

PROPOSED PLAN CHANGE #1 – ACOUSTIC INSULATION IN THE TOWN CENTRES

QUEENSTOWN-LAKES DISTRICT COUNCIL PARTIALLY OPERATIVE DISTRICT PLAN

Introduction

This Plan Change to the Partially Operative District Plan has been prepared as a means of achieving the purpose of the Resource Management Act (RMA) which is expressed in Section 5 as follows:

“(1) *The purpose of this Act is to promote the sustainable management of natural and physical resources*”.

Section 31 sets out the functions of territorial authorities. This Plan Change relates to Council's functions under 31(d) which requires the control of the emission of noise and the mitigation of the effects of noise.

Section 74 of the Act requires that the Plan Change be in accordance with the Council's functions under Section 31, the provisions of Part II, its duty under Section 32 and any other regulations. In addition regard must be given to:

- Otago Regional Policy Statement (May 2002)

Section 75 of the Act requires the District Plan not to be inconsistent with the Regional Policy Statement (RPS) or any Regional Plan. Part 9 '*Built Environment*' of the RPS considers issues such as the quality and amenity of the built environment. This Plan Change is consistent with the RPS as it aims to enable the continued operation of the commercial activities in the Town Centre while ensuring the effects on residential and visitor accommodation amenity are mitigated.

Terms of reference

This report relates to a Section 32 analysis of the provisions in Part 10 *Town Centres* as they relate to noise levels within visitor accommodation and residential activities in the Town Centres of Queenstown, Arrowtown and Wanaka.

Section 32

Section 32 of the RMA requires that before adopting any objective, policy, rule or other method, the Council shall have regard to alternatives, including doing nothing, evaluate benefits and costs, and be satisfied that the proposed provision or method is necessary in achieving the purpose of the Act, and is the most appropriate means of carrying out that function having regard to its efficiency and effectiveness relative to other means.

SECTION 32 REPORT

FOR PLAN CHANGE #1: ACOUSTIC INSULATION IN THE TOWN CENTRES

QUEENSTOWN-LAKES PARTIALLY OPERATIVE DISTRICT PLAN

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1. Background

This report accompanies Plan Change *Acoustic Insulation in the Town Centres* to the Queenstown Lakes Partially Operative District Plan (PODP, the Plan). The Plan Change seeks to provide guidance in the Plan on what can be done to reduce noise levels for short term and long term residents by exploring acoustic insulation within habitable spaces. It provides a record of the fulfilment of the Queenstown Lakes District Council's duties provided for in Section 32(1) of the RMA. These duties include an assessment of alternative measures to the option contained within this Plan Change.

The District Plan does not currently provide any internal noise controls (within buildings) for residential and visitor accommodation developments within the Town Centres of Queenstown, Arrowtown and Wanaka other than those required by the Building Act 1993. The Town Centre zones do have external noise controls (measured at property boundaries), which are set at higher levels than the residential zones because of the commercial activities (retail and services, bars and restaurants) operating in these areas.

Traditional zoning has generally kept noise generating and noise sensitive types of activities apart thus avoiding conflict. However, there has been an increase in the demand for residential and visitor accommodation within Town Centres and a trend towards mixed use planning. The council feels this is a beneficial development; residential and visitor accommodation play an important role in the economic and social stability of the town centre.

However, this has led to existing commercial activities being influenced by the incompatibility with new accommodation activities. This is especially pertinent to existing activities such as bars and restaurants that have new residential and visitor accommodation developments built in close proximity to them and then receive an increase in noise complaints. Assuming the existing commercial activities are legally established and complying with the noise standards there is no mechanism in place to afford protection to the new residents.

The current noise limits and restricted hours of use, although important in the elimination and control of town centre noise, are not enough to provide appropriate living conditions for residents. Establishment of noise sensitive activities around Town Centres (such as residential and visitor accommodation) can expose people to health risks and can restrict the operation of commercial activities.

Additionally, with larger developments in the Town Centre, more mixed use buildings are being created. These have the potential to change their use, or the use of some of the space

within them at various times during their lifespan. This means residences and visitor accommodation may be created in the future where it was initially never planned. Equally, a noisy activity may move into a building containing residences or visitor accommodation where the initial sound insulation did not provide for protection from this level of noise.

Council feels that the onus should be on the new development to ensure conflict is avoided. Therefore if residential or visitor accommodation is developed it should be sufficiently insulated to protect from surrounding noise from existing activities penetrating the habitable spaces. If new commercial activities are developed they should be sufficiently insulated to ensure existing habitable spaces are not adversely affected.

A report was taken to the Queenstown Lakes District Council (QLDC) Strategy Committee (20 March 2002) to highlight the noise amenity conflicts that arise and will be further increased by allowing the development of noise sensitive uses such as residential and visitor accommodation activities in the Town Centre zones. It was recommended to the Strategy Committee that a Plan Change be initiated to mitigate potential reverse sensitivity effects. The extent of the Plan Change is restricted to:

- New buildings or existing ones that are to be (partially) used for residential and visitor accommodation purposes located in the Town Centre zones.
- It does not extend to a change in the external noise levels within the Town Centres; rather it will start from a premise that the existing noise standards are acceptable.

2. Purpose of the Plan Change

The purpose of the Plan Change is to improve amenity of habitable spaces through acoustic insulation in the Queenstown, Arrowtown and Wanaka Town Centre zones. It is All new buildings, and changes of use will require sufficient acoustic insulation to reduce noise emissions entering any habitable spaces to a level that equates to those proposed by the World Health Organisation (WHO).

Necessity in Achieving the Purpose of Act

The purpose of the Act is to promote the sustainable management of natural and physical resources.

With particular relevance to this Plan Change, Section 5 of the Act states that:

“sustainable management” means managing the use, development, and protection of natural and physical resources in a way, or at a rate, which enables people and communities to provide for their social, economic, and cultural well being and for their health and safety while...

c) Avoiding, remedying, or mitigating any adverse effects of activities on the environment.

Further, Section 7 of the Act states:

“all persons exercising functions and powers under [the Act], in relation to managing the use, development, and protection of natural and physical resources, shall have particular regard to... “

c) The maintenance and enhancement of amenity values.

This Plan Change is consistent with that purpose in terms of the protection of both commercial activities and residential and visitor activities. This provides for the economic and social well being, enhancement of the amenity values and protection of the health and safety of the community.

This Plan Change is considered necessary to achieve the purpose of the Act. Appendix B to this report contains those sections of the PDP that are of relevance to issues of noise and noise related amenity values in the Town Centre zones. It is considered that through a Plan Change the current provisions could be improved to better meet the purpose of the Act.

3. Process Used in the Development of the Plan Change, including Public Consultation Undertaken

This Plan Change has been carried out in accordance with the provisions stipulated in the First Schedule of the RMA. Clause 3 of the First Schedule of the Act requires consultation to be carried out with all affected parties with specific regard given to the Minister for the Environment, other Ministers of the Crown, statutory bodies, local authorities who may be affected and the tangata whenua of the area and anyone else that the reporting authority considers relevant.

Consultation Undertaken

Provisions in Sections 10 of the Plan relating to acoustic insulation have a direct effect on residents and landowners within the Town Centres of Queenstown, Arrowtown and Wanaka and therefore the outcome of this Plan Change will impact on them. Residents and landowners will have to insulate all new and reconditioned residential and visitor accommodation buildings and may need to obtain the services of a recognised acoustic

engineer when designing, constructing and insulating in accordance with the rule provided within the Plan. For this reason where possible all landowners and potentially effected parties within the Town Centres of Queenstown and Wanaka were contacted in writing and asked for their comments on the proposed Plan Change.

The responses were taken into account when formulating the Plan Change.

4. Analysis: Assessment of Principal Alternative Methods

- 4.1. Status Quo
- 4.2. Take no action
- 4.3. Insert an additional matter over which control is retained (in respect of buildings in the Town Centre)
- 4.4. Insert a new rule - As a Site or Zone Standard in the Town Centre zones
- 4.5. Rely solely on non-statutory guidelines/education
- 4.6. A combination of the above

4.1 Status Quo

'Status Quo' means providing no additional guidance to the community on how to achieve reasonable noise levels within the habitable spaces of the Town Centres. The rules currently require any activity within the Town Centres to keep within a noise control limits as measured at the site boundary. However

- a. this level is higher than required in residential areas as the commercial activities that occur within these areas produce more noise, and
- b. the current provisions do not provide for any control where noise causes issues within site boundaries.

The building act requires some level of insulation where building elements (i.e. floors or walls) are common between occupancies. However

- a. This level of acoustic insulation will not necessarily achieve the desired internal noise levels

Necessity

This option takes no account of the amenity values or health and safety of residents in the town centres in mixed use buildings and within sites and thus does not assist sufficiently in achieving the purpose of the RMA.

Effectiveness

This option does not achieve the purpose of the Plan Change. It does not provide any guidance to people about mitigating against external noise. If 35dBA L₁₀ is an appropriate indoor sound level, there is no documentation showing that this should be achieved and how it should be achieved.

Leaving the situation as it is does not assist achieving the objectives of the Plan.

Environmental Costs

Currently Planners processing consents have no control mechanism, criteria or reference to assess the noise related effects that new residential and visitor accommodation developments will have on existing activities or the effects from existing activities on the new residential activities. Failing to address the future effects of these developments may affect the viability of the whole of the Town Centre zones and will certainly result in decreasing amenity values.

Environmental Benefits

The external noise standards of the PDP are still required to be met. The internal requirements

By not requiring acoustic insulation less material will be used in construction.

Incidental Benefits

Economic costs to the wider community will be avoided, as no Plan Change will be processed. Developers will not incur costs of increased insulation at the time of design and construction.

Incidental Costs

Costs may include retrospectively fitting acoustic insulation due to complaints from adjoining residential landowners; this can be an expensive exercise or may affect long term viability of the business if operations have to be ceased. If there is a population reduction in the town centres it may have knock-on effects, which reduce positive aspects such as passive surveillance, security and a vibrant, living town centre.

As there are no clear cut rules (the Health and Safety Act speaks of a 'reasonable level' of noise), cost may also include long drawn out disputes between neighbours and associated Court costs.

Appropriateness

The PDP does offer amenity provisions to ensure that noise meets the required standards in the Town Centres of Queenstown, Arrowtown and Wanaka.

However, there is opportunity for improvement to avoid future conflicts arising. It is considered that the immediate financial benefits to residents and landowners associated with 'leaving the Status Quo' are not justified considering that the Plan does not currently provide against reverse sensitivity or for noise problems within sites.

Recommendation

It is recommended that this option be discarded.

4.2 Take no action

Take no action means deleting the existing relevant provisions from the Plan and make no further amendments.

Necessity

Under the RMA the Council is charged under section 7 with

.."all persons exercising functions and powers under [the Act], in relation to managing the use, development, and protection of natural and physical resources, shall have particular regard to..."

c) The maintenance and enhancement of amenity values

By removing the existing provisions the Council would not be fulfilling it's obligation under the above.

Consequently no further analysis of the costs and benefits of this option have been undertaken and this option is discarded.

4.3 Insert an additional assessment matter over which control is retained (in respect of buildings in the Town Centres) with an acoustic insulation table

This option would involve applying an existing table from Section 12.11.5.2(iv) *Airport Measures – Queenstown Airport* of the Plan (*Table 2 - Acoustic Insulation of Buildings Containing Noise Sensitive Uses*) into the Town Centre Zones. This table currently provides rules to mitigate the adverse effects from airport noise on users of the Remarkables Park Zone, and it is proposed to use it to mitigate the effects of the higher noise standard on the Town Centres.

"Table 1 – Acoustic Insulation Of Buildings Containing Noise Sensitive Activities (except non-critical listening areas)

<u>Building Element</u>	<u>Required Construction</u>
<u>External Walls</u>	<u>Exterior: 20 mm timber or 6mm fibre cement</u> <u>Frame: 100mm gap containing 100mm acoustic blanket (R2.2 Batts or similar)</u> <u>Two layers of 12.5mm gypsum plasterboard*</u> <u>(Or an equivalent combination of exterior and interior wall mass)</u>
<u>Windows</u>	<u>Up to 40% of wall area: Minimum thickness 6mm glazing**</u> <u>Up to 60% of wall area: Minimum thickness 8mm glazing**</u> <u>Up to 80% of wall area: Minimum thickness 8mm laminated glass or minimum 10mm double glazing**</u> <u>Aluminium framing with compression seals (or equivalent)</u>
<u>Pitched Roof</u>	<u>Cladding: 0.5mm profiled steel or tiles or 6mm corrugated fibre cement</u> <u>Frame: Timber truss with 100mm acoustic blanket (R 2.2 Batts or similar)</u> <u>Ceiling: 12.5mm gypsum plaster board*</u>
<u>Skillion Roof</u>	<u>Cladding: 0.5mm profiled steel or 6mm fibre cement</u> <u>Sarking: 20mm particle board or plywood</u> <u>Frame: 100mm gap containing 100mm acoustic blanket (R2.2 Batts or similar)</u> <u>Ceiling: 2 layers of 9.5mm gypsum plasterboard*</u>
<u>External Door</u>	<u>Solid core door (min. 24kg/m²) with weather seals</u>

** Where exterior walls are of brick veneer or stucco plaster the internal linings need be no thicker than 9.5mm gypsum plasterboard.*

*** Typical acoustic glazing usually involves thick single panes or laminated glass. Where two or more layers of glass are employed with an air gap between, total thickness of window glass may be calculated as the total of all glass layers (excluding air gap) provided that at least one glass layer shall be of a different thickness to the other layer(s)."*

The inclusion of the table provides information on construction methodology and the building elements required within the Town Centres as physical means to achieve the acoustic noise levels within residential buildings.

Table 1 - Acoustic Insulation of Buildings Containing Noise Sensitive Uses has been accepted by the Environment Court (decision C167/99) for use in the Plan. It is therefore considered reasonable that this table could be used in other sections of the Plan to limit the adverse effects of noise.

Necessity

This option will assist in achieving the purpose of the Act by enabling the Council to retain control over the level of acoustic insulation and thus control the amenity values in relation to noise levels in habitable spaces.

Effectiveness

The insertion of acoustic insulation as a matter over which the council retains control means that for all new buildings and additions and alterations to existing buildings the applicant would be obliged to provide information on the acoustic insulation proposed and the council will be able to impose conditions on consent. However consent could not be declined.

In contrast to the current situation where resource consent is only required for new buildings or where additions or alterations change the external appearance of a building, resource consent would now be required for internal alterations as well. This means Council will retain control over any alterations within the town centre with respect to acoustic insulation.

The table was developed as an appropriate method to reduce excessive noise levels at limited times for single residences (near the airport). It was never intended to provide for continuous reasonable noise levels in habitable spaces. The purpose of the table in airport areas is to provide a reduction in ambient noise but not maintain constant internal 'noise levels' at all times.

It is therefore considered that the table will not achieve the purpose of the Plan Change because it can not be guaranteed that the noise level standards are maintained in the habitable spaces of new residential buildings within the Town Centres. The table can provide a means of reducing external noise levels but it won't necessarily achieve a specific measurable internal noise level. Consequently no further analysis of the costs and benefits of option b. have been undertaken and this option is discarded.

4.4 Insert an additional assessment matter over which control is retained (in respect of buildings in the Town Centres) with alternative criteria

This option would involve inserting acoustic insulation into the list of matters in the Plan over which the Council retains control and requiring all buildings to achieve an internal noise level of no more than 35dBA L₁₀.

Necessity

This option will assist in achieving the purpose of the Act by enabling the Council to retain control over the level of acoustic insulation and thus control the amenity values in relation to noise levels in habitable spaces.

Effectiveness

The insertion of acoustic insulation as a matter over which the council retains control means that for all new buildings and additions and alterations to existing buildings the applicant would be obliged to provide information on the acoustic insulation proposed and the council will be able to impose conditions on consent. However, consent could not be declined.

In contrast to the current situation where resource consent is only required for new buildings or where additions or alterations change the external appearance of a building, resource consent would now be required for internal alterations as well. This means Council will retain control over any alterations within the town centre with respect to acoustic insulation.

Environmental costs

Use of additional material to insulate spaces adds a burden to environmental costs of the construction of the building

The rule is not retrospective; existing residences would not have increased amenity value and a disparity may occur within the quality of accommodation available in the Town Centres.

Environmental benefits

Protecting the noise amenity of short and long term residents. This has the added effect of enabling people to reside close to commercial activities where they work, shop or recreate, and thus limiting the use of vehicles.

Incidental costs

The costs to process a Plan Change are placed on the wider community as ratepayers pay for this process.

Requiring acoustic insulation in buildings will inevitably lead to higher design and construction costs. Assessment of the potential acoustic effects of a design, will require consideration by a qualified acoustic engineer. This will add time and cost to any consent application.

In a (estimated to be very limited) number of situations providing sufficient acoustic insulation may result in insurmountable problems such as really excessive cost. As council only retains control they would not be able to decline consent and new habitable spaces could be created within the Town Centre zones which do not provide sufficient protection against noise pollution.

At present resource consent is only required for matters concerning the external appearance of a building. Adding acoustic insulation as an assessment matter would mean all alterations (internal as well) would require resource consent and would therefore impose extra cost and time.

Incidental benefits

Assessing acoustic insulation would require all resource consent applications for new buildings and additions and alterations to provide information on how they consider they will perform in terms of internal noise levels. This would ensure that in all circumstances both the applicant and the assessor consider noise effects on the surroundings.

Recommendation

It is considered very important that acoustic insulation of spaces is taken into account at an early stage in the process. However to ensure appropriate internal noise levels, the Council needs to be able to decline totally inappropriate alterations. It is necessary of this controlled activity to be backed by either a site or a zone standard. As a stand-alone measure this option is therefore discarded.

The added benefit of the combination of this option with a site or zone standard, would constitute the opportunity to assess all internal alterations. This would mean for every internal alteration a report from a qualified acoustic engineer/designer would be required. The added cost of this for what may be a small alteration is not in proportion to the environmental benefits. This whole option is therefore discarded.

4.5 Insert a new rule - as a Site Standard in the Town Centre zones

An acoustic insulation site standard would be inserted into Section 10 of the Plan requiring new and modified residential buildings and visitor accommodation to achieve an internal noise level of no more than 35dBA L₁₀. This is similar to that proposed in the World Health Organisation – Guidelines for Community Health in habitable spaces.

The purpose is to provide the occupants of new and changed residential buildings within the Town Centre zones some protection against the higher noise levels permitted within the zone. A qualified acoustic consultant would need to provide certification that any new residential and visitor accommodation buildings achieved the required internal noise level for the development to be assessed and processed as a controlled activity. If this certification were not included in the application the proposed development would be assessed as a discretionary activity, with the matters over which discretion is reserved being restricted to acoustic insulation.

Necessity

This option would assist in achieving the purpose of the Act, by requiring the new residential buildings to contain acoustic insulation and be certified by a qualified acoustic consultant.

Effectiveness

The formulation of a new acoustic insulation site standard to be placed in Section 10 of the Plan would provide those new residential buildings within the Town Centre zones some protection against higher noise levels permitted within this area and provide clear standards that must be followed. This requires new residential and visitor accommodation that is to be built within the Town Centres to have forethought about the type of environment they are building in and minimise external effects.

With the addition of the site standard, the Plan would continue to achieve its objectives by ensuring that noise level standards can be maintained in the town centres and there would be less conflict between new residential and visitor developments and existing commercial activities.

Assessment of compliance would be triggered by an application for resource consent, so in all situations where the external appearance of a building is being changed, and in situations where the applicant does not expect to comply.

Inserting an acoustic standard as a site standard means the insulation would be assessed as discretionary. Discretionary activity status implies that the Council can see situations in which it would accept that the standard can not be met. This means new situations in which habitable spaces are insufficiently protected from noise could be created.

Environmental Benefits

The addition of an internal acoustic level within the Plan would provide criteria for planners to assess consents against, require the applicant to take measures to avoid the effects of noise and require an independent acoustic engineer to see that these are sufficient and are complied with. Health and well being of the residents and visitors would be improved through improved sleeping and living conditions and the town centre would continue to be a vibrant and exciting place.

Environmental Costs

Use of additional material to insulate spaces adds a burden to environmental costs of the construction of the building

The rule is not retrospective; existing residences would not have this increased amenity value and a disparity may occur within the quality of accommodation available in the Town Centres.

Incidental Benefits

The inclusion of a new acoustic insulation threshold would provide economic benefit to the Town Centres, their associated businesses, landowners, visitors, future residents and those

with an interest in viability of the Town Centre zones of Queenstown, Arrowtown and Wanaka. It would maintain and protect commercial activities and improve the quality of residential and visitor accommodation.

The community and those with an interest in the viability of the Town Centre zones of Queenstown and Wanaka should see a levelling out of the complaints, and no complaints from the new residential and visitor buildings.

Incidental Costs

The costs to process a Plan Change are placed on the wider community as ratepayers pay for this process.

Residents and landowners building on their property would be required to abide by the acoustic standards and employ a recognised acoustic engineer to certify that these internal levels are achievable. Therefore new buildings for residential use in the Town Centres would cost more to construct with the new rule requirements and the need for an acoustic engineer's certificate.

Efficiency

Environmental and incidental benefits outweigh incidental costs. However, the incidental costs attached to this option are significant. There will be ongoing costs for new developments to comply with the site standard and provide acoustic insulation. However, there could be long-term benefits of no new complaints from these new residences, a benefit to the Council and existing commercial activities and improved vibrancy of the Town Centres and energy efficiency for buildings.

Recommendation

It is appropriate to formulate new Acoustic Insulation standards and rules. This option is efficient and will achieve the objectives of the Plan Change and the Plan and assist in achieving the purpose of the RMA.

Council does not feel this is desirable and it is recommended that this option be discarded in favour of a zone standard.

4.7 Insert a new rule - as a Zone Standard in the Town Centre zones

An acoustic insulation zone standard would be inserted into Section 10 of the Plan requiring new and modified residential buildings and visitor accommodation to achieve an internal noise level of no more than 35dBA L₁₀. This is similar to that proposed in the World Health Organisation – Guidelines for Community Health in habitable spaces.

The purpose is to provide the occupants of new and changed residential buildings within the Town Centre zones some protection against the higher noise levels permitted within the zone. A qualified acoustic consultant would need to provide certification that any new residential and visitor accommodation buildings achieved the required internal noise level for the development to be assessed and processed as a controlled activity. If this certification were not included in the application the proposed development would be assessed as a non-complying activity.

Necessity

This option would assist in achieving the purpose of the Act, by requiring the new residential buildings to contain acoustic insulation and be certified by a qualified acoustic consultant.

Effectiveness

The formulation of a new acoustic insulation zone standard to be placed in Section 10 of the Plan would provide those new residential buildings within the Town Centre zones some protection against higher noise levels permitted within this area and provide clear standards that must be followed. This requires new residential and visitor accommodation that is to be built within the Town Centres to have forethought about the type of environment they are building in and minimise external effects.

With the addition of the zone standard, the Plan would continue to achieve its objectives by ensuring that noise level standards can be maintained in the town centres and there would be less conflict between new residential and visitor developments and existing commercial activities.

Assessment of compliance would be triggered by an application for resource consent, so in all situations where the external appearance of a building is being changed, and in situations where the applicant does not expect to comply.

Inserting an acoustic standard as a zone standard means the insulation would be assessed as non-complying. Non-complying activity status implies that the Council can see situations in which it would accept that the standard can not be met. This means new situations in which habitable spaces are insufficiently protected from noise could be created.

Environmental Benefits

The addition of an internal acoustic level within the Plan would provide criteria for planners to assess consents against, require the applicant to take measures to avoid the effects of noise and require an independent acoustic engineer to see that these are sufficient and are complied with. Health and well being of the residents and visitors would be improved through improved sleeping and living conditions and the town centre would continue to be a vibrant and exciting place.

Inclusion of acoustic insulation as a zone standard means that not complying to this standard involves a significant resource application. It is reasonable to assume applicants will be keen to have their consents processed as controlled rather than non-compliant, and will therefore comply.

Environmental Costs

Use of additional material to insulate spaces adds a burden to environmental costs of the construction of the building

The rule is not retrospective; existing residences would not have this increased amenity value and a disparity may occur within the quality of accommodation available in the Town Centres.

Incidental Benefits

The inclusion of a new acoustic insulation threshold would provide economic benefit to the Town Centres, their associated businesses, landowners, visitors, future residents and those with an interest in viability of the Town Centre zones of Queenstown, Arrowtown and Wanaka. It would maintain and protect commercial activities and improve the quality of residential and visitor accommodation.

The community and those with an interest in the viability of the Town Centre zones of Queenstown and Wanaka should see a levelling out of the complaints, and no complaints from the new residential and visitor buildings.

Incidental Costs

The costs to process a Plan Change are placed on the wider community as ratepayers pay for this process.

Residents and landowners building on their property would be required to abide by the acoustic standards and employ a recognised acoustic engineer to certify that these internal levels are achievable. Therefore new buildings for residential use in the Town Centres would cost more to construct with the new rule requirements and the need for an acoustic engineer's certificate.

Efficiency

Environmental and incidental benefits outweigh incidental costs. However, the incidental costs attached to this option are significant. There will be ongoing costs for new developments to comply with the zone standard and provide acoustic insulation. However, there could be long-term benefits of no new complaints from these new residences, a benefit to the Council and existing commercial activities and improved vibrancy of the Town Centres and energy efficiency for buildings.

Recommendation

It is appropriate to formulate new Acoustic Insulation standards and rules. This option is efficient and will achieve the objectives of the Plan Change and the Plan and assist in achieving the purpose of the RMA.

A non-complying activity enables the Council to have the ability to decline the application, based on resource management reasons, which would not be restricted just to matters of acoustic insulation. There could be added cost and time delays with the potential for notification. This would encourage applicants to comply with 35dBA L₁₀ internal noise level of habitable space to avoid those costs.

It is recommended that this option be adopted.

4.8 Development of non-statutory guidelines/ education

Rather than making changes to the Plan a brochure containing ways of achieving an appropriate level of insulation and insulation techniques could be prepared.

Necessity

This option would assist in achieving the purpose of the Act.

Effectiveness

Brochures can be useful sources of information, and would certainly contribute to the likelihood of appropriate measures being taken to mitigate noise effects. As an added bonus its effect is likely to extend beyond the town centre zones.

Insulation improves and maintains the amenity values within buildings, landowners may be prepared to improve insulation levels in situations where it could benefit them economically. However brochures and information have no value as enforcement tools. They do not provide the Council with any additional way of dealing with complaints.

For a noise level to be maintained and consistent within the habitable space of a building it requires investment in the acoustic design and insulation. The temptation to cut costs here is considerable and a more binding method is needed to ensure suitable insulation is installed and maintained.

Environmental Benefits

The informational material would invariably result in additional insulation being included in some instance, where the developer stands to benefit directly. In general where there is an increased amenity value, as there is here, owner-occupiers and owner-landlords stand to gain more and are therefore more prepared to invest.

Developers intending to sell will not be confronted with the lower amenity value, and are therefore less likely to consider acoustic insulation a high priority.

Environmental Costs

Production of a brochure means the environmental cost of paper, ink and energy.

Use of additional material to insulate spaces adds a burden to environmental costs of the construction of the building

Incidental Benefits

The cost of producing a brochure is much lower than the cost of a plan change.

The reach of the brochure will extend beyond the town centre zones and the acoustic insulation of other zones will be improved as well.

Socially it is generally more readily accepted to provide information than to legislate. People will generally experience this option as 'friendly and helpful' rather than 'prescriptive'.

Incidental Costs

The feeling of 'yet another brochure' and 'not really doing anything' could prevail. This is usually more prevalent where legislation would tend to prevent those in the higher economic segments to progress further economically. This would generally be the case in the town centre zones.

Recommendation

It is recommended that this option be considered only in combination with other methods.

4.9 A combination of measures

From the above list the following recommendations are positive, and could therefore be used in combination:

Insert a zone standard	Recommended
Non statutory guidelines/education	Recommended only in combination with other methods

Necessity

This option would assist in achieving the purpose of the Act.

Effectiveness

Clearly it is important that noise and disturbance are encapsulated in the Plan as a means of clearly specifying noise levels that are not exceeded in the habitable listening areas of a new residential building located within the Town Centres. Providing additional guidance in these matters can only improve the understanding and implementation of the PDP so an education component that explains the basis behind the changes to the standards and rules will be important. The purpose of the Plan Change is more likely to be achieved with a combination

of these measures identified above. This is likely to occur with the inclusion of a zone standard requiring a maximum indoor sound level, acoustic insulation guidelines and the requirement to have habitable space certified by a registered acoustic engineer.

Environmental Benefits

Guidelines inside and outside the Plan would provide criteria for planners to assess consents against; applicants would be more informed and more likely to provide the relevant information. This will result in greater assurance that the residential amenity of the surrounding area is maintained.

Environmental Costs

Measures are not retrospective and amenity for existing residences would not be improved.

Incidental Benefits

The introduction of a combination of measures will provide economic benefit to residents, future residents, landowners, visitors and those with an interest in viability of the Town Centres of Queenstown and Wanaka.

Residents and landowners building on their property will know what is required to achieve compliance with the standards and rules. The benefit will be both a saving in time and money in the long term and the levelling out of conflicts with the Town Centres.

The community and those with an interest in the viability of Town centre zones of Queenstown and Wanaka will be assured of the ongoing viability of the commercial activities and the economic benefits that they provide.

Incidental Costs

The community will bare the cost of research and preparation of acoustic insulation standards and rules as well as the development and ongoing publication costs for providing guidelines and information.

Efficiency

Environmental and incidental benefits are equal to ongoing incidental costs. There are few environmental costs.

Appropriateness

It is appropriate to use an education component outside the Plan to increase understanding of the need for acoustic insulation. This option shows efficiency and will achieve the objective of the Plan Change.

Recommendation

It is recommended that this option be considered.

5. Conclusion

With regard to the above analysis of principal alternative options it is evident that the most appropriate method of ensuring that the purpose of the RMA and the objectives of the Plan are met is to add a zone standard to the Town Centre zones of Queenstown, Arrowtown and Wanaka.

An education component would be useful in making the Plan Change more widely understood and aid in its implementation.

The total outcome will be one that is effective and appropriate, with medium costs to the community, in terms of implementation but quantifiable in results.

