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# NOISE IMPACT REVIEW No 2. ORGANIC FOOD MARKETS

22 Jubilee Ave  
Warriewood NSW 2102  
April 2021

PREPARED FOR: Organic Food Markets  
SITE LOCATION: 22 Jubilee Avenue Warriewood NSW 2130

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## INTRODUCTION

This Report/Review is a study of the environment in the absence of market activities compared to measurements taken with the markets in operation on the site of the Pittwater Services Club and their noise impact on the nearest sensitive receiver being 185 Warriwood Road.

The operating hours are from 7am to 200pm.

## MEASUREMENT LOCATIONS

The attended noise measurements three locations (see image 1) were conducted on 4<sup>th</sup> April 2021 with no market activity present.

Position 1. being the boundary of 185 Warriwood Road, the nearest sensitive receiver.

**Image 1. Sunday 28<sup>th</sup> Normal Markets Activities**



## EXISTING ACOUSTIC ENVIRONMENT

The samples for L90, LAeq and L10 tests were taken when the markets were not in operation on Sunday 4<sup>th</sup> April 2021 and compared to noise data collected on 13<sup>th</sup> Sept 2020.

See Tables 3 and 4 for noise level difference.

## Measurement taken at the Boundary of 185 Warriwood Rd 13<sup>th</sup> Sept 2020

Table 1. : - Measured Noise Levels Markets in operation.

| Location                                     | Time (hrs.) Sundays                 | L10  | L90  | LAeq(15minutes) |
|--|-------------------------------------|------|------|-----------------|
| Nth Boundary of 185 Warriwood Road. Posit 1. | 13 <sup>th</sup> Sept 2020 @ 7:43am | 63.3 | 46.3 | 57.8            |
| Nth Boundary 185 Warriwood Rd. Posit 1.      | 13 Sept 2020 @ 8:14am               | 59.4 | 43.3 | 56.3            |

Table 2.: - Existing Noise Environment on Sunday 4 April 2021 Measured Noise Levels **No Market Activity**.

| Location  | Time (hrs.) Sundays                          | L10  | L90  | LAeq(15minutes) |
|---|--|------|------|-----------------|
| Boundary of Nearest Sensitive Receiver 185 Warriwood Road | 4 April 2021 7:42am<br>No market Activities  | 60.8 | 41   | 57.3            |
| Boundary of Nearest Sensitive Receiver 185 Warriwood Road | 4 April 2021 10:15am<br>No Market Activities | 63.1 | 44.2 | 58.6            |

## MEASUREMENT PERIOD

Measurement samples were taken from 7AM to 10AM on Sunday 13 September Measurement Position 1 at the boundary of 185 Warriwood Road with markets in progress, and again during the same time periods on Sunday 4<sup>th</sup> April but void of market activities.

## MEASUREMENT EQUIPMENT

Attended noise measurements were carried out using a Norsonics 118 class 1 sound analyzer in all tests. The analyzer was calibrated before and after each measurement session using a Norsonics Sound Calibrator type 1251. No significant drift was detected before or after each measurement period. The meter simultaneously measures LAeq, L10 and L90 as well as a raft of other statistical noise data.

## NOISE CRITERIA

Two sets of noise criteria are prescribed to meet the environmental noise objectives. The Intrusive Criteria and Amenity Criteria.

### The Intrusive Criteria

As defined by the Protection of the Environment Operations Act 1997 and summarized as: **LAeq (15minute) ≤ rated background L90 level plus 5dB.** during the hours 8am to 6pm Sundays (daytime). As well as: **LAeq, 15minute ≤ rated background L90 level plus 0dB.** during the hours **10pm Saturday 8am Sundays (nighttime)**

*\*The Rated background level (RBL) or L90: is the measured noise level on site in the absence of activity from the proposed development for 90% of the time*

### The Amenity Criteria

The LA10 noise level emitted from the use must not exceed the Background noise level (LA90) in any Octave Band Centre Frequency (31.5 Hz to 8 kHz inclusive) by more than 5dB between the hours of 8am to 10pm Sundays, and 0dB above background (L90) noise levels from Saturday 10pm to 8am Sunday. (night time)

### SUMMARY

**Table 3. Night period:** Difference between operational and nonoperational Market

| Location                                     | Time (hrs.) Sundays<br>7-8am                               | L10    | L90    | LAeq(15minutes) |
|--|--|--------|--------|-----------------|
| Nth Boundary of 185 Warriwood Road. Posit 1. | 13 <sup>th</sup> Sept 2020 @ 7:43am<br>Markets operational | 59.4.3 | 43.3   | 56.3            |
| Nth Boundary 185 Warriwood Rd. Posit 1.      | 4 <sup>th</sup> April 2021 @ 7:42am<br>No Market Activity  | *63.1  | *44.2  | *58.6           |
| Differential in noise levels                 | Markets operational with<br>no Market activity             | -3.7dB | -0.9dB | -2.3dB          |

**Note:** Between 7&8am on Sundays is stipulated as the nighttime period.

**Table 4. Day Period.** Difference between operational and nonoperational Market

| Location                                     | Time (hrs.) Sundays<br>8am to 2pm                          | L10       | L90       | LAeq(15minutes) |
|--|--|-----------|-----------|-----------------|
| Nth Boundary of 185 Warriwood Road. Posit 1. | 13 <sup>th</sup> Sept 2020 @ 8:14am<br>Markets operational | 63.3      | 46.3      | 57.8            |
| Nth Boundary 185 Warriwood Rd. Posit 1.      | 4 <sup>th</sup> April @ 10:15am<br>No Market activity.     | *59.4     | *43.3     | *56.3           |
| Differential in noise levels                 | Markets operational with<br>no Market activity             | +3.9dB(A) | +3.0dB(A) | +1.5dB(A)       |

**Note:** Between 8am and 6pm on Sundays is the daytime period.

**Note:** The Intrusive and The Amenity Criteria are breached at the site with no Market activity noise impact during the nighttime and daytime period.





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## CONCLUSION

The noise data gathered on Sunday the 4<sup>th</sup> April 2021 minus the markets activities, either in the daytime or nighttime periods, indicates that any noise generated by the operation of the Organic Markets within 22 Jubilee Avenues is imperceivable at the boundary of the nearest sensitive receiver being 185 Warriwood Rd.

Further to this and given the low/ imperceivable + 3dB daytime increases by the markets coupled to a significantly large attenuator in the form of a hedge on the north boundary of 185 Warriwood Rd. at approx. 1 Metre thick and approx. 2.8 Metres high across 80% of the exposed face between the measurement position and the house façade, this noise absorbing structure/barrier would make any noise generated by the Markets imperceivable to the occupants residing within 185 Warriwood Rd. on any given Sunday nighttime or daytime periods.

According to the data gathered on site on Sunday 4<sup>th</sup> April 2021 any breaches of the Amenity Criteria being Background(L90) + 0dB (nighttime) and +5dB(daytime) and or the Intrusive Criteria being prescribed as LAeq (15minute) ≤ rated background L90 level plus 5dB. (daytime), and plus 0dB(nighttime) are already breached within the environment under study with no activity within the market site..

**Thanking You.**

**Ian McGrath.**

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