

Consulting Advice Note

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Date	29 October 2021
From	Jon Styles
To	Mark Tollemache
Project	Golding Road PPC
Re	Updated final assessment- Zone change and corrections

Styles Group have updated the final *Assessment of Motorsport Noise Exposure* for the Golding Road Private Plan Change Request.

We have updated our assessment to remove reference to the Residential Mixed Housing Suburban Zone (**RMHSZ**). The small area of RMHSZ will be replaced with the Residential Mixed Housing Urban Zone (**RMHUZ**). The change in type of residential zoning in this part of the PPC has no bearing on our acoustic recommendations.

We have also updated our assessment in response to the following query from Auckland Council.

There appear to be conflicting statements in the acoustic reporting – > 55 dB LAeq on 55 days and in other paragraphs > 55 dB LAeq on 30 days. We assume it is 55 days (i.e. 310 days less than 55 dB LAeq rather than 305 days). This should be a simple matter of providing clarification and ./ or amendment.

We have clarified our assessment in response to this query. In summary:

- i. The windrose in Section 7.1 demonstrates that wind from the north-east to south-east would impede the propagation of noise towards the PPC site approximately 40% of the time.
- ii. Section 7.2 of our assessment provides commentary on the effect on wind propagation across the PPC Site.
- iii. Section 7.2 discusses the number of days per year that are likely to result in noise levels above 55 dB L_{Aeq} at the PPC Residential Zones. 100% of Category A and B days will exceed this threshold, however the lower noise limits applying on Category C days means that wind from the north-east to south-east would impede the propagation of noise towards the PPC site on approximately 40% of Category C days. Meteorological conditions will assist the propagation of motorsport noise towards the PPC site on approximately 60% of Category C days.
- iv. The AUP authorises up to 50 Category C days per year. 60% of 50 is 30. Therefore line 3 of Table 4 should refer to 30 days. The previous version of our assessment stated 25 days. This has been corrected to 30 days.

- v. The cumulative total of Category A (6), Category B (24) and 60% of Category C days (30) totals 60 event days where motorsport noise levels may exceed 55 dB L_{Aeq} at the PPC Residential Zones.
- vi. In (3) of Section 7.3, we have corrected the reference from '25' days (a carry over from the error in Table 4) to refer to "32dB L_{Aeq} on the loudest Category C days (**30 per annum**)"

Therefore, in response to Council's query, we confirm that:

- i. The PPP standards would authorise up to 80 days per year (all Category A, B and C event days) when motorsport noise levels in the PPC residential zones could exceed 55dB L_{Aeq} .
- ii. Windrose data demonstrates that meteorological conditions will assist the propagation of motorsport noise towards the PPC site approximately 60% of the time and will impede propagation 40% of the time. This means that the noise levels across the residential zones in the PPC Site would be no greater than 55dB L_{Aeq} for approximately 60¹ of the 80 days. 30 days will consist of the noise levels from Category C events where the margin above 55dB L_{Aeq} will be small (up to 2dB). Of the remaining 30 days (Category A and B events), the noise levels from motorsport could be the dominant noise source, with levels up to 67dB L_{Aeq} at the most exposed sites. For the remaining 305 days of the year the noise levels will be less than 55dB L_{Aeq} , and by a significant margin for most of those days.

The updated assessment includes minor corrections consistent with the above.

Please contact me if you require any further information or clarification:

Yours sincerely,



Jon Styles, MASNZ
Director and Principal

¹ All Category A and B days, and approximately 60% of the 50 permitted Category C days (30).