

AQS 09 The Institute of Acoustics (IOA)

Senedd Cymru | Welsh Parliament

**Pwyllgor Newid Hinsawdd, yr Amgylchedd a Seilwaith | Climate Change,
Environment, and Infrastructure Committee**

**Bil yr Amgylchedd (Ansawdd Aer a Seinweddau) (Cymru) | The Environment
(Air Quality and Soundscapes) (Wales) Bill**

Ymateb gan | Evidence from The Institute of Acoustics (IOA)



**Senedd Cymru
Welsh Parliament**

**The Environment (Air Quality and Soundscapes) (Wales) Bill
Consultation**

Background

The Institute of Acoustics (IOA) is the UK's professional organisation for those working in the fields of sound, noise and vibration. Members of the Institute carry out research into the effects of noise on human health and wellbeing. Members also implement the national policies, legislation and guidance that deal with the management of noise. This is in the capacity of both assisting developers to meet their policy and legislative obligations and as regulators evaluating the merits of proposals or applying the relevant legislation.

The Institute's response relates to the soundscape element of the Bill and considers each proposed clause in turn. Some comments are also provided regarding the text in the Explanatory Memorandum.

This response has been prepared by experienced members of the Institute including members who practise in Wales. This response has been approved by the IOA's Executive Committee on behalf of the IOA's Governing Council.

Clause 22. National strategy on soundscapes

(1) The Welsh Ministers must prepare and publish a strategy containing their policies with respect to the assessment and management of soundscapes in Wales

The Institute supports the proposal to require Welsh Ministers to publish a such a strategy. In fact, the IOA has only recently advocated to the House of Lords Science and Technology Committee that England should have a Sound and Noise Management Strategy to enhance the implementation of the overarching noise policy in England set out in the Noise Policy Statement for England. The Institute has recommended that one of the purposes of this strategy would be to promote positively the use of soundscape principles as a means of generating spaces which enhance well-being through generating a sense of place, community and connection with nature and each other.¹ At present the policies in the NPSE are mainly implemented through managing the noise impact of new developments and meeting the first two aims of the policy.²

¹ When giving oral evidence recently to an inquiry being carried out by the House of Lords Science and Technology Committee, the IOA noted that the Welsh Parliament were leading the way with their approach on Soundscapes.

² The NPSE contains a Vision which states: *Promote good health and a good quality of life through the effective management of noise within the context of Government policy on sustainable development.*

This Vision is supported by three aims:

Through the effective management and control of environmental, neighbour and neighbourhood noise within the context of Government policy on sustainable development:

- *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.*



Furthermore, there is general agreement amongst those Institute members who practise in Wales that noise impact assessments associated with developments in Wales should include a Soundscape Assessment.

As in England, there are the three main reasons for this view:

- Not all sound causes adverse effects. For example, it is important to preserve a vibrant city soundscape which includes music, crowds, street entertainment etc, and not simply to regard that sound from such activities as unwanted and consequently should be minimised or even eliminated. However, to achieve this outcome, care must be taken to avoid the inappropriate placement of residential development within a city that then puts pressure on, for example, pre-existing places of entertainment. Although exercising the agent of change principle helps to provide some protection, it is not the panacea.
- Undertaking soundscape assessments would help to preserve an existing tranquil environment from the impact that might otherwise occur from the introduction of a new noise source. Having said that, these types of environment tend to be well protected by the proper implementation of existing noise guidance, assuming they are correctly identified as noise-sensitive receptors.
- Sound can be used to enhance health and wellbeing and promote delivery of sustainable development. This is an important area of emerging science that needs strategic direction to encourage delivery in practice, so that soundscapes are optimized rather than the focus always being on achieving targets needed to minimise adverse health effects.

However, the IOA recognises that, although the concept of soundscapes has been around for a while, exactly how its principles are precisely applied to particular situations in an evidence-based way is still evolving. Members of the Institute who operate in Wales are concerned regarding whether the regulators (e.g. local Environmental Health Practitioners (EHP)) have the necessary experience and knowledge to review such soundscape assessments. Whilst training could be provided (and the Institute of Acoustics would be delighted to assist in that) do local councils have the capacity to allow EHPs to undertake training in the topic. Conversely, without proper training there would be the risk of the optimum outcome not being secured in any particular situation.

Furthermore, the kind of holistic approach that is included in a soundscape assessment is likely to require more time for the regulators to review it, potentially adding costs to the local authorities.

Similarly, it must be recognised that this type of approach to sound/noise assessment may have a cost implication on developers/business owners who will also be subject to additional time costs both in terms of the assessment work and with the likely need for more consultation and liaison with regulators. Members of the IOA have already detected that some developers are wary of this proposed approach and could be less supportive of the proposals especially in the early days as the implementation details are developing.

There is also a concern that members of the IOA who are acoustic consultants will become trapped between regulators and developers with the potential for neither party agreeing on what the appropriate outcome should be. It is essential that such conflicts are satisfactorily resolved in order to make a success of preserving and enhancing the soundscapes across Wales.

It is of course understood that we need to begin the implementation of this process somewhere. Careful consideration will be needed, particularly in the early stages, regarding how this policy is applied and enforced such that there is appropriate consistency across Wales whilst allowing for local context to be taken into account.



(2) The strategy must include policies for assessing and reducing levels of noise pollution

Whilst there is no disagreement with the sentiment of this clause, the IOA has a fear that expressing it in this way on the face of the bill could be counter-productive. There will undoubtedly be the need for developments in the future that will increase the noise impact on some individuals compared to the current situation. Those individuals could argue that legislation is about reducing noise levels and have a strong case for opposing the development, even if the expected increase in impact is small. Furthermore, for existing sources there could be pressure on the Government to reduce noise, again basing that argument on legislation that says levels must be reduced.

Furthermore, local councils may be put under pressure to remove an existing sound source because this legislation says noise levels must be reduced. In the extreme, the council may be requested to close down a factory to reduce noise pollution, for example. This would clearly not necessarily be the desired outcome given the impact on jobs etc.

It is also very important to remember that noise pollution to one person may not be to another. The subjective nature of sound and the labelling of it as 'pollution' could lead to marginalization, community division or exclusion of elements of society. This could potentially be the outcome of the legislation as currently proposed.

Consequently, as written, it looks as if reducing noise is paramount, over and above the social and economic benefit of the source. An alternative approach might be to reword that clause to read:

The strategy must include policies for effectively managing noise pollution.

The strategy could then contain policies that take account of the social, economic and other environmental benefits of the noise making source. In addition, it could include targets in the form of reducing the overall exposure to noise, initially making use of the data that comes from noise mapping. These targets might be expressed in terms of

- The proportion of population exposed to external levels above a certain value; and / or
- Using the principles of the World Health Organisation Burden of Disease, have targets set in terms of reducing the Disability Adjusted Life Years (DALY) due to noise.

Clauses 22 (3) to (6) – The IOA supports these proposals.

Clause 22 (7) The Welsh Ministers may by regulations amend this section for the purpose of changing the period within which they must review the strategy.

The IOA supports this proposal. For the strategy to be effective, Welsh Ministers must have the ability to react quickly to any emerging evidence, either in terms of the noise impact occurring or new research about the effects of noise. Of course, the robustness of such research must be established before reacting to its findings.

Clause 22 (8) - The IOA supports this proposal.



Clause 22 (9) – The IOA is not in a position formally to comment on this clause. However, The Institute does support the principle of clarifying the meaning of “local authority”.

Clause 23. Duty to have regard to national strategy on soundscapes

(1) The following persons must have regard to the policies in the strategy published under 10 section 22 when exercising any function of a public nature that could affect soundscapes in Wales—

- (a) local authorities in Wales;**
- (b) relevant Welsh public authorities.**

It is helpful to make explicit on the face of the bill that these authorities must not ignore the policies contained within the strategy. However, it is essential that the strategy must be absolutely clear regarding the outcomes that these authorities must achieve when making decisions that could affect the soundscape. Effective soundscape management cannot be achieved by simply requiring a certain numerical noise limit to be achieved. The effect of non-acoustic factors means that, as mentioned above, people are affected by different noise sources to different extents.

Furthermore, if a noise exposure limit was set such that no-one would be expected to be adversely affected and thus arguably achieving an ideal soundscape³, society as we know it today would probably come to a standstill with all the economic and social dis-benefits that would entail⁴.

Thus, the outcomes to be sought would need to be carefully described to allow the relevant authorities to exercise their functions effectively for the benefit not only of the whole community but also of other species so that biodiversity benefits can be included.

Clauses 23 (2) – (4) – The IOA is not in a position to comment, but supports the clarification and flexibility being described in these clauses.

Clause 24. Power to change cycles for making strategic noise maps and reviewing noise action plans

- (1) The Welsh Ministers may by regulations amend regulation 7 of the Environmental Noise (Wales) Regulations 2006 (S.I. 2006/2629) (duty of the Welsh Ministers to make, review and revise strategic noise maps) to change the intervals for the time being specified by paragraph (2) of that regulation as the intervals at which strategic noise maps must be made and adopted.**
- (2) The Welsh Ministers may by regulations amend regulation 17 of the Environmental Noise (Wales) Regulations 2006 (duty of the Welsh Ministers to draw up, review and revise action plans) to change the period for the time being specified by paragraph (3)(b) of that regulation as the period within which reviews of an action plan must be carried out.**

³ In terms of anthropogenic sounds

⁴ The COVID lockdown gave some indication of this potential effect, and also illustrated how the usually masked natural sounds became more prominent.



Notwithstanding people's views about the merits or otherwise of leaving the European Union, the fact that it has occurred does allow Welsh Ministers to amend the timetables embedded in these regulations to suit their purposes better. The Institute supports this proposal.

Explanatory Memorandum

The IOA has particularly considered the "Policy Objectives" under the heading of "National Soundscapes Strategy, Strategic Noise Maps and Action Plans".

Paragraph 3.240

The Institute notes that the scope is not confined to the sources defined in the Environmental Noise (Wales) Regulations 2006 but that it would

also cover other major forms of airborne noise and the whole of Wales

Whilst it is assumed that this means covering all road and rail transport sources and, when appropriate, aviation sources, it is unclear what else might be covered. The Environmental Noise Directive included industry, but this did sit uneasily with the other sources within its scope. The soundscape in some areas might be primarily affected by sources that are not transportation (such sources are described in English policy as 'Neighbourhood Noise').

It would be helpful, therefore, if there was more clarification on the expected scope of the strategy.

Paragraph 3.242

This paragraph states that:

*Ensure clear priorities and opportunities are set for **achieving appropriate soundscapes in Wales** at a national level based on a comprehensive evidence base including, not only noise and soundscape evidence, but also wider environmental considerations such as air quality data; the State of Natural Resources Report and National Natural Resources Policy required by the Environment (Wales) Act 2016; and the Future Trends Report required by the WFGA;*

The Institute is particularly concerned with the highlighted phrase. What exactly is meant by "appropriate soundscape"? How will developers or regulators know if that outcome has been achieved in a particular situation?

One of the challenges for Welsh Ministers is that the formal definition of soundscape is



acoustic environment as perceived or experienced and/or understood by a person or people, in context⁵

Therefore, for a given location and given soundscape, for which person should the soundscape be appropriate? There are likely to be differences between different people with them perceiving, experiencing or understanding the soundscape in different ways.

The Institute believes that this intention within the policy objectives needs to be made much clearer so that developers and regulators can effectively implement the policy.

Conclusion

The IOA hope that the Welsh Parliament will find our comments of interest and that they will assist in developing this important piece of legislation. The IOA is looking forward to speaking with the Climate Change, Environment and Infrastructure Committee on this issue in May.

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Institute of Acoustics Limited
Silbury Court,
406 Silbury Boulevard
Milton Keynes, MK9 2AF

Email: ioa@ioa.org.uk

⁵ BS ISO 12913-1:2014 – Acoustics – Soundscape, Part 1: Definition and conceptual framework