



Division of Environmental Health Services

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August 11, 2010

Charles County Commissioners
200 Baltimore Street
P.O. Box 2150
La Plata, Maryland 20646

Re: Noise Control- noise levels

Dear Commissioners,

At the request of Ms. Amanda E. Hill, Asst. County Attorney, the following information regarding noise measurements and travel is offered for your review:

- The best way to understand noise levels is to think of decibels as the log of the noise energy. That is, a 63 decibel noise is twice as powerful as a 60 decibel noise. For example, a 60 decibel noise has "energy" of one million and 63 decibel noise has "energy" of two million.
- The second most important thing to understand is that the noise energy dissipates in the air by 6 decibels as the distance doubles. For example, the noise from a lawnmower is 75 decibels at 10 meters it will be about 61 decibels at 50 meters.
- Other factors influence noise attenuation. The 6 decibel drop with doubling of the distance is the drop in noise due to the energy being dissipated in the air. Noise will also be dissipated by objects, walls, hills, buildings, etc., there is also an impact from temperature and wind but the attenuation due to the distance is the primary estimator of the drop in noise level in an outdoor setting.

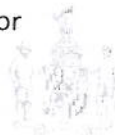
Should you require any further information on this subject please do not hesitate to contact me at ©240.299.8597 or markw@dhmh.state.md.us.

Sincerely,

A handwritten signature in black ink, appearing to read "Mark Williams".

Mark Williams, R.S.
Director

cc: Roy Hancock, Assistant County Administrator
Amanda Hill, County Attorney's Office



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