Strategic Noise Mapping

Potential Further Uses

*Test Case: Green Amenity Space in Manchester*

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Introduction

Scope

- Strategic noise mapping – what is it?
- What are the existing applications?
- What's next?
- Test Case – Green Amenity Space in Manchester
Strategic noise mapping – what is it?

- **END (2002/49/EC) and Environmental Noise (England) Regulations (as amended)**
- A ‘snapshot’ of the estimated noise from major road and rail sources
Existing uses of strategic noise mapping

**Noise Action Plans** from Round 3 (2017) strategic noise mapping:
- Roads (2019)
- Rail (2019)
- Airports - Airport Operator responsibility (2019-2023)
- Agglomerations (Urban Areas) – covering 65 areas

Requirements of a **Local Green Space** application to be designated:
- Reasonably close proximity to the community it serves
- Demonstrably special to the community it serves (e.g. for its tranquillity)
- Local in character (urban spaces that provide a tranquil oasis)
Existing uses of strategic noise mapping

The Site Suitability Indicator (SSI)
- Relates strategic noise mapping with ProPG: Planning & Noise (2017) criteria

Scope
1. Provide information to inform an understanding of a site's acoustic environment
2. Assist in the identification of relatively noisier sites
3. Present noise information that can complement an understanding of a site's acoustic environment and act as an early indicator of its potential suitability for new residential development from a noise perspective.
Existing uses of strategic noise mapping
Existing uses of strategic noise mapping
Strategic noise mapping – what’s next?

The Tender for Round 4 was informed by a study by Sustainable Acoustics¹

- Additional Noise Sources
- Increased Scope
- Additional Noise Metrics
- Additional Environmental Factors
- GIS Compatibility
- Historic and Forecast Data
- Live Data Compatibility
- Soundscape Parameters

¹DEFRA, Noise Mapping (Round 4) Stakeholder Review - NO0256 (2020)
Background – UK and EU Policy Drivers

There are strong UK and EU policy drivers to Identify, Create, and/or Protect areas prized for their amenity value

‘Where direct comparative studies have been made of both quiet and noisy urban and rural areas, it is found that quality of life increases as noise levels decrease’ (Shepherd, et al, 2013).

Planning Practice Guidance (2019) – Local Green Space designation
National Planning Policy Framework (2019) - identify and protect tranquil spaces
ProPG: Planning & Noise (2017) – good acoustic design
Background – Descriptors

Health & Well-being

- Tranquillity
- Quiet Spaces
- Local Green Spaces
- Tranquil Spaces
- Amenity Value
- External Amenity

Local Green Spaces

Amenity Value

Tranquil Spaces

External Amenity
SNM – Suitable External Amenity Space

1. New Residential Development – Good Acoustic Design
Where private or community amenity space is not intrinsic in the design of a new residential development, future occupants should be afforded access to:

➢ Public amenity space (such as a park)
➢ Within 5-minutes walking distance; and
➢ With a transportation related noise level < 55 dB $L_{den}$.

2. Local Authority – Local Green Space Designation
Where Green Amenity Space is:

➢ Within 5-minutes walking distance of residents;
➢ Population density (household > 5 people); and
➢ With a transportation related noise level < 55 dB $L_{den}$. 
Test Case: Green Amenity Space - Manchester
1. New Residential Development
2. Local Authority – Local Green Space

Population Density

Population Density: Households >5
## 2. Local Authority – Local Green Space

<table>
<thead>
<tr>
<th>Categories</th>
<th>Pop. Count</th>
<th>Pop. Count % (total population)</th>
<th>Pop. Count % (400m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>400m from All Green Areas</td>
<td>419,153</td>
<td>82%</td>
<td>100%</td>
</tr>
<tr>
<td>400m walk from AONB</td>
<td>0</td>
<td>0%</td>
<td>0%</td>
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<tr>
<td>400m walk from National Park</td>
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<td>0%</td>
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<tr>
<td>400m walk from Public Park or Garden</td>
<td>301,170</td>
<td>59%</td>
<td>72%</td>
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<tr>
<td>400m walk from Playing Field</td>
<td>205,204</td>
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<table>
<thead>
<tr>
<th>Categories</th>
<th>% of area within 55dB Lden Contour</th>
<th>Number of Areas</th>
<th>Population Count</th>
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<td>All Green Areas</td>
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<td>419,153</td>
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<tr>
<td>400m walk from Public Park or Garden</td>
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<tr>
<td>&gt;=90%</td>
<td>21</td>
<td>81,781</td>
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<tr>
<td>&gt;=80%</td>
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2. Local Authority – Local Green Space

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<thead>
<tr>
<th>Categories</th>
<th>% of area within 55dBA Lden Contour</th>
<th>Pop. Count</th>
<th>Pop. Count (household &gt;5)</th>
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<td>21,416</td>
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<td>400m walk from Playing Field</td>
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<td>Total</td>
<td></td>
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<td>10,814</td>
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2. Local Authority – Local Green Space

Grosvenor Square (All Saints Park)

1st for Population/ m²

1st for Population

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<thead>
<tr>
<th>Rank</th>
<th>Green Area Classification</th>
<th>Green Area Name</th>
<th>Population Count</th>
<th>Pop/m²</th>
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<tbody>
<tr>
<td>1</td>
<td>Public Park Or Garden</td>
<td>Grosvenor Square</td>
<td>5,794</td>
<td>0.785628</td>
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<td>2</td>
<td>Public Park Or Garden</td>
<td>Sackville Gardens</td>
<td>1,291</td>
<td>0.316087</td>
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</table>
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23 Coldharbour Road, Bristol BS6 7JT

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6 Bankside, Crosfield Street, Warrington, WA1 1UD