

February 25, 2021

Mr. Samuel T. Bratton
President and CEO
Wake Stone Corporation
P O Box 190
Knightdale, NC 27545

Subject: Cary (Triangle) Quarry's Draft Noise Study
Mining Permit No. 92-10
Wake County
Neuse River Basin

Dear Mr. Bratton:

I would like to take this opportunity to thank you and your staff at Wake Stone for allowing me and the staff of DEMLR the opportunity to review and discuss your proposed draft of the *Wake Stone Triangle Quarry Expansion Acoustical Study*.

General Comments:

- A 10dBA increase/decrease seems to be coarse measure of significant impact. The Division understands that this standard is used by NCDOT and other agencies evaluating noise impacts. However, considering a state park is adjacent to the proposed quarry, the Division believes a more conservative standard should be considered. Please provide further justification for a use of this standard.
- During our discussion, Wake Stone described several conservative assumptions that were included in the model. Please provide a comprehensive list of these assumptions.

Report Specific Comments:

- Please include further discussion of the usage factors for equipment noise implemented in the modeling (p. 18).
- On p. 17, a ground factor of G=0.5 was used for the quarry. Please provide a discussion explaining why this is appropriate.
- Table 4, p. 20 – Please provide a detailed explanation of how the “existing I-40 traffic” was modeled.
- Blasting noise discussion p. 22 – Please explain how the blasting noise ranges compare similarly between the existing and proposed pits. The maximum blasting noise from the proposed pit seems significantly higher than the existing pit.
- Footnote of Table 6, p. 22 – Please provide an explanation of how blast noise is not used for compliance purposes. Per our discussion, you indicated that the blast noise was included in the hourly averaging of the study. Please describe this.
- Please describe why back-up alarms were not included in noise study.

- Figure. 12 legend – Please provide color blocks for different dB ranges. It is difficult to discern colors using lines in legend.
- Figure. 14 – Please provide transparency for the color ranges so that the base layer map and landmarks can be seen.

Please contact me if any further clarifications concerning the above are needed. I can be reached at: 919-707-9228.

Sincerely,

David Miller
State Mining Engineer

cc. Bill Denton PE., RRO