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Kapiti Coast Airport Holdings Limited

Private Plan Change Request: Prohibited Activities – Airport Zone

1.0 Introduction

Malcolm Hunt Associates [MHA] have been commissioned to review noise-related matters arising from Private Plan Change Request 84 (PPCR84) by Kapiti Coast Airport Holdings Limited to amend 'Prohibited Activities' in the Airport Zone of the operative Kapiti Coast District Plan ("District Plan").

While PPCR84 covers a group of requested land use planning changes, this assessment and advice to Council has considered only the environmental noise issues associated with the request. The assessment is based upon the recommended assessment methods and criteria set out in a relevant NZ Standard, also importantly considering the policies and objectives of the relevant provisions of the operative District Plan.

MHA are familiar with the issues having been involved assisting Council with airport noise issues regarding Plan Change 73 at the initial Council hearing level and in the resolution of appeals in the environment court¹.

Through the Airport's recent planning history we have noted a consistent theme, that the Kapiti Coast Airport is an important general aviation airport for the Wellington region. The evidence brought before Council indicated that while Wellington International Airport is an international gateway and a major domestic airport it simply could not accommodate the flight training, recreational, and other types of general aviation activity that occur at Paraparaumu. The Kapiti Coast Airport is mentioned in the Long Term Council Community Plan (LTCCP) as a key resource and transport node. We understand the runway remains an important emergency alternate (due weather, natural disaster or accident at Wellington) and in some Civil Defence emergencies. The usefulness of the Airport for domestic travel is evidenced by Air New Zealand scheduled services.

The District Plan methods for managing the effects of aircraft noise associated with the use of the Kapiti Coast Airport are closely aligned with the recommendations of NZ Standard NZS6805:1992 *Airport Noise Management & Land Use Planning*. However, there is some departure in some minor respects. In the main however the recommendations of this guideline document have been followed. The wording of the Standard sets out how Councils can may agree to adopt both more or less stringent controls than the generic recommendations of NZS6805:1992, implying it is matter to consider under the circumstances of the case.

NZS 6805:1992 provides recommendations for land use planning controls to protect community health and amenity effects of aircraft noise within sensitive environments without unduly restricting the operation of airports or requiring a deviation from standard aircraft operating procedures. The Standard requires the modelling of future projected aircraft noise to establish an Outer Control Boundary (OCB) and a smaller, much closer Airnoise Boundary (ANB) around the airport where aircraft movements generate high levels of noise. The location of the ANB is based upon the projected 65

¹ An outline of Malcolm's background and experience are attached as APPENDIX A.

dB Ldn contour, and the location of the OCB is generally based on the projected 55 dB Ldn contour (with Paraparaumu Airport using 58 dB Ldn as the OCB) .

Inside the ANB, new noise sensitive uses (including residential) are recommended within NZS6805:1992 to be prohibited. Between the ANB and the OCB new noise sensitive uses should also be prohibited under this standard however the standard states “...unless the district plan permits such uses subject to appropriate sound insulation”. Thus, the Standard recognises a range of factors influence land use planning decisions.

Plan Change 73 process set in place agreed noise contours based on reliable long term estimates of cumulative daily Ldn² aircraft noise levels that are considered to remain technically appropriate. The final agreed version based on recommendations of NZS6805:1992 were endorsed by that process. This has resolved any lingering concerns regarding the technical veracity of the contours and their technical basis.

We note at para 2.2 of the Plan Change Request, the requestor implies that the “prohibited activities” status for noise sensitive activities came about within the Plan Change 73 process to resolve concerns held by a trade competitor. However, to the best of my recollection the prohibition on noise sensitive activities establishing within the Airport Zone was included within the originally notified plan change and was always seen as sensible precaution to protect the integrity of the Airport Zone and to manage the sensitivity of the receiving environment which in the long run may affect the future of the Airport.

2.0 Plan Change Request

The PPCR seeks to amend the wording of the operative District Plan Airport Zone provisions as follows:

Amend Rule D.9.1.6(i) to provide that noise sensitive activities outside of the Air Noise Boundary not specifically provided for as a permitted activity are classified as a discretionary activity.

“Noise Sensitive Activities” are defined in the District Plan as “...residential accommodation of all types, hotels, motels, pre-schools, schools, educational facilities, libraries, child care centres, and hospitals”. The request seeks to allow resource consents to be applied for to establish “noise sensitive activities” on sites in the Airport Zone, providing the site does not lie within the Airnoise Boundary shown on the planning maps.

The term “not specifically provided for as a permitted activity” refers to the fact that permitted activity standard D.9.1.1 permits “one hotel/motel” in the Airport Zone in addition to accommodation is permitted in a limited way for those whose employment requires residence within the Zone.

It is worth exploring why only a single motel/hotel is permitted in the zone. The most obvious answer is that any noise sensitive use needs to be restricted within the Airport Zone to avoid adverse effects, not only on the occupants of such facilities but also the potential reverse sensitivity noise effects whereby potential noise complaints and disturbance may undermine the long term operation of the airport.

It is argued the nature of visitor accommodation facilities are such that there are usually few outdoor recreation areas with guests usually staying only one or two nights per stay. We tend to agree visitor accommodation can be located in noisy areas around airports especially if there are no significant outdoor recreational areas and the rooms are adequately acoustically insulated. On this basis it is possible to classify visitor accommodation as less noise sensitive than traditional residential type use where sites are occupied on more or less continuous basis by occupants who live on-site.

It is acknowledged the operative plan Airport Zone provisions do not completely ban noise sensitive uses from establishing within the zone (other than those provided for as a permitted activity) however there are many examples where establishing noise sensitive activities is far from encouraged in the Airport Zone.

The PPCR confirms noise sensitive activities within the Airport Noise Boundary are unaffected - they remain prohibited within the Airport Noise Boundary in the Airport Zone. This approach is supported.

Page 7 of the PPCR clarifies that the changes seek that new noise sensitive uses outside the Air Noise Boundary but within the airport zone be specifically provided for as a “Permitted Activity – Discretionary” however this seems to be at odds with operative District Plan controls on “noise sensitive activities” within many areas around the Kapiti Airport

² In reference to aircraft noise, Ldn means the cumulative ‘noise energy’ that is produced by all flights during a typical day with a 10 decibel penalty applied to night flights. Ldn is used extensively overseas for airport noise assessment and it has been found to correlate well with community response to aircraft noise.

and further afield. For example, in the Commercial/Retail Zone Standard D.3.2.1 requires that residential activities be limited to above the ground floor level, in the basement or to the rear of the retail space. Paraparaumu Town Centre although Rule D4.1.2 lists the subdivision and development of residential dwellings as a discretionary activity. The subdivision of land for the purpose of creating a vacant site for residential purposes within the Airnoise Boundary on and zoned Open Space Recreation or zoned Industrial \Service is a prohibited activity under rule D.5.1.5.

The requestor argues the ability to include buildings housing new noise sensitive activities within future resource consent applications will enhance the financial sustainability of the Airport. This would be in addition to the financial gains made by establishing commercial and service type industries on available sites. On balance, in relation to noise sensitive activities the so-called improved sustainability is considered to be offset in the long run by the elevated risks arising from the direct effects (on people and communities exposed to the noise) and indirect effects through reverse sensitivity noise effects due on the long term operation of the Airport).

Thus, if Council is to enable noise sensitive development within the Airport Zone (but outside the ANB) the consequences need to be thoroughly assessed in the context of the relevant provisions of the operative plan, in particular the objectives and policies of the Airport Zone which clearly have an aviation focus, whilst encouraging mixed use commercial development.

3.0 Assessment

We agree that the recommendations of NZS6805:1992 do not support prohibition of noise sensitive activities within all sites in the Airport Zone. It is therefore difficult to support the retention of prohibited status. We agree changing this anomaly seems reasonable, in order to at least enable applications to be made to establish sensitive uses within some parts of the zone, at some point in the future.

However, for noise-related reasons we do agree with the activity classification adopted by the requestor. We set out below our reasons to justify classifying applications for noise sensitive activities (not specifically provided for as a permitted activity) as 'Non-Complying' as opposed to the 'Discretionary' status requested. The reasons for this recommendation are set out below under the following headings;

3.1 Noise Effects

High levels of noise levels occur throughout the Airport Zone owing to the close proximity to aircraft hard stand areas, aircraft taxiing routes and aircraft becoming airborne off the runway or are landing on the nearby runway. Outdoor LAeq(15 min) levels may reach 75 to 85 dB at times within areas outside the ANB, due to aircraft taxiing and potential engine testing noise. Noise from aircraft movements may occur whilst engine testing is also being carried elsewhere in the zone, plus other sounds arising from proposed commercial and industrial activities, such that cumulative outdoor noise levels would render the permitted activity noise insulation standard relatively ineffective in ensuring indoor sound levels are acceptable.

In addition, noise from aircraft engine testing is not controlled at the location of future noise sensitive locations within the Airport Zone. Airport Zone Rules And Standards (D9 - 13 District Plan) stipulates noise from engine testing to be limited to 55 dBA Leq (15 hours) during daytime when measured *"....at or within the boundary of any residentially zoned site or the notional boundary of any rural zoned"*.

The permitted activity standard for "Noise Other Than From Aircraft Operations" also requires compliance to be determined *".... at the boundary of any adjoining Residential and the notional boundary of any dwelling in any adjoining Rural Zone"*. There are no rules proposed to require noise from engine testing or "other activities" to be controlled at any location within the zone, leading to elevated and relatively uncontrolled noise levels within the Airport Zone which the operative District Plan anticipates.

Of the above noise sources, taxiing noise is the greatest concern. These sounds can reach 90 to 100 dBA at distances of 25 to 30 metres and could easily adversely affect indoor living spaces (even if the premises may be insulated to the permitted activity DnTw + Ctr>30 dB standard, and be fitted with a compliant ventilation system). In essence, under a worst case situation the permitted activity noise insulation standard may prove acoustically inadequate to protect indoor spaces exposed to high outdoor sound levels due to aircraft engine testing, taxiing, taking-off and landing.

This discussion leaves aside residential noise impact experienced in outdoor areas around residences. Outdoor amenity of residential sites in the Airport Zone would be likely to be seriously degraded during daytime and evening hours by aircraft effects. It is acknowledged the District Plan night curfew at Kapiti Airport provides suitable protection from night time sleep interruption effects.

I note the District Plan promotes a 'Noise Management Plan' which sets out a wide range of measures to manage and mitigate noise effects, including the process of making, recording, and acting upon noise complaints. However we do not consider the Noise Management Plan to mitigate or address the reverse sensitivity noise issues discussed in this report in any meaningful way.

3.2 Covenants

The District Plan anticipates noise from aircraft activities may cause reverse sensitivity effects such as through noise complaints about aircraft noise. The provisions of the Residential Zone requires that a covenant be registered with Council as a condition on resource consent applications associated with certain listed parcels. The parcels affected by this requirement and the wording of the resource consent condition are included within section D.1.2.1 Noise (v) of the District Plan.

It is thus not surprising the Plan Change73 process and earlier planning decisions considered it was important to prohibit noise sensitive activities (other than those compliant with the permitted activity standard) from the Airport Zone through such measures as covenant on the title.

In our experience, we understand 'no complaint' covenants are not considered an RMA 'tool' and could not be relied upon as a reliable or complete mitigation measure as it does not address or reduce the noise effects experienced by the complainant.

3.3 Consistency With District Plan Objectives & Policies

As above, the concept of removing the prohibited classification for applications to establish noise sensitives in the Airport Zone is supported, however the resultant direct and indirect effects of doing so need to be carefully considered. There seems little by way of support for establishing noise sensitive activities (above the permitted activity standard) in the Airport Zone when considering the two key objectives of the zone which are worded as follows;

Objective 1.0

To achieve significant sustainable aviation, business and employment opportunities by enabling the efficient utilisation of the land for aviation and associated activities and supporting non-aviation business activities, while avoiding, remedying or mitigating adverse effects.

Objective 2.0

To protect the amenities of areas surrounding the airport from adverse environmental effects from airport use and development.

In terms of Objective 2.0, we recognise that some aircraft noise is unavoidable when in the vicinity of an airport. By requesting that consent applications for new noise sensitive activities in the Airport Zone but outside the Air Noise Boundary be classified as discretionary, there is concern that the wider implications of granting consent need to be fully explored in terms of consistency with the relevant District Plan policies and objectives, as well as ensuring the end result adverse effects (if any) would be acceptable in the zone.

Regarding the proposed "Discretionary Activity" status of applications to provide for noise sensitive development within the Airport Zone but outside the Airnoise Boundary, the concern is that insufficient regard is likely to be had to wider issues such as reverse sensitivity noise concerns. There are also concerns that sufficient scrutiny would not be applied. Granting of such ill-considered applications could in this case ultimately undermine the long term future of the Airport.

From my understanding of the Act and the requirements on consent authorities, there appears to us to be an advantage classifying such applications as a "Non-Complying Activity." This is because each application would have to establish that the adverse effects of the activity on the environment will be minor or that the activity will not be contrary to the objectives of the relevant plan or proposed plan (the 'threshold test'). If the threshold test is met, the consent authority can exercise full discretion as to whether or not to grant consent and as to what conditions to impose on the consent if granted.

We consider non-complying activity status is the most appropriate way for Council to signal that these applications involving sensitive activities will be subject to a greater degree of scrutiny than normal and indicates some activities are unlikely to be appropriate throughout the Airport Zone, although the door is open for the case to be made. This is

preferred over the current prohibited status for such activities which we consider inappropriate as it appears to be inconsistent with the recommendations of NZS6805:1992.

4.0 Summary

Having regard to the potential for reverse sensitivity noise effects on the long term operation of the airport, we agree the recommendations of NZS6805:1992 should applied to the extent that applications to establish noise sensitive activities within the Airport Zone (but outside the ANB) should be able to be made. It seems inefficient and inconsistent with NZS6805:1992 to classify such applications as 'prohibited' and not allow any applications to be received by Council.

The recommendation is for Council to process such applications as if they were an application for a "non-compliant" activity. The PPCR84 requestor is seeking to provide for comprehensive noise sensitive development between the Airnoise Boundary and the Outer Control Boundary in the Airport Zone which I do not consider this District Plan envisages, nor has done since its inception. The focus has always been on preserving aviation-based activities although I do acknowledge those changes which mean commercial and service industrial activities have become widely established on airport land in recent years. We consider there are considerable risks in allowing for such developments to include noise sensitive residential activities within the Airport Zone, outside the ANB but within areas likely to receive high levels of aircraft noise.

On balance we agree prohibited status is not the "most appropriate" classification for noise sensitive activities seeking to establish within the Airport Zone, on sites outside the Airnoise Boundary. We consider potential adverse effects on occupants of "buildings associated with a noise sensitive activity" even if acoustically insulated to meet the permitted activity insulation standard could be significant as this insulation standard may not adequately insulate against cumulative aircraft take-off or landing noise, aircraft taxiing noise, engine testing and other land-based activity taking place in the Airport. There are also potentially significant outdoor amenity effects on people within outdoor areas associated with buildings housing noise sensitive activities that have not been adequately assessed in our view.

For the above reasons, we support Council approving Plan Change 84 where it seeks to amend Rule D.9.1.6(i). However we recommend amendments to the Operative District Plan that will result in consent applications for noise sensitive activities seeking to locate on sites within the Airport Zone but outside of the Air Noise Boundary (and not as specifically provided for as a permitted activity) are to be classified by Council as an application for a non-complying activity.

For noise effects reasons, we support the District Plan permitted activity standard for hotels/motels in the Airport Zone remaining in place. That is, only allowing one hotel/motel within the Airport Zone which should be adequately acoustically insulated and not be located within the Airnoise Boundary.

Please advise if there are any matters arising.

Malcolm Hunt Associates
19 December 2016



Malcolm Hunt
B.Sc., Master of Engineering [Mechanical/Acoustics]
Dip Pub. Health, RSH Dip. Noise Control Engineering
MNZAS. MEIH

APPENDIX A – QUALIFICATIONS AND EXPERIENCE

1. Malcolm James Hunt holds a Bachelor of Science Degree from Victoria University and a Master of Mechanical Engineering Degree specialising in Acoustics from the University of Canterbury where a thesis was completed on environmental acoustics.
2. Malcolm holds other qualifications with respect to the Environmental Health Officer Qualification Regulations 1975, and I also hold a Royal Society of Health Diploma in Noise Control.
3. Malcolm has been on a number of past New Zealand Standard's committees for acoustics, including the past New Zealand Standards committees reviewing NZS6801 and NZS6802 [covering the measurement and assessment of environmental noise].
4. A major portion of Malcolm's nearly 30 years experience has been in the assessment of noise-related effects of a wide range of commercial, industrial, transportation, or energy type projects. In many cases I have advised on noise control measures through both engineering methods and management plans. He has assessed noise effects within sensitive receiver sites such as residential sites, aged-care facilities, schools and hospitals. In many projects I have provided advice in relation to appropriate building materials and methods to control the intrusion of outdoor noise sources.
5. Malcolm has also conducted a number of district-wide community sound level surveys and provided independent District Plan noise reviews for a number of territorial authorities across New Zealand. His involvement in such projects has led to presenting noise-related evidence at Boards of Inquiry, and the Environment Court, District Court and High Court of New Zealand.
6. Malcolm has completed the 'Making Good Decisions' courses for Resource Management Act ("RMA") Practitioners which provides him with current certification as an RMA Practitioner able to undertake a role as a Commissioner assisting Consent Authorities with RMA decision-making processes.
7. Malcolm has wide experience in the technical evaluation of environmental noise, including aircraft noise, and its assessment within planning proceedings including district plan development.
8. Regarding airports and aerodromes Malcolm has been involved with noise investigations at several airports nationwide, some of which involve international aircraft movements. A list of airports, aerodrome and airfields he has worked at are provided as follows:
 - Wellington International Airport
 - Palmerston North International Airport
 - Queenstown Regional Airport
 - Gisborne Regional Airport
 - Whangarei Regional Airport
 - Nelson Regional Airport
 - Ardmore Aerodrome
 - Kaipara Aerodrome
 - Thames Airfield
 - Waipukurau Airfield
9. Malcolm also has experience with aircraft noise assessment and design works carried out for the New Zealand Defence Force at Ohakea and Whenuapai Airbases.