

11 July 2013

## **CPRE Oxfordshire Response to consultation on HS2 Draft Environmental Statement - July 2013**

The Oxfordshire Branch of the Campaign to Protect Rural England exists to protect and promote the landscape and rural communities of the county. We are opposed to HS2 as we think other steps should be taken to improve infrastructure both regionally and locally. However, should it go ahead, HS2 will have a serious impact on the area of Oxfordshire through which it passes. It is therefore vital that environmental mitigation follows best practice rather than simply looking for the cheapest minimum option.

Our comments below relate in part to overall issues across the whole scheme and in part to specific issues affecting our local area (Chapters 13 & 14).

It has been clear from the inception of this project that the intention has been to produce a design incorporating higher standards of landscaping and environmental sensitivity than in previous major transport projects both here and abroad. By integrating landscape design and civil engineering the draft designs now published go a long way towards achieving this. However, as preparation of the Parliamentary Bill gets under way, some major problems still need to be addressed.

- 1) Consultation - the timescale for this consultation has been too short and we trust that much more time will be allowed for input when the final statement is presented.** Given the amount of information and the complex nature of much of the material, it is very hard for laypeople to understand and engage with the detail in such a short time period.
- 2) Earthworks - It is important that all the land needed for mitigation measures is available and not necessarily left to negotiation with the landowner. Compulsory purchase powers for this land should be secured by strengthening statements of the intention to screen open countryside from visual intrusion and noise.**

The basic alignment has been lowered in cutting for much of the route to blend the works into the landscape and to contain train noise. This will require disposal of excavated material surplus to the minimum required to engineer

embankments. We are concerned that compulsory purchase powers can be defended that will allow this surplus material to be used where the landscape designers intend to mitigate for noise and visual intrusion.

We have understood that the intention of the designers has been to use earth banks to form noise and visual screens along the tops of cutting slopes and embankments and this will require extra land. More extensive contour re-grading would also require purchase or leasing of more extensive areas. This could take land out of agricultural production for probably 10 years and, although eventually returning land to agriculture, there would be a risk of permanently impairing the quality of this land. Land will also be needed for off site tree and hedgerow planting. Such measures are considered essential to mitigate many of the unavoidable adverse effects of the scheme. The availability of compulsory purchase for land beyond that required for the minimum engineering works is therefore considered essential but needs to be robustly justified by qualitative argument as well as measurement of quantifiable effects.

We are conscious that if any landowner who is reluctant to surrender land could successfully argue that the depth and therefore width of cutting is not an engineering necessity and that the vertical alignment could be raised, then the built-in concealment could be lost. Similarly, land may not voluntarily be made available for disposal of surplus excavated material along the tops of cuttings and embankments, and for re-grading of the landscape to blend the works into the topography.

In order to secure these powers, statements of the intention to screen open countryside from visual intrusion and noise need to be strengthened throughout the document. The noise control measures included in the draft ES appear to derive principally from the need to meet existing statutory obligations to protect occupants of buildings from intrusive noise rather than these broader considerations and we understand that further work covering both visual screening and noise abatement is on-going.

It will be necessary to demonstrate that the proposed scheme is buildable and not dependant for instance on planning permission for waste disposal from other bodies.

Control of use of excavated material will be essential to achieve the best landscape mitigation and to avoid unnecessary traffic movements on local roads.

**3) Mitigation in rural areas - No quantitative noise standards have yet been established for tranquil rural communities and the countryside. There are no proposed measures to mitigate for noise nuisance or loss of visual amenity for those working outdoors or for the general public eg those taking part in sport and recreation in the countryside.**

CPRE's interest is to protect rural England from unnecessary development and creeping urbanisation that would degrade the essential character of open countryside and vibrant small town and village communities. The quality and character of every local landscape is different and the values cherished by people living in rural areas differ from those of city dwellers, who often make trade-offs

in favour of a different quality of life. These are highly subjective issues not readily amenable to measurement and quantification. Only now is an attempt being made to classify landscape value, and to identify the significance of background noise levels as a step towards evaluating areas of tranquillity. As yet little or no consideration appears to have been given to intrusion on permitted and informal sport and recreation in the countryside.

The only legally binding requirement to mitigate or compensate for noise nuisance is derived from acceptable noise levels within buildings. Although the EU has required noise maps to be prepared for open spaces and these now exist for urban areas, no quantitative standards have been established for tranquil rural communities and the countryside. Consequently, any mitigation measures will need to be agreed and incorporated in the proposals before the Bill is presented. The Act will both authorise expenditure and agree compulsory purchase powers. The relatively small cost of appropriate measures such as extending or joining up screens and soft landscaping could be criticised and the promoters will need to put forward well reasoned arguments in support of such proposed works. Such justification is lacking in the draft ES. Where the general public or those working outdoors would be subject to noise nuisance or loss of visual amenity, this has yet to be addressed.

At the very least, appropriate screening is vital if the enjoyment of the countryside is not to be unnecessarily harmed where public rights of way cross or run alongside the line and an objective should be set to minimise the area in which normal communication for instance between farm workers or sportsmen will be impaired.

The average equivalent noise energy Leq noise standard used to assess potential interference with communication within buildings (but calculated for convenience at façade) is not considered a satisfactory measure to assess the impact of high-speed train noise in relatively tranquil rural areas. (See the recommendations of the 1993 Mitchel Report to Parliament that assembled extensive research on which the current standards are based and differentiated between city and rural populations.)

The maximum noise will travel further than averaged noise. Short loud noise incidents are perceived differently to say the more continuous road traffic noise. The public acceptance of noise is not well understood and further research has been consistently called for over the years. High speed train noise may be more akin to aircraft noise and recently, intermittent aircraft noise from Heathrow has been found to have a deleterious effect on the development of Hounslow Heath primary school children until a soundproof 'igloo' was provided.

There is an urgent need to bring together further expert knowledge on noise and to attempt to quantify open air noise levels needing mitigation to strengthen the justification for HS2Ltd to include appropriate measures in the scheme before it is placed before Parliament.

4) **Lighting - HS2 should commit to using full cut-off lighting during construction and for any permanent lighting.** In Oxfordshire, there are three construction compounds where lighting could be an issue but there is no information in the draft Environmental Statement about how light pollution will be tackled. We note the proposals in Section 5.4 in the draft Code of Construction Practice, but feel that these do not go far enough and that HS2 should be setting a higher benchmark. We ask HS2 to clarify its intentions and to confirm that it will use full cut-off lighting to minimise any adverse impact.

5) **Vibration** - concerns have been raised at Community Forums about the possible impact of vibration but no clear answers have yet been received. This has not been covered in the draft Environmental Statement and so remains an issue of real concern. Para 5.12.10 states that 'Groundborne noise and vibration effects will be assessed in the formal ES in accordance with the criteria set out in the SMR.' It is frustrating that this significant information is not yet available and there must be full opportunity to comment on this area in due course.

6) **Impact of road closures and diversions on rural economy during construction period**

Individual cases of hardship experienced by residents along the route, which arise from protracted road closures, should be investigated by HS2 Ltd and, where it is warranted, compensation should be paid.

We expect that the continuing operation of local businesses, which are so essential to the rural economy and hence to the countryside in general, is given a very high priority during the construction phase. No company should become unsustainable because of travel restrictions placed on its customers, employees or suppliers. Extra costs, which are incurred by local businesses as a result of prolonged additional travel along diversions arising from HS2 construction, should be met by HS2 Ltd.

7) **Balancing ponds** - Where crudely geometric balancing ponds are indicated on the drawings we would wish to see more sympathetic, natural looking forms and large enough ponds to allow natural colonisation to take place without the need for intrusive maintenance for dredging or disturbance of tree and shrub edge planting. The construction boundaries do appear to allow scope for refinement at the detailed design stage.

By their very nature these ponds need to be at low points but we trust individual land owners will have some influence on location and that unsightly surrounding embankments and cuttings can be avoided.

We do not know which will be transient ponds ie drying out from time to time, and which could be engineered to be always wet. Each type is needed for different species and it would be good for the local ecology to have both types. Providing new ponds are sympathetically designed, we welcome this opportunity to contribute to the bio-diversity of the area'

## 8) THE DRAFT ES IN DETAIL

The following comments highlight points of concern in the text of Chapter 1 and Chapter 2, Sections 13 and 14.

### HS2 Draft ES Chapter 1

#### *Section 1 Introduction*

1.4 Setting Minimum Environmental Standards (EMRs) to supplement the ES is welcomed. **A standard limiting the absolute maximum noise from trains is needed** referred to briefly in para 3.3.6 in relation to higher speeds. This standard should reflect a combination of best current technology covering for instance, pantographs, multiple power units, screened bogies, and aerodynamic train noses and carriage connections.

#### *Section 4*

Concern about perception of the qualities and value of the countryside in general are referred to above in the general section of this response. Whilst quantification is useful to some degree, usage surveys of public rights of way can give a very misleading picture as people living in rural areas often enjoy wider informal permitted access for walking and riding. This is especially so since the Countryside Stewardship (ELS and HLS) provisions came into force changing attitudes and emphasising other values of the countryside besides food production. The tranquil countryside of the part of Oxfordshire affected by the route is highly valued locally even though not formally classified under special landscape or ecological designations.

As identification of cumulative effects are yet to be identified (section 4.3) it is difficult to comment at this stage but **there are concerns about the combined effect of railway and road traffic noise at Newton Purcell and Finmere where principal roads are to be diverted over the line.**

The East-West Railway project crossed at Calvert in Buckinghamshire is of strategic importance for this county and it is important that unnecessary cost and delays are eliminated at the earliest opportunity.

#### *Section 5*

*In section 5.5* it is noted that revised assessments are to be included in the final ES.

*At 5.5.5* Rights of way are identified as a destination in their own right as a recreational resource and this does not appear to have been followed through with appropriate mitigation measures for instance, where the diverted Westbury Circular Ride passes under the Westbury Viaduct across the Great Ouse Valley.

***Para 5.5.6* is unacceptable and suggests a fundamental misunderstanding about rural recreation.** This needs to reflect the broader use of the countryside for walking, exercising horses, nature study and traditional country sports such as hunting, shooting and fishing. Children and others often enjoy informal or permitted access to woods, streams and fields valued as much by local people as formally

designated open spaces. Designated open spaces are rare in most of rural England away from the main conurbations.

*Para 5.12.8.* Whilst accepting the statement that significant effect will arise at sound levels of 65dBA and 55dBA, it is not clear how this is to be followed through. It would appear that noise contours published in Volume 2 are particularly useful to identify properties needing protection under the 1996 Noise Insulation Regulations (68 dBA Leq) primarily to deal with interference with communication within buildings and mitigation measures have been designed to achieve this. However, **the broader impact of noise including disturbance to outdoor activity is still to be adequately addressed.**

It is understood that maximum noise levels Lmax are being calculated for selected receptors but in order to appreciate the actual transient noise experienced, it is also necessary for information to be made available on maximum noise at source and how this translates into an Leq. The information published so far is barely intelligible to the layman who needs to relate future train noise to everyday experience. The Leq measure does not adequately explain the transient noise experienced when trains are passing. More explanation would no doubt also help MPs who will need to adjudicate on these factors.

**The high level of noise control through primary engineering and noise barriers to protect buildings leaves relatively few gaps through which high levels of noise can penetrate unabated into the open countryside. Suggestions for closing these gaps are dealt with in comments on chapter 2.**

There is considerable scope for planting along and remote from the route to soften and screen the appearance of the railway in the landscape. It is hoped that extensive further soft landscaping will be included in the ES as suggested in the Non Technical Summary.

## **Chapter 2 CFA13**

The short length of route in Oxfordshire lies in the parish of Godington.

The noise contours in SV-01-29 do not appear to have taken into account the screening by the existing GCR embankment, only the new works that utilise a short section for the accommodation road and diversion of bridleway 225/4/10. Almost 1km of old embankments north of Godington village need to be retained and protected as a noise and visual screen. These old earthworks have generally blended into the landscape although some additional tree planting would be beneficial (eg from viewpoint 161-3-001).

The over-bridge will be an obtrusive feature in the landscape. Widening of the road approach embankments with the addition of tree planting there could help. It is suggested that the limit of works should be extended to include the GCR embankments with a view to preservation as a landscape and noise mitigation feature (See 9.5.11,12; 9.6.15 and 11.6.7)

Whilst bridleway 225/4/20 has to be diverted over the line as inadequate clearance would exist under the viaduct at the county boundary, it may be possible to accommodate the footpath element on its present alignment. Walkers are more aware of distance and will wish to get away from the noise of the railway as quickly as possible. Footpath 225/5/10 runs with the bridleway at the crossing point and then continues as CHW25/1 to Casemore Farm and as CVH 22/1 beyond the Chetwode road in Buckinghamshire.

## **Chapter 2 CFA14**

Of principal concern in this area are the visual and noise effects on the community of Newton Purcell, the need for adequate screens and planting near Finmere, containment of intermittent noise affecting open countryside leading up to Mixbury, the treatment of the Westbury Circular Ride diversion where it passes under the Westbury viaduct and the view of the Turweston cutting seen across the valley from the south side of the Ouse valley.

### **River Great Ouse viaducts at Turweston (straddling Northants/Oxon boundary) and Westbury (Oxon/Bucks)**

The design of these structures must be of a very high quality, given their impact on the surrounding rural landscape. The challenge is to employ the highest standard of design, such that the harmful consequences of the line to the countryside will be, at least to some extent, offset.

#### *Section 5*

**Although all Rights of Way are to be preserved, the policy statement should include a commitment to enable the community to continue to enjoy the open countryside.**

*At 5.4.4* community resources are too narrowly defined.

#### *Section 7*

Further mitigation referred to at 7.6.8 should include incorporation of narrow grass verges on over-bridges to encourage movement across the route by mammals of all sizes.

#### *Section 9* Landscape and visual amenity

It is surprising that the local authorities have not identified the valley of the River Great Ouse as a Landscape Character Area (LCA) only the actual river banks. Nevertheless the local landscape is important to local people and the view across the valley from the Westbury Circular Ride, the Turweston cutting will be a very significant landscape scar. At the detailed design stage every effort needs to be made to reduce this, for example by using a retained cutting as far as the geology allows to reduce the apparent width and within the land-take rounding the tops of the cutting slopes to a more natural profile. Visual enclosure of the cutting by the two bridges could help particularly if the opportunity is taken to use non-standard structures in this setting.

The further measures being investigated mentioned at 9.6.16 are fully supported and at Newton Purcell additional consideration should be given to creation of a modest earth bank on top of the A4421 road embankment as well as soft landscaping to provide some early screening at the backs of the affected properties.

It appears that the initial intention has not been changed. Earlier small scale drafts suggested that the route would follow alongside the GCR embankment with its established woodland cover, retaining it to screen properties. The solid noise barrier illustrated (See LV 12-40) would no doubt be effective, but the visual impact needs to be softened. This could be achieved with the addition of planting on the south side, if necessary with additional land purchase.

Once the combined effect of rail and road noise are known, treatment of the roadside cottage north of the line should be reconsidered and the limits of construction extended as necessary to ensure that sufficient works are included to protect the enjoyment of this property including its rear garden.

#### *Section 11 Sound etc.*

Consideration is requested of noise containment measures where the line crosses the tributary stream from Mixbury on a short embankment between cuttings. A trackside solid or earth barrier at least on the west side could do much to mitigate the spillage of noise along this minor valley towards the village of Mixbury. This is an example of where joining up the effective containment achieved by lowering the line in shallow cuttings would benefit the countryside and local community. The background noise levels are particularly low in this area and the effect needs to be considered with regard to actual noise measured by Lmax.

At the Westbury viaduct, the proposal would unnecessarily expose horses and riders to an Leq in excess of 70dBA because the main noise barrier on the structure and the noise screen along the top of the approach embankment do not connect.

Furthermore the diversion route proposed for Mixbury BR5 clings tightly to the foot of the embankment rather than following the river on a more direct line. It passes under the viaduct that presumably spans land liable to flood and so the path could become unusable by walkers and cyclists. The diversion needs to be raised here to provide a dry all season route. This is particularly important as the unofficial parallel path along the former Banbury-Buckingham railway would be blocked, thus increasing the importance of BR5. It may be necessary to create a causeway with a firm surface to minimise mud problems.

The survey of usage of this route may well be misleading as the parallel dis-used railway track is at present more convenient. As cyclists are now legally permitted to use bridleways, the detailing of this diversion needs to be refined to eliminate sharp right angle bends. There is a possibility of this disused railway line becoming a long distance recreational route.