NJ Community Solar PV Siting Tool User Guide

Version 1.7 (released January 2021)

Developed by the New Jersey Department of Environmental Protection's
Bureau of Climate Change & Clean Energy

Contents

If you have any questions about this tool, please contact the NJDEP's Bureau of Climate Change & Clean Energy, or send an email to solar_siting_analysis@dep.nj.gov

Introduction:

On May 23, 2018, Governor Phil Murphy signed the Clean Energy Act into law, which, among other clean energy related directives, tasked the New Jersey Board of Public Utilities (BPU) with adopting rules and regulations establishing a "Community Solar Energy Pilot Program". On February 19, 2019 the final Community Solar Energy Pilot Program Rule was published in the NJ Register. Subsequently on March 29, 2019 the BPU Board approved the Application Form, which contains Evaluation Criteria, for the first year of the Community Solar Energy Pilot Program. This program allows customers of an electric utility to subscribe to the program and obtain electricity remotely from a solar PV project sited elsewhere within the electric utility territory. Customers that subscribe to the program will obtain a credit on their monthly utility bill equal to the electricity generated by the solar array attributed to the customers participation. Doing so provides access to local clean energy to utility customers who are currently unable to site solar PV arrays directly at their own facilities.

In response to the March 29, 2019 BPU Board Order that opened the application window for the Community Solar Energy Pilot Program, and in an effort to continually support BPU's initiatives related to clean energy, the New Jersey Department of Environmental Protection's Bureau of Climate Change & Clean Energy (formerly the Bureau of Energy & Sustainability) has developed the New Jersey Community Solar PV Siting Tool.

Purpose of the Tool:

The New Jersey Community Solar PV Siting Tool is intended to provide property owners, business owners, government entities, and sustainable and renewable energy developers with an online mapping tool to assist with identifying the most preferred areas for siting solar PV under the Community Solar Energy Pilot Program. While solar energy is a clean energy source that has many environmental benefits, it must be properly sited to ensure that these associated benefits are not lost and that additional environmental harm is not introduced as a result of the development.

Data Layers:

The Community Solar PV Siting Tool contains a number of data layers* that are intended to be viewed by users to help make informed decisions on where to site projects under the Community Solar Energy Pilot Program. The data layers that have been integrated into the tool were chosen based on the Evaluation Criteria found in the Application Form, which the Board will consider in evaluating project applications. These layers were categorized in the tool based on the siting preference in the Evaluation Criteria.

Higher Siting Preference:

Low to Moderate Income Population by Census Block Group
NJDEP Solar Siting Analysis
Landfill Sites over 35 Acres
Brownfield Development Areas in New Jersey
Areas of Historic Fill
Known Contaminated Site List for New Jersey
Deed Notice Areas in New Jersey
Building Footprints Greater than 1 acre
Statewide Impervious Surfaces

Medium Siting Preference:

Areas in Need of Redevelopment
Designated Centers of the NJ State Development and Redevelopment Plan
NJ Opportunity Zones
Impervious Surface of New Jersey (via 2012 LULC)

Not Preferred / "No Points":

Forests & Wetlands (via 2012 LULC)
Agricultural Lands (via Parcels MOD-IV)
State, Local and Nonprofit Open Space in New Jersey
Preserved Farmland *Not Eligible*

Other Helpful Data Layers:

Low to Moderate Income Population by Census Block Group
Building Footprints Greater than 1 acre
New Jersey Counties
New Jersey Municipalities
Parcels and MOD-IV Composite of New Jersey
New Jersey Roads
New Jersey Electric Utility Territories
Sustainable Jersey Certified Municipalities (2019)
New Jersey Highlands Preservation and Planning Areas
New Jersey Pinelands Management Areas
NJ Community Solar PV Projects (Year 1)
Solar PV Grid Supply Installations
Solar PV at Public Facilities
Solar PV BTM Greater than 1 Megawatt
New Jersey Smart Growth Areas
NJEMS Sites

EDC Solar Hosting Capacity:

Atlantic City Electric Hosting Capacity
Public Service Electric & Gas Hosting Capacity
Jersey Central Power & Light Hosting Capacity
Orange & Rockland Hosting Capacity

*Additional information about each of the data layers, including hyperlinks to the data source, can be found in **Appendix A** of this User Guide.*

Using the Tool:

The Community Solar PV Siting Tool has a number of different components, widgets, and tools that can be utilized to assist with identifying potential locations, as well as analyzing and evaluating potential sites for solar PV development.

Map Orientation
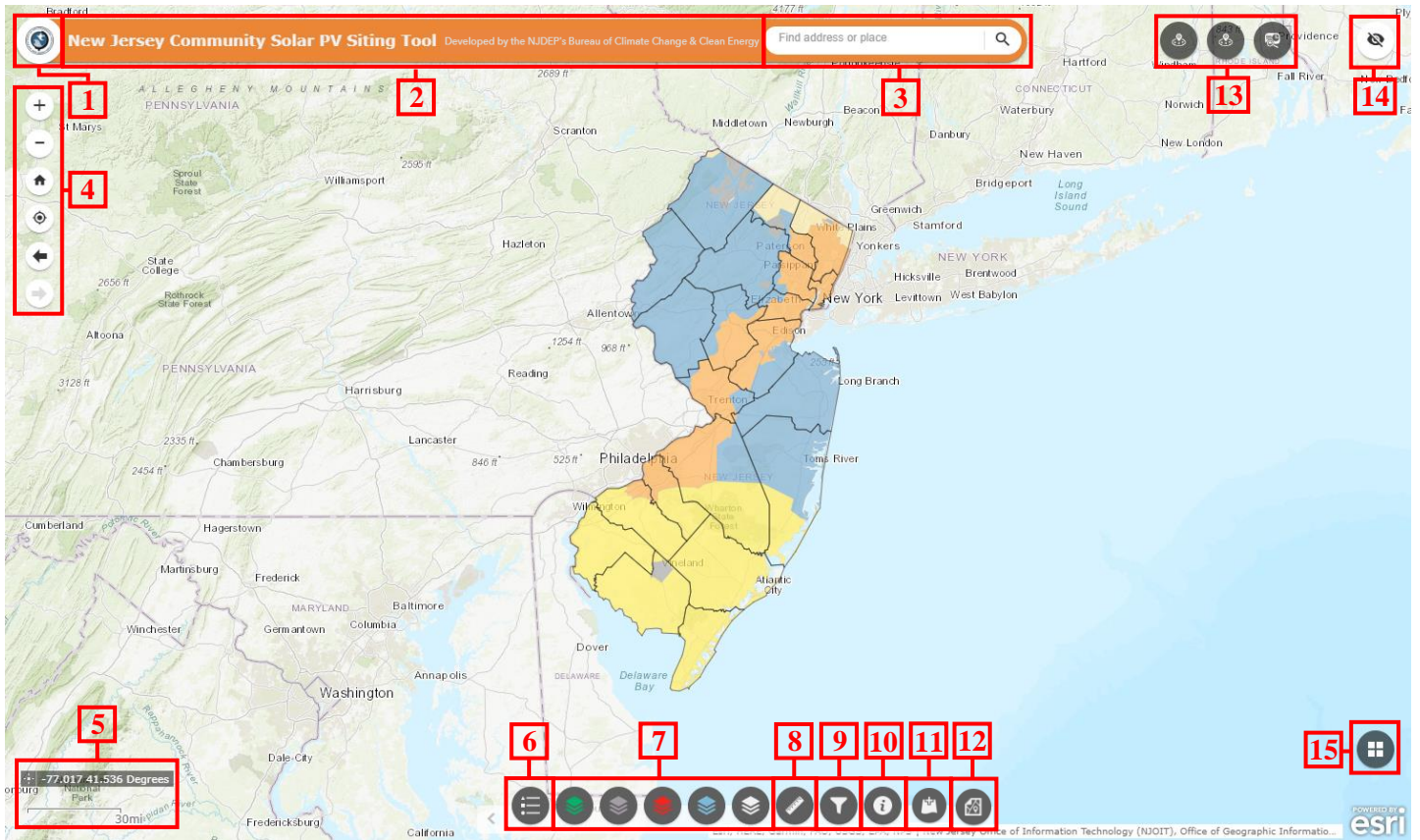
1. DEP Logo and hyperlink
2. Web application title and developer credits
3. Address search/look-up
4. Map navigation controls
5. Coordinates and scale bar
6. Legend
7. Map Data Layers (grouped)
8. Measurement Tool
9. Layer Filter Tool
10. About Widget
11. Add Data Widget
12. Parcel Search/Lookup Widget
13. Search tools/property reports
14. Map Overview
15. Basemap Selector

These items are described in greater detail in the next section of the User Guide.

Tools and controls

1. DEP Logo and hyperlink
   Logo of the Department of Environmental Protection and a hyperlink to the Bureau of Climate Change & Clean Energy's webpage dedicated to siting solar PV projects.

2. Web application title and developer credits
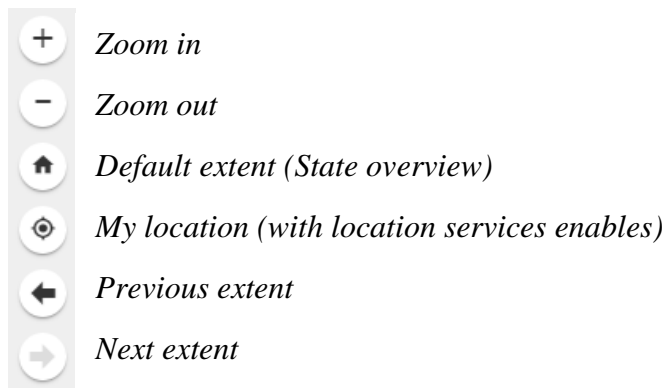   New Jersey Community Solar PV Siting Tool: Developed by the NJDEP's Bureau of Climate Change & Clean Energy.

3. Address search/look-up
   Enables a user to type an address or location in order to quickly zoom to that location.

4. Map navigation controls
   Allow the user to control the location and extent of the map display.

   Zoom in

   Zoom out

   Default extent (State overview)

   My location (with location services enables)

   Previous extent

   Next extent

5. Coordinates and scale bar
   Display the current coordinates of the cursor as it moves across the map. Exact coordinates of a location can be obtained by clicking on the crosshairs in the bottom corner and then clicking the location on the map. `-74.437 40.204 Degrees`

   The scale bar displays the current map scale, and automatically updates based on the level of zoom.

6. Legend
   Toggles the legend pop-up box, which displays the symbology for all layers turned on and currently visible.
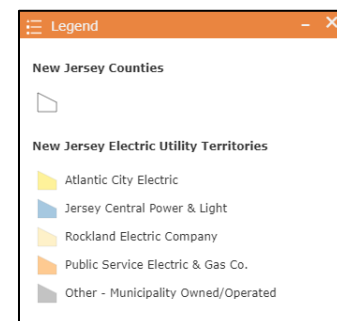
7. <u>Map Data Layers (grouped)</u>

The tool contains 5 different groups of layers to assist with identification of potential sites for Community Solar projects. The data layers that have been integrated into the tool were chosen based on the Evaluation Criteria found in the Application Form, which the Board will consider in evaluating project applications. These layers were categorized in the tool based on the siting preference in the Evaluation Criteria.

Higher Siting Preference

Medium Siting Preference

Not Preferred / "No Points"

Other Helpful Data Layers

EDC Solar Hosting Capacity*

*The Bureau of Climate Change & Clean Energy worked closely with the Electric Distribution Companies (EDC's) to obtain their solar hosting capacity maps in a format that could be integrated into the tool. This data is helpful in identifying areas in the State that have ample capacity to interconnect large solar PV systems into the distribution system. At the time of the publication of this version of the User Guide (v 1.7), hosting capacity data has been obtained and integrated from each of the 4 major EDC's in the State (image below).
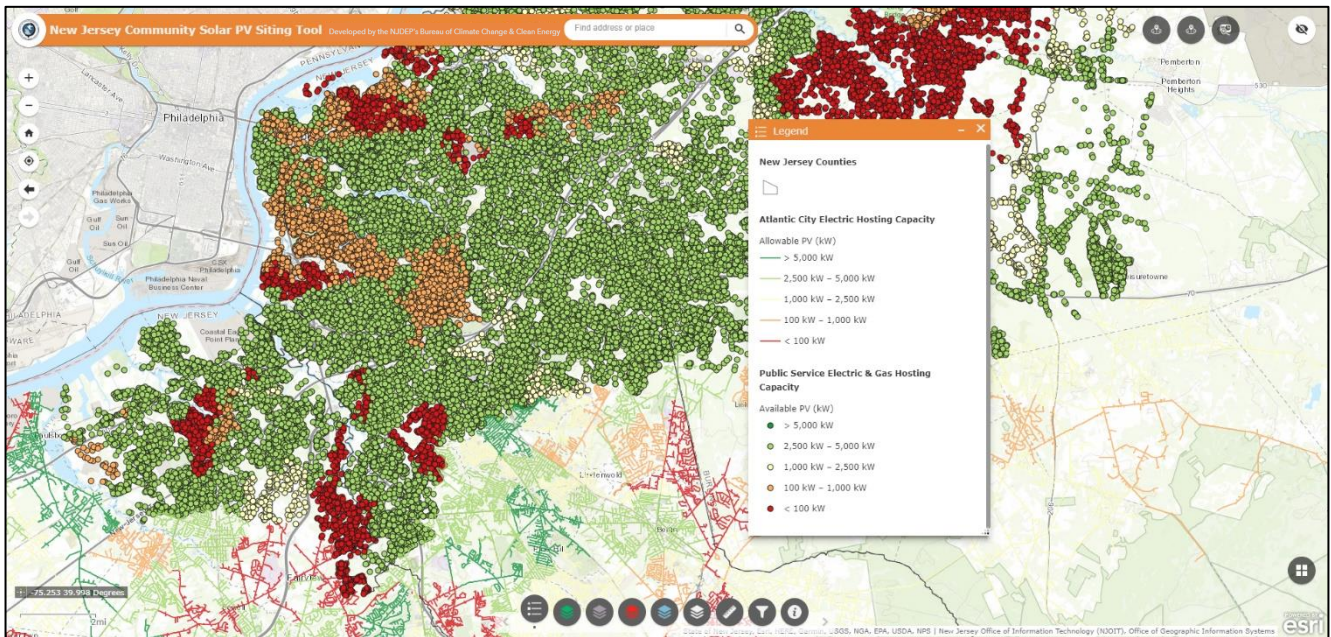
Within each layer group, one or more layers can be toggled on using the check box to display the data on the map.

Some layers may not appear on the map until the user zooms in to a closer extent and will appear in light gray in the layer list. These visible extent ranges were set due to the number of features in the data layers in an effort to aid in image rendering speed.

Additional information about each data layer can be found by clicking the three dots to the right ••• and navigating to "Show Item Details".
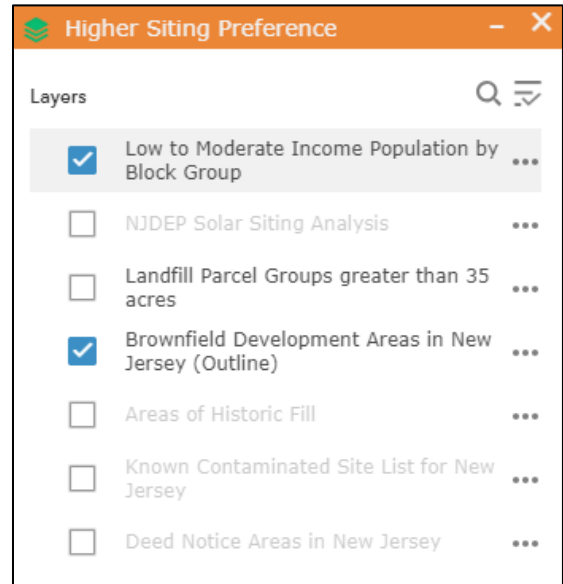
8. Measurement tool
   Enables the user to measure areas, distances, or coordinate locations within the map area. For the sake of this tool, users can quickly measure the area of proposed Community Solar PV arrays on the fly. To begin, click the area button at the top of the window. Click on the map to begin measuring. To finish the shape, double click the mouse. The user also has the ability to adjust the units of measure using the drop down menu.
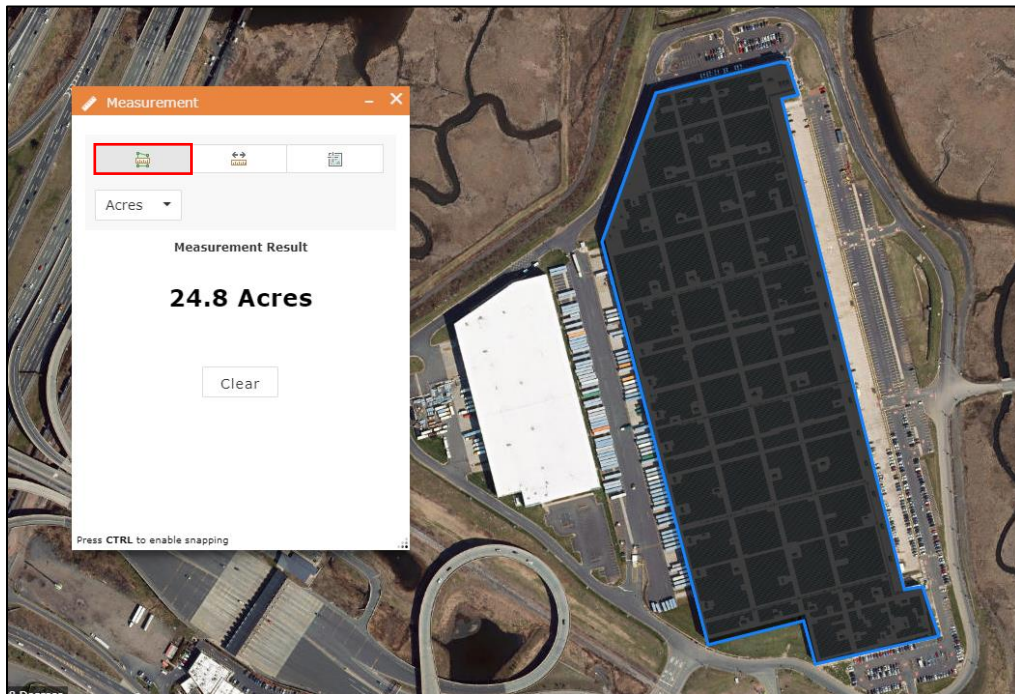
9. Layer Filter Tool

This tool enables the user to quickly filter layers based on a specific attribute in order to identify specific locations. The tool currently enables the user to filter the following layers:

- Atlantic City Electric Hosting Capacity (quantity filter)
- Public Service Electric & Gas Hosting Capacity (quantity filter)
- Jersey Central Power & Light Hosting Capacity (quantity filter)
- Orange & Rockland Hosting Capacity (quantity filter)
- NJDEP Solar Siting Analysis (i.e. Preferred, Not-Preferred, or Indeterminate)
- Land Use/Land Cover Filter (Anderson Code)
- New Jersey Parcels (Property Classification)
- Low-to-Moderate Income (LMI) Percentage (quantity filter)

To use the tool, first turn the layer on from within the corresponding layer grouping. Expand the Layer Filter Tool and toggle on the filter you would like to use. Simply type the attribute value you would like to see in the box and hit enter on the keyboard and the layer will be filtered accordingly to only show those values in the map. Below is an example of this tool, where the Public Service Electric & Gas Hosting Capacity is filtered to only show areas where the hosting capacity value is greater than 4,000 kW.
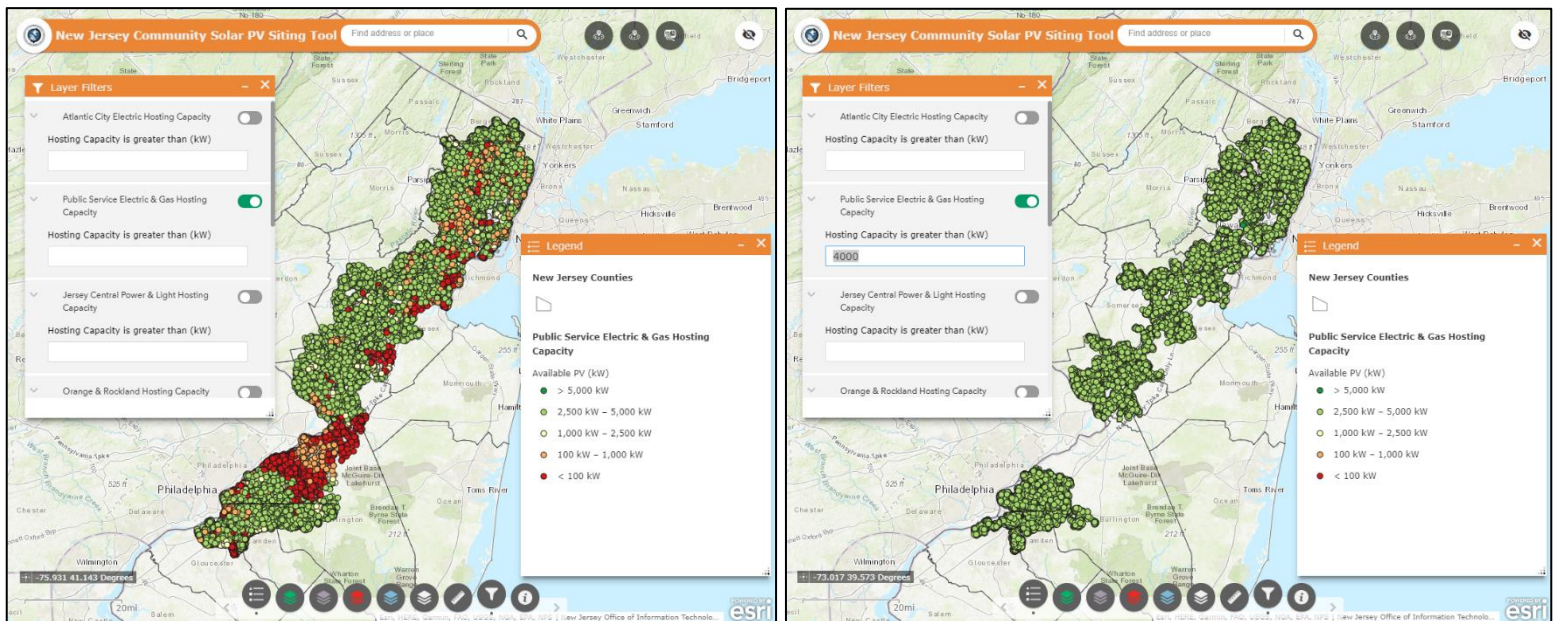
10. About Widget

Provides the user with information about the tool, including useful links and contact information.

11. Add Data Widget

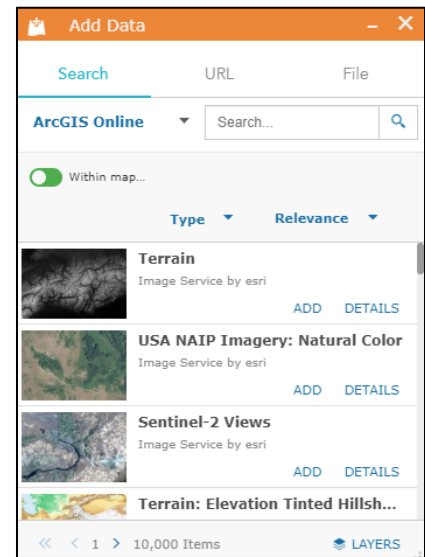This widget can be used to add data to the application for viewing purposes. Users can add data by searching the ArcGIS Online library, or by pasting a service URL into the search box. Alternatively, users can upload their own data files (file types: zipped shapefile, CSV, KML, GPX, or Geo JSON)

12. Parcel Search/Lookup Widget

This widget enables users to quickly and easily locate desired parcels if they already have some information about the parcel, including county, municipality, block, and lot. First, select the correct county and municipality from the drop-down menu. Then enter the block number (required) and lot number (not required). For the "Query Type" drop-down, either select "Exact Match" if you know the exact parcel you are seeking, or "Contains", to locate and identify parcels that contain the contents of the block and lot inputted. Click "Run" to execute the widget. The results will be shown on the map and in the Output Tab.
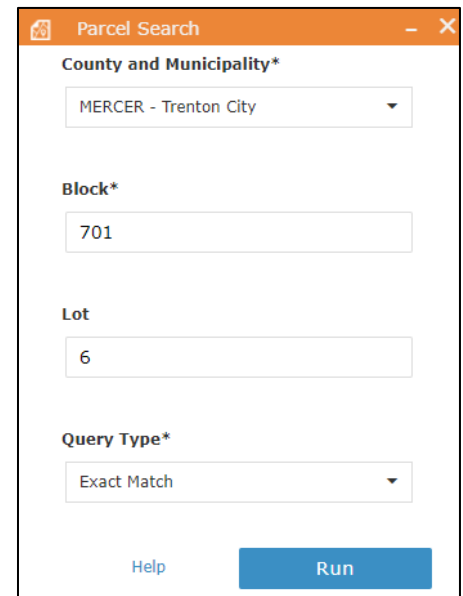
13. Search tools/property reports

Within this group, there are 3 tools/widgets that can be utilized to assist with identifying potential locations, as well as analyzing and evaluating potential sites for solar PV development. These tools are, from left to right:

- *The Local Search Tool*
- *The Municipal Search Tool and;*
- *The Property Report Tool*

Local Search Tool

This tool enables a user to search for a location or select a point on the map and conduct a search for features that fall on the map within a user-defined search radius (1-5 miles).

When a location is selected, all of the data layers that fall within the search area are automatically toggled on. In the Local Search box, the data layers can be seen, as well as the number of features that fall within the search area (shown below).
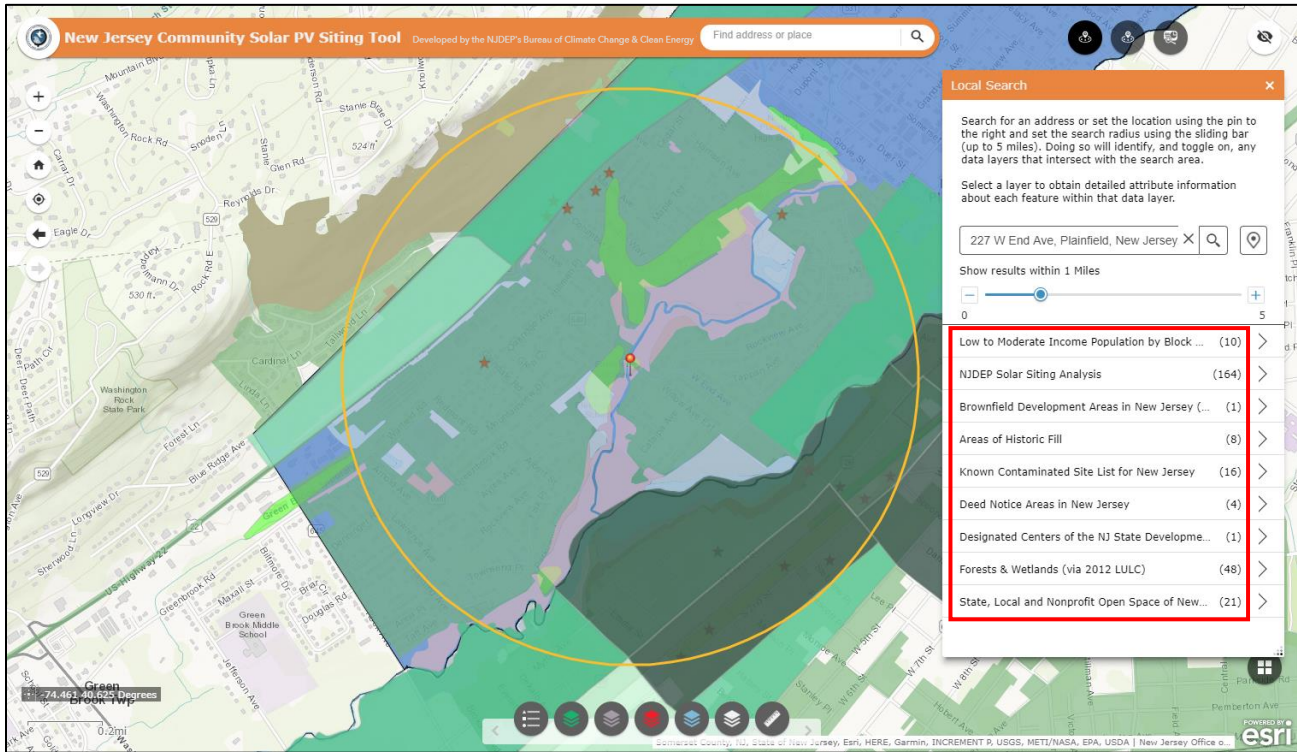
Furthermore, the user can select one of the layers in the search box to only view the selected features that fall within the search area (i.e. Deed Notice Areas in New Jersey— as can be seen in the image below). Clicking one of the remaining features will select in in the map and reveal the feature's attribute data.
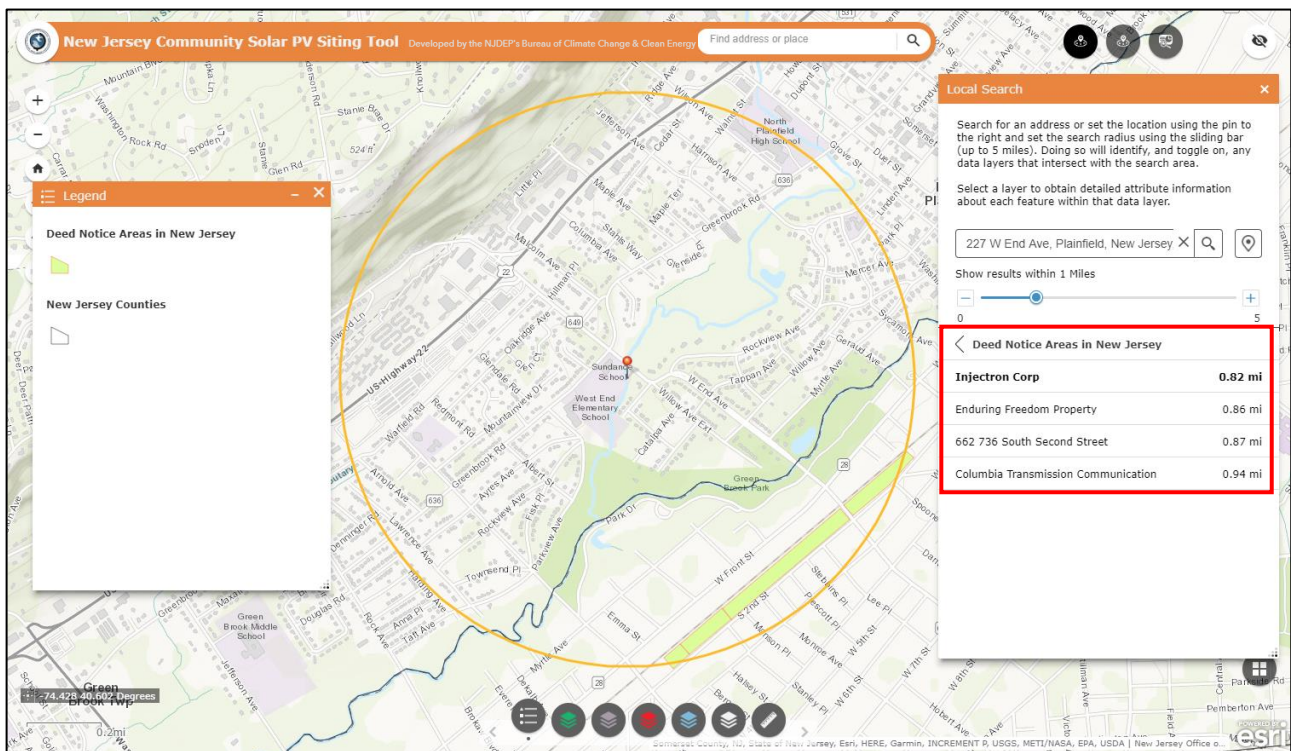
Municipal Search Tool

This tool is essentially the same tool as the Local Search Tool, but instead of selecting an address or point on the map, the user can conduct a search of the data layers that fall within the geographic boundaries of a selected municipality (i.e. Keyport Borough example below).
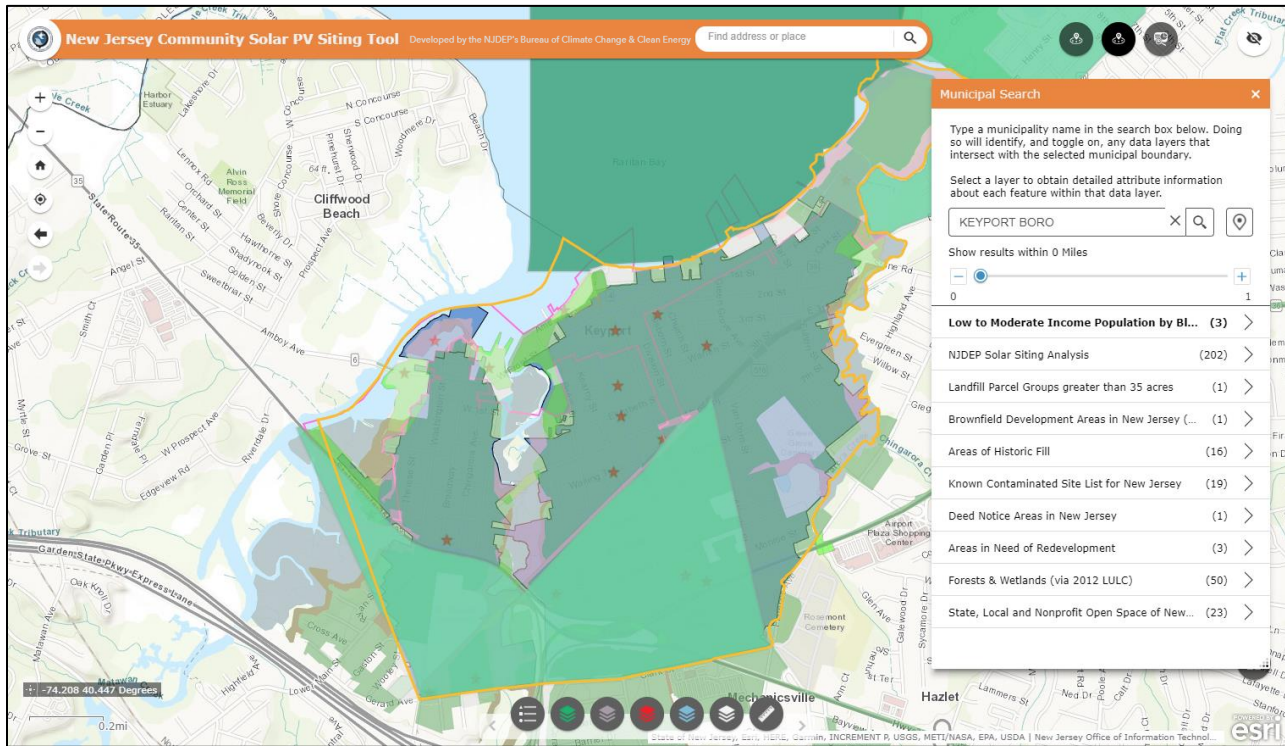
Property Report Tool

The Property Report Tool enables a user to identify features that fall within a user-defined area and generate reports based on these intersecting features. To begin, the user may draw a boundary on the map (i.e. a proposed Community Solar array) using a similar process to the Measurement Tool. Alternatively, the user may upload a shapefile to analyze the features that fall within the shapefile boundaries. After the boundaries have been established, click "Report". Doing so identifies all of the data layers that fall within the user-defined boundary, as well as the number of features (example shown on the next page).
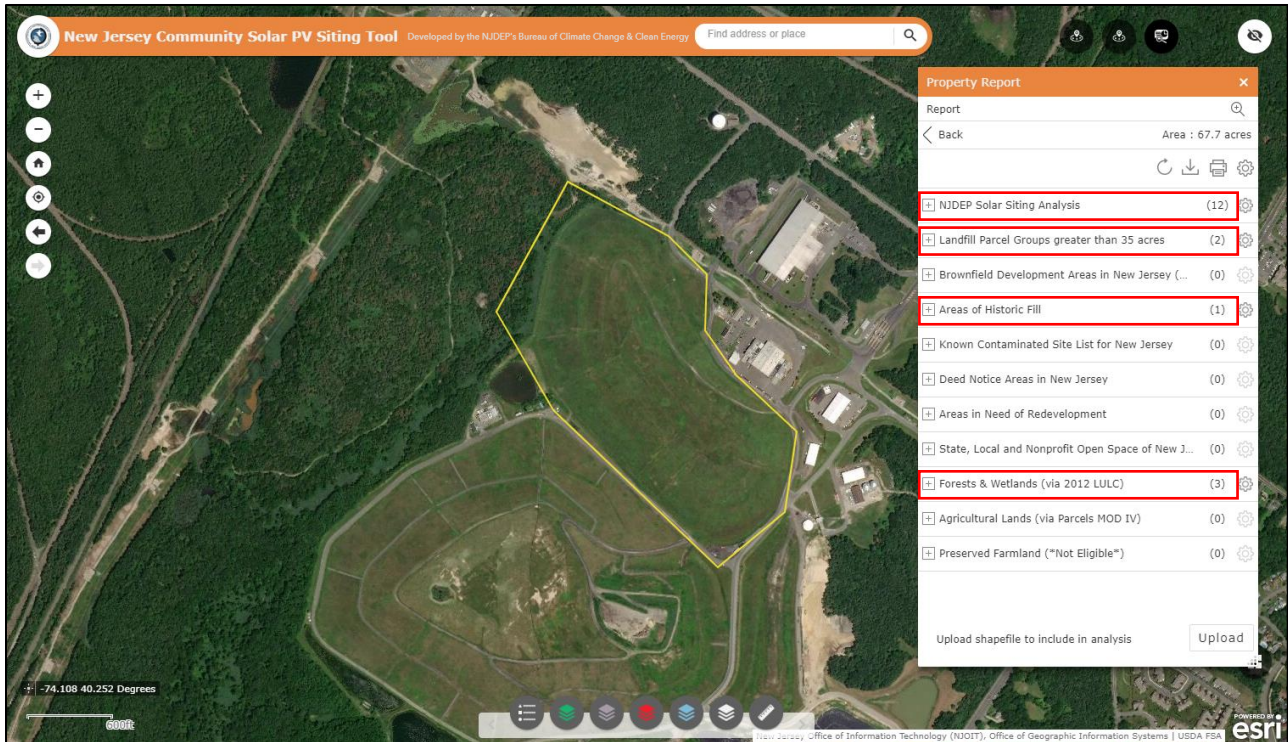
The user can then go through each of these data layers, toggling them on/off in their corresponding layer lists, to see the geographic footprint of each within the defined boundary. Attribute data for each of the features is available, as well as the total acreage of each within the defined area.

A user may also choose to download the result or click the "Print" button (shown to the right) to generate a report of the defined location, as well as all of the data that is contained within the boundary. An example of a report generated through these means is on the next page.

Property Report
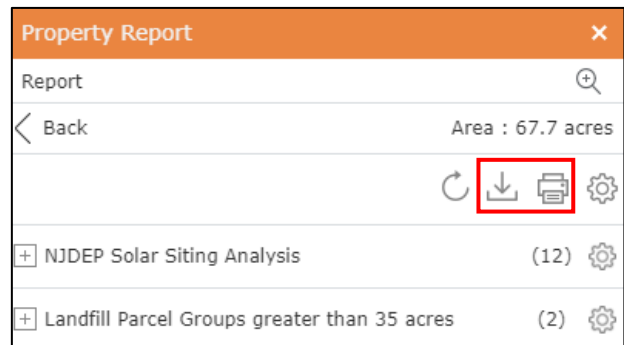
Area of Interest (AOI) Information

Area : 67.7 acres

Apr 3 2019 14:35:58 Eastern Daylight Time

1:12,037

New Jersey Counties

0	0.07	0.15	0.3 mi
0	0.13	0.25	0.5 km
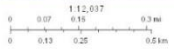
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Summary

Name	Count	Area(acres)	Length(mi)
NJDEP Solar Siting Analysis	12	67.70	N/A
Landfill Parcel Groups greater than 35 acres	2	67.70	N/A
Brownfield Development Areas in New Jersey (Outline)	0	0	N/A
Areas of Historic Fill	1	28.98	N/A
Known Contaminated Site List for New Jersey	0	N/A	N/A
Deed Notice Areas in New Jersey	0	0	N/A
Areas in Need of Redevelopment	0	0	N/A
State, Local and Nonprofit Open Space of New Jersey	0	0	N/A
Forests & Wetlands (via 2012 LULC)	3	4.74	N/A
Agricultural Lands (via Parcels MOD IV)	0	0	N/A
Preserved Farmland (*Not Eligible*)	0	0	N/A

NJDEP Solar Siting Analysis

#	LU12	LU Label	LU Type	Solar Siting Designation	Area(acres)
1	7400	ALTERED LANDS	BARREN LAND	Preferred	62.06
2	6233	MIXED SCRUB/SHRUB WETLANDS (DECIDUOUS DOM.)	WETLANDS	Not-Preferred	1.85
3	6241	PHRAGMITES DOMINATE INTERIOR WETLANDS	WETLANDS	Not-Preferred	1.55
4	4440	MIXED DECIDUOUS/CONIFEROUS BRUSH/SHRUBLAND	FOREST	Not-Preferred	1.33
5	1462	UPLAND RIGHTS-OF-WAY DEVELOPED	URBAN	Indeterminate	0.60
6	1700	OTHER URBAN OR BUILT-UP LAND	URBAN	Indeterminate	0.18
7	1463	UPLAND RIGHTS-OF-WAY UNDEVELOPED	URBAN	Indeterminate	0.05

These reports can be included with Community Solar Application to support the evaluation of projects.

14. Map Overview

Clicking the symbol for this tool launches an inset map. The user can pan around in this map to change locations of the main map. The inset map can also be expanded to see the current location in relation to the larger State map.
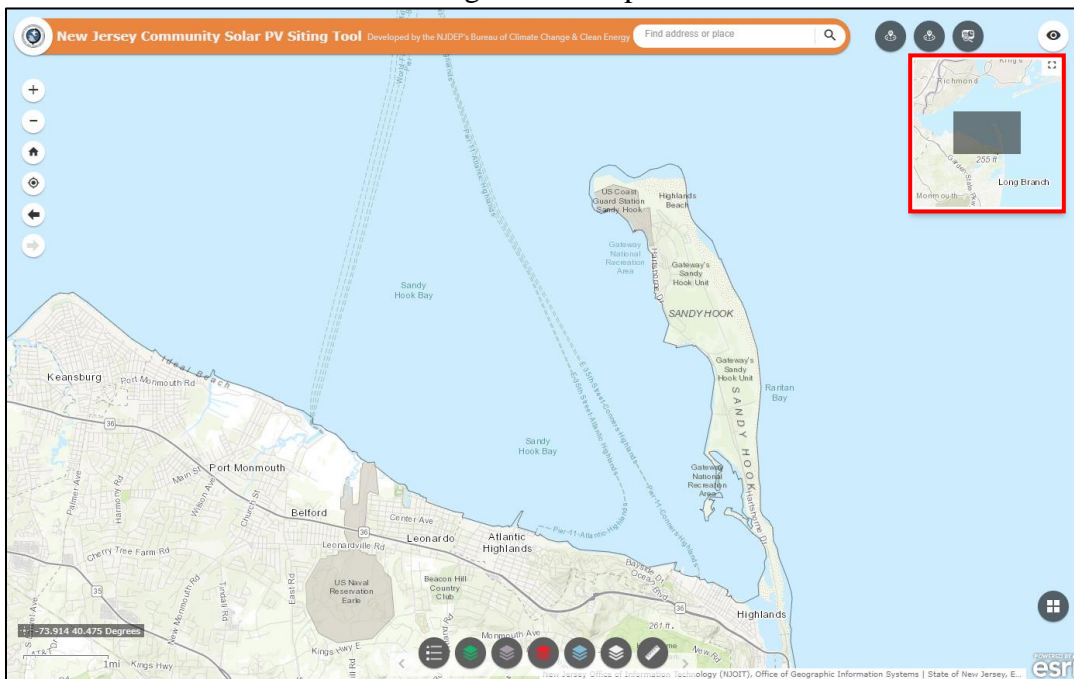
15. Basemap Selector

    Allows the user to change the basemap for the tool from a gallery of basemaps, including aerial imagery, topographic, streets, etc.
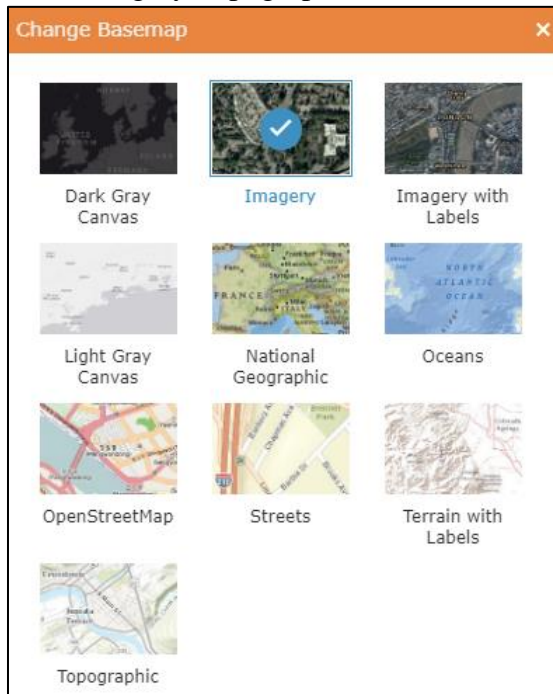
Appendix A: Data Layers Integrated into the Siting Tool

As mentioned in the User Guide, the data layers integrated into the Community Solar PV Siting Tool were grouped and categorized based on the Evaluation Criteria in Appendix C of the Application Form. The data layers in the tool are as follows:

Higher Siting Preference

1. Low to Moderate Income Population by Census Block Group

   This dataset is published and updated by the US Department of Housing and Urban Development (HUD) based off the Community Development Block Grant Program. The data layer identifies US Census Block Groups in which 51% or more of the households earn less than 80% of the Area Median Income (AMI).
   http://www.arcgis.com/home/item.html?id=c5fb10b8f3b44affaaf686bde7d35a91

2. NJDEP Solar Siting Analysis

   The NJDEP Solar Siting Analysis was developed to aid the New Jersey Department of Environmental Protection (NJDEP or the Department), local communities and potential solar developers in planning for solar installations by distinguishing between lands

where the Department encourages solar development from those where the Department discourages solar development. Using Anderson Codes for Land Use/Land Cover, locations in the State were identified as "Preferred", "Not-Preferred", or "Indeterminate" for siting solar PV.

http://www.arcgis.com/home/item.html?id=f3aef415f61943f0be097aa53c6744d4

3. Landfill Sites over 35 Acres

   This data was generated to help promote solar installations that provide economic and environmental benefits. Landfills are well-suited for the development of large solar generation projects. Large-scale solar development can offset the costs to cap or remediate these sites and should be encouraged. This layer contains available New Jersey statewide parcels or parcel groups greater than 35 acres in size selected by their affiliation with solid waste landfill sites.

   http://www.arcgis.com/home/item.html?id=7939a38f18874b7f860f8d25763a8a12

4. Brownfield Development Areas in New Jersey

   This dataset provides a graphical representation of the outermost boundaries of the Brownfield Development Areas (BDAs) in New Jersey. A brownfield is any former or current commercial or industrial site that is currently vacant or underutilized and on which there has been, or there is suspected to have been, a discharge or contamination.

   http://www.arcgis.com/home/item.html?id=75e1c3dcb2a245ba8e772e67b7ccb3da

5. Areas of Historic Fill

   The "Brownfield and Contaminated Site Remediation Act" (N.J.S.A. 58:10B-1 et seq.) requires the Department of Environmental Protection to map regions of the state where large areas of historic fill exist and make this information available to the public. This layer shows areas of historic fill covering more than approximately 5 acres. For the purposes of this layer, historic fill is characterized as non-indigenous material placed on a site in order to raise the topographic elevation of the site.

   http://www.arcgis.com/home/item.html?id=716848062aa14314b691396cdd77f78b

6. Known Contaminated Site List for New Jersey

   The Known Contaminated Sites List (KCSNJ) for New Jersey are those sites and properties within the state where contamination of soil or ground water has been confirmed at levels equal to or greater than applicable standards. This list of Known Contaminated Sites may include sites where remediation is either currently under way, required but not yet initiated or has been completed.

   http://www.arcgis.com/home/item.html?id=b167bb2ae09c43f8ab9e954700be45d9

7. Deed Notice Areas in New Jersey

   This data layer identifies those Known Contaminated Sites (KCS) or sites on Site Remediation Programs' (SRP) Comprehensive Site List (CSL) that have been assigned a Deed Notice. A deed notice is described by NJ State Legislature (NJSA 58:10B-13a)

as a "...notice to inform prospective holders of an interest in the property that contamination exists on the property at a level that may statutorily restrict certain uses of, or access to, all or part of that property, a delineation of those restrictions, a description of all specific engineering or institutional controls at the property that exist and that shall be maintained in order to prevent exposure to contaminants remaining on the property, and the written consent to the notice by the owner of the property".
http://www.arcgis.com/home/item.html?id=39a2bb409e644b27a751d084f275267c

8. Statewide Building Footprints (Greater than 1 acre)
Buildings greater than 1 acre were filtered and symbolized from the larger statewide dataset. Three classes of impervious surfaces--buildings, roads, and other impervious-- were mapped for New Jersey through a semi-automated process developed using eCognition software. This dataset isolates buildings. The automated feature extraction workflow used a Geographic Object-Oriented Image Analysis (GEOBIA) framework to extract the three impervious classes from the source datasets which include digital imagery, LiDAR point clouds and several vector data sets including Land use/land cover, road centerlines and hydrographic features, using a rule-based expert system.
https://www.arcgis.com/home/item.html?id=e349222dba754b1ab77eb6fd0e8b562c

9. Impervious Surface of New Jersey (2015)
This dataset was created to provide a statewide lector layer of impervious surfaces for NJ. Three classes of impervious surfaces--buildings, roads, and other impervious--were mapped for New Jersey through a semi-automated process developed using eCognition software. The automated feature extraction workflow used a Geographic Object-Oriented Image Analysis (GEOBIA) framework to extract the three impervious classes from the source datasets which include digital imagery, LiDAR point clouds and several vector data sets including Land use/land cover, road centerlines and hydrographic features, using a rule-based expert system.
https://www.arcgis.com/home/item.html?id=67c3b219ecd54c58997d945b0b890b59

Medium Siting Preference

1. Areas in Need of Redevelopment
This data set is a spatial representation of Areas in Need of Redevelopment. Areas in Need of Redevelopment are defined and mapped through the redevelopment process as defined and governed by constitutional, statutory, and regulatory requirements. These requirements are in turn molded by court decisions that affect the way the laws are applied.
http://www.arcgis.com/home/item.html?id=f6f1d5cf99354b91ba3a4b7d9657277b

2. Designated Centers of the NJ State Development and Redevelopment Plan
This dataset contains the boundaries of Designated and Proposed Centers of the NJ State Development and Redevelopment Plan (NJSDRP). Centers are the NJSDRP's

preferred vehicle for accommodating growth. A Center's development form and structure, designed to accommodate diversity, is also more flexible than single-use, single-purpose sprawl, allowing Centers to evolve and adapt over time, in response to changing conditions and markets. Centers promote community, protect the environment, provide enhanced cultural and aesthetic experiences, and offer residents a superior quality of life.

http://www.arcgis.com/home/item.html?id=d4437a3a956f43d085ba85791442f763

3. New Jersey Opportunity Zones

    The Opportunity Zones program was enacted as part of the 2017 Federal Tax Cuts and Jobs Act and is designed to drive long-term capital investments into low-income rural and urban communities. This federal program provides opportunities for private investors to support investments in distressed communities through participation in Qualified Opportunity Funds. This dataset displays the boundaries of the designated Opportunity Zones in the State of New Jersey.

    https://services.arcgis.com/Aur8tCo478N3VovT/arcgis/rest/services/NJ_OppZones_For WebMapOnly/FeatureServer/0

4. Impervious Surface of New Jersey (via 2012 LULC)

    The Impervious Surface layer is derived from the Land Use 2012 data set. What is meant by impervious surface is material such as concrete and asphalt that comprise roadways, parking areas, sidewalks and buildings. As the land use/land cover of each polygon was mapped from 2012 aerial photography, a visual estimate was also made of the amount of impervious surface in each. This estimate was recorded as a percentage of the total polygon area, in 5% increments, which are depicted here.

    http://www.arcgis.com/home/item.html?id=7e2cfb9fce5949b8bedf0961f5daaf5b

Not Preferred / "No Points"

1. Forests & Wetlands (via 2012 LULC)

    This data represents a subset of the 2012 Land Use/Land Cover dataset of the State of New Jersey. The 2012 LULC was filtered to only include polygons that fit the Land Use Type of "Forest" or Wetlands".

    http://www.arcgis.com/home/item.html?id=8e76de0f25e7428b86fbaf188a8ff8dd

2. Agricultural Lands (via Parcels MOD-IV)

    This data represents a subset of the Parcels and MOD-IV Composite of the State of New Jersey. The Parcels dataset was filtered to only include parcels that fit the Property Classification of 3A (Farm – Regular) or 3B (Farm – Qualified). Parcels that did not have a value in the Property Classification field were omitted from the dataset.

    http://www.arcgis.com/home/item.html?id=852937c223e94fcf8e167a23b500935d

3. State, Local and Nonprofit Open Space of New Jersey
   This New Jersey Open Space dataset contains Green Acres encumbered and
   unencumbered protected open space and recreation areas. The Green Acres encumbered
   lands are owned in fee simple interest by either the state, county, municipality, or a
   nonprofit agency and have either received funding through the Green Acres State or
   Local Assistance Program or are listed on a Green Acres approved Recreation and
   Open Space Inventory (ROSI). Types of open space property in this data layer include
   parks, conservation areas, preserves, historic sites, recreational fields, beaches, etc.
   http://www.arcgis.com/home/item.html?id=4a1f9d3075a04cd792a14f78b9697df3

4. Preserved Farmland
   This dataset represents selected features from the New Jersey State Farmland
   Preservation Program (NJSFPP) that are available for public distribution. Included in
   this dataset are all farms that have been preserved in the NJSFPP; and farms that have
   received final approval for funding to the NJSFPP. The NJSFPP is administered by the
   New Jersey Department of Agriculture (NJDA), State Agriculture Development
   Committee (SADC).
   http://www.arcgis.com/home/item.html?id=f20260b686d0432988a715534af9eec7

Other Helpful Data Layers

1. Statewide Building Footprints (Greater than 1 acre)
   Buildings greater than 1 acre were filtered and symbolized from the larger statewide
   dataset. Three classes of impervious surfaces--buildings, roads, and other impervious--
   were mapped for New Jersey through a semi-automated process developed using
   eCognition software. This dataset isolates buildings. The automated feature extraction
   workflow used a Geographic Object-Oriented Image Analysis (GEOBIA) framework to
   extract the three impervious classes from the source datasets which include digital
   imagery, LiDAR point clouds and several vector data sets including Land use/land
   cover, road centerlines and hydrographic features, using a rule-based expert system.
   https://www.arcgis.com/home/item.html?id=e349222dba754b1ab77eb6fd0e8b562c

2. New Jersey Counties
   This data set is a spatial representation of counties in New Jersey developed by the New
   Jersey Office of Information Technology (OIT), Office of Geographic Information
   Systems (OGIS). It was developed to provide basic jurisdictional information using the
   most accurate delineation of county boundaries from existing data sources.
   http://www.arcgis.com/home/item.html?id=5f45e1ece6e14ef5866974a7b57d3b95

3. New Jersey Municipalities

This data set is a spatial representation of municipal boundaries in New Jersey. It was developed to provide basic jurisdictional information using the most accurate delineation of municipal boundaries from existing data sources.
http://www.arcgis.com/home/item.html?id=3d5d1db8a1b34b418c331f4ce1fd0fef

4. Parcels and MOD-IV Composite of New Jersey
This layer was created to provide basic information regarding property location and ID. The normalized parcels data were developed to be compatible with the New Jersey Department of the Treasury Property Assessment Management System (PAMS) and the MOD-IV system. Attributes have been included from the MOD-IV system where a match could be made confidently between the parcel data and the statewide MOD-IV table, for ease of use of the MOD-IV data in geospatial programs. This layer has over 3 million records.
http://www.arcgis.com/home/item.html?id=852937c223e94fcf8e167a23b500935d

5. New Jersey Road Centerlines
This dataset includes fully parsed address information and additional roadway characteristics. It provides the geometric framework for display and query of relevant non-spatial data published as separate tables that can be joined to the feature class.
https://www.arcgis.com/home/item.html?id=a845e8b133e34c6eb4da0062bedb99dc

6. New Jersey Electric Utility Territories
This data provides graphic representation of electric company territories of New Jersey. Data was compiled using existing Electric Utility paper maps.
https://www.arcgis.com/home/item.html?id=d23845cc51454ee59affd226cff3fcd5

7. Sustainable Jersey Certified Municipalities of New Jersey
This layer was created to showcase municipalities that have been certified under the Sustainable Jersey Program in 2019. Additional information on the program and in depth information on the certification status of each municipality can be found at https://www.sustainablejersey.com.
https://www.arcgis.com/home/item.html?id=5756196095984362ad28cf5eea767e30

8. New Jersey Highlands Preservation and Planning Area
The purpose of this dataset is to provide an accurate depiction of the Highlands Preservation and Planning Area Boundaries as defined by the act to use for planning purposes and for the implementation of the Highlands Regional Master Plan. The entire area of the Highlands Region in New Jersey is divided between the Highlands Preservation Area, in which development is more strictly regulated, and the Highlands Planning Area. Any major development project proposed in the Preservation Area must undergo extensive reviews specific to the Highlands, but the NJDEP Division of Land Use Regulation. Development activities in the Planning Area are governed by existing NJ land use regulations and by the Highlands regional master plan.

http://www.arcgis.com/home/item.html?id=2876dde297334e569a7cf62fc0fa4b5d

9. New Jersey Pinelands Management Areas
   The New Jersey Pinelands Management Areas divides the Pinelands area (state and federal) into sub-areas each area having different regulations with regard to development density and permitted uses, providing the foundation for municipal zoning. The layer represents the official boundaries as outlined in the New Jersey Pinelands Comprehensive Management Plan (CMP). The CMP was created in accordance with the "Pinelands Protection Act" legislation.
   http://www.arcgis.com/home/item.html?id=f2cc887ac3054d4a83e48b862ba0c2c4

10. New Jersey Community Solar PV Projects
    This dataset was developed to support the New Jersey Board of Public Utilities and their Community Solar Pilot Program. The NJDEP's Bureau of Climate Change and Clean Energy supports the BPU in many clean energy related initiatives. Providing this geospatial dataset will enable users to view the spatial distribution of projects, as well as relevant information specific to each awarded project. It will also assist with tracking of the program's growth from year to year.
    https://www.arcgis.com/home/item.html?id=dfa1235ba73b4ff999cc6500647b45a6

11. Solar PV Grid Supply Installations
    The purpose of this data is to identify the boundaries of Solar PV Grid Supply Installations in New Jersey. The data can be used by project managers, government entities and other stakeholders to understand the spatial extent of current photo voltaic installations and plan for future projects. The data contained within this layer represents information acquired from the New Jersey Clean Energy Program's Solar Activity Report.
    http://www.arcgis.com/home/item.html?id=08d3cce85e58478990780d961f1b8f0a

12. Solar PV at Public Facilities
    The purpose of this dataset is to identify solar PV installations at public facilities in New Jersey. Public facilities include: Government Facilities, Public Schools, Public Colleges/Universities, and other public school facilities.
    http://www.arcgis.com/home/item.html?id=0910946472d641018053f4abb144ec55

13. Solar PV Behind the Meter Greater than 1 Megawatt
    The purpose of this data is to identify the boundaries of behind the meter (not grid supplied) solar PV installations in New Jersey that are greater than 1 megawatt (MW) in size. The data can be used by project managers, government entities and other stakeholders to understand the spatial extent of current photo voltaic installations and plan for future projects.
    https://www.arcgis.com/home/item.html?id=609d60e2215f42588e85e68b266575a5

14. <u>New Jersey Smart Growth Areas</u>
    This dataset contains the boundaries of New Jersey's Smart Growth Areas. This metadata mainly describes the elements derived from elements of the NJ State Development and Redevelopment Plan mapping, along with mapping from the NJ Pinelands Commission, and the Meadowlands Commission.
    http://www.arcgis.com/home/item.html?id=9d6c7539b9de4fe09a1231a3b5c1381e

15. <u>New Jersey Environmental Management System (NJEMS) Sites</u>
    This data was designed to enable NJEMS and non-NJEMS users alike to view the locations of NJEMS sites in relation to each other and other features from GIS data layers. The NJEMS SITES layer by itself only contains general information about the sites - name, location, coordinate, how the coordinate was captured, and the site's unique identifier.
    https://www.arcgis.com/home/item.html?id=ce09dd0091f242edb2d4f8f7b3072215

EDC Solar Hosting Capacity

This group of layers contains data pertaining to solar hosting capacity from each of the 4 public Electric Distribution Companies operating in the State of New Jersey. [Atlantic City Electric's webpage related to their hosting capacity maps](#) states that hosting capacity maps can be used to "give an indication of how much additional generation (expressed in kW) can be added to a feeder before the feeder reaches capacity or other limitations that reduce the reliability of service to electric customers on the feeder". Furthermore, hosting capacity maps are not an exact science and are meant to provide the user with a general idea of availability for additional generation and can change at any time.

The Bureau of Climate Change & Clean Energy has worked closely with the Electric Distribution Companies (EDC's) to obtain their solar hosting capacity maps in a format that could be integrated into the tool. This data is helpful in identifying areas in the State that have ample capacity to interconnect large solar PV systems into the distribution system.

1. <u>Atlantic City Electric Hosting Capacity</u>
   https://www.arcgis.com/home/item.html?id=4ace7e2133ec4ecfb689f086669a5c8d

2. <u>Public Service Electric & Gas Hosting Capacity</u>
   https://www.arcgis.com/home/item.html?id=40cd14eeba9944ab82398e04bec5ab7a

3. <u>Jersey Central Power & Light Hosting Capacity</u>
   https://www.arcgis.com/home/item.html?id=546e9834416b42aba00b30ce6f59cc5f

4. <u>Orange & Rockland Hosting Capacity</u>
   https://www.arcgis.com/home/item.html?id=4a28f76ed75342d0bcb67de44a13e138