

NYS GIS State Agency Advisory Group
Meeting Report
Virtual WebEx Meeting
April 19, 2022

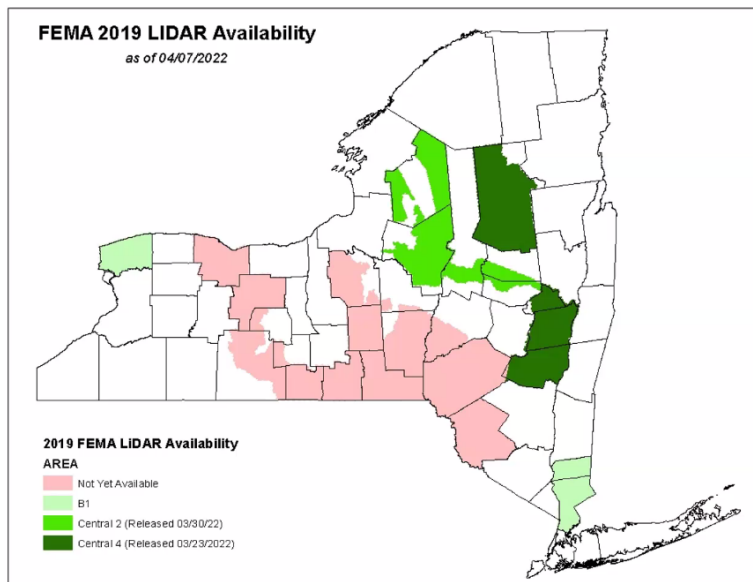
Roundtable Discussion About Positional Accuracy of Mobile Devices. For the roundtable the group introduced themselves and discussed the popularity of mobile data collection apps on devices such as smartphones and tablets, and ways to alert users about the lower positional accuracy levels of these devices.

- **Eric Herman – NYSTA:** Use of Field Maps apps for general locations (of light poles, culverts, etc.) that are easy to find in the field; always warn users of 15' accuracy with phone; have tested Garmin Glo Bluetooth device with 3m accuracy, though generally not used
- **Rui Li – U Albany:** Looking to learn more about needs in the field and ways to help prepare students
- **Frank Winters – GIO:** Will defer to others about field applications; recommends analysis of the project by identifying the “error budget” (e.g., half the distance between closest elements), and knowing specific needs
- **Mari Sango-Jordan – DOH:** Cancer epidemiology for cancer registry
- **Anthony Calabrese – Senate:** Project lead for SAGE (Senate Address Geocoding Engine), which requires rooftop level accuracy; don't use mobile data collection
- **Anyée Fields – NYSTA:** See Eric's comments
- **Christina Croll – OPRHP:** Lots of mobile data collection (predominantly Trimbles for high accuracy); Field Maps and Survey123 on smartphones (deferred to John Marino for details); generally comfortable with the accuracy levels that they are seeing
- **Douglas Done – DOH:** Accessibility of cell phone shouldn't be overlooked, though they don't use them
- **Gwen LaSelva – DOH:** No info about data collection with smartphones
- **Jason Baum – GPO:** Responsible for platforms (CIRIS, ShareGIS, etc.); not much work with field data collection, though when in Bethlehem, used high-accuracy Trimble devices
- **Jeff Langella – GPO:** Elevation program doesn't do field collection; used to work on emergency response before Survey123 and Field Maps apps existed (these are used now); generally, don't need accuracy that is beyond smartphone capability
- **John Marino – NYNHP:** This is important topic to them—in the iMapInvasives app, many users collect data; NYNHP tries to capture accuracy info in a comments field; for invasive plants, high accuracy isn't required; noted that Survey123 and Field Maps do provide warnings if accuracy is less than a specified threshold; important to provide instructions to people about how to get better data (e.g., GPS averaging capabilities)
- **Catherine Lawson – U Albany:** Worked with RSG & NYMTC on a travel survey phone app that feeds info into models—smartphones have been great for collecting this; setting up a community of practice to look at national efforts and evaluate accuracies; just completed four county hazard mitigation plans and looking at culvert sizes—want the accuracy on these to evaluate investments' impacts to reduce vulnerability
- **Matthew Shepherd – SHPO:** Mobile collection application “CRIS Trekker” uses Survey123 to capture info on historic structures; most users use iPad or phone and the accuracy of these is fine for buildings; if expanded to archaeological purposes, higher accuracies would be required
- **Arjita Rai – DOH:** Don't use mobile in her office
- **Melissa Albino-Hegeman – DEC:** Distributing iPads for mobile data collection and will determine if accuracy works for their needs
- **Mike Schifferli – SHPO:** For Survey123 application, most resources are address-based, so data is post-processed

- **Michele Golden – DEC:** Her group does not use mobile, but others use for monitoring data with Survey 123 and iPads; not sure of accuracy, but data is checked afterwards in-house; these tools are also used for mapping HABs (harmful algal blooms)
- **Mike O’Neil – ITS (DOT):** Lots of field collection efforts with Collector, Field Maps, and Survey123; accuracy from iPads is adequate for most applications; contractor recently collected guiderail data with iPad, and geometry was better than in past; tested Bad Elf unit, but accuracy didn’t improve too much from iPad
- **Peter Lauridsen – DOS:** No field data collection; consultant working on living shoreline protocols, for which phones do not provide enough positional accuracy
- **Stephanie Rockwell – Canals:** Looking into field apps now
- **Tabassum Insaf – DOH:** Don’t use a lot of mobile in day-to-day work; HABs application does use data like this, but unsure of accuracy
- **Tim Daly – ITS (DEC):** Field Maps and Survey123 are used extensively; mostly iPads for data that doesn’t require high accuracy, so hasn’t been an issue so far; other programs that require better accuracy use higher end equipment
- **Jenny Smith – ITS:** *<no reply in WebEx>*
- **Amanda Stevens – NYSERDA:** Work on climate change and adaptation impacts; not certain about use of smartphones and tablets (maybe through Energy Audit programs)

Evolution of the Building Footprint Service. Jeff discussed the evolution of the Building Footprints web services from the GPO. He noted the history of the NYSERDA project, and work with Columbia University’s Center for International Earth Science Information Network (CIESIN). The footprints came from various sources and were originally designed to assist with flood analysis. As of today, all the state’s counties (except for those in NYC) are available through the NYSERDA project. The GPO started hosting feature service and map services of this data in March 2020. These can be found at <https://gisservices.its.ny.gov/arcgis/rest/services>. The latest version was released in March 2022. It no longer includes a separate Microsoft footprint layer. Although Microsoft’s data has 5 million footprints (and does include NYC), it is not generally as high quality as the CIESIN data and has no attribution. NYSERDA included some of the Microsoft data with their second release. The default was to use CIESIN’s 5.55 million footprints, and supplement them with the 607,000 footprints from Microsoft that did not overlap the CIESIN data. A good deal of attribution has been added to the footprints, and includes location, year, source, and flood impact data. Addresses ranges (and number of addresses) have been added to the footprints, based on rooftop address points. The dataset will continue to be maintained. Jeff also mentioned some other sources of footprint data. Catherine noted that the data is useful for hazard mitigation plans, and Matthew indicated that his office uses this for their CRIS application.

Elevation Data. Jeff went on to provide a quick update regarding elevation data collection. The USGS Lake Ontario/Hudson River 2019 collection probably will not be acceptable for distribution and be redone in the fall. Portions of the FEMA 2019 LiDAR collection were released late last month, as identified in this image:



Status of National Hydrographic Dataset (NHD). Jeff then talked about the NHD. There has not been much change since the COVID pandemic started. The data continues to be kept up to date, and there are retraining efforts underway regarding how to update the HUC watersheds. He mentioned that a poll he took at a recent presentation showed that the vast majority of them were unaware of the statewide NHD web service (also available at the link noted above), though they were keenly interested in using it. The Elevation Derived Hydrography (EDH) project still has an uncertain future, as well as determinations of how it will pair with NHD.

Other GPO Data Updates. Frank provided an update on parcel data. He noted that updated polygons and attributes for 2021 were posted on April 1. Data from 27 counties are now available for download by the public. All 62 counties are available for state use, and state-owned parcels are available statewide. As of yesterday, an agreement was finalized with Monroe County to provide their data for state agency use. Rockland and Westchester Counties' data are older, with efforts towards getting access to the latest information well under way. All web services have been updated. Frank also noted that Kate Kiyantsa is now one of the leads for the NSGIC cadastre and boundaries group and evaluator for COGO report card on framework data.

Eric gave a brief update about the streets and addresses data set. A new quarterly release of this data was posted to the Clearinghouse two weeks ago. It includes thousands of street and address point edits. Most of these have been done by the GPO, but a percentage do come from county partners. He also explained that there is an upgrade in place for the tools that partners use, and that Craig Fargione may be able to demonstrate this at the next meeting.

Jeff noted that the orthoimagery flights for the spring have been sporadic, since there's been a lot of rain and clouds lately. Planes were up yesterday, and there's hope that last night's snow will melt quickly, since there is not a lot of leaf cover yet.

Overhaul Plans for the GIS Clearinghouse. Tim Ruhren joined the meeting and talked about the gis.ny.gov website. It is quite outdated and will be modernized. Over the past few years, there has been a good deal of feedback regarding what should be revamped, and work efforts have begun. The primary goal is to ensure that access to data is more direct, with clear access to service URLs and the ability to view data and metadata before accessing the information. The focus will be on an application that serves up data, but also allows for data discovery and simple data interactions. It will be streamlined to focus on authoritative datasets. Password

protected data will be removed and interested parties will be directed to the owners for access to any restricted data. The team is hoping to develop a synergy with other data providing websites, rather than redundancy with them. Multi-temporal datasets are also being considered. The GPO will work with ITS's Web Team to focus on the Drupal portions of the sites that are text-based, and to help make the site look like more modern state agency sites. Data-oriented portions of the site will use Esri's ArcGIS Online and on-premises Esri software for more direct links and customizations. Non-data portions of the site will also be modernized. Tim noted that he hopes that Phase 1 of this overhaul will be completed by the fall.

Changes to the ITS2 Exam and GIS Impacts. Frank reviewed changes that are occurring to the ITS2 exam and how they will impact hiring new GIS staff. He noted that different types of people do GIS work, but those developing applications tend to be in ITS titles (which exist in the ITS agency, and agency that do not use the ITS office for IT services). The entry-level position for these titles tends to be the ITS2, and there is great opportunity for advancement in this extensive title series. For the ITS2 title, the "exam" consists of filling out an online inventory of skills and experience. Hiring managers then pick criteria for a "LERT" to find qualified candidates. On April 1, the old inventory was discontinued, though hiring managers might be able to issue LERTs based on the old exam through the end of the month. Those already on the list will need to retake this exam, since an entirely new catalog of skills is now being used. This catalog is much more up to date, includes more GIS criteria, and is the same one that is currently used for the "Selective Certification" process that is used for the higher-level IT titles. The minimum qualifications for the exam now include work experience in GIS. Although GIS work is not specified in the educational component, GIS experience and any college degree allows applicants to qualify. There may be a blackout period for May and June, where no one can be hired into this title, after which candidates must be in the new database for openings. Civil Service will likely notify those who filled out the old inventory that they must again apply under the new one. Information about the new exam, as well as the application, can be found at [the state's Job Seeker website](#). Candidates may submit an update to their online skills inventory questionnaire as frequently as every six months at [the online link to this position and exam](#).

NYSTA's Real Property Management. Eric gave a demonstration of the Thruway Authority's Real Property management tools available on their internal web pages. He noted the surveyed right-of-way, and how areas that require more research are noted on the maps. Then he showed the "Key Maps" and layer of edits to these maps, which serve as guides to finding the linked original appropriation map scans that have details including the surveys and property description details for each acquisition. He noted benefits of using Google Street View imagery, how the state's county tax parcel maps are integrated in the application, and how users should consider the accuracy levels of each data layer. In the Authority's case, the surveyed ROW alignments are the highest quality layer.

Open Forum.

- Eric noted a few updates related to the NYS GIS Association's activities:
 - In late September, NYSGISA will be hosting a hybrid Summit event "Watch Party" with smaller, local, in-person gatherings to watch two virtual presentations.
 - The Association is planning an in-person NYGeoCon in Fall 2023.
 - The Association is also working to establish a GISP exam study group
- Tim Ruhren mentioned that ITS is trying to build pipeline between colleges and the ITS workforce, but that it is focused on traditional IT work. He'd like to talk about how to do GIS work with interns and getting students interested in opportunities at the next meeting.
- As it gets closer to the next meeting (likely in September), the group will decide whether to return to in-person meetings or continue in the virtual format. Gwen suggested that a hybrid approach may work, with both an in-person and virtual option available.

A recording of the meeting is here: [NYS GIS State Agency Advisory Group Meeting-20220419 1334-1](#)
Contact Eric (email listed below) for the password.

The next meeting is tentatively scheduled for September 13, 2022, from 9:30am-12:00pm at the NYS Thruway Authority Building 10 and via WebEx. If you have any ideas for topics or would like to provide a demonstration at this meeting, please let us know. Send any questions or concerns about any of these issues to the Advisory Group Chair, Eric Herman at the NYS Thruway Authority (518) 471-5890, or eric.herman@thruway.ny.gov.