

Manila-Quezon City

A Safety Analysis



SafetiPin, in collaboration with the ADB Youth for Asia, conducted safety audits in Metro Manila with a focus on Quezon City. The audits by the ADB team were conducted during from July-November 2016.

SafetiPin, is a map-based mobile phone and online application, which works to make communities and cities safer by providing safety-related information collected by users and by trained auditors. At the core of the app is the Women's Safety Audit. A Women's Safety Audit (WSA) is a participatory tool for collecting and assessing information about perceptions of urban safety in public spaces. The audit is based on nine parameters – Lighting, Openness, Visibility, Crowd, Security, Walkpath, Availability of Public Transport, Gender Diversity and Feeling.

A total of 5,839 safety audits have been generated. Of this 1,946 audits were conducted by volunteers from ADB Youth using the My SafetiPin app. 3,893 audits were generated using the SafetiPin Nite app.

The safety audits conducted by ADB volunteers were focused in Quezon City in areas around the University of the Philippines Diliman, De La Salle University Manila, Rizal Memorial Sports Complex, Quezon Road near Litex Montalban Jeepney Terminal, and outside ADB to name a few locations.

Based on these audits, the Safety Score for Metro Manila is 3.2/5.



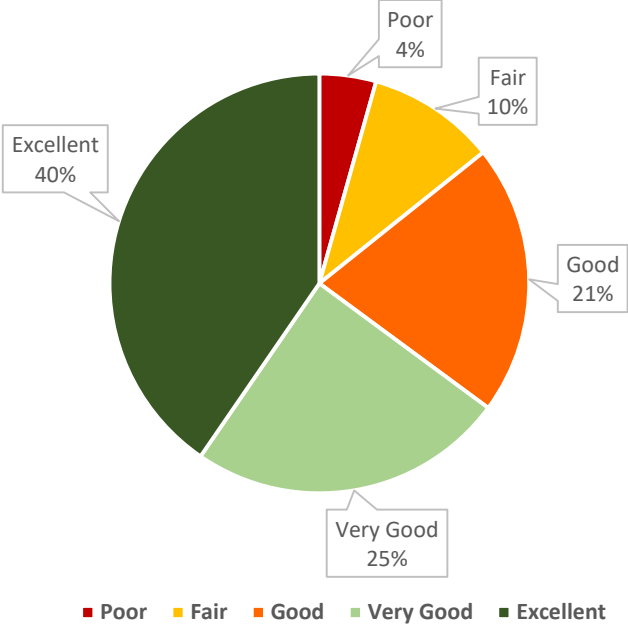
Safety Audits of Manila indicate that out of the 5,839 location points audited, 4% of audit locations have been given a Safety Score less than 1 (out of 5). Another 10% have scores in the range of 1.0-1.9 and 21% locations score between 2.0-2.9. 25% of locations have a Safety Score between 3.0-3.9 and 40% of locations score 4.0 and above.

Of the nine parameters only three parameters Walkpath, Lighting and Openness have been rated Above Average. Visibility and Public Transport have been rated Average. Security, Crowd and Gender Usage have been rated Below Average. The overall Feeling of safety has been rated as Average.

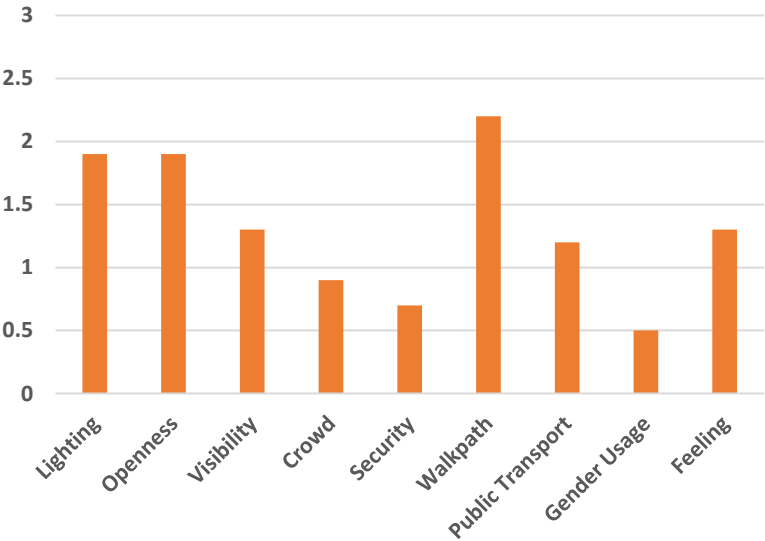
Shown below are examples from the University of the Philippines Diliman where the safety score has been rated as low. Here the lighting is poor and the footpath is broken and obstructed. There are no eyes-on-the-street and the access to public transport mode is limited. People are not seeing using these stretches at night. Overall the auditors rated these areas as unsafe.



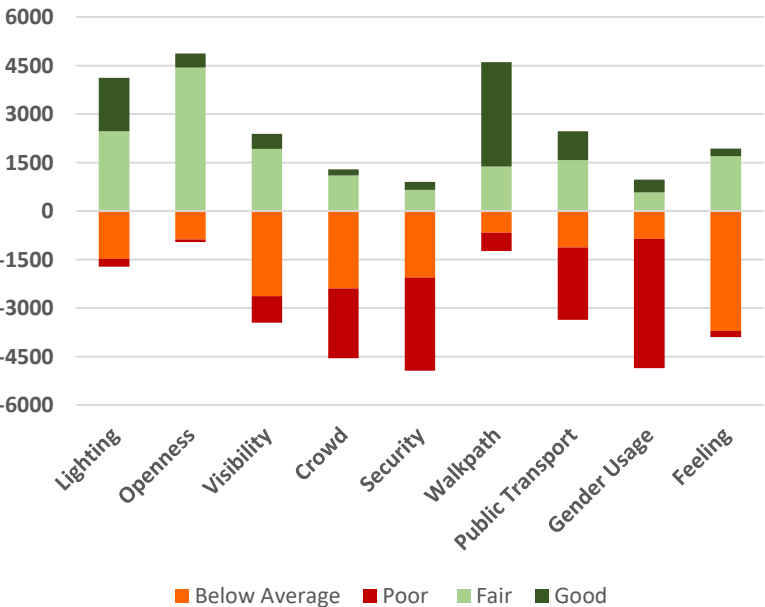
Percentage Distribution of Safety Score



Average Audit Parameters (on a scale of 3)



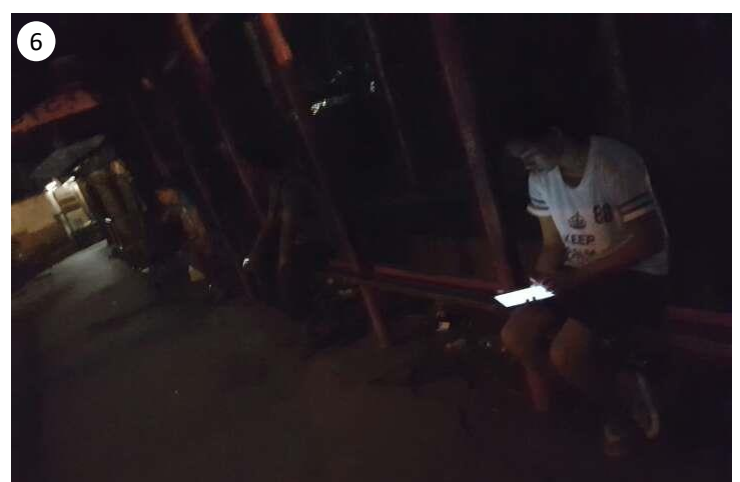
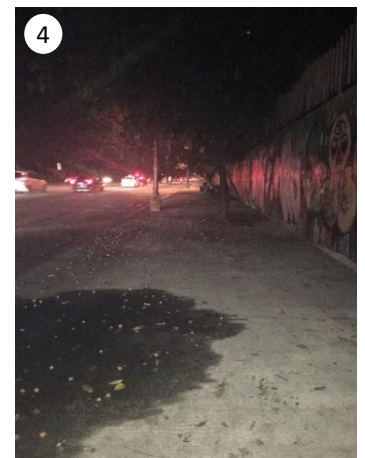
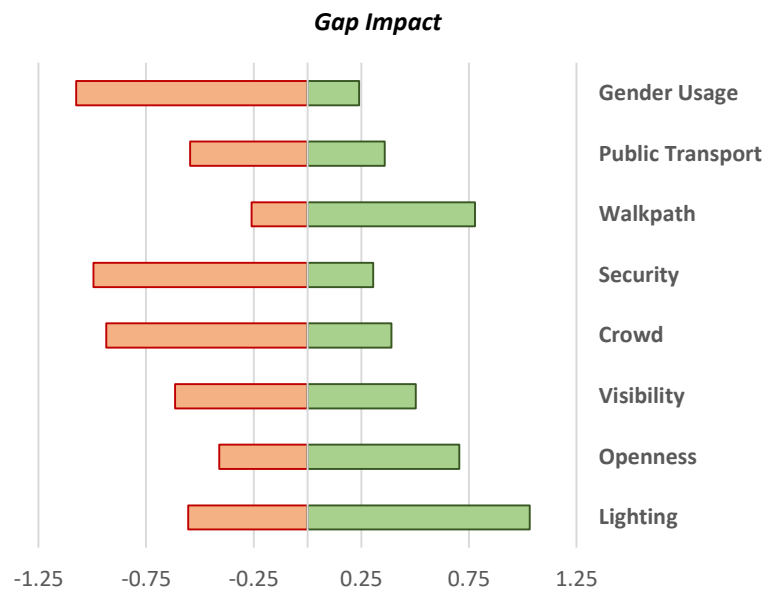
Pin Distribution for each Parameter

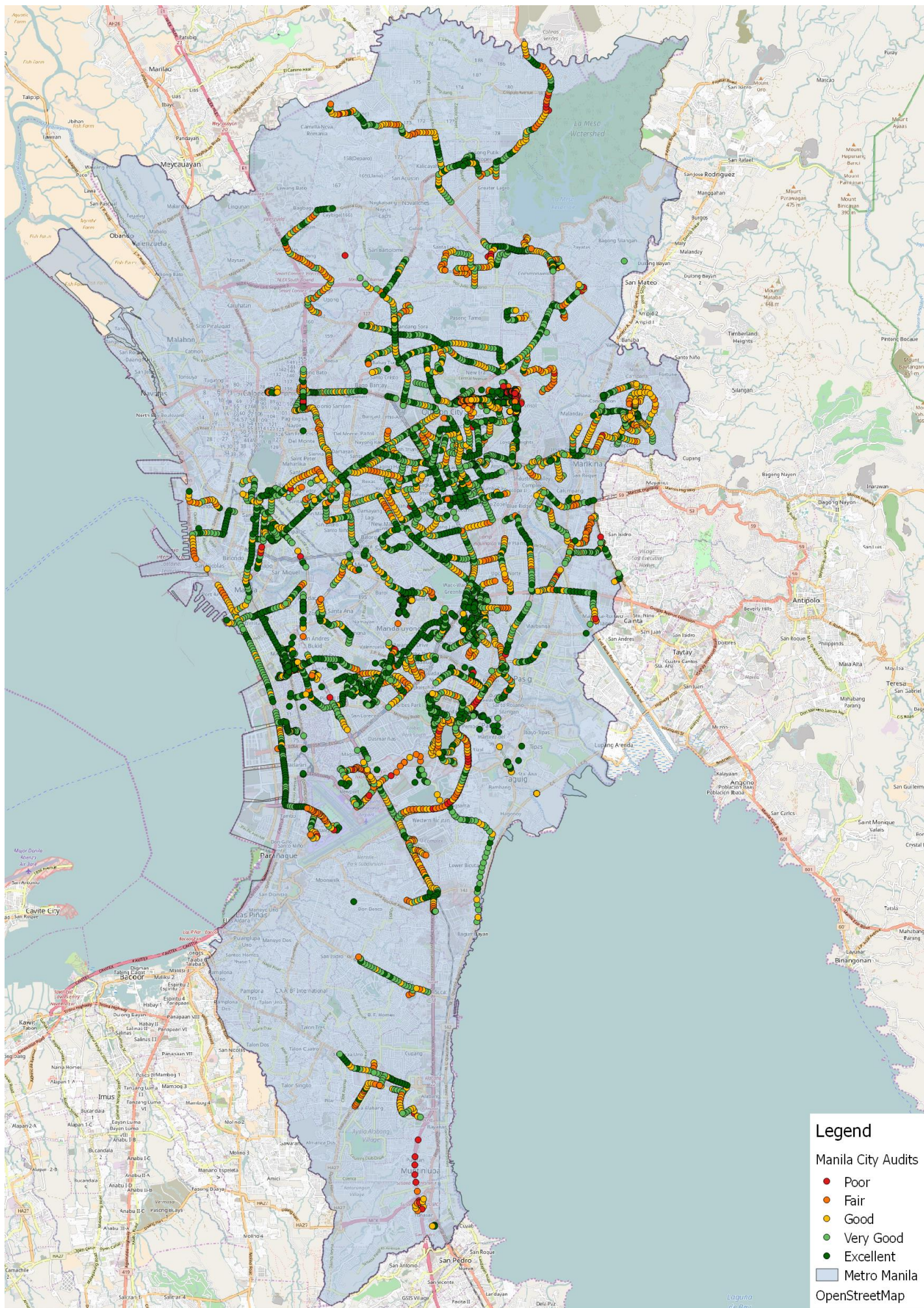


Audit analysis indicates that Lighting has the maximum impact on the perception of safety followed by Security, Crowd and Gender Usage, and then Visibility, Openness, Walkpath and Public Transport. Shown in the Gap Impact graph is the impact potential of each parameter on the overall feeling of safety. For each parameter, the combined length indicates it's impact potential. The green (positive) length indicates how much has already been achieved. The red length indicates the additional improvement needed.

- 4% of the audit locations were rated as a dark spot i.e. there was no illumination at these points. Another 25% locations have poor levels of illumination. At such points the streetlights were found to be un-operational or the illumination was from a distant source. Another issue the auditors highlighted was the overpasses and bridges not being lit or were poorly lit at few locations. Some were lit but the staircase leading to them was either not lit or poorly lit making it seem unsafe (pics 3 & 5). The Jeepney stops too were not lit in many areas. Along some roads the streetlights have been installed only on one side of the road.
- 10% of the audited area does not have any walkpath. At many such places the huge number of cars made it even more difficult to walk on the road. Another 11% locations have a walkpath but in a poor condition such that it is difficult to walk on. The footpath was either too narrow or cracks or had potholes and trees obstructing it. A disability ramp was noted only in a few locations. At few locations the footpath wasn't maintained properly and was occupied by vehicles as well.
- Visibility parameter assesses the natural surveillance offered at a location i.e. the presence (or lack of) eyes-on-the-street. 14% of audit locations do not have any eyes-on-the-street whereas 45% locations offer low visibility. High boundary walls (as seen in pic4) reduce visibility. The height of such walls should be reduced.
- 39% of audit locations do not have access to any mode of public transport within a 400m radius i.e. within a 10minute walking distance. Another 19% audit locations offer access between 5-10 minute walk. The public transport rating was found to be higher along junctions but as one moves away their availability reduces.
- Security parameter assesses the presence of both Police and Private security at a particular location. 50% of the locations audited do not have any form of security and another 35% has either police patrolling or private guards.

Crowd, Gender Usage and Feeling are resultant parameters, i.e. when a particular location is perceived to be safe then more people and especially women are seen using it at night. Therefore, improving infrastructure and social usage like Street lighting, Footpaths, Public Transport, Security and Visibility would result in improved perception of safety.





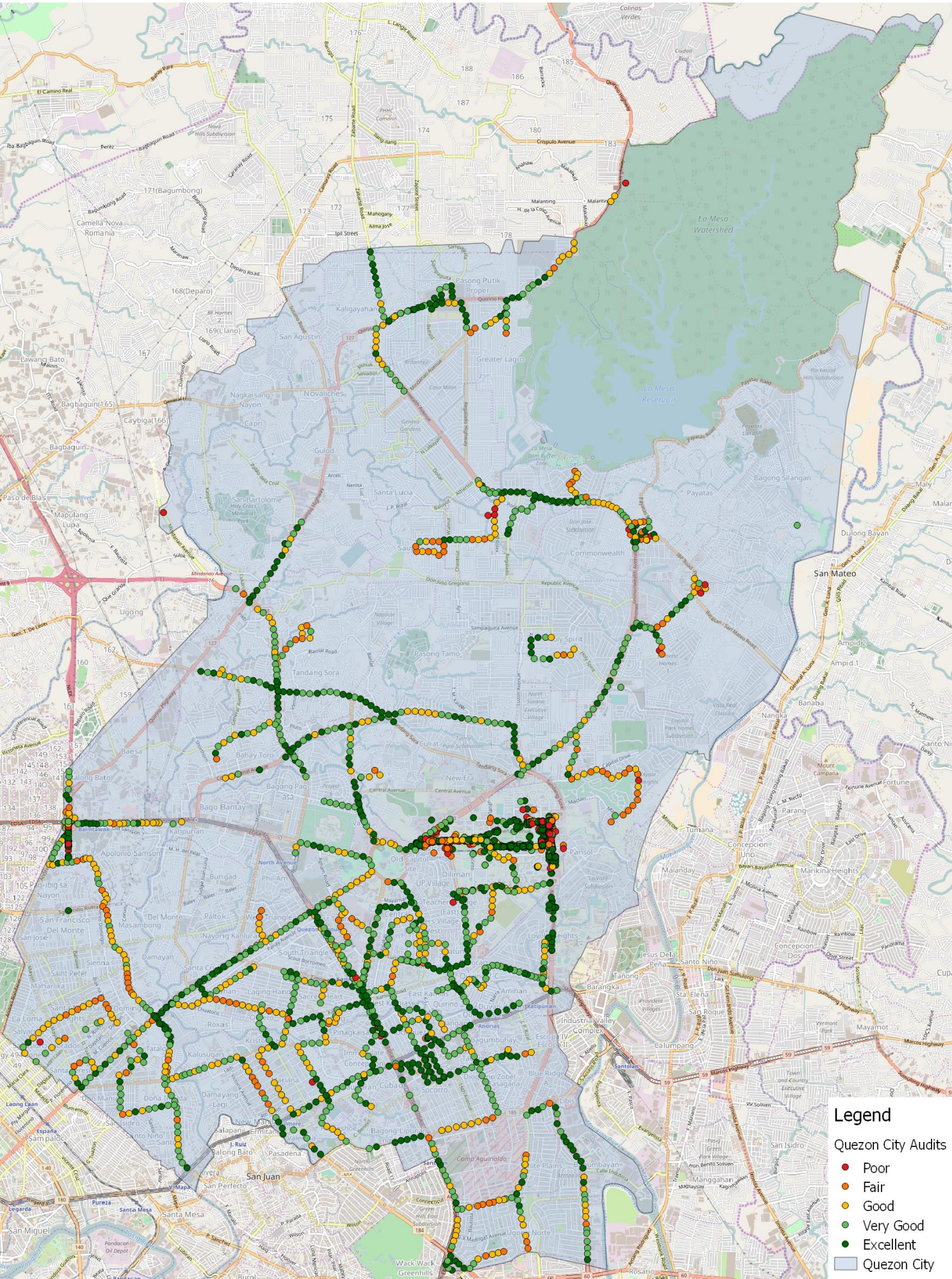
Legend

Manila City Audits

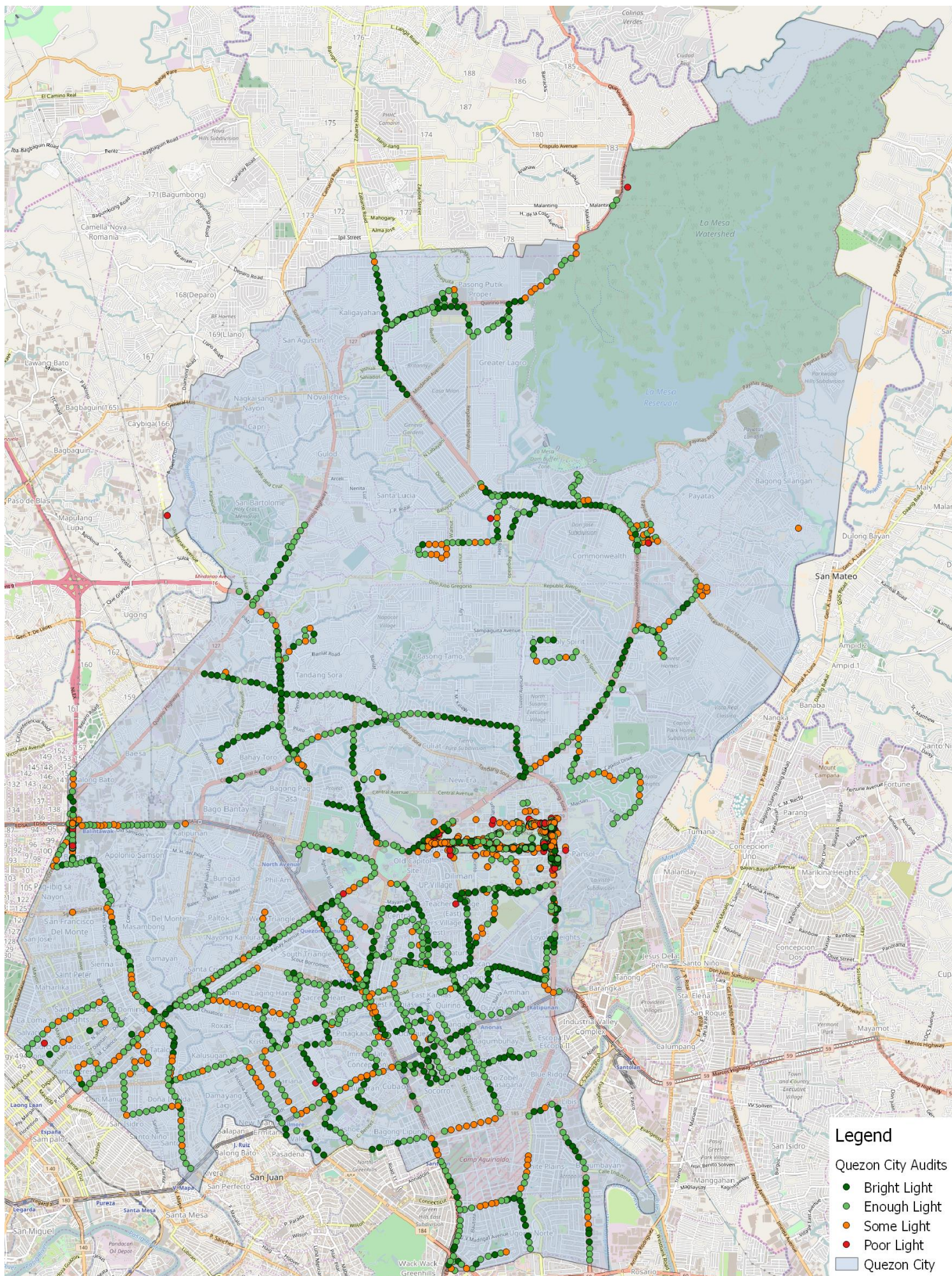
- Poor
- Fair
- Good
- Very Good
- Excellent

Metro Manila

OpenStreetMap



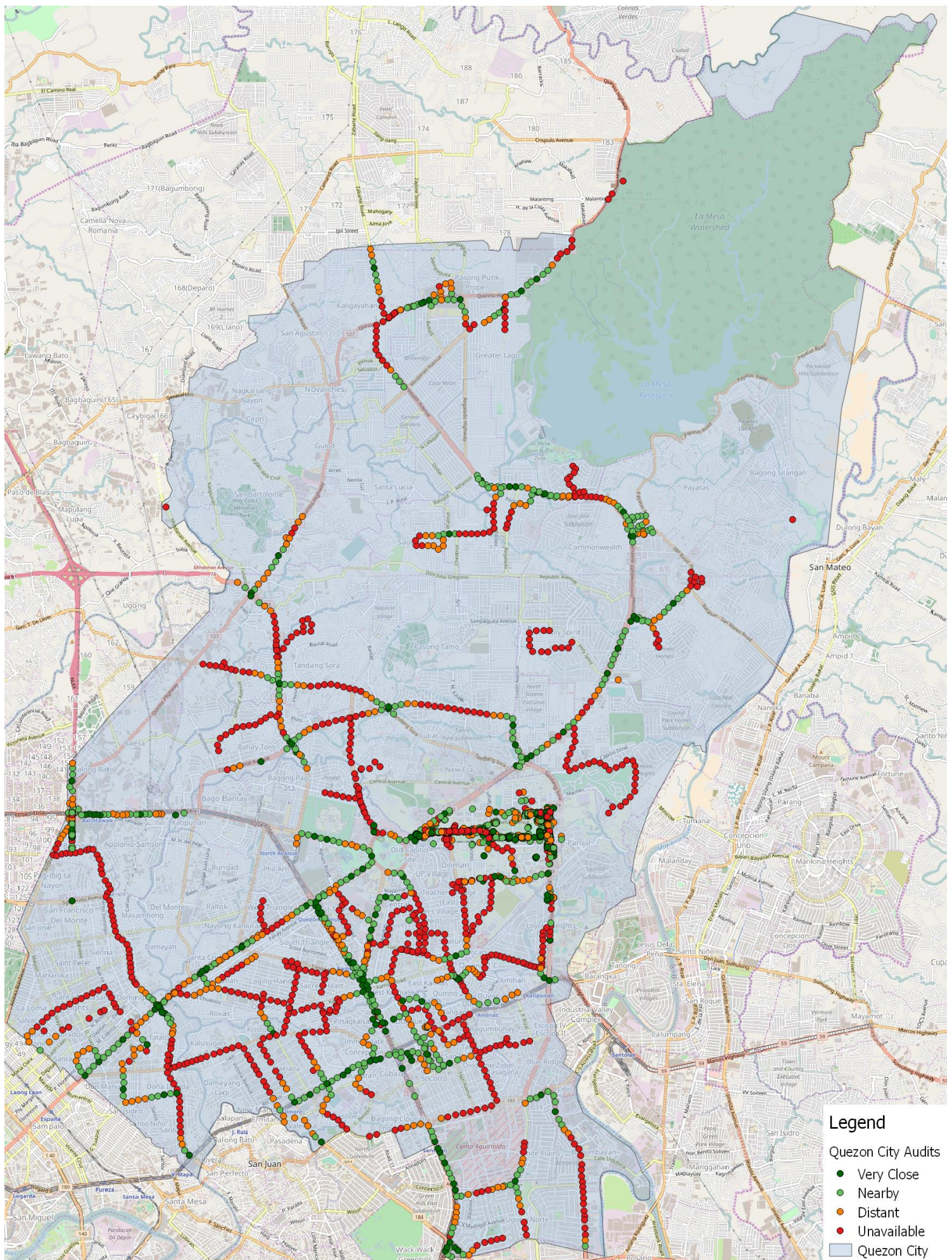
Quezon City: Safety Score Rating



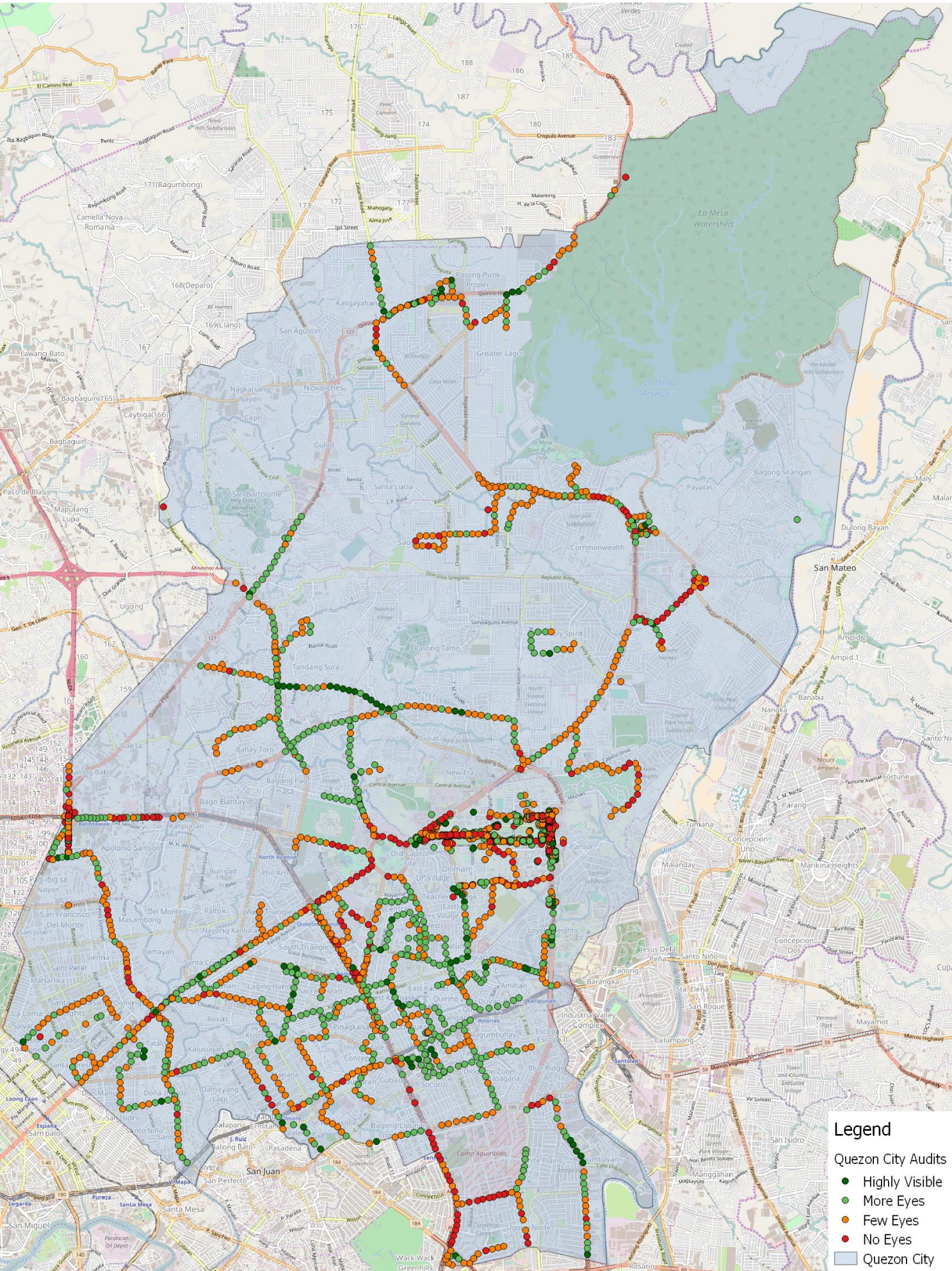
Legend

Quezon City Audits

- Bright Light
- Enough Light
- Some Light
- Poor Light
- Quezon City



Quezon City: Public Transport Rating



Legend

Quezon City Audits

- Highly Visible
- More Eyes
- Few Eyes
- No Eyes
- Quezon City

Quezon City: Visibility Rating