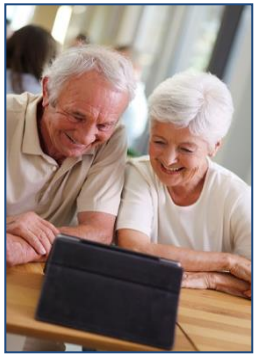
NEW YORK STATE OF OPPORTUNITY. | Broadband Program Office



New NY Broadband Program

Mapping Primer

Identify and Map Eligible Census Blocks

CostQuest Associates
James Stegeman, President
Mark Guttman, Vice-President

Presentation Overview

1. Definitions
2. BPO Resources
3. Software

How to Use the Phase 2 Data

4. Eligible Census Blocks in Spreadsheet Format
5. Eligible Census Blocks in Google Earth Format
6. Eligible Census Blocks in GIS Format
7. Questions / Comments

Definitions

Census Block - Smallest level of geography in which the U.S. Census Bureau uses for basic demographic data

Housing Unit - BPO definition is consistent with U.S. Census Bureau definition

Eligible - Areas that may be included in a Phase 2 Application. Lists of eligible areas are available from BPO website. Eligible areas may be **Full or Partial Census Blocks** in Phase 2

Service Area - Geographic territory in which an applicant has proposed to provide service

Unserved - Area where broadband service is not available from a wireline -based provider at advertised speeds equal to or higher than 25 Mbps (download)

Underserved - Area where broadband service is available from a wireline or wireless facilities-based provider at advertised speeds of at least 25 Mbps but less than 100 Mbps (download)

Additional Service Area - Refers to an Applicant's proposed inclusion of Units within a CB that is classified as Served.

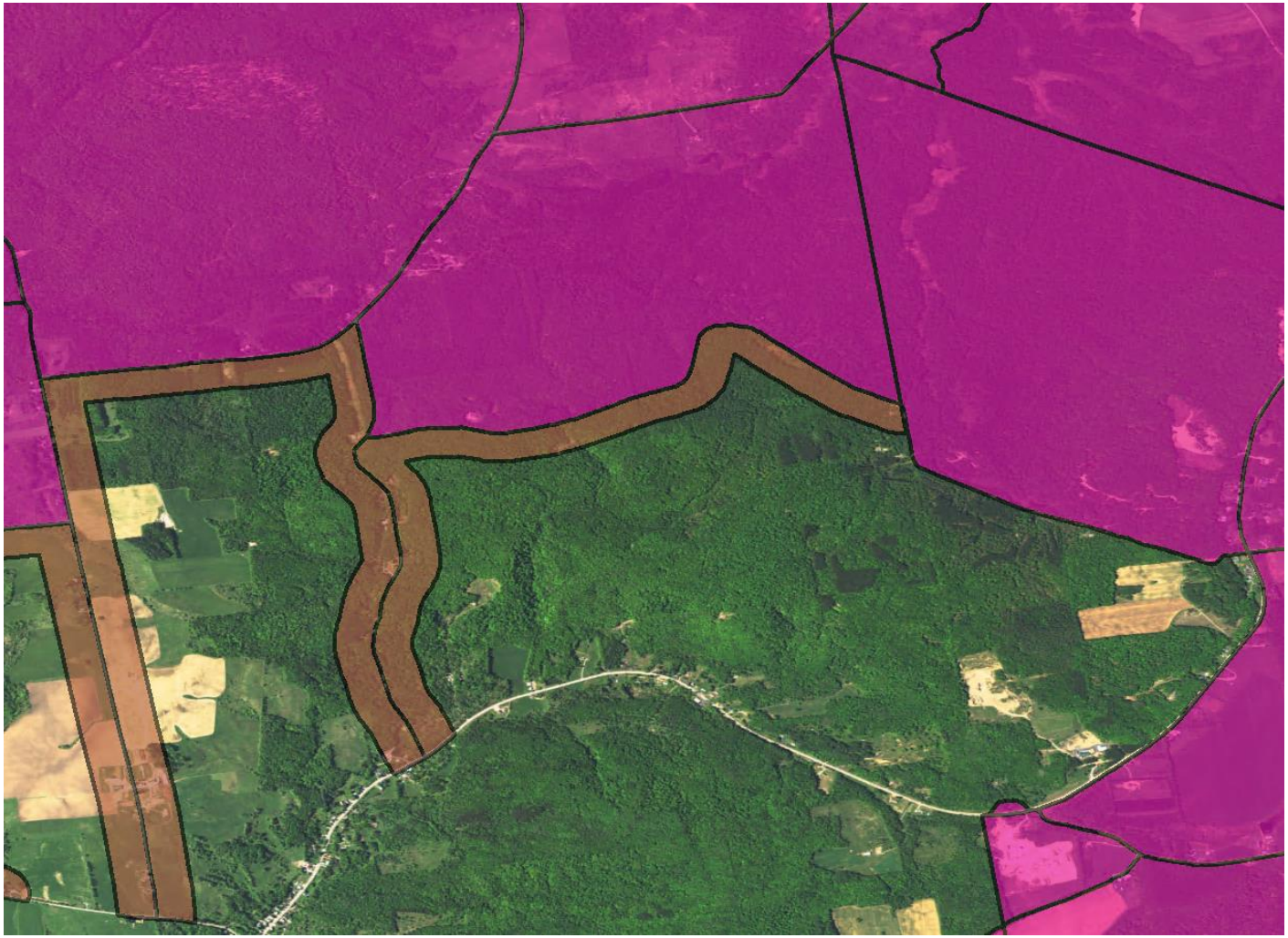
Additional definitions are available in Appendix A of the RFP guidelines

NEW YORK STATE OF OPPORTUNITY. Broadband Program Office

Full or Partial Census Blocks

Full Census Blocks (pink) represent the entirety of area defined in a Census Tiger 2010 Block

Partial Census Blocks (brown) represent a partial Block area



NEW YORK STATE OF OPPORTUNITY. Broadband Program Office

New NY Broadband Program Resources

Mapping Files

Files Excluding Water Blocks

List A: **Unserved** Final Census Block List - 9.14.16

- .shp format
- .kmz format

List B: **Underserved** Final Census Block List - 9.14.16

- .shp format
- .kmz format

List C: **Additional Service Area** Final Census Block List - 9.14.16

- .shp format
- .kmz format

CAF List: **CAF** Final Census Block List - 9.14.16

- .shp format
- .kmz format

All Blocks, Including Water Blocks

These lists include blocks that are entirely covered by water, and these lists serve as the official count of all Phase 2 eligible blocks. As you will see in the above section, BPO also provides shapefile and kmz files, for all eligible areas, excluding those that are entirely covered by water. BPO has provided these additional files to assist in mapping service areas.

List A: **Unserved** Final Census Block List - 9.14.16

- .xls format
- .shp format
- .kmz format

List B: **Underserved** Final Census Block List - 9.14.16

- .xls format
- .shp format
- .kmz format

List C: **Additional Service Area** Final Census Block List - 9.14.16

- .xls format
- .shp format
- .kmz format

CAF List: **CAF** Final Census Block List - 9.14.16

- .xls format
- .shp format
- .kmz format

All Lists of Census Blocks, are available on "Phase 2" page of the New NY Broadband Program website:

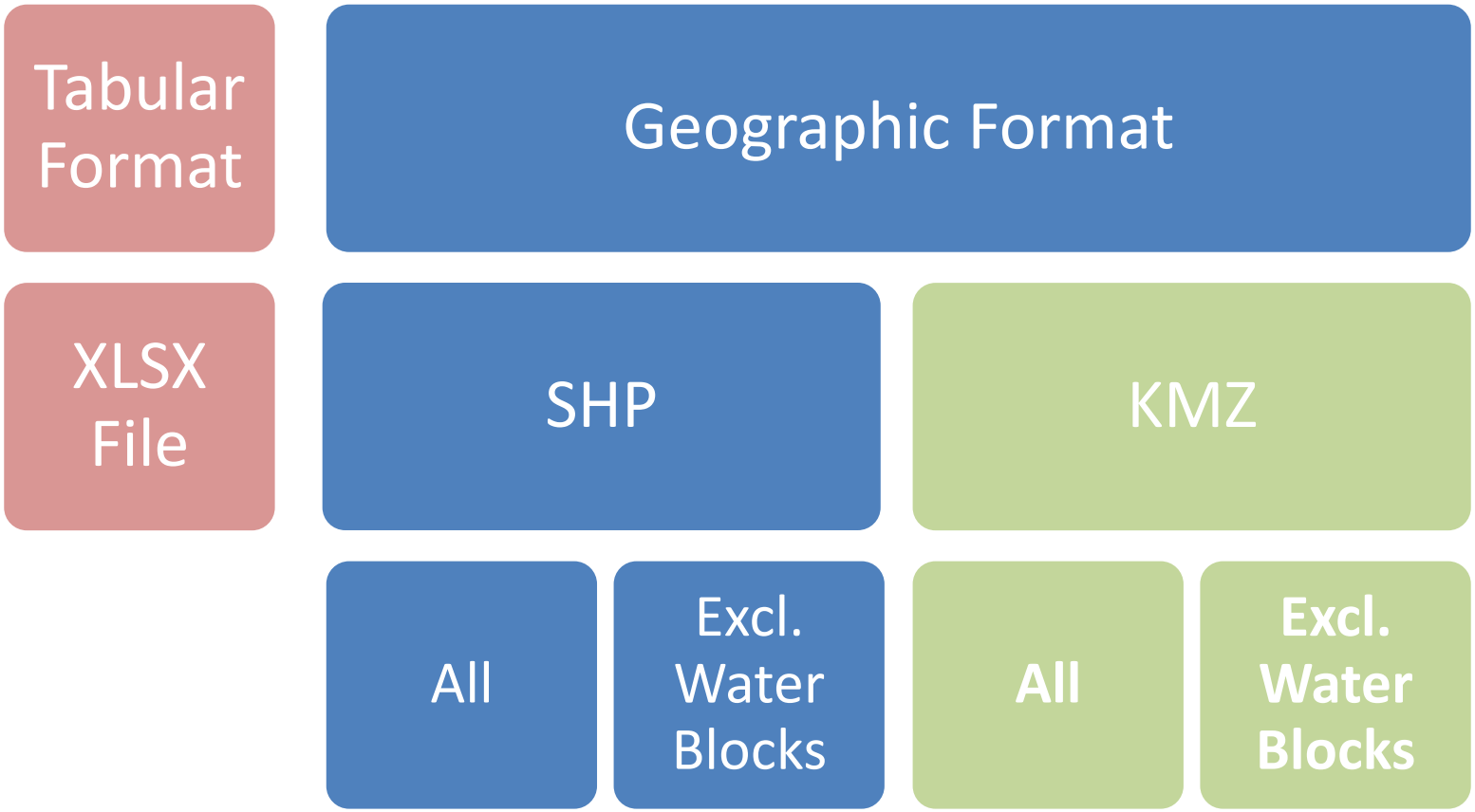
https://www.nysbroadband.ny.gov/new-ny-broadband-program/phase-2

NEW YORK STATE OF OPPORTUNITY. Broadband Program Office

New NY Broadband Program Resources

For each Eligible list, BPO provides the following reference files

1. A tabular XLSX File (Microsoft Excel / Open Office)
2. Geographic format files (SHP and KMZ)



The Type of Analysis Drives the Software Required

Spreadsheets

- Demand Summaries
- Revenue / Cost Models

Geospatial Viewers

- Simple, fast and free way to understand, where
- Bird's eye view, accurate, recent imagery.
- Provides a lot of boundary data and public domain information.

Geospatial analysis

- Understand proximity (How far away)
- Spatial queries (How many near by)
- Add in new layers (Existing infrastructure)
- Develop new Service Areas

NEW YORK STATE OF OPPORTUNITY. | Broadband Program Office

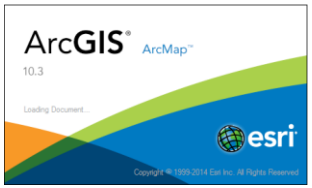
Software to View and Analyze the Data

Examples

- Microsoft Excel or similar software such as Google Sheets

- Google Earth

- ArcGIS or similar software such as QGIS or AutoCAD and MicroStation



NEW YORK STATE OF OPPORTUNITY. Broadband Program Office

Eligible Lists of Census Blocks - Spreadsheet Format (.xlsx)

<u>The spreadsheets provide Eligible blocks in Excel format</u>

List A: Unserved Final Census Block List

List B: Underserved Final Census Block List

List C: Additional Service Areas Census Block List

CAF List: CAF Final Census Block List

<u>The spreadsheets provide informational columns</u>

US Census Block IDs: Official Census Bureau ID

Full Block or Partial: Identifies if Full or Partial block is up for bid

- The specific geography of the Census Block area for bid is captured in the corresponding GIS files

Housing Units: BPO official count of Housing Units for bid, per Census Block

Total Units: BPOs official count of Total Units (HU, Businesses, Schools, Libraries, etc.) for bid in the Census Block

County: County in which the Census Block falls

REDC Region: Regional Economic Development Region in which the block falls

Filtering The Lists of Census Blocks

broadband_program_office_-_list_a_-_unserved_-_0

File | Home | Insert | Page Layout | Formulas | Data | Review | View | DYMO Label | Table Tools Design

A2 | 360110401005007

	US_CensusBlockID	Full Block or Partial	HousingUnits	Total Units	CountyName	REDC_Region	G
2	360110401005007	Full	1	1	Cayuga	Central NY Region	
3	360430115012027	Full	8	8	Herkimer	Mohawk Valley Region	
4	360419505001144	Full	9	9	Hamilton	North Coun	
5	360419505001173	Full	11	12	Hamilton	North Coun	
6	360419504002109	Full	1	1	Hamilton	North Coun	
7	360419505001232	Full	1	1	Hamilton	North Coun	
8	360419503002078	Full	3	3	Hamilton	North Coun	
9	360359705001033	Full	10	10	Fulton	Mohawk Va	
10	360430114002056	Full	12	16	Herkimer	Mohawk Va	
11	360499505002052	Full	3	3	Lewis	North Coun	
12	360419501001169	Full	8	8	Hamilton	North Country Region	
13	360359705002001	Full	3	3	Fulton	Mohawk Valley Region	
14	360419505001242	Full	3	3	Hamilton	North Country Region	
15	360430114002011	Full	1	3	Herkimer	Mohawk Valley Region	
16	360419503002072	Full	12	12	Hamilton	North Country Region	
17	360419505001253	Full	1	1	Hamilton	North Country Region	
18	360390802013004	Full	18	20	Greene	Capital Region	
19	360430115012109	Full	3	3	Herkimer	Mohawk Valley Region	
20	360450625002007	Full	14	14	Jefferson	North Country Region	
21	360359705001053	Full	1	1	Fulton	Mohawk Valley Region	
22	360390802013024	Full	4	4	Greene	Capital Region	
23	360390805024033	Full	1	1	Greene	Capital Region	
24	360450602001023	Full	5	5	Jefferson	North Country Region	
25	360419501001175	Full	6	6	Hamilton	North Country Region	
26	360039504002045	Full	3	3	Allegany	Western NY Region	
27	360099603002083	Full	2	2	Cattaraugus	Western NY Region	
28	360010148031125	Full	2	2	Albany	Capital Region	
29	360099604004077	Full	19	19	Cattaraugus	Western NY Region	

Step 1: Open the Excel version of either the Unserved, Underserved, or Additional Service Area Census Blocks

Filtering The Lists of Census Blocks

broadband_program_office_-_list_a_-_unserved_-_0

File | Home | Insert | Page Layout | Formulas | Data | Review | View | DYMO Label | Table Tools Design

A2 | 360110401005007

US_CensusBlockID	Full Block or Partial	HousingUnits	Total Units	CountyName	EDC_Region	G
360110401005007	Full				Central NY Region	
360430115012027	Full				Mohawk Valley Region	
360419505001144	Full				North Coun	
360419505001173	Full				North Coun	
360419504002109	Full				North Coun	
360419505001232	Full				North Coun	
360419503002078	Full				North Coun	
360359705001033	Full				Mohawk Va	
360430114002056	Full				Mohawk Va	
360499505002052	Full				North Coun	
360419501001169	Full				North Country Region	
360359705002001	Full				Mohawk Valley Region	
360419505001242	Full				North Country Region	
360430114002011	Full				Mohawk Valley Region	
360419503002072	Full				North Country Region	
360419505001253	Full				North Country Region	
360390802013004	Full				Capital Region	
360430115012109	Full				Mohawk Valley Region	
360450625002007	Full				North Co	
360359705001053	Full				Mohawk	
360390802013024	Full	4	4	Greene	Capital Region	
360390805024033	Full	1	1	Greene	Capital Region	
360450602001023	Full	5	5	Jefferson	North Country Region	
360419501001175	Full	6	6	Hamilton	North Country Region	
360039504002045	Full	3	3	Allegany	Western NY Region	
360099603002083	Full	2	2	Cattaraugus	Western NY Region	
360010148031125	Full	2	2	Albany	Capital Region	
360099604004077	Full	19	19	Cattaraugus	Western NY Region	

Sort A to Z
Sort Z to A
Sort by Color
Clear Filter From "CountyName"
Filter by Color
Text Filters
Search
(Select All)
Albany
Allegany
Bronx
Broome
Cattaraugus
Cayuga
Chautauqua
Chemung
Chenango
OK
Cancel

Step 2: Select the filter you would like to use by clicking the Filter Box in the lower right of the field Header

Filter Box

Filtering The Lists of Census Blocks

broadband_program_office_-_list_a_-_unserved_-_0

File | Home | Insert | Page Layout | Formulas | Data | Review | View | DYMO Label | Table Tools Design

A2 | 360110401005007

	US_CensusBlockID	Full Block or Partial	HousingUnits	Total Units	CountyName	REDC_Region	G
2	360110401005007	Full				Central NY Region	
3	360430115012027	Full				Mohawk Valley Region	
4	360419505001144	Full				North Coun	
5	360419505001173	Full				North Coun	
6	360419504002109	Full				North Coun	
7	360419505001232	Full				North Coun	
8	360419503002078	Full				North Coun	
9	360359705001033	Full				Mohawk Va	
10	360430114002056	Full				Mohawk Va	
11	360499505002052	Full				North Coun	
12	360419501001169	Full				North Country Region	
13	360359705002001	Full				Mohawk Valley Region	
14	360419505001242	Full				North Country Region	
15	360430114002011	Full				Mohawk Valley Region	
16	360419503002072	Full				North Country Region	
17	360419505001253	Full				North Country Region	
18	360390802013004	Full				Capital Region	
19	360430115012109	Full				Mohawk Valley Region	
20	360450625002007	Full				North Country Region	
21	360359705001053	Full				Mohawk Valley Region	
22	360390802013024	Full	4	4	Greene	Capital Region	
23	360390805024033	Full	1	1	Greene	Capital Region	
24	360450602001023	Full	5	5	Jefferson	North Country Region	
25	360419501001175	Full	6	6	Hamilton	North Country Region	
26	360039504002045	Full	3	3	Allegany	Western NY Region	
27	360099603002083	Full	2	2	Cattaraugus	Western NY Region	
28	360010148031125	Full	2	2	Albany	Capital Region	
29	360099604004077	Full	19	19	Cattaraugus	Western NY Region	

Sort A to Z
Sort Z to A
Sort by Color
Clear Filter From "CountyName"
Filter by Color
Text Filters
Search
(Select All)
Albany
Allegany
Bronx
Broome
Cattaraugus
Cayuga
Chautauqua
Chemung
Chenango
OK
Cancel

Step 3: Click the "Select All" entry to uncheck all entries

Filtering The Lists of Census Blocks

Table Tools broadband_program_office_-_list_a_-_unserved_-_0

File Home Insert Page Layout Formulas Data Review View DYMO Label Design

A2 360110401005007

	US_CensusBlockID	Full Block or Partial	HousingUnits	Total Units	CountyName	REDC_Region	G
2	360110401005007	Full				Central NY Region	
3	360430115012027	Full				Mohawk Valley Region	
4	360419505001144	Full				North Coun	
5	360419505001173	Full				North Coun	
6	360419504002109	Full				North Coun	
7	360419505001232	Full				North Coun	
8	360419503002078	Full				North Coun	
9	360359705001033	Full				Mohawk Va	
10	360430114002056	Full				Mohawk Va	
11	360499505002052	Full				North Coun	
12	360419501001169	Full				North Country Region	
13	360359705002001	Full				Mohawk Valley Region	
14	360419505001242	Full				North Country Region	
15	360430114002011	Full				Mohawk Valley Region	
16	360419503002072	Full				North Country Region	
17	360419505001253	Full				North Country Region	
18	360390802013004	Full				Capital Region	
19	360430115012109	Full				Mohawk Valley Region	
20	360450625002007	Full				North Country Region	
21	360359705001053	Full				Mohawk Valley Region	
22	360390802013024	Full	4	4	Greene	Capital Region	
23	360390805024033	Full	1	1	Greene	Capital Region	
24	360450602001023	Full	5	5	Jefferson	North Country Region	
25	360419501001175	Full	6	6	Hamilton	North Country Region	
26	360039504002045	Full	3	3	Allegany	Western NY Region	
27	360099603002083	Full	2	2	Cattaraugus	Western NY Region	
28	360010148031125	Full	2	2	Albany	Capital Region	
29	360099604004077	Full	19	19	Cattaraugus	Western NY Region	

Sort A to Z
Sort Z to A
Sort by Color
Clear Filter From "CountyName"
Filter by Color
Text Filters
Search
(Select All)
Albany
Allegany
Bronx
Broome
Cattaraugus
Cayuga
Chautauqua
Chemung
Chenango
OK
Cancel

Step 4: Select the County you wish to view. Click "OK"

Eligible Census Blocks - Google Earth Format (.kmz)

Mapping Files

Files Excluding Water Blocks

List A: **Unserved** Final Census Block List - 9.14.16

- .shp format
- .kmz format

List B: **Underserved** Final Census Block List - 9.14.16

- .shp format
- .kmz format

List C: **Additional Service Area** Final Census Block List - 9.14.16

- .shp format
- .kmz format

CAF List: **CAF** Final Census Block List - 9.14.16

- .shp format
- .kmz format

All Blocks, Including Water Blocks

These lists include blocks that are entirely covered by water, and these lists serve as the official count of all Phase 2 eligible blocks. As you will see in the above section, BPO also provides shapefile and kmz files, for all eligible areas, excluding those that are entirely covered by water. BPO has provided these additional files to assist in mapping service areas.

List A: **Unserved** Final Census Block List - 9.14.16

- .xls format
- .shp format
- .kmz format

List B: **Underserved** Final Census Block List - 9.14.16

- .xls format
- .shp format
- .kmz format

List C: **Additional Service Area** Final Census Block List - 9.14.16

- .xls format
- .shp format
- .kmz format

CAF List: **CAF** Final Census Block List - 9.14.16

- .xls format
- .shp format
- .kmz format

Google Earth is free and will allow you to map your service area using the .KMZ files on the BPO website

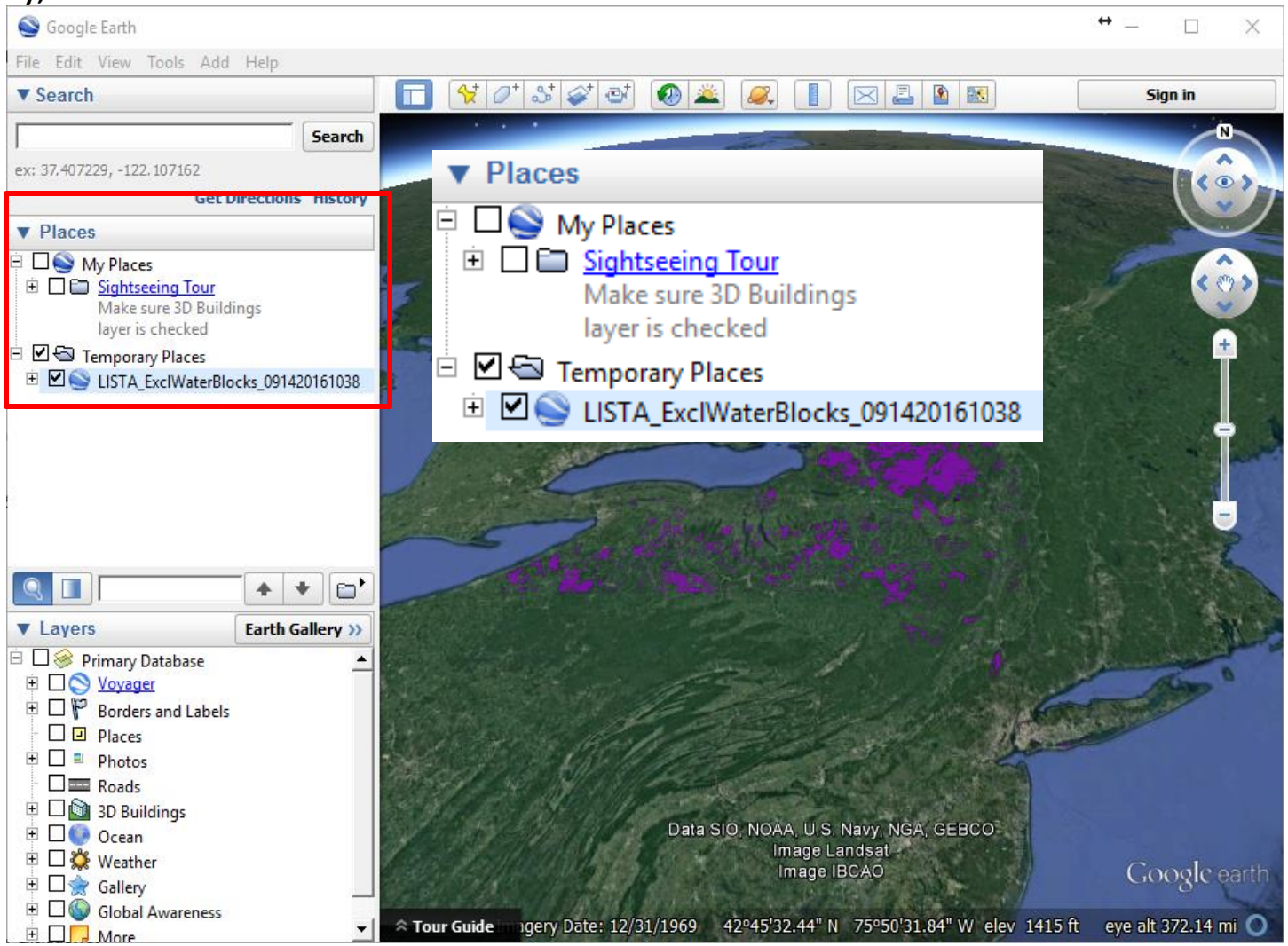
Google Earth files (.kmz) on the BPO website provide the eligible Census Blocks, by type, in map format and does NOT require purchased GIS software

NEW YORK STATE OF OPPORTUNITY. Broadband Program Office

Using Google Earth to Map Your Project Area

Opening Data in Google Earth

- Save the .kmz files on your computer
- Double click a file to open it in Google Earth...the data may take a moment to open and display, but it should look similar to this:

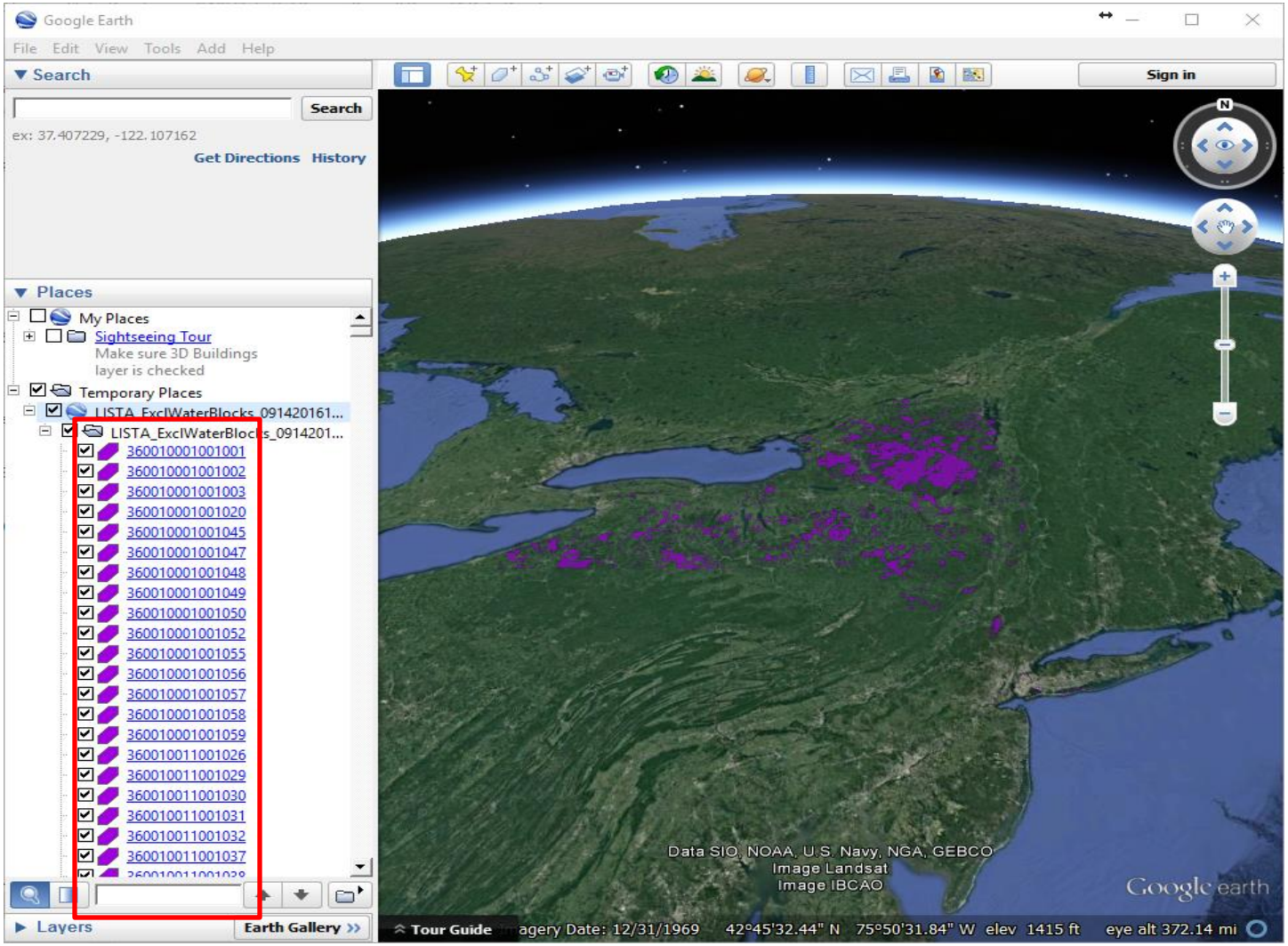


Broadband Program Office

Using Google Earth to Map Your Project Area

Opening Data in Google Earth

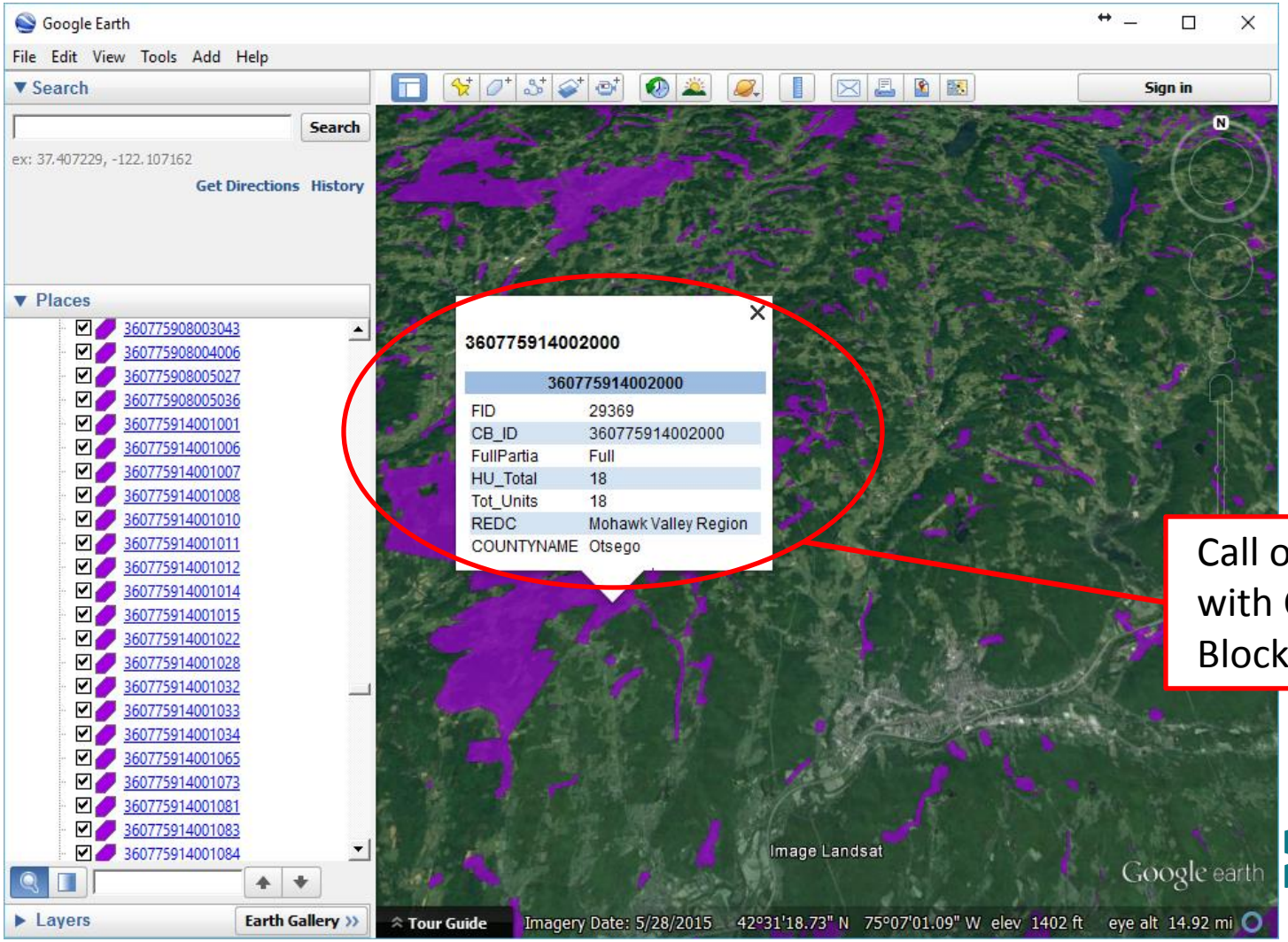
If you click the down area by the layer name, you will get the list of Census Blocks in the layer



Broadband Program Office

Using Google Earth to Map Your Project Area

To zoom to a Census Block from the list, double click on any of the 15-digit Census Block numbers appearing in the list. An information Call Out box will appear, which includes U.S. Census Block ID, County Name, REDC Region, Housing Units, etc.. The information Call Out box can also be opened for any Census Block by clicking on it in the map

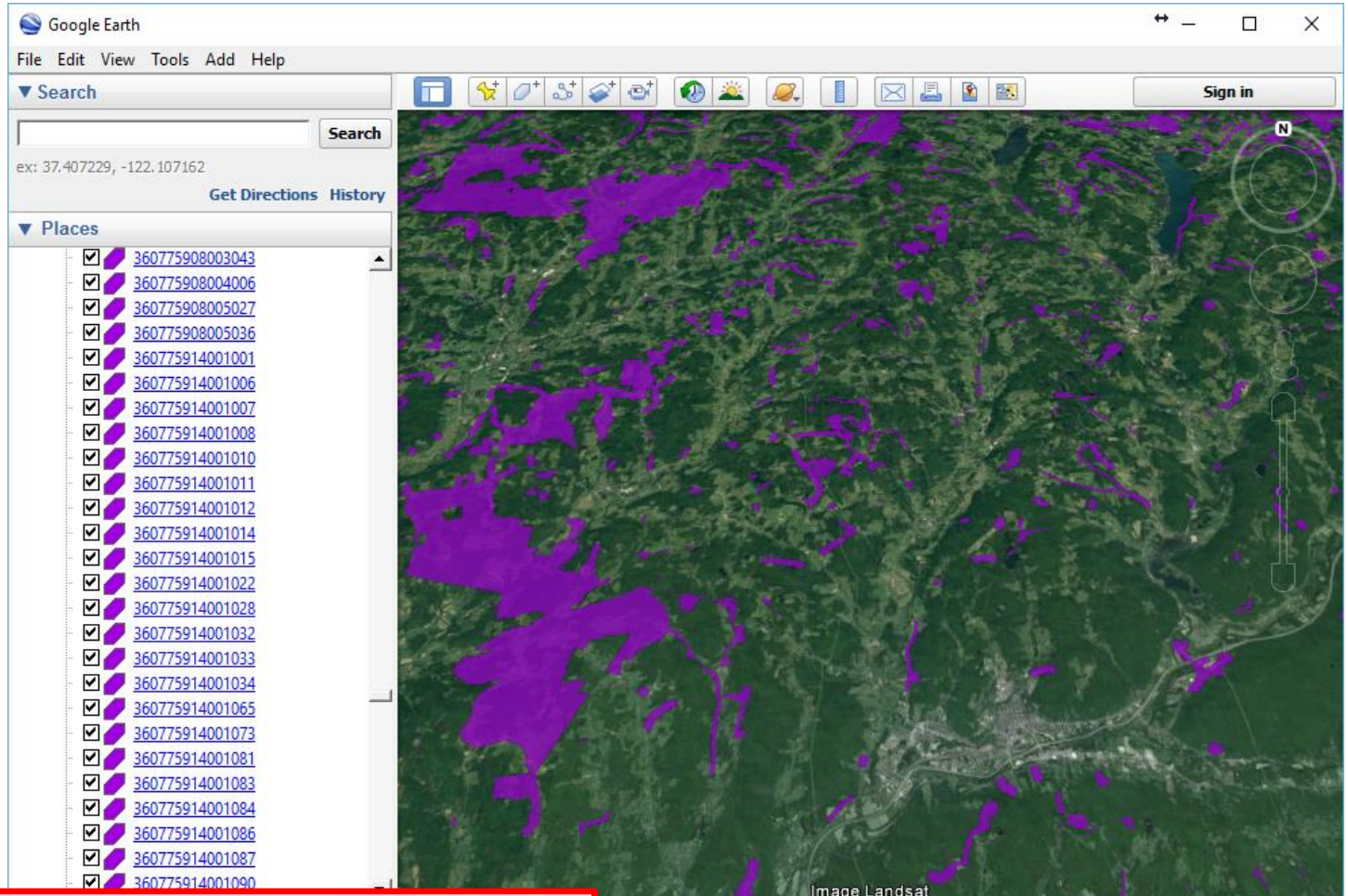


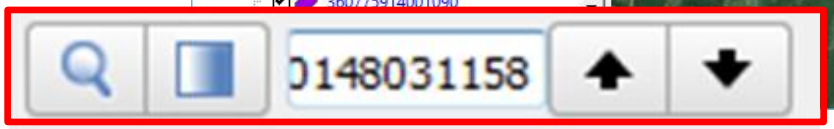
Call out Box with Census Block detail

Broadband Program Office

Using Google Earth to Map Your Project Area

To find a specific Census Block you can use the toolbar at the bottom of the Window. The toolbar offers search as well as next/prior record controls.

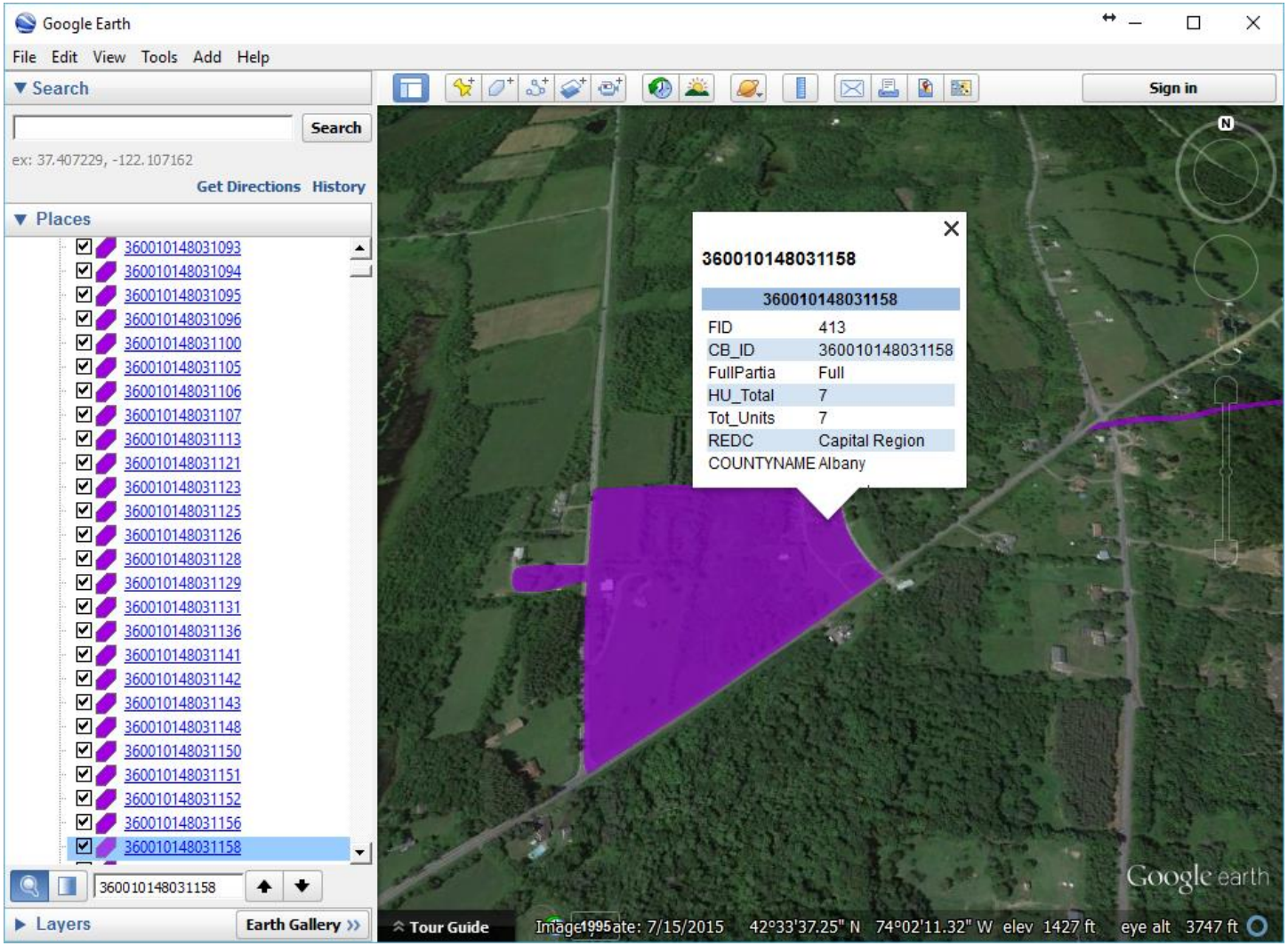




Broadband Program Office

Using Google Earth to Map Your Project Area

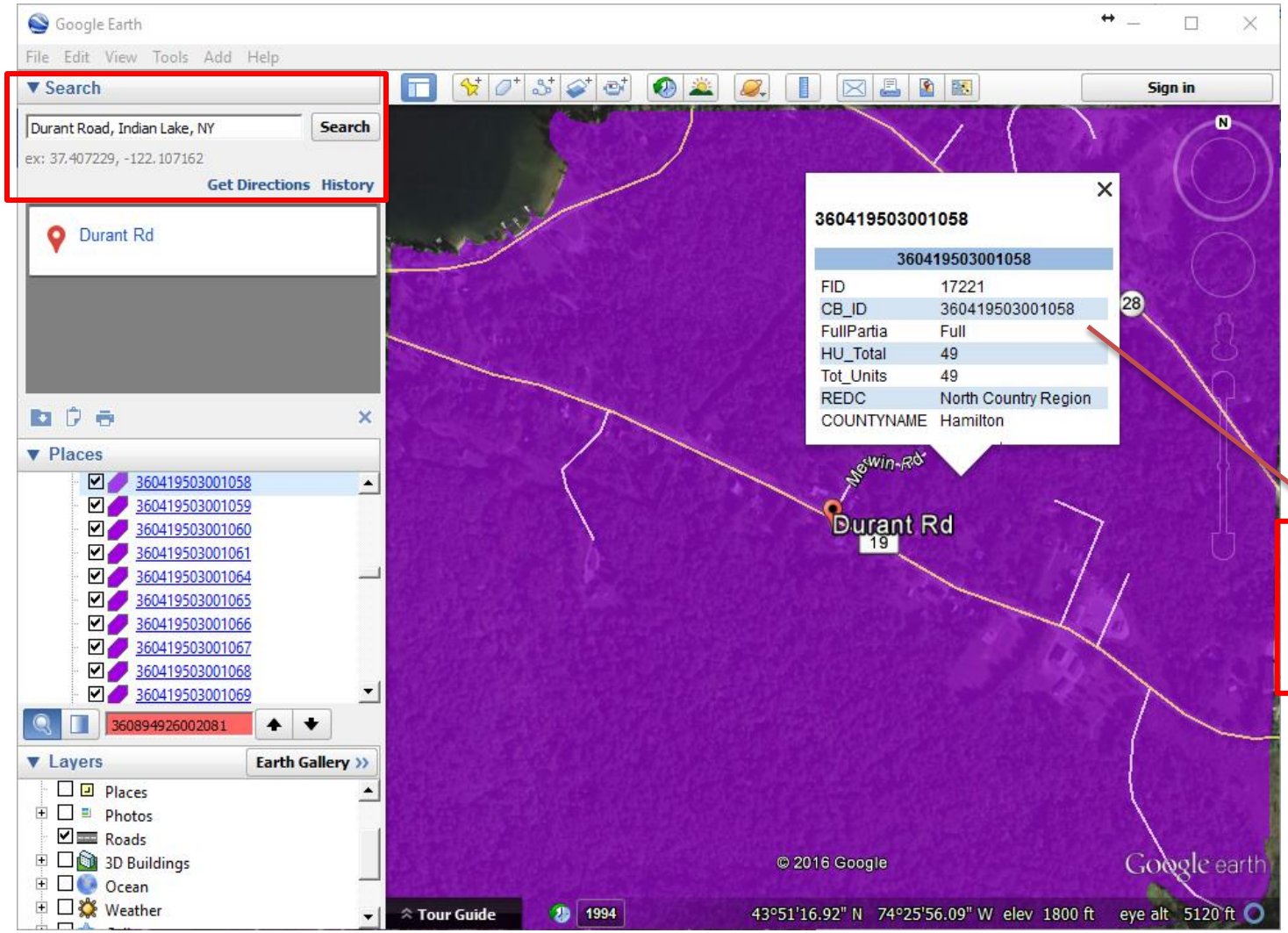
In this case, a Census Block ID has been entered and searched for. Google Earth will zoom to the specific block when found.



Broadband Program Office

Using Google Earth to Map Your Project Area

Google Earth can also search for an address or location. This information can be entered in the Search box at the top of the Window. If found Google Earth will zoom to the location.

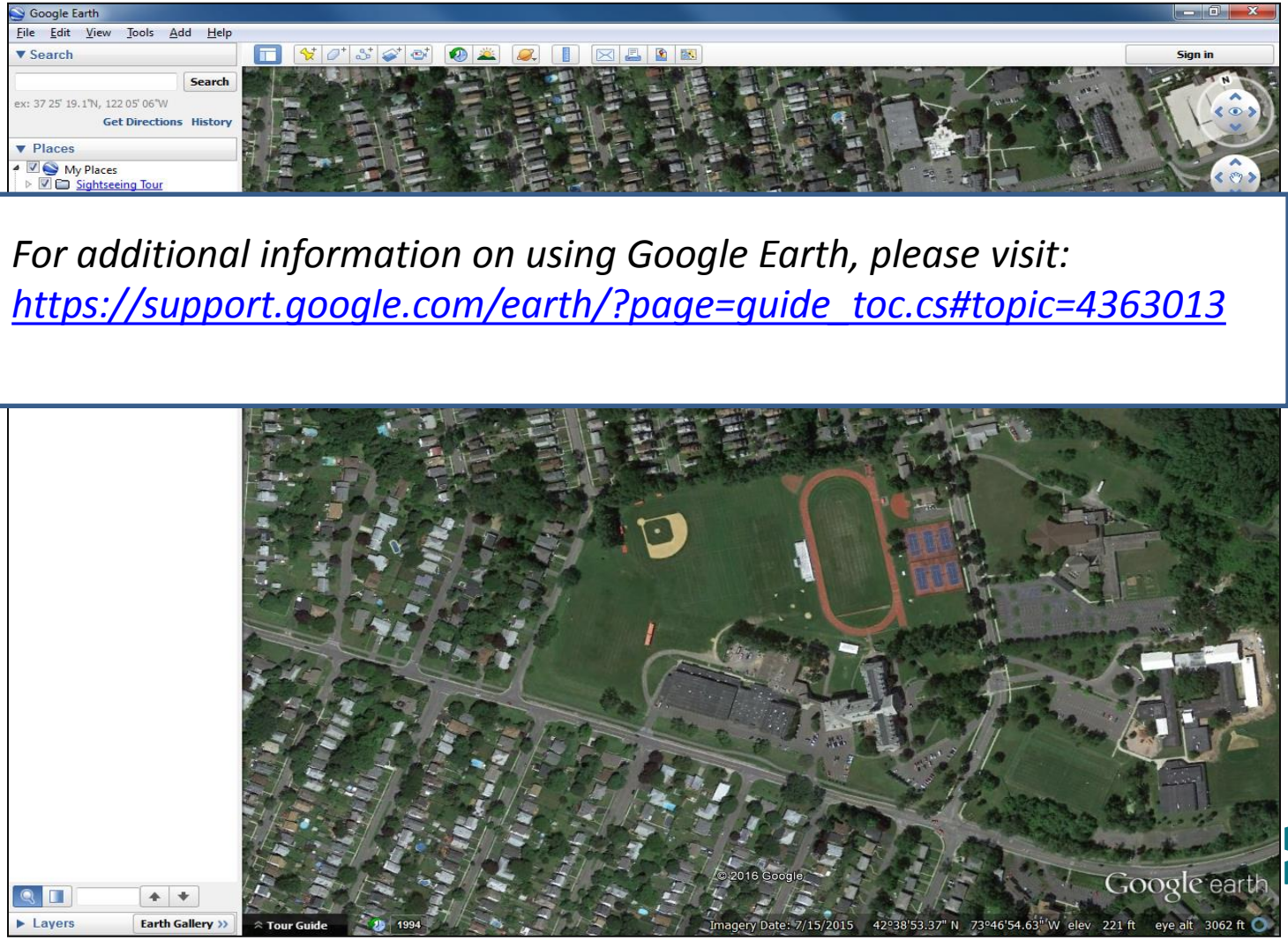


Call out Box with Census Block detail

Broadband Program Office

Using Google Earth to Map Your Project Area

To navigate the map, use the tools provided on the right-hand side of the map display. These tools allow you to move around the map



For additional information on using Google Earth, please visit:
https://support.google.com/earth/?page=guide_toc.cs#topic=4363013

Broadband Program Office

Eligible Census Blocks in ArcGIS (.shp) Format

Mapping Files

Files Excluding Water Blocks

List A: **Unserved** Final Census Block List - 9.14.16

- .shp format
- .kmz format

List B: **Underserved** Final Census Block List - 9.14.16

- .shp format
- .kmz format

List C: **Additional Service Area** Final Census Block List - 9.14.16

- .shp format
- .kmz format

CAF List: **CAF** Final Census Block List - 9.14.16

- .shp format
- .kmz format

All Blocks, Including Water Blocks

These lists include blocks that are entirely covered by water, and these lists serve as the official count of all Phase 2 eligible blocks. As you will see in the above section, BPO also provides shapefile and kmz files, for all eligible areas, excluding those that are entirely covered by water. BPO has provided these additional files to assist in mapping service areas.

List A: **Unserved** Final Census Block List - 9.14.16

- .xls format
- .shp format
- .kmz format

List B: **Underserved** Final Census Block List - 9.14.16

- .xls format
- .shp format
- .kmz format

List C: **Additional Service Area** Final Census Block List - 9.14.16

- .xls format
- .shp format
- .kmz format

CAF List: **CAF** Final Census Block List - 9.14.16

- .xls format
- .shp format
- .kmz format

The last file format provided are .shp (SHAPE) file formats that can be easily imported into a GIS or CAD system.

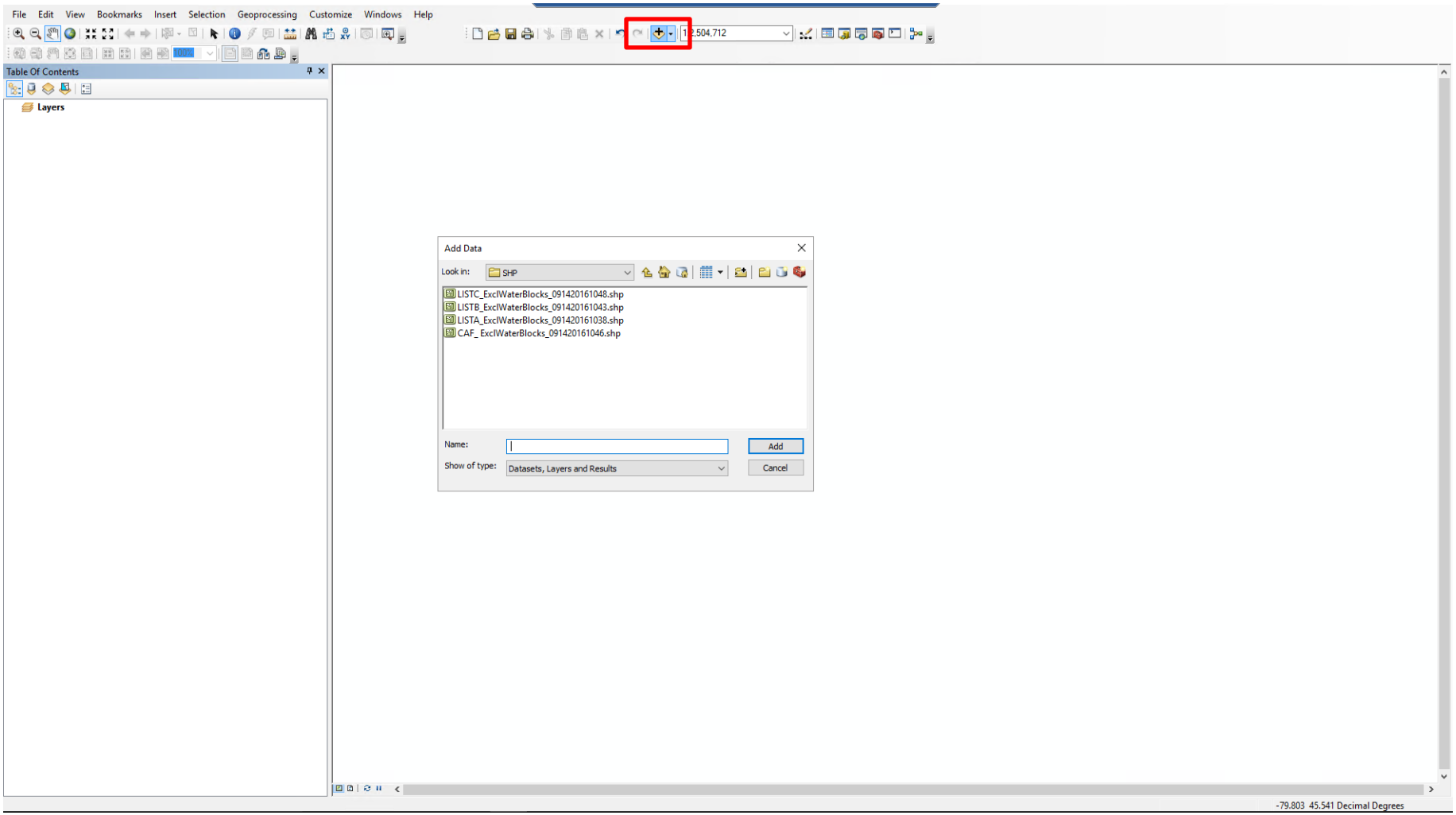
The SHP files are provided in geographic coordinates (longitude and latitude), WGS 84 projection. This deliverable format is well 'understood' by many software platforms. We would not anticipate alignment or positioning issues.

SHP format files on the BPO website provide the eligible Census Blocks, by list.

NEW YORK STATE OF OPPORTUNITY. Broadband Program Office

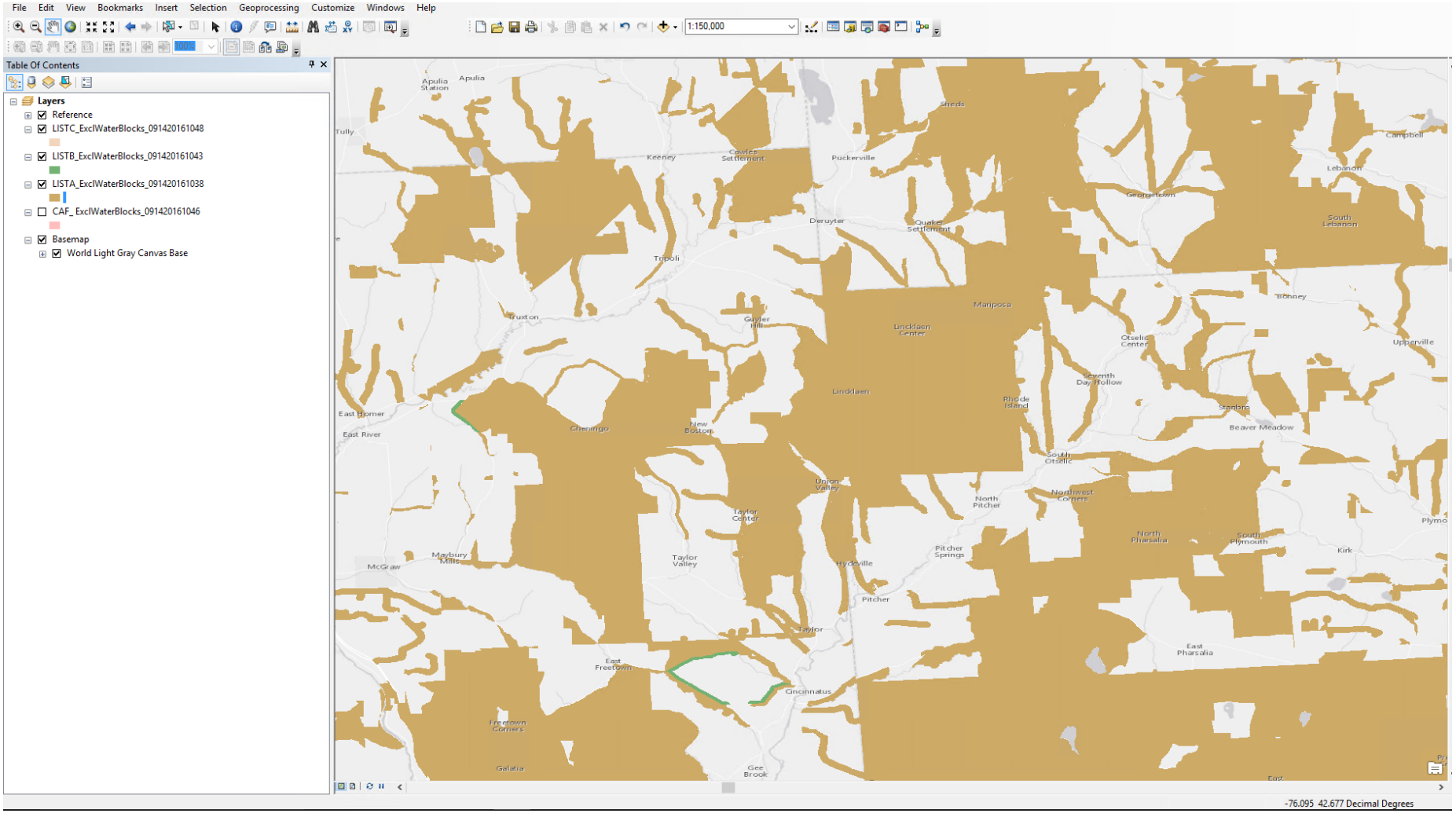
Using ArcGIS to Map Your Project Area

A SHP file is a collection of files (*.shp, *.dbf, *.prj). These files are all zipped together. Download the ZIP file, extract it to a location on your computer and add the SHP file to your workspace.



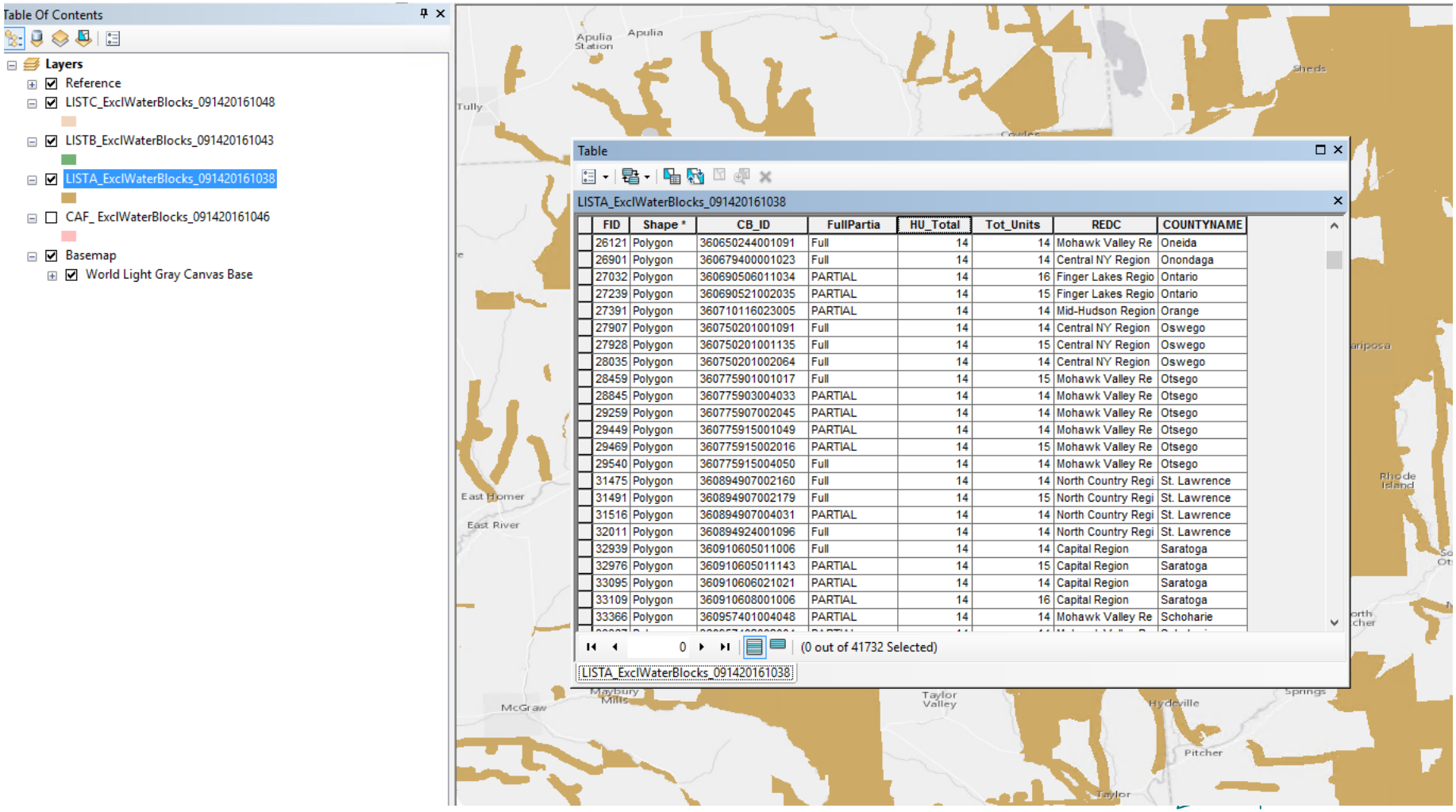
Using ArcGIS to Map Your Project Area

Add eligible data to workspace.



Using ArcGIS to Map Your Project Area

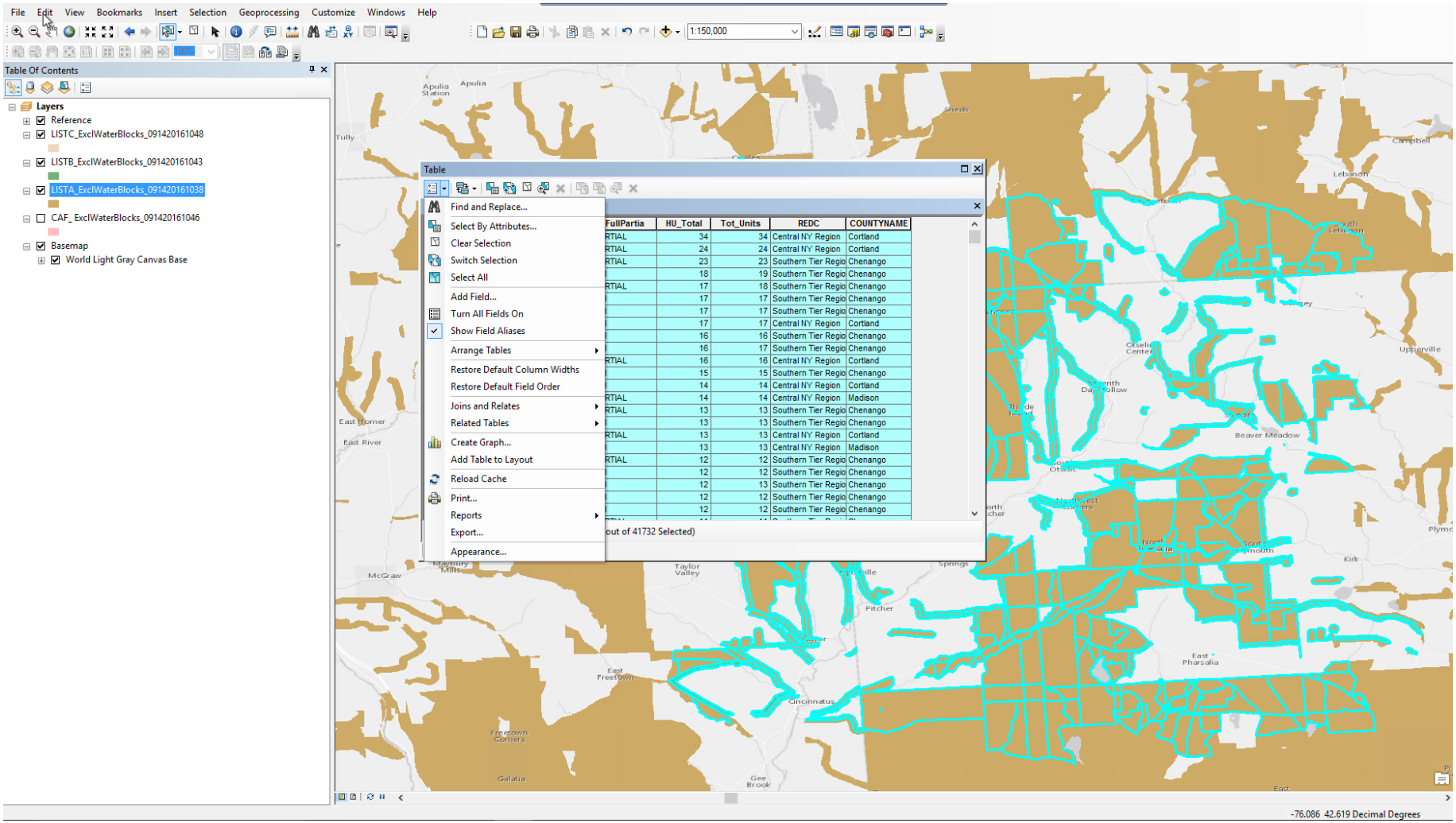
The SHP files have the same attributes columns and values as the Excel files



FID	Shape *	CB_ID	FullPartia	HU_Total	Tot_Units	REDC	COUNTYNAME
26121	Polygon	360650244001091	Full	14	14	Mohawk Valley Re	Oneida
26901	Polygon	360679400001023	Full	14	14	Central NY Region	Onondaga
27032	Polygon	360690506011034	PARTIAL	14	16	Finger Lakes Regio	Ontario
27239	Polygon	360690521002035	PARTIAL	14	15	Finger Lakes Regio	Ontario
27391	Polygon	360710116023005	PARTIAL	14	14	Mid-Hudson Region	Orange
27907	Polygon	360750201001091	Full	14	14	Central NY Region	Oswego
27928	Polygon	360750201001135	Full	14	15	Central NY Region	Oswego
28035	Polygon	360750201002064	Full	14	14	Central NY Region	Oswego
28459	Polygon	360775901001017	Full	14	15	Mohawk Valley Re	Otsego
28845	Polygon	360775903004033	PARTIAL	14	14	Mohawk Valley Re	Otsego
29259	Polygon	360775907002045	PARTIAL	14	14	Mohawk Valley Re	Otsego
29449	Polygon	360775915001049	PARTIAL	14	14	Mohawk Valley Re	Otsego
29469	Polygon	360775915002016	PARTIAL	14	15	Mohawk Valley Re	Otsego
29540	Polygon	360775915004050	Full	14	14	Mohawk Valley Re	Otsego
31475	Polygon	360894907002160	Full	14	14	North Country Regi	St. Lawrence
31491	Polygon	360894907002179	Full	14	15	North Country Regi	St. Lawrence
31516	Polygon	360894907004031	PARTIAL	14	14	North Country Regi	St. Lawrence
32011	Polygon	360894924001096	Full	14	14	North Country Regi	St. Lawrence
32939	Polygon	360910605011006	Full	14	14	Capital Region	Saratoga
32976	Polygon	360910605011143	PARTIAL	14	15	Capital Region	Saratoga
33095	Polygon	360910606021021	PARTIAL	14	14	Capital Region	Saratoga
33109	Polygon	360910608001006	PARTIAL	14	16	Capital Region	Saratoga
33366	Polygon	360957401004048	PARTIAL	14	14	Mohawk Valley Re	Schoharie

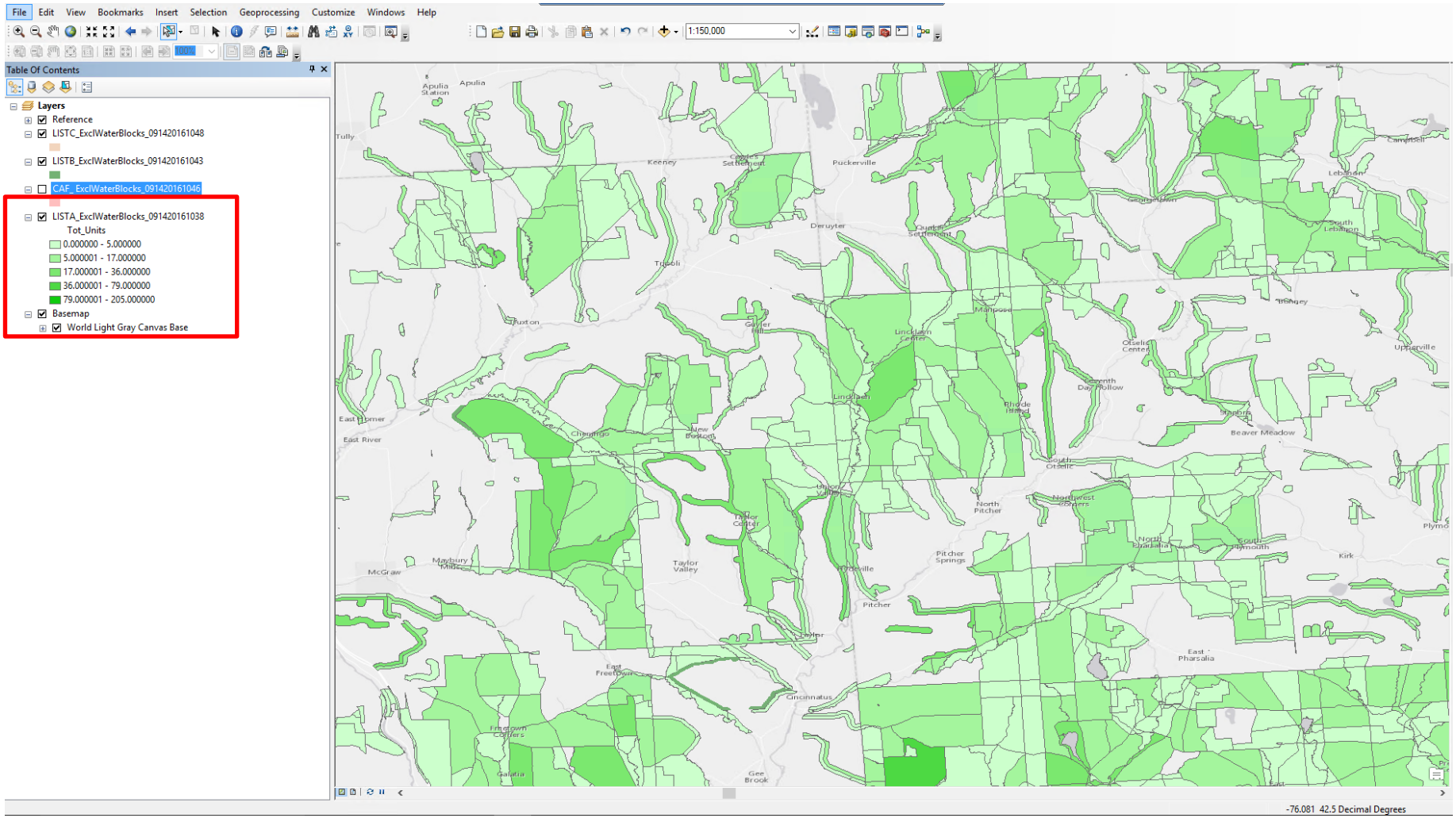
Using ArcGIS to Map Your Project Area

You can select and then export the selected blocks into spreadsheet for additional analysis.



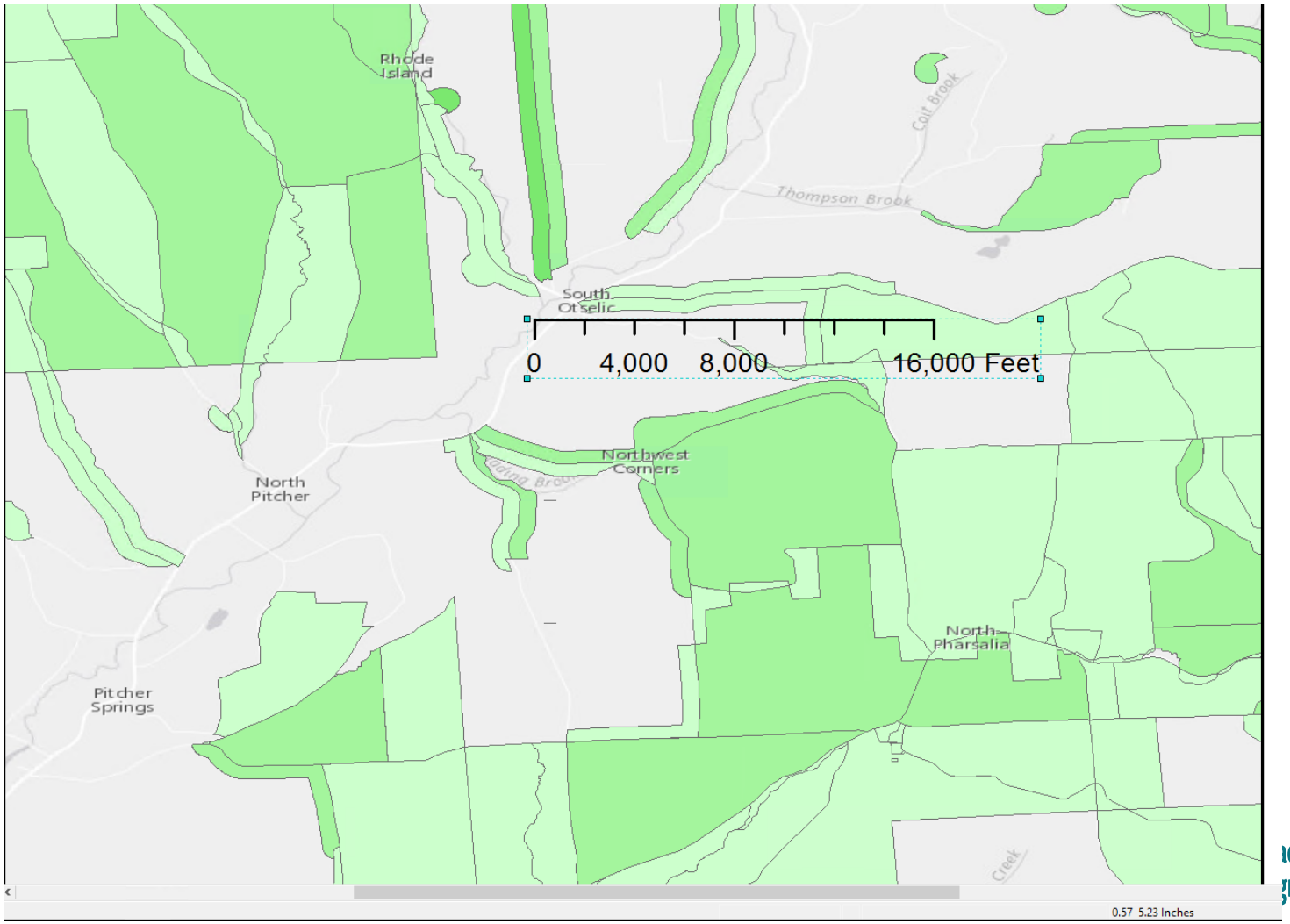
Using ArcGIS to Map Your Project Area

You can also render the blocks based upon their demand (Housing Units or Total units)



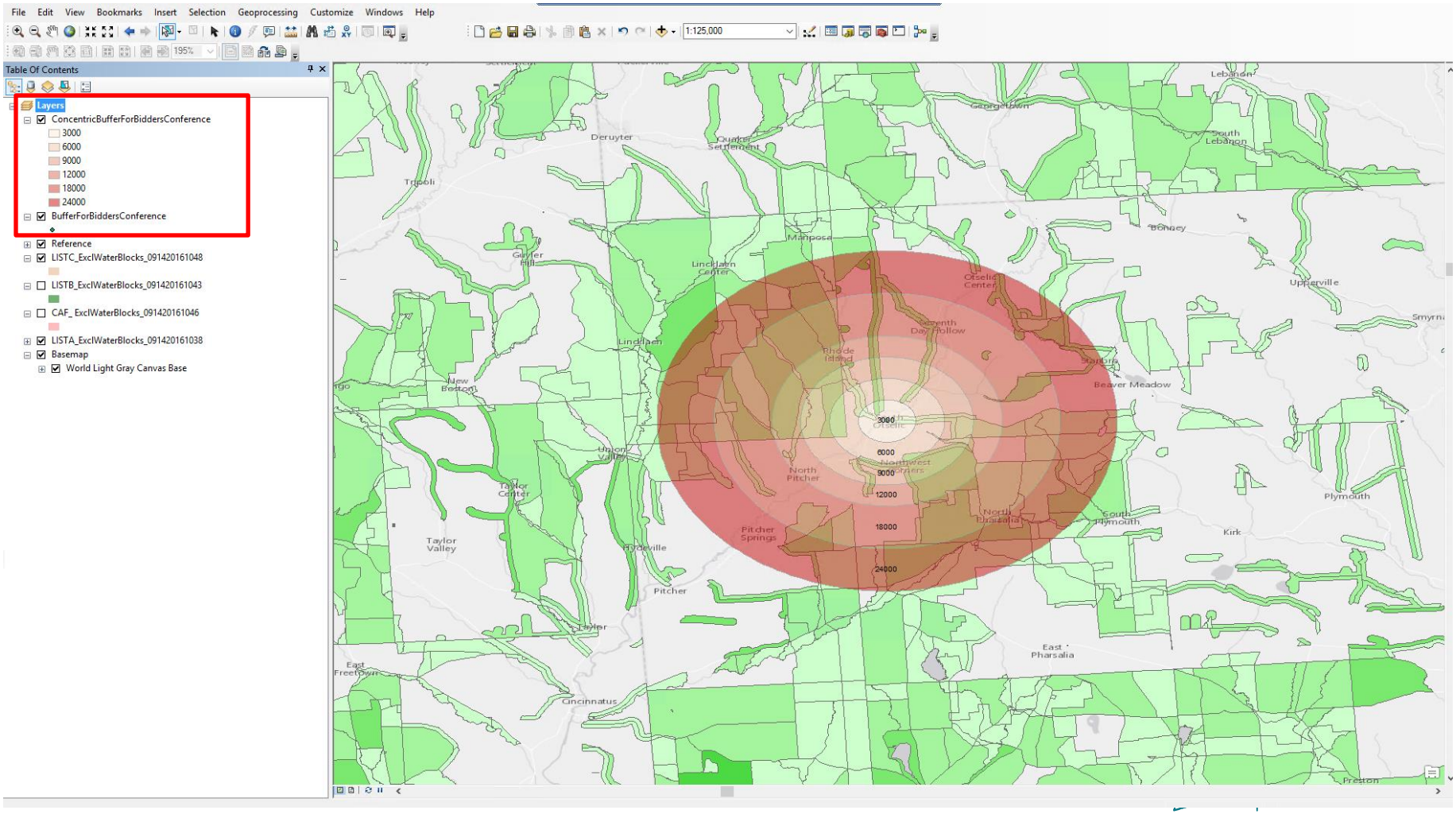
Using ArcGIS to Map Your Project Area

The GIS can also measure distance to and from features, for example “How far to close the gap among the features?”



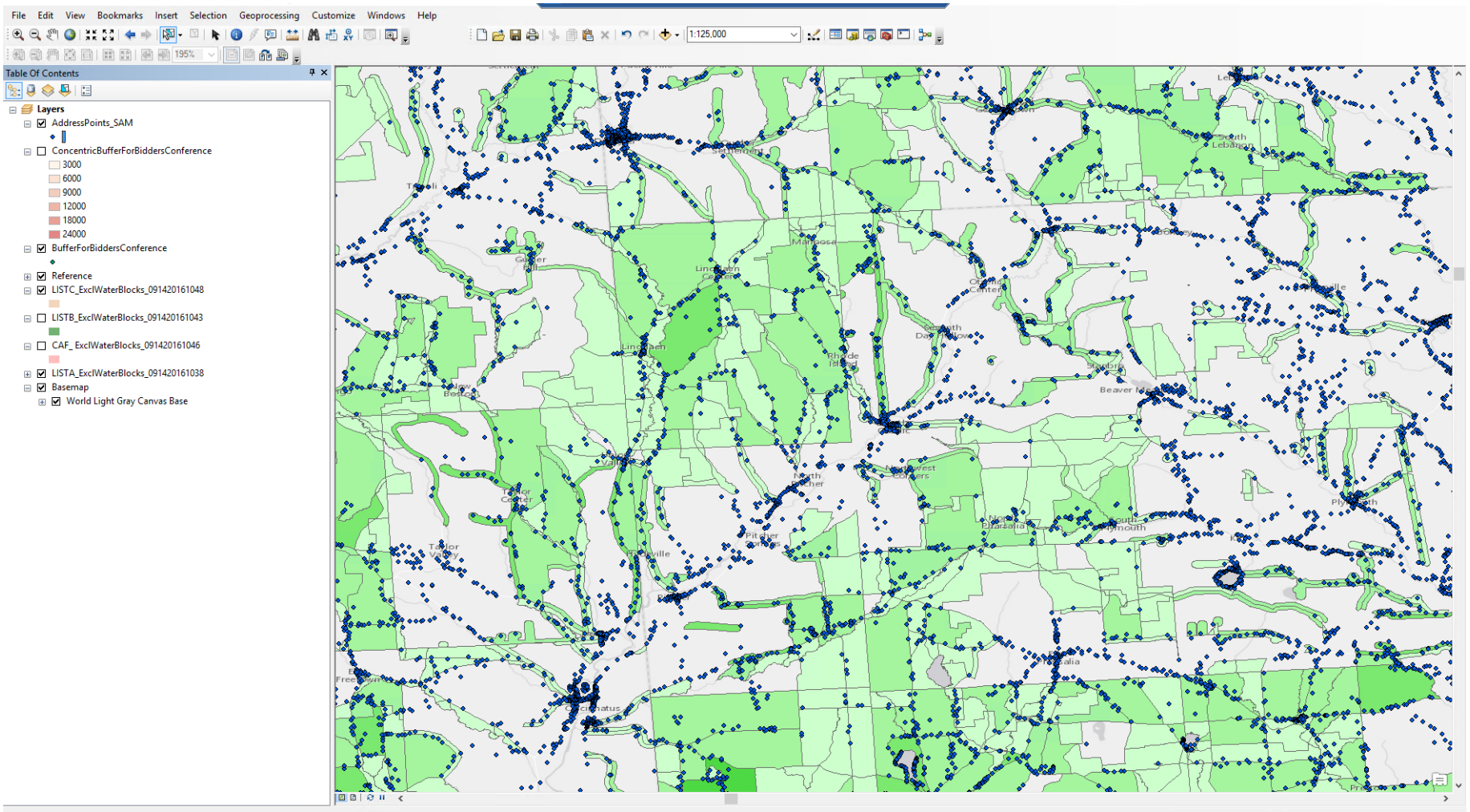
Using ArcGIS to Map Your Project Area

If you have a point of interest you can perform a service area analysis from that point. For example, the concentric buffers give a sense of what can be reached by distance band. A road based buffer can also be developed.



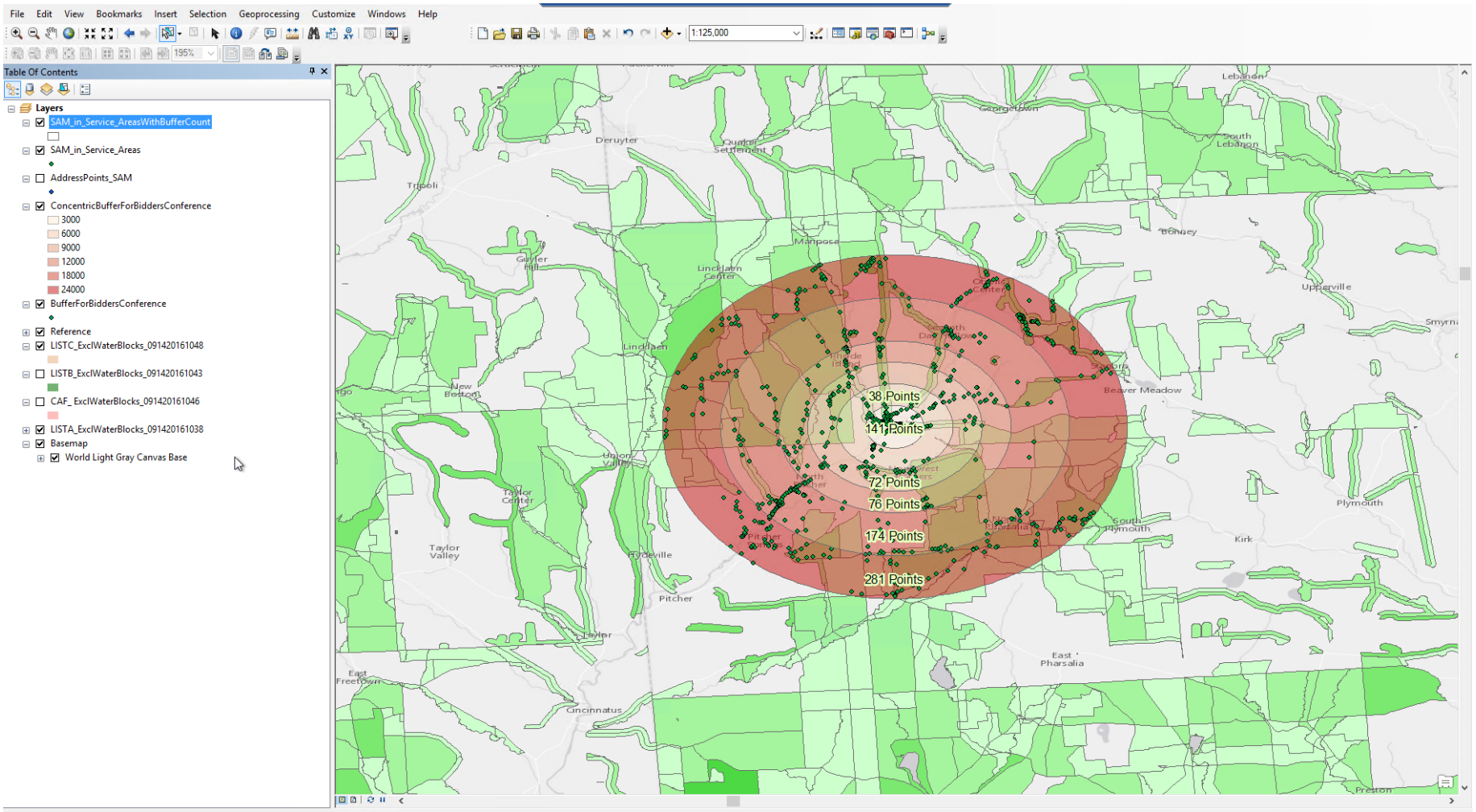
Using ArcGIS to Map Your Project Area

For many counties, the street address structure information is available from New York State GIS clearinghouse.



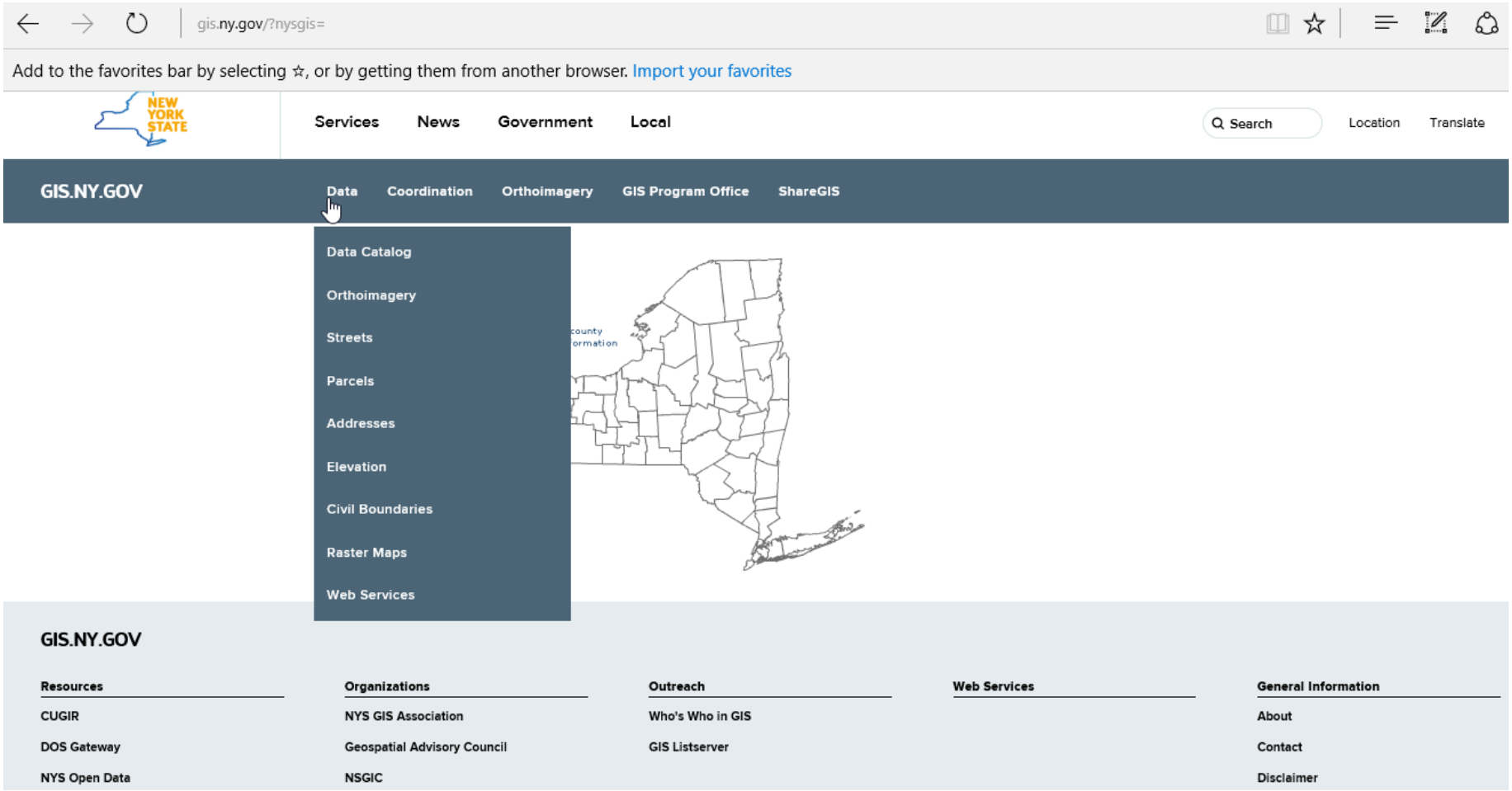
Using ArcGIS to Map Your Project Area

You could also combine the buffers with the address point data to understand how many points are in each concentric buffer. The labels correspond to the point count in each buffer.



Using ArcGIS to Map Your Project Area

New York State provides a large repository of free reference layers , this information can be obtained from the NY State Geospatial Clearinghouse Files available include civil boundaries, REDC boundaries, streets, address points, elevation and imagery.



Using ArcGIS to Map Your Project Area

If you'd like to 'layer-in' additional demographics, U.S. Census makes available TIGER/Line files with Census 2010 demographics (Housing Units and Population).

https://www.census.gov/geo/maps-data/data/tiger-data.html

Maps & Data

- Maps & Data Main Page

Maps

- Census Data Mapper
- Reference
- Thematic
- Maps Available for Purchase

Data

- TIGER Products
- Census Geocoder
- Partnership Shapefiles
- Relationship Files
- Gazetteer Files
- Block Assignment Files
- Name Lookup Tables
- Tallies
- LandView

TIGER/Line® with Selected Demographic and Economic Data

A limited set of TIGER/Line Shapefiles are available pre-joined with data in geodatabase and shapefile format.

American Community Survey 5-Year Estimates — Geodatabase Format

- 2010 - 2014 Detailed Tables
- 2009 - 2013 Detailed Tables
- 2008 - 2012 Detailed Tables
- 2007 - 2011 Block Group Data
- 2007 - 2011 Data Profiles
- 2006 - 2010 Block Group Data
- 2006 - 2010 Data Profiles

2010 Census

- Demographic Profile 1 — Shapefile Format
- Demographic Profile 1 — Geodatabase Format
- Island Areas Demographic Profiles - Geodatabase Format
- Population & Housing Unit Counts — Blocks

These state based files have the population and housing unit count by block from the 2010 Census. These files are available for the 50 states and the District of Columbia only.

New York GO

County Business Patterns — Geodatabase Format

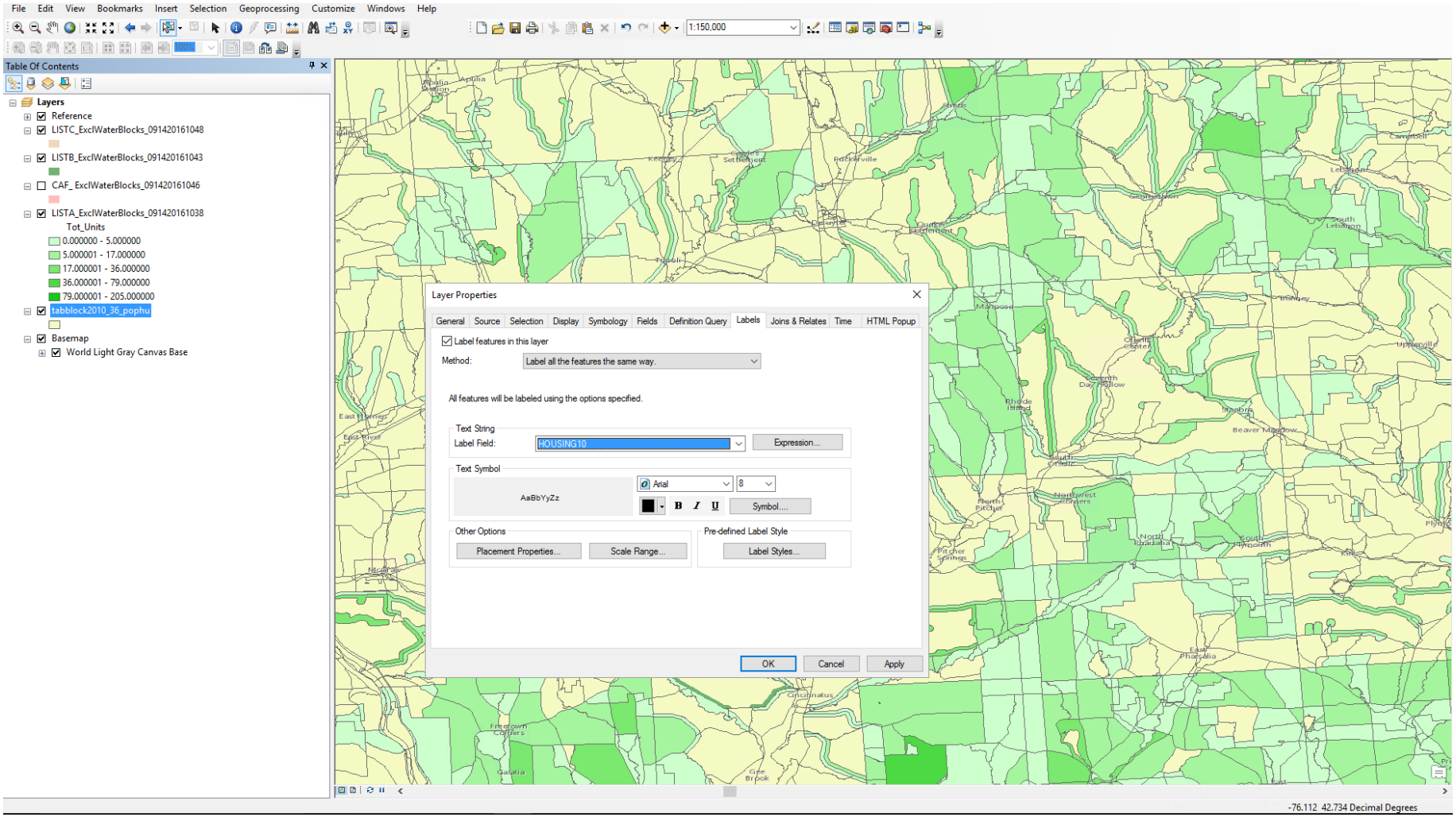
- 2012

[PDF] or denotes a file in Adobe's Portable Document Format. To view the file, you will need the Adobe® Reader® available free from Adobe. [Excel] or the letters [xls] indicate a document is in the Microsoft® Excel® Spreadsheet Format (XLS). To view the file, you will need the Microsoft® I
web site. Our linking to these sites does not constitute an endorsement of any products, services or the information found on them. Once you link to another site you are subject to the policies of the new site.

ABOUT US | FIND DATA | BUSINESS & INDUSTRY | PEOPLE & HOUSEHOLDS | SPECIAL TOPICS | NEWSROOM

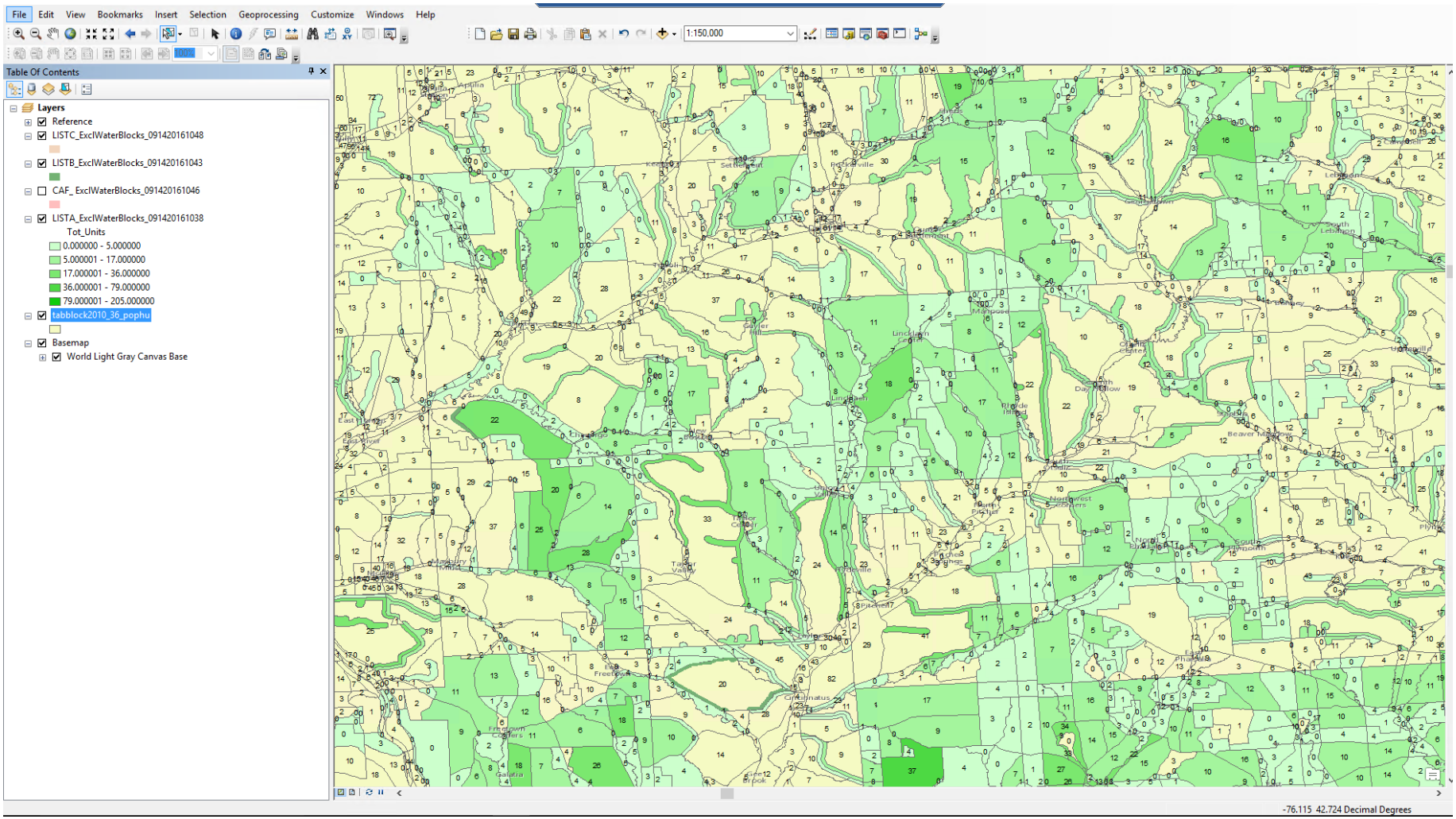
Using ArcGIS to Map Your Project Area

The U.S. Census layer is added, and we are labeling full Blocks with Housing 2010 Unit Counts



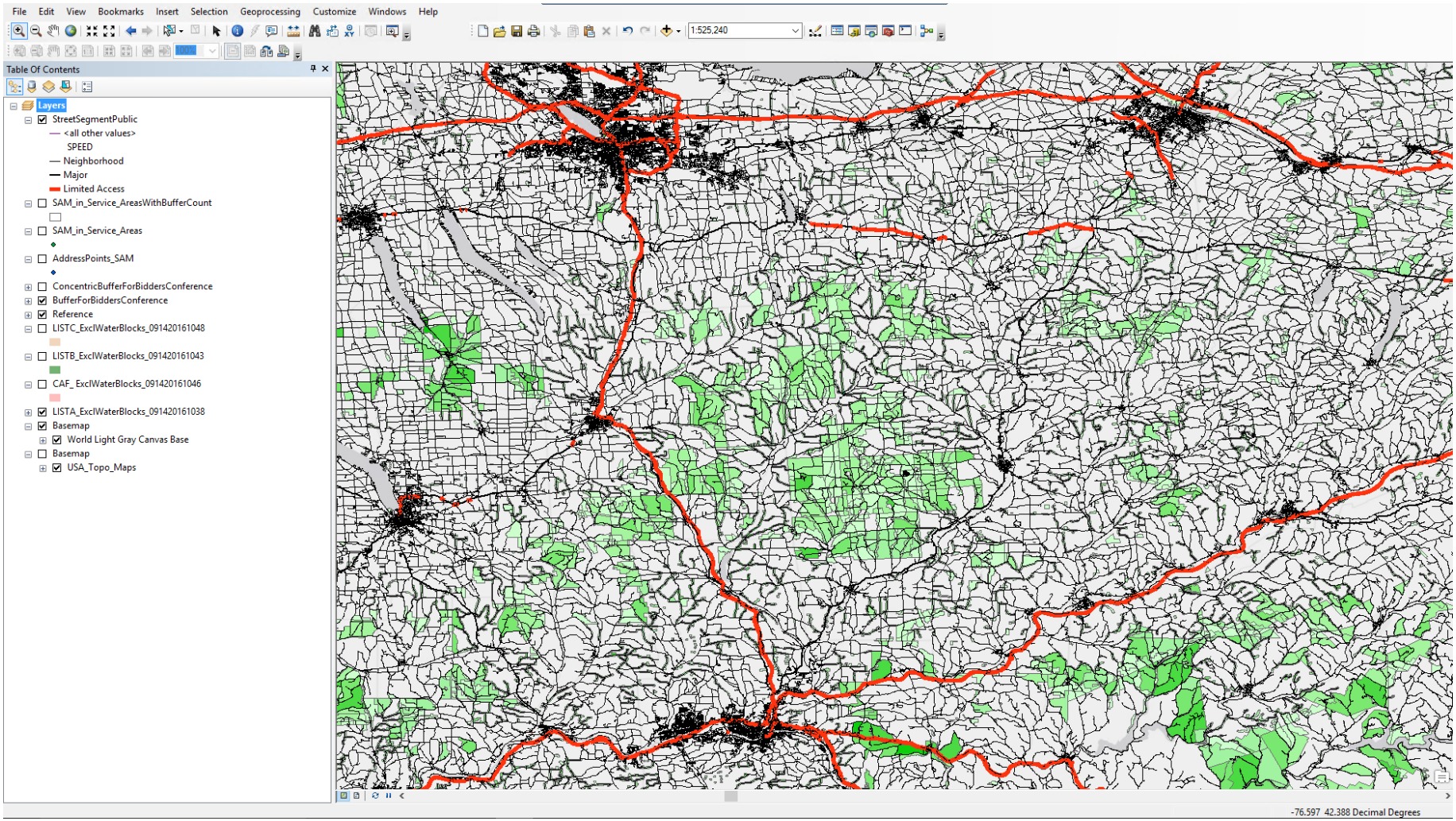
Using ArcGIS to Map Your Project Area

The U.S. Census, full block, Housing Unit counts for all blocks are now visible as labels.



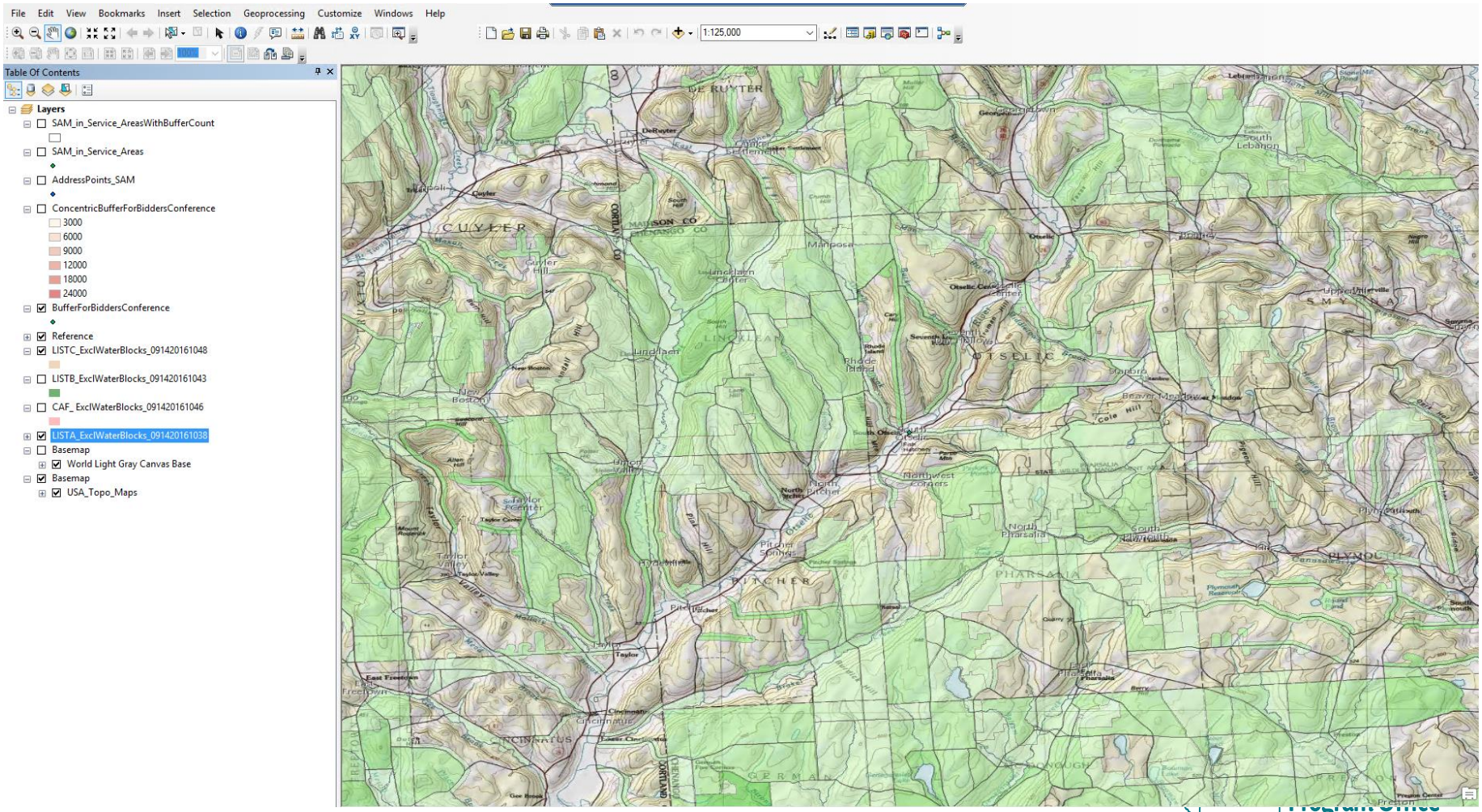
Using ArcGIS to Map Your Project Area

Through the Clearinghouse, New York State distributes additional geospatial information. In this case, roads and streets are added to the workspace.



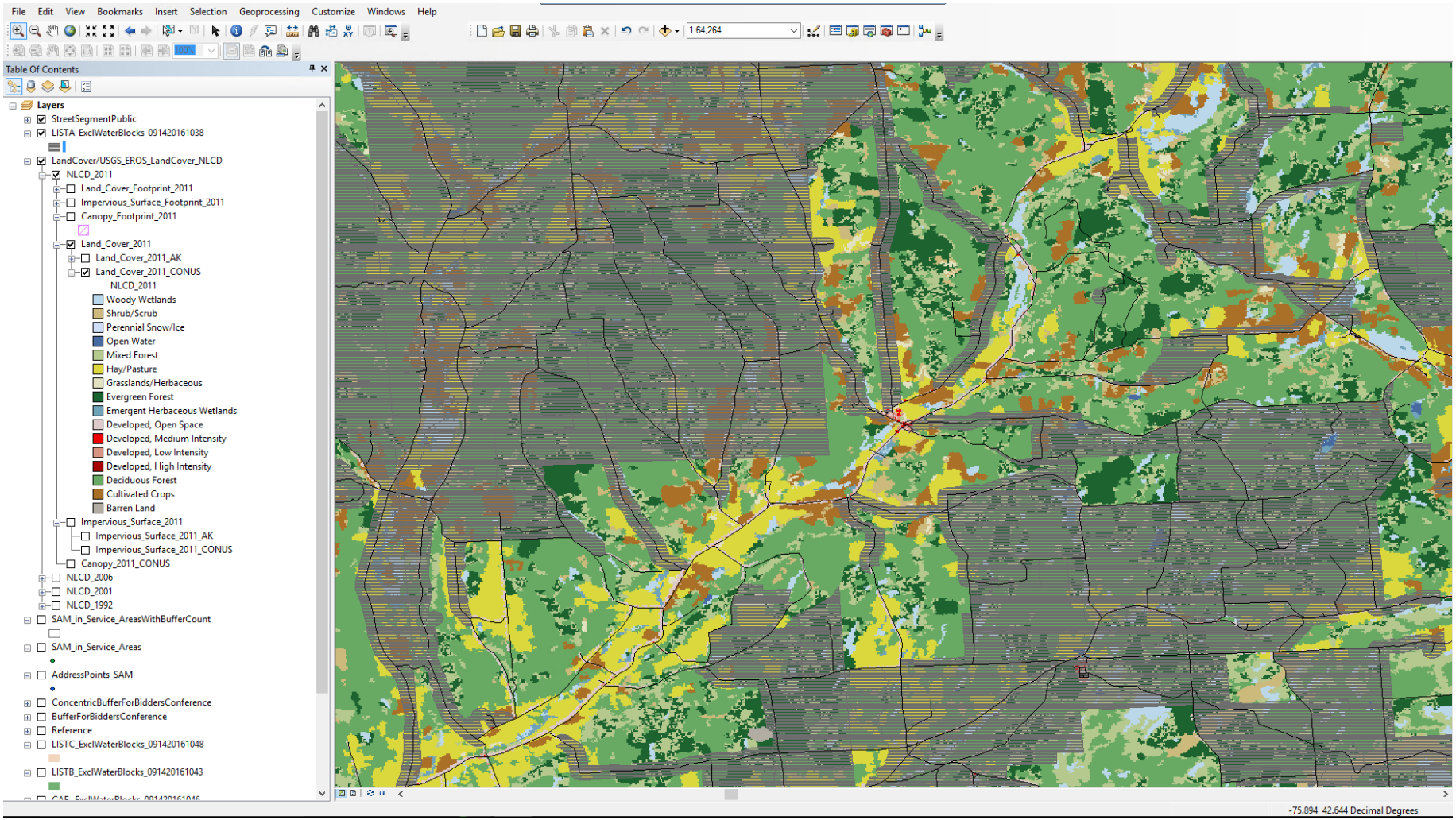
Using ArcGIS to Map Your Project Area

We can also update the workspace to use a topographic basemap that shows elevation variance.



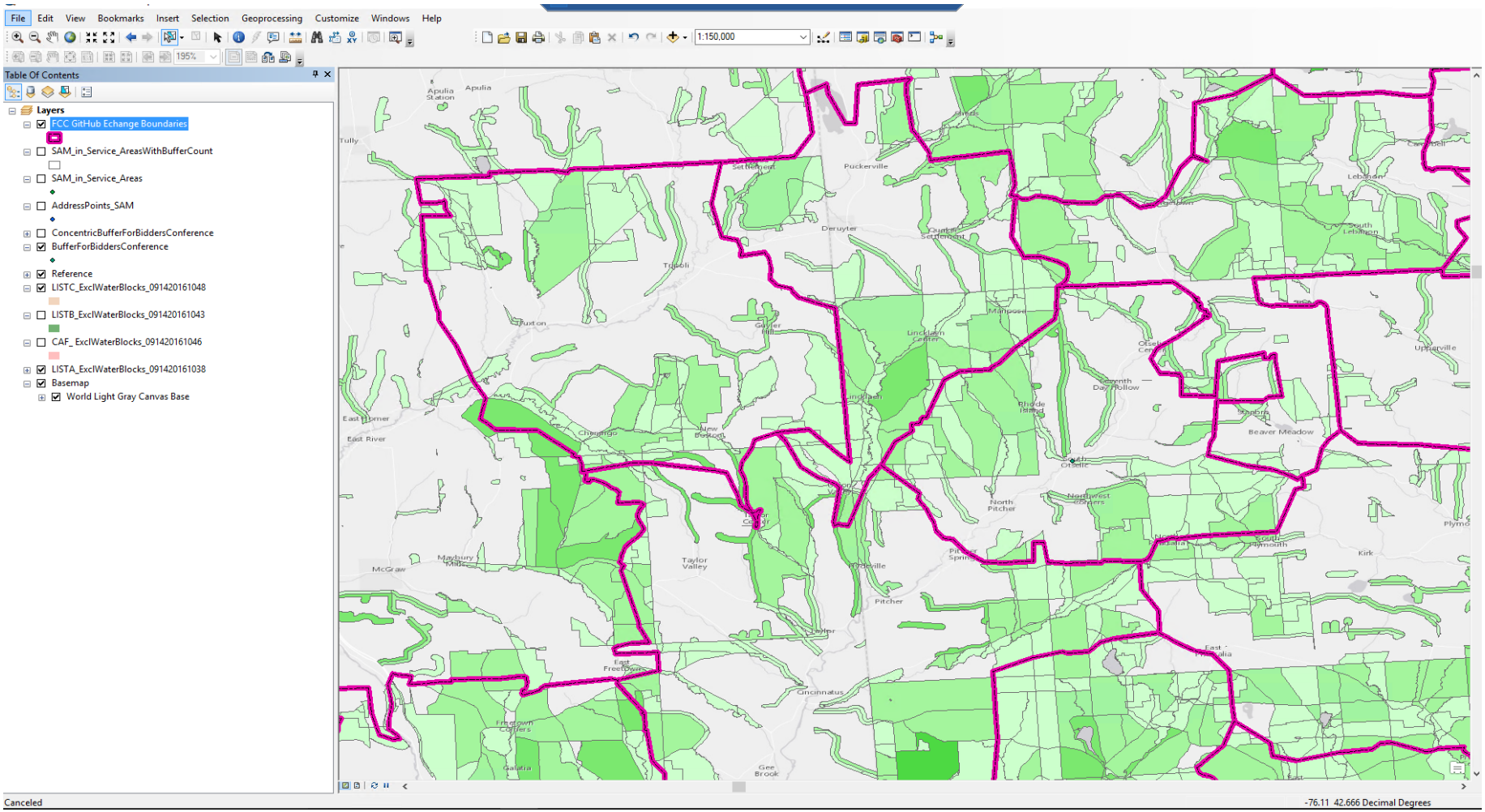
Using ArcGIS to Map Your Project Area

If service quality is driven by Land Cover or Land Use, that information is available from USGS (biddable areas shown in line fill)



Using ArcGIS to Map Your Project Area

The FCC provides Study Area and telco exchange boundary information on their GitHub site. This information is available for most ILECs.



Reference Links

New NY Broadband Program

Software: ArcGIS, QGIS, Google Earth, Microsoft Excel, Google Sheets

Opening CSV in Excel

Other Data:

What is a Census Block?

- 2010 US Census Blocks (with demographics)

NYS Geospatial Clearinghouse

- NYS Street Address Mapping
- NYS Elevation Resources

NYS Open Data

USGS Map Services (NationalMap.gov)

FCC GitHub repository

NEW YORK STATE OF OPPORTUNITY. Broadband Program Office

Questions or Comments?

Contact Information

Alison Bates
Director, Finance and Structuring
Broadband Program Office
Alison.Bates@esd.ny.gov

NEW YORK STATE OF OPPORTUNITY. | Broadband Program Office