

## **Day Twelve**

Mr Hopkins stated that the WHA were making a Regulation 19 application on the basis of the incomplete HGV figures and incomplete information on the proposed HGV ban, which the public had not been consulted on.

Mr Randall said that the HGV error did not merit a Regulation 19 application.

Mr Hopkins said that apart from those members of the public who are able to attend the public inquiry, those statutory consultees, non-statutory consultees and ordinary members of the public will not have the slightest inkling of what has taken place at this inquiry as regards the information set out in the Environmental Statement. We can only speculate for example, as to what the response of the occupiers of units on the WWTE might be were they to be aware of what the likely effects of the HGV ban might be. The issue of the effect of the HGV ban is not a secondary consideration, but goes to the heart of the application. For example, regards the HGV ban, it is perfectly clear that the effects of a 7 ½ tonne weight limit would be very different from the effects of a 1 ½ tonne weight limit. We have no assessment of the effects of that difference. IN the absence of the County deciding what weight limit they are likely to seek, we would require a model setting out the effects of different weight limits, in terms of traffic flows, noise and air quality assessments and of carbon emissions. Accept that were the Secretary of State to make such a direction that it would involve delay in that publicity requirements would need to be met, however that would not bring these proceedings to a halt. The WHA are in a position to continue presenting evidence, but the effect would be that instead of closing the inquiry at the end of July, it would be necessary to adjourn and recommence the inquiry in September, specifically to address the issues arising from the combined effects of the error in the HGV flows and the effects of the HGV ban.

## **John Altringham**

Prof. Altringham was asked to read his summary proof.

Prof. Altringham's main points were:

- that the scheme would have a severe adverse effect on the local bat populations.
- some local populations may be reduced to unsustainable levels.
- only small numbers of bats use mitigation methods
- further research is needed on underpasses and green bridges
- bat gantries appear to be ineffective
- there is little room for improvements to mitigation features that would improve their effectiveness

In oral evidence, Mr Billington was asked what the effects of construction would be without mitigation. He said it would be disastrous. Your view?

-Agree with Mr Billington

Major negative in year one, without mitigation.

-Agreed

Major adverse in year 15, without mitigation.

-Agreed

Number of bats killed by scheme, low according to Mr Billington. Small number killed in Year One.

-Would imagine that Year One would be the most damaging year. Bat behaviour would be unpredictable

Billington's view that only a small number of individuals would be killed

-Could be significant enough to have effect on population

Population levels already low for Annex II species?

-Numbers in the thousands

Billington said that the Horseshoe population was currently booming, would you agree?

-Data from Bat conservation trust, 1998-2006, Great Horseshoe Bats increased by a maximum of 6.3% - based of summer colonies. Not statistically significant. Term booming not appropriate

Assemblage of bats along route. Possible that assemblage richer than the assemblage at BBSAC. Billington not in a position to comment. Your view?

-Not comparing like with like, SAC primarily a hibernation site.

Apparently a consensus of expert opinion that scheme would not effect BBSAC. Your view?

-Would like to see some evidence in support of that conclusion

Billington agreed that test was of no reasonable scientific doubt. Has this test been met?

-Not at all

Netting surveys. Various survey techniques undertaken. Billington took view that nets only caught small proportion.

-Whichever technique used, only get small insight into what is going on. May be looking at tip of iceberg due to small sample size.

On mitigation, WCC's case that mitigation 'cutting edge'. WCC accept that there is very little information on the effects of mitigation. Billington agreed gantry design was unproven. 'Terrible' from data point of view.

-Would agree wholeheartedly at inadequacy of work

Pre-construction modelling?

-Difficult to assess due to lack of detail.

Post construction?

-Have seen nothing.

As far as the alternative routes are concerned, Billington said that any FW route would be likely to have a higher impact on bats than the proposed scheme. Your view?

-Difficult to have a view without the data

-No survey work has been done, other than desk surveys

### Cross Examination

FW route. Were you informed of the work that Billington has carried out?

-No

When you said you believed only desk work, that was based on what?

-Based on Billington's oral evidence.

In that note, is there a reference to the extent of Horseshoe bats to the West of Westbury?

-Aware of SACs to the West

No reasonable scientific doubt. As a scientist, how much survey work would be required to reach level of no reasonable doubt?

-Have to do work, look at results, then decide whether more surveys are needed

It would take a massive effort, spanning before and after construction of scheme?

-Must do work before, during and after. Must meet certain criteria. Things could be done better than they are in general

You know Mr Billington and his reputation?

-Agreed

Any doubt at all that he will use his best efforts to make mitigation effective

-No doubt

SP4. What is meant by 'Another opportunity to promote and practice evidence-based conservation will be lost'?

-Having reviewed subject, lots of studies which are claiming to provide evidence in support of mitigation are flawed in some way. We are not practising evidence based conservation in many cases. We are not conducting science by looking for

evidence for conservation measures. Would be nice to see a case where there was good quality monitoring.

Opportunity presented by scheme?

-Agreed

-Would ask whether such an important bat assemblage was appropriate site for an experiment

Do you have any doubt that a scheme thought up by Billington could be done properly

-Billington would require advice on scientific statistics

In terms of this scheme, the scheme could be done properly. Billington would need further help.

-Must ask whether this is the population to carry out an experiment on, especially as the experiment involves very blue sky thinking. Testing inadequately tested evidence

Outside your area of expertise.

-This is a very important assemblage, should not carry out risky experiment

Must look at other factors in deciding scheme.

-In terms of bats, the area of the not appropriate for an experiment

Not carried out any surveys yourself?

-No

Commentary based on available information

-Agreed

Expert witness, not member of WHA

-Agreed

When were you asked to appear before inquiry

-Dec 2007

Since then, you have reviewed available information. Won't have carried out survey work personally. In terms of the importance of the assemblage, you are using information presented by Billington?

-Agreed

Agree with Billington that year one most significant. Bats creatures of habit.

-Agreed

-Bats less than keen to divert from flight lines, but reports show that bats will divert from flight lines under certain circumstances, in very unpredictable ways

The essence of the exercise is knowing information and seeking to address bat behaviour.

-One objective

-Ideally do not divert route,

Agree that in terms of flight lines, Billington's input has achieved that?

-Agreed

FP1.2. Been informed of Natural England's views?

-Not in any detail

-Aware that they originally opposed scheme, but then decided mitigation was adequate

Aware of WWT view?

-Understand they recently withdrew objection

FP3.1.4. Destruction of roost sites, severance of flight lines. In your evidence, these are the two single most important factors that you identify?

-Not sure would single those two factors out.

In terms of threat to bats, destruction of roosts and severance of flight lines most important.

-Destruction of woodland, intensification of agriculture. Make broader points.

Three main matters, possibly also fragmentation. No roost sites destroyed by scheme?

-Agreed

FP3.6. No roosts destroyed.

-Agreed

FP3.1.4. Severance of flight lines will not happen provided mitigation works?

-Agreed

Destruction of woodland, intensification of agriculture, not consequences of scheme?

-Width and road could destroy habitat

How many trees lost?

-Very few, more planted

Some more trees at semi-mature height. Will assist bats?

-Potentially

Fragmentation of primary habitat not a consequence mentioned in your evidence?

- An omission from my evidence
- Any road fragmentive

FP3.9, pg30/34. Little room for changes that would make mitigation more effective. Not suggesting any additional measures?

-No

Billington's proof, S5.1. Would welcome mitigation measures?

- Appear to be well thought out, but lacking evidence that they would work
- Concerned that features becoming standard practice without evidence that they work.

Billington's supplementary proof. Have you seen before?

-Yes

Document referring to during evidence in chief?

-When asked if had seen recent pre-construction plan, yes

Not complete document. Needs to be agreed with Natural England. As a starting point, does it do the sort of things you would expect it to do?

-Only as a starting point.

-Other similar documents never led to useful data collection

Are Natural England aware of your concerns?

-Not the people making decisions

In terms of what this is intending to do, this is a starting point.

-Does not lay out what evidence would be collected

-Difficult to judge what would be delivered

That information can be required by Natural England?

-Agreed

-Could be the basis of a monitoring plan, but given past reading on the subject, they have not delivered information required.

-Difficult to have any real confidence in document

Other than the fact that Billington behind document

-Billington would be rigorous, but may not be provided with resources

FP3.1.7. Collision mortality. What assistance do we get from non-flying mammals in terms of studies on collision mortality?

-Evidence where I give numbers all related to bats

-Mention one paper for more specific aims

-Gain considerably from non-flying mammal studies

In terms of bats in this locality already crossing the A350, do you have any information. Madbrook?

-No numerical data

West Ashton?

-No numerical data on any point

FP3.1.10. Construction. Seen Dr Chamber's evidence?

-No

Aware of measures he describes?

-No

SP1.3. Mitigation. Refer to three measures. Then refer to planting trees and shrubs. Not also mitigation measures?

-Associated with three principal measures

Lights can have positive effect of deterring bats?

-Evidence suggestive but equivocal

Green bridges?

-Evidence that bats will use them, but no idea of proportion of bats using and what happens to bats not using.

-Difference between use by individuals and effect on popn

Underpasses?

-No reliable numbers and proportion on bats using and not using

Hedges can be using for flight line purposes. Intend to plant established hedges on green bridge. Will enhance Green Bridge?

-More effective with them and without them, but not necessarily effective even with

Fence at side of road intended to break flight line?

-Evidence suggests ineffective.

Better to have them in combination with other measures or not?

-Data suggests they have marginal effect, but do not cause harm

If evidence lacking, and they do not cause harm, beneficial to have them?

-Must consider visual impact

-Concerning bats, no evidence that they shouldn't be there

Gantries. Disadvantage or beneficial?

-Unlikely to be detrimental

High trees next to the road. Beneficial?

-Difficult to answer. May provide habitat, but increase risk of collision if bats drawn into trees close to road.

If trees emphasised flight pass, they would be beneficial?

-If that bats only used them to do that

-Can put them there for a purpose, but can't ensure bats use them for that purpose.

FP3.6. Precaution not requirement?

-Not sure of legal situation

-Sensible as a precaution

Not suggested in evidence that it is a requirement?

-Cannot answer without looking at law.

### Re-examination

Mrs Tindale's proof. In terms of the loss of land, approximately 50 hectares affected by scheme. Permanent loss of 38 hectares. What comment would you make in the context of FP3.1.4

-Any wild animal requires habitat, if land taken away then popn will shrink

-Magnitude of popn loss determined by quantity of loss

### Inspector's Questions

Mr Langton referred to para 3.1.8 of Prof Altringham's proof asked about the use of bank voles as evidence for effects on bats. Prof Altringham said that he was making the point that roads can have extreme effects on species, and tend to cause lesser effects before they lead to genetic differences. Prof Altringham said that he was not suggesting that the scheme would cause fragmented populations of bats to have genetic difference, but that lesser effects could occur.

Mr Langton noted that rare Bechstein's are present at Clanger Wood, despite Clanger Wood being next to existing A350. Prof Altringham said that the current population would be at a level that the habitat could sustain, and that additional pressures could effect the population.