

7.4 Noise

Introduction and Issues

The emission of noise is an intrinsic part of most activities. While some noise is inevitable, the effects can vary dramatically depending on the volume and type (frequency) and on the nature of the receiving environment.

Noise is recognised as both a health and environmental issue. It can impact on health causing annoyance, sleep interference, stress and the disruption of concentration. Noise can also impact on the amenity of individual properties and the wider city.

Ambient noise levels vary throughout the city. Generally, low background noise levels are recorded in residential areas, while commercial and industrial areas and properties adjoining arterial roads all have higher ambient noise levels. While all occupiers of land have a duty to keep noise emissions from their site to reasonable levels, conflicts tend to occur at the interface between different areas, or where activities within an area generate levels of noise which are significantly above the background levels.

Nuisance noise is often associated with intermittent activities (eg. someone using a chainsaw), particularly in residential areas. The RMA provides specifically for the management of this noise through the excessive noise provisions.

The principal issues regarding noise in Hamilton are:

- **Noise from recreation, industrial, and commercial activities can adversely affect the amenity values of residential environments.** Residential areas have low ambient noise levels. Intrusive noise from activities within the area or from commercial, industrial or recreation activities adjoining residential areas can have a detrimental impact on the amenity values of the residential neighbourhood.

The growth of commercial activities in residential areas also has the potential to adversely effect residential amenity values through car noise, people visiting the site and operational noise.

Noise from construction work is a temporary but unavoidable part of development. However, it has the potential to adversely affect residential environments, particularly if intrusive noise is generated for long periods, especially at disruptive hours.

- **Within industrial and commercial areas, loud noise from adjoining activities can affect the health and safety of occupants in neighbouring buildings and the overall amenity values of the area.** Industrial activities have the potential to impact on adjoining activities. There is potential for industrial noise to pass into other buildings, thereby exposing workers to excess noise. This also has the potential to affect amenity values in industrial areas.

Conflicts between adjoining activities also occur in commercial areas. For example, trends towards inner city living means that the central commercial area is becoming increasingly popular for housing. This can lead to conflicts as the noise environment is greater than people anticipate and is not the same as traditional residential areas. As a result of this reverse sensitivity, activities in the central commercial area could be placed under pressure to achieve high standards of amenity by changing their operations to make less noise.

- **Noise of a temporary nature from adjoining residential activities can adversely impact on the low ambient noise levels in residential areas.** Usually, residential noise has minimal effects and consists of temporary disturbances such as lawn mowing, domestic appliances, parties or stereos. There has also been an increase in the spread of noise over time, for example at night and on weekends. These noise nuisances can affect the low ambient noise levels expected in residential areas and disturb people's enjoyment of their property.
- **Noise from transport can have an adverse effect on the amenity values of residents living close to the source.** Road traffic noise affects a large proportion of the community. Traffic noise is an increasing noise nuisance due to the growing numbers of vehicles on the roads. All city residents are exposed to some degree of traffic noise. However, a significant proportion may be exposed to levels which affect their health and enjoyment of their properties.

Airport noise is a growing noise issue for areas adjacent to the Hamilton Airport. While the Hamilton Airport is not located within Hamilton City, airport noise has a significant noise impact on Hamilton residents. A growth in flights from the airport means more airport noise is being produced, more frequently.

Objective 7.4.1 Noise from Non-Residential Activities

To protect the accepted ambient noise environment of residential areas from the adverse effects of noise arising from non-residential activities.

Policies

- a) Ensure that noise emissions from commercial, industrial and community activities received at the boundary of residential properties are consistent with the existing ambient noise environment.
- b) Control the noise emissions of non-residential activities, including home occupations, in residential areas to protect residential amenity values.
- c) Ensure that temporary large-scale recreation events which are held close to residential areas are organised and operated to minimise noise impacts on adjoining residential activities.

Reasons

Different land use activities generate different levels of noise. Management of the interface of the different areas is important to ensure that noise does not intrude into quieter areas and noise levels meet accepted minimum standards for the receiving environment.

Recreation facilities, licensed premises and places of assembly can cause high levels of noise. As many of these facilities are located next to residential areas, the overall effect is to reduce the amenity of the area. Similarly, non-residential activities such as home occupations in residential areas have the potential to cause a noise nuisance and are sometimes incompatible with the residential environment. The policies aim to ensure that these activities do not exceed accepted noise levels.

Large-scale recreation events also have the potential to cause noise nuisance. These events are inherently noisy, but because they are of a temporary nature they are more tolerable to the community. The policies encourage large recreational events to be planned in advance to minimise noise.

Objective 7.4.2 Inter-Activity Noise

To minimise adverse noise effects between different activities and properties to protect the amenity values of people in neighbouring properties.

Policies

- a) Ensure that activities in commercial and industrial areas do not produce excessive or unreasonable noise emissions that adversely affect adjoining activities.
- b) Require residential activities in commercial and industrial areas to provide sufficient acoustic treatment to ensure they achieve an acceptable internal noise environment.
- c) Discourage the adverse effects of temporary noise from residential activities to protect the existing ambient noise environment in residential areas.
- d) Encourage the mitigation of noise emanating from construction, maintenance or demolition work to reduce the adverse effects on the surrounding neighbourhood and adjoining activities.

Reasons

Industrial and commercial activities have the potential to impact on adjoining activities. There is a potential for noise to pass into other buildings exposing workers and occupants to excess noise. Within industrial and commercial areas, higher noise levels are accepted, but will be controlled to prevent unreasonable or excessive noise from transferring between sites.

An increasingly diverse number of activities has increased the potential for conflict in commercial areas, especially in the central commercial area. Noise from commercial activities not only affect neighbouring commercial activities, but also affects the growing number of residential activities. The policy recognises that higher levels of noise occur in commercial areas and therefore residential activities will require acoustic insulation to achieve an acceptable internal noise environment.

Noise from other residential activities also has the potential to impact on neighbouring residences. The temporary nature of this noise (eg stereos, chainsaws, car repairs) make controlling it through standards in the District Plan difficult and will be dealt with through methods outside the District Plan. Many construction activities are inherently noisy but methods are available which can minimise the emission and impact of this noise. Noise experienced during construction work is usually of a temporary nature and provided that noise at inconvenient times can be mitigated or avoided, reasonable levels of construction noise can be accommodated.

Objective 7.4.3 Transport Noise

To protect residential activities from the adverse effects of transport noise.

Policies

- a) Minimise the potential effects of traffic noise on adjacent residential development from the operation of new arterial roads.
- b) Encourage the reduction of the adverse effects of traffic noise on adjacent residential development when existing arterial roads are being reconstructed or redeveloped.
- c) Ensure that new residential development adjacent to an existing arterial road and any habitable rooms above the first floor of residential developments adjacent to a new arterial road provide sufficient acoustic treatment to protect their residential noise environment.
- d) Ensure that new residential activities achieve an acceptable internal noise environment where the dwelling is within the outer control boundary for airport noise to mitigate the adverse effects of aircraft noise.
- e) Ensure, in conjunction with Waipa District Council, that aircraft operations from Hamilton Airport are carried out to meet the limits for noise generation established by the outer control boundary for airport noise.

Reasons

Road traffic is a predominant source of noise in the community. A significant proportion of the community may be exposed to levels which affect their health and enjoyment of their properties. The policies aim to limit people's exposure to traffic noise from arterial roads by reducing noise at the source.

The policies ensure that noise mitigation techniques are included during the construction of new arterial roads. Section 16 of the RMA places the onus of responsibility on the persons causing the noise to contain the noise at source or to limit its effects. However, this is not always possible, for example traffic noise on existing roads is difficult to completely contain at the source. For existing arterial roads, the policies seek to encourage the installation of noise mitigation measures, such as barriers or quiet road surfaces when existing roads are being redeveloped or reconstructed.

The policies also recognise that noise mitigation of noise from the road itself is not always possible and where road traffic noise cannot be addressed, adjacent houses will require acoustic treatment to ensure that internal noise levels protect the residential environment.

The policies also require that the upper storey of any dwellings adjacent to new arterial roads should have acoustic treatment. Under the policies, the road builder has a responsibility to mitigate against noise where it affects the ground storey, however where upper storeys are to be constructed, the responsibility lies with the receiver. The protection of the upper storeys through the design and construction of the road would mean costly and tall barriers.

While the Hamilton Airport is not located within the Hamilton City boundary, airport noise extends into the Peacocke area of the city. Airport noise will be controlled by requiring the airport to operate within the noise levels set by the outer control boundary for airport noise. The impact of airport noise will also be reduced by requiring acoustic treatment of residential activities within the outer control boundary for airport noise. This will ensure consistency with neighbouring districts, especially Waipa District's District Plan.

Methods

The Noise objectives and policies will be implemented through the following methods:

District Plan

- **Noise Rules** - will be developed which relate to existing background noise levels in each zone and zone interface to control noise emissions.
- **Hamilton Airport Protection Overlay** - will be used to identify the area of city affected by noise from the airport's operations and ensure that noise sensitive activities are protected.

Other methods

- **Council Works Programmes** - particularly in relation to roading works could be used to minimise traffic noise (eg. roading design and improvements).
- **Facilitation and Negotiation** - will be used to control 'unreasonable' noise at the source to ensure the 'best practicable option'.
- **Council Guidelines and other Educational Material** - could be developed for the community and businesses.
- **Enforcement** - will be used to control excessive and unreasonable noise, when necessary.
- **Hamilton City Council By-Laws** - will be developed and enforced to control noise nuisances such as the noise impacts of heavy vehicles.
- **New Zealand Standards** - will be followed for assessing noise emissions.

Anticipated Environmental Results

The following environmental results are anticipated:

- Overall number of noise complaints reduced.
- Existing ambient noise levels in residential areas maintained, especially at night.
- Noise levels from adjacent areas measured at the boundary of residential activities do not affect exceed the standards set.
- Traffic noise from both existing and future arterial roads will be mitigated to reduce disturbance to residents and to occupants of adjacent properties.
- Acceptable noise levels achieved inside dwellings adjacent to arterial roads, within the outer control boundary for airport noise and within commercial areas.