Buildings Information & Land-use Dataset (BILD) Technical Working Group

August 1, 2024
10:00-11:00

Attendees: Julia McWest, Vincent Fargione, Violet Tsai, Shannon Clarke, Jeffrey Langella, Paul Panhans, Corrina Cavallo, Matthew Chlebus, Dr. Kate Lawson, Samuel Semon, Sean O'Connell, Matthew Miller, Christina Croll, Ryan Mayr, Nicholas Zimmermann, Frank Ciampa, Stephany Tatarevich, Leo Bachinger, Kelli Higgins-Roche, Sam Horowitz, Stephanie Rockwell, Amar Kakirde, Alexander Hajek, Eric Krans, Adam Tobey, Joshua Clyburn, HEather Ipsen Sam Peterson-Borins, Erika Jozwiak, Gregory Yetman, Paul Boyle, Chris Leo, Tiffany Campo, Cherry Mui, Alex Muro, Revecca Newell, Christine Zampa, Peter Nestor, Elizabeth Mogus Garcia, Carol Lamb-Lafay

Updates since last meeting

- The BILD Technical Working group has over 100 participants from over 20 agencies.
- DHSES and AVAIL engaged with the Office of General Services (OGS) and are seeking more information about the Statewide Financial System (SFS).
- DHSES and AVAIL received supplemental data from Information Technology Services (ITS).

Categorizing data and use-cases for BILD Development

- Previous survey responses informed the five (5) focus groups, which are organized on www.buildings.mitigateny.org/bild_twg_activity.
    - Focus group pages contain topics and suggestions from previous meetings and survey responses, as well as questions, data columns and analyses currently under consideration.
- Hazard Risk and Climate Change: Risk Scenario Data and Risk Assessment Methodologies
    - This focus group will find ways to look at the building footprints data in relation to other geographic data sets, e.g., floodplains, in the scenario tool.
        - US Army Corp of Engineers flood risk curves and LFA hydrology models are very good at utilizing flood depth damage curves.
        - Dewberry is a pilot study of certain areas and is being discussed in the Interagency Climate and Resilience Working Group (ICARWG).
    - Most data accrued will not be built into BILD as it is dynamic; it will be available for participants to request as a geo-package for use in their own work.
        - DEC and DHSES will connect about 30x30.
    - There are a number of excellent social vulnerability data sets that have come out in the last five years, e.g., CDC, SoV.
    - Available scenario tool layers will allow mapping of distance to critical services.
        - They will map the environment surrounding a given building, e.g., its distance to the nearest emergency room and the estimated traffic count between two points.
    - There is an opportunity to connect with DEC and SUNY SF about urban heat island mapping.

        - They look at land cover, water availability, and windchill. Buildings data would be useful for mapping things like absorbents.
- Building Footprint Enrichment/Attributes; Physical Characteristics
    - This group will determine the physical attributes to include in BILD
    - A heat-type attribute analysis shows the number of buildings with heat type data, in order to determine if a more complete picture of heat type across the state is possible.
    - Sheds need to be identified, as they are currently over-valued in the algorithm.
    - Columbia University has a building footprint dataset with roof types which can be useful for distinguishing building types.
        - Footprint data: https://data.gis.ny.gov/maps/a6bbc64e38f04c1c9dfa3c2399f536c4/about
        - Flood areas and impacts are available in ArcGIS Online: https://sedac.ciesin.columbia.edu/mapping/nysfidss/?page=NYS-FIDSS&views=Flood-Scenarios
        - Roof type data is incomplete.
    - Elevation certificates hold a tremendous amount of information and are of particular interest to property owners; however, they are inconsistently managed and housed, and sometimes difficult to access.
        - FEMA has estimated first floor elevations for every structure in the US. DHSES will inquire about accessing this and other data.
        - Jeffrey Langella (ITS) runs the statewide Elevation program and has a statewide DEM that could be used to apply Base Level Engineering (BLE).
        - DHSES will connect with ITS and DEC to consider a joint application for BRIC or Flood Mitigation Assistance (FMA) from FEMA for exploring the collection and build-out of a management system for this data.
- Land Use
    - This group will discuss planning and development, i.e., property classes, ownership types, categories and types of buildings, critical infrastructure.
    - USGS has national map data that can be enriched with HiFLD data (updates are under consideration).
    - Mixed-use buildings can create a challenge, as parcel data will not typically reflect multiple land use classifications for a single parcel (e.g., many buildings are both multi-family and commercial or institutional).
- Energy
    - This focus group was formed based on survey responses and will examine how building footprints can support market characterization, Executive Order 22, and the work of NYSERDA.
    - The group will rely on subject matter experts for information on green infrastructure, solar energy, etc.
- State-owned buildings
    - This group is tasked with understanding what data related to state ownership is available from building footprints and tax parcels, and their benefits and limitations.
        - There is a need to better understand the SFS data in order to know the locations and valuations of state-owned buildings.

    - Several agencies have interest and experience in using the SFS for asset management and attributes, e.g., backup power information for many owned and leased buildings.
    - OGS is the system of reference for the state and has statutory authority for all datasets.

Focus group timelines and next steps

- DHSES will send out a survey on subgroup participation by end of week.
    - Each focus group will meet at least once before end of September, in lieu of the monthly meeting.