Understanding How NYS GIS and Open Parcel Data Sharing Can Benefit Counties

NYS GIS Program Office

January 2021

Kate Kiyanitsa, GISP
NYS GIS Program Office
Statewide Parcel Map Program Manager
(518)-242-5041
Katherine.Kiyanitsa@its.ny.gov
Jeanette Stanziano
Director, Education & Training
NYSAC Thanks the Following Sponsor of Today’s Webinar:

KeyBanc Capital Markets

Contact:
Brendan Baxter
Vice President
KeyBanc Capital Markets
518-257-8501
Brendan_E_Baxter@Key.com

Our deep New York government expertise allows us to bring valuable services and actionable ideas to our clients. We’re ready to help guide your County toward its strategic goals through customized financial solutions.
Kate Kiyanitsa, GISP
NYS GIS Program Office
Statewide Parcel Map Program Manager
(518)-242-5041
Katherine.Kiyanitsa@its.ny.gov
Geographic Information Systems (GIS)

NYS GIS Program Office (GPO) Framework Data

Business Data Layers

- Tax Parcels
- Streets & Address
- Boundaries
- Elevation
- Ortho Imagery
- Incidents, Events, 9-1-1
- Environmental Assets
- Flood Zones
- Fleet Vehicles
- Utilities
- Wetlands

Intelligence derived from location analysis

Which properties suit my needs?
Which school am I close to?
Where will the water flow?
The NYS Statewide Parcel Map Program

Our mission is to collect, assemble, maintain, and provide access to statewide tax parcel GIS data.

We collect every county’s GIS tax parcel polygons once a year and standardize them using tabular assessment data from the NYS Department of Taxation and Finance Office of Real Property Tax Services. We share this standardized GIS data product as widely as each county allows. http://gis.ny.gov/parcels/
Standardized Parcel Data

It is necessary for users of parcel data across multiple counties to reconcile the differences in attributes and field naming conventions.

<table>
<thead>
<tr>
<th>Attribute Needed</th>
<th>County #1</th>
<th>County #2</th>
<th>County #3</th>
<th>County #4</th>
<th>County #5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Municipality</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✗</td>
</tr>
<tr>
<td>Owner</td>
<td>✗</td>
<td>✗</td>
<td>✓</td>
<td>✗</td>
<td>✓</td>
</tr>
<tr>
<td>Mailing Address</td>
<td>✓</td>
<td>✗</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Property Class</td>
<td>✓</td>
<td>✗</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Year Built</td>
<td>✗</td>
<td>✗</td>
<td>✓</td>
<td>✓</td>
<td>✗</td>
</tr>
</tbody>
</table>

This is the work the NYS GIS Program Office does to combine all the counties’ parcel data in a common schema.
Sharing Standardized Parcel Data

While we encourage counties to open their parcel data publicly, we respect each county’s right as the data owner to control the distribution of their GIS data. We will only share your data as the county directs us.

- Publicly Available: 26 (all counties)

*CIRIS: Critical Infrastructure Response Information System
Thank you for your yearly updates- Even when you do not share your GIS parcel data publicly, providing timely yearly updates to the NYS GIS Program Office ensures that the following critical services (and much more) are always using the most current parcel data:

- **State Police** – use parcels in their computer aided dispatch (CAD) systems to assess property boundaries and ownership on 911 calls

- **Department of Corrections** – use the parcel boundaries in the State’s Critical Infrastructure Response Information System (CIRIS) application to ensure sex offenders are housed at a legal distance from schools

- **Office of Emergency Management/Dept of Environmental Conservation** – use parcels for natural disaster planning and response, such as flooding and high-risk dam assessments. Federal aid for disasters has been secured for localities within a much shorter time window when current data is on hand in case of an emergency.
Open Access Parcel Data
as of January 2021

Do counties miss out when their piece of this puzzle is absent?
Distribution of Mapping Data Through Time

- **Print**
  - < 1980: Paper Maps

- **Burn**
  - 2000: Files on Disc

- **Click**
  - 2020: Download
These days it is expected that you can get almost everything online at the click of a button...

...Why not parcel data too?
Obtaining GIS Parcel Data in New York

County GIS Tax Parcel Data Access

- **Public Download**: 26 counties (42%)
- **Restricted or Charge $**: 36 counties (58%)

- Internet searches on multiple websites
- Phone calls to multiple offices
- In-person visits, witness notary
- Written agreements and/or FOIL
- Requests & data may need to be physically mailed
- Data may cost $ to access
Assessment Information is already Publicly Available in some formats

Parcel centroid points with assessment information from the NYS Department of Taxation and Finance Office of Real Property Tax Services are publicly available. Assessment information is also available in posted local Tax Rolls. Attributes include owner names and parcel addresses.
(a) Each land parcel shall have a coordinate locator number assigned to its visual center. The coordinate locator number shall be derived from the appropriate zone of the New York coordinate system. The easting reading must precede the northing reading. The grid coordinate value describing the visual center of each land parcel shall be accurate to a degree to ensure that the true position of such coordinate falls within the boundaries of the land parcel being described. A new coordinate locator number, which shall not duplicate any previous coordinate locator number used, shall be assigned to each new land parcel.

(b) New York State plane coordinate grid tic marks for the four corners of each section map shall be accurately located and appear thereon along with a clear indication of the visual center of each land parcel delineated on the section map. Coordinate locator numbers for each land parcel delineated on the section map shall be generated in a mechanized environment and appear together with the section, block and lot number for each such land parcel on a tape or other mechanized media to be incorporated into a data base maintained by the county. This mechanized media or the assessment roll supplied pursuant to article 15-C shall be submitted by the county to ORPTS showing the section, block and lot number together with the corresponding coordinate locator number for each land parcel delineated on each section map within the county.

20 CRR-NY 8189.10
Current through March 15, 2020

Source: https://govt.westlaw.com/nycrr/Document/l6b0842583e2d11e2bddd0000845b8d3e
New York Consolidated Laws, Real Property Tax Law - RPT § 1588. **Posted tax roll**

Notwithstanding any provision of law to the contrary, information regarding date of payment of taxes, the receipt number and related information need not be posted on the tax roll or other printed record of payment if that information is entered into the data file and retained by means of electronic data processing. **This information must be stored so that it can be made readily available to the public in legible form.** At the conclusion of the period for the redemption of property from taxes which become a lien on such roll, a copy of the posted tax roll shall be produced in either a paper format or archival quality microform and be permanently retained as a public record.

**Freedom of Information Law (FOIL) - Article 6 § 84-90 of the NYS Public Officers Law**

Real Property Data is subject to the FOIL process.

Sources:
- [https://www.dos.ny.gov/coog/foil2.html](https://www.dos.ny.gov/coog/foil2.html)
- [https://tax.ny.gov/help/contact/foil_requests.htm](https://tax.ny.gov/help/contact/foil_requests.htm)
Most Counties offer an Online Parcel Viewer

http://gis.ny.gov/parcels/#parcel

<table>
<thead>
<tr>
<th>County</th>
<th>Parcel Data on gis.ny.gov</th>
<th>Parcel Data on County Website</th>
<th>Parcel Data Viewer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Albany</td>
<td>Albany parcel page</td>
<td>Albany parcel resources</td>
<td>Albany parcel viewer</td>
</tr>
<tr>
<td>Allegany</td>
<td>Allegany parcel page</td>
<td>Allegany parcel resources</td>
<td>Allegany parcel viewer</td>
</tr>
<tr>
<td>Bronx</td>
<td>n/a</td>
<td>NYC parcel resources</td>
<td>NYC parcel viewer</td>
</tr>
<tr>
<td>Broome</td>
<td>n/a</td>
<td>Broome parcel resources</td>
<td>Broome parcel viewer</td>
</tr>
<tr>
<td>Cattaraugus</td>
<td>Cattaraugus parcel page</td>
<td>Cattaraugus parcel resources</td>
<td>Cattaraugus parcel viewer</td>
</tr>
<tr>
<td>Cayuga</td>
<td>n/a</td>
<td>Cayuga parcel resources</td>
<td>Cayuga parcel viewer</td>
</tr>
<tr>
<td>Chautauqua</td>
<td>n/a</td>
<td>Chautauqua parcel resources</td>
<td>Chautauqua parcel viewer</td>
</tr>
<tr>
<td>Chemung</td>
<td>Chemung parcel page</td>
<td>Chemung parcel resources</td>
<td>Chemung parcel viewer</td>
</tr>
<tr>
<td>Chenango</td>
<td>n/a</td>
<td>Chenango parcel resources</td>
<td>Chenango parcel viewer</td>
</tr>
<tr>
<td>Clinton</td>
<td>n/a</td>
<td>Clinton parcel resources</td>
<td>Clinton parcel viewer</td>
</tr>
<tr>
<td>Columbia</td>
<td>Columbia parcel page</td>
<td>Columbia parcel resources</td>
<td>Columbia parcel viewer</td>
</tr>
<tr>
<td>Cortland</td>
<td>Cortland parcel page</td>
<td>Cortland parcel resources</td>
<td>Cortland parcel viewer</td>
</tr>
<tr>
<td>Delaware</td>
<td>Delaware parcel page</td>
<td>Delaware parcel resources</td>
<td>Delaware parcel viewer</td>
</tr>
</tbody>
</table>
The GPO examined the online budgets of 15 counties that received revenue for budget items which likely included the sale of GIS tax parcel data. These numbers may include the sale of other tax map data products as well. In 2015, the average revenue budgeted by these counties for tax map/parcel data was $9,700. In 2020, the average revenue was $7,200. Average decrease in revenue of -33% during this time. If you only include counties that continue to receive revenue for parcel data in 2020 the figures are: $10,900 in 2015, $9,000 in 2020, and an average decrease of -17%. See the following page for more detail and links to the information included in this graph.
### Online County Budget Details:

<table>
<thead>
<tr>
<th>County</th>
<th>Tax Map Data Sales (per 2015 County Budgets)</th>
<th>Tax Map Data Sales (per 2020 County Budgets)</th>
<th>Change from 2015 to 2020</th>
<th>2020 link to Budget</th>
<th>Revenue Item(s) in Budget (2020)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Albany</td>
<td>$25,500</td>
<td>$24,000</td>
<td>($1,500)</td>
<td>Albany County 2020 Budget</td>
<td>p.152 (&quot;Tax Map Reproduction Charges&quot; + &quot;Tax Map Charges&quot;)</td>
</tr>
<tr>
<td>St Lawrence</td>
<td>$18,700</td>
<td>$17,700</td>
<td>($1,000)</td>
<td>St Lawrence 2020 Budget</td>
<td>p.133 (&quot;Imagemate Online fees&quot; + &quot;R LR Sale of Tax Maps&quot; + &quot;RP Salesnet&quot;)</td>
</tr>
<tr>
<td>Cattaraugus</td>
<td>$12,500</td>
<td>$11,500</td>
<td>($1,000)</td>
<td>Cattaraugus 2020 Budget</td>
<td>p.22 (Real Property &quot;Sales, Other, Sale of Maps/Supplies&quot;)</td>
</tr>
<tr>
<td>Chenango</td>
<td>$12,000</td>
<td>$10,000</td>
<td>($2,000)</td>
<td>Chenango County 2020 Budget</td>
<td>p. 4 (&quot;Sale Of Tax Maps&quot;)</td>
</tr>
<tr>
<td>Madison</td>
<td>$12,000</td>
<td>$6,150</td>
<td>($5,850)</td>
<td>Madison County 2020 Budget</td>
<td>p. 20 (&quot;Digital Processing Fees&quot; + &quot;Sale of Tax &amp; Survey Maps&quot;)</td>
</tr>
<tr>
<td>Essex</td>
<td>$10,000</td>
<td>$8,000</td>
<td>($2,000)</td>
<td>Essex County 2020 Budget</td>
<td>p. 440 (2020 Tentative Budget, &quot;Sale of Tax Maps&quot;)</td>
</tr>
<tr>
<td>Rensselaer</td>
<td>$10,000</td>
<td>-</td>
<td>($10,000)</td>
<td>n/a</td>
<td>opened up GIS tax parcel data publicly since 2015</td>
</tr>
<tr>
<td>Delaware</td>
<td>$8,500</td>
<td>$7,000</td>
<td>($1,500)</td>
<td>Delaware County 2020 Budget</td>
<td>p. 11 (&quot;Minor Sales- Electronic&quot; + &quot;Minor Sales Files&quot;)</td>
</tr>
<tr>
<td>Dutchess</td>
<td>$8,000</td>
<td>$6,500</td>
<td>($1,500)</td>
<td>Dutchess County 2020 Budget</td>
<td>p.193 (&quot;Assessor Fees Maps &amp; Aero Photos: Sale of maps, aerals and assessment data&quot;)</td>
</tr>
<tr>
<td>Steuben</td>
<td>$7,800</td>
<td>$4,300</td>
<td>($3,500)</td>
<td>Steuben County 2020 Budget</td>
<td>p. 53 (&quot;Tax map sales&quot; + &quot;Sales- Geogrpahic Info Sys&quot;); opened data publicly in 2020</td>
</tr>
<tr>
<td>Allegany</td>
<td>$7,000</td>
<td>$4,000</td>
<td>($3,000)</td>
<td>Allegany County 2020 Budget</td>
<td>p. 56 (Assessments &quot;Sales- Other&quot;)</td>
</tr>
<tr>
<td>Schenectady</td>
<td>$5,000</td>
<td>$4,000</td>
<td>($1,000)</td>
<td>Schenectady 2020 Budget</td>
<td>p. 270 (&quot;Minor Sales- Tax Mapping&quot;)</td>
</tr>
<tr>
<td>Monroe</td>
<td>$4,000</td>
<td>$5,000</td>
<td>($1,000)</td>
<td>Monroe County 2020 Budget</td>
<td>p. 155 (&quot;Map Copies and Overlays&quot;)</td>
</tr>
<tr>
<td>Warren</td>
<td>$2,500</td>
<td>-</td>
<td>($2,500)</td>
<td>n/a</td>
<td>opened up GIS tax parcel data publicly since 2015</td>
</tr>
<tr>
<td>Rockland</td>
<td>$1,800</td>
<td>-</td>
<td>($1,800)</td>
<td>n/a</td>
<td>opened up GIS tax parcel data publicly since 2020</td>
</tr>
</tbody>
</table>

**Average:** $10,917 $9,013 $(1,904) NOT including the counties that opened up their GIS tax parcel data

**Average:** $9,687 $7,210 $(2,477) Including the counties that opened up their GIS tax parcel data

GIS parcel data revenue is likely only a portion of these sales figures.
Managing requests online or via email
Handling requests on phone calls
Staff time on filling data requests
Written agreements or FOIL and legal costs
Filling data delivery via physical mail
Mechanisms for exchange of $
What happens when a county says YES to sharing GIS tax parcel data publicly, at the click of a button?
We examined the number of downloads for three counties that unlocked their parcel data in 2015. The number of downloads drastically increased after opening up the data to the public.
Looking more closely at Rensselaer County, we examined the IP addresses of those downloading the data to determine who was accessing the data.
Types of Businesses that Downloaded Data

- Start Ups And Entrepreneurial Support
- Grocery Stores
- Real Estate and Hospitality Solutions
- Sustainable Energy Company
- Information Technology
- Antivirus Software
- Risk Strategy
- Property Hazard Risk Solutions
- Engineering Support Utility Design Services
- Aerospace and Combat Systems
- Utility Contractor
- Engineering Surveying Architecture And Landscape
- Tax Financial and Accounting Services
- Commercial And Industrial Contracting
- Retail Distribution Centers
- Aerospace and Combat Systems
- Real Estate Services
- Manufacturing
- Energy Infrastructure
- Manufacturing
- Land Conservation
- Environmental Emergency Response
- Construction Machinery Sales and Rentals
- Information Security and Cloud Solutions
- Home Ownership Assistance
- Home Builders
- Information Technology
- Web Design
- Computer Repair
- Process Service Court Filing
- Freight Transportation And Logistics
- Finance Billing and Payment Solutions
- Mortgage Field Services
- Valuations of Properties
- Land Conservation
- Environmental Emergency Response
- Construction Machinery Sales and Rentals
- Information Security and Cloud Solutions
- Planning Architecture and Interior Design
- Property Insurance Claims Tools
- Package Delivery Transportation and Logistics
- Social Media Marketing
- Website Design
- Search Engine Optimization
- Graphic Design
- Copywriting
- Video Production
- Social Media Management
- E-commerce Solutions
- Virtual Event Planning
Examples of Specific Businesses that downloaded open parcel data on GIS.NY.GOV

Projects and priorities that benefit local economies
Economic Development

Amazon downloaded Rensselaer County GIS tax parcel data
Amazon Warehouse Facility has just been built in Schodack bringing:

- **800 full time jobs** with benefits, and up to $3,000 tuition assistance per year for 4 years

- **Property Tax estimates over the next 20 year period after taking into account the cost to the town:** $1.5 million per year (previously $15,000 for the property)
  - Town of Schodack average annual, would get $206,000
  - Water district- $21,000
  - Sewer district- $13,000
  - Ambulance- $9,000
  - Fire district- $45,000
  - East Greenbush School District- $1.25 million

Source: https://www.schodack.org/node/261/minutes/2018
https://www.schodack.org/node/24/minutes/2018
Regeneron

Temple Lane, East Greenbush

Pharmaceutical Science Building, Manufacturing, and Warehouse being built now. Engineering companies working on the site downloaded the publicly available parcel data.

✓ 1,500 jobs (salary range $45,000-$110,000)

Our goal is to address serious medical conditions, across multiple and diverse therapeutic areas. Our FDA-approved medicines are only the beginning of our long-term commitment to solve the human body's most complex mysteries.

Regeneron trial finds Covid-19 therapy improved symptoms

30th September 2020 (Last Updated September 30th, 2020 07:49)
A descriptive analysis of Regeneron Pharmaceuticals’ Phase I/II/III clinical trial has found that its antibody cocktail REGN-COV2 lowered viral load and the time to symptoms improvement in non-hospitalised Covid-19 patients.

Citizen Engagement
GIS-powered opposition to the Amazon project in Schodack
“484 parcels that intersect the Amazon parcel within 1 mile. The green dot is the blasting coordinate.”

Local citizens downloaded the publicly available parcels for Rensselaer County to quickly act on their concerns about the development. Blasting at the Amazon site was rescheduled after the neighbors used a map analysis of parcel data to remind the town about the law that stated all residents had to be informed and allowed to request a pre/post inspection.
Environmental Protection
Forest and wildlife preservation and sustainable energy companies
Cowee Forest traps more than 2.2 M tons of CO2 from the atmosphere-equivalent to removing 471,000 passenger cars from the road for one year.

Contributes to the local economy by supporting 102 jobs in Vermont, 102 jobs in Massachusetts and 101 jobs in the state of New York.

Conserves 59 miles of streams, and filters nearly 27B gallons of water annually.

Conserves habitat for seven species of national importance, like the New England cottontail, and four hawk species listed by the New York State Endangered Species Act.

Protects 5,442 acres for public access.

https://www.conservationfund.org/projects/cowee-forest; 2017 Project
Virtual Site Simulations

“...data analysis applications for commercial construction, windmill and solar engineering...”

http://virtualsitesimulations.com/about.html
And Many More…

• Broadband Internet Access Expansion
• Historic and Cultural Preservation
• Research Laboratories
• Application Developers
• Small Business Development
We hear from businesses and residents…

• I’ll just keep using the old data I have for now.

• I lose too much time and money for my business having to track this data down.

• Let us know when more of the data is public. We’ll only use what’s available now until then.

• I don’t understand why I have to pay when I’m using it to do something good for the county.

• I can get this for other States, why not here?
We hear from NYS Empire State Development...

“One premier site selection firm, that has sited numerous large-scale projects in NYS, expressly told [us] that communities have been excluded from consideration because this information was not easily available to the site selector.”

- Strategic Business Division of Empire State Development
Northeast Regional Map of Open Parcel Availability

Economic opportunities, jobs/services, and innovation requiring open and fast access to parcel data can easily go elsewhere in our region....
Help put authoritative GIS parcel data in the hands of job creators, researchers, and innovators. Don’t miss out!
The New York State GIS Program Office has the technical capability already in place to make your county’s parcel data accessible in one-click via data download and web services.

Just Say YES
Click

Get

Happy

Is it beneficial to open access to parcel data?...

Download

Connect with Web Services

...The decision is up to you.
Thank You!

GISBoundaries@its.ny.gov

Kate Kiyanitsa, GISP
NYS GIS Program Office
(518) 242-5041
Katherine.Kiyanitsa@its.ny.gov
NYSAC Thanks the Following Sponsor of Today’s Webinar:

Contact:
Brendan Baxter
Vice President
KeyBanc Capital Markets
518-257-8501
Brendan_E_Baxter@Key.com

Our deep New York government expertise allows us to bring valuable services and actionable ideas to our clients. We’re ready to help guide your County toward its strategic goals through customized financial solutions.