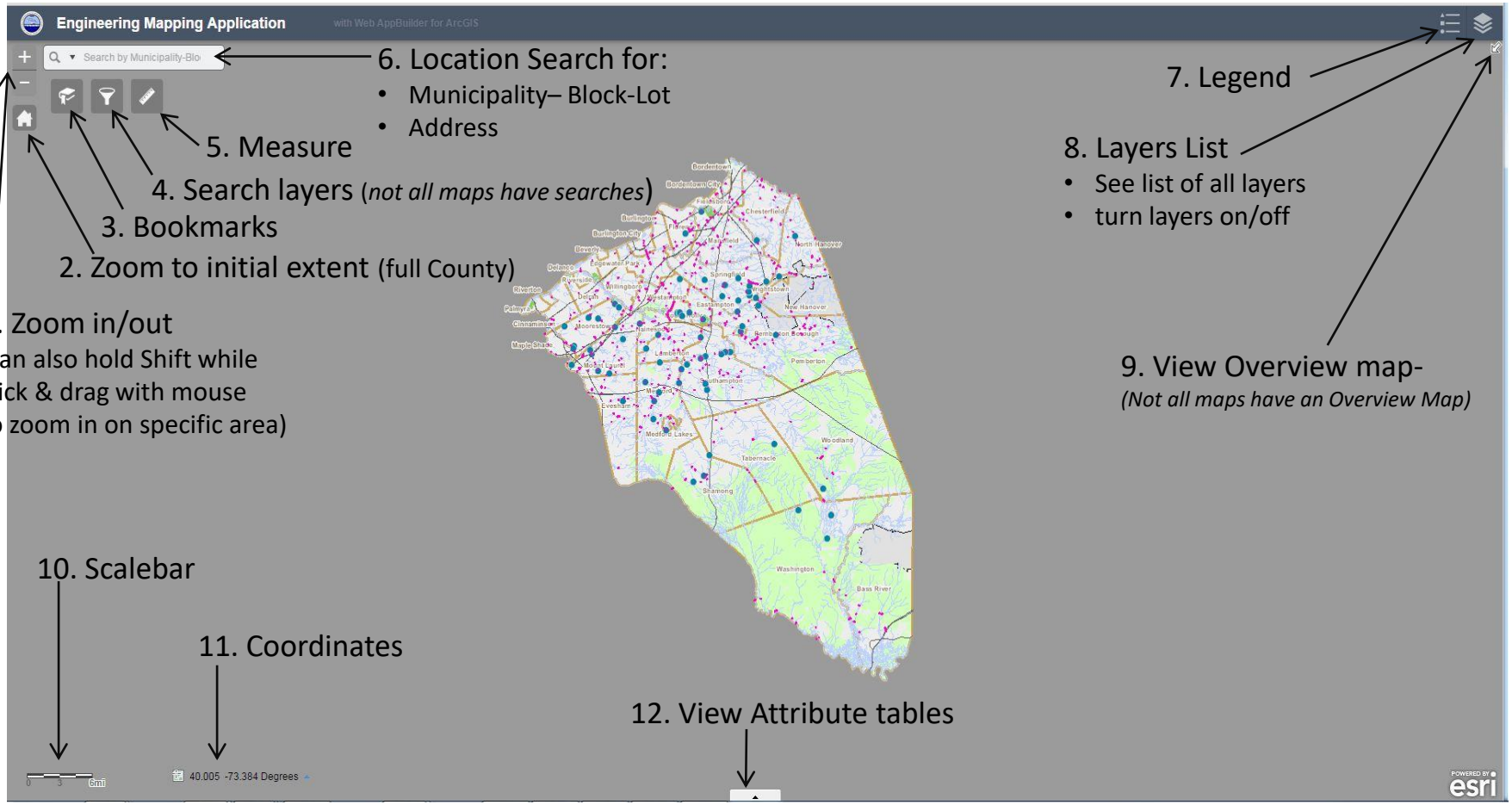
# Fiber Optic Cable & Facilities Mapping Application User Guide

for applications designed with the Web App Builder
2/9/23

Burlington County IT Department,
GIS Section

# Overview of Functionality



# Tools

## 1. Zoom in/out

1. Click the + to Zoom In or click the – to Zoom out on the center of the map or use the mouse scroll wheel
2. Define an area to zoom in to by holding the shift key and clicking and dragging a box with the mouse
3. Move around the map at the current scale by clicking and dragging with the mouse or use the arrow keys on the keyboard

## 2. Zoom to initial extent (full County) 

## 3. Bookmarks

1. Choose from a predefined list including the County extent and individual municipalities
2. You can also add additional bookmarks by zooming to your desired location and clicking the + icon next to the text box

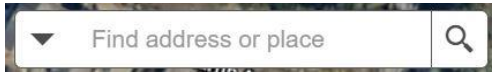
## 4. Search layers

1. Click to see a pre-defined set of query searches specific to the application (see the Search Layers by Query section for more details). *Note that not all maps have this tool or query searches.*

## 5. Measure

1. Click the icon to open the Measurement widget 
2. Area measurements
   - Click the Area measurement icon  and draw a polygon on the map by clicking three or more points. Double-click to finish drawing the polygon. The Measurement widget displays the total area of the polygon, using the defined **Default Area Unit**. To change the area unit, select the applicable unit of measure from the drop-down menu
3. Distance measurements
   - Click the distance measurement icon  and draw a line on the map by clicking two or more points. Double-click to finish drawing the line. The Measurement widget displays the total length of the line, using the defined **Default Length Unit**. To change the length unit, select the applicable unit of measure from the drop-down menu.
4. Location
   - Click the Location measurement icon  and click a point on the map. The Measurement widget displays the coordinates for the point in **Degrees** (decimal). You may change the coordinate display format to degrees/minutes/seconds by changing the **Degrees** drop-down to **DMS**.

# Tools continued




**6. Location Search: 9 options- click the drop down arrow to choose one**

1. Building Search – by Name – allows search by name for libraries, occupied sites and county-owned buildings
2. Building Search – by address – allows search by address for libraries, occupied sites and county-owned buildings
3. Building Search – by building number– allows search by the County's fixed asset number for libraries, occupied sites and county-owned buildings
4. Search for Library Branches – will just search library branches by name
5. Search for Member Libraries – will just search member libraries name
6. Burlco NJ Parcel Locator (only searches within Burlington County:
    1. Enter in format of CountycodeMunicipalcode-block-lot such as

       0329-823.01-16

       which would be Pemberton Township, block 823.01, lot 16. **(Refer to "Municipal Codes" list below).**
    2. This searches against data downloaded from the NJ Tax Board and will find the associated property boundary.
7. Burlco NJ Geocode (only searches within Burlington County):
    1. Start typing an address and town (ex 1900 Briggs Rd, Mount Laurel Twp) & choose from the list of possible addresses.
8. Esri World Geocoder or NJ Geocode:
    1. Start typing an address, city and state (ex. 1900 Briggs Rd, Mount Laurel, NJ) & choose from list. This will find a location along the roadway.
    2. In general the location may not be as good as the Burlco NJ Geocode option but may have a higher success rate of finding a location for difficult addresses & can search addresses outside Burlington County.

**Municipal Codes**
(County code is 03)

| | | | | | |
|---|---|---|---|---|---|
| BASS RIVER TWP | 01 | FLORENCE TWP | 15 | PEMBERTON TWP | 29 |
| BEVERLY CITY | 02 | HAINESPORT TWP | 16 | RIVERSIDE TWP | 30 |
| BORDENTOWN CITY | 03 | LUMBERTON TWP | 17 | RIVERTON BORO | 31 |
| BORDENTOWN TWP | 04 | MANSFIELD TWP | 18 | SHAMONG TWP | 32 |
| BURLINGTON CITY | 05 | MAPLE SHADE TWP | 19 | SOUTHAMPTON TWP | 33 |
| BURLINGTON TWP | 06 | MEDFORD TWP | 20 | SPRINGFIELD TWP | 34 |
| CHESTERFIELD TWP | 07 | MEDFORD LAKES BORO | 21 | TABERNACLE TWP | 35 |
| CINNAMINSON TWP | 08 | MOORESTOWN TWP | 22 | WASHINGTON TWP | 36 |
| DELANCO TWP | 09 | MOUNT HOLLY TWP | 23 | WESTAMPTON TWP | 37 |
| DELRAN TWP | 10 | MOUNT LAUREL TWP | 24 | WILLINGBORO TWP | 38 |
| EASTAMPTON TWP | 11 | NEW HANOVER TWP | 25 | WOODLAND TWP | 39 |
| EDGEWATER PARK TWP | 12 | NORTH HANOVER TWP | 26 | WRIGHTSTOWN BORO | 40 |
| EVESHAM TWP | 13 | PALMYRA BORO | 27 | | |
| FIELDSBORO BORO | 14 | PEMBERTON BORO | 28 | | |

# Tools continued

## 7. Legend

1. Clicking the Legend widget displays the Legend window. To close it, click the **X.**
2. Clicking the  arrows, will minimize the Legend window, clicking the  arrows will display it again.
3. The Legend window displays only the layers that are actually drawn. To see optional layers to draw or turn off drawn layers, you need to use the Layers List widget 
4. Descriptions of layers included in the application can be found in the Application Layers section.

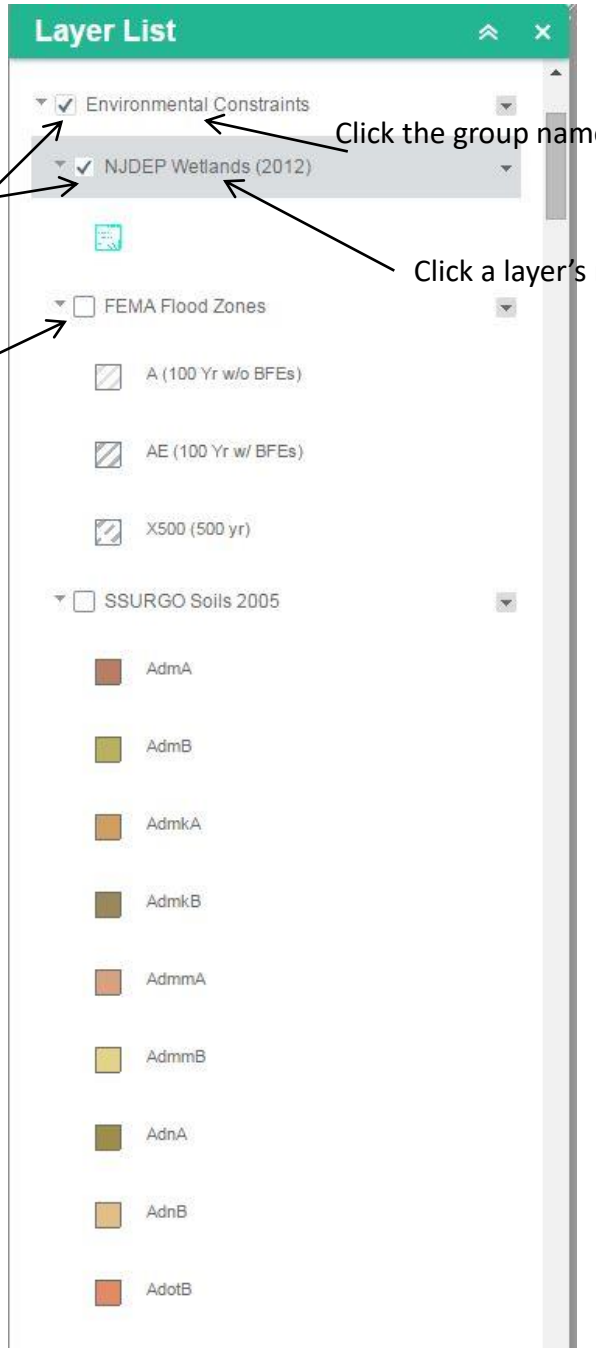
## 8. Layers List

7. Clicking the Layer List widget displays a list of available layers
8. Draw a layer by clicking the box next to the name/ stop a layer from being drawn by click the checked box
9. Click a layer's name to expand groups of layers or see the map symbols for the layer
10. Note that the group's name will need to be drawn in addition to the layer within the group in order to display the layer
11. Descriptions of layers included in the application can be found in the Application Layers section of this document
12. Clicking the 3 dots (…) on the right side of a layer displays the layer menu, **which will include some or all of the following functions depending on the application**:
    - Zoom to—Sets the map extent to the extent of the layer.
    - Transparency--Sets the transparence for the layer.
    - Set visibility range – change the scale at which the layer is drawn
    - Enable Pop-up / Remove Pop-up — Enables or disables Pop-up for the feature layer. If a feature layer does not have pop-up configured in the map, clicking **Enable Pop-up** shows all field values from the feature layer.
    - Move up—Moves the layer one level up.
    - Move down—Moves the layer one level down.
    - View in attribute table—Opens the attribute table for the feature layer at the bottom of the map.
    - Description / Show Item Details—Opens the service description or the item details page for the service or the item associated with the layer, if available.

# Layers List continued

In order for a layer in the group to draw (such as the wetlands) the group name must also be checked

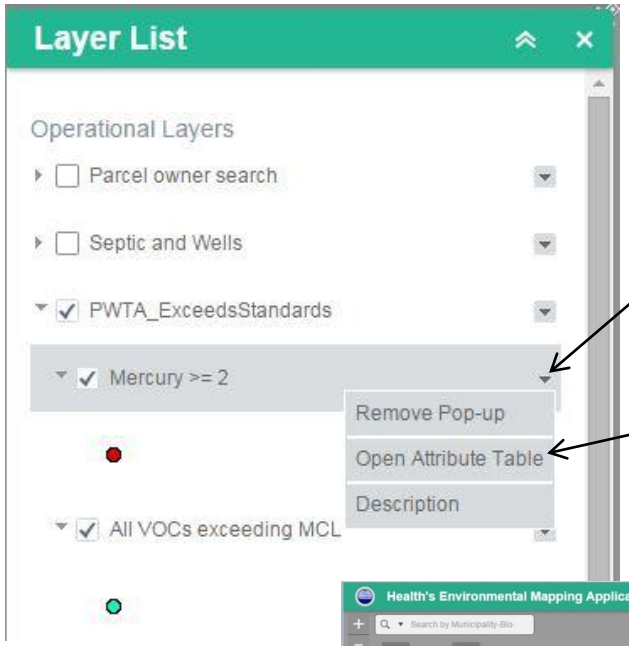
Toggle a layer to draw/stop drawing by clicking the box next to it's name




Click the group name to see the layers within the group.

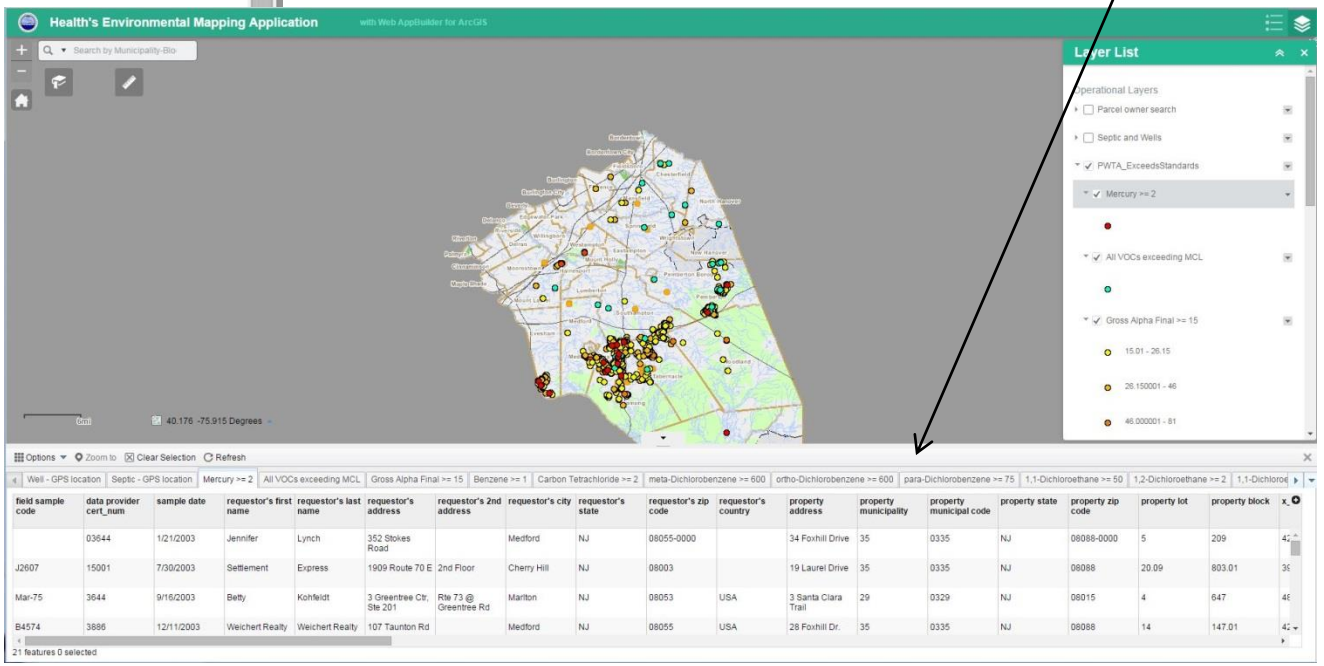
Click a layer's name to see the map symbols

# Layers List continued; menu




Click the arrow to see available menu options
(options will vary based on layer and application)

Clicking **View in Attribute Table** will display the attribute table below the map



# Tools continued

## 9. Overview map (not all maps have an Overview map)

1. Click the expansion arrow  to see the Overview map
2. The Overview map displays the current extent of the map within the context of a larger area. It updates when the map extent changes.
3. The current extent is represented by a gray rectangle. Drag the gray rectangle to change the extent of the map being displayed in the main window.
4. When expanded, click the maximize icon  to temporarily maximized the overview map.
5. Exit the Overview window by clicking the  arrow, to minimize it or, when maximized, click the Maximize icon  again or drag the grey rectangle to another location and release.

## 10. Scalebar

1. The Scalebar appears in the lower left corner of the map and updates as the map scale changes

## 11. Coordinates

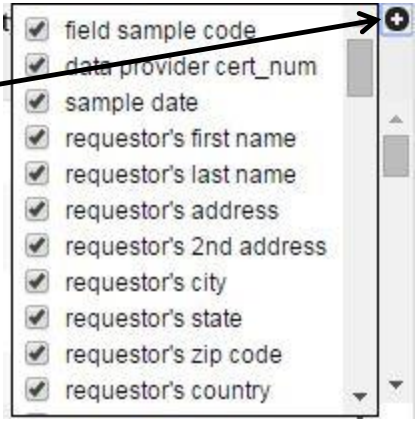

1. By default the coordinates are shown in Decimal Degrees and will change as the cursor moves over the map
2. You can obtain the coordinates for a specific location by clicking  and then clicking the map. You can copy the resulting coordinate display to paste into another program or document.
3. Optionally, you can click the up arrow to choose to capture coordinates for a specified location in NAD 1983 New Jersey Stateplane Feet.
4. To resume coordinates changing as the cursor moves, either click the arrow and click WGS84 Web Mercator

# Tools continued

## 12. Attribute tables

1. Click the attribute table widget  to toggle showing/hiding attributes tables for layers in the application (*note, not all layers will have a table available)*
2. An attribute table for a specific layer can be opened by clicking the arrow to the right of the layer's name in the Layers List


3. In the Attribute Table window, scroll left/right and use arrow keys to see available tables. Click a table name to display it
4. Select a record by clicking it – the corresponding feature will be selected on the map
5. **Filter by map extent** – by default, tables only show the features in the current map extent, click **Filter by map extent** to toggle between filtering and showing all
6. Click the **Zoom to** button to zoom to the selected features
7. Clear your selections by clicking the **Clear Selection** button
8. Refresh – refreshes display
9. Click a field name to sort the table by that field
10. Show/hide fields by clicking + on right side of Attribute Table window
11. Number of selected records is shown at lower left of table
12. Click **Options** menu to see list of options including
    - Show selected records
    - Show related records (if the table has related data)
    - Filter – create a query to filter the records
    - Show/Hide columns
    - Export to CSV – will export the selected attributes to a .CSV file. If no records are selected, will export entire table up to the maximum number of records allowed by the application.

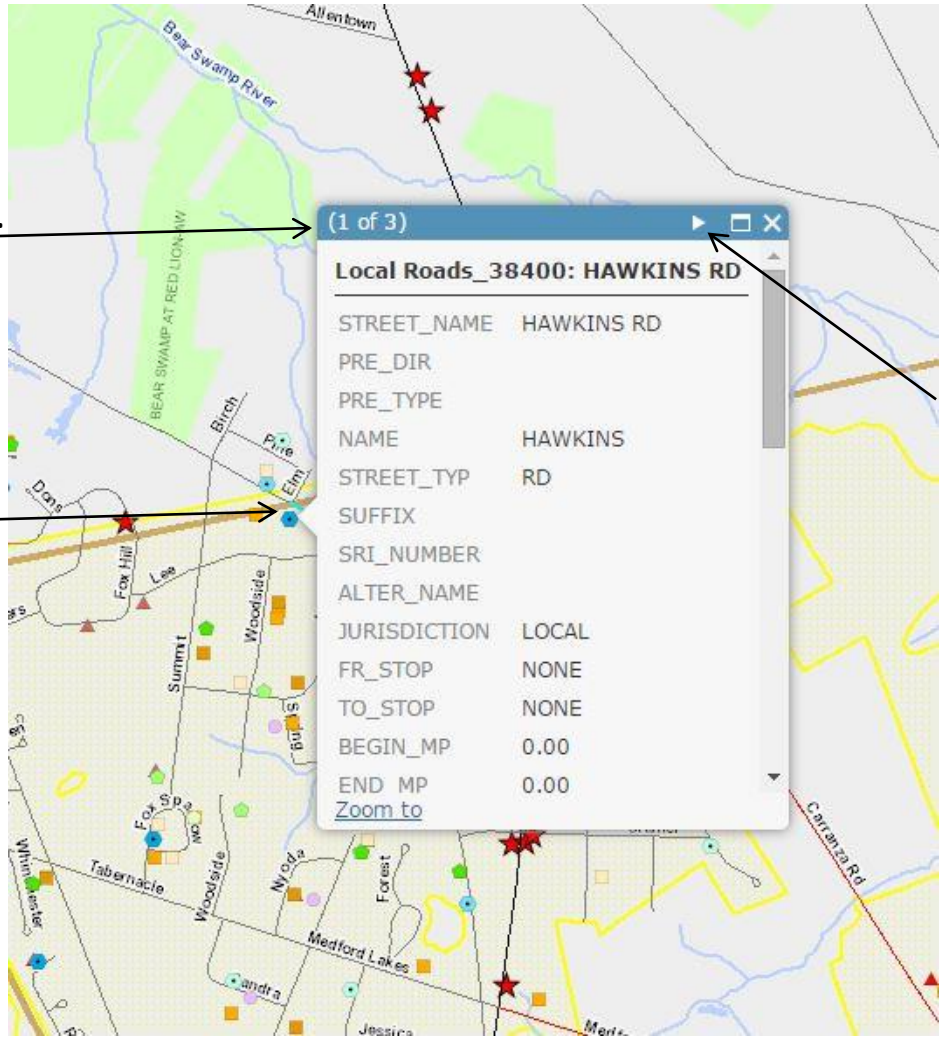


# Pop-ups

**Clicking most features on the map will cause a pop-up window to appear containing attributes about the features in that area. More than 1 feature may be detected. Use the arrows to scroll through the Pop-ups**

**More than 1 feature may be detected. Here, 1 of 3 is displayed.**

**As you move through the Pop-ups with the arrows, the corresponding feature will be highlighted on the map**

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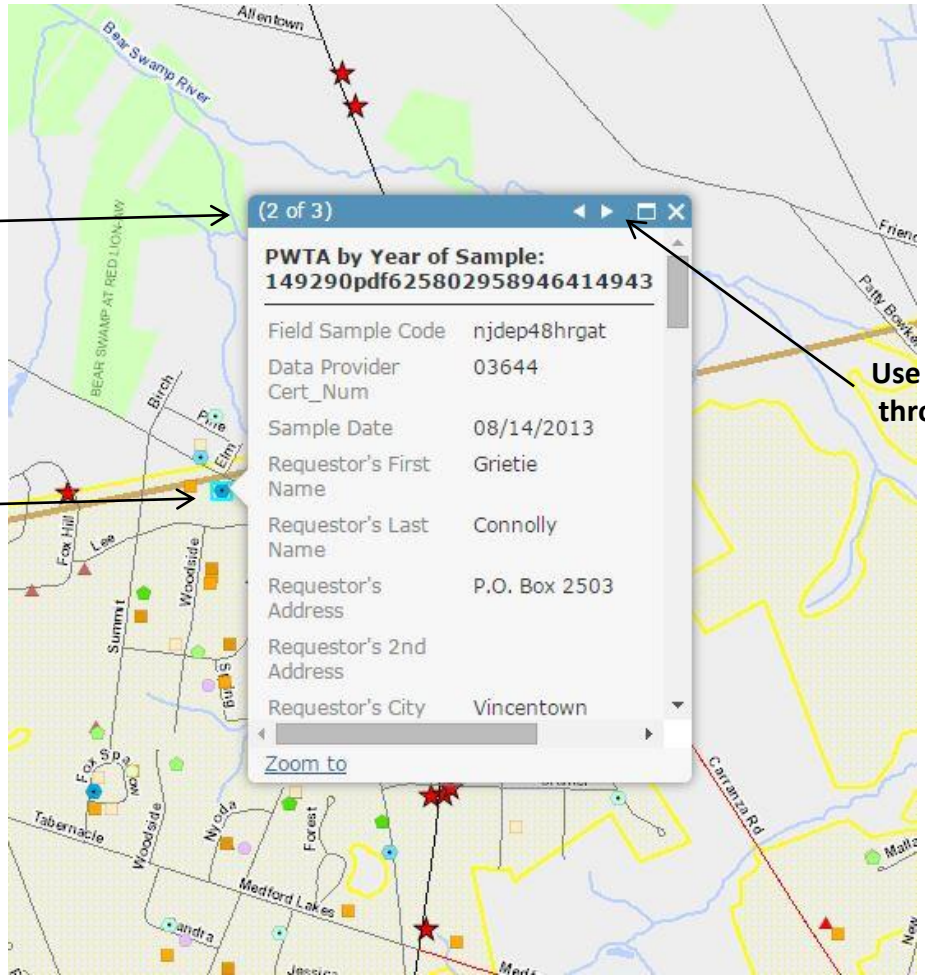
**Clicking most features on the map will cause a pop-up window to appear containing attributes about the features in that area. More than 1 feature may be detected. Use the arrows to scroll through the Pop-ups**

**More than 1 feature may be detected. Here, 2 of 3 is displayed.**

**As you move through the Pop-ups with the arrows, the corresponding feature will be highlighted on the map**

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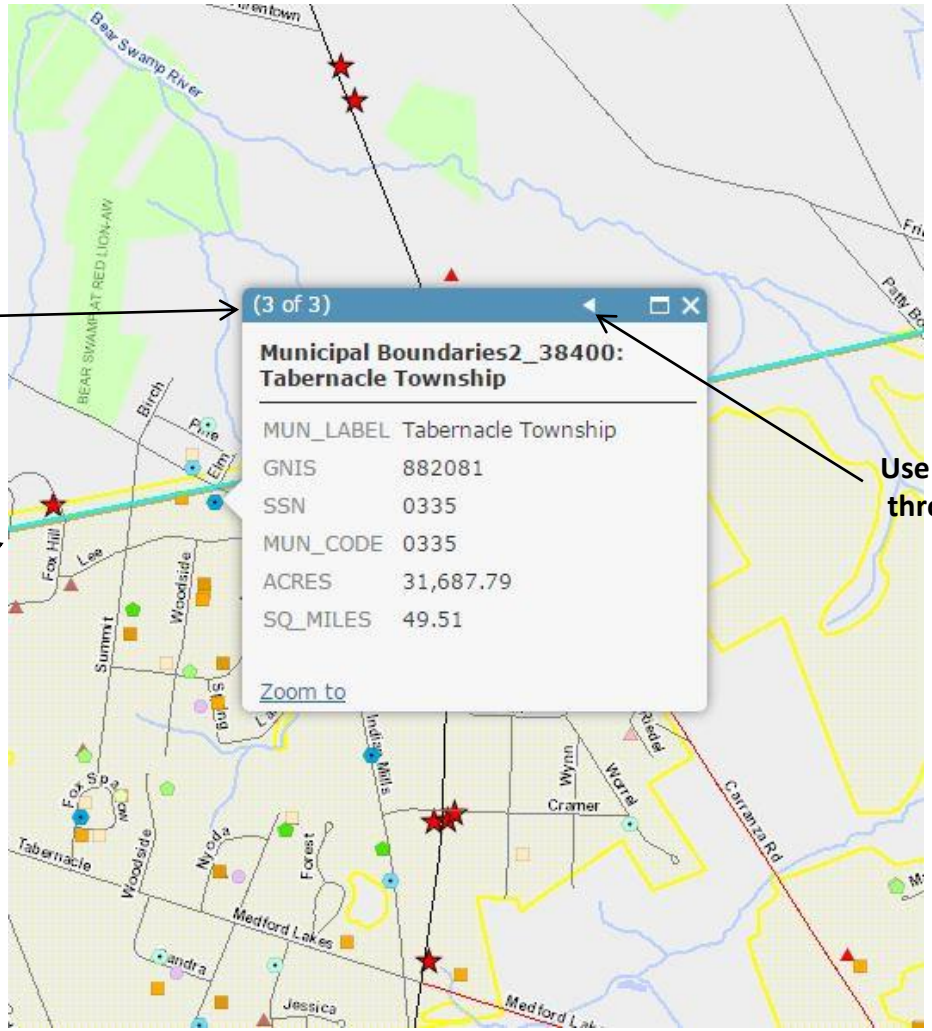


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# Fiber Optic Cable & Facilities Application Layers List:

https://bit.ly/3YiKf9p or
https://gisportal.co.burlington.nj.us/portal/apps/webappviewer/index.html?id=4d942d6c701f44258b8209f9ec337b9e

- **Fiber Mapping** Group
  - **Library Branches –** libraries which are branches of the County library system in Burlington County, NJ
  - **Member Libraries –**libraries which have a partnership with the Burlington County library system
  - **RCBC library**– library located at Rowan College of Burlington County
  - **County Occupied Sites (# Computers) –** Locations where the County has equipment but does not own the building. Displayed based on the number of county computers at the location per 2018 inventory
  - **County-owned Buildings (# Computers)** - County-owned buildings where the County has computers. Displayed based on the number of county computers at the location per 2018 inventory

- **Signalized Intersections** Group**–** group containing layers prepared for Engineering's Traffic Section which may be related to the fiber system
  - **Traffic Cameras** – locations of traffic cameras at county road intersections
  - **School Flasher** – location of school flashers on County roads
  - **Pedestrian Walkway** – location of pedestrian walkways on County roads
  - **Blinker** – locations of County-maintained blinking lights
  - **Traffic Signals - Existing** – locations of existing traffic signals
  - **Traffic Signals – in Progress** – locations of traffic signals that are in progress

- **Fiber Optic Markers -** locations of fiber marker 'match sticks' indicating the location of installed underground fiber optic cabling
- **Fiber Conduit – Status**- location of installed fiber optic cabling
  - Non- FHWA – not part of Federal Highway Administration system
  - Existing – cable has been installed
  - Proposed – cable has been proposed but is not currently installed

- **Burlington Roads Municipalities** - optional layers of the municipal boundaries and roads which will draw in increasing detail the closer you zoom in. Must be manually drawn through the Layers tool

*Note – Group layers must be checked to draw in order to draw sub-groups or layers*

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https://bit.ly/3YiKf9p or
https://gisportal.co.burlington.nj.us/portal/apps/webappviewer/index.html?id=4d942d6c701f44258b8209f9ec337b9e

**OPTIONS FOR 'BASEMAPS':**

***Note that the default basemap is Nearmap 3 inch resolution imagery which is updated 3 times a year and will always display the most recent imagery. To use one of the layers below, check the box to draw it. It will draw over the Nearmap imagery.***

- **Basemap layers & "White Background" –** These 2 layers replace the default basemap from the old web mapping application. If you want to view data on a map without aerial background, check both these layers to draw them.
- **NJ 2020 Natural Color Aerial (1 ft, leaf off) –** provided by NJ OGIS. 1 foot resolution, leaf off
- **NJ 2019 Natural Color** – aerial imagery from NAIP (National Agriculture Imagery Program), 1 meter resolution, leaf on
- **NJ 2017 Natural Color** – aerial imagery from NAIP (National Agriculture Imagery Program), 1 meter resolution, leaf on
- **NJ 2015 Natural Color Aerial (1 ft, leaf off) –** provided by NJ OGIS. 1 foot resolution, leaf off
- **NJ 2013 Natural Color** – aerial imagery from NAIP (National Agriculture Imagery Program), 1 meter resolution, leaf on
- **NJ 2012 Natural Color–** aerial from NJ OGIS, 1 foot resolution, leaf off
- **NJ 2012 Infrared–** aerial from NJ OGIS, 1 foot resolution, leaf off
- **NJ 2010 Natural Color–** aerial from NJ OGIS, 1 foot resolution, leaf off
- **NJ 2007 Natural Color –** aerial from NJ OGIS, 1 foot resolution, leaf off
- **NJ 2007 Infrared–** aerial from NJ OGIS, 1 foot resolution, leaf off
- **NJ 2006 Natural Color** – aerial imagery from NAIP (National Agriculture Imagery Program), 1 meter resolution, leaf on
- **NJ 2002 Infrared–** aerial from NJ OGIS, 1 foot resolution, leaf off
- **NJ 1995 Infrared–** aerial from NJ OGIS, 1 meter resolution, leaf off
- **NJ 1930 Black White** – black and white aerials from 1930s, low resolution, leaf on
- **NJ Topo 24K (Color 7.5 minute)** – provided by NJ OGIS
- **NJ Topo 24K (Black and white 7.5 minute)** – provided by NJ OGIS
- **NJ Topo 100K (color)** – provided by NJ OGIS
- **NJ Historical Maps (1881 – 1924)**– circa 1900s**.** – provided by NJ OGIS
- **Nearmap WMS Server -** 3 inch resolution imagery which is updated 3 times a year and will always display the most recent imagery. Provided by Nearmap through agreement with DVRPC. *This is the default basemap.*

- *Note – Group layers must be checked to draw in order to draw sub-groups or layers*