

24 July 2019

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Dear Eloise

MCPHERSON QUARRY - FURTHER INFORMATION

The Waikato District Council has requested the computer based noise contouring is extended to include the dwellings to the north of the quarry.

The noise prediction model has been extended to include all dwellings to the north as shown on Figure 1. As shown on this figure the location of the bulldozer is at the most northern part of the Stage 2 development, which is the worst possible scenario. Further, the assessment does not include any screening of the bulldozer and excavator operating although in practice this equipment will be operating behind a cut face so the levels for the residents will be reduced by a further 7 - 10dB L_{Aeq} . The rock drill will only operate at the top of a cut bench so screening has been included in the calculations for the rock drill. Figure 1 assumes the rock drill, excavator and D10 bulldozer will be operating with the maximum number of trucks to and from the area being excavated.

Figure 2 shows the noise contours when there is only quarrying taking place without the rock drill operating.

In addition, the noise has been predicted at the most exposed notional boundary of the closer dwellings to the north. Figure 3 shows the location of these dwellings and Table 1 gives the predicted noise level at each of these dwellings.

As set out above, the predicted levels reflect the highest possible noise levels with the plant operating at the closest boundary of stage 2 to the houses to the north of the quarry and only the rock drill screened. For the majority of the time the noise experienced will be a minimum of 10dB L_{Aeq} lower than predicted.

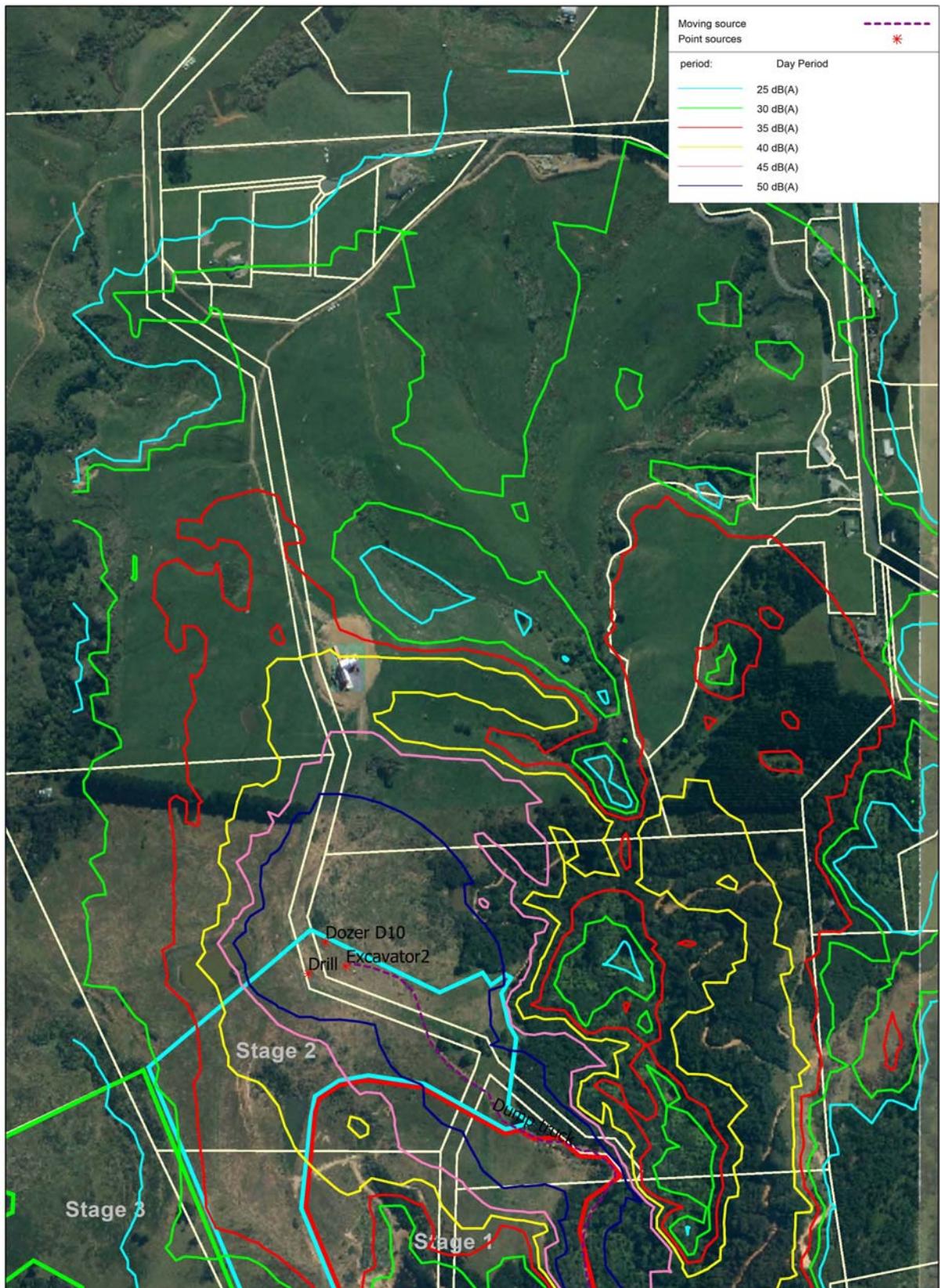


Figure 1. Quarrying (including rock drilling) in the most northern area

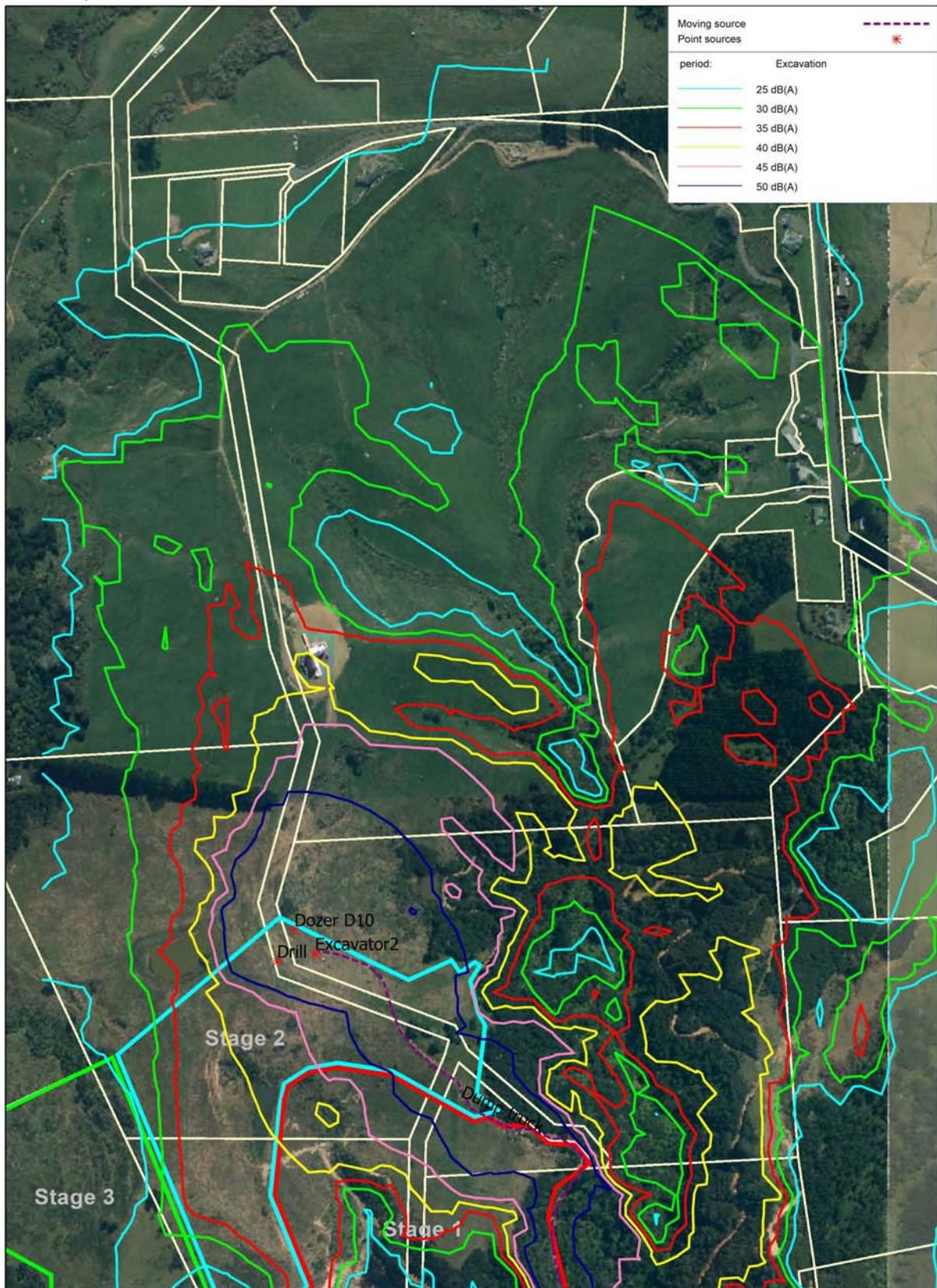


Figure 2. Quarrying (no rock drilling) in the most northern area



Figure 3. Location of dwellings

Dwelling	Quarrying + Drill ¹	Quarrying only ²
1	31	29
2	30	28
3	29	28
4	31	29
5	33	32
6	33	32
7	34	33
8	36	35
9	42	40

1 See Figure 1

2 See Figure 2

Table 1. Predicted noise levels, dB L_{Aeq}

Should you have any questions regarding the above please do not hesitate to contact me.

Yours faithfully
Hegley Acoustic Consultants

Nevil Hegley