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Impact of Turbine Noise on Health and Well-Being

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Wind turbines are a new source of community noise, and as such their effects on public health are only beginning to emerge in the literature. The recognition of a new disease, disorder, or threat to health usually follows a set pathway. First, doctors and practitioners attempt to fit symptoms into pre-defined diagnostic categories or to classify the complaints as psychosomatic. Second, as evidence accumulates, case studies begin to appear in the literature, and exploratory research is undertaken to obtain better descriptions of the symptoms/complaints. Third, intensive research is undertaken examining the distribution and prevalence of those reporting symptoms, the factors correlating with the distribution and prevalence of those symptoms, and ultimately to cause-and-effect explanations of why those reporting symptoms may be doing so.

In my reading of the literature the health effects of wind turbines are only beginning to be elucidated, and is caught somewhere between the first and second stages described in 2.3. The important point to note is that case studies (e.g., <u>Harry, 2007</u>; <u>Pierpont, 2009</u>) and correlational studies (e.g., <u>Pedersen et al., 2007</u>; <u>van den Berg, 2008</u>) have already emerged in relation to the health effects of wind turbine noise, and so the possibility of detrimental health effects due to wind turbine noise must be taken with utmost seriousness. In this statement I present the results of a pilot study conducted in and around the Makara Valley that likewise urges a cautious approach to turbine placement.

Finally, as with other noise sources there is individual variation in regards to the effects of wind turbine noise. However, it is a fallacy to argue that because only some suffer symptoms while others do not then those who claim to be suffering the symptoms must be making them up. In the field of epidemiology the differential susceptibility of individuals are known as risk factors, and assuming that individuals of a population can be represented by the average characteristics of the population is known as the ecological inference fallacy. In terms of wind turbine noise these risk factors are still under study, and one important risk factor is noise sensitivity. In assessing the health impact of turbine noise in the Ohariu Valley it is crucial that noise sensitive individuals be assessed in isolation and not 'averaged out'. ...

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