

Noise Investigation Process

1. Identification of Complaint

- a. Receive noise complaints from residents, businesses, or regulatory agencies/HRPS.

2. Initial Assessment

- a. Determine the nature and location of the noise issue
- b. Contact the complainant to gather basic information about the complaint, time of occurrence, history of the noise, and potential sources

3. Preparation

- a. Review ownership and history of property under review
- b. Where applicable request complainant completes a noise impact diary (noise log) which includes times, dates and relevant observations for review.
- c. Assemble equipment and staff necessary to investigate concern effectively.
- d. Identify/anticipate safety concerns:
 - i. Vehicular traffic
 - ii. Machinery on site
 - iii. Heights (roof top readings)
 - iv. Animals (dogs, stinging insects)
 - v. People (especially nighttime assessments)
- e. If possible, arrange access to the property by contacting owner/tenant of property under assessment by means of phone call, email or visit to location to advise of concern.
- f. Review future weather conditions to ensure conditions are acceptable for investigation.
Staff to avoid:
 - i. high winds in excess of 32kph (20mph),
 - ii. high relative humidity (RH) above 90%,
 - iii. precipitation

4. Site Visit and Data Collection

- a. Visit the location to identify patterns, peak noise levels, and potential sources if uncertain.

- b. Document environmental conditions, nearby structures and other potential sources of noise
- c. Once source is identified, isolate source by avoiding other environmental noise that may impact the accuracy of readings eg, airplane, train, dog barking, lawnmowers etc.
- d. Measure ambient noise levels and ambient plus source levels.
- e. Determine if tonality is a concern by the presence of sound like a whine, hiss, hum, screech or beating/cycling

5. *Data Analysis*

- a. Analyze collected data to identify patterns, calculate noise source/ambient relationship and adjust for accuracy.
- b. If tonality was detected qualitatively (by ear), conduct 1/3 octave frequency band review within the meter data to confirm its existence quantitatively.
- c. Compare noise levels with noise regulations and guidelines adjusting for tonality if present
- d. Difficulty in accessing locations under impact assessment such as a 4th floor balcony may necessitate the use of noise modeling software

6. *Stakeholder Engagement*

- a. Engage with complainants and responsible parties to discuss findings and potential solutions
- b. Explain noise regulations and potential mitigation measures
- c. Consider both short-term and long-term solutions

7. *Post-mitigation Assessment*

- a. Conduct follow-up noise measurements to assess the effectiveness of the implemented solutions.
- b. Ensure that noise levels have been reduced to acceptable levels

8. *Complaint Resolution*

- a. Communicate the results of the investigation to the complainants and the stakeholders responsible.
- b. Close the case if the noise has been successfully resolved or;
- c. Take appropriate legal action (fines/summons to court) to move the persons responsible towards compliance

9. *Documentation*

- a. Create a comprehensive report detailing the entire process, findings, actions taken and outcomes