



Campaign to Protect
Rural England
OXFORDSHIRE

High Speed Rail (HSR) Consultation

CPRE Oxfordshire response

Mitigation measures and detailed design

Both CPRE National Office and the Oxfordshire Branch of CPRE have responded on the 7 questions posed in the February 2011 consultation Summary, 'High Speed Rail: Investing in Britain's Future', and have endorsed the 'Right Lines Charter for High Speed Rail' supported by NGOs that summarises CPRE's policy concerns.

This response deals specifically with mitigation measures and local details and suggests amendments to the proposal should this proceed to the next stage based on the published line.

The explanatory meetings with HS2 Ltd at CPRE head office, the guided tour of HS1 for representatives from Civic Voice and CPRE Branch representatives and the local Roads Shows have been informative and discussions on detail have been productive. The following comments reflect our understanding of what now may be possible to improve the design in the next phase of the development. It is a partial response concentrating on mitigation, much of which is relevant to whichever line is adopted.

This response expresses our concerns about the limitations of the process. Naturally, opposition to the proposed route has arisen principally in the areas directly affected. This route follows the existing rail corridor, largely in tunnel or deep cuttings through the Chilterns AONB, and the picks up the abandoned former Great Central Railway route (one of the two out of three main lines from London to Manchester closed in the 1960s) south of Brackley, directly affecting four parishes in Oxfordshire.

The background to the present proposal is that following extensive studies of the capacity of the existing railway network and rising passenger numbers, the concept of building a new railway has gained all party support. Governments therefore commissioned a wholly owned company HS2 Ltd. to carry out comprehensive studies and to produce detailed proposals, initially for the first phase of a national High Speed Rail Network, between London and Birmingham. However, the terms of reference were narrowly drawn and alternatives to the single published route were only covered in very general terms to avoid unnecessary property blight. The operating speed chosen in the brief reflects developing international practice and it is now left to others to demonstrate that significant improvement could be achieved over the lifetime of the railway by building the infrastructure to a lower standard.

In discussions with the design team it has emerged that a new railway would allow an estimated 11 additional services an hour to be added to the West Coast Main Line and major benefits would accrue to the existing network by releasing capacity. The 225mph (360kph) operating design speed is similar to that being planned elsewhere in Europe and for new trains on HS1 (320kph). The straightest route would generally be the shortest and reduce maintenance costs, but in response to consultation, route alterations would be assessed. The designers wish to get the right route, are not attached to the current route and do not say that it is perfect.

In Oxfordshire, we have not been able to identify benefit from varying the curvature of the published route if this is chosen, but remain very concerned about the effects on the tranquillity of the countryside through which it would pass and will press for high standards of screening should it go ahead.

Our specific concerns involve the impact of the scheme on the tranquil countryside in and around the Oxfordshire parishes of Godington, Newton Purcell, Fimmere and Mixbury.

The key local issues are:

- a) The visual impact of the works in the landscape and the aesthetics of structures etc.
- b) Noise nuisance and destruction of tranquil countryside.
- c) The impact on wildlife and bio-diversity.

Mitigation details are being prepared now by HS2 Ltd to be published in the autumn of 2011, and so particular measures called for include:

- Remote tree planting and reconnection of the hedgerow network off-line
- Retention of old railway embankments as screens
- A short tunnel to conceal the cutting into the side of the Ouse valley
- Lowering of viaducts using U section through decks
- Open parapets on over-bridges
- A suggested objective for out-door noise of below 64dba.
- Preparation of a comprehensive bio diversity action plan for the corridor
- Incorporation into the Parliamentary Bill of land acquisition powers to enable an overall improvement of the impact of the scheme in the countryside.

Screening of the line

The view of the line from villages, footpaths and view-points will need to be carefully managed. The stated intention to use spoil from the extensive cuttings to provide false cuttings and screen the lower part of trains throughout and control the spread of noise is welcomed, but there is concern about the way in which passengers will be given views of our beautiful countryside from the trains. In the design of mitigation we welcome the intention to consider remote planting, possibly augmenting existing woodland to screen views of the line from surrounding villages, and to build such provision into the Bill.

Of specific concern is the mechanism for ensuring that the embankments of the former Great Central Railway near Godington and Newton Purcell are retained. These would provide essential visual and noise screening for properties in these villages.

The existing practice with Department for Transport (DfT) highway schemes of allowing contractors to open borrow pits and tip surplus material in the most economical way could place the retention of these embankments at risk. It is therefore considered essential to provide in the Bill for the purchase of these features and their perpetual retention.

The proposed rearrangement of the vertical alignment to carry the A4421 over the line at Newton Purcell is welcomed, given appropriate local screening. It is suggested that the old embankment be filled in between the old rail-over-road bridge abutments to effectively screen the southern part of the village. Similarly, careful treatment of the field access and bridleway north east of Godington might allow that embankment gap to be closed.

The third specific proposal is that to protect the view across the Ouse valley between Turweston and Westbury in Buckinghamshire, a short cut and cover tunnel or 'green bridge' should be constructed over the south end of the deep cutting east of Brackley to maintain the visual continuity of the ridge line. This deep cutting would otherwise leave a major scar in the steep valley side visible from the valley and beyond. There will also be scope here for bank rounding, laying back the top of the cutting slopes in a more natural form than the trapezoidal minimum earthwork and possibly locating fence lines within the slope and returning land to agriculture/grazing. Again, this will need to be planned and incorporated in the Bill.

Structures

The designs illustrated in the documents and Road Show exhibitions all show structures wholly beneath the track. A major improvement throughout could be achieved by using a through deck design where the deck slab for the track would form the bottom flange of a U-shaped structure. This would allow the track and approach embankments to be lowered by around a metre with the same soffit level. Where noise barriers are to be added above track level, these could be partly contained within the height of the structure reducing the overall visual depth. Several viaducts will be required in this county and in all cases such a change would be beneficial.

Very ugly structures result from the present practice on railways in Britain of using solid parapet walls above the tracks. Many are not even effective to control 44 tonne vehicles. Very effective steel beam and mesh guard rails have been developed and the problem of debris being thrown onto the line can be addressed by using horizontal screens. With the line at or below ground level for much of the way, there are going to have to be numerous public road, private accommodation and public right of way over bridges. These will often be the most intrusive features in the countryside. As the safety requirements for the new line can be approached anew before the Bill is drafted, this presents a unique opportunity to improve the aesthetics of the hundreds of bridges that will be needed.

Noise

As yet there is no agreed objective for the control of outdoor noise. This problem has wide implications for those who live, work in and resort to the countryside. Current noise standards set intervention levels estimated at the facades of buildings based on the probable equivalent noise levels within habitable rooms of 63dba. These originate from the attempt to prevent interruption of normal conversations within buildings.

Noise nuisance can be expected to extend for up to about a quarter of a mile either side of the line and need to be controlled to protect those working in farm buildings that generally cannot be modified, and so that outdoor recreation is not unduly impaired. A target level of not exceeding 63 dba as a general rule is suggested and noise contours should be prepared and published with the mitigation proposals. Whilst this will often be unachievable very close to the line, particular attention is called for where there are public footpaths near and crossing the line.

Wildlife

Whilst concern and opposition has so far concentrated on the strategic justification for High Speed Rail and the effect on individual properties, the effect on wildlife has generally been left to the next stage of development of the project. However, there is a need for an overall strategy to be developed. County Council ecologists are reluctant to develop detailed responses until a route is approved. Attention has been drawn to the large number of wildlife sites near to or affected by the proposal. A new line will create an 'Iron Curtain' or 'Berlin Wall' preventing wildlife from passing across the country unless frequent crossings are design in.

Fencing will be needed to keep mammals such as deer, badgers and foxes off the railway so the detailing of fencing at crossing points will be critical. Smaller mammals will become isolated if the continuous network of hedgerows is not restored. Continuous planting along the boundary can emphasise the scar across the topography and linking is best achieved by strengthening the hedgerow network over a broader swath of farmland.

The Bio Diversity Action Plans have identified species that are dependent on particular habitats, some of which have become very fragmented. To take just one example, hairstreak butterflies and bullfinches are dependant on blackthorn thickets that could easily be strengthened up in line-side waste.

Agricultural subsidies are now focussed on wildlife conservation through the single payments to farmers entering into Entry Level (ELS) or Higher Level (HLS) stewardship agreements. These require field margins to be left uncultivated. Agricultural land will be taken out of production for any new railway but by careful location of stock proof/anti personnel fencing within the land take, land could be leased back to farmers to be managed and include within their required uncultivated land or with careful blending of earthwork contours, returned to agricultural use. Drainage could well require balancing ponds that could be designed to become a wildlife asset.

Comprehensive bio-diversity plans for the route corridor need to be prepared and the opportunity taken to turn the railway corridor into a major national an asset for wildlife.

Alignment and speed

The detailed mitigation proposals are awaited with interest. There is concern that the line speed chosen will exacerbate the problem of noise and make more difficult mitigation of the physical effect on properties and villages. Whilst curvature is not particularly significant for villages in Oxfordshire as the proposed route is fairly straight, the proposal does seriously affect the villages of Chetwode and Twyford,

close to the Oxfordshire county boundary. It would appear that the only satisfactory way of mitigating the severe effect at Chetwode, where property would otherwise be demolished, the setting of listed buildings severely compromised, houses badly affected by noise and farms severed, would be for the line to be placed in a cut-and-cover tunnel. There would then be no change to the proposed route in Oxfordshire. If the alternative and more easterly alignment is reconsidered rather than a tunnel at Chetwode, this would benefit property in Newton Purcell, but new issues would need to be considered at Finmere.

Tighter radius curves at both Chetwode and Twyford could facilitate improvements, but the impact on the village of Godington must not be made worse.

Aesthetics

The need for fundamental changes in the design of structures is mentioned above and the form and choice of materials needs to improve on the brutal designs employed on High Speed 1. Planting to screen embankments including those leading up to crossing points as well as new woodland landscape features will need to be designed in detail and land acquired off-line to make this possible. On 19th century railways and 20th century roads rigidly geometric earthwork cross-sections have introduced an alien feature in the countryside that has often been emphasised by insensitive boundary fencing and planting. Scope will exist to round off the tops of cutting and embankment slopes to more natural forms, but only if additional land is acquired for the purpose. It is not considered adequate to leave this to voluntary agreements with land owners. There will however, be scope to return land possibly by lease to reduce the loss of productive land. Such bank rounding can be particularly effective at the ends of earthworks. Where existing railway embankments need to be retained for visual and noise screening and taken into ownership, there will also be scope to blend these into the countryside by earth shaping and planting.

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