

NY State Geospatial Advisory Council
Minutes for September 14, 2021 Meeting
WebEx

Next meeting date is December 14, 2021

Mission: Advise the State on effective use of geospatial technology resulting in tangible benefits to NYS.

Attending: Svetla Borovska, Sylvie Browne, Cattyann Campbell, Christina Croll, Mickey Dietrich, Keith Ducett, Emily Fogarty, Eric Herman, Ana Hiraldo-Gomez, Julia O'Brien, Christopher O'Connor, Lindi Quackenbush, Chris Rado, Randy Rath, Richard Reichert, David Richardson, Heather Weller, Carrie Wiley, Frank Winters

Guests: Elisabetta DeGironimo, Rebecca Newell, Riobart Breen

Absent: Jonathan Garner, Larry Spraker

Minutes: Christopher O'Connor

9:00 Welcome / Agenda Review / Approval of Minutes (Weller)

- Solicited corrections to minutes
 - Minor edit – name misspell
- Solicited approval of minutes from June 2, 2021 meeting
 - Herman motioned to approve the minutes, Croll seconded, all remaining unanimously approved

9:15 GAC Update

- Nomination Committee
 - Identified GAC volunteers including David Richardson – Non-Profit; Sylvie Browne – State; Chris Rado – Local Government; Lindi Quackenbush – Academia
 - Details on nomination process will be shared with the Nomination Committee
- Solicited motion to approve – Rath motioned to approve, Rado seconded

9:25 Reports

Federal report (O'Brien)

Status of National Flood Insurance Plan Studies:

The FEMA Region II Risk Mapping site is here:

<https://fema.maps.arcgis.com/apps/MapSeries/index.html?appid=39e87438546249d988a85fc3085cab0e>

The Federal Emergency Management Agency (FEMA) Region II office has created this site to support your community through the Risk Mapping, Analysis, and Planning (Risk MAP) program. Risk MAP is a national FEMA program that works with states, tribes, and local communities to evaluate and better understand their current flood risks, as well as the actions that can be taken to mitigate those risks and become more resilient.

This site now also contains the reports that come out of the Discovery projects as they are completed.

Response to Remnants of Hurricane Ida

The remnants of Hurricane Ida came through New York and New Jersey, causing tornados in New Jersey and flooding in both states from September 1-3, 2021. The counties included in FEMA-4615-DR-NY are noted in the map below. In addition, Dutchess, Orange, Putnam, Rockland, and Ulster counties were included in the Emergency Declaration.

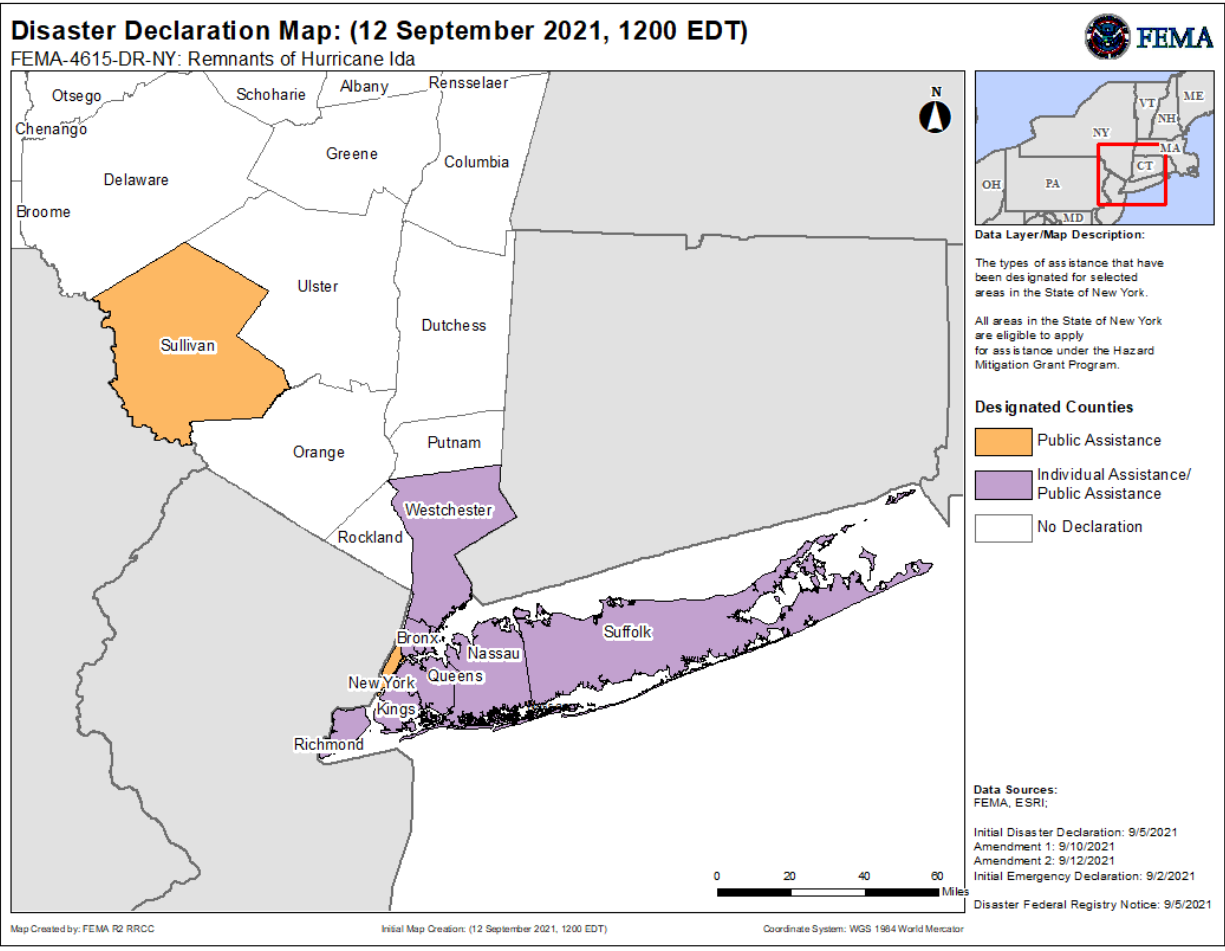
PDA/Survey123

The major disaster declaration process typically begins with Preliminary Damage Assessments (PDA), where joint state and federal teams go out and survey damage. If the damage is deemed above the threshold for that state, the FEMA Regional Administrator sends a recommendation for the declaration to the White House. FEMA often uses Survey 123 for these PDAs but did not do so in this case. Field crews tracked the surveys on paper. Despite this, the declarations were passed very quickly, but this process needs improvement. One way is through remote sensing, but the timing of this event after the devastation from Ida in Louisiana made getting the preferred imagery impossible.

In New Jersey, the NJOEM (with help from FEMA and ESRI) launched a Survey 123 app on their GIS Hub to allow homeowners to report damage, find their homes on a map (geocode) and upload photos. (New Jersey had a more sophisticated application under development, but it was not ready. FEMA supplied a template, NJ approved it, and ESRI coded and installed the application in under one day.) Reports from this application were used to drive the collection of PDAs in some counties that were not originally considered and provided data that resulted in the declaration for another county. This is an excellent example of how emergency management can be made better with the use of geospatial technology.

[Discussion] O'Brien - NYS OEM does not have a permanent GIS person and some OEM staff are not trained or have experience with GIS; urged Winters to coordinate with DHSES on a resource for speeding up the PDA process. Winters – The GIS Program Office provided support and was working with local government to use Survey123 for building assessments (640 completed)... seems to be a disconnect and a GIS staff resource support issue. Will follow-up with stakeholders. [/Discussion]

[DamageNJ \(arcgis.com\)](#)



US Department of Agriculture

National Resources Conservation Service (NRCS)

As of October 1st, soils updates will be live in the web soil survey as well as the backend databases and servers that deliver soils interpretations. This is a yearly refresh.

Farm Service Agency (FSA)

FSA is planning to fly New York for 2021 NAIP imagery sometime this fall, as funds came through late.

NOAA/National Geodetic Survey

Information on the delayed datum release: <https://geodesy.noaa.gov/datums/newdatums/delayed-release.shtml>

Blueprint Part 3 (Working in the modernized National Spatial Reference System (NSRS) has been released: https://geodesy.noaa.gov/library/pdfs/NOAA_TR_NOS_NGS_0067.pdf

USGS Water Resources Center

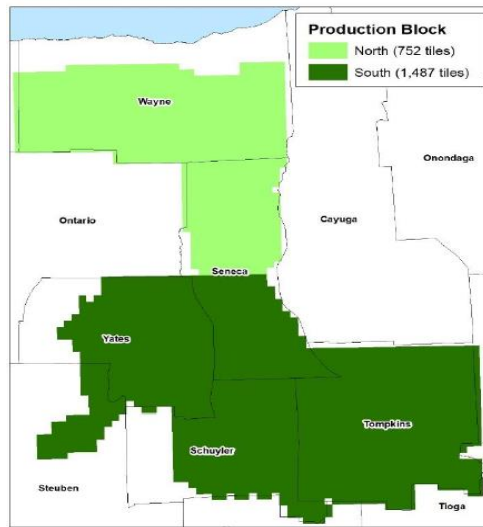
Under Mission Assignment from FEMA, the USGS is collecting high water marks (HWM) in New York City post-Ida. Typically, the HWM program is activated for coastal surge to help define the areas of flooding from surge post-storm. In this case, recognizing that this was an urban flooding event caused by freshwater/rain flooding created an unusual opportunity to capture HWM to be used to understand these types of events. The HWMs will be used to create/update flood extents data from models. In turn, the data will be instrumental in devising better urban mitigation strategies.

USGS 3DEP updates for NYS:

As of 9/13/2021, USGS 3DEP lidar is available or in progress for all of NYS. Currently, the three projects that are in progress are:

- 1. 2020 Finger Lakes NY Lidar
 - a. Still in the QA/QC process.

USGS Data Validation team requested corrections on 8/4/2021.

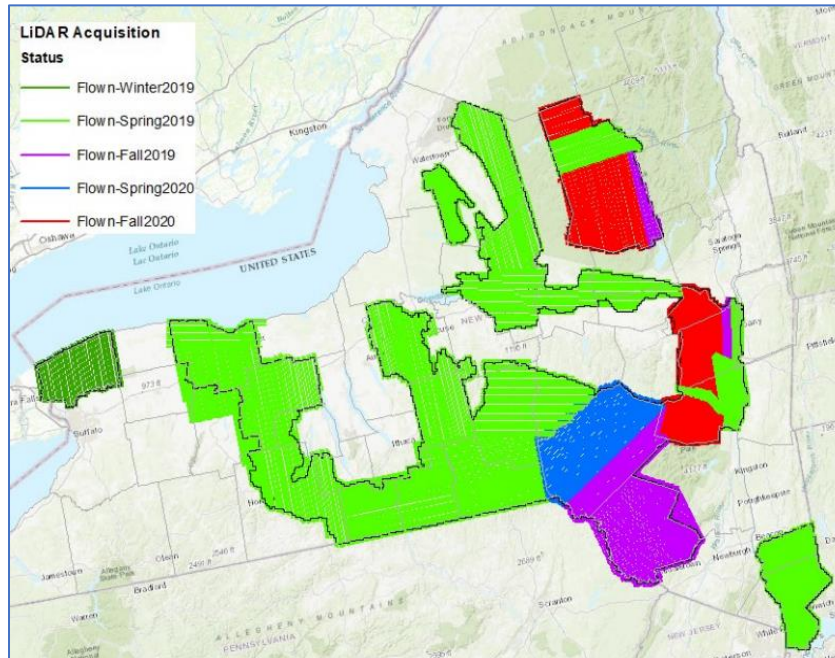


- 1. 2020 Harris Romano NY Lidar

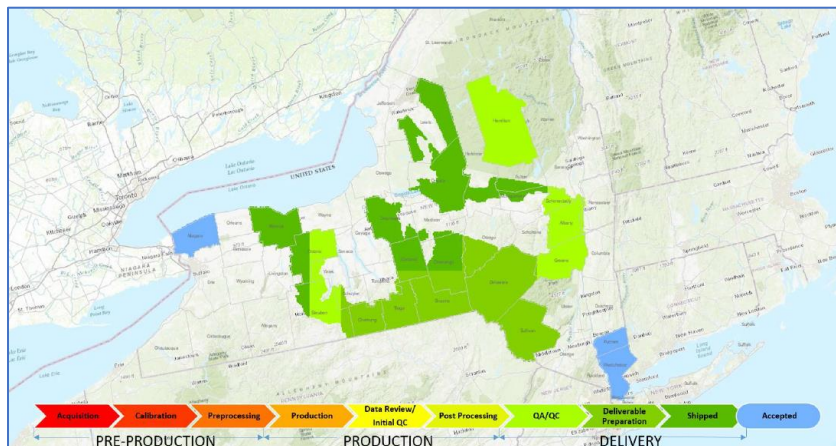


- a. This acquisition consists of Geiger Mode lidar being collected for a utility company with a focus on sensing electrical wires, electrical components, etc. during leaf-on season.

- b. Data validation is ongoing as of 8/19/2021, with data returned to the producer on 7/19/2021 due to error detection.
 - c. The data won't be available until after they are submitted for publication, which is delayed and may not be until October/November 2021.
2. 2018 FEMA R2 Central NY Lidar
- a. Flown between Winter 2019 through Fall 2020. This project saw setbacks due to weather and the pandemic.



- a. Some of the collected data are available in LAZ format on our rockyweb server at: https://rockyweb.usgs.gov/vdelivery/Datasets/Staged/Elevation/LPC/Projects/NY_FEMA_R2_Central_2018_D19/
Note USGS has switched from ftp to https. Please update your bookmarks.
- b. The intent is for acceptance and final delivery to still be complete by the end of FY 2021 (9/30/2021), but a more likely completion timeframe for the entire project could be winter 2022.

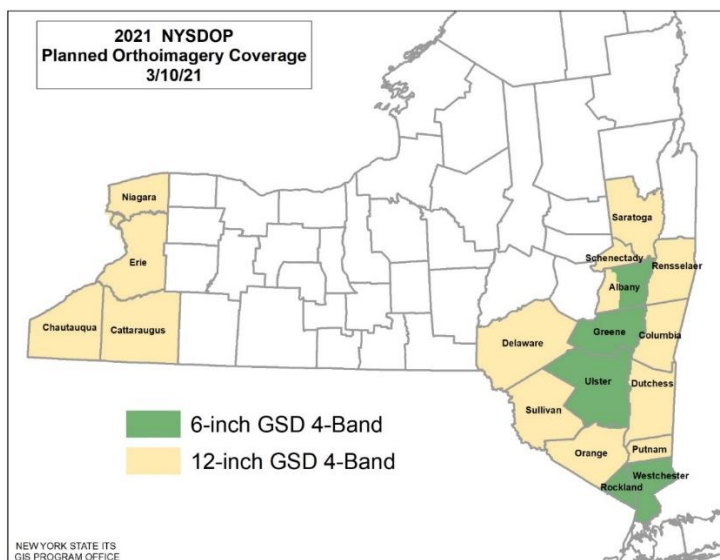


NYSGISA report (Garner)

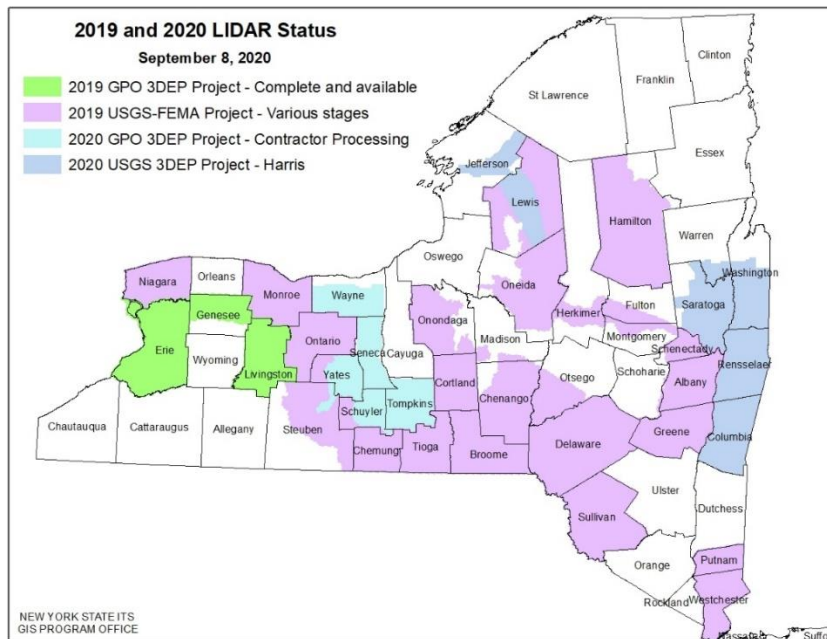
- No report

GIO/GPO/GCO report (Winters)

- **Street and Address**
 - Having discussions with both Google and Amazon on improving zip codes in their data
 - Adding the Empire State Trail, which runs from NYC to Canada and Buffalo to Albany
 - Croll can provide GPO with more information on the Empire State Trail
 - Upgrading to a new web editing environment
- **Civil Boundaries**
 - Adding 2020 Population; targeting end of September
- **Statewide Parcel Map Program**
 - 2020 parcels now available
 - 2021 parcel outreach now underway – aiming for Spring/Summer 2022 to publish
 - (Weller) Should DOT contractors have access? (Winters) Yes; they should work through whomever they're being contracted by at DOT (ex. contract manager)
- **2021 NYSDOP Planned Orthoimagery Coverage**
 - Albany, Greene and Ulster Counties funding upgrades to 6-inch
 - All flights completed
 - All photography inhouse
 - Review and delivery on schedule



- **2019 Federal** project in various stages
 - As of 6/1/21, USGS' estimated was all data would be accepted September.
 - Small subset of data available – not sure what area.
- **2020 GPO 3DEP** project is with USGS for final review.
 - USGS may not have results back until August.
- **2020 USGS 3DEP** project included purchase of off-the-shelf data from L3Harris Technologies
 - USGS reported that data processing issues will delay data release.



- **Emergency Management Support**
 - Continue providing GIS support to DHSES as temporary replacement for GIS Specialist (Dan O'Brien) who retired in October 2019.
 - Supporting AGOL content for:
 - Search and Rescue, and Building damage assessment
 - Ida support
 - OFPC Building inspections
 - EOC support
 - 9-Mile Point Exercise today
- **GIS Platforms**
 - 228,322,936 Web Service requests since our last meeting

10:15 Break

10:30 Climate Change

R. Breen, Climate Policy Analyst, Department of Environmental Conservation

- Presentation by and discussion with R. Breen, a Department of Environmental Conservation Climate Policy Analyst – discussion about how Climate Policy intersects with use of geospatial tools; need for analysis, communication, and visualization of data.

- Overview
 - Climate 101 – the latest science and sources
 - Climate effects and impacts (multi-generations)
 - NYS Office of Climate Change
 - About us, climate laws and role of GIS
 - Challenges of GIS for NYS climate change policy
 - Q & A

- Questions and Answers
 - (Hiraldo-Gomez) – What is the outreach to low-income communities? (Breen) CLCPA and Office of Environmental Justice has a participatory process for engaging communities for informing policy and strategies; as they plan in communities, there are coordinators that engage in participatory process with the communities.
 - (Winters) Presentation and material would be great value to other states, NISGIC could multiply this across the nation; offering to connect.
 - (Winters) The dynamics of systems may be changing such that previous predictive models can no longer be counted on. NSGIC is moving from predicative to anticipatory and probabilistic in their strategic planning; provide multiple scenarios / don't try to predict the future, but not be surprised by it.
 - (DeGironimo) – What is the impact of China on Climate Change? How much do they contribute to the problem / need to have full collaboration? (Breen) We need the entire globe to work in concert; if China doesn't join we still have a crisis; very hard to get commitments at the international level and operationalizing them is even harder; good thing we're connected with global economics that can be leveraged for pressure on countries to participate... at some level the market can force the hands of firms... danger is that it is not moving quick enough. China does have a national policy to do extensive urbanization and industrialization that is based on fossil fuels.
 - (Quackenbush) Upstate NY might be attractive to “climate refugees” from areas like coastal regions. (Breen) The term being used is “climate migration” - ~250k moved out of damage area of Katrina and ~90k never returned. But it is also based on perception of risk... “see writing on the wall”. Joke that people are rooted in NY because of families, but leave to retire in FL. But now CA has drought and fires, FL is flooding... suddenly NY snow and winters don't look so bad, we have plenty of water, ecosystems

that can grow crops, forests, etc. Climate migration is about where they're going, but also about where they're leaving... so need policies developed for this.

- (O'Brien) – Receiving communities are important. Areas in NJ have been bought out by immigrants who realized savings in the purchase of their property but are now impacted by storms and may not have the funds to withstand and/or insure. (Breen) The resale of buyouts (maladaptation) solved one problem but created another... we buy people out, then sell them to people who didn't know the problem was there... complete policy needs to include repurposing (put in coastal forests, wetlands, athletic fields)... here GIS will play a critical role in identifying options and making decisions.
- (Winters) Open GIS data is one of the keys. Make data available in ways that people will be able to understand and use (for local officials and "un"officials)... every NY'er is a decision maker.
- (Borovska) 2020 Census includes questions about living situation for housing maps/stock; this data would be great for planning. (Breen) What's missing is some model of your local geography under climate change, projected out.
- (Campbell) A lot of people are migrating to Tompkins County, some due to climate change issues (CA, FL) resulting in a busy assessment department; but what's interesting is that people are looking at natural resources and infrastructure to direct their decisions about where to build... the issue is that Tompkins is building so quickly. (Breen) Rapid development doesn't factor in the impact on the systems that protect us from things like flooding. We need to set limits on areas regarding development that don't push a community beyond... real estate mapper that incorporates climate change.
- (Fogarty) Suggestion – consider conducting social media analysis; she could help to augment that work. (Breen) We are supreme adaptors; can live in any ecosystem... and we're hyper social; we have the digital tools for communication and analysis... we have so many things going for us... we now have these exogenous tools that allow for capacity for social collaboration (COVID is a good example)... we can do tremendous things; we just need the story.

12:00 Break for lunch

1:00pm - Climate Change Continued

Richardson, GIS/Conservation Information Manager, The Nature Conservancy

- "Some ways we are addressing climate change at The Nature Conservancy" Presentation
- Climate Change is part of what they do, Richardson provided broad brush strokes of what they're working on including GIS and visualizations
- Addressing Climate Change is central to TNC's mission – and includes Biodiversity Loss
- Resilient Land Mapping Tool – Resilient and Connected Landscapes
 - Conservation decision support tool
 - Generate resiliency statistics for areas

- <https://maps.tnc.org/resilientland/>
- (Weller) Shared that they're making a solar map for the Planning Department
- (Hiraldo-Gomez) Has staff working on climate change and sees this a resource that could be used

1:30 Datum update - DeGironimo

- Rollout is delayed – looking at 2024/2025. Reasons include:
 - The mission has been delayed, which pushes out the development of the Geoid
 - For more, visit: <https://geodesy.noaa.gov/datums/newdatums/delayed-release.shtml>
- Each state can redefine their State Plane zones – DeGironimo to reach out to NYS Association of Professional Land Surveyors (NYSAPLS) for more
- Legislation will need to be updated – National Society of Professional Surveyors has boilerplate language
- Deprecation of the US Survey Foot will happen at end of 2022

1:50 Wayfinding Update Winters

- Goal is for highway data (including GIS data) to reach its full potential; opportunity for a very big impact
- Citizens are not directly leveraging the data but rather are benefitting from it via mobile apps and navigation systems
- The existence of every address is a matter of safety
- Improve the road network
- Create national address database
- Automatic wayfinding has changed the driving safety landscape
- Working on a national committee to spec GeoJSON methodology for providing access to bridge clearances to wayfinding vendors
- Willingness on the part of the companies to collaborate on this and work with one another and FGDC team
- Specifications are being developed; GIS data model being developed
 - (DeGironimo)- They're using Open Streets Map; when will completion of bigger DOT projects be pushed to OSM? (Winters) DOT provides it to NYS GPO on a regular basis, then GPO provides quarterly updates to OSM

1:30 Parks Explorer App Croll – *Postponed*

2:00 Meeting Adjourns