BEFORE THE CENTRAL OTAGO DISTRICT COUNCIL

IN THE MATTER	of the Resource Management Act 1991
AND	
IN THE MATTER	of Resource Consent Application RC250077 for the purpose of mining at Sandy Point, Queensberry
BY	**AWA KOURA MINING LIMITED** Applicant

BRIEF OF EVIDENCE OF MICHAEL SMITH ON BEHALF OF PHILIPPA AND RODERICK FEE (Corrected)

21 October 2026

INTRODUCTION

1. My name is Michael Smith. I am a Principal Acoustics Engineer and a director of Altissimo Consulting Ltd. I have previously been employed by multi-disciplinary firms AECOM and URS, and specialist firm Marshall Day Acoustics. I hold the degrees of Bachelor of Engineering (Mechanical) and Bachelor of Mathematical and Computer Sciences from the University of Adelaide.

2. I have practised in the field of acoustics since 2006. I am a full member of the Acoustical Society of New Zealand (MASNZ) and the Australian Acoustical Society (MAAS).

3. I have extensive experience assessing the effects of infrastructure and extractive activities, such as roads, quarries and wind farms, often located near rural dwellings. I regularly provide advice for applicants, submitters and regulators.

4. Although this is not an Environment Court hearing, I have read the Code of Conduct for Expert Witnesses contained in the Environment Court Practice Note 2023, and I agree to comply with it. I confirm that the issues addressed in this statement are within my area of expertise, except where I state that I rely on others. I have not omitted to consider material facts known to me that might alter or detract from the opinions expressed.

5. I was engaged by Philippa and Roderick Fee. The Fees own 79 River Ridge Road, on the eastern bank of the Clutha River/Mata-Au, directly opposite the application site. They lodged a submission opposing the application.

6. I have discussed their use of the site with them, and they have read my evidence to confirm my representations of their values are correct.

7. I have visited the Fees property and the wider area prior to preparing this evidence.

8. In preparing my evidence, I have reviewed the following documents:

No	Date	Author	Document
1	5/12/25	Marshall Day Acoustics	Sandy Point Alluvial Gold Mine Noise Assessment (Rp 001 20250974), the MDA report
2	5/12/25	Terramark	Revised Assessment of Environmental Effects
3	12/3/26	R and P Fee	Submission
4	19/5/26	Styles Group	Request for further information (noise)
5	24/6/26	Marshall Day Acoustics	Response to request for further information (Lt 002 20250974), the MDA RFI response
6	24/9/26	Styles Group	Review of noise effects, Appendix 4 to the s42A report
7	28/9/26	Taylor Planning	Section 42A report
8	13/10/26	Applicant	Evidence of Mr Shanks (noise), Mr Sycamore (planning) and Mr Walker (company), and the memorandum of counsel on consent conditions

SCOPE OF EVIDENCE

9. The Fees' submission highlights their concern about noise from the proposal on their enjoyment of their property at 79 River Ridge Road. Specifically, they are concerned that:

   (a) excavating, extending and backfilling the pit with large excavators and bulldozers will generate noise at ground level, in ground that contains a lot of rock;

   (b) the noise assessment reported only averages, which can be misleading, and did not provide the measured data, so its conclusions could not be tested;

   (c) the predictions should be based on the machinery that will actually be used, and when it will be used; and

   (d) the proposed ten-hour working day is long (the applicant has since reduced the hours to 8 am to 5 pm, Monday to Friday, in proposed condition 7).

10. My evidence provides contextualisation of the existing environment at their property and how the proposal might affect them.

SUMMARY OF EVIDENCE

11. The Fees' property is at 79 River Ridge Road, on a river terrace on the eastern side of the Clutha River/Mata-Au, directly opposite the site. Its outdoor living areas face west towards the proposed mining area.

12. The existing environment is a rural soundscape of the river, birds and wind in vegetation, with distant traffic on the Luggate-Cromwell Road in the background. It is not free of human

sound, but nor is it dominated by it. I measured background sound levels of typically 35 to 40 dB L_{A90}.

13. I understand that the District Plan anticipates rural living, seasonal primary production, and mining up to a certain scale. The proposal is well beyond that scale. Consent is required as a discretionary activity, and therefore an assessment of noise effects is required.

14. Mining noise is predicted at 45 to 46 dB L_{Aeq} at the notional boundary of the dwelling, through the working day, every weekday, for about two to three years.

15. The predicted level is above the existing background. Mining noise will be clearly audible at the western outdoor areas throughout the working day, a constant reminder that the mine is there. At times it will mask the river and birds, thus changing the soundscape of the property. It is expected to be intrusive when they are looking for peace and quiet. Unlike the short, seasonal noise from primary production, there will be no respite during the working day, and over two to three years I expect this will change how the Fees use their outdoor areas.

EXISTING ENVIRONMENT

16. I describe the existing environment as a soundscape. ISO 12913-1 defines a soundscape as an “acoustic environment as perceived or experienced and/or understood by a person or people, in context”. A soundscape is more than a sound level. It includes which sounds are heard, how often, how they are valued, and how they fit the place. Within a soundscape, foreground sounds are those that draw a listener's attention and can be linked to a source. Background sounds are heard continuously or often enough to form a backdrop against which other sounds are heard.

The property

17. The Fees' dwelling sits on a river terrace on the eastern side of the Clutha River/Mata-Au, about 25 to 30 m above the nearest part of the site across the river. It faces mainly west, with views over the central part of the site.

18. The outdoor amenity areas are on the western side of the dwelling, facing the river and the mountains beyond. They look directly across to the proposed mining area, which at its closest is about 510 m from the house. The view from the property in the direction of the proposed mine is shown in Figure 1, with the outdoor amenity areas highlighted.



Figure 1 Location photo

19. The dwelling is about 400 to 500 m from the river, and about 850 m from both SH6 (Luggate-Cromwell Road) and SH8A (Luggate-Tarras Road). The dwelling's wider context is shown in Figure 2.

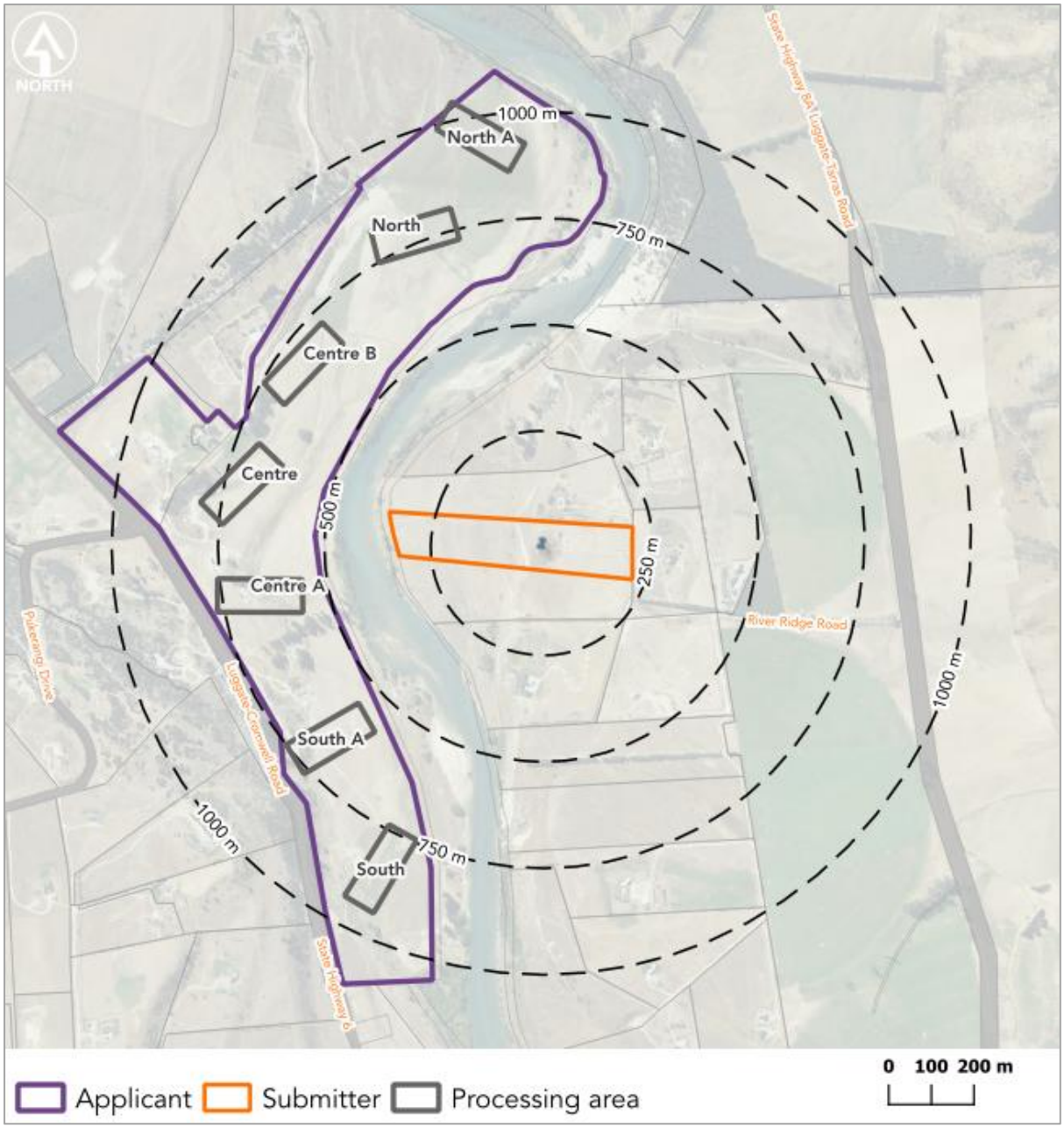


Figure 2 **Dwelling context and relationship with processing areas**

Use of the property

20. The Fees use the property as a lifestyle property and a place to spend time. I have assessed it on the basis that it may be occupied at any time.

21. The western outdoor amenity areas face the mining area. They include a table and chairs, a fire pit and a spa, and are the principal outdoor living area for the dwelling. When the property is occupied during the week, mining noise will be heard during daytime use of these areas.

22. The Fees' land extends down to the river's marginal strip (Figure 3) and they use that land. The lower terrace and riverbank are closer to the mining than the dwelling, so mining noise there will be higher than at the notional boundary.

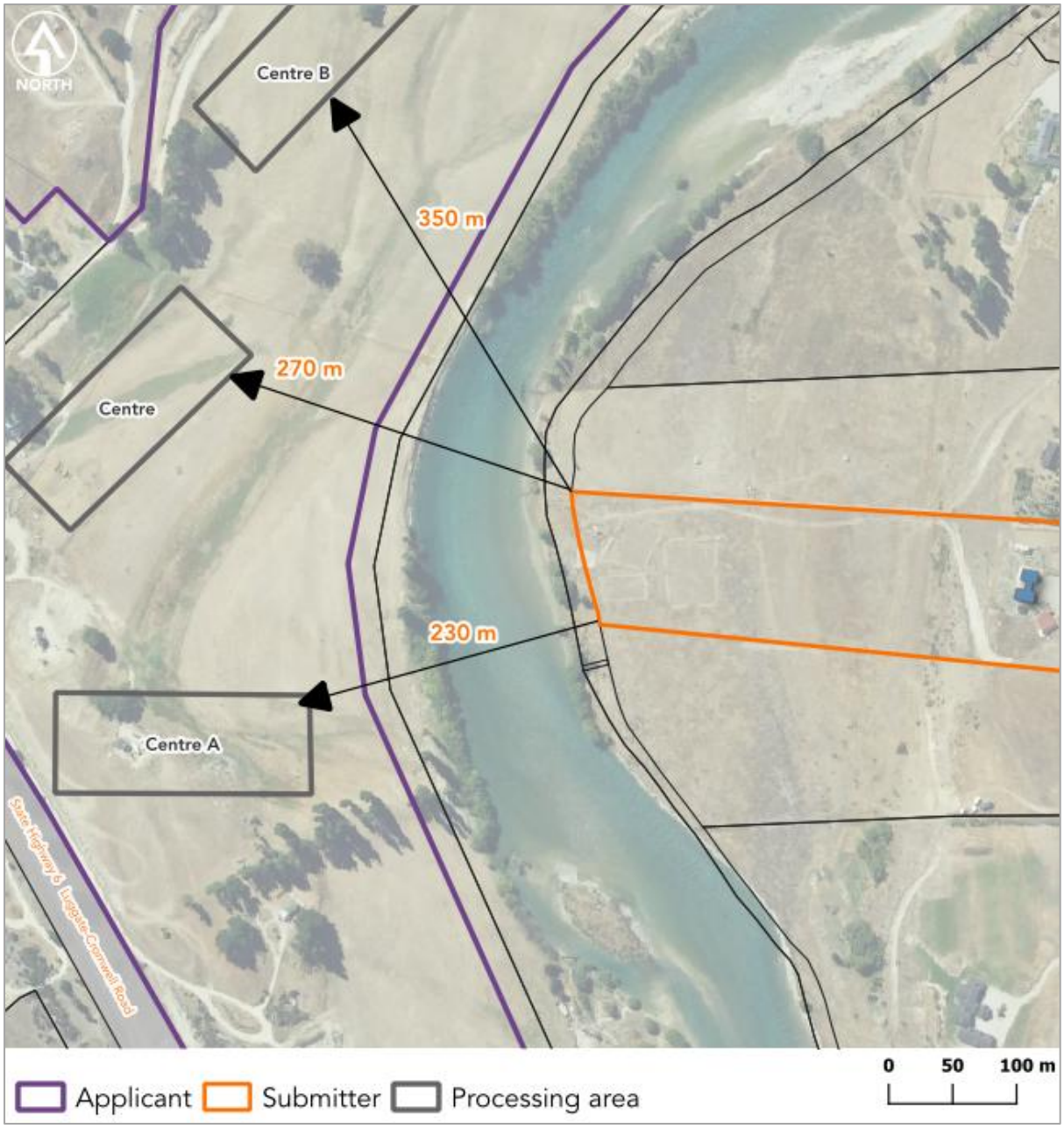


Figure 3 Lower terrace and surrounding area

23. The Fees value the peaceful rural setting, the view of the river and the mountains, and a rural community of neighbouring lifestyle properties focused on the natural environment and small-scale farming. The soundscape that goes with those values is one of the river, birds and intermittent sounds from small-scale rural activity. The District Plan recognises lifestyle living as one of the reasons people locate in the Rural Resource Area, for its open space, landscape and natural character amenity values (Section 4.1).

Previous assessments

24. No quantitative or qualitative assessment of the noise environment at the Fees' property was made in the application. The effects of the mine depend on how it changes the sound environment at the property, so that environment is the reference against which the effects should be assessed.

25. MDA measured at a single position about 250 m from SH6 (MDA report, sections 4.0 and 6.0) on the western side of the river, reported daily averages, and accepted that levels on the eastern side are potentially lower. Mr Styles estimated background levels of 34 to 38 dB L_{A90} and average levels of 44 to 46 dB L_{Aeq} for receivers about 800 m from SH6, calculated from SH6 traffic[1].

26. Mr Shanks has since made attended measurements at positions representative of dwellings on River Ridge Road, on 9 October 2026. He measured 43 to 46 dB L_{Aeq} and 35 to 42 dB L_{A90}, controlled by distant road traffic, intermittent aircraft and natural sounds such as birds and the river[2].

27. Mr Shanks also considers the levels typical of rural dwellings at a similar distance from a state highway[3]. That may be so, but it describes other places. The effects at the Fees' property depend on what can be heard there, which is why I measured at the property and describe what I heard.

Soundscape

28. Mr Styles describes the area as not tranquil[4]. Tranquillity is best understood as a spectrum. At one end are remote places where no sound of human activity can be heard; at the other are places dominated by traffic or industry. The Fees' property is not free of human sound, but nor is it dominated by it. Traffic on the Luggate-Cromwell Road (SH6) is heard as distant traffic, as a steady flow at some times and as individual passing vehicles at others.

29. The river, distant traffic and wind form the background of the soundscape. Birds, occasional vehicles and aircraft, and sounds of rural activity form the foreground. The balance between these sounds varies with wind speed and direction. Distant traffic is audible but not intrusive. This is the soundscape of the peaceful rural setting the Fees value.

[1] Styles, section 8.0
[2] Shanks, para 18
[3] Shanks, para 65
[4] Styles, section 8.0

30. The river is the characteristic sound of the property. In UK studies, the “sound of water, rivers, waves” was the response most strongly associated with tranquillity. Natural sounds can be relatively loud and still form part of a tranquil soundscape[5].

Site visit and measurements

31. I visited the Fees' property on two occasions, first on 13 October in the early evening and around midday on 16 October. On both visits I made short attended measurements and noted what I observed.

32. I also installed a noise logger in their western amenity area, where it recorded complete days from 14-19 October. Equipment, method and results are set out in Appendix A.

33. The measured background sound level was typically 35 to 40 dB L_{A90}, and higher at times, for example in wind or rain. This is consistent with Mr Styles' estimate of 34 to 38 dB L_{A90} and Mr Shanks' measurements of 35 to 42 dB L_{A90}. The measurements are a snapshot of a week in October. Sound levels and the balance between sound sources will vary with wind speed and direction.

34. On both visits, distant traffic on the Luggate-Cromwell Road was part of the background, and birds were the most noticeable foreground sound. On 13 October the river was more prominent, and wind could be heard in the vegetation. On 16 October, in a light south-easterly, the river was less prominent. Traffic was heard as a steady flow at midday on 16 October, and with some individual vehicles in the evening of 13 October.

35. On the lower terrace by the river, larger birds calling was the most prominent sound. Beside the house, smaller birds were heard more frequently.

36. The river is a core component of the area's soundscape. On 13 October it was prominent beside the house. On 16 October it was clearly heard by the river but less prominent beside the house. I estimate sound from the river at the outdoor amenity areas to be in the order of 30 to 35 dB L_{Aeq} depending on the wind direction. This estimate is based on my attended measurements and observations. Its prominence will depend on other noise sources.

[5] European Environment Agency. and European Topic Centre on Air pollution and Climate Change Mitigation (ETC-ACM)., *Quiet Areas in Europe: The Environment Unaffected by Noise Pollution.*, EEA Report no. 14/2016 (Publications Office, 2016), 80, https://data.europa.eu/doi/10.2800/7586.

PREDICTED NOISE LEVELS

37. The District Plan standard is an L_{A10} level, the level exceeded for 10 per cent of the measurement period. The predictions and the proposed conditions are L_{Aeq} levels, which NZS 6801 and 6802 have used since 2008. For steady plant noise[6] L_{A10} is about 2 dB above L_{Aeq}. The difference matters in two places: a condition of 55 dB L_{Aeq} allows about 2 dB more noise than the Plan's 55 dB L_{A10}, and figures from different documents can only be compared once converted.

38. Mr Shanks has tabulated predicted levels at existing dwellings in Table 1 of his evidence based on equipment at ground level, and states these are L_{Aeq} levels[7]. I list these below, along with the predicted noise level on the lower terrace by the river bank using the noise contours in the RFI response.

Table 4 Predicted noise levels (L_{Aeq})

Processing area	Dwelling (notional boundary)	Lower terrace / river bank
South	35 dB	42 dB
South A	46 dB	53 dB
Centre A	46 dB	52 dB
Centre	46 dB	51 dB
Centre B	45 dB	54 dB
North	45 dB	48 dB
North A	41 dB	40 dB

39. Mr Shanks states each location to represent about five months of mining[8]. On that basis, mining noise of 45 to 46 dB L_{Aeq} is predicted at the notional boundary for about two to three years. The neighbouring dwelling at 85 River Ridge Road has a similar profile[9].

40. Mr Shanks and Mr Walker describe the modelled scenario as a worst case. All equipment operating together is expected for two to three days a month, the bulldozer is no longer expected to be needed, and levels at other times would be 1 to 2 dB lower[10]. Mr Walker states that the floating screen and pumps will always operate at water level in the pit[11]. For the Fees' property I consider the modelled scenario representative of normal operations. The screen and its feed excavator are the dominant sources and operate whenever the mine does. Any screening from the pit wall depends on where the plant is within the pit, and the

[6] MDA report, Table 4; Shanks, para 68
[7] Shanks, para 32
[8] Shanks, para 33
[9] Shanks, Table 1
[10] Shanks, para 20; Walker, paras 27 and 28
[11] Walker, para 33

elevation of the Fees' property reduces its effectiveness; the ground-level model may already reflect this.

41. The predictions assume favourable propagation conditions, that is, conditions such as a downwind component that carry sound towards the receiver. The Fees' submission notes that strong winds from the north-west quarter are frequent. The valley winds vary in direction as the river turns, and the Fees' property will often be downwind of some part of the site, so these conditions will occur regularly.

EFFECTS

Approach

42. The MDA assessment largely relies on the permitted activity standard, although Mr Shanks accepts that the determination of noise effects is not solely a matter of meeting standards[12].

43. To inform my assessment, I have read the relevant parts of the District Plan. I understand that the District Plan anticipates the following uses in the Rural Resource Area:

    (a) rural living;

    (b) primary production; and

    (c) mining, up to a certain scale.

44. Rural living is a noise-sensitive activity, and River Ridge Road holds a group of about ten such dwellings on the terrace opposite the site. The Plan recognises the lifestyle opportunities offered by the zone's open space and natural character amenity values (Section 4.1).

45. Primary production, such as cultivation and harvesting, may make noise up to the daytime limit of 55 dB L_{A10} that applies to all activities in the zone. These activities are typically seasonal. Separate controls are in place for frost fans and bird scarers.

46. Mining as a permitted activity has strict size caps. In acoustic terms, extraction at that scale would be small and short-lived, with noise broadly comparable to the occasional machinery noise of farming. This proposal is of a different order, with a screen and excavators operating through the working day for about three years. It is therefore a discretionary activity, which requires a full assessment of noise effects.

[12] Shanks, para 41

What will be heard

47. During mining, continuous plant noise would be heard at the Fees property through the working day, every weekday, for about two to three years. At the western outdoor areas it would be clearly audible, with individual sounds from operating the plant, such as buckets striking rock and engines under load. At times it would mask the river and birds.

Policy 12.4.2

48. Policy 12.4.2 sets out what a fuller assessment considers: the character of the locality, and the level, frequency, duration and special characteristics of the noise. MDA does not assess these. I address each in turn below.

Characteristics and amenity values of the locality

49. I have described the locality under the existing environment. Its soundscape is one of the river, birdsong and wind in vegetation, with distant traffic in the background, and a background sound level of typically 35 to 40 dB L_{A90}. The river is heard more at some times than others, depending on the wind.

Sound level

50. At present the river, birds and occasional traffic are the main sounds at the property. During mining, plant noise would be a prominent sound for much of the working day, and the river and birds would be heard less often. With the river at about 30 to 35 dB L_{Aeq} at the outdoor areas and mining predicted at 45 to 46 dB L_{Aeq}, the river would be masked to a varying degree. On some days it would not be audible at all, replaced by noise from the mine. On others, depending on where mining is taking place, the wind and the river level, it may still be heard. Mining at 45 to 46 dB L_{Aeq} would be above the typical background level of 35 to 40 dB L_{A90}, so it would form a new, continuous background against which the river and birds would be heard for about two to three years. At the western outdoor areas, plant noise would be clearly audible throughout the working day.

51. Mr Styles says[13]:

> *I expect that when mining noise levels are at or above 45-50dB LA10, the mining noise will be dominant and will mask many of the natural sounds in the environment, including the Clutha River and birdsong, unless the birds are close-by. I expect that at these levels (or above), mining noise will be well above existing background traffic*

[13] section 9.1

noise levels and will detract from the existing levels of amenity. The constant noise during mining will remove any periods of quiet or peacefulness, particularly for receivers further from SH6.

52. I agree with Mr Styles' analysis. His threshold of 45 to 50 dB L_{A10} is about 43 to 48 dB L_{Aeq}, and the 45 to 46 dB L_{Aeq} predicted at the Fees' notional boundary falls within it. My measurements and observations support his description of an existing background of natural sound and distant traffic, which plant noise at these levels would mask at times.

53. Mr Shanks accepts that mining noise will mask the river and birdsong, but does not consider this an appropriate standard for assessing amenity in a rural zone[14]. I disagree. These natural sounds are a fundamental part of the soundscape. Changes to the soundscape of the property is precisely the effect.

Frequency

54. Mining would operate every weekday, through the working day, with no respite within it. Mr Shanks describes the noise as regular and continuous[15], and I agree. It is not intermittent, as Mr Sycamore describes it[16].

55. Mining would change this soundscape. Traffic and birds come and go, and between them the river and wind are heard. A continuous source does not come and go, so through the working day plant noise would become part of the background, and the river and birds would be heard against plant noise rather than against the natural background. Unlike the short, seasonal noise of primary production, there would be no quiet periods during the working day.

56. Proposed condition 7 limits only the excavator and screen to weekday working hours. Other work could take place at any time, including evenings, weekends and public holidays. Evenings are a more sensitive time, and the background is also at its quietest then, so even minor activities at lower levels could cause annoyance.

57. Mr Shanks' assessment assumes no work at these times[17] and therefore did not consider the effects of them. While the applicant's proposed consent conditions would allow them, I have been unable to assess the noise effects arising from the works that may take place outside the hours of 8am-5pm, because the nature of these works have not been described.

[14] Shanks, para 67
[15] Shanks, para 45
[16] Sycamore, para 49
[17] Shanks, para 15

Length of time

58. Mining noise at the Fees' property would continue for about two to three years, five days a week, all day, while the five locations closest to the property are worked. Mining at the remaining two locations would continue for most of a further year, with lower noise levels at the Fees' property. Over that period the noise would not be a short disturbance to be waited out. I expect it would lead to a change in behaviour, such as the Fees using the western outdoor areas less on weekdays.

Special characteristics

59. While none of the sources will need an adjustment if well managed, the character of the sound will still be discernible even at low levels.

60. The floating screen, combined with its feed excavator, is the loudest item of plant. Its sound power level is 5 to 10 dB above that of the other excavators[18]. Its noise comes from material tumbling through the screen. Mr Shanks considers it is not practical to significantly mitigate this with the proposed machinery[19]. Based on my understanding of the equipment and processes, I agree that screening the equipment is unlikely to be practicable.

61. While the sound of diesel engines is relatively broadband and continuous, the rock-on-rock sound of the screen draws attention. The use of large equipment by human operators always has the potential for other clangs and bangs from metal on metal contact, or rocks being dropped from height.

Mr Shanks' assessment

62. Mr Shanks' conclusion on the noise effects relies on Mr Sycamore's evidence that mining is anticipated in the zone[20]. My assessment rests on the acoustic effects at the Fees' property.

63. Mr Shanks compares the proposal with other quarry consents[21]. He gives no separation distances, terrain or background levels for those sites, so the comparison does not show they are acoustically comparable with the Fees' property.

My assessment

64. Mining noise is predicted at 45 to 46 dB L_{Aeq} at the notional boundary, 5 to 11 dB above the typical background of 35 to 40 dB L_{A90}. It would be present through the whole working day,

[18] MDA report, Table 4
[19] Shanks, para 49
[20] Shanks, paras 41 and 46
[21] Shanks, paras 52 to 55

every weekday, for about two to three years at this level. Taken together, these would make the mine part of the everyday sound of the property during working hours.

65. The western outdoor area is the principal outdoor living area for the dwelling. It faces the mine and is where the Fees would go for quiet activities, so it is where these effects have the potential to be the greatest.. A source this far above the background is clearly audible, and its continuous character leaves no period in the working day free of plant noise. I consider plant noise would be intrusive in this area throughout working hours.

66. The sounds the mine would mask, the river and birds, are the ones that give the property its character. On days when the river cannot be heard, what changes is the character of the place, not just its level. Individual events from operating the plant add to this by drawing attention away from what people are doing.

67. Noise from mining at the scale the Plan anticipates, or from seasonal rural work, would be short-lived and could be tolerated. Over two to three years, I expect this proposal would lead to a change in behaviour, such as the Fees using the western outdoor area less on weekdays.

68. On the lower terrace and riverbank, predicted mining levels are higher. The river is also louder there, so mining noise would not stand out from the river as much as it would at the house. It would still be clearly audible where the Fees use that land.

69. Dewatering pumps were included in the daytime model, but nothing states whether they run continuously or where they are located, and nothing in the proposed conditions prevents them running through the evening and night, or on weekends. Pump noise audible at the dwelling at through the evening and night , would remove the respite from plant noise outside working hours and intrude on the quietest part of the day. I consider audible pump noise at the Fees' property at night to be unacceptable. I address a limit for it under Conditions.

70. It is unclear what other activities might occur outside of 0800-1700h. Given the limited respite provided by the proposal, I consider that any noise generating activity beyond these hours is unlikely to be reasonable.

CONCLUSIONS

71. The Fees' property has a rural soundscape of the river, birds and wind, with distant traffic in the background. The river is its characteristic sound. The background sound level during the day is typically 35 to 40 dB L_{A90}.

72. Mining noise would be clearly audible and continuous at the western outdoor area, the principal outdoor living area of the dwelling, through every working day.

73. It is predicted at 45 to 46 dB L_{Aeq} at the notional boundary. That is 5 to 11 dB above the background. The predicted levels comply with the permitted activity standard, but compliance does not describe the effect.

74. Plant noise would mask the river and birds for much of the time, changing the soundscape of the property. The sounds of operating the plant would draw attention from whatever is being done there.

75. This would continue for about two to three years. Noise of this level and character, present throughout the working day, would in my experience lead to a degree of behavioural adaptation, such as a reduction in time spend outdoors or at the property in general

Michael Smith

Date 21 October 2026

Appendix A Noise monitoring results

Noise was logged continuously in the western amenity area from 2000h on 13 October 2026 with a Convergence Instruments Spark sound level meter, recording 1 second samples, which were post-processed to calculate 1-minute L_{Aeq} and 15-minute L_{Aeq} and L_{A90}. Attended measurements were made with an NTi Audio XL2-TA sound level meter, recording broadband levels, one-third octave bands and audio. All times are New Zealand Daylight Time. A field check of calibration levels was undertaken.

All measurements were taken at 1.5 m above ground level.

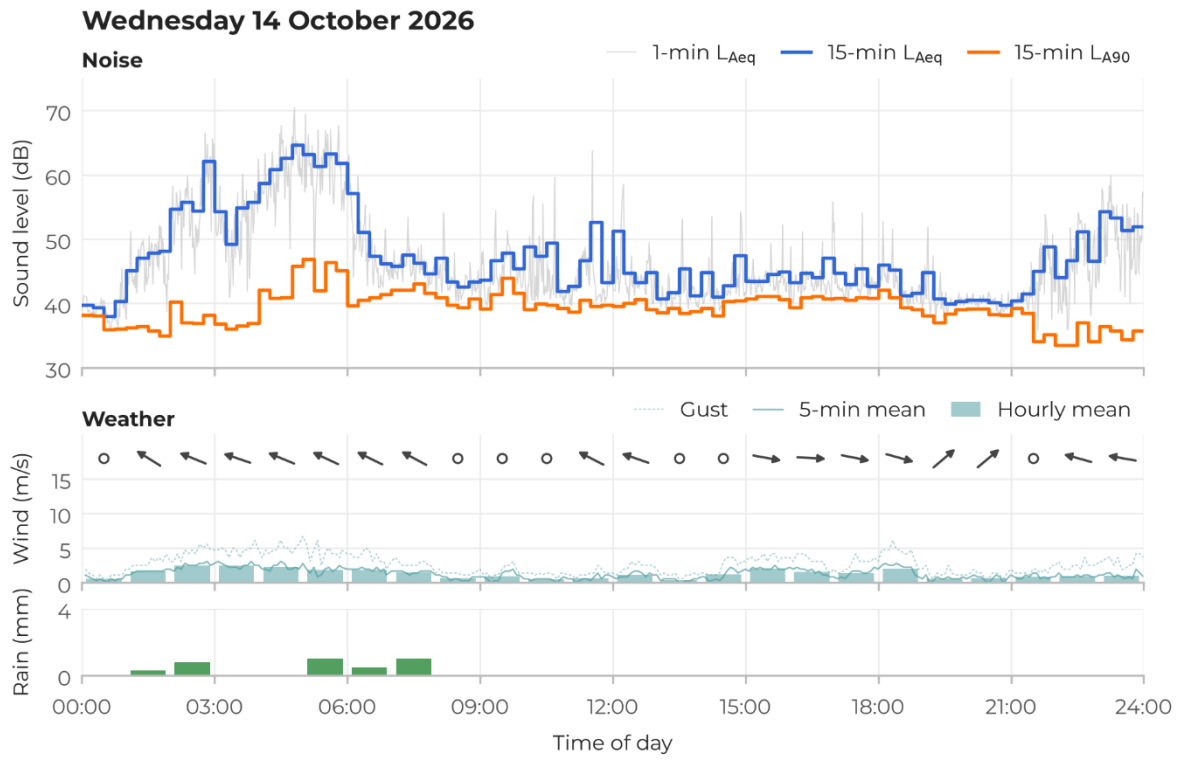
Weather data are from a nearby Weather Underground station (ICROMW50), which is approximately 1.5 km to the north west of the site. Wind direction will likely be affected by the valley and should be considered approximate only.

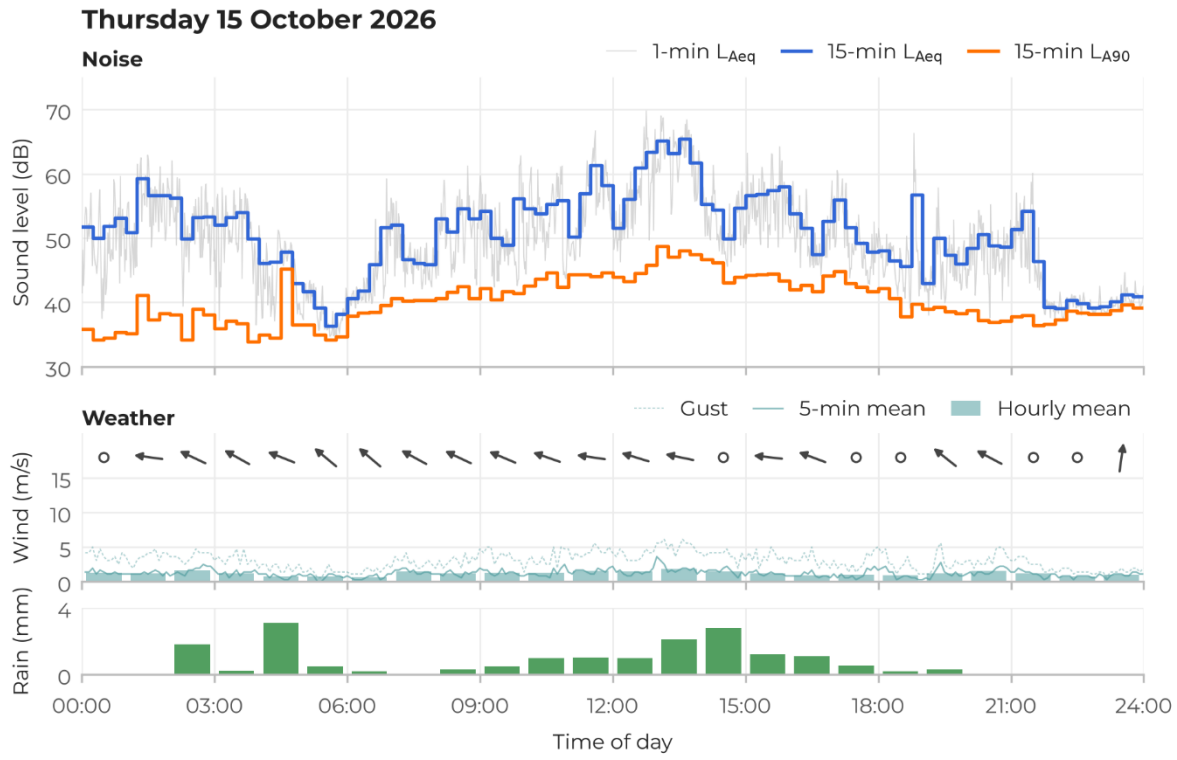
Rain fell on 14 and 15 October, and is visible in the sound levels. Sound levels vary with wind speed and direction, so the results are a snapshot of one week rather than a definitive description.

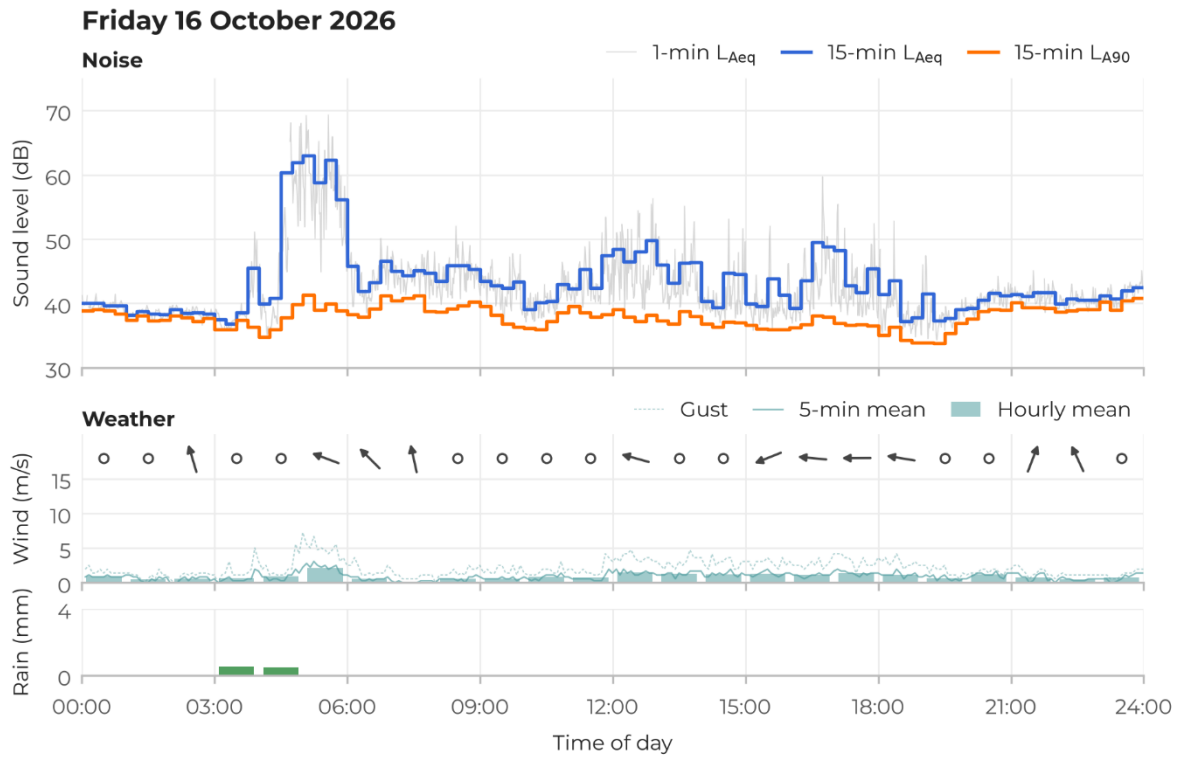
Table A1 sets out the attended measurements. The daily graphs show the 15-minute L_{Aeq} and L_{A90} for each complete day, 14 to 19 October, with wind speed and direction.

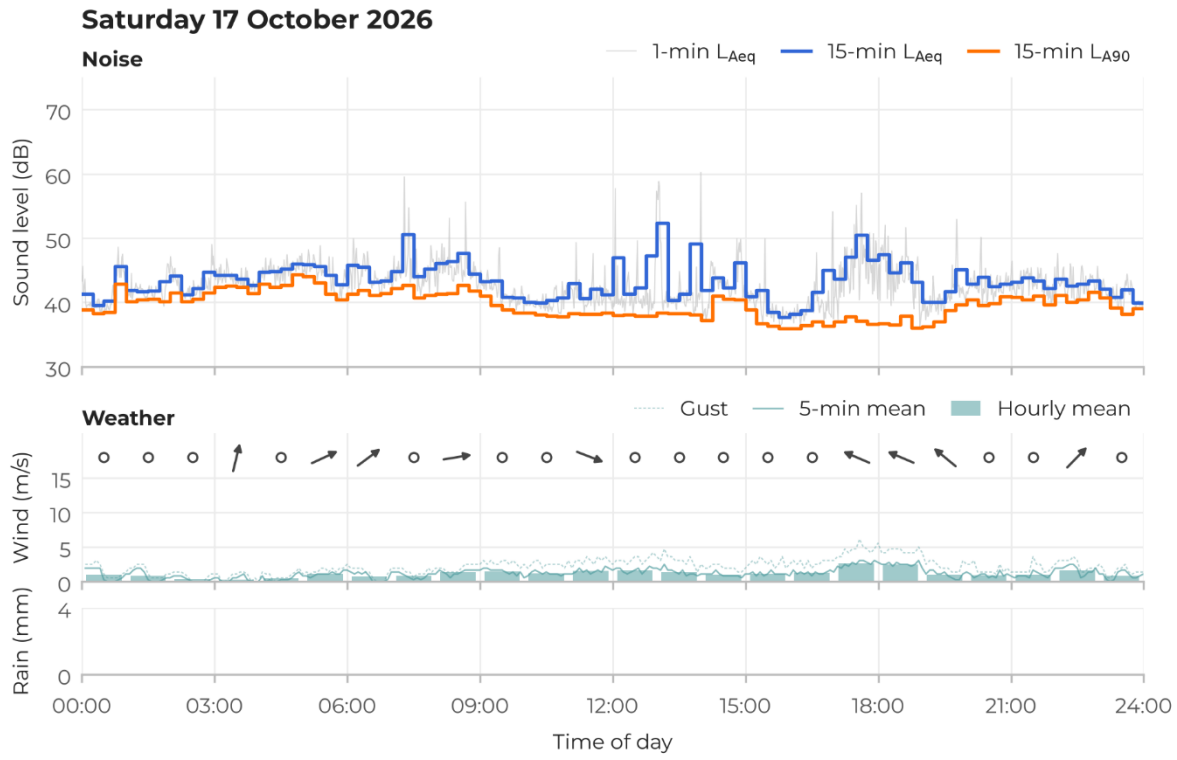
Table A1: Attended measurements (approx. 15mins)

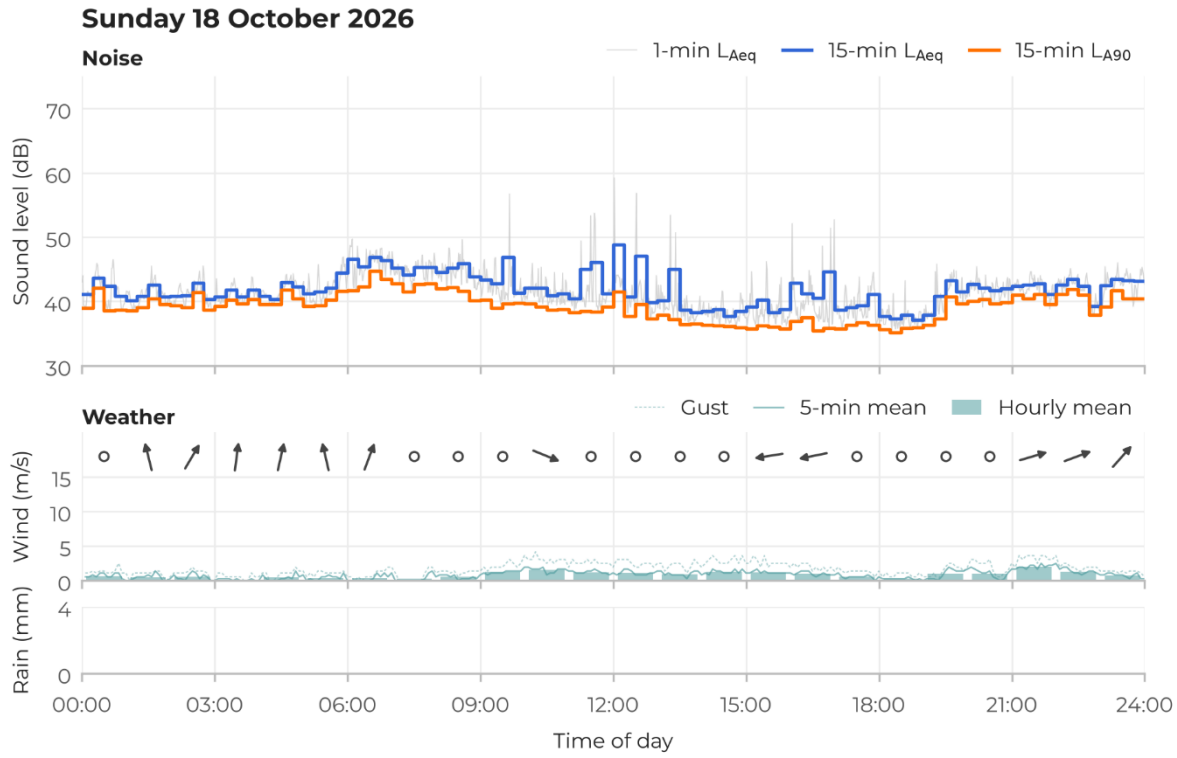
Date	Start time	Location	L_{Aeq}	L_{A90}
13 Oct	2004h	Beside the house	42 dB	39 dB
16 Oct	1209h	Beside the house	42 dB	37 dB
16 Oct	1224h	By the river	49 dB	45 dB

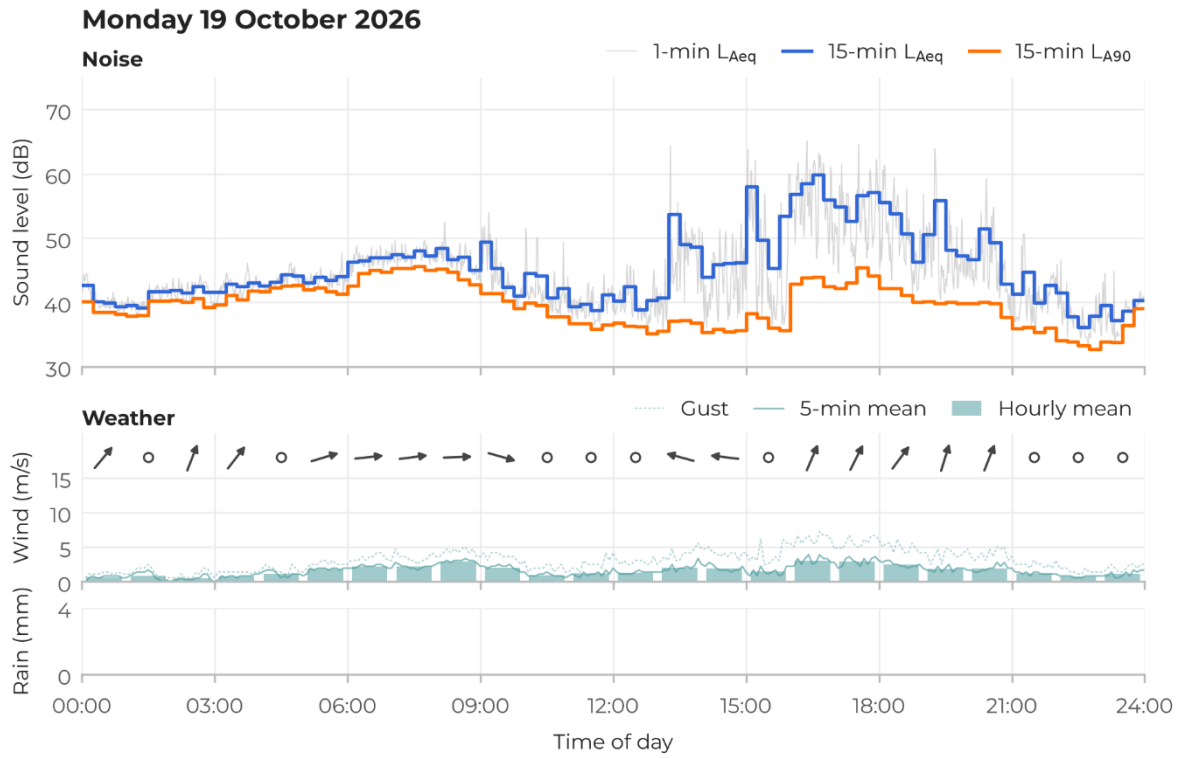

Wednesday 14 October 2026
Noise
1-min L_{Aeq}
15-min L_{Aeq}
15-min L_{A90}
Sound level (dB)
70
60
50
40
30
Weather
Gust
5-min mean
Hourly mean
Wind (m/s)
15
10
5
0
Rain (mm)
4
0
00:00
03:00
06:00
09:00
12:00
15:00
18:00
21:00
24:00
Time of day


Thursday 15 October 2026
Noise
1-min L_{Aeq}
15-min L_{Aeq}
15-min L_{A90}
Sound level (dB)
70
60
50
40
30
Weather
Gust
5-min mean
Hourly mean
Wind (m/s)
15
10
5
0
Rain (mm)
4
0
00:00
03:00
06:00
09:00
12:00
15:00
18:00
21:00
24:00
Time of day


Friday 16 October 2026
Noise
1-min L_{Aeq}
15-min L_{Aeq}
15-min L_{A90}
Sound level (dB)
70
60
50
40
30
Weather
Gust
5-min mean
Hourly mean
Wind (m/s)
15
10
5
0
Rain (mm)
4
0
00:00
03:00
06:00
09:00
12:00
15:00
18:00
21:00
24:00
Time of day


Saturday 17 October 2026
Noise
1-min L_{Aeq}
15-min L_{Aeq}
15-min L_{A90}
Sound level (dB)
70
60
50
40
30
Weather
Gust
5-min mean
Hourly mean
Wind (m/s)
15
10
5
0
Rain (mm)
4
0
00:00
03:00
06:00
09:00
12:00
15:00
18:00
21:00
24:00
Time of day


Sunday 18 October 2026
Noise
1-min L_{Aeq}
15-min L_{Aeq}
15-min L_{A90}
Sound level (dB)
70
60
50
40
30
Weather
Gust
5-min mean
Hourly mean
Wind (m/s)
15
10
5
0
Rain (mm)
4
0
00:00
03:00
06:00
09:00
12:00
15:00
18:00
21:00
24:00
Time of day


Monday 19 October 2026
Noise
1-min L_{Aeq}
15-min L_{Aeq}
15-min L_{A90}
Sound level (dB)
70
60
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40
30
Weather
Gust
5-min mean
Hourly mean
Wind (m/s)
15
10
5
0
Rain (mm)
4
0
00:00
03:00
06:00
09:00
12:00
15:00
18:00
21:00
24:00
Time of day