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## Comments on the Cooper Study at the Cape Bridgewater Wind Farm and Wind Turbine Infrasound by George Hessler, 3/9/2015

I agree with and have endorsed my colleague Paul Schomer's review of the subject Cooper report except possibly that there is an *unseen and unheard* path to the receivers since this could not be controlled in any way and it appears both paths can be observed, at least at the closer residences. Even so, Paul and I, for years now, have done all we could possibly do to encourage and promote objective scientific research into this most perplexing issue and the Cooper Study is undeniably an important step.

It is a pity and it is apparent that such an important issue cannot be debated civilly and objectively. In my opinion, Pacific Hydro should be commended for making the Cooper Study possible. Instead, they are vilified for doing nothing more than their charter to create clean energy in accordance with all the substantial applicable regulations imposed by permitting authorities. Likewise, wind turbine proponents should acknowledge the study has merit and join the call for additional research to get to a solution that all can accept and move on.

In my opinion, the only solution is a field or laboratory simulation of wind-turbine specific and broadband infrasound in general played to large unbiased subject groups all over the globe. This is technically challenging to say the least, but the results could establish a Threshold of Perception and a Threshold of Annoyance for both types of infrasound sources (broadband and tonal). There is also a Threshold of Pain that can be experienced simply by lowering the rear windows of a typical automobile at highway speed to experience very high levels of infrasound. Just as important, the simulation testing may show that there are a small percentage of subjects that are extremely or acutely sensitive to wind-turbine infrasound. If this is known and it can be documented for individuals, wind turbine sites could still be permitted economically, but with just consideration for acutely sensitive neighbors that may elect to uproot their homes. Another colleague, Dr. Bruce Walker is at the forefront of the simulation approach.

I understand the passion and acknowledge the suffering of some at wind-farms. At one home occupied by a young couple and baby, the baby awakened screaming on windy nights, but never away from home. The home was mistakenly (50 dBA target) sited much too close to wind-turbines. The wife was seriously annoyed while the husband was not annoyed at all. This one case demonstrates the complexity and seriousness of the wind-turbine health effects issue. The couple solved the issue by relocating at their great personal expense.

Probably naïve and preachy to say, but if we all lower the rhetoric a little, maybe we could all start finding a solution.