



Noise and soundscape in Welsh planning policy

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ABSTRACT

In Wales, noise policy now sits within the sustainable development framework of our Well-being of Future Generations Act. Under this Act, public bodies must look to the long term; take an integrated approach; involve a diversity of the population in decisions affecting them; work with others in a collaborative way to find shared sustainable solutions; and act to prevent problems from occurring or getting worse.

The Welsh Government has adopted a Noise and Soundscape Action Plan calling for the creation of *appropriate soundscapes*, meaning “the right acoustic environment in the right time and place”. We have rewritten Planning Policy Wales and included appropriate soundscapes amongst our National Sustainable Placemaking Outcomes.

We committed to providing further guidance to support planning policy on air quality, noise and soundscape, and drafted a new Technical Advice Note, with a supporting document on *soundscape design*.

Soundscape design in Wales means more than just design of the sound environment. It is a process giving as much weight to people and context as to the sounds themselves, from the outset. We expect this approach to be followed, referring to soundscape standards where appropriate, when and to the extent it may be expected to result in better placemaking.

1. THE WELL-BEING OF FUTURE GENERATIONS (WALES) ACT

The Well-being of Future Generations (Wales) Act 2015 [1] requires public bodies in Wales, including the Welsh Government and local authorities, to carry out *sustainable development*. This is the process of improving the economic, social, environmental and cultural well-being of Wales by taking action in accordance with the *sustainable development principle*, aimed at achieving the national well-being goals. Acting in accordance with the sustainable development principle means acting in a manner which seeks to ensure that the needs of the present are met without compromising the ability of future generations to meet their own needs.

Five ways of working must be followed when carrying out sustainable development. These are:

- looking to the long term;
- taking an integrated approach;
- involving a diversity of the population in the decisions affecting them;
- working with others in a collaborative way to find shared sustainable solutions; and
- acting to prevent problems from occurring or getting worse.

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2. OVERARCHING PRINCIPLES OF NOISE AND SOUNDSCAPE POLICY IN WALES

2.1. Why a ‘noise and soundscape’ policy?

Every minute of every day, even when we are asleep, our state of well-being is dependent upon the many sounds that surround us.

Noise, meaning unwanted or harmful sound, can, in the short term, disrupt sleep and increase levels of stress, irritation and fatigue, as well as interfering with important activities such as learning, working and relaxing. In other words, it reduces the quality of our lives. Exposure to loud sounds can cause hearing damage, while exposure to noise in the long term can increase our risk of hypertension-related illnesses and cardiovascular disease.

Environmental noise is considered the second biggest environmental contributor to the burden of disease in Europe after air pollution. Our own 2017 noise maps suggested that the homes of more than 200,000 people across Wales are exposed to road traffic noise levels exceeding the World Health Organization’s 2009 night noise guidelines.

According to the National Survey for Wales 2017-18, 24% of people in Wales are regularly bothered by noise from outside their homes. People who live in urban areas are more likely to be bothered by noise than those who live in rural areas. People are more likely to be bothered by noise if they live in social housing or rent privately as opposed to owning their own home. Those who live in flats, particularly converted flats, are more likely to be bothered by noise than those who live in detached or semi-detached homes, and people are more likely to be bothered by noise if they live in materially deprived households or in deprived areas. People who own their own property are more likely to be regularly bothered by noise from traffic, businesses or factories than people living in social housing, but people living in social housing are more likely to be bothered by noise from their neighbours.

It is clear that noise has a significant impact on the well-being of our citizens, and we must improve decision-making in this area. But the aim of our central noise policy document, the Noise and Soundscape Action Plan 2018-2023 [2], is not for a Wales that is silent. Our lives are enhanced by conversation, laughter and cheering, music and the sounds of nature. A healthy acoustic environment is more than simply the absence of unwanted sound, and noise management must have a broader focus than simply clamping down on the decibels. We need to create *appropriate soundscapes*, meaning the right acoustic (i.e. sound) environment in the right time and place. The towns and cities in which most of us live serve us in a variety of ways, and should therefore contain a variety of sound environments appropriate to the time and place. There should not be a one-size-fits-all urban sound environment, which we experience wherever we go, any more than every street and building should look alike.

The Noise and Soundscape Action Plan states the Welsh Government’s expectation that public bodies subject to the Well-being of Future Generations (Wales) Act should follow the five ways of working in that Act when carrying out noise and soundscape management. This means:

- pursuing long-term, enduring solutions to any existing instances of noise nuisance;
- seeking to manage noise and soundscapes at the same time as achieving other, related outcomes;
- taking opportunities to talk to the public about the challenges associated with exposure to noise and unhealthy soundscapes, listen to their concerns and seek their views on potential solutions and their involvement in delivering them;
- working actively with internal and external partners to mutual benefit in the delivery of desired outcomes; and



- keeping exposure to noise as low as reasonably practicable across the whole of the population, looking out in particular for areas where noise levels might qualify as a statutory nuisance or noise action planning priority area, or where public amenity might be adversely affected by noise at some point in the future, and acting pre-emptively to prevent those things from happening.

2.2. Integrating noise and air quality policy

Environmental noise has much in common with air pollution. The sources of air and environmental noise pollution tend to be either identical or else closely linked, their transmission pathways are similar, and the most affected receptors are also often the same, typically the people situated closest to the source.

For road traffic travelling at a fixed speed, emissions of both air and noise pollution increase or decrease in proportion to the number of vehicles. The noisiest and dirtiest vehicles are often the same, as are the quietest and cleanest. Both air and noise pollution levels are highest at the road itself and fall off with distance. Buildings and terrain can obstruct or channel both air and noise pollution. Traffic travelling at very high speeds and congested traffic can result in high levels of both air and noise pollution. In addition, some adverse health effects have been linked to both air and noise pollution, for example increased risk of cardiovascular disease. For all these reasons, it makes sense to consider both forms of airborne traffic pollution together. Pursuing them separately would at best result in duplication of effort and missed opportunities, at worst in the implementation of conflicting policies.

The purpose of air quality management is to improve human health and quality of life. This improvement to health and quality of life will be greater if improved soundscapes are achieved alongside reductions in air pollution. The Noise and Soundscape Action Plan says we will define environmental noise as an airborne pollutant, and create and pursue any opportunities to further align noise/soundscape and air quality policy and regulation, in order to achieve multiple benefits from our actions.

3. LAND USE PLANNING POLICY

3.1. Planning Policy Wales

Planning Policy Wales [3] (PPW) was completely rewritten in 2018 to ensure that the planning system in Wales maximises its contribution to the national well-being goals and ways of working defined in the Well-being of Future Generations (Wales) Act, and thereby creates sustainable places.

The focus on *placemaking* in PPW requires that policy topics such as air quality, noise and soundscape be considered alongside all other relevant policy topics when preparing development plans and designing and determining planning proposals. Development plan strategies, policies and development proposals should be formulated and designed to protect and enhance the special characteristics and intrinsic environmental qualities of places because they contribute to the attractiveness, vibrancy, liveability, resilience, functioning, economic prosperity and ultimately health, amenity and well-being of places.

Planning policy in relation to air quality, soundscape and noise emphasises the requirement to secure opportunities as part of the planning process, rather than just avoid the worst negative impacts. It is no longer acceptable to regard air quality and noise merely as technical matters to be mitigated at the end of the process. Rather, they are integral to the design, functioning, health, amenity and well-being of places. Accordingly, an integrated approach should be taken towards drawing up strategies and formulating proposals for places, including those relating to air quality and soundscape.



Figure 1: Wales' National Sustainable Placemaking Outcomes (taken from PPW [3]).



3.2. What is placemaking?

According to PPW:

“Placemaking” is a holistic approach to the planning and design of development and spaces, focused on positive outcomes. It draws upon an area’s potential to create high quality development and public spaces that promote people’s prosperity, health, happiness, and well-being in the widest sense.

Placemaking considers the context, function and relationships between a development site and its wider surroundings. This will be true for major developments creating new places as well as small developments created within a wider place.

Placemaking should not add additional cost to a development, but will require smart, multi-dimensional and innovative thinking to implement and should be considered at the earliest possible stage. Placemaking adds social, economic, environmental and cultural value to development proposals resulting in benefits which go beyond a physical development boundary and embed wider resilience into planning decisions.

3.3. Post-Covid-19 planning policy in Wales

On 16 July 2020, the Welsh Government published a planning policy position statement on placemaking and the Covid-19 recovery [4]. It confirmed that Covid-19 had not changed the Welsh Government’s policy direction towards better places and placemaking. Rather, the pandemic crisis highlighted the need for good quality places for people to live, work and relax in. It further emphasised the importance of the quality of our living and working environments and how much more they matter as we require more flexibility to support new working, living and learning needs. Whilst there is undoubtedly a need for economic recovery, which the planning system should facilitate, this should not be at the expense of quality, both in terms of health and well-being and in response to the climate and nature emergencies. If we forego our policy commitment to quality, we risk repeating previous errors in allowing development on unsustainable sites in areas which did not have the infrastructure or connections to enable us to live active, healthy lives and promote better well-being in every sense.

The development industry has its part to play in improving the design and quality of schemes being presented to the planning system. Asking ourselves, “Could I live my whole life here? Will this place meet my needs and that of future generations?” is a good first test. This is then followed by meaningful engagement with communities and the local planning authority on the design of a scheme. Finally, a commitment to following through on infrastructure obligations will go a long way in ensuring that the developments envisioned are delivered and the wider public benefits are maximised.

The Welsh Government’s July 2020 planning policy position statement called on local planning authorities to be bold in their visions for the future which they set out in their local development plans. It said that plans should not roll forward unsustainable spatial strategies or be identical to neighbouring authorities’ plans, rather they should actively embrace the placemaking agenda set out in PPW. Each plan should be unique to an area, identifying its character, strengths and areas which need improving, and set out policies which improve these.

The 2020 planning policy position statement also reiterated the Welsh Government’s ongoing commitment, previously made in both its Noise and Soundscape Action Plan and its Clean Air Plan, to completely revise the existing but outdated Technical Advice Note (TAN) 11: Noise (1997), in order to deliver the policy now contained in PPW on air quality, noise and soundscape [5].



4. SOUNDSCAPE DESIGN

In drafting new guidance for planning authorities and developers, to potentially replace the old TAN 11: Noise (1997), Welsh Government officials saw a case for the new TAN 11 to be accompanied by a supporting document focusing particularly on *soundscape design*. Such a document has now been prepared in consultation draft form, working in partnership with the Noise Abatement Society.

Noise practitioners in the UK will be familiar with the concept of *good acoustic design*, promoted by the Association of Noise Consultants, Institute of Acoustics and Chartered Institute of Environmental Health in their Professional Practice Guidance on Planning & Noise [6] (“ProPG”). Good acoustic design is achieved by assessing the noise risk associated with a proposed development at an early stage, and then preparing an Acoustic Design Statement proportionate to both the scale of the development and the degree of noise risk at the proposed development site. The overall aim of good acoustic design for residential development is to protect people from the harmful effects of noise.

Protecting people from the harmful effects of noise is a necessary but not a sufficient condition for achieving an appropriate soundscape. We need to consider the sounds people might wish to hear in a given time and place, as well as the sounds people won’t want to hear. Sometimes, design measures intended to protect people from noise also deprive them of other sounds that provide a useful or pleasing connection with the wider world. Involving the local community early on in the design process is essential in any situation where the determination of what constitutes an appropriate soundscape is likely to be affected by the local context, and so requires local knowledge.

Acoustic design is an approach to design relating to the acoustic (i.e. sound) environment, the principal technical objective of which is to protect people from the unwanted and/or harmful effects of noise. The proposed Welsh Government guidance, which is intended to replace the old TAN 11, takes a progressive step by defining soundscape design. It defines soundscape design as a participatory, people-focused approach to design concerning both the acoustic environment and any physical or non-physical non-acoustic factors that may affect how people perceive and/or experience sound in a specific context.

The extent to which a soundscape design approach is applicable to a particular development will depend on the extent to which the development offers opportunities for innovative, creative, participatory design. This will be determined by the scale, nature and context of a proposed development. When a soundscape design approach is required, it will be because it offers an opportunity for achieving better placemaking as part of a holistic approach to design, and it is considered the approach most likely to achieve an appropriate soundscape and contribute positively to a more sustainable outcome for future generations.

Where ProPG advocates an Acoustic Design Statement (ADS) proportionate to the noise risk, the draft Welsh Government guidance suggests rather a Noise and Soundscape Design Statement (NSDS). The NSDS would have similar content to an ADS when it comes to noise control, but would also include a soundscape design element, whenever and to the extent to which a soundscape design approach involving community participation may be expected to result in better placemaking.

Figure 2 shows a possible framework for determining which approach to take when drawing up an NSDS for a proposed development, with noise risk on the vertical axis and opportunity/potential for better placemaking through soundscape design on the horizontal. In situations where the potential for better placemaking through soundscape design is low, this two-dimensional NSDS framework essentially collapses to the familiar one-dimensional framework for good acoustic design proportionate to noise risk. But as the potential for better placemaking through community participation increases, the case for using the kind of soundscape assessment techniques described in international and British soundscape standards, to inform design, also increases.



Unacceptable noise risk	Do not proceed with development.		
High noise risk	Achieve good acoustic quality through good acoustic design. NSDS to be at least equivalent to a Stage 2 ProPG ADS for medium and high risk developments (if residential development being proposed).	Achieve good acoustic quality through good acoustic design. Where practicable, use a soundscape design approach to deliver enhanced outcomes. NSDS to include content at least equivalent to a Stage 2 ProPG ADS for medium and high risk developments (if residential development being proposed) and evidence that opportunities for good soundscape design have been taken where practicable.	Achieve good acoustic quality and a better soundscape through good acoustic and soundscape design . NSDS to include content at least equivalent to a Stage 2 ProPG ADS for medium and high risk developments (if residential development being proposed) and a soundscape assessment and evidence of good soundscape design.
Medium noise risk			
Low noise risk	Ensure good acoustic quality through good acoustic design. NSDS to be at least equivalent to a Stage 2 ProPG ADS for low risk developments (if residential development being proposed).	Ensure good acoustic quality through good acoustic design. Where practicable, use a soundscape design approach to deliver enhanced outcomes. NSDS to include content at least equivalent to a Stage 2 ProPG ADS for low risk developments (if residential development being proposed) and evidence that opportunities for good soundscape design have been taken where practicable.	Ensure good acoustic quality and a better soundscape primarily through good soundscape design . NSDS to contain a soundscape assessment and evidence of good soundscape design and any elements of a Stage 2 ProPG ADS considered necessary in addition to ensure good acoustic quality (if residential development being proposed).
Negligible noise risk	No NSDS required.		Achieve a better soundscape through good soundscape design . NSDS to contain a soundscape assessment and evidence of good soundscape design.
	Low potential for better placemaking through soundscape design	Medium potential for better placemaking through soundscape design	High potential for better placemaking through soundscape design

Figure 2: A framework for determining the contents of a Noise and Soundscape Design Statement.



5. NEXT STEPS

The Welsh Government will carefully consider all feedback received regarding the proposed new draft TAN 11 and its supporting document on soundscape design, before deciding what new guidance to adopt in place of the existing TAN 11: Noise (1997).

As highlighted in the United Nations Environment Programme's recent 'Frontiers 2022' report [7], while it is necessary to reduce noise levels where they cause harm, such an approach may no longer be considered sufficient, and it is becoming increasingly relevant to consider also the soundscapes that contribute to people's well-being. In accordance with this principle, a joined-up noise and soundscape policy may be expected to continue to feature in Wales' evolving environmental and planning policy landscape.

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