

NOISE POLICY IN WALES

MJ McVay Environment and Communities Division, Welsh Government
J Smith Planning Directorate, Welsh Government

1 INTRODUCTION

Noise policy in Wales now sits, not in a vacuum, but within the cross-cutting policy framework set by the Well-being of Future Generations (Wales) Act 2015 ("the WFG Act")¹. New statutory policy guidance requires local authorities in Wales to seek to improve soundscapes when undertaking local air quality management; new regulations require public services boards to take into account the strategic noise maps produced under the Environmental Noise (Wales) Regulations 2006 when preparing assessments of local well-being; and the noise and soundscape content of national planning policy has been redrafted within the context of the WFG Act. The new noise action plan for Wales, due in 2018, will be firmly aligned with WFG principles.

2 THE WELL-BEING OF FUTURE GENERATIONS ACT

2.1 What we mean by sustainable development

The WFG Act 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 seven national well-being goals (a prosperous Wales, a resilient Wales, a healthier Wales, a more equal Wales, a Wales of cohesive communities, a Wales of vibrant culture and thriving Welsh language, a globally responsible Wales). Specifically, public bodies in Wales must act 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.

Each public body must set and publish objectives designed to maximise its contribution to achieving the well-being goals, and must take all reasonable steps to meet those objectives.

The Future Generations Commissioner for Wales' role is to act as a guardian for the interests of future generations in Wales, and to support the public bodies listed in the WFG Act in working towards achieving the well-being goals.

2.2 Assessments of local well-being

The WFG Act puts on a statutory footing public services boards made up of local authorities, local health boards, fire and rescue services and Natural Resources Wales. Each public services board must improve the economic, social, environmental and cultural well-being of its area by contributing to the achievement of the national well-being goals. Each public services board must carry out an assessment of local well-being. It must then set well-being objectives and implement a local well-being plan. Like the individual public bodies listed in the WFG Act, each public services board must publish an annual report on the progress made towards meeting its well-being objectives.

The Well-being of Future Generations (Wales) Act 2015 (Assessments of Local Well-being) Regulations 2017 require public services boards to take into account the most recent strategic noise maps made under the Environmental Noise (Wales) Regulations 2006 and adopted by the Welsh Ministers when they carry out their assessments of local well-being.

3 INTEGRATING NOISE AND AIR QUALITY POLICY

3.1 Review of local air quality and noise management in Wales

From September to December 2016 the Welsh Government carried out a wide-ranging public consultation on ways to improve local air quality and noise management in Wales. On 15 June 2017, Clean Air Day, the Welsh Government issued new statutory policy guidance² under section 88 of the Environment Act 1995, implementing many of the consultation's proposals. Local authorities in Wales must now have regard to this guidance when carrying out their local air quality management functions under Part IV of the 1995 Act insofar as it relates to those functions.

3.2 What the policy guidance says about noise

Airborne environmental noise pollution, meaning unwanted or harmful sound from transport and industry, 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. The levels of both air and noise pollution 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.

Whenever developing local air quality action plans or wider policies with a view to improving air quality, local authorities should ask themselves the following questions:

- Are there existing environmental noise pollution issues associated with the known air quality issues? If so, can we address them at the same time?

- Is there a risk of some of our proposed air quality actions making the environmental noise pollution situation worse? If so, how can we mitigate this risk?

The purpose of local 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.

3.3 What the policy guidance says about green infrastructure

Green infrastructure refers to natural or semi-natural areas partially or completely covered by vegetation or water in or near built-up areas. It includes parks and gardens, woodlands, allotments, nature reserves, ponds, lakes, rivers, canals, wetlands and off-road paths bordered by vegetation or water, which provide habitat for wildlife and can be used for recreation, education or active travel.

Trees, hedgerows and green infrastructure more broadly can contribute to reducing the harmful effects of air and noise pollution in a number of ways:

- By removing pollution from the air and aiding its dispersion, and by absorbing, scattering and reducing the perception of noise.
- By putting a buffer distance between sources and receptors.
- By enabling off-road active travel and making it an attractive alternative to motor vehicle use, thereby reducing both the user's vehicular emissions and their personal exposure.
- By providing tranquil environments and positive soundscapes, which reduce the stress levels associated with busy roads.
- By encouraging sport and other outdoor recreation, improving people's overall state of health and thereby building their resilience to the health risks posed by air and noise pollution.

In addition, the presence of trees and hedgerows by the roadside or along a central reservation may have a calming effect, causing motorists to drive more smoothly.

The Welsh Government is prioritising the delivery of nature-based solutions to improve our social, ecological and economic resilience. Such solutions should be given due consideration in the development of any plan or strategy to address air and/or noise pollution at a local or regional level.

3.4 What the policy guidance says about annual air quality progress reports

Members of the public have a right to know not only the extent to which they are exposed to airborne pollution, but also whether the relevant public bodies are treating it as a priority. From 2018 onwards, in addition to reporting progress in relation to air quality management areas, each annual progress report should also state:

- whether air and/or environmental noise pollution are addressed in the local authorities' well-being objectives under the WFG Act, and if so, in what form, and what progress has been made in meeting those well-being objectives to date; and
- what policies, if any (e.g. relating to land use and transport planning, green infrastructure and active travel), local authorities have in place to reduce overall levels of nitrogen dioxide,

particulate matter and environmental noise pollution for the population as a whole, taking into consideration the Welsh air quality exposure indicators and national noise maps.

Each annual progress report should state whether and how air quality monitoring, the Welsh air quality exposure indicators and national noise maps have informed or will inform public services boards' assessments of local well-being.

3.5 What the policy guidance says about local air quality action plans

Any new or updated local air quality action plan from 2017 onwards should state how actions are being taken forward not solely with a view to achieving technical compliance with the national air quality objectives, but also with a view to maximising their contribution to reducing overall levels of nitrogen dioxide, particulate matter and environmental noise pollution for the population as a whole, so as to achieve the greatest public health benefit.

To be clear, the Welsh Government is not suggesting local authorities should be able to demonstrate reductions in air and noise pollution across their entire territory through measurement and attribute those reductions to local air quality action plans. They are, however, being asked to factor any potential benefits in terms of more widespread airborne pollution reduction into the selection and prioritisation of measures in their action plans. This way of thinking should come naturally over time as the ways of working set out in the WFG Act become more prevalent within local authorities. In working in accordance with the sustainable development principle, local authorities should, as a matter of course, be looking to exploit any opportunities for wider benefits arising from their activities, including the public health consequences of how they select and prioritise actions in their local air quality action plans. Narrative on these wider considerations should be included in action plans.

4 PLANNING POLICY IN WALES

4.1 A focus on placemaking

The role of placemaking as part of town and country planning is a key focus of the new consultation draft of Planning Policy Wales³, the Welsh Government's main planning policy document. Placemaking is a multi-faceted approach to the planning, design and management of spaces and is closely integrated with the wider objectives of the WFG Act. Planning Policy Wales requires those engaged in the planning system to think about places and well-being in a joined-up way rather than addressing single issues in isolation by taking a silo approach to policy development and decision-making. Overriding issues will always be given appropriate protection, but the new Planning Policy Wales should also set the basis for thinking and behaving differently as part of arriving at desired outcomes. A placemaking approach should have at its heart the intention of capitalising on a local community's assets, inspiration and potential, with the intention of creating development that promotes health, happiness and well-being.

Planning Policy Wales has been completely reworked to take account of the WFG Act. The seven well-being goals and five ways of working provide links throughout the document, in terms of both its structure and its content. The document is now based around four main themes which together promote placemaking and sustainable development. These themes are placemaking, active and social places, productive and enterprising places, and natural and distinctive places. The use of the four themes enables the common linkages between policy areas to be identified, but it does not coerce policy into the seven discrete areas of the well-being goals. It is a practical application of the goals which suits the purpose of the planning system, while still emphasising the need for all aspects of the goals to be considered at the same time and, where practical, in an integrated way.

Each theme contains information on how it links with the well-being goals, the long-term trends that each theme needs to address and an illustration of how joined-up policy formulation can contribute to the making of good, sustainable places. Within the text of the document, linkages to the five ways of working in the WFG Act are also identified.

Overall, the revised Planning Policy Wales has a strong focus on recognising, understanding and valuing the different characteristics of places as part of maximising the contribution of the system towards the well-being goals. This includes those characteristics relating to environmental quality as well as social, cultural and economic aspirations. The way places function can have an impact on the choices people make in their everyday lives, and therefore securing environmental improvements in the built environment, as well as addressing impacts, should be the aim. Good design is a fundamental part of this. Design is about the relationships between elements of the natural and built environment. Good design, as well as ensuring high environmental quality, should be an effective way of linking dwellings, workplaces and community facilities, ensuring the provision of accessible open space and enabling the sensitive management of risks, including exposure to airborne pollution.

Placemaking outcomes should reflect the importance of clean air and appropriate soundscapes alongside a raft of other integral qualities of places. For example, a new section in the draft specifically promotes healthier places, which will ensure that development plans and individual developments strive to achieve positive impacts on public health and well-being. The need to reduce pollution and address other environmental risks is key, at the same time as recognising the role that these environmental qualities play in promoting physical and mental well-being and creating areas of tranquillity in busy environments.

4.2 What the new planning policy says about air quality and soundscape

Air quality and soundscape are addressed as a key component of the natural and built environment, placing the issues on an equal footing with other objectives such as housing, transport and economic development. The revisions to Planning Policy Wales recognise the importance of air quality and appropriate soundscapes to the health and well-being of people and the environment. It is the expectation that the new Planning Policy Wales will ensure that long-term approaches are taken to prevent the creation of new, or worsening of existing, problems and seek to encourage integrated solutions which aim to reduce average levels of airborne pollution.

The draft recognises that the national air quality objectives are not 'safe' limits and the aim is not to tick boxes relative to these thresholds, though it is still the case that they will feature in decision-making. The draft introduces soundscapes into planning policy, recognising the positive role which they play in creating a sense of place, rather than solely focusing on noise as a form of pollution.

Notwithstanding the overall placemaking aims of Planning Policy Wales, the key means of conveying the specific issue of air quality and soundscape in the new draft is through a guiding framework, which is supplemented by more detailed considerations. The framework rests on a long-standing key policy, which is that all those participating in the planning process will need to consider the effects which proposed developments have on air or soundscape quality and the effects which existing air or soundscape quality may have on proposed development. It is then possible to filter down into more detailed considerations, ranging from the relationship between pollution sources and receptors, and identifying the choices available in existing problematic areas, to more generally seeking the incorporation of measures to reduce overall exposure to airborne pollution and the maintenance or creation of appropriate soundscapes. The detailed text flags issues such as the importance of incorporating green infrastructure into the built environment as well as utilising best practice in acoustic design.

The key difference in this draft of Planning Policy Wales is the parity given to these issues and the encouragement of behaviours which will need to be employed by all actors in the planning process

to drive the desired change. It will no longer be acceptable to 'park' these issues as technical matters to be addressed at the end of the process. They are factors which should affect initial policy choices when preparing development plans and, similarly, they must feature as considerations in the initial choice of location of development, where appropriate, and in the early design stages of developments and projects.

4.3 Making the 'agent of change' principle explicit

The agent of change principle is a common sense rather than a complex principle. It says that a business or person responsible for introducing a change is responsible for managing that change. It is claimed that it can result in better planning, better developments and greater encouragement for people to think about what exists where they want to live and how they will live with it. It also encourages businesses, such as music venues and others, to think more about their neighbours.

It became increasingly evident during the revision of Planning Policy Wales that in supporting the night-time economy there is a need to give particular consideration to the compatibility of different uses and competing agendas. Trying to sleep whilst coping with night-time noise is a very real issue and there are health and well-being considerations to take into account when promoting housing near sources of noise. Equally, the night-time economy is important in economic terms as well as providing for popular cultural experiences and entertainment, which feature highly as part of modern lifestyles. The right balance needs to be struck between providing homes, enabling visitor experiences, protecting venues which may have noise associated with them, for example live music venues or churches, and ensuring the health and well-being of local residents.

As a result, the draft Planning Policy Wales includes a clear and explicit reference to the agent of change principle as part of recognising different soundscapes and specifically requires the principle to be considered as part of all development plan and development management decisions concerning the compatibility of uses and soundscape. It also allows for the compatibility of uses relative to soundscape to be given specific attention when preparing development plans, including whether there is a need to identify areas of cultural significance or areas where soundscape consideration is particularly sensitive.

Making the principle explicit as a matter of policy in the new draft of Planning Policy Wales means that a developer would have to ensure that solutions to address noise from nearby pre-existing infrastructure or businesses can be found and implemented as part of ensuring that the development is acceptable. This is essentially what planning policies already amount to, but by explicitly making reference to the principle there are wider behavioural benefits to be gained in terms of improved planning practice and promoting a wider appreciation of the nature of places.

The different characteristics which give identity to places need to be recognised fully as part of plan preparation and in relation to decisions on planning applications, and appropriate solutions must be implemented. The changes in the new Planning Policy Wales are about redressing the balance, ensuring that all issues are given equal consideration and ensuring that air quality and noise issues are not relegated to being just a technical matter or an afterthought.

5 STRATEGIC NOISE MAPS AND ACTION PLANS

5.1 Noise mapping

In 2012 Extrium Ltd, under contract from the Welsh Government, produced strategic noise maps for major roads across Wales, for major railways across Wales, and for all roads, all railways and major industry in Wales' three largest urban agglomerations as required by the Environmental Noise

(Wales) Regulations 2006. A residential population model was also constructed in 2012 to estimate the numbers of people whose homes were exposed to noise above certain levels.

The population exposure statistics derived from the 2012 noise maps and the 2012 population model were published in the 2013 noise action plan for Wales.

In 2015 the Welsh Government carried out a review of its strategic noise maps⁴ to establish which of them required revision in 2017. In accordance with the conclusions of this review, new strategic noise maps were produced in 2017 for major roads across Wales and for major industry in Wales' three largest urban agglomerations, but not for major railways or for non-major roads and railways in agglomerations. An updated residential population model was also constructed in 2017.

The 2017 population model has been used in conjunction with the 2012 noise maps to estimate the increase in population exposure to environmental noise in Wales resulting from an increasing residential population, i.e. holding noise levels constant.

The 2017 population model has also been used in conjunction with the 2017 noise maps, calculated for major roads and agglomeration industry only, to estimate the overall change in population exposure to noise from these sources resulting from both an increasing residential population and a changing soundscape (e.g. following changes to road layouts, traffic flows and industrial activity).

The data sources and methods applied to generate the strategic noise maps and population exposure statistics are described in technical documents available to download from the Welsh Government website. The definitions of the noise sources mapped are, or will be, described in the corresponding noise action plans and may be viewed alongside the 2012 and 2017 noise maps.

It should be noted that changes made to the calculation environment between 2012 and 2017 have resulted in higher noise levels being calculated at receivers that are located less than 7.5 metres from a road traffic noise source. This unfortunately means that very close to the road the 2012 and 2017 noise maps are not directly comparable, and so part of the increase in the overall population exposure statistics from 2012 to 2017 (where 2017 noise levels are used) may be attributable to these software differences rather than to real world changes in noise exposure. This is particularly relevant for the higher noise bands, e.g. L_{den} 70-74 dB or > 75 dB.

The 2012 and 2017 noise maps may be viewed, and the data sets associated with them downloaded, at <http://lle.gov.wales/catalogue?t=1&lang=en>. An integrated airborne (air and noise) pollution map for Wales may be viewed at <http://lle.gov.wales/map/airbornepollution>.

The 2017 technical documents and all the tables of population exposure statistics may be found at <http://gov.wales/topics/environmentcountryside/epq/noiseandnuisance/environmentalnoise/noisemonitoringmapping/third-round-noise-mapping/?lang=en>.

It is expected that the 2012 and 2017 noise maps will feed into a range of programmes, including:

- prioritised noise mitigation works, such as noise barriers and resurfacing;
- the planning process;
- air quality, green infrastructure and transport plans and strategies;
- public services boards' assessments of local well-being under the WFG Act; and
- Natural Resources Wales' state of natural resources report and area statements under the Environment (Wales) Act 2016.

5.2 A noise action plan for Wales

In the 2013 round of noise action planning, the Welsh Government published a single, all-encompassing, noise action plan for Wales⁹, pulling together all aspects of noise regulation, including those, such as neighbour noise, not covered by the Environmental Noise (Wales) Regulations 2006. Local authorities and other public bodies with noise responsibilities contributed text so that the final plan was a product of collaboration rather than being imposed top-down by the Welsh Government.

The statutory requirement to review and, if necessary, revise our noise action plan in 2018 provides us with an opportunity to weave together the loose patchwork of noise regulation described in the 2013 plan into a more coherent whole, using the needle and thread provided by the WFG Act and the pattern set by the key pieces of work already underway which we have discussed in this paper.

6 REFERENCES

1. Welsh Government, Well-being of Future Generations (Wales) Act 2015 – The Essentials. (2015). <http://gov.wales/docs/dsjlg/publications/150623-guide-to-the-fg-act-en.pdf>
2. Welsh Government, Local air quality management in Wales – Policy guidance. (June 2017). <http://gov.wales/docs/desh/publications/170614-policy-guidance-en.pdf>
3. Welsh Government, Consultation on Planning Policy Wales: Edition 10. (February 2018). <https://beta.gov.wales/planning-policy-wales-edition-10>
4. Welsh Government, Review of strategic noise maps in Wales. (October 2015). <http://gov.wales/docs/desh/publications/151026-review-of-strategic-noise-maps-in-wales-en.pdf>
5. Welsh Government, A noise action plan for Wales 2013-2018. (December 2013). <http://gov.wales/docs/desh/publications/131217noise-action-plan-for-wales-en.pdf>