APPENDIX 8

[redacted]

[redacted]

September 19th 2006

Dear Councillor,

Re: Problems with noise and low frequency vibration from Deeping St Nicholas Windfarm.

Thank you for asking us to write to you to inform you of our problems with the above Windfarm and to update you on actions to date.
We are Julian and Jane Davis. Julian has lived at Grays Farm since 1980 and I moved here when I married Julian in 2001.

We live 907 metres from the nearest wind turbine, on a residential property on Grays Farm, which is a County Council owned farm. As part of the County Council farm there is a bungalow inhabited by Mr & Mrs J T Davis (senior). Our house (The farmhouse, Grays farm) which was purchased from the County Council in 1993 is adjacent and within the main Farm holding. It is a condition of the County Council Tenancy that Mr Julian Davis and family live adjacent to the main farm in the address above.

We had no issues with the Windfarm being built, although we have received no communication from Wind Prospect, or anyone else, at the time or subsequently.
We read some of the criticisms and frankly could not believe that there would be any problems for us. We were not aware that anyone did any acoustic baselines on ours or any of our adjoining neighbour's properties. We now know that this to be factually correct, only predicted levels were submitted for our dwelling, and they are higher than has been actually recorded.

It is necessary for you to understand that where we live unless there is night time cultivation or combining occurring, which is rare, there is little or no noise and initial readings taken so far by the extremely helpful Environmental Health Officer from South Holland DC, Steve Branson support this.
Readings of 25.5 DB (A) have been recorded externally and 21 DB (A) internally. These readings were done at 9.30 pm and are therefore likely to drop after midnight.

It was therefore with some surprise and shock that in the first week that the turbines were operating at night with a southerly wind we found ourselves being woken at around 4.30 every morning with both noise and a persistent hum. This was so intense at to prevent us sleeping. We soon realised that the problem also occurred in the evenings, again with a specific wind direction. The noise and whoosh is so intrusive that sitting out in the garden in the evenings is no longer possible when the wind is in the wrong direction. The "hum" is also intrusive and most disconcerting particularly when trying to get to sleep. The hum/drone/whine is persistent and is present all the time, 24 hours a day, seven days a week, even when the turbines are not rotating. It is not a pure tone and is a sound that draws attention to itself, particularly when the house is quiet. It is

distracting and at times overwhelming and our research shows that this is likely to be a result of low frequency sound waves emanating from the turbines generators or transformers. It can be heard in all the farm buildings as well as our home.

Our hypothesis is that we suffer because five of the turbines are in a straight line with us being effectively at the end of the line when the wind is in certain directions. Various consultants have told us that the turbines need 5 blade lengths of their diameters of 90 metres to dissipate their wind noise, as the turbines are 300 m apart then each turbine will be working in the others turbulent air stream, thus magnifying the aerodynamic modulation noise that we receive according to the wind direction. This results in a harmonic around the farm that is most unpleasant and highly distracting and overwhelming. Reference is also made to third and quarter octaves being created.

We made informal contact with Wind Prospect's local Project manager who was quite helpful initially until we asked them formally to assess the noise and vibration at our dwelling. At this point they referred us to Environmental Health at SHDC, where we made contact with Steve Branson. We have been working closely with SHDC environmental health and planning departments ever since and are very satisfied with their approach and support to date.

The initial recordings suggested that the noise and type of noise not only counts as a statutory noise nuisance but also appears to be in breach of the ministerial imposed limits that were encompassed in the Planning Permission when it was granted on Appeal. The difficulty is that the levels recorded so far 39.5 DB(A) do not meet the very stringent requirements within the ETSU 1997 guidance although on face value they exceed the planning limits of 35 DB(A) and are 14.5 DB(A) above our recorded ambient noise levels.

The precise wording in the planning permission is:

"*The noise emission (LA90, 10 minute) from the combined effects of all the wind turbines, as measured in free field conditions at any dwelling (in existence at the time of the permission), shall not exceed the greater of 35 DB (A)) or 5 DB (A) above background noise (LA90, 10 minute) at wind speeds within the site not exceeding 10 m/s. The noise emission values for the wind turbines shall include the addition of any tonal penalty as recommended in ETSU R 97 report to the DTI. This condition shall apply for both day and night time periods*"

The bit that concerns us is the restriction on wind speed within the site that is included. It is relevant to note that research has demonstrated that wind speeds at the hub height, particularly at night will often be far greater than those recorded at ground level, thus the turbines will be turning and this making a greater noise than can be covered by any background noise.

We have made contact with an expert on Acoustics and vibration who is sitting on a re-formed Government Body to look into the difficulties caused by low frequency noise/vibration and Helen Matthews at DEFRA. We have also been in correspondence with Alan Smith who has been seconded into the DTI to chair this group as part of his work on taking the Sustainable Energy programme through to 2010. the group which was re-convened to do a peer review of the Hayes Mackenzie report into issues with Cumbrian and Cornish windfarms concludes as follows:

I enclose Alan's report to us:

"The noise working group report that is looking at the Hayes McKenzie report had its first meeting on the 2 August and we hope to meet again in October. In summary, the intention of the group is not specifically to review ETSU-R-97, but to;

1. Consider and agree, if thought appropriate, the main conclusions of the Hayes McKenzie report

2. Consider the report's findings relating to Aerodynamic Modulation (AM). ***(This is most relevant as it is at last definite proof and acceptance that aerodynamic modulation does exist and does have an effect JD)***

3. If appropriate, provide a means to assess and apply a correction where AM is predicted to be a clearly audible feature.

4. Make clear recommendations, which will assist planning authorities. These recommendations will provide clarity and minimise any confusion when assessing applications

The group considered that ETSU-R-97 has been a useful document to assist the planning process and that there is currently insufficient evidence available to recommend any change to this document. However, since it was also considered that AM may become more of an issue in the future, noise recordings should be collected to gather empirical data and provide a foundation for clearly identifying and understanding the extent of the AM noise issue and therefore whether any amendment to ETSU-R-97 would be appropriate at some future date. ***(We will be a test site for the study that is to be commissioned and funded jointly by DEFRA and the DTI, this is because it would appear that our differential is one of the worst – and easiest to measure nationally. Possibly because our normal ambient night time noise level is so very low.)***

To cover the period before the data is collected and analysed, the group are working up a statement of advice that will be given to all stakeholders involved in windfarm development including LPAs regarding future developments on the few occasions where AM is considered to be an issue. Once this advice has been agreed, the group will make it publicly available. ***(Probably mid-October)***

The noise working group is in our opinion nicely balanced with all appropriate stakeholders fully engaged. "

What of course this does not cover is the low frequency noise issue, for which there are currently no guidelines.

The biggest difficulty for us is that this impedes on our life to a point that it significantly adversely affects not only our lifestyle but also our ability to enjoy the amenity that is our home and garden.
Not only that but we had planning permission to build a significant extension to our own house a year ago and were just about to start work, building regulations having just been

granted. We also had already purchased much of the bathroom and kitchen equipment needed and moved money around so that it was easily available.
Obviously we feel that we cannot continue to live in our home with the turbines operating as they have been, and yet if we do not start some building we may lose our planning consent as we are sure that any action taken against the Windfarm will be appealed and will have significant ramifications nationally.

Our home has been significantly devalued by this discovery and we are reluctant to spend any money on a home that we may not be able to live in. Also as explained in the first paragraph if we have to move because of the wind turbines we will lose our livelihood and Mr & Mrs Davis (senior) will lose their home. We have also been advised that we would be most unwise to proceed with our planned extension for a variety of reasons, and also – most worryingly that our house would not appear to be marketable any longer.

The crux of this appears to be that not enough research has been done on the impact and placing of wind turbines near residential property and as stated earlier we believe that this will have a national impact.

We re-iterate that to date South Holland District Council, DEFRA, DTI and others we have contacted have been most helpful and supportive, and we very grateful for their help.

We are surprised to find that on to occasions we have been asked what compensation we are seeking to enable us to carry on living in our home. We have replied, and feel very strongly about this, that no compensation would enable us to carry on a normal life with the turbines as they are currently. Either they have to be very significantly altered so that the hum, whoosh and thump all either disappear or are minimised so that we are again able to enjoy the amenity that is our home once more, or we will have to move, and if that is the case then we would be seeking redress for our house and land, a home for our in-laws and the loss of our business and income for the next 25 years., plus compensation for all the work to do with gaining planning permission, building regulations and associated costs.

We have finally managed to persuade Wind Prospect (now in the guise of Fenland Windfarms Ltd) to bring Hayes McKenzie on site to do some measurements and will also be meeting with SHDC in the next week or so to compile an action plan.

We also attach our log, which as you can see demonstrates the severe way in which our lives have been affected to the point that we can no longer rest in our own home. It is of course difficult in that wind directions and speeds mean that the actual aerodynamic modulation acoustic noise is not always present, so the casual observer may not be aware of it and similarly the low frequency noise is just that, low frequency to time being quiet has to be spent in order to hear it but both Steve Branson and an independent noise consultant have been able to pick it up – although so far we have not had the technology on site to measure it.

Yours sincerely,

Julian & Jane Davis