Addressing the Aims of the Noise Policy Statement for England through the EIA Process

Defra’s Noise Policy Statement for England (NPSE) sets out the Government’s long term vision ‘to promote good health and a good quality of life through the effective management of noise within the context of Government policy on sustainable development.’ Although published in 2010, progression of the NPSE’s aims has not been progressed on-mass by planning authorities. This is in part due to the lack of quantitative thresholds for ready interpretation and application. Within the context of Government’s policy on sustainable development, the NPSE’s aims are to:

- avoid significant adverse impacts on health and quality of life;
- mitigate and minimise adverse impacts on health and quality of life; and
- where possible, contribute to the improvement of health and quality of life.

The first and second aims can be addressed within the scope of the EIA process, following guidance contained in documents such as Highways England’s Design Manual for Roads and Bridges and IEMA’s Guidelines for EIA. The third aim goes beyond potential project impacts, requiring not just the avoidance of adverse impact of a proposed development, but improvement of the existing noise environment for the surrounding population.

Throughout the development design process, there are opportunities to contribute to the noise improvement aim of the NPSE, which also align with the EIA design objective to avoid significant adverse environmental effects.

Although there is a sea change towards early involvement of the EIA team in the design process, it is still quite common that when a project design reaches the EIA team, and specifically the noise specialists, designs are “fixed” - earthworks and material movement/disposal already planned for.

This generally leaves the noise specialist with a limited scope for mitigation and the need to present a case for noise improvement measures.

By adopting a Design In/Out approach, the likelihood of a project resulting in significant adverse noise impacts is reduced. Step 1 (Design-In) - project designs incorporate measures at the concept design stage to mitigate noise at key noise areas. These key noise areas could include:

- areas identified as Important Areas by Defra’s strategic noise mapping;
- areas close to receptor clusters where road traffic is predicted to increase significantly with the proposed development;
- receptor areas close to permanent noise making activities or machinery.

As with best practice consideration of noise mitigation, mitigation measures at source should be considered before mitigation at receptors as source mitigation leads to mass benefits. The project design can subsequently progress through the modelling process and a value engineering exercise, where it may be determined that certain areas identified for mitigation do not experience an appreciable benefit and are subsequently designed out - Step 2 (Design-Out). Where mitigation measures do give a reduction in noise levels, barriers designs can be refined before the final assessment to ensure they are appropriate, viable and offer an efficient solution.

This early indication of potential noise hotspots and potential impact areas for mitigation consideration could benefit local receptors. This can also feed back into the scheme’s consideration of options, allowing more opportunity for sustainable mitigation solutions to be incorporated into the scheme design. The above approach will ensure an appropriate budget is in place for the final design, as designed-in noise measures are taken into account in the project target pricing exercise.
With sustainability in mind, a balance needs to be struck between the benefits of improving the noise climate and the cost of the mitigation measures by means of a cost-benefit analysis. These analyses can vary in their degree of comprehensiveness and therefore lines have to be drawn on the extent to which benefits and costs are incorporated. A simple cost benefit analysis in this respect can consider the reduction in noise achieved relative to the cost of a barrier and installation. For example, a long section of noise barrier to provide a reduction in noise at an isolated dwelling is unlikely to be given the green light because it is not in line with the principles of sustainable development.

This design in/out approach also enables the assessment to commence with due consideration of potential significant noise impacts. Mitigation options available to the noise specialist can be limited by various restrictions, including engineering constraints; project budget and client limitations. The role of the noise consultant can hence be extended to assist clients, who in most instances are governmental parastatals, in meeting the aims of the NPSE, whilst delivering appropriate and sustainable noise solutions for developments.

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