Review of the Environment Protection (Noise) Policy 2007

Consultation summary report

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Abbreviations

AS	Standard (published documents from Standards Australia)
AS 1055–1997	*Acoustics – Description and measurement of environmental noise*
dB(A)	decibels (using the 'A' weighting network of a sound level)
EPA	South Australian Environment Protection Authority
EP Act	*Environment Protection Act 1993*
EPP	environment protection policy
GED	general environmental duty
INL	indicative noise level
LGA	Local Government Association
LNLC Act	*Local Nuisance and Litter Control Act 2016*
Noise Guidelines	*Guidelines for the use of the Environment Protection (Noise) Policy 2007*
Noise Policy	*Environment Protection (Noise) Policy 2007*
PDI Act	*Planning Development and Infrastructure Act 2016*
SAPOL	South Australia Police
WHO	World Health Organization

Executive summary

The *Environment Protection (Noise) Policy 2007* (Noise Policy) provides a legal framework for the assessment of a wide range of noise sources in South Australia, including domestic and non-domestic noise. The Environment Protection Authority (EPA) shares responsibility for regulating noise impacts with some other state government agencies (eg Department of Transport and Infrastructure, South Australian Police (SAPOL) and Attorney-General's Department) and local councils.

The commencement of the *Local Nuisance and Litter Control Act 2016* (LNLC Act) and the *Planning, Development and Infrastructure Act 2016* (PDI Act) has led to institutional, policy and regulatory changes to noise management in recent years. This review of the Noise Policy was prompted by such legislative changes and a recognition that the current policy has been in operation without undergoing any changes for 15 years.

Following on from initial targeted consultation in 2017, a discussion paper was released by the EPA in May 2020 as a basis for engaging with the South Australian community and industry on opportunities to improve the Noise Policy. Consultation ran for 10 weeks and finished on 17 July 2020. Thirty-two submissions were received and are summarised in this summary report (a full list of submitters can be found at Appendix 1). The report responds to the submissions received and makes recommendations for inclusion in a new noise policy.

Summary of the recommendations is provided below.

Title change

- Change title from 'Environment Protection (Noise) Policy' to 'Environment Protection (Commercial and Industrial Noise) Policy 2022'. The revised Noise Policy will no longer include 'domestic noise' as this is now dealt with under the LNLC Act.

Clarifications

- Replace the Noise Policy term 'locality' with a similar term to avoid confusion with the PDI Act definition of 'locality'.
- Further clarity to the assessment of noise by adding a new definition for 'intermittency' as an annoying noise characteristic.
- Change reference of 'administering authority' to administering agency' to correct an existing error (referencing section 18 of the EP Act).
- Clarify that the 'Authority' will determine the relevant land use. This will provide greater procedural guidance.

Align policy with the Planning and Design Code

- Provide updated provisions to replace the term 'Development Plan' with 'Planning and Design Code' and provide general updates to reflect changes between the *Development Act 1993* (repealed) that is referenced in the current policy and the PDI Act.

Avoid duplication with other related legislation

- Remove Part 6 of the Noise Policy to avoid duplication with the LNLC Act. Part 6 outlines special noise control provisions for construction noise, domestic noise, rubbish collection, building intruder alarm systems and frost fans which are now regulated under the LNLC Act.
- Remove the term 'mandatory provisions' which is no longer part of this policy due to the removal of Part 6.
- Remove reference to *Audible bird scaring devices - Environmental noise guidelines 2007* from the Noise Policy which is now regulated by the LNLC Act and council bylaws.

Ensure best practice by referencing current standards

- To ensure best practice, replace existing standards in clause 11(1) with reference ‘AS/NZS IEC 61672.1:2019: Electroacoustics – Sound level meters specifications’ and replace clause 5(8)(a) standard with ‘AS2107:2016 Acoustics – Recommended design sound level & reverberation times for building interiors’.
- Update wording to correct current reference to superseded ‘Wind farms environmental noise guidelines’.

Clarify the list of noise sources excluded from the Noise Policy under Schedule 1

- Change the wording of ‘emergency vehicle sirens’ to ‘emergency warning alarms/devices’ as this will broaden the definition to clarify noise from emergency alarms are not considered under the Noise Policy as they are regulated under the general environment duty (GED) in the EP Act.
- Remove reference to noise sources that are not suitable to be measured under the Noise Policy (eg helicopter landing facilities) by removing the wording ‘as described in clause 8 of Schedule 1 of the Act’ from Schedule 1(7). This provides clarity that Schedule 1(7) noise sources are considered under the GED.
- Split Schedule 1(3) ‘aircraft or railway noise’ into two separate dot points under Schedule 1 to provide clarity.
- Change the wording of Schedule 1(1) to include both domestic and commercial premises for clarity.

1 Background

Prior to the introduction of the *Environment Protection Act 1993* (EP Act), noise in South Australia was regulated by the *Noise Control Act 1977*. With the introduction of the EP Act in 1995, this earlier Act was revoked and replaced with two separate regulatory policies:

- *Environment Protection (Machine Noise) Policy 1994*
- *Environment Protection (Industrial Noise) Policy 1994*.

By the late 1990s work commenced on replacing the two existing policies with one designed to balance the competing interests of those whose legitimate activities inherently caused noise, with the interests of and impacts on, people exposed to noise.

The current *Environment Protection (Noise) Policy 2007* (Noise Policy) took effect in 2008.

An environment protection policy (EPP) is one of a number of legislative tools available under the EP Act to address environment protection matters. An EPP can be made for any purpose directed towards securing the objects of the EP Act. This may include setting out requirements or mandatory provisions that are enforceable.

An EPP:

- has the force of a standard imposed by Parliament
- may impose mandatory provisions with penalties
- may be developed for a specific environmental issue (eg. waste, water, air, noise).

The Noise Policy has been in place for 15 years and suggestions to improve its operation have been raised over time, including as a result of its interaction with the *Local Nuisance and Litter Control Act 2016* and the *Planning, Development and Infrastructure Act 2016*.

2 Introduction

2.1 Harm resulting from noise

Noise is a significant issue identified by the World Health Organization (WHO). Excessive noise can interfere with daily activities at work, home, school and during leisure time. Furthermore, noise can cause significant sleep disturbance. As a result, excessive noise has the ability to seriously harm human health[1].

Short- and long-term health problems as a result of noise can include:

- sleep disturbance
- mental illness
- cardiovascular effects (eg startle and defence reaction leading to potential increase in blood pressure)
- psycho-physiological effects (eg headaches, fatigue, irritability)
- poorer work and school performance
- hearing impairment (eg noise-induced hearing loss, aural pain, ear discomfort, tinnitus)
- annoyance (eg feeling of displeasure, with tolerances varying enormously, and noise impulses more annoying than a steady noise)
- interference with speech communication (eg reduction in intelligibility of conversation, radio, music, television etc)[2].

There are some groups that are more vulnerable to noise than others. Chronically ill and elderly people are more sensitive to sleep disturbance. Children can be disproportionately affected by noise. Early childhood development and education can be impaired by noise, resulting in lifelong effects on academic achievement and health. Shift workers, due to their sleep pattern being under stress, are also especially vulnerable. People of lower socio-economic status are often less able to live in quiet residential areas and have less capacity to insulate homes. Noise nuisance at night can cause financial stress due to increased medical visits and drug purchases[3].

The intent of the Noise Policy is to strike a balance between the interests of those whose legitimate activities cause noise, and the interests of those who are exposed to, and affected by, noise. It also seeks to provide clarity and consistency in environmental noise regulation.

The Noise Policy considers social, economic and environmental matters in the management of noise issues. It achieves this by:

- ensuring protection against noise is in accordance with WHO guidance
- ensuring the issues that must be considered to inform decisions are clearly articulated
- providing for special or unique activities that are not adequately represented by general noise provisions
- providing planning authorities with the framework for applying environmental standards
- providing a regulatory tool that reduces ambiguity for enforcement authorities, leading to an equitable approach for regulating noise, and
- responding to new and emerging noise issues through a streamlined policy amendment process.

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1 World Health Organization 1999, *Guidelines for Community Noise*, https://apps.who.int/iris/handle/10665/66217

2 World Health Organization 1999, *Guidelines for Community Noise*, https://apps.who.int/iris/handle/10665/66217

3 World Health Organization Regional Office for Europe 2019, Data and statistics, http://www.euro.who.int/en/health-topics/environment-and-health/noise/data-and-statistics

The Noise Policy was developed to address noise produced from both domestic and non-domestic sources such as:

- air-conditioning units, pool pumps, power tools and lawn mowers
- burglar alarms
- premises associated with primary industry processing such as wineries, abattoirs, dairies and seed processing
- light industry premises such as motor vehicle repair shops
- commercial premises such as shopping centres
- industrial premises such as manufacturing and processing facilities.

2.2 Interaction between the Noise Policy and other legislation

The Noise Policy is proactive in seeking to minimise noise impacts through connections with the planning system to assess the suitability of certain types of development proposals and the need for any associated attenuation measures, in a noise context.

The Noise Policy is also used to regulate EPA licensed activities that have the potential to cause significant or widespread impact on the environment. In such cases, regulatory obligations determined under the Noise Policy are applied through licence conditions. This adds considerable regulatory weight to the policy. There are some limited circumstances where other regulatory agencies (eg Department for Energy and Mining) will utilise the Noise Policy in their work despite certain activities they regulate not being licensed by the EPA.

In 2016, two significant legislative changes occurred that triggered the need to review the Noise Policy:

1 *Local Nuisance and Litter Control Act 2016* (LNLC Act) gave local government principal responsibility for the management of local nuisance issues, including noise nuisance from sources not licensed by the EPA. This has impacted the way in which the Noise Policy operates and on how nuisance noise is managed in South Australia.

2 *Planning Development and Infrastructure Act 2016* (PDI Act), which has included the preparation of a single electronic Planning and Design Code to replace 72 development plans that applied under the *Development Act 1993*, was fully operational across the South Australia during 2021. Some development plans referred to the Noise Policy through the general development policies section and simply stated that development that generates noise, other than music noise, should comply with the Noise Policy. Similar general policies relevant to noise will now reside in the Planning and Design Code.

The EPA provides support to councils and other agencies for the assessment of noise when needed. It also sets policies and guidelines for industry and the community, and works closely with other organisations such as local councils and police to respond to community concerns about noise.

2.3 Consultation to date

In accordance with principles of early engagement, the EPA conducted an initial consultation with key stakeholders in March 2017. This first stage of the review consisted of targeted engagement with 65 stakeholders to assist with framing the scope of the review. The stakeholders were selected from the following list:

- peak bodies and associations
- major mining companies
- SA and Commonwealth government agencies
- prescribed bodies identified in Regulation 9 (normal procedure for making policies) of the *Environment Protection Regulations 2009*

A total of 18 written submissions were received, the content of which was used to inform the Noise Policy discussion paper which was released in May 2020. It included topics for discussion raised during the 2017 initial consultation as well as issues needing consideration in response to the introduction of the LNLC Act and PDI Act.

Consultation on the discussion paper ran for 10 weeks from May to July 2020. Thirty-two submissions were received and a full list of submitters is contained in Appendix 1. The feedback from the consultation is summarised in this consultation summary report and, together with the accompanying EPA response and recommendations, will inform the development of a revised draft noise policy which will, in turn, be prepared and released at a later date for consultation.

3 Consultation feedback

3.1 Definitions

Clause 3 of the Noise Policy – Interpretation – provides definitions for important terms used.

3.1.1 Locality

The definition of 'locality' in clause 3 is used to determine a 'land use category' from the tables in clause 5(9) of the Noise Policy and is relatively broad. The term 'locality' is also used by planning authorities but has a different definition which is causing confusion when the Noise Policy is being applied within the state planning system. This was raised in the initial consultation in 2017.

The initial consultation suggested that a new term for 'locality' should be developed, or in the event that the EPA seeks consistency with the use of the term under the PDI Act, a new definition be considered. For example, a definition of 'locality' could be 'a small area surrounding a development site, generally bound by physical or visually linked landscape features'. Another alternative could be to amend the definition to reflect the terms 'zone' or 'sub-zone' as used in the PDI Act.

The definition of 'locality' in the Noise Policy was designed to deliberately differentiate it from the term 'locality' used within the planning system as the concept of locality within the Noise Policy is used to determine the relevant noise goal applying to noise sources and noise sensitive receivers in different development plan zones. The term 'locality' which is referenced in the PDI Act and used frequently in Planning and Design Code relates to a range of planning considerations including public amenity, building character, scale, height, bulk, density, use, streetscape, lighting and general noise levels.

Discussion question 1

Is there justification for amending the term 'locality' in the Noise Policy and how it is defined? If so, what is the preferred option and the expected risks and opportunities?

Consultation feedback summary

The majority of feedback from the consultation indicated a preference for amending the term 'locality' in the Noise Policy. A few submissions pointed out that the term 'locality' is used in the PDI Act and has strong links to the new Planning and Design Code, and this justified amending the definition of 'locality' in the Noise Policy. Most of those who advocated for a definition change had a preference for alignment with the new planning system.

One suggestion was to change the term 'locality' to 'designated area/zone' while maintaining the current definition, while others suggested use of terms in the state planning system such as 'zone' and 'sub-zone'. Justification for changing the definition/ term to align with the state planning system included increased clarity for land-owners around zoning and acceptable noise levels, decreasing confusion for development approval applicants, increasing ease of use and creating consistent terminology across all legislation within South Australia. It was further suggested that consideration be given to assigning a prescribed radius for adjacent land when defining 'locality' and a more generous radius for allotment boundaries at rural sites.

One submission advocated that the term 'locality' be defined independently of the planning system as many noise assessments occur during operational phase, and Development Plan noise criteria can change over the operating life of a site. A further submission made the point that the definition of 'locality' is problematic in terms of the interface between zones that typically create noise issues.

Response to feedback

In the Noise Policy the term 'locality' applies to the land use principally promoted in a zone. Zones are used to set indicative noise levels (INLs) based on the desired amenity level for a defined area. The process of working towards a desired amenity level is a principle of the Noise Policy as it applies to development assessment. The policy already contains a process to account for the interface between localities by balancing INLs, and has the flexibility to re-interpret localities to take into account future development plan changes.

The PDI Act definition of 'locality' links with the definition of 'amenity', which is a broad term capturing multiple factors beyond noise. 'Amenity' with regard a locality or building means any quality, condition or factor that makes, or contributes to making, the locality or building harmonious, pleasant or enjoyable, and 'locality' takes on its common meaning and is further defined as including a road, street or thoroughfare.

Amending the definition of 'locality' to reflect the terms 'zone' or 'sub-zone' as in the PDI Act will ensure consistency with the use of the term under the PDI Act and thus provide greater clarity. The terms 'zone' or 'sub-zone' under the new planning system will accurately reflect the previous definition of 'locality'.

It was suggested that consideration be given to assigning a prescribed radius for adjacent land and a more generous radius for allotment boundaries at rural sites. Radius is not used in the Noise Policy however because it does not give consideration to other relevant factors in determining a relevant 'locality'.

Recommendation

It is recommended the term 'locality' in the Noise Policy be replaced with a similar definition which differentiates this term from 'locality' used in the Planning and Design Code.

3.1.2 Public Infrastructure

Feedback received during scoping of the review suggested the term 'public infrastructure' needs clarification where it is used in clause 22 to describe construction activities to which the Noise Policy does not apply. The question arose as to whether the construction of hospitals and mobile phone towers are considered to be public infrastructure.

The exclusion of road, railway and other public infrastructure construction from the day and time restrictions that apply to other types of construction activities that cause noise is designed to ensure construction of such infrastructure is done as quickly as possible to minimise disruption of infrastructure services. For example, road construction may severely impact the use of road networks, It is not intended to allow for construction activities that do not create immediate impacts on users of the infrastructure to get a 'free pass' to undertake construction day and night. . For example, construction of a new hospital will take many months or years, so there is no defining benefit for allowing unfettered construction noise. In such circumstances, an exemption may be a better approach to ensure nuisance impacts are limited and complaints are managed appropriately.

One option would be to amend the Noise Policy to include a definition of 'public infrastructure' which has the same meaning as 'essential infrastructure' in the PDI Act, the definition of which includes hospitals and mobile phone towers (cited as communications networks and health facilities). This would ensure consistency across state legislation and coincide with the updated state planning system being introduced. However, as above, it may need to be further clarified that the exclusion is limited to activities impacting existing services.

Another option would be to insert a new definition for public infrastructure that clarifies when the Noise Policy does or does not apply, as discussed earlier.

Discussion question 2

In the event that the construction element of Part 6 of the Noise Policy is retained, is there justification for amending the definition of 'public infrastructure' to be consistent with the meaning of 'essential infrastructure' in the PDI Act, or should its scope be clarified through a new definition?

Discussion question 21 considers the removal of Part 6 (Special noise control provisions) of the Noise Policy to avoid duplication with identical elements within the LNLC Act. If the construction element of Part 6 is removed then a definition for public infrastructure will not be necessary.

Consultation feedback summary

The majority of submissions supported amending the definition of 'public infrastructure' to be consistent with the meaning of 'essential infrastructure' in the PDI Act. Reasons given were that it would increase consistency, improve clarity, and create better alignment between legislation. It was also suggested that most work on public infrastructure is done after-hours and cannot comply with the Noise Policy. It was argued however that the definition of 'essential infrastructure' in the PDI Act is very broad and should be refined. It was suggested that hospitals, water and sewerage infrastructure, waste and resource recovery facilities, and mobile phone towers should be classified as essential infrastructure. It is possible that this feedback was more directed towards the PDI Act than the Noise Policy.

Other comments recommended that construction of public infrastructure should not be exempt from the Noise Policy unless there is another mechanism to manage construction noise impacts, and that construction of public infrastructure should not be confused with emergency repairs which should be exempt.

Response to feedback

The EPA is only responsible for construction noise at EPA licensed sites. There appears to be little advantage in retaining the construction noise provisions given alternative regulatory methods such as conditions of licence can be used. To ensure consistency of regulation, EPA licence conditions will mimic requirements within the LNLC Act.

Recommendation

Discussion question 21 considers the removal of Part 6 (Special noise control provisions) of the Noise Policy to avoid duplication with identical elements within the LNLC Act. Part 6 is proposed to be removed, and a definition for 'public infrastructure' will not be necessary.

3.1.3 Intermittency

Noise intermittency can increase the nuisance caused by noise when compared to a steady noise. Some Australian states have intermittency included as a noise character that attracts a penalty based on specified characteristics (ie modulating, tonal, etc). If a noise source contains one or more characteristics, then a 'noise penalty' in the form of decibels [dB(A)] is added to the noise source level to better reflect the annoyance of the noise when assessing against noise standards. In NSW, for example, a penalty is only applied if the intermittency occurs at night, as it is not considered as offensive during other time periods.

The current Noise Policy does not apply a penalty for intermittent noise and in order to do that, intermittency can be added to the definition of 'characteristic' as follows:

> **Characteristic,** in relation to noise from a noise source, means a tonal, impulsive, low frequency, **intermittent,** or modulating characteristic of the noise that is determined by the Authority or another administering agency, in accordance with the *Guidelines for the use of the Environment Protection (Noise) Policy 2007* published by the Authority as in force from time to time, to be fundamental to the nature and impact of the noise;

If the definition of 'characteristic' is amended to include intermittent noise, it would be beneficial to include a new definition for 'intermittency' in the Noise Policy, for example as defined in NSW *Noise Policy for Industry*[4]:

> Intermittency: noise where the level suddenly drops/increases several times during the assessment period, with a noticeable change in source noise level of at least 5 dB(A); for example, equipment cycling on and off. The intermittency correction is not intended to be applied to changes in noise level due to meteorology.

Discussion question 3

Is there justification for amending the definition of 'characteristic' to include intermittency and including a definition for 'intermittency'? What are the expected risks and opportunities?

Consultation feedback summary

Many of the submissions supported amending the definition of characteristic to include intermittency. It was noted that intermittent noise can cause greater nuisance, noticeability and disturbance than constant noise. It was further noted that inclusion of intermittency would better align with other jurisdictions, and that the lack of guidance around proper consideration of intermittent noise is an issue. The NSW Industrial Noise Policy and EPA Victoria were cited as examples of assessing intermittency that could be adopted in South Australia.

It was suggested that if a penalty for intermittency is established, clarity regarding its application alongside the 'amplitude modulation' penalty should be provided, or alternatively the definition of modulation should be amended to ensure that it specifically includes intermittent noise. It was further suggested that if a penalty for intermittency is established, then guidelines regarding measurement of intermittency be established and different penalties for evening and night timeframes be considered.

Other submissions disagreed with amending the definition of 'characteristic' to include intermittency and cited various reasons, including the difficulty of applying character penalties (especially in the planning stage) for non-acoustic professionals. There was also concern that it may impose further barriers in emergency or disaster responses.

Response to feedback

Intermittency is generally recognised as a characteristic of noise that affects the level of disturbance or annoyance but is not adequately reflected in the measurement of noise levels.

The Noise Policy does not impact on emergency or disaster response and is sufficiently flexible to ensure that it will not be applied inappropriately. The complexity of applying character penalties for a lay person is acknowledged. However, the Noise Policy is intended to be implemented by acoustic professionals.

Recommendations

- 'Intermittency' is added to the Noise Policy as an annoying noise characteristic and that a definition for intermittency is developed
- The provision that relates to 1, 2, or 3 character penalties [maximum of 10db(A)] be retained, as no greater than 10dB(A) should be added to any measured or predicted noise level even if more than three characters are found to dominate a noise event.

3.1.4 Vibration

The definition of noise in the EP Act includes vibration. To assist with compliance and planning issues the EPA proposed as part of initial consultation that a new clause (and definition) be added to the Noise Policy relating to 'vibration' to quantify what are acceptable levels of vibration.

[4] https://www.epa.nsw.gov.au/your-environment/noise/industrial-noise/noise-policy-for-industry-(2017)

Vibration can be a complex issue and a number of options have been proposed with regard to how it might be managed, including via a standard or guideline.

The NSW guideline covers vibration sources such as construction and excavation equipment, rail and road traffic, and industrial machinery as well as the low-frequency, airborne pressure waves emitted by some heavy vehicles, aircraft and machinery which can also cause vibration in buildings.

Discussion question 4

Is there justification to regulate vibration, and if so, should it be given effect via the Noise Policy or through the general environmental duty in section 25 of the EP Act? What are the expected risks and opportunities?

Consultation feedback summary

The majority of submitters did not support regulating vibration within the Noise Policy. The concern raised was there is limited regulation relating to vibration impacts for construction sites, which can create ambiguity when planning construction projects and mitigation measures near existing established structures. It was suggested that if vibration was retained then a clear assessment criteria in the Noise Policy would help address the complexity of the issue.

The submitters who did support the regulation of vibration noted that just including it in the general environmental duty (GED) of the EP Act would not provide adequate guidance. It was also suggested that guidelines around vibration be developed specific to different vibration sources and construction should be considered separately to permanent vibration sources. The NSW *Assessing Vibration, a Technical Guideline*[5] was cited as a useful example.

It was noted that regulating vibration may increase the complexity of noise measurements and would be a potential barrier to economic growth. Some submissions stated that vibration sensitivity may differ between commercial or industrial premises and the current structure of the policy will not account for these discrepancies.

It was noted that vibration is already regulated under other legislation and there was a risk of duplication. Some submissions suggested that vibration levels are usually low enough to not warrant regulation. One submission requested that mine blasting remain exempt from the Noise Policy. A further submission suggested confining regulation to the narrow areas where vibration has been demonstrated to cause issues.

Including a requirement for the use of dilapidation reports during development where vibration may be an issue for buildings on adjoining properties was also suggested. A best-endeavors approach based on what is reasonable and practicable, where consideration of vibration impacts is triggered at the planning phase, was favoured by some.

Response to feedback

Local councils and the EPA currently regulate vibration on a complaints basis using tools other than the Noise Policy. Vibration is a highly complex and technical issue that requires comprehensive specialist standards for regulation.

The inclusion of vibration standards in the Noise Policy is not considered necessary as there are widely accepted existing vibration standards. These include the British and German vibration standards, the NSW vibration guideline, as well as several specialised Australian standards. These standards can be considered and enforced as required by the EPA through the use of compliance tools (such as environment protection orders) under the EP Act.

Vibration is a unique subject that is assessed completely differently to noise and it is not possible to practically regulate through the Noise Policy. The use of dilapidation reports by the construction industry is a private risk management process which sits outside the jurisdiction of the EPA and should remain a private remedy to concerns about property damage resulting from construction-related vibration.

[5] https://www.environment.nsw.gov.au/resources/noise/vibrationguide0643.pdf

Recommendations

- There is no change to the Noise Policy regarding vibration.
- The *Guidelines for the use of the Environment Protection (Noise) Policy 2007* (Noise Guidelines) will be amended after the new noise policy is released to provide guidance on assessment of vibration outside of the policy.

3.2 Land uses and land use categories

Land use and land use categories are used to assist in determining the indicative noise level (INL) for a noise source or the relevant allowable noise level for noise-affected premises. There is significant crossover with planning legislation as the Noise Policy is referred to in the general Interface between Land Uses provisions of the Planning and Design Code as established under the PDI Act. It is important that such cross-referencing between the Noise Policy and the new planning system is maintained.

The following issues regarding land use were raised during initial 2017 consultation on a new Noise Policy as areas for further discussion.

3.2.1 Amend the land use category classification for forestry

It was proposed in initial consultation that a land use category with a higher INL be applied to the forestry industry, particularly during harvest times which are short, intensive periods of activity. There is evidence that seasonal industries such as the forestry industry cause less annoyance to the community, presumably related to the presence of a relatively quiet period[6].

Discussion question 5

Is there justification to allocate an INL land use category for forestry? If so, what are the expected risks and opportunities?

It was also proposed in the initial consultation that the land use categories in Table 1 of the Noise Policy be reviewed to reflect the zones to be contained in the Planning and Design Code under the PDI Act. For example, 'Employment Lands' are cited in the Planning and Design Code. However, this would be difficult to allocate as a category within Table 1 of the Noise Policy. Such a classification is highly dependent on the primary land uses within a zone, and 'Employment Lands' can have multiple land uses.

Discussion question 6

Is there justification to mirror the Planning and Design Code land use categories in the Noise Policy? If so, what are the expected risks and opportunities?

Consultation feedback summary

The majority of submissions disagreed with allocating an INL land use category for forestry. The reasons for this were reasonably consistent noting that it is a rural activity and use of the rural industry land use category is appropriate for forestry. Any change to specifically include forestry would create further complication to the assessment process and may inhibit the potential for industry growth, with very little change to noise amenity.

6 Journal of the Acoustical Society of America 2004, *Noise annoyance from stationary sources: relationships with exposure metric day-evening-night level (DENL) and their confidence intervals*, https://www.ncbi.nlm.nih.gov/pubmed/15295994

Those who supported allocating a new INL land use category for forestry argued that forestry land uses have unique characteristics and could allow the forestry industry to operate more efficiently. One submission suggested extending the allocation of a new INL land use category to all industries with harvest periods. Two submissions said that communities should be consulted and that there should be mutual agreement between the community and forestry industry around periods of noise activity.

All submissions but one agreed with the principle of mirroring the Planning and Design Code land use categories in the Noise Policy. Justification for such an approach included reducing ambiguity, reducing confusion, greater understanding through consistency, better regulation, simplification, better selection of land use categories, and that misalignment of policy may result in inconsistent application of the policy through differences of opinion when determining appropriate INLs.

One submission suggested that certain activities within a zone may not qualify under the Noise Policy, and that in such instances exemptions should apply where the Noise Policy is not appropriate.

A further suggestion was to periodically review the land use categories in order to align with the Planning and Design Code and ensure proper alignment between the land use categories. It was noted that the difference between existing Special Industry and General Industry categories can be ambiguous, so it may be beneficial to have a combined approach for any new similar category.

Some submissions said that there was opportunity to provide a table in the Noise Policy which stipulates which land use categories are appropriate to use for development zones, and to review the land use categories through peer review. It was similarly pointed out that the Planning and Design Code provides a detailed description on each zone which could inform the assignment of an appropriate INL, which could be featured on the appropriate planning portal, where the INL is shown for a property based on the land use category.

Risks cited by submissions included that it may not be practical or desirable to assign noise criteria to every zone in the Planning and Design Code. Potential ad-hoc changing of land use categories within the Planning and Design Code was also cited as a risk, as was the fact that the code does not provide definitions for all land uses.

Response to feedback

Discussion question 5

Forestry typically occurs in ‘Primary Production Zones’ which cover a wide range of rural economic purposes which are classified as Rural Industry in the Noise Policy. It is not practically possible to allocate a separate INL to forestry, or industries with harvest periods using the current methodology of the Noise Policy as it sets desired amenity levels for a ‘locality’ based on the principally promoted use of an area. Forestry and other primary rural industries are typically located in Primary Production Zones where the desired amenity level allows for a variety of typical rural industry activities.

The EPA has had very limited involvement in noise assessments for forestry activities. This suggests that noise regulation is not a substantial problem for forestry activities.

Discussion question 6

In order to implement the Noise Policy, the EPA established a system of generic common land use types with a process for calculating amenity with the flexibility to take into consideration a mixture of land use objectives (mixed use zones). The current advantage of the Noise Policy is that it uses a small number of commonly understood land uses, and a much higher number of more nuanced land use categories under planning law are interpreted back to the Noise Policy categories. These were based on interpreting the land uses principally promoted in a zone, and zone interfaces where amenity is based on a principle of a compromise of noise amenity objectives. This system has the advantage of being flexible and has not required revision since the Noise Policy was established.

Due to the large number of land use categories in the new planning system it is impractical to mirror them in the Noise Policy. The Planning and Design Code specifically presents challenges for the interpretation of the 'land use categories' in the current Noise Policy for a number of reasons:

1 Zone Desired Character Statements have been removed. These statements often provided greater clarity about the land uses ‘principally promoted’ within a locality.

1 Linked with (1), the non-complying development pathway has been removed and with it a list of land uses that are not envisaged within the zone. The new restricted development pathway is not the same as non-complying and is used sparingly for developments that, in the State Planning Commissions view, require a more rigorous assessment.

2 ‘Special Industry’ and even ‘General Industry’ appear to have no obvious spatial home in the Planning and Design Code.

As a result of these factors, the Planning and Design Code/Sub-zone name may not align with people's expectations about applicable noise levels.

Furthermore, periodically reviewing the land use categories would be necessary in order to align with the Planning and Design Code and ensure proper alignment between the land use categories. This would require significant resources.

Recommendations

- Replace the term ‘Development Plan’ in the Noise Policy with the term ‘Planning and Design Code’.
- Provide updated provisions to replace the term ‘Development Plan’ with ‘Planning and Design Code’ and provide general updates to reflect changes between *the Development Act 1993* (now repealed) that is referenced in the current policy and the PDI Act.
- clarify that the ‘Authority’ will determine the relevant land use under the Noise Policy. This will provide greater procedural guidance.

3.2.2 Interfaces between land uses

In the 2017 initial consultation, stakeholders noted that the concept of ‘principally promoted’ land use within the Noise Policy can be problematic because something listed in ‘land uses supported in the zone’ in the relevant development plan is taken to be principally promoted. For instance, while a Residential Zone principally promotes residential development, it also allows other land uses (such as home offices or commercial near arterial roads, etc). Planning authorities generally would not consider such uses as principally promoted, even though the Noise Policy takes this approach.

Where a land use is clearly given precedence above all others in a locality, clause 4(1)(b) of the Noise Policy classes this as the land use being principally promoted. Where a number of land uses are equally promoted to generate a mixed use zone, clause 4(1)(c) of the Noise Policy defines each of the individual land uses as principally promoted. For example, a zone may promote the development of residential and retail land uses to form a mixed use zone.

The Noise Policy also makes it clear that the land use category within which a land use principally promoted falls is to be determined by the EPA in accordance with the Noise Guidelines. There will continue to be situations where it is not evident which land use category should be assigned (this should only occur rarely), in which case consultation with councils is required to determine the appropriate classification. This is often time and resource consuming and is unlikely to change under the PDI Act.

One option to achieve greater synergy is to change the terminology of the Noise Policy to align with the Planning and Design Code. This will depend on timing because the new planning system is due to fully implemented across the state during the first half of 2021.

Alternatively, the terminology in the Noise Policy could be changed so that it can operate as a standalone document without duplication within the Planning and Design Code. In this case, new processes for categorising areas of conflicting land uses would need to be developed.

Discussion question 7

Are the current provisions adequate for dealing with the interface between land uses in mixed land use zones? If not, keeping in mind the development of the Planning and Design Code and state planning policies, what are the alternatives? What are the expected risks and opportunities?

Consultation feedback summary

There was a mixed view as to whether the current provisions are adequate for dealing with the interface between land uses in mixed land use zones. Those who agreed that current provisions were adequate stressed the need for integration and clear alignment between the Planning and Design Code and the Noise Policy to ensure greater understanding through consistency.

A few submissions argued that the provisions are too rigid and could be more flexibile. Risks were identified that within the Planning and Design Code the interface provisions may not be appropriately captured for use when assessing a particular development application depending on the nature of the assessment pathway and how the e-Planning system identifies the relevant planning policies.

An alternative to the current provisions of the Noise Policy was suggested; to develop a list of Zones and Subzones (or classes) in the Planning and Design Code and confirm what types or classes of land use are considered to be 'encouraged' within that zone. This will ensure consistency across all relevant authorities and assign appropriate criteria for the assessment of noise and/or vibration under the Noise Policy and the Planning and Design Code. This is beyond the scope of the review and may require amendments to planning legislation.

It was suggested that certain activities currently associated with a specific zone in the Development Plan or the Planning and Design Code should not be regulated under the Noise Policy, and in such instances exemptions should apply.

A recommendation from the National Wind Farm Commissioner's 2019 Annual Report was cited in one submission that neighbouring development proposals within 1.5 km of a proposed or operating wind turbine should be referred to the wind farm developer by the responsible planning authority for consultation and to verify impact levels of the wind farm at the proposed neighbour's development site. Further, development proposals in locations where a neighbouring wind farm is likely to exceed prescribed standards and limits may require written agreements to be reached between the neighbour and the wind farm proponent before the neighbour's development can be granted final approval by the Responsible Authority.

Response to feedback

The Noise Policy operates both within, and outside of, the planning system. For those instances where it operates outside of the planning system the Noise Policy should set out clearer expectations for mixed use zones given their continued expanded use. There is a need for improved clarity for dealing with interface between land uses in mixed use zones. The EPA intends to develop a separate guide to land use categories while the interpretive section of the Noise Policy will be retained to allow for flexibility.

The proposal to implement greater synergy with the PDI Act risks reducing the current flexibility of the Noise Policy to adapt to changing situations and is not a desirable outcome. The policy currently operates independently to planning legislation and, due to its interpretive nature, does not generally require amendment due to changes in planning law.

Recommendation

It is recommended a separate guidance document be developed entitled 'Indicative noise level guidelines for the Environment Protection (Commercial and Industrial Noise) Policy 2022'. This document will preassign land use

categories to Planning and Design Code zones which enables easier determination of indicative noise levels (INL) as required under clause 5 of the Noise Policy.

3.3 Indicative noise levels (INL)

Clause 5 of the policy sets the criteria and rules to assist in determining the appropriate INL relevant to a particular land use or land use category.

3.3.1 Industry hours of operation

It was proposed during 2017 initial consultation that consideration be given to providing greater latitude – possibly a higher dB(A) reading – to the forestry industry in circumstances where a facility can demonstrate that it has been in operation before neighbouring land uses were established. For example, the NSW Noise Policy for Industry recognises industries as being part of the background if they have been operating for more than 10 years. Additionally, the NSW Planning *Voluntary Land Acquisition and Mitigation Policy*[7] recognises legacy noise issues.

It was also submitted in initial consultation that the forestry industry would benefit from the flexibility of broader INLs – coupled with longer operating hours – and that such amendments would enhance productivity. The current operating hours are based on community expectations.

Stakeholder feedback in initial consultation further proposed that Rural Industry INLs are considered to be too high, and should be reduced, noting that it is not unusual for the background noise levels in rural areas to be significantly less than the INL and much less than background levels in an urban environment.

Rural Industry includes a wide range of activities of varying intensity and requires a degree of flexibility to allow for these activities to occur in accordance with community expectations. This is provided currently within the Noise Policy where clause 19 allows flexibility in determining appropriate action on a non-compliant noise level.

Any changes to the INLs for Rural Industry would require careful consideration of social, economic and environmental impacts.

Discussion question 8

Is there justification to decrease INLs in the Rural Industry zone? If so, what are the expected risks and opportunities?

Consultation feedback summary

The majority of feedback was that there was no justification in decreasing INLs in the Rural Industry zone. The most common risk cited was dis-incentivising economic growth in rural areas. Specific concern surrounded negative impacts on primary producers, the forestry industry and the waste and resource recovery sector. It was noted that rural areas are usually sparsely populated and therefore noise is unlikely to have significant human impact.

A few submissions argued for a decrease in INLs, noting that people living in rural zones have become accustomed to quiet ambient conditions; a decrease in INLs could improve living amenity in quiet rural areas and potentially decrease noise complaints. It was noted that currently, there is a 10dB(A) difference between Rural Industry and Rural Living INLs, which is significant. It was noted that the Rural Industry INLs are not in line with more contemporary NSW and QLD noise policies.

It was further submitted that if the new Noise Policy is designed to align with the new planning system, then the Rural Industry land use category will need to be replaced by Rural Zone, Rural Aquaculture Zone, Rural Horticulture Zone,

[7] https://www.planning.nsw.gov.au/Policy-and-Legislation/State-Environmental-Planning-Policies-Review/Mining-SEPP-amendment/Review-of-VLAMP-Mining-SEPP

Rural Intensive Enterprise Zone, Rural Living Zone and Rural Neighbourhood Zone with an INL linked to the desired outcome for each zone. and that the INL for sparsely populated 'Rural Zones' seems appropriate

Response to feedback

Rural Industry INLs require flexibility in order to allow for a range of industries to operate in accordance with community expectations. Clause 19 of the Noise Policy allows for such flexibility in enforcing action on a non-compliant noise level. Reducing the INL for the Rural Industry land use category would restrict rural enterprise operations/ expansion and hinder emerging technologies.

However, a decrease could improve living amenity in quiet rural areas and potentially result in fewer noise complaints. The current 10dB(A) difference between Rural Industry and Rural Living INLs is substantial. As noted, current Rural Industry INLs are not in line with more contemporary NSW and QLD noise policies.

Recommendation

It is recommended that further investigation and consideration of interstate practices is undertaken prior to any changes to the Noise Policy being proposed. This will occur separately at a later date due to the extensive nature of such a review.

3.3.2 Indoor noise amenity

It was suggested during initial consultation that there is a need to set internal noise levels – for both living and sleeping areas – for use in multi-storey buildings, buildings where there is no outdoor recreation area, where it is not possible to build a noise barrier, and high noise areas where people live exclusively indoors.

There is a need to set indoor noise levels in following applications where:

- the noise-affected premises is a non-residential premises (eg commercial office)
- a residential premises without an outdoor recreation area (eg high-rise apartments
- a multi-story residence where a normal 1.8-m boundary wall/fence will not protect upstairs rooms from noise, rather than outdoor noise levels.

This need arises as people working or living in such situations will only be affected by noise derived from external sources while they are indoors. Such issues are more easily considered for new buildings.

The Noise Policy already includes some consideration of indoor noise levels in residential areas by including an indoor sleep disturbance criteria of 30dB(A). This criteria is recommended by WHO in the *Guidelines for community noise* (1995)[8]. However, in NSW an indoor sleep disturbance criteria of 35/40dB(A) is applied in legislation [*State Environmental Planning Policy (Infrastructure)].* This is generally aligned with the Australian Standard.

In 2013 the state government introduced the option to include the 'Noise and Air Emissions Overlay' in council development plans as a means to reduce noise and air quality impacts from road, rail and mixed land use on certain categories of residential (and other sensitive use) developments. The overlay includes a requirement that the internal noise level in bedrooms does not exceed 30dB(A) for indoor living and 35dB(A) for sleeping areas. There is already some degree of internal noise level consideration given to building design and construction in some areas of the state. It is also expected that the overlay will be more consistently applied across the state through the Planning and Design Code.

[8] Note that there are now updated guidelines on community noise, however they do not stipulate specific sleep disturbance criteria.

Discussion question 9

Is there justification for specifying indoor noise levels for indoor living in addition to sleeping areas within the Noise Policy in circumstances other than where the Noise and Air Emissions Overlay applies? If so, what are the expected risks and opportunities?

Consultation feedback summary

The submissions that supported the addition of indoor noise levels for indoor living noted inclusion will better align with the LNLC Act which generally prohibits noise that unreasonably impacts amenity.

A few submissions argued against specifying indoor noise levels for indoor living as the Noise Policy already has indoor noise level criteria, and the Noise and Air Emissions Overlay already provides enough guidance. One submission argued that it would be better addressed within the new Planning and Design Code. Some noted that it was unlikely to increase amenity outcomes, but would create confusion and increase the complexity of assessments. Concern was raised that certain noise generating activities will be at a disadvantage due to building materials/age and that expectations will shift as suburbs change (to having less industry) including in areas near activities regulated under the *Mining Act 1971*.

It was also noted that better outcomes to reduce internal nuisance noise can be delivered by owners and occupiers through improved building design, orientation, construction and physical screening.

The NSW EPA in their submission noted that the internal noise criteria referenced above are only applicable to the design of new residential dwellings which encroach onto existing rail and road infrastructure and are not applicable to interactions with industrial noise sources.

Response to feedback

This amendment may only be practicable through a development application for a new dwelling where floor plans form part of the Development Assessment. The EPA is not referred dwelling applications for consideration of noise so it may have limited practicality. The 'Ministerial Building Standard MBS 010 Construction requirements for the control of external sound', which links with the Noise and Air Emissions Overlay, also only applies to certain noise sensitive development near road, rail and some mixed use areas. For compliance purposes, the Noise Policy already sets a relevant internal noise standard.

Unfortunately, certain noise generating activities may be at a disadvantage as a result of the building materials/age of certain buildings surrounding it, or the appropriateness of a use may be determined by the type/age of building. However, there is a need to ensure appropriate noise mitigation for new developments so that existing development do not require retrofitting. Proactive noise mitigation for new residential dwellings falls under the state planning system and the Noise Policy is unable to address this issue.

Recommendation

It is recommended that there is no change to the Noise Policy.

3.3.3 Indicative noise limits for prescribed time periods

Some submissions received during the 2017 initial consultation recommended the adoption of indicative noise limits for three different time periods, as used in Victoria. The Victorian *State Environment Protection Policy (Control of Noise from Industry, Commerce and Trade)* has prescribed noise limits based on background noise levels. There are three base noise limits for three different time periods throughout a day: a day period, an evening period and a night period. The day period is between 7 am and 6 pm – 45dB(A), the evening period is between 6 pm and 10 pm – 40dB(A), and the night period is between 10 pm and 7 am – 35dB(A). Having three noise limits for various time periods throughout the day recognises that community expectations on noise levels vary depending on the time of day.

Discussion question 10

Is there justification to amend the noise goals and time periods in the Noise Policy? If so, what are the alternatives and what are their expected risks and opportunities?

Consultation feedback summary

The majority of submissions supported amending the noise goals and time periods in the Noise Policy as current land use categories are fairly broad and do not reflect modern forms of development. Different time period limits for day, evening and night similar to the Victorian model were supported by multiple submissions to better reflect community expectations, align with other states and prevent adverse health impacts.

Those that disagreed with the proposal of different time periods argued these would hinder industry and are too conservative. One submission suggested that the current noise allowance periods should commence later. There was concern that applying three time periods to domestic noise may have negative impacts on development assessment, enforcement and community activities. There was concern that an evening period would impose undue restrictions on noise sources which currently operate consistently across the day period (up to 10 pm). In relation to potentially borrowing standards from other jurisdictions, it was highlighted that protocols for the application of the standard are established for the state or jurisdiction.

One submission suggested the addition of a category for infrastructure and essential services to allow for assessment of noise from electrical substations that reflects their essential nature and importance. It was further suggested that any amendment apply only to new infrastructure and not be retrospective.

Clarification of appropriate assessment times and minimum time requirements for steady state noise sources and background noise was recommended to be included in the Noise Guidelines. A provision for bypass/elimination of buffer zone procedure if the land between the source and receiver contains an effective noise barrier or terrain that shields the receiver was also suggested.

Response to feedback

The mixed use locality provisions of the Noise Policy already deal with changes in desired land use amenity that may occur due to changes in planning legislation. The current advantage of the Noise Policy is that it uses a small number of commonly understood land uses, and the much higher number of more nuanced land use categories under planning law are interpreted back to the Noise Policy categories. This allows for a high degree of flexibility in dealing with new or changed circumstances. Introducing day, evening and night indicative noise factors into the land use category table would increase the complexity of the Noise Policy. **Recommendation**

It is recommended to retain existing time periods and noise criteria.

3.4 Objects of the Policy

Clause 9 of the Noise Policy describes its broad intent and structure. It describes what the Noise Policy is designed to do, and the manner and method by which the objects might be achieved.

Some submissions received during the 2017 initial consultation proposed to amend the clause by clearly requiring a triple bottom line regulatory approach that considers environmental, societal and economic impacts. Such a regulatory approach however is already required under the objects of the EP Act (section 10) and the general environmental duty (section 25). As the Noise Policy is subordinate to the EP Act, it must be administered in accordance with the Objects of the Act.

Section 10 (1)(a)(C)(ii) of the EP Act states:

> that proper weight should be given to both long and short term economic, environmental, social and equity considerations in deciding all matters relating to environmental protection, restoration and enhancement;

Discussion question 11

Is there justification to explicitly mirror the triple bottom line requirements of the EP Act in the Noise Policy? If so, what are the expected risks and opportunities?

Consultation feedback summary

A few submissions supported explicitly mirroring the triple bottom line requirements of the EP Act in the Noise Policy. It was suggested that to do so would reflect and highlight the importance of incorporating sustainable practices in business. It was also suggested that consideration of the objects of the EP Act was not likely to be obvious to those implementing the Noise Policy.

The majority of feedback was not supportive of this change. It was argued that given the Noise Policy is subordinate to the EP Act, the change is unnecessary and duplication offers no improvement.

On the other hand, some submissions suggested that a reference to the triple bottom line requirements of the EP Act within the Noise Policy would help ensure all relevant information is considered.

Response to feedback

The Noise Policy provides a guide to interpreting compliance with the general environmental duty. It is already an implicit requirement to consider the triple bottom line requirements alongside other matters in any decision made under the EP Act. It is acknowledged that guidance related to the Noise Policy could be more explicit in linking to the objects of the EP Act.

Recommendations

- There is no change to the Noise Policy.
- The Noise Guidelines to be amended to make consideration of the triple bottom line requirements of the EP Act more explicit.

3.5 Measurement procedures

Part 3 of the Noise Policy sets out the general rules for the measurement and assessment of a source noise level (continuous), ambient noise level (continuous), or background noise level related to on-site investigations and generally reflects accepted practice.

3.5.1 Consideration of weather conditions

During the 2017 initial consultation some stakeholders proposed that consideration be given to strengthening measurement procedures by including all known weather conditions that may have a substantial impact on noise levels.

In NSW for example, impacts are assessed under a range of adverse meteorological conditions. For anything more extreme, 5dB(A) is added to the objective.

Most noise issues dealt with under the EP Act occur in circumstances where the noise source and noise receiver properties are less than 100 m away from each other – meaning that weather conditions generally have limited influence on assessment.

Where weather is likely to be an influential factor, clause 13(a)(vi) - General Procedures of the Noise Policy requires the EPA to consider any significant meteorological patterns. The Noise Guidelines provide assistance as to how this is to be achieved.

Discussion question 12

Is there justification to amend measurement procedures with regard to additional consideration of different weather conditions? If so, what are the options and their expected risks and opportunities?

Consultation feedback summary

There was very little support for amending measurement procedures with regard to additional consideration of different weather conditions. It was noted that this is already adequately addressed under the existing measurement procedures in the Noise Policy and Guidelines. The concern additional requirements may be impracticable to achieve given significant variation associated with weather. It was also suggested that this would further complicate measurement procedures.

Those who supported amending the procedures mentioned the importance of measuring wind when in relation to wind farm noise, and also argued that atmospheric conditions can have a significant impact on noise propagation.

Although not related to the question being posed it was suggested that weather was a relevant consideration in allowing for waste collection services at 5 am on high fire danger days where the rating is ‘extreme’ or higher.

Response to feedback

Consideration of relevant weather conditions is already a requirement of the Noise Policy. Where weather is likely to be an influential factor, clause 13(a)(vi) General Procedures of the Noise Policy requires the EPA to consider any significant meteorological patterns. The Noise Guidelines provide assistance as to how this is to be achieved.

Recommendation

It is recommended that there is no change to the Noise Policy.

3.5.2 Appropriateness of current character penalties

Existing noise penalties of 5–10dB(A) apply for the presence of single or multiple annoying noise characteristics such as impulsive, tonal, low frequency or modulating character within a noise. During the 2017 initial consultation, some stakeholders suggested that the existing noise penalties were too high and that consideration should be given to reduce the penalties for tonal characteristics to the range of 3–5dB(A). This would be consistent with Victoria’s penalty range for tonal characteristics of 2–5dB(A). NSW similarly found that a penalty of 5dB(A) was excessive, and a penalty range of 2–5dB(A) was used but day and night periods were treated differently.

Similarly, the *Australian Standard AS 1055–2018 Acoustics – Description and measurement of environmental noise* specifies that a 2–3dB(A) penalty should apply if tonal characteristics are just detectable, and a 5–6dB(A) penalty if tonal characteristics are clearly audible.

During initial consultation, stakeholders also expressed the desire for character-based noise penalties to be considered for both INL and the background noise level approach. It was suggested that the penalties be applied as outlined in the Noise Guidelines (except for tonality). Characteristic noise penalties could also be considered during development application assessments. AS 1055–1997 states however that penalties should not be applied to background noise levels, so there is little justification to add penalties.

Discussion question 13

Is there justification to review current breadth of character-based penalties? If so, what are the options and their risks and opportunities?

Consultation feedback summary

There was strong support to review the current breadth of character-based penalties. Reasons for support included a lack of guidance around determining penalties, current penalties too excessive, increase consistency with current research and Australian Standards, and add weight to the importance of noise characteristics. The importance of clarifying the use of penalties in predictive modelling was stressed.

It was noted by some that penalties should be based on actual impact on sensitive receptors and it was also suggested that low frequency noise, building fabric vibration, amplitude modulation, pulsing, intermittent noise and tonality penalties should be included/strengthened. A clearer method for mitigating characteristics and scaled penalties was also suggested.

There was some feedback against decreasing current character-based penalties on the basis that reduced character penalties may result in noise limits which no longer provide the intended degree of amenity and health protection. Another submission stated that current character penalties have been effective and rational on most occasions. It was also suggested that penalties should continue to be set at 5dB(A) but noise complaints should also be assessed on a subjective and reasonableness test by an expert.

Response to feedback

The methodology for applying character-based penalties is outlined in the Noise Guidelines, and is informed by the International Guidelines and Australian Standards. Section 3.1.3 includes recommendations regarding inclusion of intermittency and consideration of character penalties.

Recommendation

It is recommended that there is no further change to the Noise Policy (noting recommendations regarding character-based penalties have been made in section 3.1.3 of this report).

3.5.3 Period over which measurements are made

The Noise Guidelines state:

> When relying on the background noise level test under section 18(2)(a) [of the Noise Policy] to satisfy the general environmental duty, the lowest background noise level regularly expected at the noise affected premises over a 15-minute period should be used.

During initial consultation it was suggested that this is open to interpretation and does not ensure a consistent approach in determining the criteria to be achieved. It was also suggested that EPA should measure noise levels over a 30-minute period rather than 15 minutes.

For reference, the Australian Standard AS 1055–2018 does not provide any recommended measurement periods but simply references existing state regulatory requirements.

Clause 14 of the Noise Policy states that measurement of a noise source must be made over a period of 15 minutes. A sub-clause provides the EPA or other administering agency with the ability to take a measurement in accordance with the Noise Guidelines over a different period, if it is determined that such a period would be more or equally representative of the impact of the noise from the noise source. It also means that, if necessary, multiple 15-minute measurements can be made if it is considered that this will achieve a more accurate outcome.

Discussion question 14

Is there justification to change the current measurement period? If so, what are the options and their risks and opportunities?

Consultation feedback summary

The majority of submissions argued against changing the current measurement period. Multiple submissions mentioned that it may raise issues with compliance for noise sources operating for shorter periods of time. Some submissions stated that the change seemed unnecessary given the current flexibility in the Noise Policy in its ability to determine a different measurement period or smooth out a brief period of loud and disruptive noises.

One submission considered that a changed period would increase efficiency of measurements and reduce the potential for background noise contamination, while another supported the change if it resulted in more accurate and appropriate sound levels. It was noted that such a change on INLs and applicable character penalties would need to be considered.

Response to feedback

The Noise Policy currently has the flexibility to allow for noise measurements of variable length. The policy allows a measurement to be taken in accordance with the Noise Guidelines over a different period if it is determined that such a period would be more or equally representative of the impact of the noise from the noise source. If necessary, multiple 15-minute measurements can be made if it is considered that this will achieve a more accurate outcome. By default, in accordance with general acoustic practice, a 15-minute measurement period is used. Such a measurement period aligns with all Noise Policy guidance documents and applicable Australian Standards.

Recommendation

It is recommended that there is no change to the Noise Policy.

3.5.4 Background noise levels

The Noise Guidelines state that background noise level is considered the lowest background noise level regularly expected at the noise-affected premises over a 15-minute period. Views from the 2017 initial consultation indicated that this approach was open to interpretation and did not ensure a consistent approach has been taken in determining the criteria to be achieved.

A statistical approach using the 10th percentile of the measured LA_{90} (the noise level exceeded for 90% of the measurement period) was suggested in order to provide consistent application in determining criteria based on background noise levels. This may be useful where it is demonstrated that there is significant variance in background noise levels during different time periods. This is a methodology similar to that employed in Appendix B of the now superseded NSW *Industrial Noise Policy 2000*. This is a complex method which is adequate at the planning stage when carried out by an acoustical professional, but too onerous for enforcement measurements.

Discussion question 15

Is there justification to change the method for determining background noise levels? If so, what are the options and their risks and opportunities?

Consultation feedback summary

The majority of submissions argued that there was no justification to change the method for determining background noise levels. It was stated that current measurement methodology is sufficient and any change is unnecessary. Acoustic engineers who made submissions noted that the use of the 10th percentile method is typically used in absence of a unified/clearly defined background noise level calculation method within the Noise Policy. This method represents a conservative approach and was designed for populations greater than in South Australia.

Those who considered there was justification for change noted it might reduce subjectivity, be potentially useful in the planning stage, and increase consistency in assessment undertaken by different consultants. It was noted that the methodology used should ensure consistency and accurate measurements. It was also suggested that guidelines could be improved.

Response to feedback

The current method used is more practical, particularly for the planning system and local government. Furthermore, the proposed method can be used currently under the Noise Policy if necessary.

Recommendation

It is recommended that there is no change to the Noise Policy.

3.5.5 Fast time weighting requirement

Time weightings are a common specification provided on most sound level meters used to measure dB(A). Time weightings were created in order to specify the speed at which the needle on a sound level meter has to move. This ensures that different sound meters can be calibrated to these weightings, making measurements comparable with each other. Fast time weighting is typically the selected weighting for most noise measurements.

With the introduction of updated measurement equipment, modern standards and regulatory practices, it was suggested in initial consultation that the requirement for fast time weighting be removed from the procedures within the Noise Policy.

Discussion question 16

Is there justification to remove the requirement for fast time weighting in the procedures under the Noise Policy? If so, what are the expected risks and opportunities?

Consultation feedback summary

Consultation feedback indicated very little support to remove the requirement for fast time weighting in the procedures under the Noise Policy. It was noted that fast and slow time weightings were created for instantaneous results and that newer digital sound level meters imitate fast and slow time weightings. It was suggested that fast time weightings should remain a requirement of the Noise Policy to ensure consistent results. It was stated that LA_{eq},15 minutes (which takes into account varying noise levels over a period to calculate one noise level measurement) is the same regardless of time weighting but that LA_{90},15minutes will be higher with slow weighting applied, and measurements can vary depending on the method used.

Response to feedback

There is value in fast time weighting being specified in the procedures in the Noise Policy to ensure consistency across measurements taken and is consistent with Australian Standards. Slow time weighting is rarely used and is not applied within the Noise Policy. The majority of noise measuring equipment includes a specified time weighting on the machine. It is still relevant to include in the Noise Policy.

Recommendation

It is recommended that there is no change to the Noise Policy.

3.5.6 Method for determining criteria

Stakeholders during initial consultation proposed that development applications and compliance assessments should consider the existing noise environment and use the measured background noise levels to determine the criteria to be achieved at the nearest noise-affected premises. Some rural areas have very low existing background noise [<30dB(A)]. To base the design criteria on very low background levels would place unrealistic requirements on industry. In some cases it would be normal for the existing background noise levels to be less than the INL. In these cases, noise levels that are in compliance with the current Noise Policy criteria may result in intrusive noise levels. In other cases, noise-affected premises could be subject to high existing ambient noise levels (eg adjacent a busy road network), and the existing background noise level may be higher than the INL. Under this proposal, basing development application assessment design noise criteria on land use zoning, which is a foundation component of the Noise Policy would be discontinued. The proposal has some merit but will impose costs due to the requirement to physically assess every development proposal individually rather than basing the assessment on existing INLs. It would also lead to a wide variation in the development application assessment design noise criteria in different parts of the state. Further, if a low background level is determined in an area, it would be more difficult for economic activity to occur in that same zone.

Discussion question 17

Is there justification to replace the current INL criteria based on land use zones with a regime based on existing noise levels? If so, what are expected risks and opportunities?

Consultation feedback summary

The majority of feedback did not support replacing the current INL criteria based on land use zones with a regime based on existing noise levels. Reasons provided included that there would be increased costs and complexity for developers. It was noted that data used may not be representative of background noise levels, and the experience added administrative burden associated with the need to check such data. Difficulty around measuring background noise was cited. It was also noted that approving industry on the city fringes or rural areas with low background noise levels may be difficult. Measuring background noise at every mine and quarry to set INL measurement criteria is not feasible and may lead to inconsistencies in regulatory obligations across the industry.

Those submissions which did support the proposal suggested it would ensure a more realistic evaluation of noise disturbance potential and protect amenity. It was suggested that most complaints come from areas with a low background noise level because a noise source creates more of a relative nuisance there than in other areas and replacing INLs with existing noise levels would assist in this regard. Other benefits cited included removing the need for zoning classification.

One suggestion was to use existing noise levels to supplement the current INL criteria. It was also suggested to clarify in Clause 18, regarding development assessments, the current use of existing noise levels in the plus-minus 5db(A) to background noise levels approach. It was suggested that if economic activity is expected to significantly alter the existing background noise levels, then consideration should be made to shift this activity elsewhere. **Response to feedback**

The Noise Policy sets INL's based on desired amenity levels for an area based on zoning or 'locality'. The EPA has not received evidence to support the claim that most complaints come from areas with low background noise. Zoning provides a level of certainty that is required for regulation. Attempting to set INLs based on taking background noise measurements is impractical, and would require constant noise measurements at multiple positions to inform decision making. A number of development applications and other referrals currently do not submit noise reports due to their low noise risks and marginal impacts. This amendment would require all of these applicants to commission acoustic consultants and noise reports which would not be reasonable or practicable on the basis of risk. The cost of the requirement to physically assess every development proposal individually rather than basing the assessment on existing INLs would be significant. The wide variation in the development application assessment design noise criteria in different parts of the state would provide no certainty, consistency or fairness.

Recommendation

It is recommended that there is no change to the Noise Policy.

3.6 General noise control provisions

Part 4 of the current Noise Policy describes the circumstances in which a noise source will satisfy the general environmental duty of the EP Act and as such, the person involved will be under no obligation to take further noise reduction measures.

3.6.1 Emergency standby plants

During the 2017 initial consultation some stakeholders proposed that determination of compliance/design criteria for emergency standby plants should be relaxed, as these facilities are generally only used for a short period of time (ie approximately 30 minutes per month to be tested) and noise is not a principal concern when their use is required in an emergency situation.

However, the EPA considers that noise from these plants operated for testing, commissioning and maintenance purposes should be subject to control as they are not responding to an emergency. These activities can be planned and scheduled in advance to avoid or minimise the noise impact.

Stakeholders have proposed that the compliance/design criteria should be the current relevant criteria of background noise level +5dB(A) as this would be consistent with some states (NSW and Victoria) for emergency standby plants.

Any relaxation of applicable criteria would be subject to the GED in section 25 of the EP Act where a person must take 'all reasonable and practicable measures to prevent or minimise any resulting environmental harm'.

Discussion question 18

Is there justification to relax the compliance/design criteria for emergency standby plants? If so, what are the expected risks and opportunities?

Consultation feedback summary

The majority of feedback was supportive of relaxing the compliance/design criteria for emergency standby plants. Justification included that such noise is likely to be infrequent and temporary, and that they are important in responding to emergencies. It was argued that measures to comply with the Noise Policy for such infrastructure can be cost prohibitive.

It was also noted that guidance is required around routine maintenance of plant and their exemptions/conditions.

Submissions that disagreed with relaxing compliance criteria noted that exceeding the criteria does not require action under the Noise Policy but there should be a requirement that testing be planned and scheduled to minimise impact.

Response to feedback

The Noise Policy currently has the flexibility to deal with this type of noise on a case-by-case basis under the GED. Any relaxation of applicable criteria would be subject to the GED. The Noise Policy cannot override obligations within the EP Act. Furthermore, the potential variability of these matters can make setting specific rules by a class of noise difficult.

Clause 19 of the Noise Policy also provides flexibility in assessing compliance criteria, making this an unnecessary change.

Recommendations

- Change the wording of 'emergency vehicle sirens' to 'emergency warning alarms/devices', as this will broaden the definition to clarify noise from emergency alarms are not considered under the Noise Policy. These are regulated under the general environment duty (GED) in the EP Act.
- Guidance around routine maintenance of plant equipment is included in the Noise Guidelines when these are next revised as this involves the semi-regular operation of such equipment.

3.7 Development authorisation applications

Part 5 of the Noise Policy applies to development applications referred to the EPA for assessment under the *Development Act 1993*. This part is designed to provide for a consistent but more stringent assessment procedure to the general noise provisions in Part 4 and will continue to apply following full implementation of the PDI Act. Stakeholder response during the 2017 initial consultation raised the following issues with regard to assessment of development applications.

3.7.1 Unattended measurements

Unattended noise measurements are becoming more and more common for noise assessments. Unattended noise measurements do not require a person to be present throughout the measuring process. They have been used by the EPA in the past for measuring wind farm noise. However they are rarely used to determine background noise level as there is increased opportunity for interference. Despite this risk, modern equipment can include audio recording to assist with the verification of source noises, which can be valuable for planning information about background and ambient noise levels. It was suggested during initial consultation that unattended measurements should be used to determine background and ambient noise level when preparing information for development applications.

An alternative proposal, also raised during initial consultation, was that if unattended measurements could not be carried out to measure background and ambient noise level for development applications (due to security risk or other concerns), attended measurements of the existing noise environment should be undertaken which are representative of the expected quietest periods during operation. As a minimum, four 15-minute intervals per period of interest were suggested.

Unattended measurements are generally not accepted as evidence in court due to the potential for interference, and are generally considered only valuable for management purposes. Furthermore, clause 20 of the Noise Policy dealing with development applications only considers ambient (not background) noise levels.

Discussion question 19

Is there justification for the introduction of the use of unattended noise measurements in the Noise Policy for development assessment, or for any other purposes? If so, in what circumstances, and what are the expected risks and opportunities?

Consultation feedback summary

There was strong support for the use of unattended noise measurements in the Noise Policy. It was noted that it provides accurate context associated with a development, measurements can be taken over a greater period of time, and that unattended measurements can reduce costs. It was further noted that technology improved the accuracy of unattended noise measurements in compliance assessment situations.

It was suggested that there should be opportunity for unattended noise monitoring to be used in a conciliation/ pre-court process between parties to provide for the ready resolution of issues. The importance of ensuring criteria and guidelines for the placement of equipment and avoiding/detecting tampering was highlighted, as was the need for results to be assessed by trained acoustic specialists.

Compliance assessment through continuous audio recordings was also noted as an accurate but complex method, and LA_{90} is also not recommended for compliance assessment of time varying noise sources. Recording the LAeq using unattended measurements is also problematic due to possible background noise contamination.

Unattended monitoring should only be used to supplement attended measurements, as unattended monitoring can prove compliance, but cannot be used to prove non-compliance due to the possibility of interference.

Risks were cited that unattended monitoring should not be used for direct comparison against the Noise Policy criteria as there is very limited scope for observing the character of the source of noise, or excluding extraneous noise. Furthermore, there was hesitation as unattended measurements are generally inadmissible in court.

Response to feedback

The Noise Policy does not prevent the use of unattended noise measurements. Unattended noise logging data features frequently in development applications and a sensible utilisation of attended and unattended noise data is encouraged.

Recommendation

It is recommended that there is no change to the Noise Policy.

3.7.2 Planning authorities assessment of development applications with a noise source

The large majority of council development plans that were created under the *Development Act 1993* incorporated the 'Interface between land uses' module from the current version of the SA Planning Policy Library (2011), which contained the following principle of development control (PDC):

> Development that emits noise (other than music noise) should include noise attenuation measures that achieve the relevant Environment Protection (Noise) Policy criteria when assessed at the nearest existing noise sensitive premises.

Part 5 of the Noise Policy is limited in application to the assessment of development applications referred to the EPA under the *Development Act 1993* (and the new PDI Act). For development assessments that do not require referral to the EPA, this means planning authorities are not able to consider the following requirements that would otherwise apply to the EPA assessment of referred development assessments:

- determine the relevant INL less 5dB(A)

- consider whether the noise affected premises is in a quiet locality
- consider a range of specific additional factors if the relevant INL cannot be achieved.

There are many types of proposed developments with potential off-site noise impacts that are assessed by planning authorities without the need for referral to the EPA. In these circumstances, guidance for the planning authority is lacking and there is no consistency between assessments by planning authorities and those undertaken by the EPA.

To remedy this, it was suggested in initial consultation that application of what is currently Part 5 of the Noise Policy is broadened to include where reference is made to noise criteria contained in the Noise Policy within planning and development legislation and subordinate instruments. Given the broad inclusion in the Planning and Design Code (to be established under the PDI Act) of policy from development plans from councils, the code will also include a reference to noise criteria contained in the Noise Policy.

Discussion question 20

Is there justification for broadening the application of Part 5 of the Noise Policy to allow its use by planning authorities where the Planning and Design Code identifies the need for development applications to be assessed against relevant noise criteria contained in the Noise Policy? If so, what are the expected risks and opportunities?

Consultation feedback summary

The majority of submissions argued against broadening the application of Part 5 of the Noise Policy. Several noted that planning authority staff may not have the skills to implement the technical aspects of the Noise Policy. As the onus is on the applicant to demonstrate that they meet the Noise Policy, there were concerns raised surrounding resourcing and inappropriate application of the Noise Policy. It was noted in a number of responses that the EPA already includes a 5dB(A) 'planning penalty' to proposed mining proposals and to impose further impediments on development (particularly in rural areas) adds no value. It was similarly stated that the current approach allows planning authorities to use Part 5 to determine appropriate criteria, without the approach being mandated.

Those submissions that did support the broadening of the application of Part 5 argued that relevant authorities should be given the opportunity to consider Part 5 in planning assessments, and that it would provide the opportunity for planning assessments to be more comprehensively considered and for better outcomes to be reached. One submitter, who is a practising acoustic engineer, noted Part 5 is already applied to all development applications regardless of referral status.

It was suggested that a mechanism be included within the PDI Act which aligns with Part 5 of the Noise Policy ensuring there is a more consistent assessment approach between the planning authority and the EPA, and that guidelines are developed which can be adopted by both parties when considering appropriate land uses or developments.

Response to feedback

The EP Act only provides for the consideration by the EPA of Environment Protection Policies (EPPs) in the determination of matters related to developments referred under the PDI Act. The EP Act does not provide head powers for the application of EPPs to Mining Act referrals. This is similar for the *Mining Act 1971*.

The PDI Act does not have the necessary head powers to allow an EPP to be applied to decisions of other planning authorities under that Act. The EPA will instead ensure guidance is provided to planning authorities and Department for Energy and Mining to assist with consideration of noise issues that are not able to be considered by the EPA.

Recommendation

It is recommended that there is no change to the Noise Policy.

3.8 Special noise control provisions

Part 6 of the Noise Policy (Special Noise Control Provisions) contains special and definitive controls for noise sources generally associated with activities on, or adjacent to, residential land uses and are focused on preventing nuisance noise. The LNLC Act which commenced in 2017 deals with all noise nuisance issues other than those emanating from sites licensed by the EPA. Councils have responsibility for the management of local nuisance issues, such as noise from sources not licensed by the EPA. This approach has a significant impact on the way in which the Noise Policy operates and the management of local noise.

The Special Noise Control Provisions are duplicated in the LNLC Act and, as a result, they are no longer required in the Noise Policy. Construction noise is the only noise under the provisions that occurs on EPA-licensed sites, and can be suitably managed using the GED.

Discussion question 21

If Part 6 of the Noise Policy is removed to avoid duplication with the LNLC Act, are there any unintended consequences that have not been identified?

Consultation feedback summary

The majority of submissions argued that Part 6 should not be removed. One submission stated that all noise sources in this section should be evaluated objectively (not subjectively) and the assessment method should be clearly outlined for each case, and the allowable noise limits should be consistent with zoning and/or existing ambient noise levels. There was concern expressed that objective noise criteria from the Noise Policy may be lost, resulting in inconsistency in measurements. However, it was also noted that it would be useful to provide separate guidance on objective noise criteria applicable under the LNLC Act.

There was also a perceived concern that there would be no provisions available for commercial or industrial noise (with no EPA Licence) in either the Noise Policy or the LNLC Act that have an impact on the amenity of neighbouring domestic properties. It was also submitted that clause 23(1)(b) is not found within the LNLC Act about permitted noise on a public holiday or Sunday and this should remain in the Noise Policy. It was noted that the removal of Part 6 will mean that construction noise at EPA sites can only be managed by licence conditions, and there was concern that the process for setting these conditions is not transparent. The risk of bias in subjective assessment was also raised.

There was concern raised regarding the regulation of frost fans in the LNLC Act. It was suggested that new guidelines be developed for frost fans as amenity is not currently protected in rural areas. Further suggestions around frost fans included:

- reducing the allowable noise limits
- considering special audible characteristics (ie low frequency content)
- making operational data public
- ensuring multiple frost fan installations are considered cumulatively
- updating measurement procedures – attended measurements should be done early morning or unattended measurements could be undertaken with continuous audio recording using an appropriate sampling rate
- keeping frost fan noise and operational issues under the supervision of the EPA.

Response to feedback

The Special Noise Control Provisions in the Noise Policy are no longer required. Construction noise is the only noise under the provisions that may occur on EPA licensed sites, and this can be managed through the GED. As per Discussion Question 2, EPA licence conditions will mimic requirements within the LNLC Act where applicable. In cases where construction sites are not licensed, the EPA can also deal with construction noise via the GED with guidance provided by the Noise Policy. or using the section82 (of the EP Act) Nuisance Offence.

There was also concern that this change would create a gap in noise not regulated by the Noise Policy or the LNLC Act. This is incorrect as the LNLC Act applies to any activity not under EPA licence whether residential, commercial or industrial. Furthermore, the LNLC Act contains a direct replication of Part 6 of the Noise Policy covering all issues in the same manner, for example construction work on a Sunday or a public holiday as raised.

The LNLC Act generally operates through subjective assessment of complaints and it has been suggested that it could benefit from more objective measures. This is being considered as part of the current review of the LNLC Act.

Frost fans require development consent and can be controlled with objective criteria through planning controls. The *Audible bird scaring device -Environmental noise guidelines* have already been replaced by council bylaws in a number of LGA jurisdictions.

Recommendations

- Change title from 'Environment Protection (Noise) Policy' to 'Environment Protection (Commercial and Industrial) Noise Policy'. The revised Noise Policy will no longer include domestic' noise as this is now dealt with under the LNLC Act.
- Remove Part 6 of the Noise Policy as this is now dealt with under the LNLC Act.
- Remove the term 'mandatory provisions' which are no longer part of this policy due to the removal of Part 6.
- Remove the *Audible bird scaring device - Environmental noise guidelines* from the Noise Policy.
- Conduct discussions with the LGA to determine the need for guidance to assist local government in regulating noise under the planning system.

3.9 Noise excluded from the policy

Schedule 1 of the Noise Policy outlines noise excluded from the policy. Exclusion does not remove such noise from regulation; noise is still regulated in the EP Act through the GED obligation and under general offence provisions (environmental nuisance, material environmental harm and serious environmental harm), and as a local nuisance under the LNLC Act.

Noise that is excluded from the Noise Policy is generally done so because of the difficulty of measuring such noise or the type of noise is very different to noise that the Noise Policy is intended to regulate and requires a different approach. Below are stakeholder proposals from initial consultation related to adding and removing certain noise types or sources from the Noise Policy.

3.9.1 Aircraft noise and noise from aerodromes/helicopter landing facilities

During the 2017 initial consultation some stakeholders recommended that aircraft noise and noise from aerodromes and helicopter landing facilities be removed from Schedule 1 in order to make them subject to the Noise Policy. It was proposed that a review of the Noise Policy offers an opportunity to take a more strategic and nationally integrated approach to aircraft noise measurement.

An alternative option for controlling the impact of aircraft noise and noise from aerodromes and helicopter landing facilities would be to advocate for the inclusion of a planning overlay in the Planning and Design Code around such facilities. This would ensure proper siting, scale and construction of affected residential and other sensitive uses.

Aircraft noise is regulated under the EP Act only in certain circumstances, when associated with an on-ground facility. Aerodromes and helicopter landing facilities are regulated via licences issued under the EP Act where they meet certain criteria. Noise from aircraft and from Commonwealth facilities such as Adelaide and Parafield Airports and defence bases are Commonwealth responsibilities.

The National Airports Safeguarding Framework aims to minimise development sensitive to aircraft noise near airports and is directed at influencing land-use planning decisions. It is considered that this preventative approach is more likely to yield positive outcomes than attempts to regulate aircraft noise under state noise policies.

Discussion question 22

Is there justification to remove noise emanating from aerodromes and helicopter landing facilities from Schedule 1 of the Noise Policy? If so, how should noise from such sources be regulated and what are the expected risks and opportunities?

Consultation feedback summary

There was limited support for the removal of noise emanating from aerodromes and helicopter landing facilities from Schedule 1 of the Noise Policy. One submission responded that noise from small-scale aerodromes and helicopter landing facilities is poorly regulated, and exclusion from the Noise Policy creates uncertainty in how the GED principles in the EP Act are to apply, making it difficult for both developers/owners of these facilities and nearby residents. It was suggested that the EPA is best placed to determine acceptable noise levels for such facilities, with councils being unable to adequately address such activities due to resourcing issues.

There was considerable feedback that noise emanating from aerodromes and helicopter landing facilities should be addressed by an overlay in the Planning and Design Code or through the LNLC Act. However, there were other submissions that did not support regulating such noise using overlays. It was noted in local government submissions that council resourcing issues also apply to Overlays in the Planning and Design Code, making the use of overlays for the regulation of aerodromes and helicopter landing facilities an inadequate form of regulation.

Concern was raised that the removal of aircraft noise and noise emanating from aerodromes and helicopter landing facilities from Schedule 1 may introduce confusion and conflict with the role of Airservices Australia as the Commonwealth body responsible for addressing aircraft noise issues. One submission raised the issue that the Planning and Design Code is yet to be finalised and may not address airport noise appropriately.

It was also noted that seeking to control noise from aircraft once they are airborne and outside of the relevant site/property is beyond the scope of the EP Act. Another submission suggested such noise should be regulated by the *Airports (Environment Protection) Regulations 1997* under the *Airports Act 1996* (both Commonwealth pieces of legislation). It was also noted that the National Airports Safeguarding Framework (NASF) provides guidance on minimising development sensitive to aircraft noise near airports.

Response to feedback

Aircraft noise is regulated under the EP Act only in certain circumstances associated with an on-ground facility. Aerodromes and helicopter landing facilities are regulated via licences issued under the EP Act when they meet certain criteria. Noise from aircraft, Adelaide and Parafield Airports and Defence Department operations are Commonwealth responsibilities.

Recommendation

It is recommended a formating change be made to the Noise Policy which separates railway and aircraft noise into two separate points under Schedule 1 for clarity.

3.9.2 Site evacuation and fire (and testing) alarms

Stakeholders during initial consultation suggested that site evacuation and fire alarms (including testing alarms) should be included in Schedule 1 of the Noise Policy, and excluded from regulation through the Noise Policy. Victoria's Noise Policy for example does not assess 'noise from audible intruder, emergency or safety alarms'. As site evacuation and fire alarms are a form of safety equipment, it may be useful to exempt them from regulation under the Noise Policy. Such noise would still be regulated through the EP Act, and section 124(1) could allow for a defence of such noise in criminal proceedings:

> … if it is proved that the alleged contravention did not result from any failure on the defendant's part to take all reasonable and practicable measures to prevent the contravention or contraventions of the same or a similar nature.

Discussion question 23

Is there justification not to include site evacuation and fire alarms in Schedule 1 of the Noise Policy that would exclude them from regulation under the policy? If so, how should noise from such sources be regulated and what are the expected risks and opportunities?

Consultation feedback summary

The majority of submissions supported excluding site evacuation and fire alarms from regulation under the Noise Policy. Justification given for exclusion was that they are only activated in an emergency and any further regulation should only be around times for alarm testing (ie once a month during daytime hours). However, one respondent suggested that alarm testing should also be exempted from the Noise Policy. It was noted that such alarms should be designed for maximum audibility for safety reasons. It was suggested that they could be dealt with via the GED in the EP Act.

One submission supported intruder alarms remaining in the Noise Policy but fire alarms being exempt, noting that emergency sirens are already exempt under clause 9 of Schedule 1. The same submission argued that there would need to be an alternative appropriate enforcement option but councils may not be resourced to deal with such noise if it was the LNLC Act.

Response to feedback

Safety alarms, warning devices and other potential safety guides are intended to be intentionally loud and can be adequately managed without being included in the Noise Policy.

Recommendation

To ensure exclusions on the basis of safety are better designed, it is recommended the wording of clause 9 of Schedule 1 be changed from 'emergency vehicle sirens' to 'emergency warning alarms/devices'. This will clarify that emergency alarms are not considered under the Noise Policy as they are regulated under the GED in the EP Act.

3.9.3 Council owned/managed reserves, parks and open spaces

Some submissions received during initial consultation proposed that council owned/managed reserves, parks and open spaces be excluded from the Noise Policy because the use of such spaces for community events and gatherings can be managed through council supervision and bylaws. Furthermore, the LNLC Act now provides an appropriate framework for management of such noise, and noise that is excluded from the Noise Policy is not exempt from all regulation.

Discussion question 24

Is there justification not to include noise emanating from council owned/managed reserves, parks and open spaces in Schedule 1 of the Noise Policy, which would exclude them from regulation under the policy?

Consultation feedback summary

Reponses on this issue were fairly evenly split. Those who said council owned or managed areas should be regulated by the Noise Policy noted that noise emanating from parks and open spaces is typically contributed by numerous and variable sources, and generally beyond the control of the council. Another submitter noted that many parks and recreation areas are adjacent to residential areas and should be subject to the same noise requirements as other areas. The possibility of bias in subjective assessment of the noise if regulated under the LNLC Act was cited as a risk. It was suggested instead that a higher noise limit should be applied to recreational area noise sources during daytime hours, to allow for noise-generating recreational activities such as sport.

Those who thought that noise emanating from council owned/managed reserves, parks and open spaces should be included in Schedule 1 of the Noise Policy said that councils should be held accountable for such noise. It was noted such noise is already being regulated under the LNLC Act and the duplication may cause confusion.

One submission noted the ability to obtain exemptions under section 18 of the LNLC Act to deal with one-off events and that anti-social behaviour within reserves, parks and open spaces remain a SA Police matter.

Response to feedback

The LNLC Act provides an appropriate framework for the management of such noise, and noise that is excluded from the Noise Policy is not exempt from all regulation (eg it can still be regulated under the GED of the EP Act).

These places are not licensed by the EPA, so nuisance noise emanating from them will not be regulated by the EPA.

Recommendation

It is recommended that there is no change to the Noise Policy.

3.9.4 Provision for exemptions where matters are specifically addressed in licence conditions

Stakeholders during initial consultation proposed the Noise Policy include a provision for exemptions where matters are specifically addressed in licence conditions. Noise would be regulated simply through licence conditions and the EP Act, and not through the Noise Policy. The EP Act requires that the EPA must have regard to environment protection policies in setting conditions for environmental authorisations and already provides for exemptions from mandatory provisions of environment protection policies. Currently the Noise Policy takes precedence if there is conflict between the policy and licence conditions.

Discussion question 25

Is there justification to exclude noise emanating from EPA-licensed facilities from regulation under the Noise Policy? If so, what are the risks and opportunities?

Consultation feedback summary

The majority of feedback received supported excluding noise emanating from EPA-licensed facilities from regulation under the Noise Policy, with multiple submissions noting that a licence agreement already includes the permissible noise emission level from the facility with mitigation being required accordingly. It was also raised that this change would remove duplication and decrease confusion surrounding licence conditions and requirements under the Noise Policy.

There were some submitters who considered that the Noise Policy should still be used as a guide/default for permissible noise levels for EPA licensees. It was noted that noise limits in a licence should be of a reasonable level so as to not prejudice future land use options in adjacent land that may be contemplated, such as sensitive land uses. A sensitivity analysis was suggested such that a reasonable level of indoor/outdoor amenity is achieved with reasonable and practicable mitigation options. It was also suggested that if licensed sites are to be excluded it is important that monitoring and compliance of any noise complaints are wholly undertaken by the EPA and do not become council responsibility.

Although beyond the scope of the question there were a number of submissions arguing that industry should be protected from encroachment of new development as it represents a risk and uncertain future cost due to noise mitigation requirements.

There were also a number of suggestions that did not support excluding noise emanating from EPA-licensed facilities from regulation under the Noise Policy. It was noted that the EPA relies upon and is required to have regard to the Noise Policy when setting conditions, and that noise related license conditions can be generic. Further, it was suggested that any issue that may arise regarding conflict between the licence and Noise Policy is already addressed in the legislation.

Response to feedback

The Noise Policy provides a consistent technical framework for noise regulation in the state, and sets equipment and procedural requirements to ensure consistent regulatory standards. The policy provides more thorough noise regulation than is generally contained in licence conditions, and is still required to ensure adequate regulation of noise.

Recommendation

It is recommended that there is no change to the Noise Policy.

3.9.5 Clause 7 Schedule 1

Due to the unique characteristics (intermittent, very loud, impulsive or modulating) of the noise produced by aerodromes, helicopter landing facilities, motor racing or testing venues and shooting ranges, such noise is generally excluded from being assessed against the Noise Policy. However, the exclusion is limited to those facilities licensed under the EP Act. This leaves a gap where facilities of these types that are below licensing thresholds are required to be assessed under the Noise Policy. It was proposed in initial consultation to extend the exclusion by removing the text ‘as described in clause 8 of Schedule 1 of the Act’ from the clause 7.

Discussion question 26

Is there justification not to exclude noise emanating from the activities described in clause 7 Schedule 1 of the Noise Policy, and should they be excluded whether they trigger the thresholds for licensing under the EP Act or not?

Consultation feedback summary

The majority of feedback supported excluding noise emanating from EPA-licensed facilities from regulation under the Noise Policy but advocated that the Noise Policy should regulate any noise sources that are not licensed.

A few submissions argued it would seem counterintuitive to remove from regulation noise from difficult to measure sources, and an absence of alternative objective guidance can create considerable uncertainty for both developers/operators and noise sensitive receivers.

Alternative approaches were suggested, such as rules for relaxation of criteria where such facilities operate intermittently or including noise from the above sources as additional Divisions in the Noise Policy.

Response to feedback

This clause continues to be problematic for activities that require a development application referral to the EPA.

Such activities as described in clause 7 of Schedule 1 of the Noise Policy are excluded from being assessed against the Noise Policy due to their unique characteristics and not only because they are EPA licensed. Facilities of these types should be excluded from assessment under the Noise Policy regardless of whether they meet licensing thresholds.

Recommendation

It is recommended to amend to the Noise Policy by removing the text 'as described in clause 8 of Schedule 1 of the Act' from the clause such that noise emanating from these activities is excluded from the policy whether the activity meets licensing thresholds or not.

3.10 Technical proposals

Several minor technical changes must be made to the Noise Policy. Such changes will have no effect on the application of the Noise Policy.

3.10.1 Part 3 Measurement procedure

Clause 11(1) – Instrumentation – states that sound level meters are required to comply with AS 1259–1990: Acoustics – Sound Level Meters or International Electro-technical Commission Standards IEC 651–1979 and IEC 804–1985. These standards are out of date and need to be replaced with reference to the two current International Electro-technical Commission Standards.

Clause 13(c) – General Measurement Procedures – refers to 'administering authority'. The clause should refer to 'administering agency'.

Consultation feedback summary

No feedback provided.

Response to feedback

N/A

Recommendation

It is recommended to make the proposed technical changes.

3.11 Part 7 Guidance documents

An important feature of the Noise Policy is the link to relevant guidelines. Part 7 uses guidelines as a means of describing how a person undertaking a particular activity can comply with their GED as outlined in section 25 of the EP Act.
A guideline listed in the Noise Policy contains specific requirements, advice, and information, but not offence provisions. While failure to comply with a guideline listed is not an offence, compliance with a guideline can be enforced through the issuing of an environment protection order. Currently, there are two guidelines listed in Part 7, *Audible bird scaring devices - Environmental noise guideline 2007* and *Wind farms environmental noise guidelines 2003.* Part 7 can also have additional guidelines included by the Minister (clause 8) by notice in the Government Gazette.

The specific requirements in a guideline describe what a person undertaking a particular activity should or should not do in order to comply with the requirements of the Noise Policy (and other environment protection polices as appropriate) and the EP Act. These specific requirements are usually outcome based and not prescriptive. There may be many ways

'how to do it' and by not specifying a particular method, allows the person undertaking the activity to choose how the outcome is achieved.

Clause 34(1) – Wind Farms – refers to a superseded guideline. This needs to be changed to:

> If a person or organisation operates a wind farm, the *Wind Farms Environmental Noise Guidelines* as prepared by the Authority and amended from time to time, apply.

Consultation feedback summary

One submission raised concern that the previous review of the Windfarm Guidelines was insufficient, and it does not align with the Planning and Design Code. Other concerns were raised regarding the Renewable Energy Policy within the Planning and Design Code (specifically around health and environmental effects of wind turbines), the reliance on a selective literature review of the National Health and Medical Research Council zoning issues, efficiency of renewable energy sources (including wind turbines) and the allowable noise limit for wind turbines being too high.

Response to feedback

The review is currently ongoing and these comments have been considered.

Recommendation

It is recommended to make the proposed change to the reference to the superseded guideline.

3.12 Other improvements

3.12.1 General

a Some submissions commented that experts should be consulted as part of the review.

EPA response: Acoustic engineers were involved in consultation as part of the review.

b One respondent stressed the overwhelming body of evidence demonstrating the deleterious impact of excessive noise on human health, and raised that if an entity/entities are producing sufficient noise to impact human health, then their activities must stop or remedial actions must be taken (ie the polluter pays principle).

EPA response: The Noise Policy considers the health effects of excessive noise. Such noise needs to be assessed on a case-by-case basis. No change to the Noise Policy is recommended.

c A submission raised concerns that the current framework is too expensive to administer and requires experts to be deployed. Simplified methods for assessing sound levels against the Noise Policy were requested to be a priority.

EPA response: There is a simplified method that is used to address LNLC Act matters. The Noise Policy however is intended for use by noise professionals. No change to the Noise Policy is recommended.

d It was suggested that the Noise Policy should allow the use of new and emerging technologies.

EPA response: The Noise Policy does not restrict this, and has the flexibility to balance amenity with technology use. No change to the Noise Policy is recommended.

e It was argued that there is a need for education among professionals interacting with the Noise Policy to ensure appropriate use.

EPA response: Stakeholders are able to contact the EPA for further information, education and assistance. No change to the Noise Policy is recommended.

f It was requested that noise below 20 Hz should be reinstated in the Noise Policy.

EPA response: Infrasound is unlikely to be an issue for industrial noise. Low frequency noise is already addressed. No change to the Noise Policy is recommended.

3.12.2 The review of the Noise Policy

a Comment was made that the choice of stakeholders was biased towards industry representatives who are often the noise producers and would benefit from more relaxed noise regulations. A lack of community involvement in the initial consultation process was raised as a concern as such people are most likely to suffer from adverse impacts due to excessive noise exposure. It was noted that there was no consultation with university academics who could present an unbiased and educated perspective on these issues.

EPA response: The range of stakeholders consulted was broad and is listed at Appendix 1. The next stage with proposed amendments to the Noise Policy will engage with the wider public.

b Concern around the timing of the review was raised due to the new planning system having not yet been finalised. Similar concerns were raised regarding submitting a response before the review of the LNLC Act is finalised.

EPA response: The aim of the discussion paper was to obtain feedback in a broad sense about how to achieve alignment with the Planning and Design Code. The code will be finalised by the time amendments to the Noise Policy will be formally proposed and available for consultation. The next stage of consultation will occur once they are drafted and available for an eight-week consultation period, incorporating a public meeting.

3.12.3 Methodology and measurement

a Clause 5(6) defines a method for determining INLs where the noise source and the noise affected premises are in different planning zones separated by a third zone which is greater than 100 m wide. It was argued that the general application of this clause results in unintended consequences in many circumstances, for example resulting in more onerous criteria being applied. The submission recommended that this clause be removed or modified.

EPA response: This methodology is important to preserve, any changes could add complexity to the policy. No change to the Noise Policy is recommended.

b Suggested that a formal approach to define acceptable noise levels for a sensitive receptor is integrated with Minister's Specification SA78B in the Noise Policy.

EPA response: Minister's Specification SA78B is a planning document with 'deemed to satisfy' building requirements. It is not clear why the Noise Policy requires any amendment, noting that the Minister's Specification SA78B applies in association with the Noise and Air Emissions Overlay for development decisions and is effective in this role. No change to the Noise Policy is recommended.

c It was suggested that there is an underlying bias as the Noise Policy only deals with the noise generated from a single noise source and no adjustment is made for multiple noise sources. Concern also was raised that measurements must be made in a short period of time or a time which is not representative of normal operation and modelled noise values can often fail to include suitable error margins.

The submitter proposed a multi-step process where modelled noise levels are used in assessments if the modelled value is 15dB(A) or more less than the policy threshold, the development should proceed; if the modelled noise value is 10dB(A) (or more) less than the policy threshold, the development should proceed but noise levels must be monitored after construction.

It was proposed that the Noise Policy should adjust all external noise thresholds down by 10dB(A) as the underlying assumption regarding outdoor/indoor noise reduction which the Noise Policy is based upon is incorrect.

EPA response: This is not an underlying bias, just a matter of practicality. No change to the Noise Policy is recommended.

d It was proposed that a separate analysis procedure should be provided for noise from essential frastructure operation, maintenance and construction with a methodology for assessment of noise from construction traffic.

EPA response: This change does not need to be incorporated in the Noise Policy. The EPA does not assess noise from construction traffic as it is the responsibility of planning authorities. Consideration will be given to including guidance in the Noise Guidelines. No change to the Noise Policy is recommended.

e There was a proposal that the Noise Policy should deal with encroachment of existing land uses by new noise sensitive receivers in a way which is fairer to existing noise sources. It was argued that some noise sources that are assessed and found compliant at development application stage are later forced to reassess operational noise after residential land has encroached on previously non-residential areas. It was suggested that greater onus be placed on suitable acoustic treatment being included in residential development which encroaches existing industry.

EPA response: This is a planning issue. There is no justification for change noting that the Noise Policy already allows for consideration of planning history in any assessment. However, the Noise Guidelines could be expanded to deal with these type of scenarios. No change to the Noise Policy is recommended.

f A submission stressed the need to document the approach where for a Development Approval (DA) assessment the criteria can be set as background noise level plus five, then 5dB(A) is subtracted for a development assessment, essentially setting the DA noise criteria as the background noise level.

EPA response: Noise is assessed under Part 5 of the Noise Policy for a DA. This section does not have a background noise level plus 5dB(A) noise criteria. A new development is required to meet the INL minus 5dB(A), however if the development is unable to meet this, Clause 20(6) can be taken into consideration. There is no need for change to the Noise Policy.

g The L_{max} noise limit for development in quiet localities should be removed as it is ineffective and difficult to assess and implement.

EPA response: L_{max} noise limits for quiet localities needs to remain in the Noise Policy as it will assist in minimising sleep disturbance. No change to the Noise Policy is recommended.

3.12.4 Noise sources

a It was suggested that music and noise from entertainment be included in the Noise Policy as it can cause community disturbance. Further suggestion that drones be addressed in the Noise Policy review as they are inherently noisy and can cause unreasonable disturbance and nuisance.

EPA response: Music noise and noise from entertainment venues is excluded from the Noise Policy as it is dealt with by councils, SAPOL and the Liquor Licensing Commission. Drones are classified as aircraft noisend exempt from the Noise Policy. For further clarity on the policy intent, it is recommended the addition of ‘commercial noise’ be added to Schedule 1 clause 1.

b The removal of noise sources from the Noise Policy such as construction noise, site evacuation and fire alarms was raised as a concern and it would further expand council’s role in administering complaints under the LNLC Act and lead to greater inconsistency for the community and builders.

EPA response: Most construction noise complaints are already managed under LNLC Act. Site evacuation and fire alarms are not explicitly covered under the Noise Policy, and safety alarms are not intended to be regulated in the same way as other noise as they are reasonably made to be intentionally loud. No change to the Noise Policy is recommended.

c Inconsistency was cited as garbage collection, domestic fixed machine noise, building intruder alarms and frost fans are addressed specifically in the Noise Policy while other noise sources which are addressed specifically are dealt with in guidance documents. It was suggested that these sources be addressed with guidance documents if not suitable to be assessed by the wider Noise Policy. It was also suggested that domestic activity noise and construction noise be retained in this section, as the nature of these noise sources is different to those which are addressed by the wider policy.

EPA response: The majority of these provisions are to be removed as they are now covered in the LNLC Act. No change to the Noise Policy is recommended.

d It was suggested that any noise sources listed in Schedule 1 of the Noise Policy and excluded from the Noise Policy should have an alternative assessment procedure provided in a guidance document, noting that assessments of some of these noise sources are currently inconsistent or unguided.

EPA response: Noise excluded by the Noise Policy is either dealt with under the GED, EPA licence conditions or the LNLC Act. No change to the Noise Policy is recommended. There will however be consideration for guidance around frost fans in the Noise Guidelines.

e One submitter wanted to ensure that whatever future assessment methods and standards that may be adopted will be fair to shooting clubs, and that any amendments include a requirement that assessments must be undertaken by impartial persons who are expert in their field.

EPA response: This is addressed in proposed Schedule 1 amendments.

3.12.5 Definitions

f It was suggested that the definition of Authorised Officer should require active Membership of the Engineers Australia and the Australian Acoustic Society. It was further suggested that the definition of “independent acoustic engineer” contained in the Guidelines be moved into the Noise Policy and amended to require an active Membership of the Engineers Australia and the Australian Acoustic Society, not just eligibility.

EPA response: There is no benefit to implementing this change as Authorised Officers who administer the Noise Policy are not classified as ‘independent acoustic engineers’. The EPA considers eligibility more appropriate than requiring membership given the only discernible difference is the payment of fees. No change to the Noise Policy is recommended.

3.12.6 Strata

One submission noted that the Noise Policy and the LNLC Act delegates the management of all noise issues within a building under community or strata title to the strata management committee and this does not take into account the origin of the noise. It was suggested that the way the legislation has been framed excuses a strata management committee from complying with the requirements of the Noise Policy with no oversight or scrutiny of their activities by either the EPA or an administering agency. Dispute resolution is an issue with expensive consequences. It was stated that the delegation of responsibility for all noise management to a strata committee (most likely unqualified and untrained) does not take into account the very complex nature of noise management. It was requested that the legislation be amended to allow for impartial subjective assessment by an administering agency.

EPA response: The Noise Policy does not delegate responsibility as described here. Noise excluded from the Noise Policy is often done so on the basis that certain types of noise is dealt with by other authorities, usually under other legislation. In this case the Strata Title Act or Community Titles Act is relevant and noise complaints are an internal matter to be resolved via the articles of strata incorporation. It is a basic principle of the Noise Policy that it becomes relevant where noise crosses a property boundary which is not the case in managed strata property. The LNLC Act is structured so as not to provide an additional resolution pathway where other legislation specifically deals with nuisance. No change to the Noise Policy is recommended.

3.12.7 Frost fans

It has been suggested that new quieter technology has been developed after the Noise Policy commenced operation and that the additional 5 dB(A) noise allowable granted to frost fans should be revoked retrospectively to all existing and future frost fan installations in South Australia.

One submission noted that mobile frost fans should be treated in the same way as fixed installations. Multiple Frost fan installations should be accounted for by lowering the allowable noise level from individual frost fans by at least 6 dB(A).

It was suggested that the Noise Policy needs to be amended regarding frost fans in regions where they are operated more frequently than the Noise Policy intended and that in climatic areas like around Naracoorte the special exemptions granted to frost fans be revoked; their regular operation means they should be assessed just like any other noise. It was also noted that frost fans produce large amounts of low frequency noise which should be measured and legislated against due to the annoyance level.

Feedback was also received that long-term monitoring of noise from frost fans operating in vineyards should be undertaken to enable legislation to fully reflect the noise pollution produced. The combined 'risk cup' approach is an accepted method to provide objective criteria for other pollutants (eg pesticides). It was also suggested that frost fan installations should be licensed and managed through the EPA directly on a cost-recovery basis.

EPA response: Reference to frost fans should be removed from the Noise Policy as our primary interest is in licensed sites. This issue is managed by local governments under the LNLC Act and by conditions of development consent.

3.12.8 National Wind Farm Commissioner

Multiple recommendations from the National Wind Farm Commissioner 2019 Annual Report were suggested for incorporation within the Noise Policy:

- Recommendation 5.2.1 − State governments should review and clarify their current arrangements for the setting of environmental standards, along with the arrangements for oversight and confirmation of compliance with those standards. It is strongly preferred that the department or agency setting and maintaining the various standards is independent of the department or agency responsible for planning and applying those standards.
- Recommendation 5.2.8.1 − Based on current observations and the findings of the World Health Organization, it would appear that an appropriate level for a consistent wind farm noise limit would be 35 dB(A)* measured outside of the residence. LA_{90}, 10-minutes or background noise plus 5dB(A), whichever is the greater amount.
- Recommendation 6.2.1 − Given the heavy reliance on advice and assessments provided by experts in a project's design, planning, construction and compliance decision making, qualified experts used for assessment engagements should be ideally selected from an accredited panel or list. The panel or list could be maintained by the relevant responsible authority (or environmental regulator). Alternately, the panel or list could be maintained by a relevant industry body or association.
- Recommendation 6.2.2 − To ensure independence and remove any real or perceived conflicts of interest, the expert organisation (or expert) selected to perform post-construction compliance assessments of a project should be a different expert organisation (or expert) to the one engaged for the design/planning phase of that project.
- Recommendation 6.2.3 − Expert reports, assessments and techniques used for planning submissions, such as the predictive noise assessment, should be reviewed and assessed by an independent auditor, appointed or accredited by the responsible authority and/or relevant regulator. Further, expert reports prepared with respect to post-construction compliance should also be reviewed and assessed by a different, independent auditor, also appointed or accredited by the responsible authority and/or relevant regulator.
- Recommendation 6.2.4 − The appointed independent auditors (refer to Recommendation 6.2.3) should be suitably qualified, experienced and accredited, have the ability to assess the integrity and accuracy of the expert's report and be able to identify and confirm compliance or non- compliance with the relevant permit conditions and/or prescribed standards.

EPA response: The Noise Policy only relates to wind farms by calling up of the Wind Farms Environmental Noise Guidelines. These recommendations are outside the scope of the Noise Policy review.

4 Next steps

The feedback from consultation on the discussion paper and the recommendations of this report will inform the development of a draft revised noise policy in accordance with section 28 of the EP Act. This includes an eight-week consultation with at least one public meeting to be organised. Consultation on a draft revised policy will be advertised on the EPA website and through other media. Those who made submissions to the discussion paper will also be contacted directly when consultation commences.

Appendix 1 Stakeholder list from second-round consultation

Adelaide Airport

Airservices Australia

Civil Aviation Safety Authority

City of Holdfast Bay

City of Playford

City of Salisbury

City of Unley

City of West Torrens

Department of Energy and Mining

Housing Industry Association

Leigh Creek Energy Limited

Local Government Association

NSW EPA

Office of the National Wind Farm Commissioner

OneFortyOne Wood Products

Planning Institute of SA

Resonate Consultants

Rex Minerals

SA Water

Sims Metal Management

Sporting Shooters Association

Urban Development Institute of Australia (SA)

Waste Management and Resource Recovery Association of Australia (WMRR)

WSP

And 8 interested individuals