HEARING STATEMENT FOR THE VALE OF WHITE HORSE LOCAL PLAN 2031

MATTER 2.1 SPECIFICALLY:

'Is the need for 20,560 new dwellings soundly based and supported by robust and credible evidence?'

There are numerous points to be made on Matter 2.1:

1. Accuracy of Projections Generally:

Very often experts are not so expert at predicting outcomes. In one of the widest ranging studies of experts ever, Philip Tetlock collected 27,450 judgements made by 284 experts – combining political scientists, economists and journalists – about the future. The results showed:

- their predictions were no better than random guesses;
- when experts made predictions about their particular speciality, their accuracy declined;
- and it got worse still when the prediction was for the long term.

Errors have occurred persistently, whether these concern forecasting political outcomes (e.g. the 2015 UK election), the impact of harmful viruses whether these be natural (bird flu, BSE), or artificial (the Y2K 'bug'), the likelihood of economic events (the 2007-8 crash) or the price of oil. Demographic projections might appear less complex at first sight, but still come with warning signs. For example, the official United Nations' estimate of size of the world's population for 1951 changed 17 times in the next 45 years as new information overturned previous 'facts'.

Daniel Kahneman, the 2002 Nobel Prize winner in economics, has stated, 'most of us view the world as more benign than it really is, our own attributes as more favourable than they truly are, and the goals we adopt as more achievable than they are likely to be.' The Office of National Statistics readily admits that the accuracy of their population forecasts over longer time periods has not been as accurate as they would have hoped. In a 2006 article, 'Fifty years of United Kingdom national population projections: how accurate have they been?' they looked at research that addressed the question, 'are projections becoming more accurate?' They found little work on this matter, 'although a couple of studies find little empirical evidence of improvement.'

In their concluding paragraphs they state, 'demographic behaviour is inherently uncertain. The number of children we have, how long we live and the number of people who migrate from one country to another are variables that have changed continually in the past and will continue to do so in the future. Even if we understood perfectly the factors that brought about past changes (which we clearly do not) our ability to predict the demographic future would inevitably remain limited. We do not even know, with complete certainty, the size and age structure of the current age population at the

time a projection is made and this article has shown that revisions to population estimates can make a non-trivial contribution to projection error. It is therefore important that users of population projections act with knowledge of their likely limitations and that projection makers provide the information to enable them to do so.'

They also make the point that past accuracy is an unreliable guide to future accuracy. Uncertainty is always present. As a matter of principle we should always exercise caution when presented with projections.

2. Reliability of the Local Economy Forecasting Model (LEFM)

Within the Cambridge Econometrics report, much is made of the LEFM, 'the only software package in Europe tailored to model regional and local economies and designed to conventional commercial software standards.' It has been in use since the early 1990s. While accepting past accuracy should not be taken as a reliable guide to future accuracy, it would be useful to all concerned to know exactly how accurate the model has been in its projections, especially over periods as extended as 2011-2031. What is the model's typical margin of error over different periods of time? How far apart from the original projections have the outcomes been? How has the complexity of previous projections compared with that of the 2031 Local Plan? It is vital to have these answers as so many will be affected by the Local Plan.

3. Accuracy of the Forecasts

For reference, the core information for the various Local Plan projections is given below. All figures were found, or derived from, the various GL Hearn and SQW/Cambridge Econometrics reports.

	Houses	Jobs	Population
2011	50980	67200	121900
Demographic Trend New	12460	10600	17400
Above Trend New	8100	12400	33480
Totals	71540	90200	172780
% Increase	40.3	34.2	42.8
Annual Cumulative %	1.71	1.48	1.76

Matter 2 2.1 a) 'Are the SHMA's demographic adjustments to the 2011 CLG Household Projections soundly based?' The new projections attempt to rectify numerous previous anomalies and bring previous estimates more in line and up to date. The mass of data in the supporting tables appears impressive and the arguments given appear plausible. However there is not much detail as to specifically how the figures relating to the Vale of White Horse were arrived at. The specifics seemed

to get lost in the mass. This brings into question the overall soundness of the adjustments and questions of margins of error.

2.1 b) 'Is it appropriate to include an allowance for addressing past shortfalls?' The answer must be 'no'. This is a typical instance of an unmet forecast, the fate of most forecasts. History is littered with such failures. The actual outcome is reality; the original forecast hypothesis. Should not more emphasis be given to the reality? The initial target was missed. The South East plan is redundant. We should start the slate anew.

2.1 c) (i) 'Are the forecasts of employment growth in the District realistic?' Given the preceding comments on forecasts, projections may appear realistic at the time they are written, but they are rarely accurate. There are too many variables involved. While this represents a general observation on forecasts, specifically with regard to the SHMA data the following points must be made:

- A) The demographic 'trend' based forecasts must be seen as more realistic than the 'above trend' forecasts as they deal with relatively more 'known' and stable factors, although this again is no guarantee of accuracy.
- B) Specifically, the arguments for the above trend forecasts are much more speculative than the trend forecasts. There is too much 'hope' in the arguments behind these, depending, as they do, on more extraneous, unknowable, 'supra-growth' factors. To quote from the SQW/Cambridge Econometrics report in particular:
 - 'Sustained economic growth of 1% pa (for Oxfordshire; 1.5% for the Vale) over a 20 year period would be an achievement, especially in the current economic environment.'
 - At Harwell, 'take up of land is likely to accelerate, although the scale of the EZ suggests it will take 10 years or more for it to be fully developed and occupied.'
 - 'Some growth of employment in the 'big science' research facilities is likely.'
 - At Milton Park, 'MEPC has undertaken some speculative office development.'
 - On scope for increasing jobs arising from links between Oxford University and Harwell, 'there is recent evidence of increasing activity in this direction: for example, a joint publication...'

These statements do not comprise ringing endorsements or evidence of major growth or jobs in the pipeline. The language is hopeful, not confident, set against only tentative signs of growth. The consultants state 'the economy is recovering.' This is true but it remains on a relatively slow burn. It is also seven years since the crash and there are plenty of signs that economic sentiment worldwide is turning fragile. There are many negative circumstances weighing on growth (e.g. signs of a downturn in China, problems in European economies, commodities and emerging markets under pressure, vast overhangs of debt and wavering confidence in the continuing growth prospects for the U.S. economy). While the figures take note of economic cycles evening out, these are incredibly difficult to predict effectively (timing and buoyancy/severity) and predictions should be cautious in the first instance.

It should be noted that Science Vale Enterprise Zone status was awarded in 2011 on the basis that the designated areas would be fully developed by 2016. The consultants blame the 'prolonged downturn in economic activity' for the fact this ambition will not be met, but the ailing economy was there for all to see at the time Enterprise Zone status was granted. This is yet another target gone 'missing in action.' We all need to be much more circumspect in our belief in projections.

- C) Because of a government estimate that space science industries will generate 100,000 new jobs by 2031, the consultants assume that 10,000 of these will come to the Vale area. They state that, of these 10,000 new jobs, 'say 4,000, will be located on the existing sites at Harwell and Culham'. Beside the high likelihood that such a long range government estimate will be inaccurate, how much credence can be put on Cambridge Econometrics' derived prediction?
- D) Regarding warehousing and distribution job forecasts, the consultants' state 'the applicants' job estimates appear unduly optimistic, perhaps driven by a desire to secure planning permission.' This is fully agreed with based on the experience of a recent application by Diageo, where warehouse jobs were forecast at substantially higher levels than industry experience.

From all the above it is strongly believed the employment forecasts are overstated and must be pared back.

E) Reviewing the figures further, an overall growth rate in the resultant population of a cumulative 1.71% per annum, appears well out of balance with the rest of England (0.69% per annum). It would be interesting to know when last such a sustained rate of population growth happened, if ever, in the Vale. These are exceptional forecasts, backed by unexceptional data and reasoning.

2.1 (c) (ii) On a final point on new jobs in the Vale, none of these appear to fall to existing householders, thus obviating the need for quite so many new houses. Also, how many of these new

jobs might be taken up by residents living in adjacent districts, i.e. not living in the Vale, for which, again, new provision may not be required? The SHMA does not seem to pay serious attention to these questions.

4. Sensitivity Analysis/Confidence Levels

The last major point to be made on the data is that there is no serious assessment of likely margins of error within the projections, nor are any confidence levels given regarding the likelihood of the outcomes matching the projections. In most studies where forecasts are involved, there is a base estimate, with assessments made as to the potential for higher and lower outcomes based on changes to the key variables.

Only one possible reference is made to the likely accuracy of the forecasts (9.50, page 180 of 188), but the language is unclear and falls well short of a proper risk analysis. Effectively, there is no risk analysis. We therefore have no idea over how robust the projections are. We are entirely in the dark.

Conclusion:

There are flaws in any set of projections and the SHMA projections for housing and jobs are no different. We are unclear as to the reliability of the LEFM model. The projections for the 'trend' employment and associated housing needs appear plausible, but the arguments for precisely how these apply to the Vale are unclear. It is inappropriate to impose the previous housing supply shortfall on the Vale. The above trend jobs forecast is more hopeful than proven and tenuous at best. They assume benign economic conditions and these are not guaranteed. Undeniably, above trend jobs will be created but not on the scale suggested. More caution is advised. Lastly, and glaringly, there is a total lack of risk and sensitivity analysis applied to the figures. The figures just 'are.'

Ultimately, these figures - and the methodology used to model them - require a heightened level of scrutiny as the risks of their being wrong are very real indeed, with consequences for all Vale residents, present and future.

As a very final point, referring to the earlier core data table, I would like to see a clear reconciliation of why the trend data forecasts 0.85 new jobs and 1.4 new population per house, but the above trend data forecasts 1.53 new jobs and 4.1 new population for each new house. This does not cross tally at all, and by large margins. Explanations please!

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