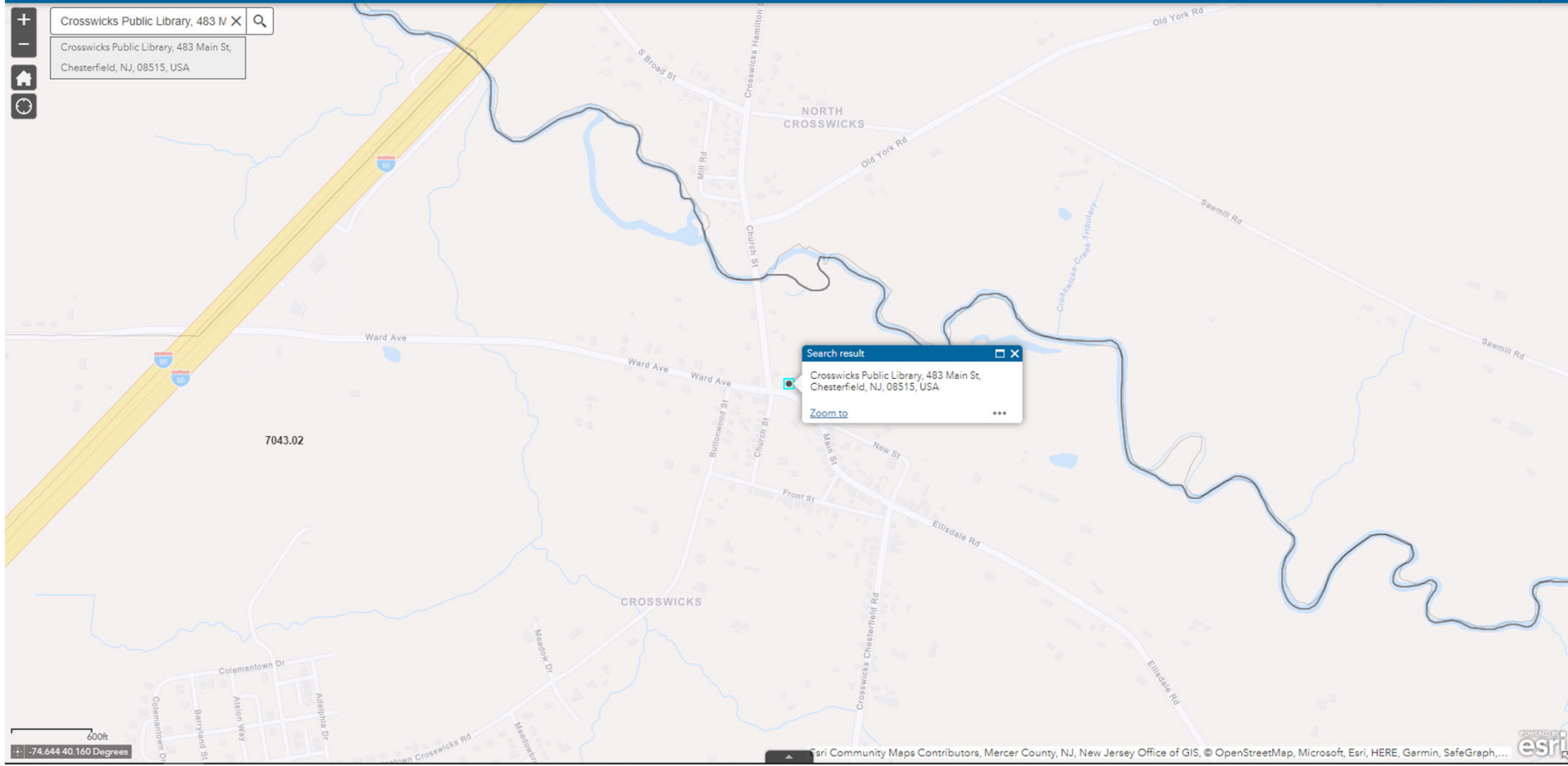
Find address or place

Show results within (Miles)





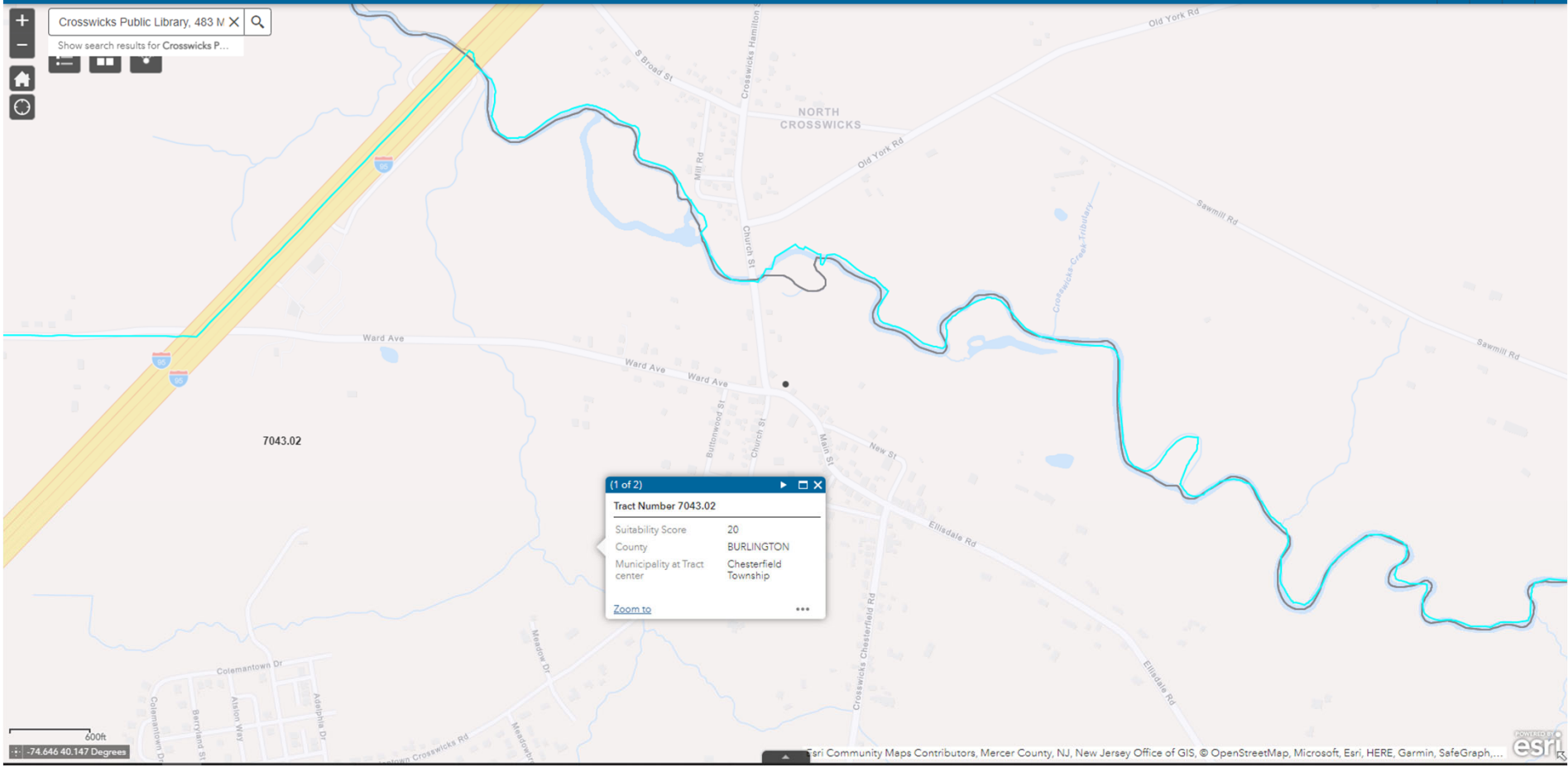
+ Crosswicks Public Library, 483 M X **Q**
-
Home Crosswicks Public Library, 483 Main St,
Chesterfield, NJ, 08515, USA
Refresh



Crosswicks Public Library, 483 M X Q

Show search results for Crosswicks P...

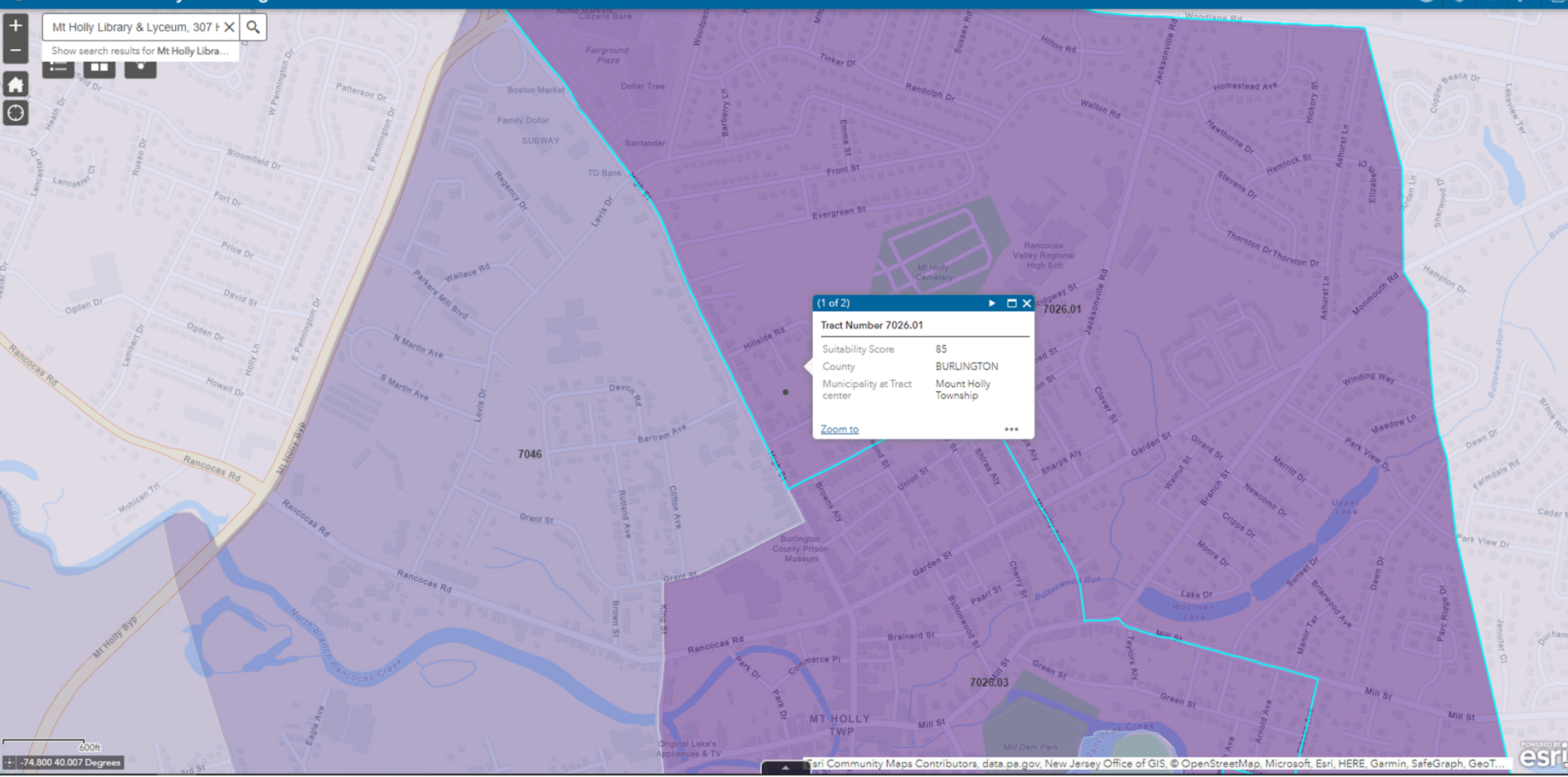
Home Refresh



The map interface includes a search bar at the top left with the text "Mt Holly Library & Lyceum, 307 High St, Mount Holly, NJ, 08060, USA". Below the search bar are navigation icons for home, refresh, and zoom. A search result popup is visible in the center of the map, containing the text "Search result", "Mt Holly Library & Lyceum, 307 High St, Mount Holly, NJ, 08060, USA", and a "Zoom to" button. The map shows a purple shaded area representing the solicitation zone, with various streets and landmarks labeled. A scale bar at the bottom left indicates 200 feet. The bottom right corner features the Esri logo and copyright information: "Esri Community Maps Contributors, data.ps.gov, New Jersey Office of GIS, © OpenStreetMap, Microsoft, Esri, HERE, Garmin, SafeGraph, Geo..."

Mt Holly Library & Lyceum, 307 F X

Show search results for Mt Holly Libra...



200ft
-74.800 40.007 Degrees

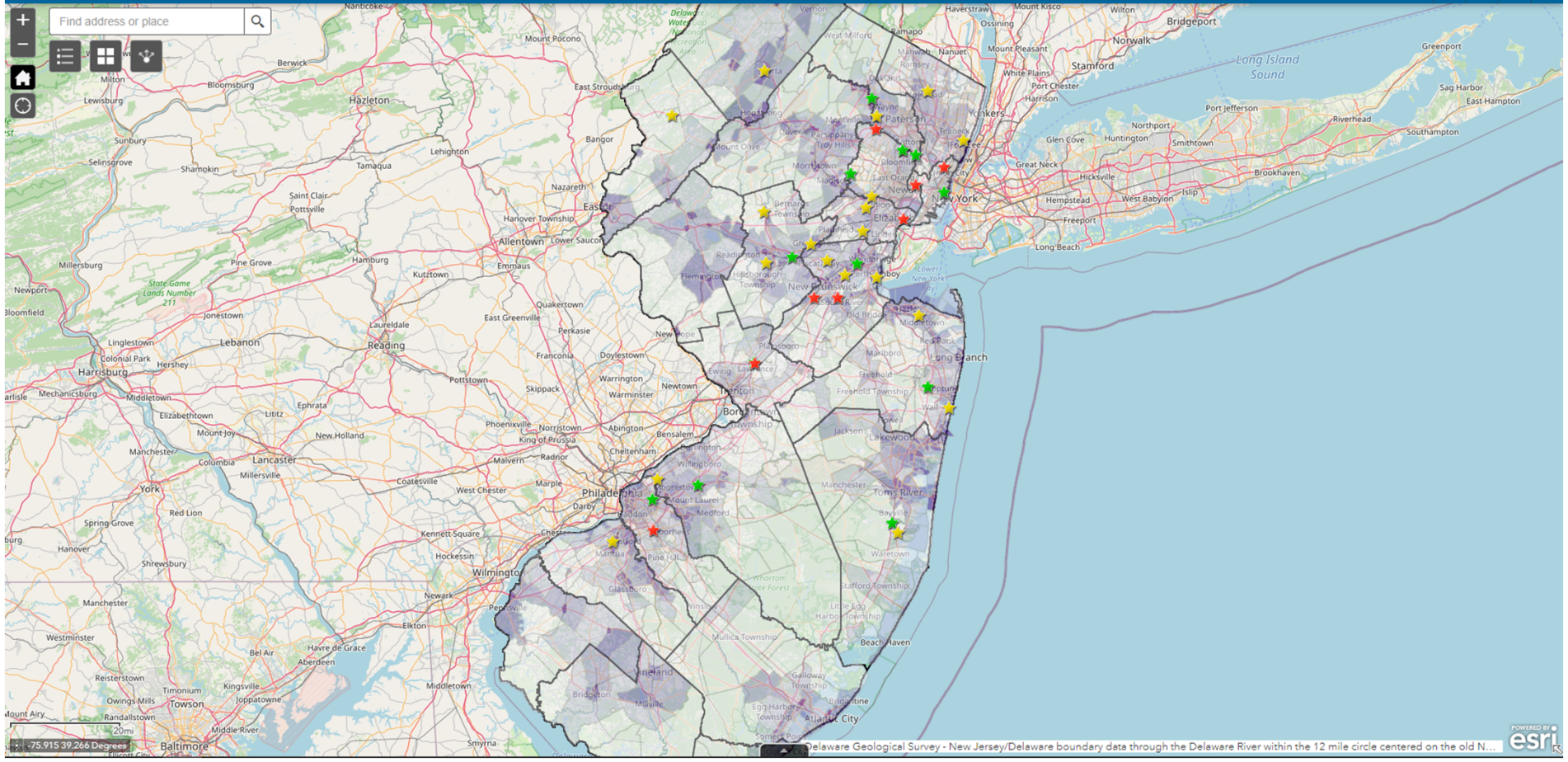


NJDEP Community Fast Charger Solicitation

DriveGreen

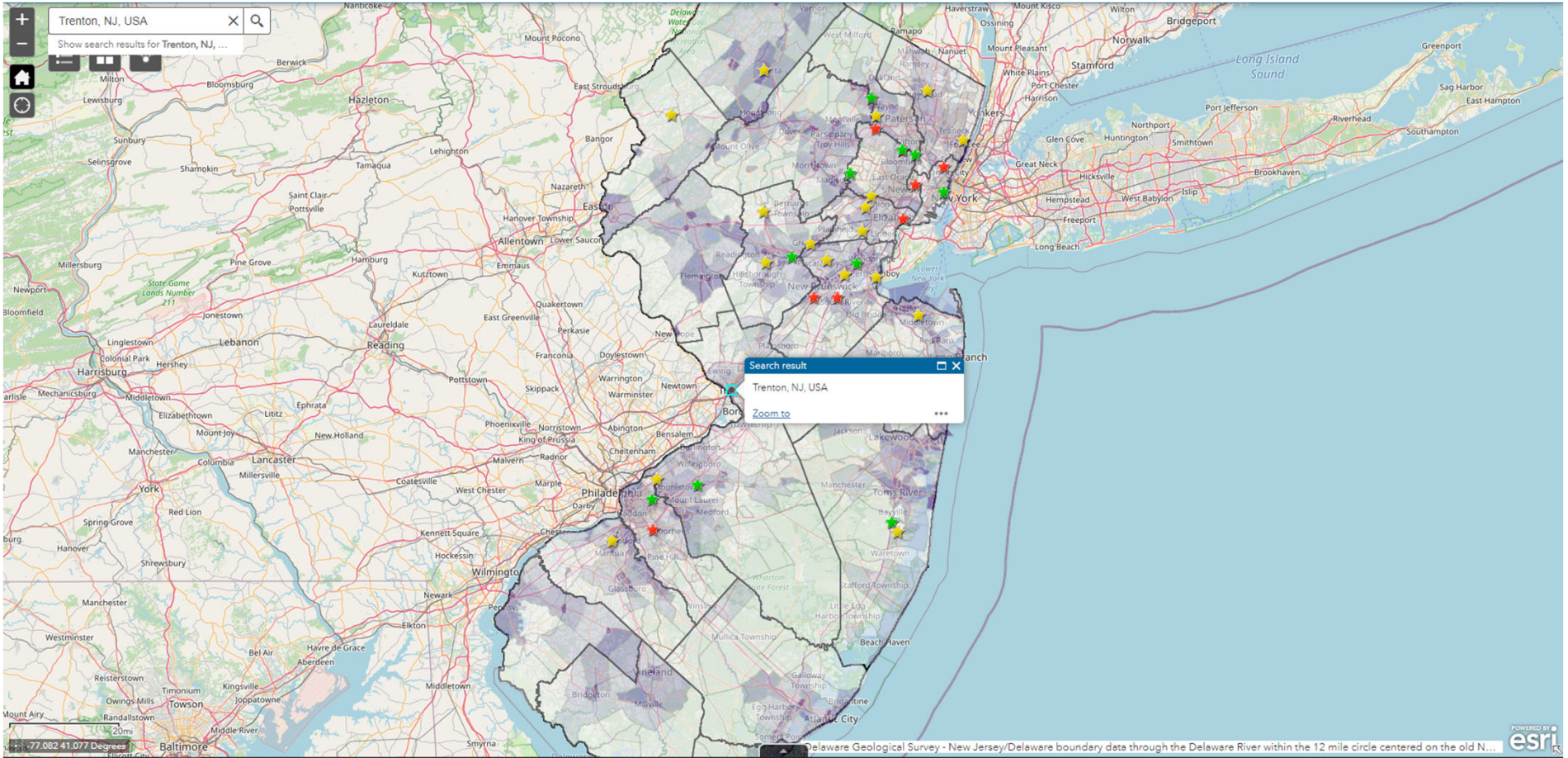


Find address or place



75.915 39.266 Degrees

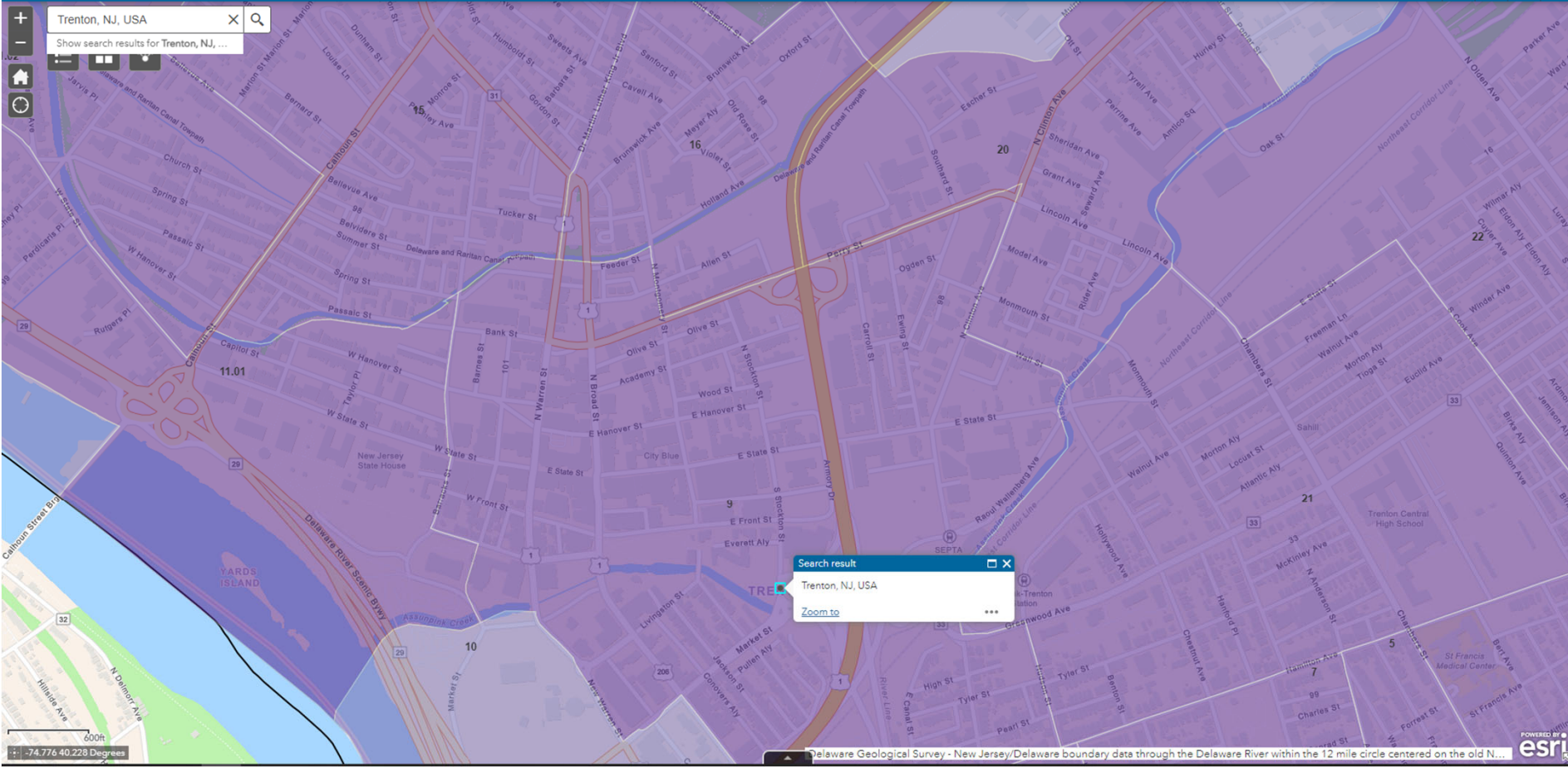
Delaware Geological Survey - New Jersey/Delaware boundary data through the Delaware River within the 12 mile circle centered on the old N... 



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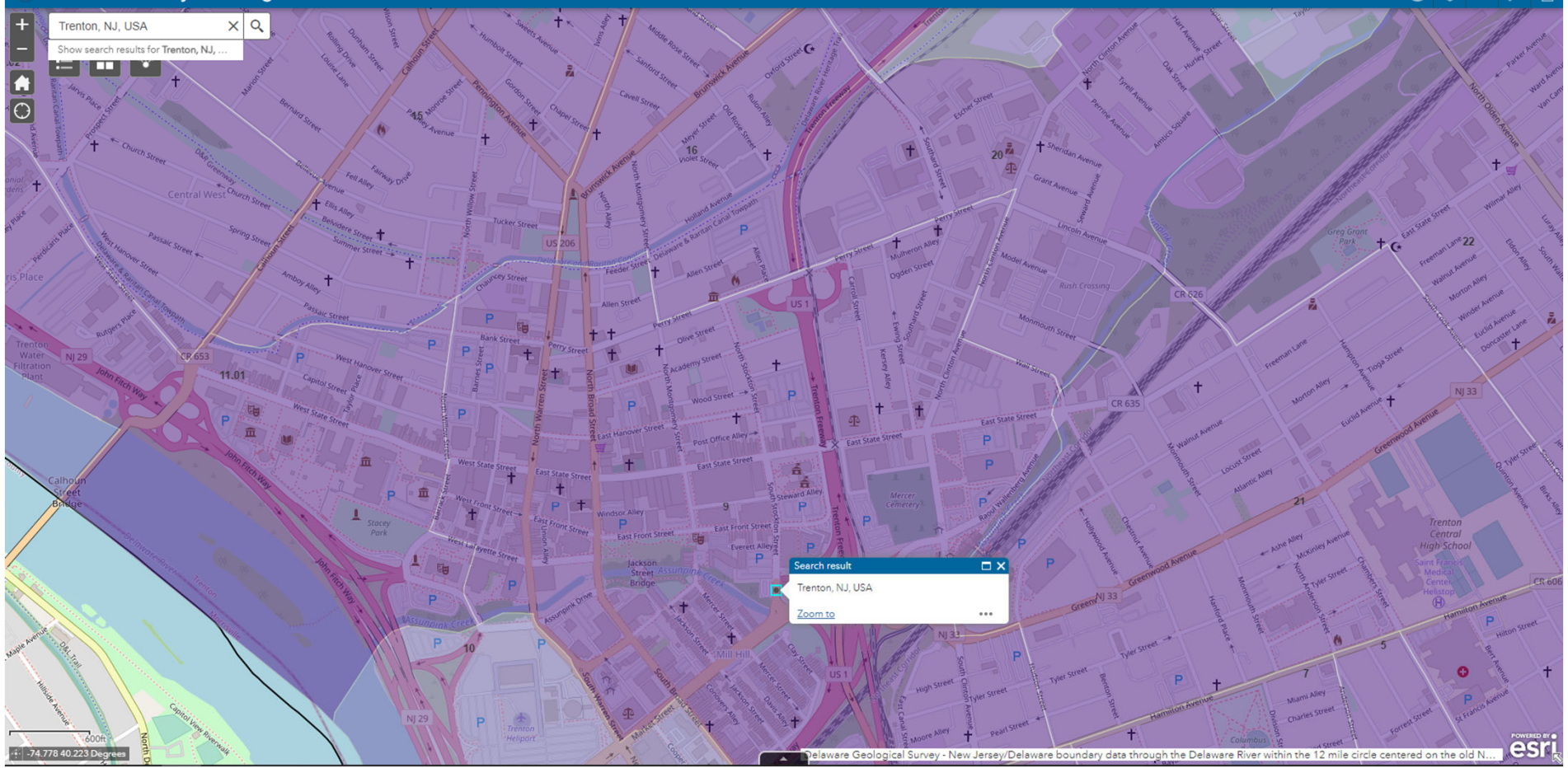


Search bar with text: Trenton, NJ, USA
Show search results for Trenton, NJ, ...
Home, Refresh, Full Screen icons



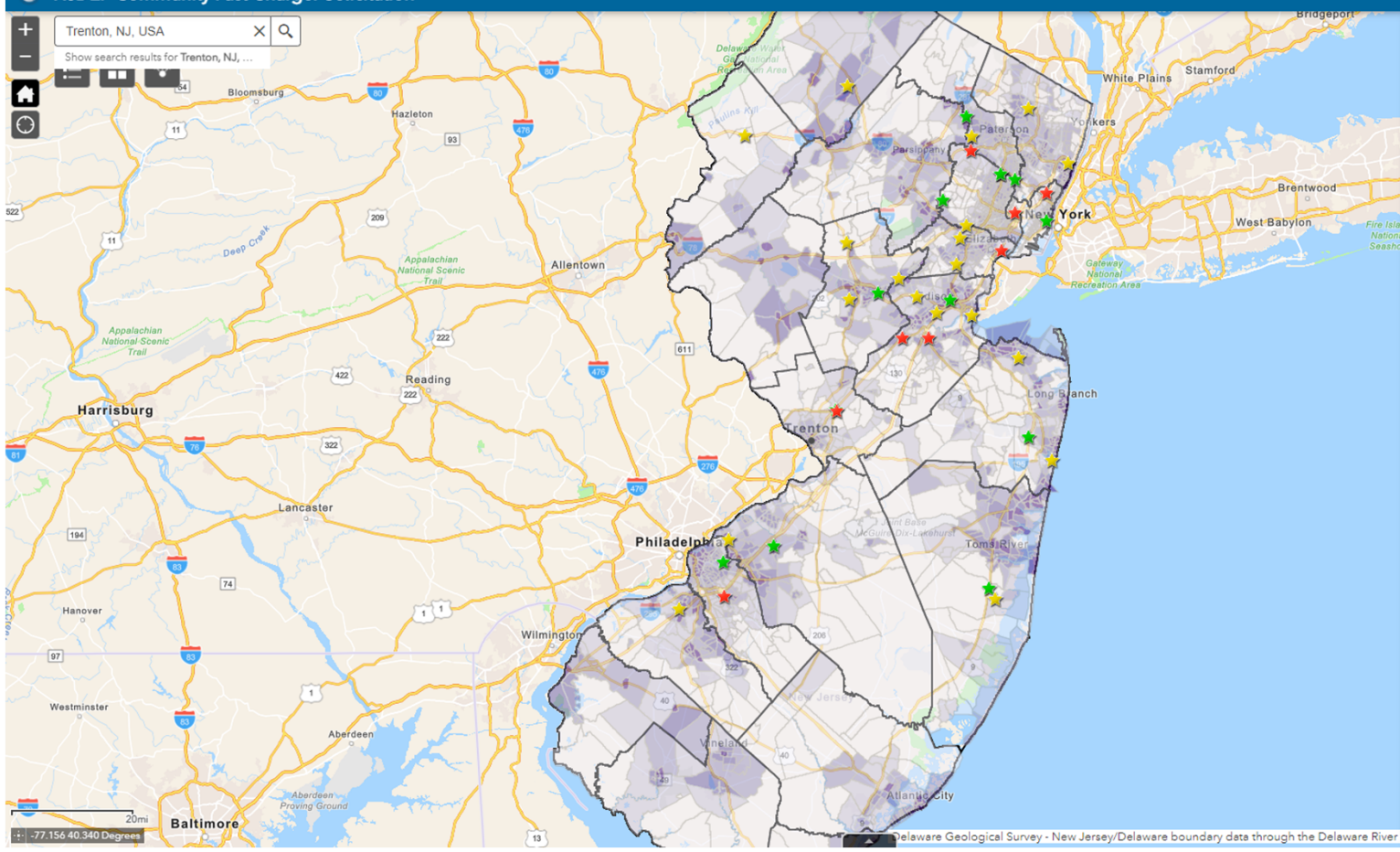
Search result
Trenton, NJ, USA
Zoom to

Trenton, NJ, USA
Show search results for Trenton, NJ, ...



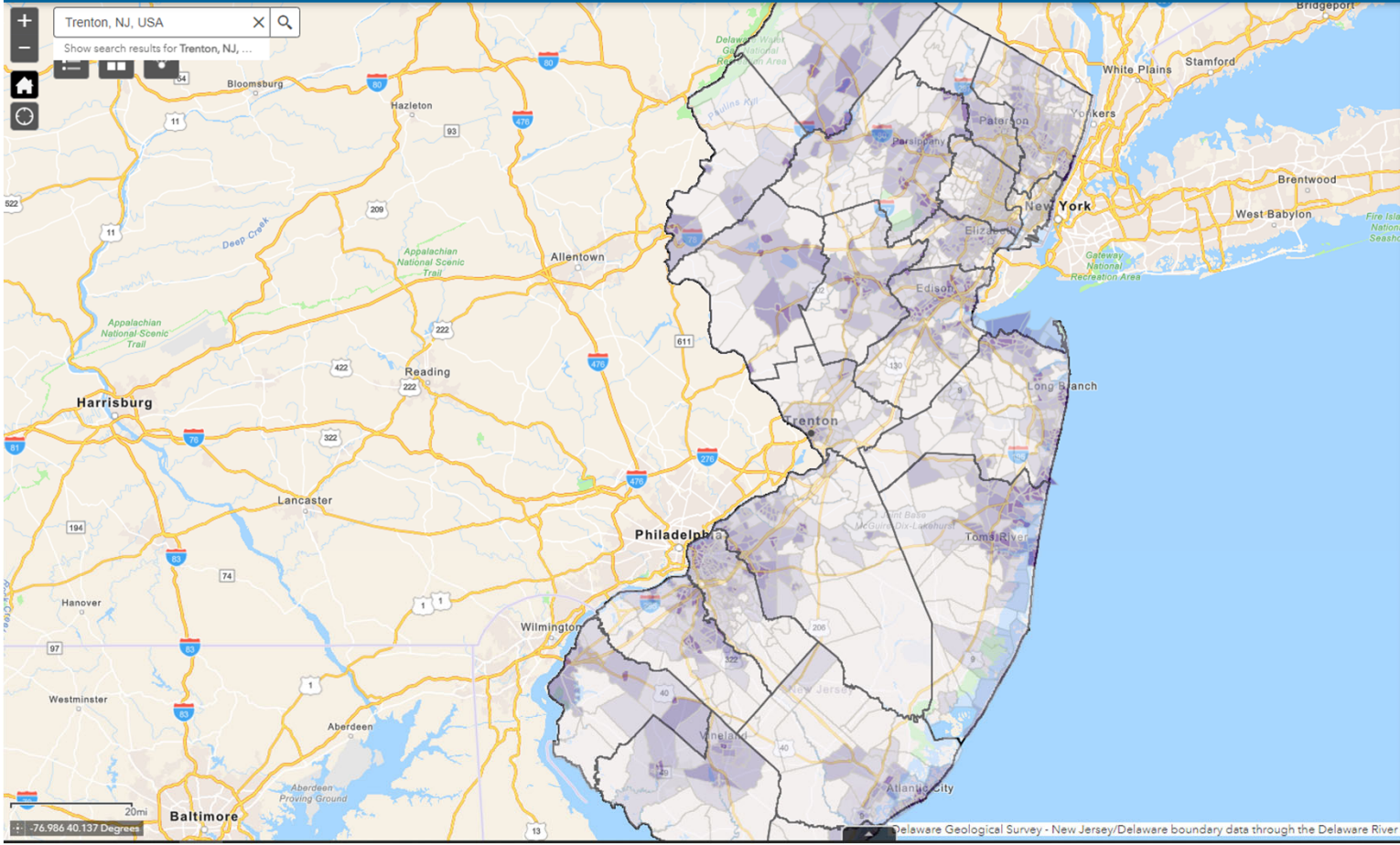
Trenton, NJ, USA

Show search results for Trenton, NJ, ...



Layer List

- Compliant DCFC Charging Locations
- Existing Community DCFC Location
- Existing Corridor DCFC Location
- Planned Corridor DCFC Location
- Community DCFC Location Suitability Score
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- County Boundaries



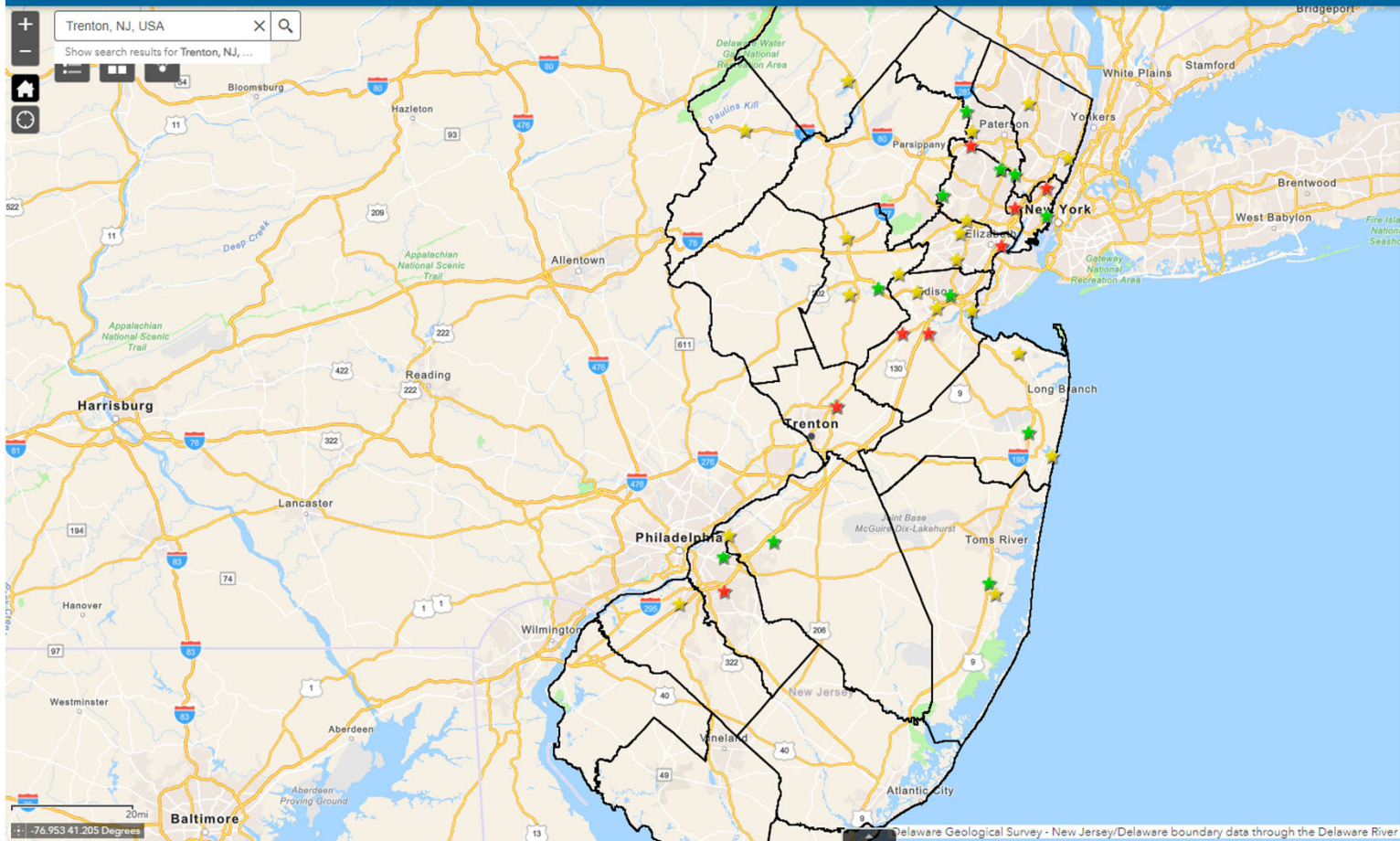
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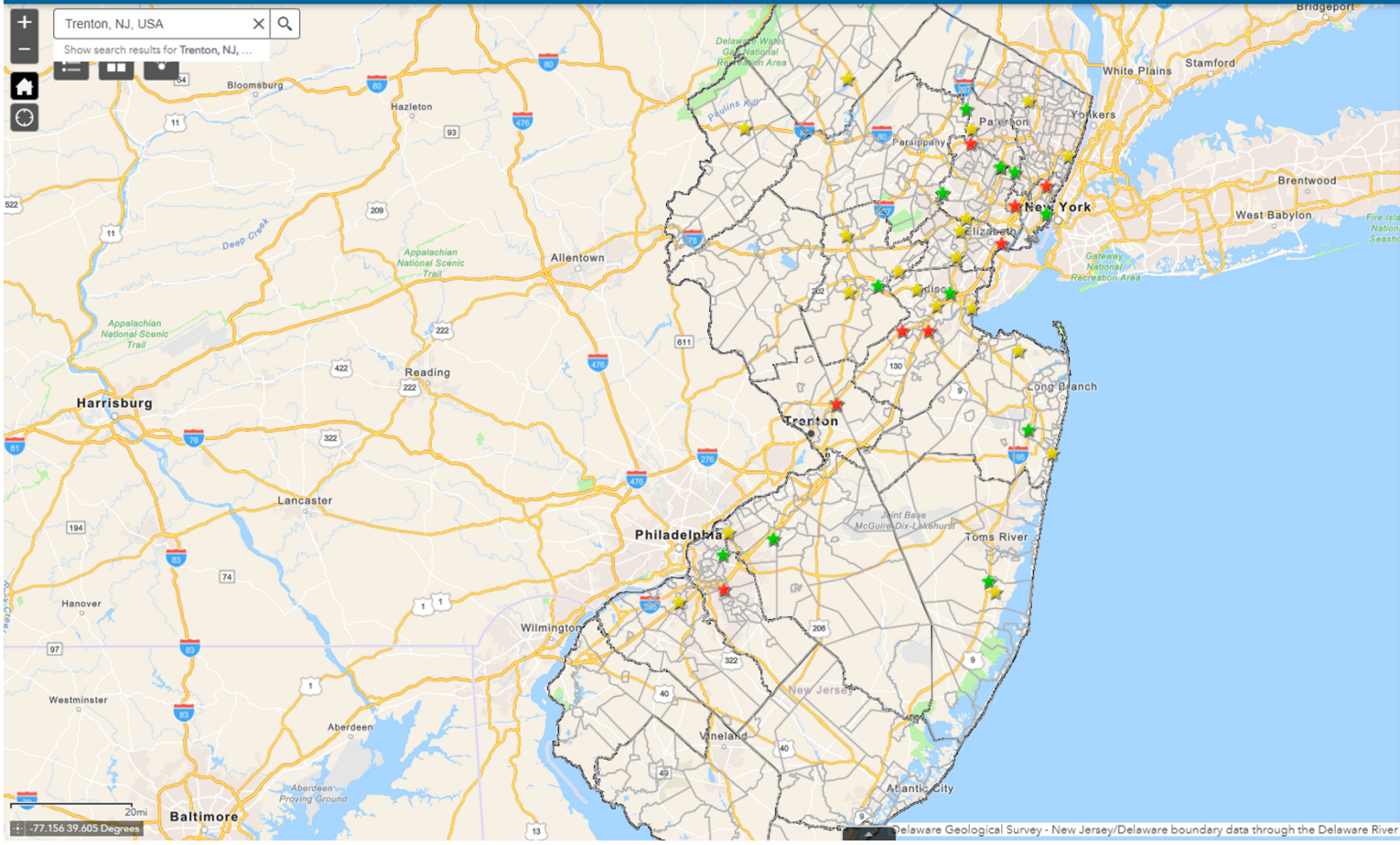
Trenton, NJ, USA

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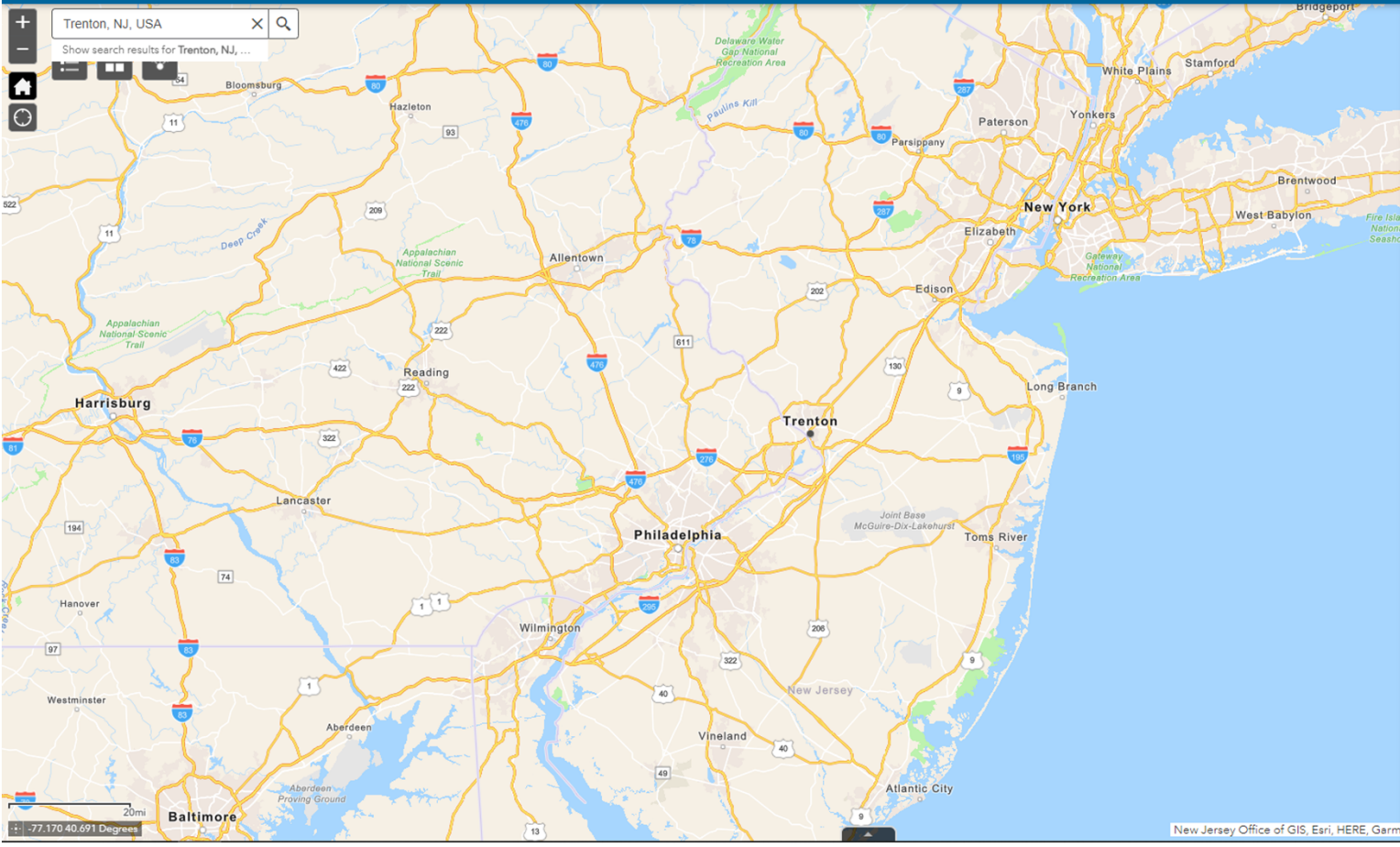
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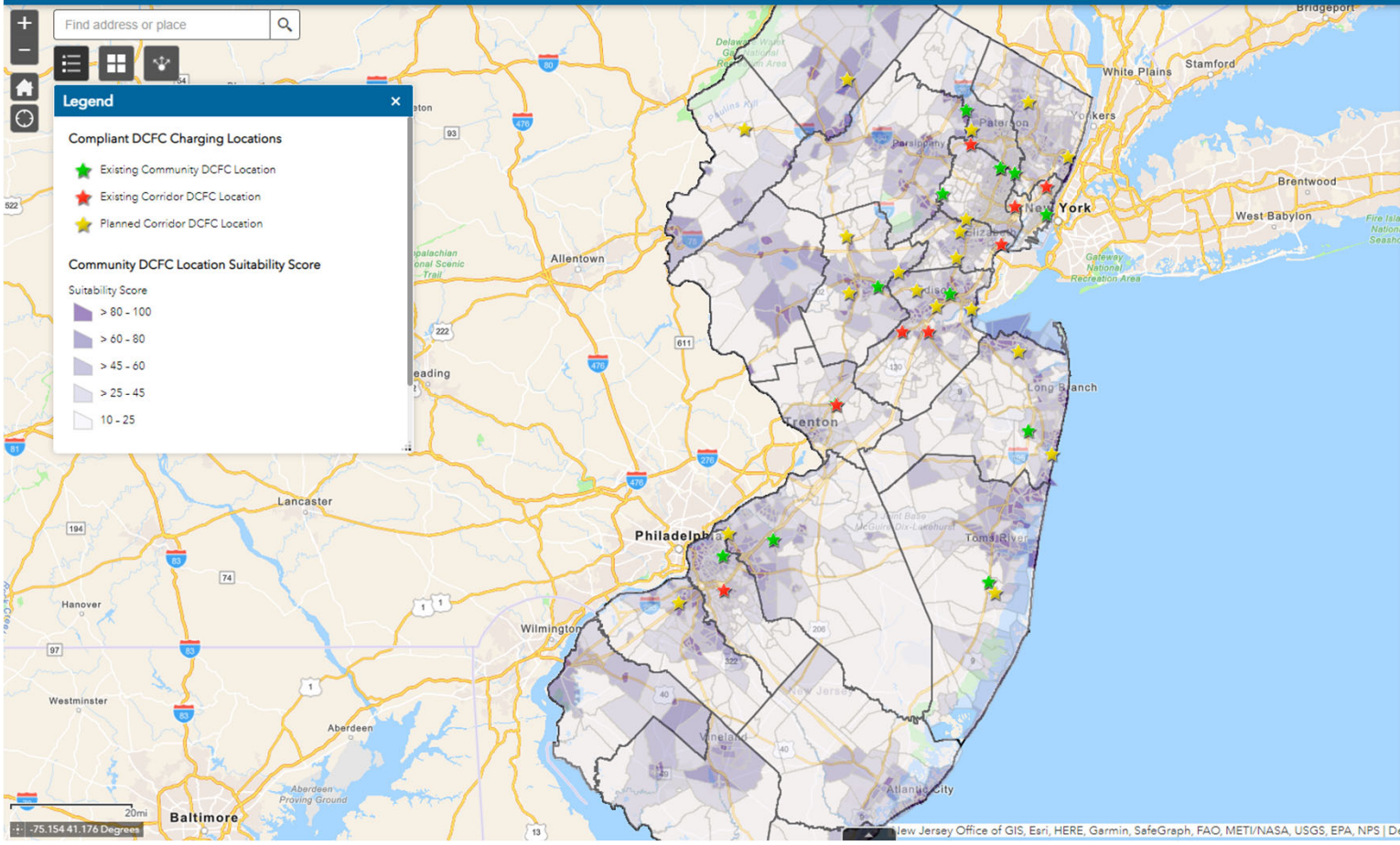
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