



PO Box 6
Cloverdale WA 6985
Australia

30 November 2021

Mr Peter Varelis
Director Development Services
City of Kalamunda
2 Railway Rd
Kalamunda WA 6076

Attn: Strategic Planning team

Dear Peter,

PROPOSED WATTLE GROVE OUTLINE DEVELOPMENT PLAN

I refer to the above Outline Development Plan (ODP) as advertised on the City's website for comment. The ODP covers an area of 3 hectares and proposes to create 53 lots to accommodate an estimated 137 persons. Perth Airport has reviewed the documentation, conducted an assessment against the relevant policies and guidelines, and provides the following response.

AIRCRAFT NOISE ASSESSMENT

Background

State Planning Policy 5.1 – Land Use Planning in the Vicinity of Perth Airport (SPP 5.1) is the key statutory document available in Western Australia for assessing and planning for land uses in aircraft noise affected areas. This document is predicated on the endorsed Australian Noise Exposure Forecast (ANEF) contours to determine what density of residential development can be approved, and under what conditions. SPP 5.1 does not apply retrospectively, in that, it does not affect a landowner's existing use of land and its application is triggered only when development is proposed on land subject to ANEF contours.

Additionally, the National Airports Safeguarding Advisory Group (NASAG), comprising of Commonwealth and State Government planning and transport Departments and Authorities, has developed the 'National Airports Safeguarding Framework.' The NASF is a national land use planning framework that aims to:

- improve community amenity by minimising aircraft noise-sensitive developments near airports; and
- improve safety outcomes by ensuring aviation safety requirements are recognised in land use planning decisions through guidelines being adopted by jurisdictions.

The NASF contains nine guideline documents which assist in achieving the listed aims. Guideline A of the framework is titled '*Measures for Managing Impacts of Aircraft Noise*' and specifically addresses the suitability of different development scenarios in aircraft noise affected areas. All levels of decision makers, including Local Governments, are encouraged to review and take guidance from the framework and consider it as part of their assessment.

Guideline A uses "noise above" contours as its reference, which relate to the specific number of events that a decibel level is exceeded. The N65 is a 'noise above' metric, and is produced because the ANEF is not well suited to conveying aircraft noise exposure to the community, as over-flight frequency and the sound level of single events (typically two factors that determine how a person will react to noise) are not clearly translated by the ANEF system.

Perth Airport produces the N65, which demonstrates the likely effect of aircraft noise exposure on an area or a development, at the ultimate airfield capacity. The N65 is publicly available on the Aircraft Noise Information Portal, viewable from Perth Airport's website.

The NASF is consistent with SPP 5.1, in that it aims to ensure residents and prospective residents are sufficiently informed regarding aircraft noise. Although both documents are considered and referenced in this response, SPP 5.1 is ultimately the prevailing document used in Western Australia.

Assessment of the subject site

The proposal is located outside the endorsed 2020 Australian Noise Exposure Forecast (ANEF). The ANEF overlaid with the subject area is included for reference in Attachment 1.

The Wattle Grove area will be overflown by aircraft departing to the south off Perth's New Runway. Although specific flight paths have yet to be designed by Airservices Australia, flight corridors were developed for the purposes of public consultation. Figure 21-5 from Volume C of the Major Development Plan for Perth's New Runway has been included with this letter to demonstrate where these flight corridors are with relation to Wattle Grove. Figure 21-5 from Volume C of the Major Development Plan for Perth's New Runway has been included with this letter to demonstrate where these flight corridors are located in relation to Wattle Grove. Once the New Runway is operational the Wattle Grove area may experience a step change in aircraft noise. Once the New Runway is operational the Wattle Grove area may experience a material increase in aircraft noise.

Perth Airport notes the consultant's report has incorrectly used the 2014 ANEF (Plan 1, page 6). The plan shows the 2014 ANEF encompasses the entire ODP area. The report however does not identify any aircraft noise impacts, nor does it recommend any specific noise attenuation for future dwellings as a result from aircraft noise impacts. Noting the 2020 ANEF does not actually impact the subject ODP area, this is somewhat an inconsequential point. However this error brings into question whether the impact of aircraft noise has been properly assessed in the report.

Using the NASF recognised N65 contour, the subject site will experience up to 200 aircraft noise events above 65 decibels across an average day. Noise at this level is disruptive to a normal conversation even inside a dwelling and will be unacceptable to most people. It is worth noting that the area will receive a significant number of additional aircraft noise events at a level less than 65 decibels, and these noise events may also cause annoyance to some people. The N65 overlaid with the subject area is included in Attachment 2.

An additional NASF recognised noise metric is the N60, which shows the number of events in excess of 60 decibels that can be expected over an average *night (11pm-6am)*. The lower threshold was chosen to reflect the people's increased sensitivity to noise in this period. The subject site will experience up to 50 aircraft noise events above 60 decibels across an average night. The N60 overlaid with the subject area is included in Attachment 3.

As identified above, the proposal is located within certain aircraft noise contours. An assessment of the suitability of the proposal against relevant statutory documents is undertaken in the following sections.

State Planning Policy 5.1 (Land Use Planning in the Vicinity of Perth Airport)

As stated, the subject area is not located within the ANEF and is therefore not subject to the policy measures outlined within SPP 5.1. Notwithstanding, Section 3 of SPP 5.1 states:

“This policy applies to land in the vicinity of Perth Airport, which is, or may be in the future affected by aircraft noise.”

The ODP area is located outside the ANEF, however is greatly impacted by aircraft noise and is therefore subject to the policy.

Further, Section 4 outlines two objectives of SPP 5.1:

1. Protect Perth Airport from unreasonable encroachment by incompatible (noise-sensitive) development, to provide for its ongoing development and operation; and
2. Minimise the impact of airport operations on existing and future communities with reference to aircraft noise.

Further comment on the objectives of SPP 5.1 is provided in the recommendation section of this response.

National Airports Safeguarding Framework (NASF)

A summary of Guideline A is provided in Table 2 below, and the applicable requirements for the subject proposal are highlighted:

	Within ANEF 20 contour	Within 50+ N65 contour	Within 6+ N60 contour
Rezoning Greenfield areas from Rural to Residential	Prohibit	Avoid permitting	Avoid permitting
Rezoning Brownfield areas	Require Insulation	Require Insulation	Require Insulation
	Require Notification on Title	Require disclosure to future residents	Require disclosure to future residents
Development Applications for existing Residential zoned land	Require Insulation	Require Insulation	Require Insulation
	Require Notification on Title	Require disclosure to future residents	Require disclosure to future residents

Table 2 – Assessment of NASF Guideline A

Notes

1. Insulation is to be in accordance with *Australian Standard AS2021:2015 Acoustics – Aircraft Noise Intrusion – Building Siting and Construction*.
2. ‘Avoid permitting’ equates to a general position of objecting to the proposal.
3. ‘Neither support/object’ is used as a position as the proposal’s suitability is dependent on a Strategic Planning assessment based on specific Local and State Government circumstances. Perth Airport’s assessment relates only to aircraft noise.
4. The ‘+6 N60’ contour is present across significant areas surrounding Perth Airport. As a result, Perth Airport will consider the suitability of development within this contour on a case-by-case basis.
5. Perth Airport has interpreted ‘disclosure for future residents’ as being the inclusion of an advice note on an approval which details aircraft noise information, as opposed to the imposition of a condition requiring a Notification on the Certificate of Title (which is otherwise covered under SPP 5.1).

The subject site will experience 100-200 N65 and 20-50 N60 aircraft noise events. This level indicates the approval of the proposal should be avoided.

Although internal dwelling areas can be protected (to a degree) from aircraft noise through insulation, this invariably relies on closing windows, which is not conducive to Perth lifestyles and will be unacceptable to most people. Additionally, outdoor areas are not able to be insulated from the impacts of aircraft noise. Given the pleasant climate and associated popularity of outdoor activities amongst Perth residents, the impact of aircraft noise must be given consideration. Residents of the subject area attempting to enjoy private and public outdoor spaces will be subject to aircraft noise events that regularly exceed the volume of their conversations. Most people will find the choice between enduring this high level of outdoor noise, or relegating themselves to their somewhat insulated houses, to be unacceptable.

To provide residents the facts to be able to make an informed choice regarding protecting themselves from aircraft noise (i.e. by installing noise mitigation measures as part of the initial dwelling construction), Perth Airport ordinarily considers an advice note on an approval to be adequate notification. However, in the subject case of Wattle Groves where the noise impacts are at such a high level and frequency, Perth Airport considers it critical that all future owners are informed about noise impacts prior to purchase through a notification on Title (should the ODP proceed to approval).

Although ANEF contours are a widely accepted tool for land use planning purposes, it is important for decision-makers to be aware of their limitations. The ANEF contours are based on historical research that correlated a subjective community "annoyance" level with the recorded aircraft noise level. Although this research was conducted with all the necessary experimental rigour, there is always the limitation that a contour requires a line to be drawn somewhere on a plan.

In the case of Wattle Grove, despite the extent of the 2020 ANEF contours not encompassing the ODP area, aircraft utilising the proposed flight corridors for the New Runway will overfly the Wattle Grove area. It is arbitrary to assume land on one side of the contour will be impacted by aircraft noise and requires all manner of notifications and noise protection, and adjacent land outside the ANEF contour requires none. The City is urged to use their discretion and consider the other recognised noise metric (noise above contours) as part of this assessment.

Perth's New Runway

Perth Airport undertook extensive public consultation for the New Runway Project (May 2018 to August 2018). Of the submissions Perth Airport received, 90 submissions were from Wattle Grove residents, with almost all being objections. This quantity of submissions for a relatively small suburb by comparison to others, represents a strong level of interest, and also concern from the suburb as a whole. Objections were based on a number of reasons, with the vast majority being due to aircraft noise and the impact this may have on amenity.

Some residents with properties located outside of the ANEF (and within the City of Kalamunda, including in Wattle Grove) expressed great concern there was no statutory requirement for dwelling insulation. A number of submissions stated how they wished they were informed of actual aircraft noise impacts and the benefits of dwelling insulation prior to designing and constructing their homes, as retrofitting their existing homes with adequate

insulation is cost prohibitive. Based on this local and recent evidence, Perth Airport encourages the City to make use of the N65 and N60 contours to inform current and future residents of aircraft noise exposure.

Other comments

The lack of consideration regarding aircraft noise in the consultant's report is concerning. Although the report incorrectly identifies the site as being within the ANEF, the potential impact of aircraft noise is not addressed. In contrast, several paragraphs are dedicated to road and rail noise. When Perth's New Runway is operational (anticipated later this decade) the aircraft noise impact may be just as great, if not greater, than the noise from road and rail. Should this ODP be approved Perth Airport strongly recommends an acoustic study in accordance is required, to inform current actual noise levels across the site.

The City of Kalamunda is one decision maker in this process. It is appreciated Local Government Planning Officers base their recommendations on applicable legislation; SPP 5.1 being the primary consideration from Perth Airport's point of view. However under Local Planning Scheme No. 3 clause 10.2, the City has an obligation to have due regard to:

- (c) any approved Statement of Planning Policy of the Commission;
- (n) preservation of the amenity of the locality;
- (y) any relevant submissions received on the application; and
- (aa) any other planning consideration the local government considers relevant.

As a referral agency, and one of the two stakeholders SPP 5.1 is written to protect the interests of, Perth Airport provides this referral response with a request the City carefully consider applying discretion to consider the alternate noise metrics (N65 and N60) to inform their decision in line with the City's Scheme.

PERTH AIRPORT RECOMMENDATION

The land is and will continue to be exposed to aircraft noise and is therefore subject to consideration under SPP 5.1. The two SPP 5.1 objectives are entirely relevant in this case as they relate to the protection of Perth Airport's operational interests, and community impacts.

The NASF was created with WA State Government input to give more practical advice to decision makers for land use planning purposes. The NASF is a recognised metric which is available for the City's attention and can be considered under the applicable Scheme (clause 10.2).

Given the above assessment, Perth Airport objects to the proposal on the basis of aircraft noise impacts. Approval of the ODP would allow for residential development in an area affected by the highest contours of aircraft noise.

Should the City set aside Perth Airport's comments above and resolve to recommend approval of the proposal, Perth Airport recommends the following conditions and advice notes:

Condition 1: Dwellings are to be constructed with insulation to meet Australian Standard AS2021:2015 Acoustics – Aircraft Noise Intrusion – Building Siting and Construction.

Condition 2: The owner/applicant shall lodge a notification on the Certificate of Title of relevant lots informing current and prospective landowners of aircraft noise impacts.

“This property is situated in the vicinity of Perth Airport and is currently affected, or may be affected in the future by aircraft noise. Noise exposure levels are likely to increase in the future as a result of an increase in aircraft using the airport, changes in aircraft type or other operational changes.

Further information about aircraft noise is available from the Perth Airport website.

Information regarding development restrictions and noise insulation requirements for noise affected property is available on request from the relevant local government offices.”

Condition 3: The applicant shall undertake an aircraft noise impact assessment of Outline Development Plan area. The assessment shall make recommendations (as necessary) to demonstrate how future dwellings will be designed to comply with AS 2021:2015 Acoustics – Aircraft Noise Intrusion – Building Siting and Construction.

Advice i: In relation to Condition 1, although the area is located outside the ANEF Perth Airport considers this requirement is appropriate for the following reasons:

- the site being located in a future flight corridor for Perth’s New Runway,
- the proximity of the ANEF 20-25 boundary,
- the extreme frequency and volume of aircraft noise events demonstrated by the N65 and N60,
- the unconstrained growth in air traffic into the future required to support the local and regional economy,
- the higher costs associated with retrofitting an existing dwelling with noise mitigation measures (as opposed to including in the initial design and construction), and
- the desire for aircraft noise information expressed to Perth Airport from Wattle Grove residents as was clearly evident during recent consultation for Perth’s New Runway.

Advice ii: In relation to Condition 3, should noise mitigation recommendations be made in the noise impact assessment, these shall inform future design standards in the Outline Development Plan and/or subsequent planning documents.

Advice iii: The subject area is located within the 100-200 N65 and 20-50 N60 contours. For further information on aircraft noise the applicant/owner(s) may contact Perth Airport’s Planning team on 9478 8888 or planning@perthairport.com.au or visit Perth Airport’s Aircraft Noise Portal at <https://aircraftnoise.perthairport.com.au/>



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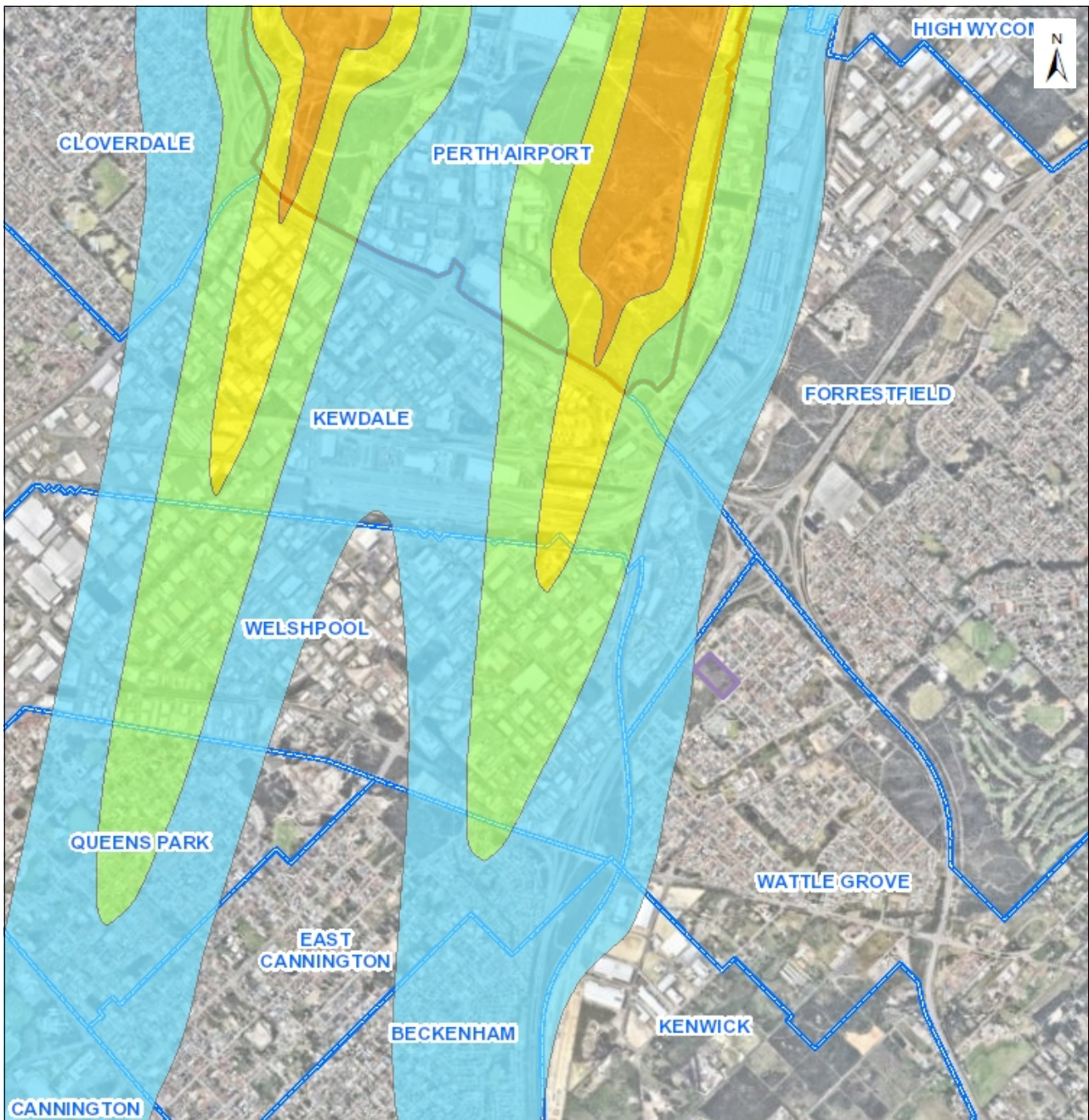
Summary

Given the above assessment, Perth Airport objects to the proposal subject to the advice provided. Perth Airport appreciates the City considering this submission, and should you require any additional information, please contact Dean Pettit (Land Use Coordinator) on (08) 9478 8438.

Yours sincerely

A handwritten signature in blue ink, appearing to read "Natasha Boshard".

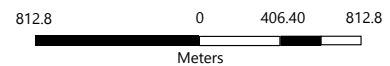
Natasha Boshard
Head of Planning and Design

**WORKING PLAN ONLY**

Whilst all efforts to make this information accurate and complete, no guarantee can be given to this extent.
Do not rely on this information beyond the date of creation as regular changes to the data occur.
Refer any requests to the Perth Airport - Design Office for the most accurate and up to date data.

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Scale 1: 32,000

**A4****Legend**

ANEF Ultimate 2020 MP
(Metric contours)

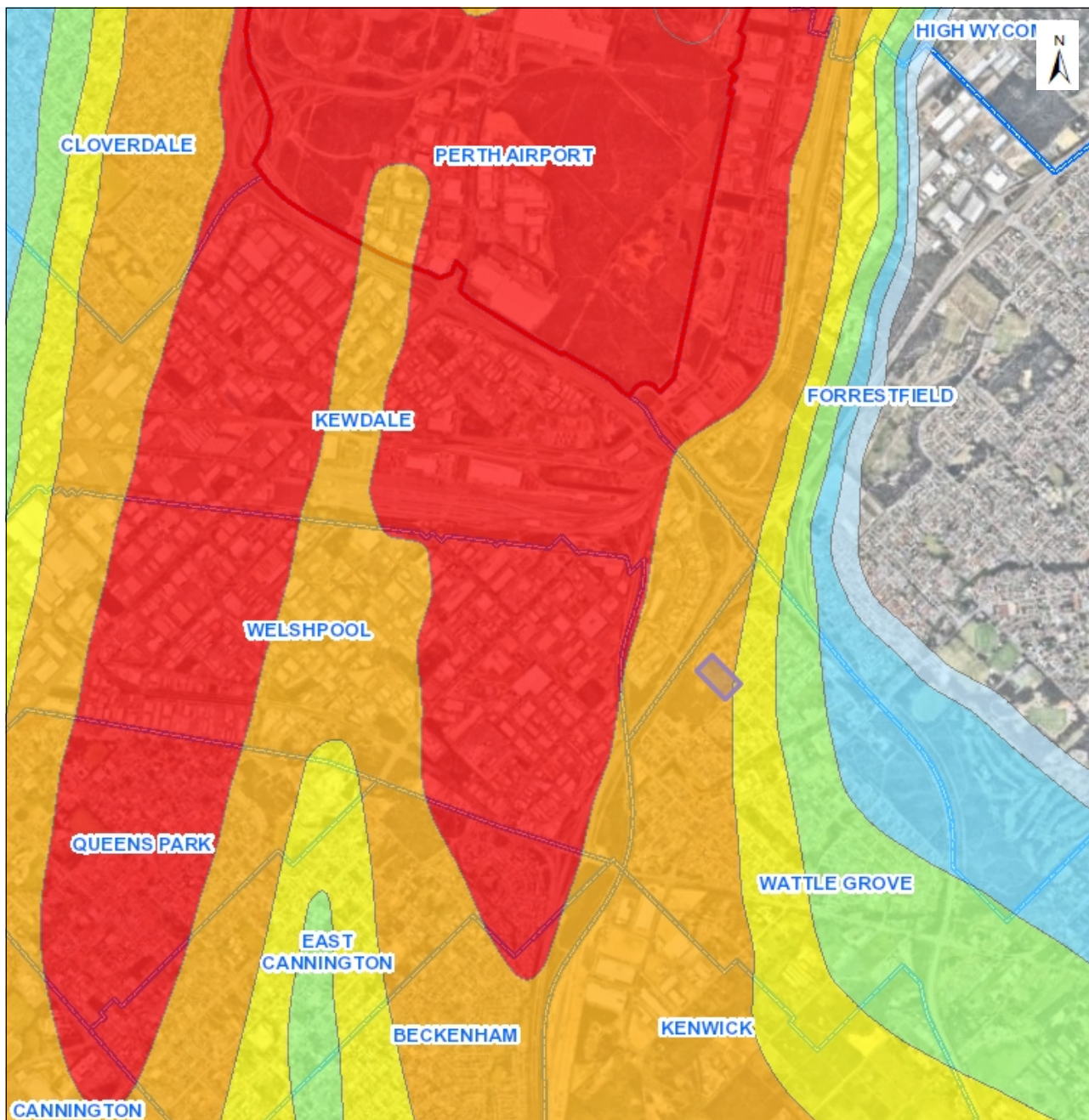
- 20 - 25 Zone
- 25 - 30 Zone
- 30 - 35 Zone
- 35+ Zone

□ Airport Boundary

Notes

2020 ANEF

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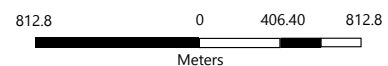
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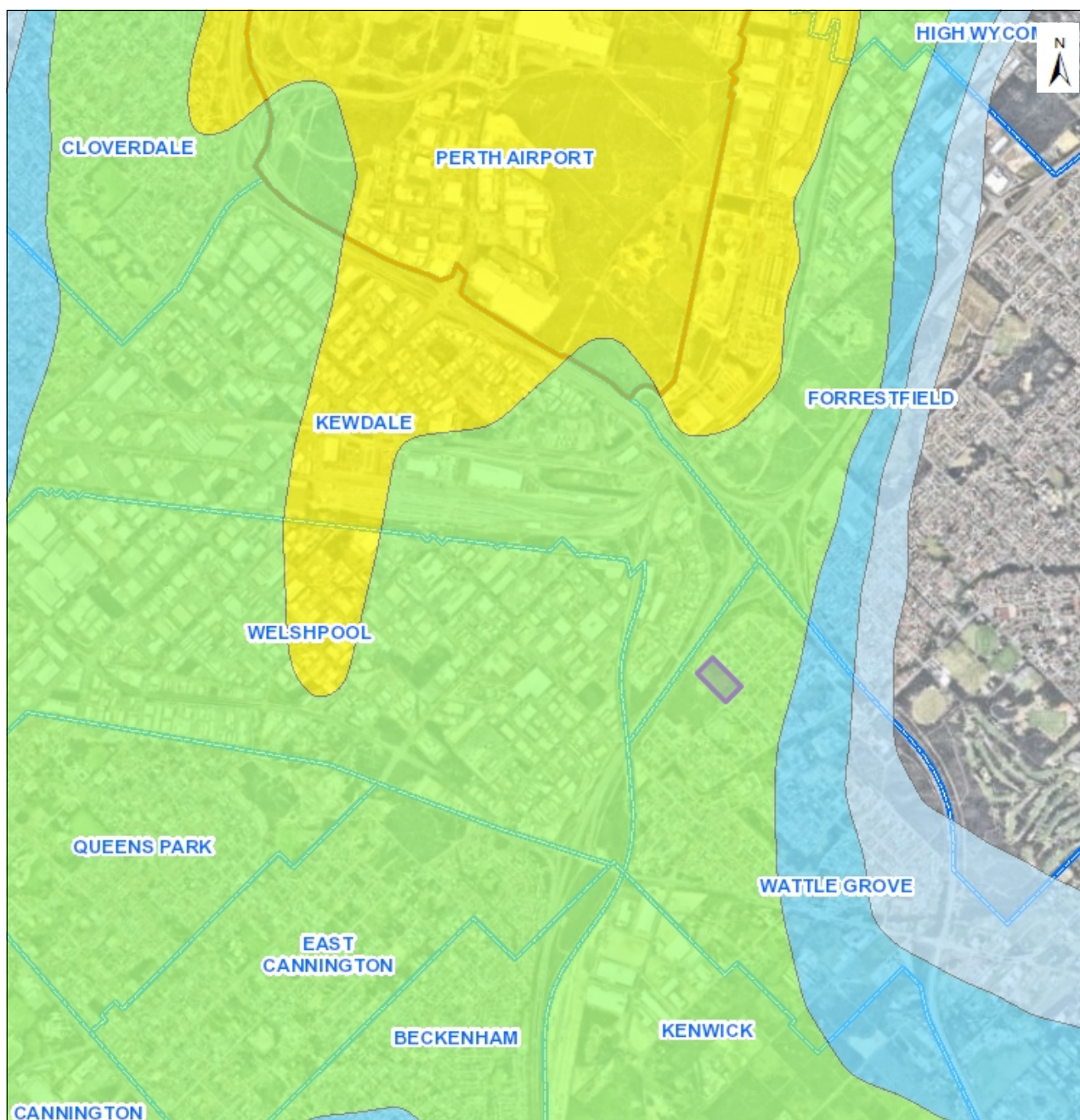
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**A4****Legend**

- N65 Ultimate 2020 MP
(average daily events above
65 dBA)
- 5 - 10 events
 - 10 - 20 events
 - 20 - 50 events
 - 50 - 100 events
 - 100 - 200 events
 - 200+ events
-  Airport Boundary

Notes
2020 N65

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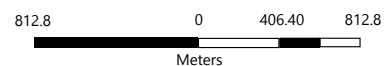
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Map Projection: GDA_1994_Perth_Coastal_Grid_1994

Scale 1: 32,000

**A4****Legend**

- N60 Ultimate 2020 MP
(average night events above
60 dBA)
- 5 - 10 events
 - 10 - 20 events
 - 20 - 50 events
 - 50 - 100 events
- Airport Boundary

Notes

2020 N60 night-time

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21 Airspace Management Plan

