

HS2 in the Chilterns Area of Outstanding Natural Beauty

Overview

This briefing is published by the Chilterns Conservation Board (CCB) to inform MPs and others in advance of the Parliamentary debate on the High Speed Two (HS2) rail project on 13 September.

The CCB opposed HS2 from the outset as it will have a significant and lasting negative impact on the Chilterns Area of Outstanding Natural Beauty (AONB).



Amersham vent shaft, under construction, looking west – Jul. 2021.
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Since HS2 was approved, we have focussed our efforts on securing the best possible outcomes for this special landscape. Our worst fears are now being realised as evidence accumulates to demonstrate the negative impacts of HS2 on both the landscape and the local communities of the Chilterns AONB.

This briefing highlights some of our main concerns with the HS2 project, which fall into two categories:

- i) **Failure to meet high environmental standards** resulting in irreparable damage to the Chilterns landscape – its wildlife, cultural heritage, tranquillity and natural beauty
- ii) **inadequate communications and engagement** by HS2 Ltd and its contractors, leading to a rapidly deteriorating relationship with local communities

Introduction

The **Chilterns Area of Outstanding Natural Beauty** is nationally protected as one of the finest areas of countryside in the UK. AONBs are designated by the Government for the purpose of ensuring that the special qualities of the finest landscapes in England and Wales are conserved and enhanced. In planning policy terms, AONBs have the same status as National Parks.

The **Chilterns Conservation Board** is an independent statutory body established by Parliamentary Order in July 2004. Our two purposes are to conserve and enhance the natural beauty of the Chilterns Area of Outstanding Natural Beauty (AONB), and to increase the understanding and enjoyment of its special qualities. We also have a duty to seek to foster the social and economic well-being of local communities. We represent those who both live in, and enjoy, the Chilterns AONB.

Our concerns

In 2010, the Government announced its preferred route for HS2. It was with dismay, for all those who love the Chilterns, to learn that the chosen route would cross through the AONB at its widest point, contradicting long-term thinking that beautiful landscapes, such as the Chilterns, should be protected for the nation.

At the time, the HS2 route travelled for 18.6 km through the Chilterns, with 7.1 km in a fully bored tunnel emerging in the middle of a Repton-designed landscape, just west of historic Amersham. The route would then climb the side of the Misbourne valley, cut through five ancient woodlands, cross two newly constructed concrete viaducts, drop into a cut-and-cover tunnel beside Wendover, and leave the Chilterns AONB south of Stoke Mandeville.

After seven years of the Parliamentary petitioning process, some concessions were secured – the fully bored tunnel now extends a further 2.6 km to South Heath, above Great Missenden, saving four of the areas of ancient woodland and reducing some impacts on communities up to this point.

However, both the above ground route, and the tunnelling operations and associated infrastructure, will still cause significant and irreparable damage to the Chilterns AONB landscape and to local communities.

Failure to meet high environmental standards

The 6.47 km of HS2 above ground and the 13.18 km below ground will result in the following impacts causing irreparable damage to the Chilterns landscape:

<p>1. Dramatic changes in landform impacting on the visual beauty of the Chilterns AONB</p> <p>The visual beauty of the landscape will be dramatically impacted through the construction of vast concrete structures including two squat viaducts, three tunnel portals, four intervention shafts and head-houses, together with a new wire-scape of overhead line electrification equipment, noise barriers and high fencing. Each of the head-houses will be significant structures, so placing them within the AONB landscape needs special care and attention to detail.</p> <p>Through its role on the HS2 Review Group, the CCB has worked to persuade HS2 Ltd to modify its designs. For example, the Chilterns AONB Detailed Design Principles (DDPs) produced by the HS2 Review Group and with the CCB's input, has informed many elements of the HS2 programme, but the DDPs have not been followed in all cases.</p> <p><i>For example, in September 2020, the CCB was forced to publish a position statement on the Amersham vent shaft design after Align, HS2 Ltd's contractors, repeatedly gave the impression in public events that the CCB supported the draft 'crown of thorns' design. We do not, and believe the design fails to meet the standards set out in the DDPs.</i></p> <p><i>We also advised Align that a solution for the vent shaft headhouse facility can easily be found that would render the structure almost invisible in the AONB landscape. HS2 Ltd's response to the views of local people shows little has changed. While the fins have been reduced in height and some additional planting will partially screen the structure, we believe that these modifications do not go far enough to ensure that the design meets the DDPs and it is therefore not appropriate in an AONB.</i></p>
<p>2. Damage to the fragile chalk aquifer</p> <p>Damage to the chalk aquifer will result in loss of flow to rivers including the River Misbourne, one of the UK's internationally important chalk streams, and impact on quality of drinking water for thousands of people in south east England: 20% of London's drinking water is sourced from the Chilterns aquifer.</p>

At 15.9 km long, the twin-bored HS2 tunnel is the longest ever attempted through a chalk aquifer. Local geologists and hydrologists have raised concerns that the engineering technology, untested in this scenario through fractured and faulted chalk, could lead to pollution incidents and loss of flow from our chalk streams.

In May 2021, after attempts over a number of years to secure assurances, the CCB and Buckinghamshire Council [set out](#) their concerns and a series of questions for HS2 Ltd regarding the impact of the tunnelling on the chalk aquifer. So too did a group of NGOs led by the [Chiltern Society](#), who also developed a briefing on the risks to the chalk aquifer and to the Chilterns chalk stream from its Geological Advisor, Dr Haydon Bailey, a Chartered Geologist who specialises in chalk geology.

Despite the confidence of HS2 Ltd and its contractors, they have still failed to satisfactorily answer our questions.

3. Damage to the bank of the River Misbourne

One of the Chilterns' fragile chalk streams, the River Misbourne, was damaged during installation of a bridge for the temporary construction road at bottom House Farm Lane, Chalfont St Giles.



River water spilling into the floodplain through a damaged section of the bank of the R. Misbourne at Bottom House Farm Lane (c) Allen Beechey

The CCB [alerted](#) HS2 contractors, Fusion, to the damage caused to the river bank in December 2020 and also wrote to the Minister of State for HS2, Andrew Stephenson MP, when Fusion [denied](#) causing any damage. After

the CCB had proven the damage through photographic evidence, and after several months of flooding to the riverside meadows, the CCB, Fusion and the Environment Agency met in June 2021. Fusion originally agreed to repair the riverbank to reduce the likelihood of further flooding incidents, but have subsequently informed us that their ground level data does not support our evidence that their works have resulted in scouring of the bank. We continue to challenge this.

4. Constant assault on tranquillity

The noise and visual disturbance of trains passing at high speed every few minutes through the Misbourne valley will dramatically impact upon the natural tranquillity of the landscape.

5. Physical interruption of Rights of Way

The internationally significant Ridgeway National Trail and the Chilterns Cycle Way will both suffer physical interruption of their Rights of Way – both are used annually by thousands of people – locals and visitors alike – for relaxation and recreation, with recognised benefits to health and wellbeing. This has become especially important in the past 18 months, with more people exploring the countryside close to their homes during the coronavirus pandemic.

It is, therefore, extremely concerning that well-used rights of way crossing the HS2 corridor have been blocked by HS2 Ltd, with poor signage and no alternative routes provided. For example, in June 2020, the southern end of footpath GMI/13/3, on the edge of Great Missenden, was re-routed north of the North Portal Construction Road compound. Inadequate signage meant that even experienced walkers were confused as to the correct route to take, which has resulted in people walking up GMI/12/1 until

being shouted at by an automated exclusion loudspeaker attached to Heras fencing on the construction boundary.

Wider impacts of HS2 include reputational damage to the area leading to people staying away due to disruption to local roads, blighted landscape and cancelled or relocated festivals and events, such as the Great Missenden Food Festival. The HS2 roadworks and resulting traffic delays are also having an impact on businesses and visitor attractions, such as the Green Dragon Eco Farm, reducing visitor footfall. Tourism is an important sector in the Chilterns. A [report](#) commissioned in 2015 found that just over 2.3m tourists visited the HS2 corridor of the Chilterns in 2013, with **income from tourism potentially at risk from HS2 amounting to almost £80m per annum.**

6. Permanent loss of irreplaceable ancient woodland

Ancient woodland comprising complex communities of trees, plants, fungi, microorganisms and insects that have evolved over hundreds of years will be permanently lost. Losses include over half of [Jones's Hill Wood](#), famous for being the inspiration for Roald Dahl's Fantastic Mr Fox.

The CCB expressed particular concern over the impact of HS2 Ltd's activities on Barbastelle bats, a very rare protected species, and the local communities living close to the wood. More detail can be found in our [correspondence](#) with HS2 Ltd's Chief Executive and a [news item](#) (March 2021).

HS2 Ltd claims that damage to ancient woodland is negated by their attempts to 'translocate' remnants of removed woodland, despite the long-term effectiveness of such translocation being [unproven](#).

7. Loss of key elements of the Chilterns' cultural heritage

Key elements such as ancient sunken lanes ('holloways') and one of the remaining sections of the Grim's Ditch, a linear earthwork and scheduled monument dating back at least 3,000 years to the Iron Age will be lost.

The archaeological resource of the Chilterns Hills is finite and fragile. Whilst there have been some significant discoveries which have come to light during the evaluation and excavation work conducted by HS2 Ltd contractors, the scale of the works and the very nature of project-driven methodology means that inevitably archaeological evidence and data will be irretrievably lost.

A [video](#) shows how HS2 Ltd have destroyed the section of Grim's Ditch, including ancient woodland, close to Jones Hill Wood.

HS2 Ltd's contractors have also felled several mature oak trees above a holloway at Leather Lane, near Great Missenden. After the CCB and Buckinghamshire Council [intervened](#), the contractors, EKFB, recognised that the designs were engineering-led, not landscape-led as they should be in an AONB. After a [review](#), plans were modified to avoid felling so many trees, discussions regarding the final design of the diverted Lane are on-going.

8. Loss of historic hedgerows and field patterns, leading to fragmentation of habitats and wildlife corridors

This loss is directly contrary to the [Lawton](#) principles of 'bigger, better and more joined up' habitats.

For example, in early 2020 we raised strong objections to the removal of 1km of ancient hedgerow beside Bottom House Farm Lane, Chalfont St. Giles, which we felt could have been avoided with some simple alterations to the plans. In the event, the hedge was removed in prime bird nesting season which contradicts HS2 Ltd's stated aspiration to work to the highest environmental standards.

9. Failing to meet aspirations on protecting wildlife
Our Correspondence with HS2 between October and December 2020 expressed our concerns over damage to roosting habitats for rare Barbastelle Bats in Jones' Hill Wood.
10. Direct loss of protected wildlife species
For example, HS2 Ltd has acknowledged that all barn owls living and hunting within a 6km wide corridor of the HS2 route will be killed.

Inadequate communications and engagement

A lack of respect for local community, poor engagement and lack of transparency, with engagement having deteriorated markedly since the notice to proceed was given in February 2020, has made effective dialogue much more difficult. Local communities feel a distinct lack of recognition by HS2 Ltd of their knowledge and understanding of their local area. The community is also concerned that inadequate attention is being paid by HS2 Ltd to honouring commitments made during the HS2 Bill passage.

Examples include:

- *Buckinghamshire Council being given insufficient information on which to assess the impact of HS2 traffic on the A355/A413. This resulted in non-determination of the lorry route application and a subsequent appeal.*
- *Progression of a roundabout access to the Little Missenden Vent Shaft without local engagement, resulting in redesign of access to traffic signals.*
- *Piecemeal submission of applications making overall impacts on areas difficult to assess.*
- *The introduction of concrete batching plants being 'sprung' on communities with little or no warning or consultation.*
- *High-handed management and communication around implementation of the relocation of Wendover Cricket Club. Quibbling over small sums of money whilst employing expensive consultants to analyse issues of equivalence and betterment irrespective of the net cost to the taxpayer.*

Environmental harm and disruption are inevitable effects of development at any scale. How that disruption is handled by development promoters and their contractors is critical not only to the perception and legacy of the project in question, but also has an impact on how communities will respond to any future development proposals. That HS2 Ltd and its contractors, and occasionally Government spokespeople, have come across as aggressive or defensive in their communications, and cavalier with their actions – especially in a protected landscape – will have fortified individuals and communities to more vigorously oppose other developments, however beneficial, in the future. The mistreatment of communities and the environment, as HS2 has demonstrably done, could be revisited on the Government in future.

Conclusions

We believe the Government should not continue with HS2 because the world we now live in is very different to when the project was first announced in 2010.

For example, evidence on the extent of the pressures on our natural world is increasing, along with understanding the value of the natural resources which underpin our life and society. This was set out in stark terms by the [Dasgupta Review](#), commissioned by the Treasury and published in February 2021.

The Covid pandemic has also highlighted how our landscapes provide significant benefits to people's physical and mental health and wellbeing and will be key to supporting the nation's recovery. For example, [research](#) by Natural England and others has shown us how important spending time in nature is for our wellbeing.

Covid has also changed people's work and travelling patterns. With more people opting to work remotely for the indefinite future, the already weak [business case](#) is now even weaker, with the Government admitting that *"Rapid developments and the uncertain outcome of the COVID-19 outbreak mean it has not been possible within the FBC to undertake specific analysis to determine the outbreak's potential longer-term impacts to transport passenger demand."*

The Government has also stepped up its commitment to the natural environment and protected landscapes. In January 2018, the Government published its ambitious 25 Year Environment Plan, committing to leave the natural environment in a better state for future generations.

In June 2020, the Government committed to achieve net zero carbon emissions by the year 2050 and in November the same year it set out its [10 Point Plan](#) for a Green Industrial Revolution, stating, *"The natural environment is one of the most important and effective solutions we have for capturing and sequestering carbon long-term. We will safeguard our cherished landscapes, restore habitats for wildlife in order to combat biodiversity loss and adapt to climate change, all whilst creating green jobs."*

And in June this year, the government set out, in a [Written Ministerial Statement](#), plans to drive nature recovery and improve people's access to nature in protected landscapes.

We therefore believe that HS2 runs contrary to the Government's stated commitments to reverse nature's decline, to improve people's access to green spaces and to enhance their health and wellbeing. HS2 will lead to significant costs to the environment, local communities and the public purse.

Notwithstanding our points above, if the Government insists on proceeding with HS2, we want to see far greater respect being shown to the environment and local communities in the Chilterns AONB.

This must include improved community engagement, genuine consultation and greater levels of honesty and transparency. We also want HS2 Ltd and its contractors to work to the highest environmental standards, especially taking account of the fact that the Chilterns AONB is a special landscape, given protected status by the Government, and cherished by the hundreds of thousands of people that work here, live here and visit us each year.

We would be pleased to discuss the content of this briefing in more detail.

For more information or to organise a meeting, please contact Neil Jackson, Conservation and Landscape Officer: njackson@chilternsaonb.org