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WESTERN AUSTRALIAN PLANNING
COMMISSION

STATE PLANNING POLICY 5.4

ROAD AND RAIL TRANSPORT NOISE AND
FREIGHT CONSIDERATIONS IN
LAND USE PLANNING

PREPARED UNDER SECTION 26 OF THE
PLANNING AND DEVELOPMENT ACT 2005
BY THE WESTERN AUSTRALIAN PLANNING COMMISSION

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**ROAD AND RAIL TRANSPORT
NOISE AND FREIGHT CONSIDERATIONS IN LAND USE PLANNING**

STATE PLANNING POLICY 5.4

1. CITATION

This state planning policy has been prepared under section 26 of the *Planning and Development Act 2005*. This policy may be cited as State Planning Policy 5.4 Road and Rail Transport Noise and Freight Considerations in Land Use Planning.

2. INTRODUCTION

Road and rail transport corridors play a vital role in moving people and goods safely, efficiently and effectively, and they provide wide-ranging economic and social benefits to the community. Growing volumes of general traffic and freight, and a greater community awareness of amenity and quality of life issues, have led to transport noise becoming an increasingly important consideration in land use planning.

Excessive noise has the potential to affect the health and amenity of a community as a whole, as well as the wellbeing of an individual. Sleep, relaxation and conversation can all be adversely affected by high levels of noise. There is also documented evidence that long-term exposure to high levels of noise may cause serious health, learning and development problems. Attitudes to noise exposure vary widely. Some people are more sensitive to noise than others, and tolerance to noise can vary depending on the time of day or the day of the week. Community expectations of what is an acceptable noise environment can also vary depending on the locality.

In addition to considering the amenity of the acoustic environment for the community, land use planners must consider the need to protect transport corridors from encroaching incompatible development and ensure proposed developments support the functionality of essential freight operations. The efficient movement of freight is critical to the sustainability of Western Australia, and as the population and resource industry grow, the increase in the volume of freight and the vast distances involved in distribution will put further pressure on the transport infrastructure.

This policy aims to promote a system in which sustainable land use and transport are mutually compatible. It seeks to minimise the adverse impact of transport noise, without placing unreasonable restrictions on noise-sensitive residential development, or adding unduly to the cost of transport infrastructure. It aims to provide a standardised and consistent triple bottom line framework for the consideration and management of the impacts of transport noise and freight operations when dealing with—

- new noise-sensitive development in the vicinity of existing or future major transport corridors or freight handling facilities;
- new major road or rail infrastructure projects, including major redevelopments, in the vicinity of existing or future noise-sensitive land uses; and
- the location of freight handling facilities.

The policy does this primarily by—

- identifying the situations in which it would be appropriate to assess proposals for transport noise impacts;
- establishing noise criteria to be used in the assessment of these proposals; and
- identifying measures that can be adopted to reduce road and rail transport noise in these instances.

The policy was prepared in conjunction and consultation with the Department of Environment and Conservation (DEC), Main Roads WA (MRWA), the Public Transport Authority (PTA) and the Western Australian Local Government Association (WALGA), as well as various industry bodies.

A review of the operation and effectiveness of this policy is expected to be conducted within two years of its commencement.

The policy does not exist in isolation and it needs to be considered in the context of broader policies for urban planning and management. Although noise-sensitive land uses should ideally be separated from major sources of noise such as road and rail, it is often impractical or undesirable to separate transport corridors from the residential and other land uses they serve.

Current planning policy is directed towards containing urban expansion, encouraging higher density residential development and employment close to public transport and activity centres, and reducing car dependency by promoting public transport. This inevitably means that some major transport corridors will be located in the vicinity of residential development and that many busy transport routes will be flanked by higher density housing.

More effective management of transport noise will therefore be necessary to protect residential areas and other noise-sensitive land uses from exposure to unacceptable levels of noise. There may be circumstances in which the criteria for acceptable noise levels cannot be met. In those circumstances, the criteria should be viewed as long-term aims to be achieved to the greatest extent that is reasonable and practicable.

In the future, noise criteria are likely to become more demanding than those contained in this policy. Improvements in technology in both infrastructure and development industries are therefore encouraged, with the aim of a long-term reduction in noise experienced by noise-sensitive land uses.

The policy should be read and applied in conjunction with other strategies and policies relevant to transport and urban development, particularly *Hope for the Future: the Western Australian State Sustainability Strategy* and the Western Australian Planning Commission (WAPC)'s *Directions 2031: Spatial Framework for Perth and Peel, State Planning Policy 3 Urban Growth and Settlement* and *Liveable Neighbourhoods* policy.

The policy is accompanied by a set of guidelines to assist in the implementation of the policy's objectives.

3. APPLICATION OF THE POLICY

This policy applies throughout Western Australia.

4. OBJECTIVES OF THE POLICY

The objectives of this policy are to—

- protect people from unreasonable levels of transport noise by establishing a standardised set of criteria to be used in the assessment of proposals;
- protect major transport corridors and freight operations from incompatible urban encroachment;
- encourage best-practice design and construction standards for new development proposals and new or redeveloped transport infrastructure proposals;
- facilitate the development and operation of an efficient freight network; and
- facilitate the strategic co-location of freight handling facilities.

5. POLICY

5.1 Scope of the policy

This policy addresses transport noise from within major transport corridors, including primary freight routes, and its impact on nearby noise-sensitive land uses. It also considers the need to strategically locate freight handling facilities.

Specifically, the policy is relevant when there is—

- a proposed new noise-sensitive development in the vicinity of an existing or future major road, rail or freight handling facility;
- a proposed new major road or rail infrastructure project in the vicinity of existing or future noise-sensitive land uses;
- a proposed major redevelopment of existing major road or rail infrastructure in the vicinity of existing or future noise-sensitive land uses; or;
- a proposed new freight handling facility.

Section 5.2 contains detailed policy interpretation of the terms 'noise-sensitive development', 'freight handling facility', 'major road' and 'major redevelopment'. Reference should also be made to the policy definitions of 'noise-sensitive land use', and 'in the vicinity of', in the appendix.

In applying this policy it is expected that consideration will be given to a 15-20 year transport planning horizon, which allows for the impact of future traffic growth. This provides protection to both transport corridors and noise-sensitive developments over the longer term.

The policy **does not apply**—

- retrospectively to noise from existing railways or major roads in the vicinity of an existing noise-sensitive land use; and
- to proposals involving an increase in traffic along an existing railway or major road in the absence of a major redevelopment.

Such matters are addressed directly by those agencies responsible for the operation of the relevant transport infrastructure and, if appropriate, the state environmental agency.

This policy addresses only road and rail transport noise and it does not address aircraft or watercraft noise impacts. For more information on aircraft noise, refer to the WAPC's *State Planning Policy 5.1 Land Use Planning in the Vicinity of Perth Airport* and *State Planning Policy 5.3 Jandakot Airport Vicinity*. There are currently no specific policies or guidelines in relation to watercraft noise.

The policy does not apply to safety warning devices installed on road or rail vehicles or to fixed sources of noise. Fixed sources of noise, including any noise produced during the actual construction of new road and rail infrastructure, are addressed by the *Environmental Protection (Noise) Regulations 1997*.

For the purposes of this policy, the word 'noise' does not include ground vibration, although it is recognised that vibration can result from some forms of transport. Some informative guidance on vibration is presented in the guidelines.

Although new major road and rail infrastructure projects in existing reserves do not normally require planning approval, transport infrastructure providers are expected to carry out these works in a manner that is consistent with the policy.

5.2 Types of proposals

5.2.1 Noise-sensitive development

In this policy, a noise-sensitive development is defined as any proposed development for a noise-sensitive land use that would normally require planning approval by a local government authority or the WAPC. This includes proposals at the following stages of the land use planning process: scheme amendment, structure planning, subdivision (including strata subdivision) and development applications.

In interpreting the extent of application of the policy, it should be noted that the intent of the policy is to capture most noise-sensitive developments that are likely to be significantly affected by transport noise. However, some developments that could be significantly affected may fall outside the existing defined scope. The policy allows for such situations to be taken into account on a case-by-case basis at the discretion of the responsible authority (local government or the WAPC). For example, discretion may be exercised by a local government authority to apply this policy in the case of an application for a building licence for a single dwelling that would not ordinarily require planning approval but would be subject to critical levels of noise given its location adjacent to a major transport corridor.

In determining the extent of application of the policy in relation to noise-sensitive development, it is reasonable to presume that substantial building development fronting a transport corridor will generally have the effect of screening development to the rear. For example, in a residential development, usually only the first row of houses that faces the transport corridor will be significantly affected. This includes those housing sites that are separated from the transport reserve by only a service road. However, the screening capacity of frontage development may vary from site to site, and this can be confirmed only after a noise assessment has been completed for a particular scenario.

The guidelines include estimates of transport noise levels, taking into account traffic volumes and distance separation from the railway or major road. These estimates may be used to determine whether noise assessment and mitigation measures may be necessary under this policy. They also provide further information about the delineation of noise-affected areas.

5.2.2 Major roads

For the purposes of applying this policy, a major road is taken to mean one of the following—

- state roads and national highways;
- urban primary distributors, as described on the metropolitan functional road hierarchy (MRWA, local government) network;
- other urban roads carrying more than 20 000 vehicles per day;
- other rural primary distributors carrying more than 5 000 vehicles per day;
- primary freight roads (Perth metropolitan region) as shown in Schedule 1;
- primary freight roads (South-West region) as shown in Schedule 2; and
- primary freight roads (Statewide) as shown in Schedule 3.

Although this policy is not intended to apply to local roads, in exceptional circumstances it may be applied to roads that do not meet the definition of a major road, at the discretion of the WAPC or local government. Exceptional circumstances would apply if, in the opinion of the WAPC or local government, the outcome of the road project could result in a significant noise impact on people. For example, in rural areas that have very low background noise levels, the 5 000 vehicles per day threshold for a new major road may not be triggered; however, the noise impact could be significant.

In addition to new major road infrastructure projects, this policy may be applied to a major redevelopment of an existing major road. Typically, a major redevelopment of an existing major road involves physical construction works designed to facilitate an increase in traffic-carrying capacity (such as carriageway duplication or the addition of a traffic lane), or a change in the alignment through design or engineering modifications.

Major redevelopment does not cover minor works such as routine maintenance, minor changes in alignment or minor changes required for safety reasons, if these works will not result in a significant increase in road transport noise levels.

5.2.3 Railways

This policy applies to new passenger and freight rail infrastructure projects.

Policy measures are also triggered by proposals for—

- major redevelopments of railways; and
- minor redevelopments that are likely to adversely affect a noise-sensitive land use (see guidelines section 3.1).

For major or minor redevelopments, the policy measures in sections 5.4, 5.5, 5.6 and 5.8 should be applied, but not the noise criteria in section 5.3. This recognises that the level and nature of noise emissions from major and minor railway redevelopments are likely to require noise management measures other than the performance base of the noise criteria in section 5.3.

For the purposes of this policy, a major redevelopment of a railway means—

- a proposed substantial realignment, either inside or outside the existing corridor; or
- a rail duplication; or
- works that significantly increase capacity.

For the purposes of this policy, a minor redevelopment of a railway means minor works such as crossovers, sidings, turnouts, yards, loops, refuges, relief lines, straightening of curves, re-sleepering or the installation of track signalling devices.

An increase in rail traffic or noise alone, in the absence of physical construction works, does not trigger this policy.

5.2.4 Freight handling facilities

In addition to applications for noise-sensitive development, any new planning applications involving freight handling facilities, such as land-based freight storage and freight interchanges, are subject to this policy and should be assessed for transport noise impacts on adjoining noise-sensitive land uses and with regard to section 5.9 of this policy.

5.3 Noise criteria

Table 1 sets out the outdoor noise criteria that apply to proposals for new noise-sensitive development or new major roads and railways assessed under this policy.

These criteria do not apply to—

- proposals for redevelopment of existing major roads or railways, which are dealt with by a separate approach as described in section 5.4.1; and
- proposals for new freight handling facilities, for which a separate approach is described in section 5.4.2.

The outdoor noise criteria set out in Table 1 apply to the emission of road and rail transport noise as received at a noise-sensitive land use. These noise levels apply at the following locations—

- for new road or rail infrastructure proposals, at 1 m from the most exposed, habitable façade of the building receiving the noise, at ground floor level only; and
- for new noise-sensitive development proposals, at 1 m from the most exposed, habitable façade of the proposed building, at each floor level, and within at least one outdoor living area on each residential lot.

Further information is provided in the guidelines.

Table 1: Outdoor noise criteria.

Time of day	Noise Target	Noise Limit
Day (6 am–10 pm)	$L_{Aeq(Day)} = 55dB(A)$	$L_{Aeq(Day)} = 60dB(A)$
Night (10 pm–6 am)	$L_{Aeq(Night)} = 50dB(A)$	$L_{Aeq(Night)} = 55dB(A)$

The 5dB difference between the outdoor noise target and the outdoor noise limit, as prescribed in Table 1, represents an acceptable margin for compliance. In most situations in which either the noise-sensitive land use or the major road or railway already exists, it should be practicable to achieve outdoor noise levels within this acceptable margin. In relation to greenfield sites, however, there is an expectation that the design of the proposal will be consistent with the target ultimately being achieved.

Because the range of noise amelioration measures available for implementation is dependent upon the type of proposal being considered, the application of the noise criteria will vary slightly for each different type. Policy interpretation of the criteria for each type of proposal is outlined in sections 5.3.1 and 5.3.2.

The noise criteria were developed after consideration of road and rail transport noise criteria in Australia and overseas, and after a series of case studies to assess whether the levels were practicable. The noise criteria take into account the considerable body of research into the effects of noise on humans, particularly community annoyance, sleep disturbance, long-term effects on cardiovascular health, effects on children's learning performance, and impacts on vulnerable groups such as children and the elderly. Reference is made to the World Health Organization (WHO) recommendations for noise policies in their publications on community noise and the *Night Noise Guidelines for Europe*. See the policy guidelines for suggested further reading.

5.3.1 Interpretation and application for noise-sensitive development proposals

In the application of these outdoor noise criteria to new noise-sensitive developments, the objective of this policy is to achieve—

- acceptable indoor noise levels in noise-sensitive areas (for example, bedrooms and living rooms of houses, and school classrooms); and
- a reasonable degree of acoustic amenity in at least one outdoor living area on each residential lot¹.

If a noise-sensitive development takes place in an area where outdoor noise levels will meet the noise target, no further measures are required under this policy.

In areas where the noise target is likely to be exceeded, but noise levels are likely to be within the 5dB margin, mitigation measures should be implemented by the developer with a view to achieving the target levels in a least one outdoor living area on each residential lot¹. Where indoor spaces are planned to be facing any outdoor area in the margin, noise mitigation measures should be implemented to achieve acceptable indoor noise levels in those spaces. In this case, compliance with this policy can be achieved for residential buildings through implementation of the deemed-to-comply measures detailed in the guidelines.

In areas where the outdoor noise limit is likely to be exceeded (i.e. above $L_{Aeq(Day)}$ of 60dB(A) or $L_{Aeq(Night)}$ of 55dB(A)), a detailed noise assessment in accordance with the guidelines should be undertaken by the developer. Customised noise mitigation measures should be implemented with a view to achieving the noise target in at least one outdoor living or recreation area on each noise-sensitive lot or, if this is not practicable, within the margin. Where indoor spaces will face outdoor areas that are above the noise limit, mitigation measures should be implemented to achieve acceptable indoor noise levels in those spaces, as specified in the following paragraphs.

For residential buildings, acceptable indoor noise levels are $L_{Aeq(Day)}$ of 40dB(A) in living and work areas and $L_{Aeq(Night)}$ of 35dB(A) in bedrooms². For all other noise-sensitive buildings, acceptable indoor noise levels under this policy comprise noise levels that meet the recommended design sound levels in Table 1 of Australian Standard AS 2107:2000 *Acoustics—Recommended design sound levels and reverberation times for building interiors*.

These requirements also apply in the case of new noise-sensitive developments in the vicinity of a major transport corridor where there is no existing railway or major road (bearing in mind the policy's 15-20 year planning horizon). In these instances, the developer should engage in dialogue with the relevant infrastructure provider to develop a noise management plan to ascertain individual responsibilities, cost sharing arrangements and construction time frame.

If the policy objectives for noise-sensitive developments are not achievable, best practicable measures should be implemented, having regard to section 5.8 and the guidelines.

5.3.2 Interpretation and application for new major road and rail infrastructure proposals

In the application of the noise criteria to new major road and rail infrastructure projects, the objective of this policy is that the new infrastructure be designed and constructed so that the noise emissions are at a level that—

- provides an acceptable level of acoustic amenity for existing noise-sensitive land uses and for the planning of new noise-sensitive developments;
- is consistent with other planning policies and community expectations; and
- is practicably achievable.

For transport infrastructure projects within the scope of this policy, a noise assessment should be conducted in accordance with the guidelines to predict future noise levels resulting from the project and to identify relevant noise mitigation measures.

If a transport infrastructure project will emit transport noise levels that meet the noise target, no further measures are required under this policy. Otherwise, transport infrastructure providers should design mitigation measures to achieve the noise limit of $L_{Aeq(Day)}$ 60dB(A) and $L_{Aeq(Night)}$ 55dB(A), when assessed at one metre from the façade at ground floor level.

Transport infrastructure providers are also required to consider design measures to meet the noise target of $L_{Aeq(Day)}$ 55dB(A) and $L_{Aeq(Night)}$ 50dB(A), and to implement these measures where reasonable and practicable.

If a new rail or major road infrastructure project is to be constructed in the vicinity of a future noise-sensitive land use, mitigation measures should be implemented in accordance with this part of the policy. For this purpose, a proposed noise-sensitive land use is any noise-sensitive development that is subject to an approved detailed area plan, subdivision approval or development approval, such that the transport infrastructure provider is able to adequately design noise mitigation measures to protect that development. In these instances, the infrastructure provider and developer are both responsible for ensuring that the objectives of this policy are achieved, and a mutually beneficial noise management plan, including individual responsibilities, should be negotiated between the parties.

It is recognised that in some cases it may not be practicable to achieve the noise criteria. In these circumstances reference should be made to section 5.8 and the guidelines.

5.4 Policy measures for infrastructure redevelopment proposals and freight handling facilities

5.4.1 Redevelopment proposals for existing major road and rail infrastructure

Where policy measures have been triggered by a redevelopment proposal for existing major road or railway infrastructure under section 5.2.2 or 5.2.3, the following policy measures apply.

¹ For non-residential noise-sensitive developments, (e.g. schools and child care centres) consideration should be given to providing a suitable outdoor area that achieves the noise target, where this is appropriate to the type of use.

² For residential buildings, indoor noise levels are not set for utility spaces such as bathrooms. This policy encourages effective “quiet house” design, which positions these non-sensitive spaces to shield the more sensitive spaces from transport noise (see the guidelines for further information).

(1) A screening noise assessment and, if necessary, a detailed assessment should be conducted in accordance with the guidelines.

(2) Practicable noise management and mitigation measures should be considered in accordance with sections 5.6 and 5.8 of this policy, having regard to—

- the existing transport noise levels;
- the likely changes in noise emissions resulting from the proposal; and
- the nature and scale of the works and the potential for noise amelioration.

(3) The proponent should prepare a noise management plan for the redevelopment works in accordance with the guidelines, and in consultation with the state environmental agency and local government.

5.4.2 Proposed new freight handling facilities

In determining appropriate policy measures for proposed new freight handling facilities, it should be recognised that some noise emissions (for example, from trucks on the premises) are required to meet the *Environmental Protection (Noise) Regulations 1997*. The noise emissions from the operation of trains at the freight handling facility will depend on the nature of the operations; in the case of a proposed new freight handling facility, appropriate noise criteria must be developed in consultation with the state environmental agency.

If major or minor redevelopments of the railways in a freight handling facility trigger policy measures under section 5.2.3, the procedure in section 5.4.1 should be followed.

5.5 Noise assessment

All noise assessments carried out for the purposes of this policy should be conducted in accordance with the guidelines, and they are the responsibility of the developer and/or infrastructure provider.

The guidelines give detailed information on methods for measuring and predicting transport noise levels for the purpose of undertaking noise assessments.

For new noise-sensitive developments, noise assessments should generally be conducted as early as is practicable in the planning process, typically at the scheme amendment or structure planning stage. The implementation of the outcomes of a noise assessment may become a condition of approval of a subdivision.

In complex cases, it may be appropriate for the detailed assessment report or noise management plan to be referred to the state environmental agency for review.

5.6 Possible noise management and mitigation measures

A range of noise mitigation measures are available to meet the noise criteria. These include—

- using distance to separate noise-sensitive land uses from noise sources;
- construction of noise attenuation barriers such as earth mounds and noise walls;
- building design, such as locating outdoor living areas and indoor habitable rooms away from noise sources;
- building construction techniques, such as upgraded glazing, ceiling insulation and sealing of air gaps. Note that where upgraded glazing is required, the benefit is only realised when windows are kept closed and, as such, mechanical ventilation should also be considered in these circumstances;
- planning and design of the road or rail project such as construction in cut, traffic management or the use of low-noise road surfaces.

The guidelines provide more detail on the range of noise mitigation measures and their potential for noise reduction. It is expected that noise management and mitigation strategies will be identified and implemented through a noise management plan, having regard to the guidelines, and will be—

- effective in reducing noise;
- practical and appropriate for the situation; and
- compatible with other relevant planning policies.

5.7 Notification on title

If the measures outlined previously cannot practicably achieve the target noise levels for new noise-sensitive developments, this should be notified on the certificate of title.

Notifications on certificates of title and/or advice to prospective purchasers advising of the potential for noise impacts from major road and rail corridors can be effective in warning people who are sensitive to the potential impacts of transport noise. Such advice can also bring to the attention of prospective developers the need to reduce the impact of noise through sensitive design and construction of buildings and the location of outdoor living areas.

The notification is to ensure that prospective purchasers are advised of—

- the potential for transport noise impacts; and
- the potential for quiet house design requirements to minimise noise intrusion through house layout and noise insulation (see the guidelines).

Notification should be provided to prospective purchasers and be required as a condition of subdivision (including strata subdivision) for the purposes of noise-sensitive development as well as planning approval involving noise-sensitive development, where noise levels are

forecast or estimated to exceed the target outdoor noise criteria, regardless of proposed noise attenuation measures. The requirement for notification as a condition of subdivision and the land area over which the notification requirement applies, should be identified in the noise management plan in accordance with the guidelines.

An example of a standard form of wording for notifications is presented in the guidelines.

5.8 Reasonable and practicable measures

This policy applies a performance-based approach to the management and mitigation of transport noise.

It is recognised that in a number of instances it may not be reasonable and practicable to meet the noise target criteria. Where transport noise is above the target level, measures are expected to be implemented that best balance reasonable and practicable considerations, such as noise benefit, cost, feasibility, community preferences, amenity impacts, safety, security and conflict with other planning and transport policies. In these cases the community should also be consulted to assist in identifying best overall solutions. The guidelines assist in outlining ways in which some reasonable and practicable limitations can be addressed in a manner that also minimises transport noise.

It is further acknowledged that there may also be situations in which the noise limit cannot practicably be achieved, especially in the case of major redevelopment of existing transport infrastructure. Similarly, it may not be practicable to achieve acceptable indoor noise levels if the new development is located very close to the transport corridor. In these situations the primary focus should be on achieving the lowest level of noise, with other reasonable and practicable considerations being secondary to this objective.

In cases where the noise limit or indoor noise criteria cannot practicably be met, longer term strategies for land use planning, transport policy and vehicle emissions should be considered to minimise transport noise impact over time.

5.9 Location of freight handling facilities

Areas suitable for freight handling, serviced by primary freight routes, generally correspond with or are part of industrial zones under both the Metropolitan Region Scheme and local town planning schemes.

Freight handling facilities, such as land-based freight, should be strategically located and sited to—

- minimise the overall demand for movement of goods through co-location of related facilities, including manufacturing/processing, packaging, storage and inter-modal transfer;
- allow for the unimpeded operations of freight handling facilities;
- maximise the efficiency of transport by locating freight handling facilities adjacent to the primary freight network, including road and rail corridors, and, where practicable, with good access to intermodal operations; and
- minimise the adverse impact on existing and future freight handling facilities, by segregating such facilities from residential, commercial and community uses, both existing and proposed.

It is anticipated that high levels of intermodal activity will be experienced in the general vicinity of intermodal terminals. This may result in increased noise levels.

Possible exceptions to the requirement for co-location of freight handling facilities include—

- small-scale transport depots involved in the transport of primary produce from rural areas;
- small-scale freight handling operations associated with the transport of specific classes of goods involving a localised catchment;
- freight handling operations using specific classes of vehicle or goods which cannot be readily accommodated in one of the strategic freight handling areas; and,
- freight handling operations associated with a particular freight generator, which cannot be readily accommodated in or adjacent to one of the strategic freight handling areas; for example, extractive industry, production of building materials, recycling facilities, waste removal and basic raw materials distribution.

New freight handling facilities should generally be limited in areas separate from those major industrial areas serviced by primary freight routes. This is to minimise the adverse impacts associated with freight movement along general traffic routes and to maximise the benefits of co-location of freight handling facilities. Appropriate limitations may relate to the scale of operation, the hours of operation or the type and volume of traffic that may access the premises.

The policy also recognises that excessive noise is only one of the potential adverse impacts when considering freight operations. Ground vibration, traffic and diminished air quality can also be associated with the handling or transport of freight and, where appropriate, these should be taken into consideration.

6. IMPLEMENTATION

Implementation of this policy will be through regional and local planning schemes and strategies through the day-to-day process of decision-making on rezoning, structure plans, and subdivision and development applications. In cases in which there are serious noise issues, special control areas may be a suitable planning mechanism.

Local and state government agencies should seek to review and amend relevant policies that are inconsistent with this policy or that would discourage early adoption of this policy. When reviewing policies and/or schemes and strategies, consideration should be given to ensuring appropriate subdivision and development control is in place to implement this policy. The guidelines provide further information in relation to subdivision and development control.

When preparing region planning schemes, local planning schemes and amendments to schemes, government agencies should consider the potential for land use conflict between major transport corridors, freight handling and movement, and adjacent noise sensitive land uses. Freight handling facilities and major transport corridors should be designated in regional planning instruments. Zoning and permissible uses of land in areas adjoining primary freight routes or established freight nodes in particular should be reviewed to ensure, as far as practicable, that they are compatible with freight operations.

Transport infrastructure providers will be expected to have regard to the policy in the planning, design and implementation of new major road or rail infrastructure projects. In addition, relevant agencies involved in freight operations should take complementary action, including monitoring of existing freight routes and assessment of future freight routes, to identify sectors where there are or are likely to be, significant adverse impacts associated with the transport of freight.

The cost of noise mitigation measures that must be implemented as a result of this policy is the responsibility of the proponent/s. Where a future noise-sensitive land use is adjacent to a future major road or railway, roles and responsibilities should be negotiated between the relevant infrastructure provider and the land developer.

Further details on implementation measures are contained in the guidelines.

Appendix: Glossary of terms

“A-weighted”: an A-weighted sound level includes the ‘A’ frequency weighting in the measurement of a sound, to approximate the frequency response of the normal human ear;

“dB(A)”: the level of a sound, measured in decibels, A-weighted (i.e. the level corresponding to the A-scale on a standard sound level meter);

“freight handling facility”: Major land-based storage and freight interchange. For the purposes of this policy freight handling facilities include, but are not limited to, the following locations: Forrestfield, Kwinana, Canning Vale, Kewdale, and North Quay in Fremantle, shown as intermodal freight terminals in Schedule 1;

“guidelines”: refers to the most recent version of the Implementation Guidelines published by the Western Australian Planning Commission that accompany this policy;

“in the vicinity of”: means—

- (i) abutting; or
- (ii) separated by only a road, access way or other land that is likely to remain substantially open and undeveloped in terms of buildings, up to a maximum distance of 300 metres;

“ L_{Aeq} ”: the equivalent steady-state, A-weighted sound level (equal energy) which in a specified time period contains the same acoustic energy as the time-varying level during the same period;

“ $L_{Aeq(Day)}$ ”: the $L_{Aeq(16\text{ hour})}$ for the time period 6 am to 10 pm;

“ $L_{Aeq(Night)}$ ”: the $L_{Aeq(8\text{ hour})}$ for the time period 10 pm to 6 am;

“major road”: has the meaning given in section 5.2.2;

“major redevelopment”: has the meaning given in section 5.2.2 and 5.2.3;

“major transport corridor”: land set aside for the movement of road and/or rail traffic, including railways, and major roads;

“noise”: sound, especially when it is unwanted, unpleasant or loud. In this policy noise does not include ground vibration;

“noise-sensitive development”: any proposed development for a noise-sensitive land use that would normally require planning approval. This includes proposals at the following stages of the approval process: structure planning, rezoning, subdivision (including strata subdivision) and development applications. Refer also to section 5.2.1;

“noise-sensitive land use”: includes land used for noise-sensitive premises (as defined in the *Environmental Protection (Noise) Regulations 1997*) occupied solely or mainly for residential or accommodation purposes, rural premises and premises used for the purpose of—

- a caravan park or camping ground;
- a hospital;
- a sanatorium, home or institution for the care of persons, a rehabilitation centre, home or institution for persons requiring medical or rehabilitative treatments;
- education (school, college, university, technical institute, academy or other educational centre, lecture hall or other premises used for the purpose of instruction);
- public worship;

- a tavern, hotel, club premises, reception lodge or other premises that provide accommodation for the public;
- aged care;
- child care; and
- prison or detention centre;

“outdoor living area”: is defined in the Residential Design Codes of Western Australia as the area external to a single house or grouped dwelling to be used in conjunction with that dwelling such that it is capable of active or passive use but excludes any area with a dimension of less than 1m minimum dimension or which, by reason of its development or topography, is not readily accessible from the dwelling;

“proposed noise-sensitive land use”: any noise-sensitive land use that is subject to an approved detailed area plan, subdivision approval or development approval, such that a transport infrastructure provider is able to adequately design noise mitigation measures to protect that development;

“transport infrastructure provider”: an agency responsible for the design, construction and/or management of transport infrastructure as identified by this policy, including local and state government agencies.
