

Obtaining data

311 Data

- Download vehicle-based noise complaints from [NYC Open Data](#)
 - Filter so that complaint_type contains "Noise"
 - Filter so that the data starts on 1/1/2024 and ends on 11/11/2024
- Run helper-scripts/clean-311.R
- Open clean-noise-complaints.csv in QGIS
- Save with 2263 CRS (the default is 4326)
 - Right click on layer, then export, "Save Feature As", change CRS, save as 311-corrected-crs

PLUTO data

- Download the shapefile and csv from [NYC Planning](#).

Calculating number of tax lots within 200 feet of a noise complaint

- Create new project
- Load in full MapPLUTO data.
- Load 311-corrected-crs
- Using 311-corrected-crs, add a buffer of 200 feet, save it as noise-complaint-200-feet-buffer
- To select tax lots within the buffer, go to Vector, Research Tools, Select by Location, select features from MapPLUTO that intersect or are within noise-complaint-200-feet-buffer. Then export, Save Selected Features As... and save them as "lots-with-noise-complaint"
- To calculate the number of lots within at least 200 feet of a noise complaint, open the attribute table for the lots-with-noise-complaint layer and look at the number of features. To get the share, divide this number by the number of features in the attribute table the full MapPLUTO layer.
- To calculate residential units, save lots-with-noise-complaint.shp and count the residential units in 02_count-buildings-units-with-noise.R

Calculating number of noise complaints by school

- Create new project
- Load in full MapPLUTO data.
- Load 311-no-outliers-corrected-crs.shp
 - 311-no-outliers-corrected-crs.shp is created by:
 - Running helper-scripts/identify-outliers.R. This script removes latitude and longitude combinations in the top 0.01% of complaints and saves it in 311-remove-outliers.csv.
 - These are places with 87+ (and many have hundreds) complaints in a single location. While it is possible some of these are legitimate, for his initial analysis I remove them. In future work I would either cap them or explore their legitimacy.
 - Loading 311-remove-outliers.csv into QGIS and changing the CRS to 2263
 - Saving the resulting layer as 311-no-outliers-corrected-crs.shp
- Load the attribute-only “schools-pluto” data, created by helper-scripts/filter-schools.R
 - This contains every row of the PLUTO data with an indicator of whether its building class is one of PLUTO’s “Educational Structures”
- Use a tabular join to add an “is_school” column to the attribute table of the MapPluto layer, using the BBL column as the joiner.
- On the MapPLUTO layer, use Select By Value to select the lots that are schools.
- Save this as a new layer, called schools-shapefile
- Add a 200 foot buffer around the schools, save as school-buffer
- Go to Analysis Tools, Count Points in Polygon, and use the school-buffer layer as the polygon and the 311-corrected-crs as the point layer. Save the newly created layer as points-within-school-buffer.
- Save points-within-school-buffers and load in R for analysis in 04_investigate-schools

Making heatmap

- Load 311-no-outliers-corrected-crs.shp
- Change “Single Symbol” to “Heatmap”
- Change color ramp to magma
- Change radius to 10mm
- Change opacity to 60%
- Use QuickMapServices to add Positron base map