

Failures to protect vital ecology and biodiversity at Leather Lane and other sites along HS2 line



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from the Campaign to Save Leather Lane

1. Background

The Holloway of Leather Lane has formed over centuries of use and forms an irreplaceable part of the Chilterns landscape. The sunken lane, lined with Oaks to the South has created an important foraging route for bats that soar down the lane, using the trees and hedgerows as a source for food and vital connectivity and habitat. A bat survey carried out on 9th May 2021 registered 6 species of bat¹ including the endangered Barbastelle bat. We followed this up with a series of readings using an Anabat reader throughout June 2021, and the continuous presence of at least 7 species of bats including barbastelle bats continuously using this corridor has been confirmed by Ecologist Sam Watson.²

It is very clear from walking Leather Lane that there is far more Ecology on the Southern side and therefore foreseeable harm to biodiversity. The use of the term “vegetation” by HS2 and EKFB in fact refers to an entire Ecosystem including ancient oaks, hedgerows and other bushes and abundant Flora, including ancient woodland indicator species such as Dogs Mercury providing habitats and food for numerous species including the bats and tawny owls that nest here.

The Bat Conservation Trust cites habitat loss and severing of routes as one of the main causes of decline in bat populations.³ Their main recommendations are that an independent third party with the appropriate expertise in this area should be recruited to carry out monitoring of the bat population and provisions to protect, manage and monitor mitigation and compensation measures in the long-term should be outlined clearly and well-designed prior to the commencement of work.

In March this year, over 40,000 members of the public signed a petition to stop the felling and save the trees, and Richard Buxtons’ solicitors intervened with the threat of court action to protect the bats believed to be roosting there. This is not only a local issue, it is one of national importance. As we lose biodiversity in one area, it will impact on others: decline in local populations of endangered bats such as the barbastelle will affect their favourable conservation status and HS2’s commitment to Net Loss is undermined wherever ecosystems are destroyed without proper mitigation.

This vital corridor should be protected in order to conserve key connectivity and the conservation status of all species depending on Leather Lane for foraging and connectivity to habitats. Indeed a European report from 2011 that was submitted to HS2 at consultation stage states *“One of the most important issues is fragmentation of landscapes by human activities and infrastructure — a major cause of the alarming decrease in many European wildlife populations...Fragmentation analysis must be integrated into transport and regional planning so that cumulative effects are considered more effectively in the future.”*⁴

Independent ecologist Sam Watson has attended Leather Lane on several occasions and analysed

¹ [Leather Lane Bat Survey 9 May 2021 Metatable](#)

² [Watson, S. \(2021\). Anabat Express Detector Report - Leather Lane](#)

³ <https://www.bats.org.uk/about-bats/threats-to-bats>

⁴ [European Environment Agency. \(2011\). Landscape Fragmentation in Europe. Joint EEA-FOEN report. No 2/2011 pp 6](#)

data from an Anabat detector that was placed there in June.⁵ He notes:

*“To date, the data collected from Leather Lane has confirmed the presence of at least seven species of bat: common and soprano pipistrelle *Pipistrellus pipistrellus* and *P. pygmaeus*, noctule *Nyctalus noctula*, serotine *Eptesicus serotinus* and barbastelle *Barbastella barbastellus* and at least one species from each of the *Plecotus* and *Myotis* genera. **Of these, soprano pipistrelle, noctule and barbastelle are identified as Species of Principal Importance further to the Government’s duties under Section 41 of the Natural Environment and Rural Communities Act 2006. Barbastelle is also considered very rare in Britain.**”*

“Of significance in the data is the regularity with which bats are recorded by the detector, with typically only a few minutes between each registration.... Furthermore, this high level of activity is maintained throughout the night, indicating that bats utilise the lane more-or-less continually.

*A likely reason for this is the context of the lane when seen at a landscape scale. Leather Lane is broadly aligned west-east perpendicular to the A413, making it one of only three single carriageway roads across a stretch of land over 7km long between Frith Hill at Great Missenden to the south and Hale Road at Wendover to the north. Particular to Leather Lane though is the fact that it is also below the level of the adjacent land for much of its length; a ‘holloway’, and there is a continuous hedgerow along the southern side for the entire length of the lane. **These two characteristics create a sheltered corridor and optimal conditions for bat activity and it is not unreasonable to suggest that the lane is unique when compared to the other lanes. Landscape scale features that provide high quality commuting routes are a key factor in the maintenance of local bat populations, providing sheltered corridors between roosts and feeding areas.***

This is particularly important for the barbastelle bat which is known to forage as much as 20km from roost sites. Removal or significant alteration to the lane and its particular characteristic therefore poses a significant risk of, at best, disrupting or hindering bat movement, or, at worst, removing an important bat corridor entirely.”

*In his letter to the **Leather Lane campaign this Tuesday, 13th July**, renowned Bat Expert John Altringham stated:*

*“Having looked at the bat report and the maps of nearby ancient woodland, it is self-evident that as few trees as possible should be removed, to retain foraging habitat, roost potential and connectivity across this fragmented landscape. All species are under considerable pressure and their small populations reflect the already degraded nature of the landscape. **Further stress on species through habitat degradation, loss and fragmentation will inevitably lead to further decline and possibly local extinction.** The Annex II barbastelle already has a thin and patchy distribution in the UK, so local loss of this species is of national importance, in part because it leads to ever more isolated local populations which become increasingly vulnerable to the effects of climate change and other pressures.”*

The barbastelle (*Barbastella Barbastellus*) is a UK Biodiversity Action Plan species (see details of the NERC Act 2006⁶), which means that it is a conservation priority on both a local and national scale. It is included in Annex II (and IV) of EU Habitats and Species Directive, and requires special measures for

⁵ [Watson, S. \(2021\). Anabat Express Detector Report - Leather Lane](#)

⁶ S. 40 NERC Act 2006

conservation including designation of Special Areas for Conservation. It is listed as Near Threatened on the global IUCN Red List of Threatened Species, and it is highly recommended old trees are maintained in sufficient numbers to preserve these rapidly dwindling species.⁷

As local woodlands, trees and hedgerows are felled, we believe that the biodiversity of Leather Lane is more crucial than ever and provides natural mitigation for the loss of biodiversity nearby. The “mitigation” for Jones’ Hill Wood at Bowood is poorly executed compensation and a travesty for anyone who cares about nature or re-wilding. If you compare the photo of Leather Lane with Bowood you can see the difference – rich ecology and biodiversity and a natural, well established feeding route versus mitigation for loss in the area - a barren wasteland.

Our own investigations, along with several independent reports^{8 9} show that HS2 have failed in their Environmental obligations, in particular:

1. They have not carried out adequate Environmental Impact Assessments and baseline surveys;
2. The Precautionary Principle, as required by international law, was adopted in the Environmental Statement but has not been applied;
3. They have failed in their commitment to biodiversity and net loss;
4. They have not applied the Mitigation Hierarchy;
5. They have breached their on EMRs;
6. Key aspects of Design Principles have not been incorporated into the project design.
7. HS2 has not engaged with the community and has not carried out the Consultation process in a transparent and meaningful manner.

HS2 did not put adequate measures in place following the Environmental Statement in 2013, the House of Commons Select Committee in 2015 and the House of Lords Select Committee in 2016. In fact, groups and members of the public involved in the consultation process were told that the ES set out the “Worst case scenario” – in fact the reality is much worse and the real threat to biodiversity and the species depending on sites such as Leather Lane for survival have not been considered, let alone mitigated for.

The “consultation” process produced 2 reports on what was expected and ancillary legislation that was specific to certain areas. It was expected that HS2 would carry out surveys and meet at least the “Environmental Minimal Requirements”. This never happened. We understand that HS2 only carried out bat surveys on 42% of the route which has led to mass failings and criminal offences under Wildlife protection laws. Had HS2 taken its environmental commitments seriously, they would have acted on findings of Barbastelle Bats in nearby Little Missenden and Ellesborough in 2016.

In the case of Leather Lane, HS2 has failed to carry out appropriate assessments as required under the Environmental Impact Assessment regulations. As a result, key issues, such as the bat corridor, were not properly identified.

Even though HS2 have adopted the Precautionary Principle, as required by law and the Design Principles they have committed to, they have failed to implement this and have pressed on with

⁷ Piraccini, R. 2016. Barbastella barbastellus. The IUCN Red List of Threatened Species 2016: e.T2553A22029285. <http://dx.doi.org/10.2305/IUCN.UK.2016-2.RLTS.T2553A22029285.en>

⁸ Microsoft Word - HS2 Review of EclA-3.docx (hs2 action alliance.org)

⁹ [ecology-technical-group-assessment-and-review-of-the-hs2-ltd-approach-to-the-natural-environment-including-recommendations-for-phase-2.pdf](#)

falling without full surveys and adequate mitigation. They have also failed in their commitment to 'no net loss' by failing to identify, protect and mitigate for the biodiversity on Leather Lane - this not only includes the irreplaceable oak trees, but the rich ecology on the Southern Side and the essential bat corridor this creates for foraging and commuting bats. They have a duty of care and, as with all development projects, should apply the Mitigation Hierarchy to AVOID harm to biodiversity, which would be achieved by aligning the over-road either parallel to the existing Lane or building an over-bridge to the North of Leather Lane.

2. Fragmentation of Habitats and Landscapes

Several reports on the risk of fragmentation to the landscape and habitats were put forward to HS2 and Parliament at the consultation stage. One included the European Environment Agency report into Landscape Fragmentation, which states:¹⁰

Landscape fragmentation increases the risk of populations becoming extinct, as isolated populations are more vulnerable to natural stress factors such as natural disturbances (e.g. weather conditions, fires, diseases), i.e. lower resilience. Landscape fragmentation is a major cause of the rapid decline of many wildlife populations. As landscape fragmentation contributes to the destruction of established ecological connections between adjoining areas of the landscape (Haber, between adjoining areas of the landscape (Haber, 1993; Jaeger et al., 2005a), it also affects entire communities and ecosystems. The possibility for two animals of the same species to find each other in the landscape is a prerequisite for the persistence of animal populations (e.g. because of the need for genetic exchange between populations and for the recolonisation of empty habitats includes only effects that are known. There may be various additional effects about which our knowledge is still very limited, such as cumulative effects (combination with other human impacts), response times of wildlife populations and effects on ecological communities (e.g. cascading effects).

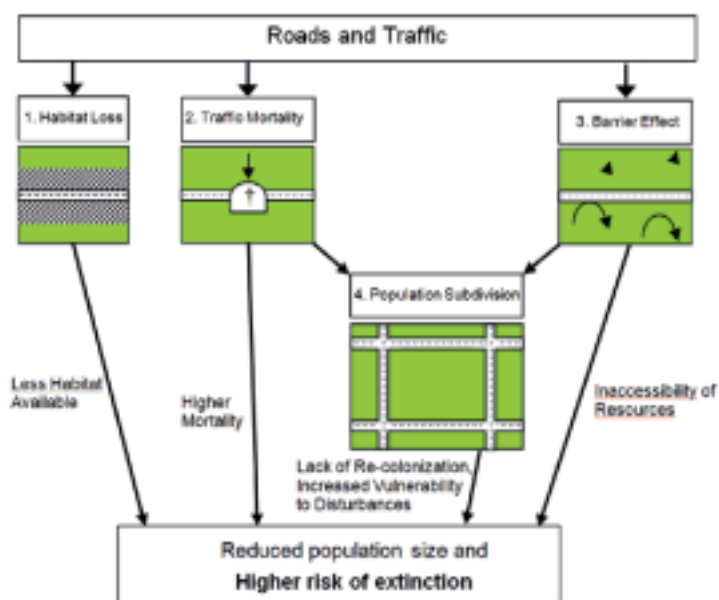


Figure 1.3 The four main effects of transportation infrastructure on wildlife populations (e.g. because of the need for genetic exchange between populations and for the recolonisation of empty habitats includes only effects that are known. There may be various additional effects about which our knowledge is still very limited, such as cumulative effects (combination with other human impacts),

¹⁰ European Environment Agency. (2011). Landscape Fragmentation in Europe. *Joint EEA-FOEN report*. No 2/2011

response times of wildlife populations and effects on ecological communities (e.g. cascading effects).

“Therefore, the precautionary principle should be employed.”

Page 53: 4.2 Implications for nature conservation, traffic and urban planning

Application as a tool for performance review

Measures for controlling landscape fragmentation can only be implemented effectively if there is an awareness of the problem and feasible solutions are proposed. Decision-makers and the general public should therefore be made more aware of the problems of landscape fragmentation and habitat loss and need to be informed about suitable measures.

Relevance to biodiversity

The long response times of many species to changes in landscape structure present a particular challenge. The current population densities may not be the response to the current landscape pattern but to earlier landscape patterns decades ago, and wildlife populations may continue to decline for many years even if the degree of landscape fragmentation does not increase in the future. Given that the negative effects of habitat fragmentation and isolation often only become apparent after several decades, it is likely that further population losses will be incurred in the coming decades as a result of the landscape changes

“This makes it all the more essential that a precautionary approach is adopted that guides landscape fragmentation in the desired direction in the coming decades, while future research projects should fill the remaining gaps in knowledge.”

The exact thresholds for a population or a species are largely unknown, and it is unlikely that they will be known any time soon. Therefore, any hopes for a general hard number for the maximum acceptable level of fragmentation will be disappointed. **Rather, the precautionary principle should be applied in the assessment of landscape fragmentation, and the implementation of limits requires a consultation process.**

As stated previously, this has not been the case for Leather Lane or other corridors in the Chilterns, inadequate surveys were carried out and no precautionary principle has been applied, resulting in actions that are fragmenting vital habitats and connectivity across the landscape with inadequate mitigation. This will have a huge impact on biodiversity and populations of species both locally and nationally.

This situation flies in the face of the principles of sustainability and is contrary to the precautionary principle.

HS2 need to:

(1) Apply the Mitigation Hierarchy in order to AVOID impacts where possible - only once this process has been complete should they consider mitigation and then compensation;

(2) For the above reason, HS2/EKFB must fully consider the option we are presenting (now known as Option 7) as it will direct the over bridge to the North of Leather Lane and preserve the remaining 87 veteran oak trees and bat corridor;

(2) to restore connectivity across existing transportation infrastructure with most effective design

based on evidence¹¹.

The European report puts forward several mitigation measures under 4.3.1 Measures in traffic planning and regional planning, including tunnels and wildlife passages. We are sure that HS2 and EKFB are aware of this report, along with several other reports that were submitted to them at the Parliamentary Consultation stage.

3. Commitment to Biodiversity/No Net Loss

HS2 are bound to apply the Mitigation Hierarchy - an established practice in the construction industry and reinforced in HS2's own Ecology document which provides the basis for HS2's approach to assessing, mitigating and compensating any ecological impacts caused by the scheme.

3.1.1 states:

“ The design of the Proposed Scheme will reflect the ‘mitigation hierarchy’ consistent with the current National Planning Policy Framework¹ and guidance on Environmental Impact Assessment as may be applicable to the Proposed Scheme.”

The Hierarchy requires any construction project to AVOID harm to biodiversity as a first step. The design option presented by HS2/EKFB does not even address this - had they done so, we would expect to see an over bridge design that avoids the lane of trees altogether by either running alongside Leather Lane, straight down to the A413, or an overbridge on the Northern Side which is an arable field.

HS2 keep making claims about their planting of saplings - not only are the figures not reality on the ground - tree planting is NOT Mitigation, which is Tier 2 of the Hierarchy. Instead, they are leapfrogging to Tier 3 - bypassing point 1 and 2 and only dealing with Compensation.

1. **Avoidance:** the first step of the mitigation hierarchy comprises measures taken to avoid creating impacts from the outset. Avoidance is often the easiest, cheapest and most effective way of reducing potential negative impacts, but it requires biodiversity to be considered in the early stages of a project.
2. **Minimisation:** these are measures taken to reduce the duration, intensity and/or extent of impacts that cannot be completely avoided.
3. **Rehabilitation/restoration:** The aim of this step is to improve degraded or removed ecosystems following exposure to impacts that cannot be completely avoided or minimised.

Typically, however, even after their effective application, additional steps will be required to achieve no overall negative impact or a net gain for biodiversity.

4. **Offset:** offsetting aims to compensate for any residual, adverse impacts after full

¹¹ [Conservation Evidence: Evidence Data](#)

implementation of the previous three steps of the mitigation hierarchy. Biodiversity offsets are of two main types: 'restoration offsets' which aim to rehabilitate or restore degraded habitat, and 'averted loss offsets' which aim to reduce or stop biodiversity loss in areas where this is predicted. Offsets are often complex and expensive, so attention to earlier steps in the mitigation hierarchy is usually preferable.¹²

It goes without saying that if damage can be AVOIDED in the first place, the following steps do not even need to be considered - this is a win-win situation that preserves biodiversity and saves costs.

Section 40(1) of NERC states:

'Every public authority must, in exercising its functions, have regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity'. This is known as the Biodiversity Duty and 'is a factor that they must consider [along with other factors which are not necessarily of an ecological nature] when deciding whether to, and how to, exercise their functions'.

In terms of species, biodiversity is considered by the act to be principally those listed in s.74 of the CROW Act (i.e. UK Biodiversity Action Plan (BAP) Priority species; the Secretary of State has a duty under s.41 of NERC to review and revise this list), which includes the four Annex II species discussed earlier and also the common pipistrelle bat which includes two species *Pipistrellus pipistrellus* and *Pipistrellus pygmaeus*.

In accordance with PPS9, developers must be able to demonstrate that they have considered alternative options to prevent 'significant harm' to 'biodiversity interests'. In terms of PPS9 'biodiversity interests' refers not only to UK Biodiversity Action Plan Species, such as the bat species as listed in s.74 of the CROW Act, but also to local Biodiversity Action Plan species and all other species protected under the WCA and the Habitats Regulations.

As public authorities, this provision also applies to HS2 and the Department for Transport as well as Buckinghamshire Council.

The public authorities to whom this duty applies are listed in s.40(4) of the NERC and notably includes local planning authorities (previously under CROW this duty only applied to Ministers of the Crown, Government departments and the Welsh Assembly Government), as well as public bodies, such as HS2. (See: Recital (D) of the Development Agreement.)

If local planning authorities must exercise the Biodiversity Duty when assessing planning applications, then by implication so must developers if their proposals are to be viewed favourably. If a development would result in significant harm to important foraging/commuting habitat of a s.74 bat species, then the local planning authority must take this into consideration ('have regard') when assessing the planning application. The Guidance for Local Authorities on Implementing the Biodiversity Duty (Defra, undateda) supports this view stating that local planning authorities 'should give proper consideration to biodiversity outside of designated areas', which includes 'habitats of principal importance'.

Had they carried out an EIA, HS2 would have adequate survey data to show that Leather Lane is a

¹² [Mitigation hierarchy - The Biodiversity Consultancy](#)

bat corridor and they would have put measures in place at the outset to avoid destroying the corridor.

HS2 has adopted the **Precautionary Principle** in its ES but this has not been applied. If it had been, sustainability would have been inherent to all further decisions and a commitment to the protection of Ecology and Biodiversity would have been at the core of all planning and decision making.

The EU communication on the Precautionary Principle (EU, 2000) states

'The precautionary principle applies where scientific evidence is insufficient, inconclusive or uncertain and preliminary scientific evaluation indicates that there are reasonable grounds for concern that the potentially dangerous effects on the environment, human, animal or plant health may be inconsistent with the high level of protection chosen by the EU.'

Any reasonable person would see that there was a huge risk to Ecology on the Southern Side and, as such, HS2 should have taken measures to avoid dangerous effects. Surely a reasonable person, or let's say, an Ecologist would see the potential for harm to the Environment, Animal, Human and plant healthy by felling a row of 99 mature oak trees in an AONB that is known to be, and identified by HS2, as being a habitat to numerous species, including bats? The local residents can see this so we presume an HS2 Ecologist would.

The absence of Baseline Surveys and subsequent prevention and mitigation measures means that HS2 are unable to achieve zero net loss for Leather Lane and therefore for the entire project.

Section 85 of the Countryside and Rights of Way Act 2000, and Section 40(1) of NERC states that 'every public authority must, in exercising its functions, have regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity'.

If HS2/EKFB design an over-lane rather than a road, they would not only be creating a solution for the bat corridor but also incorporating the Design Principles prepared by the AONB group that requires HS2 to maintain the integrity of the Holloway.

The survey data provided is patchy and lacks information regarding location, but we did find grid references for three records of Barbastelle bats commuting in Little Missenden and Ellesborough area in 2016 and 2017 respectively. This should have prompted a more thorough survey - Barbastelles are European Protected Species under the Habitats Directive and their commuting corridors and resting places must be protected. I have seen references to Pipistrelles and other species but not Barbastelles in HS2's Ecology documents.

5. Surveys

We believe that HS2 are in breach of the EIA Directive ("the Directive") and have not carried out adequate baseline surveys. There have been references to Leather Lane as a corridor that connects bats to habitats in various documents, but there is no in-depth data to provide more information and mitigation for this. Had HS2 carried out an EIA as required by law, they would have identified Leather Lane as a crucial bat corridor and put more effective mitigation measures in place, which would

include routing the over road elsewhere to avoid destruction of this vital corridor for Ecology and bats.

Article 2(1) of the Directive requires all measures necessary are taken to ensure that, prior to consent, projects likely to have significant effects on the environment by virtue, inter alia, of their nature, size or location are made subject to a requirement for development consent and an assessment with regard to their effects.

The Directive requires that projects likely to have significant environmental effects are assessed before development consent is given. As a result, the competent authority is obliged to carry out an environmental impact assessment in respect of a project even after the grant of outline planning permission, when the reserved matters are subsequently to be approved, if it becomes apparent, in the course of the second stage, that the project is likely to have significant effects on the environment by virtue *inter alia* of its nature, size or location. This assessment must be of a comprehensive nature, so as to relate to all the aspects of the project which have not yet been assessed or which require a fresh assessment.

We assert that this is the case for Leather and insist that HS2/EKFB carry out a full EIA on the bat corridor and adopt appropriate mitigation methods including a narrower, one way bridge and bat corridor to guide the bats over the track.

HS2 has failed to put adequate mitigation measures in place following the Environmental Statement in 2013, the House of Commons Select Committee in 2015 and the House of Lords Select Committee in 2016.

The process produced 2 reports on what was expected and ancillary legislation that was specific to certain areas. It was expected that HS2 would carry out surveys and meet at least the "Environmental Minimal Requirements". This never happened. We understand that HS2 only carried out bat surveys on 42% of the route which has led to mass failings and criminal offences under wildlife protection laws.

We believe that, had HS2 carried out adequate EIA's for Leather Lane, they would have recognised that it is an essential ecological corridor and could therefore have put appropriate measures in place to prevent and mitigate loss.

HS2's Environmental Statement ("ES") recognises the importance of Leather Lane for key connectivity at Para 7.3.20, yet it has done nothing to mitigate for this loss. It refers to "Occasional passes" of species and has not included barbastelle bats and has not looked in to which type of *Myotis* bats are using Leather Lane, such as the endangered Beichstein bat.-

Our ongoing surveys show constantly high levels of bat activities including the endangered barbastelle bat. Lack of adequate surveys has resulted in a breach of HS2's duty of care to protect the bat corridor and conservation status of the barbastelle bat:

*"Bat assemblage using mature hedges, trees and tree-lined lanes for foraging and commuting at Rocky lane, Bowood lane, Kings lane and Leather Lane; Baseline and rationale for valuation: Driven and walked activity transects in the southern and central part of this area recorded five species; common pipistrelle and soprano pipistrelle (in low to moderate numbers) with **occasional passes of Myotis species, noctules and serotine bats.** The activity indicates that this habitat is likely to be used*

*for foraging and commuting between roosts and other foraging sites. In addition to the species listed above, the desk study indicates the presence of four brown long-eared roosts and a common pipistrelle roost within 1km of the land required for the proposed scheme. **The hedgerows are the only connectivity between the large areas of woodland to the east and west of the land required. Noctule bats and soprano pipistrelle bats are species of principal importance.***¹³

Key organisations and stakeholders who were involved at the consultation stage were told that the information put forward in the ES was the worst case scenario. The fact is, that the actual situation for Leather Lane and many other areas is far more complex than what was put forward and decisions have been based on inadequate information. The ES acknowledges the presence of 5 species of bat - in fact **there are at least 7 species including the Barbastelle Bat**¹⁴, a European Protected Species that has been frequently recorded.

If its importance as a supportive habitat was recognised back in 2013, the following questions need to be asked:

1. Why were no further surveys undertaken, despite the duty imposed on HS2 Ltd to accurately assess the Environmental Impact on bats and other Ecology?
2. Why was no mitigation put in place? Mitigation measures have been set out in the LEMP but nothing specifically for Leather Lane - this should have been set out from the outset and certainly before the consultation process began.
3. Why were alternative options to the over road not considered? We know that local interest groups petitioned the Government to pursue alternatives, in particular the Tunnel. The tunnel option would prevent habitat fragmentation as “if a road or railway goes through a tunnel that is longer than 1 km, the landscape in this area is considered as connected.”¹⁵ Lord Berkeley has stated that HS2 and EKFB misled Parliament in this regard.¹⁶
4. We conclude that had HS2 and its subcontractors carried out adequate EIA as required by law, more protection and mitigation would have been put in place for Leather Lane and we would not be in a position where we are still petitioning HS2 and its subcontractors to adhere to its binding commitments.

In her independent review of the HS2’s process for Phase 1, Jo Treweek concluded¹⁷:

“The ES fails to provide adequate ecological information for reliable assessment of impacts, does not place sufficient emphasis on avoidance of impacts at source and does not provide sufficient detail about measures to reduce or compensate for residual impacts”

“The level of assessment given for species of conservation importance is more akin to a scoping study

¹³

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/397883/Volume2_CFA10_Dunsmore_Wendover_and_Halton.pdf pp 106

¹⁴ Watson, S. (2021). Anabat Express Detector Report - Leather Lane

¹⁵ European Environment Agency. (2011). Landscape Fragmentation in Europe. *Joint EEA-FOEN report*. No 2/2011 pp 27-28

¹⁶ Lord Berkeley letter 22 3 21 to Andrew Stephenson and Bns Vere ref. Wendover tunnel

¹⁷ Microsoft Word - HS2 Review of EclA-3.docx (hs2actionalliance.org)

than full impact assessment. The concluding statement that “there are no likely significant residual ecological effects during operation” seems unlikely”

The Environmental Statement and CFA refer to Leather Lane and acknowledge its importance as a bat corridor for commuting between habitats and foraging.

Environmental Statement - Community Forum Area 9¹⁸

2.2.16

*The Proposed Scheme will continue north-west in the South Heath cutting past Leather Lane overbridge where it will leave this area. Key features of this section will include Leather Lane overbridge, which will be approximately 4m above existing ground level, providing an offline replacement of Leather Lane (see Map CT-06-034a, Volume 2, CFA9 Map Book). **The approaches to the bridge will be planted to integrate the structure into the landscape and maintain and enhance existing habitat links across the route for bats and other wildlife.***

7.4.19 states

*“No significant effects are expected on the bat assemblage associated with mature hedges, trees and tree-lined lanes at the southern end of the area. The construction of the South Heath cutting, the Rocky Lane south cutting and the Small Dean viaduct southern approach embankment will remove mature hedges, trees and tree-lined lanes, particularly from Rocky Lane, Bowood Lane, King’s Lane and Leather Lane. These features are used by common and soprano pipistrelles, a Myotis species, noctules and serotines. The width of the land required for the construction of the Proposed Scheme (that ranges between 60m and 550m) is therefore likely to reduce CFA Report – Dunsmore, Wendover and Halton/No 10 | Ecology 114 the frequency with which this assemblage crosses the land required for the construction of the Proposed Scheme. **However, no known roosts will be removed and extensive foraging sites (predominantly woodland) will be retained on either side of the route, as such loss of habitat is unlikely to result in an adverse effect on the assemblages’ conservation status.**”*

The Assessment and Review of the HS2 Ltd approach to the Natural Environment¹⁹ concludes that HS2 did not carry out adequate connectivity mapping and habitat monitoring:

“HS2 Ltd only surveyed and acquired habitat and species data adjacent to the line of the route; therefore, it could not conduct connectivity mapping to evaluate nationally or regionally important ecological corridors. If HS2 had, it could have put the appropriate underpasses or green structures (bridges and cut-and-cover) for a range of species at their critical crossing points with the line.”

“Given that HS2 will constitute a complete barrier to movement of animals through the landscape it is essential that the need for crossings is researched thoroughly and that suitable designs are developed. The information presented in the EIS is not sufficient to support a reliable determination of the number and type of crossings needed nor to design them to suit different species’ requirements.”

¹⁸ [Volume2_CFA9_Central_Chilterns.pdf \(publishing.service.gov.uk\)](#)

¹⁹ [HS2 Ecology Technical Group | National Trust](#)

The LEMPs build upon but do not repeat, the HS2 general environmental requirements set out in the Control of Construction Practice (CoCP):

“Increasing the connectivity of the existing woodland and hedgerow features will enhance existing linear vegetative features used by bats for foraging routes and flight lines. This will enable bat flight routes to be manipulated, encouraging the bats to be directed away from the HS2 route whilst main works activities are taking place. These planting sites will be a key factor in ensuring that the green bridges to be constructed by the MWC will become part of the surrounding landscape and are integrated into the mosaic of existing woodlands and hedgerows of the area. It is expected that the green bridges will be positioned so the existing flight lines across the HS2 route are maintained.”

Renowned UK bat expert John Altringham has confirmed to us directly on 13th July 2021:²⁰

“I have been involved in discussions with HS2 in which they have acknowledged the need to protect foraging sites and flight corridors. At a parliamentary select committee meeting on HS2, at which I gave evidence, HS2 agreed to the provision of substantial green bridges to mitigate disrupted flight corridors for Bechstein's bats in the Bernwood Forest area.”

“I have been involved in discussions with HS2 in which they have acknowledged the need to protect foraging sites and flight corridors. At a parliamentary select committee meeting on HS2, at which I gave evidence, HS2 agreed to the provision of substantial green bridges to mitigate disrupted flight corridors for Bechstein's bats in the Bernwood Forest area.”

We believe that, had HS2 carried out adequate surveys for the Chilterns as they did in Bernwood Forest, then adequate mitigation would have been put in place, particularly as the bat corridor is used by the endangered Barbastelle bat.

The survey data provided by HS2 after persistent requests for information from Richard Buxtons' solicitors (where HS2 failed to meet deadlines) is haphazard, with all sorts of data on the same sheet from various UK locations that fails to provide the reader with any consistent or usable information. The two relevant points that we could track from its grid reference showed a commuting Barbastelle Bat in nearby Little Missenden and Ellesborough in 2016. It is well known that Barbastelle bats travel up to 20km and use corridors such as Leather Lane, so why do we not see reference to Barbastelle bats in HS2's endless Ecology documentation and why was no real effort made to survey this essential bat corridor and put effective design plans and mitigation in place?

The AVDC area LEMP for the Chilterns and provisions for bats is scarce compared to the section on Bernwood Forest – one can guess that this is because a survey was undertaken to monitor roosts and flight paths in the Bernwood forest. Such a survey was not undertaken in the Chilterns, which is why, we believe, we are dealing with such poor survey data and lack of mitigation measures.

If the bat corridor has not been covered in the screening process, that would not remove the need for an appropriate assessment if the application of the Habitats Directive required it. In the legal case of Buckinghamshire County Council and HS2, the courts accepted the submission about the need for, and absence at the moment of, credible evidence of a risk which should have been considered in

²⁰ [John Altringham HS2 Leather Lane](#)

relation to cumulative impact.²¹

The need for “appropriate assessment” arose by virtue both because of the significant impacts on the environment that were bound to occur because of the size, nature and location of the development, and by virtue of r.12(1) of the Habitats Directive because of the high risk of the disturbance to various legally protected bat species such that the development activity during construction and operation would be in breach of the Directive.

6. Habitats Directive

Under the r.39(1)(d) of the Habits Regulations (“Regulations”) it is an offence ‘to damage or destroy a breeding site or resting place of such an animal’, referring to Annex IV species. This is a transposition of Article 12(1)d of the Habitats Directive (“HD”), which states:

‘the deterioration or destruction of breeding sites or resting places’ of an Annex IV species is prohibited. As the HD does not provide a specific definition of a breeding site or resting place, the European Directive EDGEC (2007) states ‘there is room for different interpretations’, due to the wide range of species listed in Annex IV. The EDGEC goes on to advise that Article 12.1(d) should be understood as ‘aiming to safeguard the ecological functionality of breeding sites and resting places’.

On 26 April 2021, Natural England confirmed that ‘at the time of writing, Natural England have not granted any site registrations under the class licence to HS2 or contractors for works affecting bats at Leather Lane.’

Therefore, any felling now would ultimately result in a breach of r.12(1)(b) of the Habitats Directive (to prevent the disturbance of Annex II listed species), the maintenance, or restoration, at favourable conservation status in their natural range of the natural habitat types listed in Annex I to the Habitats Directive or the species listed in Annex II to that Directive; (r.12(3)(a)), as well as a breach of Art. 6(3) for the failure to carry out an ‘appropriate assessment’ of its implications for the site in view of the site’s conservation objectives if it cannot be excluded, on the basis of objective information, that it will have a significant effect on that site, either individually or in combination with other plans or projects, before felling begins.

On 13th July 2021, respected UK bat expert John Altringham confirmed to us:²²

“Having looked at the bat report and the maps of nearby ancient woodland, it is self-evident that as few trees as possible should be removed, to retain foraging habitat, roost potential and connectivity across this fragmented landscape. All species are under considerable pressure and their small populations reflect the already degraded nature of the landscape. Further stress on species through habitat degradation, loss and fragmentation will inevitably lead to further decline and possibly local extinction. The Annex II barbastelle already has a thin and patchy distribution in the UK, so local loss of this species is of national importance”

7. Chilterns AONB

²¹ *Buckinghamshire County Council & Ors, R (on the application of) v Secretary of State for Transport* [2013] EWHC 481 (Admin) (15 March 2013) (“BCC”), at [231].

²² [John Altringham HS2 Leather Lane](#)

Furthermore, HS2 has a duty of care to protect the AONB²³. A dedicated ecology group was set up for this purpose and put forward design principles. An Assurance was provided by HS2 during the passage of the High Speed Rail (London - West Midlands) Act 2017 through Parliament that the guidance would be used by HS2 and their contractors to inform their design throughout the Chilterns AONB.

Instead of taking the plans onboard, EKFB have recently told us they intend to use a standard 2 road on the overbridge, thereby not maintaining the Holloway and the proposals put forward in the

Design Principles.²⁴ Apart from not maintaining the landscape and its character, it will require more Earthworks and destruction of Ecology including the Oak trees.

At the time plans were put forward for the routes for the over bridge, stakeholders and members of the community were unaware of the importance of the bat corridor and the impact its fragmentation would have on their conservation status.

If EKFB proceed with the over bridge on the Southern side, they will destroy more trees and fragment the bat corridor further. If they incorporate the designs put forward and keep to a minimum 4.5 metre lane, we believe that the over road, or over land, can be redirected to the Northern side within the Act limits.

²³ Part IV of the Countryside and Rights of Way Act 2000 (**CRoW Act**) provides the main legislative framework for AONBs. The main relevant sections are: **Section 82** – specifies that the primary purpose of designation of an AONB is to conserve and enhance natural beauty.

²⁴ [6974-Chilterns AONB_HS2 CEIP_Part 1_Detailed Design Principles_low res.pdf](#)



With regards to planning permission in the AONB, the competent national authorities may grant authorisation to a plan or project only if they are convinced that it will not adversely affect the integrity of the site concerned. If doubt remains as to the absence of adverse effects, they must refuse authorisation.

8. Mitigation

It appears that HS2 have not conducted adequate surveys and have therefore not put mitigation in place or even considered appropriate mitigation techniques – the term “vegetation” is wholly inadequate for a series of Oaks and the Eco systems present along the entire Corridor.

HS2's Ecology Document States:²⁵

3.1.1 The design of the Proposed Scheme will reflect the ‘mitigation hierarchy’ consistent with the current National Planning Policy Framework¹ and guidance on Environmental Impact Assessment as may be applicable to the Proposed Scheme.

3.1.2 *Using the hierarchy, priority is given to avoiding or preventing effects where reasonably practicable; if not, to reducing or abating those effects; and then, if necessary, to offsetting them through repair (restoration or reinstatement) or compensation.*

²⁵ Microsoft Word - Ecology final (hs2.org.uk)

3.1.3 The approach to be used by HS2 Ltd for ecological mitigation and compensation is proposed to be set out in the Scope and Methodology Report (SMR)²⁶ addendum which will be contained in the ES and will explain the factors determining the cases in which these should be applied.

3.1.4 The ecological impact assessment will take account of current guidance published by the Chartered Institute of Ecology and Environmental Management (CIEEM). It considers all ecological receptors which have the potential to be affected by the construction and/or operation of the Proposed Scheme.

This begs the question, Why has this not happened, despite petitions from local interest groups and experts?

In his report, Sam Watson states:

“In accordance with the mitigation hierarchy of the NPPF the first option should be to avoid any impact to Leather Lane that could compromise its bat corridor function. Whilst it may not be possible or indeed in the best interest of bats to re-route the track to entirely avoid Leather Lane, the first consideration should be to avoid a direct impact. One option for this would be to put the track through a tunnel and thereby maintain the integrity of the lane intact. I am not aware that this has been given full consideration [and] therefore ruled out as an option.

*Where avoidance has been shown not to be possible, design changes should be made to maintain the characteristics of the lane, in particular its location below the level of the surrounding land, together with the mature trees and a hedgerow along the southern side. **Minimising the width of the track and area either side would ensure that at this location only the very narrowest cut was needed. A green bridge along the alignment of the existing road to ensure there is no break in the corridor should also be considered.** As stated in the NPPF, only once such options have been fully considered and ruled out, should the last report of compensating for the impact be considered.”*

The Campaign to save Leather Lane Oaks demands:

1. Stop felling until over bridge design is agreed and bats and other animals go into hibernation;
2. Apply the Mitigation Hierarchy as required by HS2’s own legal commitments and seriously consider the design to route the overbridge to the Northern side which would AVOID harm to the corridor on the Southern side;
3. Adopt the design principles submitted by the Chilterns AONB group and fulfil assurances to parliament by allowing a lane instead of a 2 way road;
4. Create a corridor over the track for the bats to prevent unnecessary deaths and protect their conservation status;

We have located numerous reports concerned with landscape fragmentation and its impact on habitats and survival of species, including bats.

²⁶ HS2 Phase One environmental statement: scope and methodology - GOV.UK (www.gov.uk)

Some of these reports were submitted to HS2 at Consultation stage and we initially saw a lot of PR and commitments to the precautionary principle and biodiversity through schemes such as the green bridge²⁷²⁸ but nothing has, in fact, come of it.

In its report NECR181 on Green Bridges²⁹(the Report”) , Natural England states:

“It is well documented that transport infrastructure can have a negative impact on the environment. Road and rail schemes can fragment habitats, create barriers to species movement and can sever and fragment areas of valued landscape affecting both visual enjoyment and our ability to access greenspace. However, research has shown that when managed appropriately existing road and rail corridors have the potential to be enhanced to provide connecting corridors through otherwise biodiversity poor landscapes such as intensively farmed landscapes and urban areas, providing important habitats for some species such as pollinators.”

It goes on to say:

“Literature review forms part of Natural England’s commitment to deliver the Natural Environment White Paper’s (NEWP) commitment 32 which states, “the Government will work with its transport agencies and key delivery partners to contribute to the creation of coherent and resilient ecological networks, supported, where appropriate, by organisation-specific Biodiversity Action Plans.”

We would expect to see this followed through in HS2’s environmental commitments and at planning stage:

“Transport infrastructure and its operations can have significant adverse effects on biodiversity and landscape, including fragmentation and wildlife-vehicle collisions (Bennett et al., 2011). The overall impact of infrastructure on natural environments is termed ‘fragmentation’; being the separation of ecosystems and/or habitats of plant and animal populations into smaller, more isolated units.”

The Report refers to mitigation and requirements at planning stage:

“Looking at existing road networks in a region, Clewanger and Ford (2010) discuss taking a landscape based approach, key habitat linkages or zones of important connectivity for wildlife should be identified, then potential crossing locations should be prioritised based on future planned projects, scheduling and ecological criteria. This approach helps to strategically plan mitigation schemes at a regional or ecosystem level. The paper identifies the key benefits of this approach to be an ability to prioritise objectives, incorporate landscape patterns and processes into planning and to address stakeholder concerns. By taking a regional level approach, project specific work will consider the larger ecological network”

The Report, which we are sure was presented to HS2 at consultation stage suggests the following surveys:

“in terms of planning specifics, the paper identifies that the following resources should be used to identify wildlife habitat linkages and movement corridors; aerial photographs, land cover vegetation

²⁷ [HS2 launches plans for unprecedented ‘green corridor’ stretching alongside the railway - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/news/hs2-launches-plans-for-unprecedented-green-corridor-stretching-alongside-the-railway)

²⁸ [Green’ bridges will guide bats across HS2](https://www.gov.uk/government/news/green-bridges-will-guide-bats-across-hs2)

²⁹ [Natural England. \(2015\). Green Bridges - A Literature Review. Natural England Commissioned Report NECR181](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/444444/natural-england-green-bridges-literature-review-report-2015.pdf)

maps, topographic maps, land ownership maps, wildlife habitat maps and wildlife movement data, field research, road kill data and road network data.”

We, as local residents and lay men, have taken the initiative to record bat activity on Leather Lane, and, as a result, have identified it as an active corridor. Why then, did HS2 not take such steps and put effective mitigation in place?

If you have not read or considered the Report previously, we recommend you do so now - it supports our claims and also makes suggestions on how bridges can be designed in order to consider and protect the species that are affected by fragmentation, including a paragraph specifically relating to bats.

The authors of a 2011 Joint EEA-FOEN report on landscape fragmentation³⁰ recommend putting into practice the following three measures with highest priority. This report was submitted to HS2 at the consultation stage. Commitments to green bridges were made at the beginning with widespread PR but nothing has been followed through and we were told by Kimberly Birtwhistle in our recent meeting that EKFB would not be putting any green corridors in. We understand that EKFB and HS2 will be cutting costs and wanting to save money but this is not acceptable and flies in the face of all HS2's commitments and legal obligations.

1. Application of fragmentation analysis as a tool in transportation planning and regional planning:

The cumulative effects of new transportation infrastructure on the degree of landscape fragmentation should be analysed quantitatively and in more detail in the planning process. The effective mesh density method should be included in the planning process as an instrument for this task, in combination with other relevant criteria (such as habitat amount and quality), e.g. to compare alternative transportation corridors for new roads and railway lines. This task is particularly important because these roads and railroads have strong disturbance effects. In addition, the uncertain effects of landscape fragmentation need to be considered more seriously and studied more systematically, e.g. through the use of the before-after-control- impact (BACI) study design (see above).

2. Immediate protection of large unfragmented areas, ecologically significant areas, and wildlife corridors:

The remaining large unfragmented areas, ecologically significant areas, and functional wildlife corridors should be protected immediately from further fragmentation by adding appropriate criteria and rules to the existing networks of protected areas, such as Natura 2000 and Emerald networks, national parks, and green infrastructure corridors. Critical areas should be identified where further fragmentation is an imminent threat and their rapid preservation is crucial before they would be lost to fragmentation by roads and railroad.

3. Monitoring of landscape fragmentation:

³⁰ [European Environment Agency. \(2011\). Landscape Fragmentation in Europe. Joint EEA-FOEN report. No 2/2011](#)

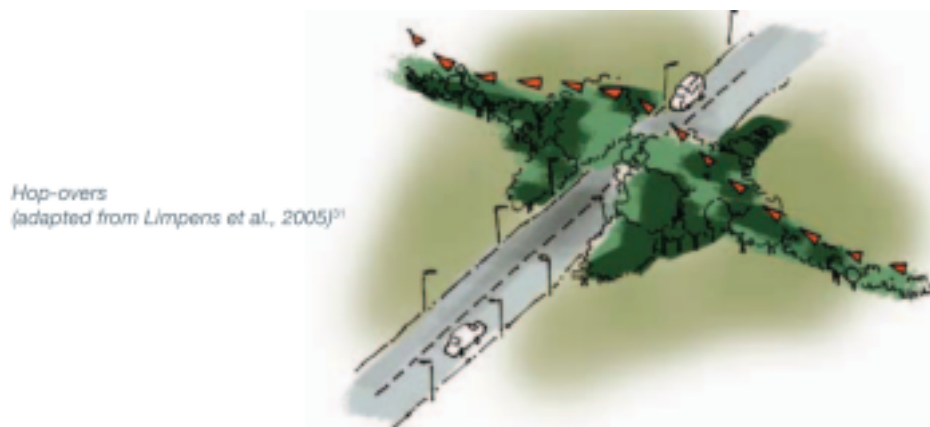
Landscape fragmentation is an essential indicator of threats to biodiversity, to the sustainability of human land-use, and to landscape quality. It should be implemented in monitoring systems of biodiversity, sustainable development, and landscape quality.

These requirements underpin our demands to HS2 and EKFB to mitigate for the loss of connectivity on Leather Lane and support our request to have a one way over bridge in addition to the bat corridor.

We defer to the respected Authority for Bats in Britain and hope that EKFB will do the same:

The BCT published guidelines in 2012: “Overpasses: hop-overs and bridges”³¹

Measures to create passing-over opportunities for bats include hop-overs (using crowns of trees) as well as green bridges and viaducts.

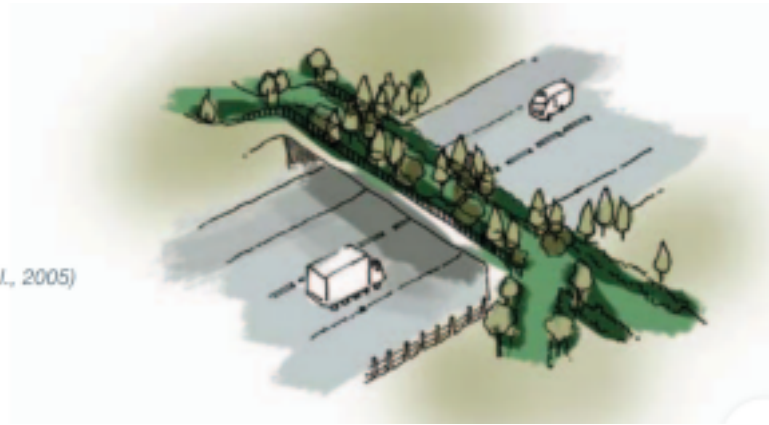


Partially or completely vegetated bridges, called green bridges or habitat bridges, can be built to assist animals with dispersal across roads. These can range from pedestrian bridges with one side adapted to provide a grass verge, to substantial bridges with mature trees and grassland. The provision of green bridges allows bat movement from a nearby roost to feeding areas and alternative roosts.

The most critical element to encourage use of a green bridge by bats is the absence of lighting both from the bridge itself and from the traffic below. Bridge walls must be solid to prevent light penetration. Green bridges with linear trees and shrub features tend to be used more frequently than those with scattered tree and shrub features.

³¹ Gunnell, K., Grant, G., Williams, C. 2012. Landscape and urban design for bats and biodiversity. Bat Conservation Trust. Pp. 27, 29.

Green bridge
(adapted from Limpens et al., 2005)



Wire or mesh structures, known as bat gantries or bat bridges, have been proposed as artificial road crossing structures for bats. However, evidence from research does not support bat gantries as effective mitigation for the impact of roads. The Bat Conservation Trust advises caution in the use and siting of bat gantries. Further robust and comparable pre- and post-construction monitoring of the use of bat gantries needs to be carried out to objectively assess their effectiveness as mitigation. Prior to specifying such structures, all other options should be examined and advice sought from the Highways Agency. We encourage more investigation of natural crossing points such as hop-overs, elevated verges and green bridges that could deliver a benefit for the bat species involved, and also for other wildlife impacted by such developments.”

Table 4. Summary of suitable features to facilitate the movement of bats (adapted from Limpens et al., 2005)

Bat species	Passing over					Passing under						
	High over landscape	Hop over at crown height	Hop over vegetation	Hop over vegetation + wall	Over or along viaduct/bridge	Culverts (h x w = 1 x 2m)	Bridge over water (h < 1m)	Tunnels (h x w = 4 x 4 m)	Bridge over water (h > 2m)	Tunnels (h x w = 6 x 6 m)	Under viaduct (h > 6m)	Bridge over water (h > 6m)
Lesser horseshoe bat				*	*	*	*	*	*	*	*	*
Natterer's bat				*	*	*	*	*	*	*	*	*
Bechstein's bat				*	*	*	*	*	*	*	*	*
Brown long-eared bat				*	*	*	*	*	*	*	*	*
Grey long-eared bat				*	*	*	*	*	*	*	*	*
Greater horseshoe bat				*	*	*	*	*	*	*	*	*
Whiskered bat			*	*	*	*	*	*	*	*	*	*
Brandt's bat			*	*	*	*	*	*	*	*	*	*
Barbastelle bat			*	*	*	*	*	*	*	*	*	*
Daubenton's bat			*	*	*	*	*	*	*	*	*	*
Soprano pipistrelle		*	*	*	*	*	*	*	*	*	*	*
Common pipistrelle		*	*	*	*	*	*	*	*	*	*	*
Nathusius' pipistrelle		*	*	*	*	*	*	*	*	*	*	*
Serotine bat	*	*	*	*	*	*	*	*	*	*	*	*
Noctule bat	*	*	*	*	*	*	*	*	*	*	*	*
Leisler's bat	*	*	*	*	*	*	*	*	*	*	*	*

From: Bats, roads and railways John Altringham and Anna Berthinussen School of Biology, University of Leeds³²

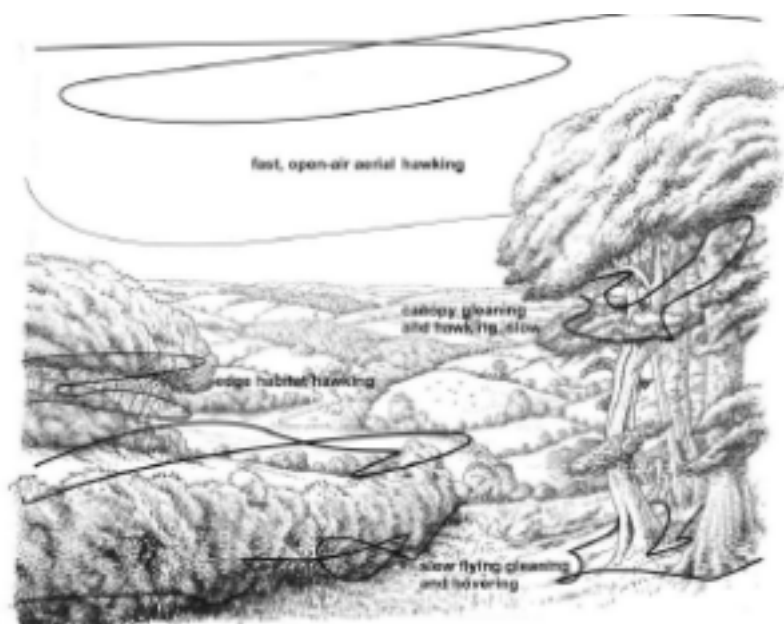
“The effects of roads on bats – habitat destruction, fragmentation, degradation and collision mortality Loss of habitat Road development frequently involves the removal of trees and buildings that hold potential or actual bat roosts.

The removal of trees, hedges, scrub, water bodies and unimproved (‘natural’) grassland also reduces available foraging habitat. The road surface alone removes significant areas of habitat: 7 ha for every 10 km of 7 m wide, two-lane, single carriageway road. Roadside hard shoulders, verges, junctions, service areas and other structures remove additional potential habitat, of variable biodiversity value and therefore impact. The Barrier Effect Roads are potential barriers to flight between roosts and foraging sites and between summer, mating and winter roosts. They could therefore reduce home range size and quality and restrict migration, which could increase mortality and reduce reproductive potential.

Roads may act as barriers because they interrupt existing linear flight lines, because some species are reluctant to cross open ground, because some species avoid lit areas (road and vehicle lights) and, at least initially, because they represent sudden changes in the bats’ familiar landscape. Roads may therefore fragment habitat, decreasing its area and quality. Since habitat area and quality are major determinants of population size, then habitat fragmentation will lower the sustainable population size.”

Considering that the HS2 track will run for 140 miles in phase 1, it is absolutely imperative that the bats of Leather Lane have a crossing point at Leather Lane itself.

Fig. 2. Flight style and habitat use by insectivorous bats. Drawing by Tom McOwat



³² 12676_WC1060AppendixA

Cumulative effects, extinction debt and the importance of scale

Most of the factors discussed will be cumulative. The effects of each individually need not therefore be great for the combination to have a profound effect on a bat population. Furthermore, there will be a lag, known as the extinction debt, between cause and effect (e.g. Tilman et al. 1994, Loehle & Li 1996). This is illustrated in Fig. 3. Fig. 3. The multiple causes of bat population reduction by roads and the delayed response (extinction debt). Adapted from Forman et al. (2003).

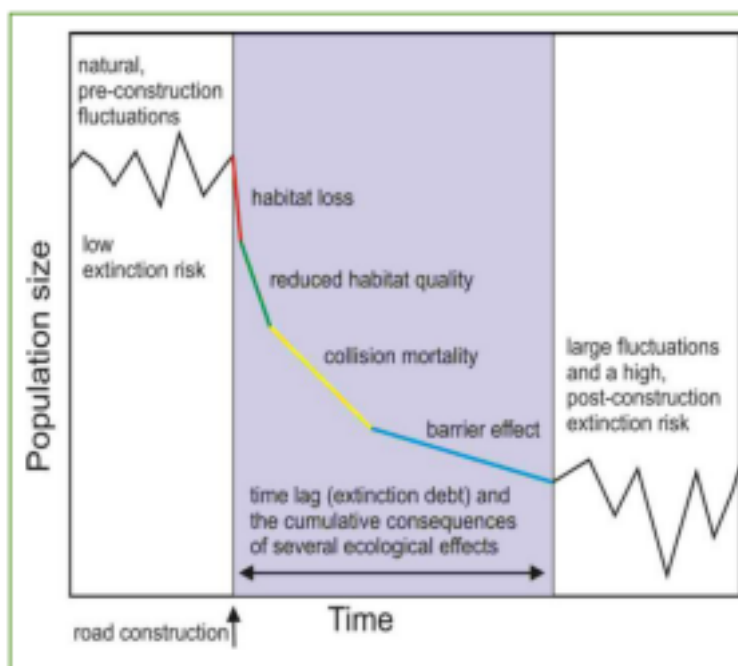


Fig. 3. The multiple causes of bat population reduction by roads and the delayed response (extinction debt). Adapted from Forman et al. (2003).

7

The first step in a conservation strategy to minimise the impact of a new road should be to select a route that avoids disturbance to important bat habitat. To be effective this requires an understanding of the behaviour and ecology of the affected species and detailed knowledge of their distribution. Our knowledge in both areas is growing but far from complete. One approach that can deliver detailed, site-specific information relatively quickly is GIS-based habitat suitability modelling, which can be based on existing data sets, such as those held by museums and record centres (e.g. Jaberg & Guisan 2001) or data collected specifically for the purpose, for example by acoustic survey (e.g. Bellamy et al. 2013). No such surveys have been carried out by HS2.

We understand that EKFB/HS2 will prioritise costs and time frames over Ecology, but we remind you of your duty of care to protect these species and provide the mitigation that we are requesting which is both reasonable and possible.

The importance of connectivity and the maintenance of existing flightlines

It is common practice to maintain and enhance a 'connected' landscape, i.e. a landscape with a broad range and high density of interconnecting linear features such as hedgerows and treelines. This not only increases the value of the landscape for foraging and commuting, but may give bats more flexibility in how they adapt to a changing landscape and in particular the appearance of barriers in the form of roads. We are not talking about a one off case here, but where destruction of habitat and landscape across the HS2 route, creating a cumulative effect as bats lose habitats and corridors, the imperative is even greater.

24

We remind HS2 and EKFB of their obligations under the Environmental Minimum Requirements: General Principles, Code of Construction Practice, Environmental Memorandum, Heritage Memorandum:

Environmental Minimum Requirements: General Principles

1.1.5

*The nominated undertaker will in any event, and apart from the controls and obligations referred to in paragraph 1.1.3, use **reasonable endeavours to adopt mitigation measures that will further reduce any adverse environmental impacts caused by Phase One of HS2, insofar as these mitigation measures do not add unreasonable costs to the project or unreasonable delays to the construction programme.***

In turn, Part 9.1.2 of the Code of Construction Practice provides:³³

*'The contractors will, where it is reasonably practicable, **reduce any habitat loss within the land required for Phase One of HS2 by keeping the working area to the minimum required for construction of Phase One of HS2.***

Moreover, 1.1.10 provides:

'The Nominated Undertaker will prepare site-specific management plans for these identified environmentally sensitive worksites, focusing on mitigation, compensation and monitoring requirements, with opportunities for enhancement in relation to the identified environmental topics as outlined within the Environmental Memorandum.'

Again, the LEMP states:

'1.2.5 It is anticipated that the following general descriptions of work activities will take place prior to and during the construction period within this local authority boundary:

advance works, including: site investigations and surveys further to those already undertaken;

'enabling works, including: utilities works in the wider area including an overhead line diversion at Chesham Road Vent Shaft; highway and public right of way (PRoW) diversions; building demolitions; site clearance, habitat removal, creation and(sic) environmental mitigation measures.'

Further, in the Table at 9.3.1:

"The Scheme will result in the loss of confirmed bat roosts in trees and buildings.

The Scheme will result in the loss of trees and buildings identified as having moderate or high potential to support roosting bats, but no evidence of their use has been recorded to date through survey work.

33

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/593592/Code_of_Construction_Practice.pdf

The Scheme will result in the loss of and disruption to bat foraging areas and commuting routes. The control measures are, respectively:

“Adopt a precautionary approach. Follow appropriate Working Method Statement for demolition of buildings and felling of trees.

Where practicable, undertake activities causing loss or disruption during seasonal periods when bats are likely to be less active.

Retain as much of the key habitat for as long as possible and establish new areas as quickly as possible to reduce the effects.

Ensure lighting is directed away from foraging areas and commuting routes. Reduce night time working in close proximity to foraging areas and commuting routes.”

So, why are EKFB intending to fell 12-15 oak trees on Leather Lane in the height of summer when bats and other wildlife are most active and when bridge designs have not even been agreed?

Lighting has been an ongoing issue at Leather Lane and has surely caused disturbance. They have also breached the EMRs by consistently directing lighting at the trees, see image overleaf.



The description of the proposed development must include appropriate mitigation measures, the purpose of which, in turn, is to enable public discussion to take place about whether the measures will be successful or whether more effective measures can be taken to ameliorate the anticipated harm. Public participation has effectively been denied at this late stage in the process.

By preserving the Oak trees and Ecology on the South side, you are keeping an important green space intact. The mitigation site at Jones' Hill Wood is more like Hiroshima than an ancient woodland and will never be replaced, not even in 100-200 years. The saplings next door have not been watered or cared for and will never replace ancient sites such as Jones' Hill Wood and Leather Lane.

The attached ESMP³⁴ shows the high volume of bat roosts nearby, many of which have been destroyed by HS2 – the 2km radius encompasses Leather Lane and we have good reason to believe that displaced bats are using Leather Lane as a vital corridor for foraging and possibly habitat.

The mitigation provided by Leather Lane is far more established and superior to anything HS2 could attempt to re-create, so why destroy it? You would only be able to do so with good reason.

This is an opportunity for HS2 and EKFB to turn this around and put the measures in place to preserve an ancient Holloway, a vital and iconic part of the AONB and honour and preserve the natural world for all bats, biodiversity and for generations to come.



Leather Lane *left*

³⁴ HS2. (2020). AWE2b-4 - Ecology Site Management Plan - Jones' Hill Wood Ancient Woodland. 1EW03-FUS_THE-EV-PLN-CS03-000001 pp 64, 66



Jones' Hill Wood receptor site and new hedgerow *above*

9. Community Engagement

5.2 Community relations LEMP

5.1.1 The nominated undertaker and its contractors will produce and implement a community engagement framework and provide appropriately experienced community relations personnel to implement the framework, to provide appropriate information and to be the first point of contact to resolve community issues. The nominated undertaker will take reasonable steps to engage with the community, particularly focusing on those who may be affected by construction impacts, including local residents, businesses, landowners and community resources, and the specific needs of protected groups (as defined in the quality Act 2010).

5.1.2 Regular meetings will be held at community forum locations between the lead contractor, the nominated undertaker, the local authority and representatives of the local community or other stakeholders to discuss construction issues and the forthcoming programme of works. Experienced support for local businesses, landowners, and voluntary and community organisations that may be affected by the works will be provided by the nominated undertaker.

Therefore, this makes clear that you have a duty to engage with the community, including the local authority, to discuss issues that affect them. These issues include designs and if the designs are not conserve or enhance the amenity of the AONB, then this forum would be the correct place for residents to notify the local authority and then under the Schedule 17 of the Act para 2(5)(a)(i) the local authority has the right to refuse the application.

In practice there needs to be a specific meeting with the local authority and local people where the designs are discussed with the contractor and all interested parties.

5.2.1 As detailed within Section 5 of the CoCP, the Nominated Undertaker and Contractors will implement the Community Engagement Framework. The framework will focus on engagement during construction with the local communities and on the specific needs of protected groups (as defined in the Equalities Act 2010) especially those who may be affected by construction impacts in the immediate vicinity of the works. A range of tools will be used to achieve this that will tailor engagement to local needs.

5.2.2 Successful management of the project will involve understanding communities and their needs, actively engaging, listening and responding. The arrangements for this are set out in the HS2 Community Engagement Framework.

10. Schedule 17

EKFB will shortly be applying for a Schedule 17 licence. As noted in the recent Hillingdon case ([2020] EWCA Civ 1005), this is another opportunity for scrutiny and for the Local Authority to ensure that all conditions have been met.

It is common ground that HS2 Ltd has failed to provide sufficient evidence and information to enable local authorities to perform their statutory duty to evaluate requests for approval from HS2 Ltd against ecological and archaeological considerations: *London Borough of Hillingdon Council, R (on the application of) v High Speed Two (Hs2) Ltd [2020] EWCA Civ 1005, at [45]*.

For the [decision-maker] to perform the evaluation of environmental information, an exercise of planning judgment is required whereby the design is measured against the risk to [the environment] and this, in turn, informs an assessment of the need for reasonable mitigation or modification measures: Hillingdon, EWCA Civ 1005, at [27].

The environmental information must include in the environmental statement the views of statutory consultees, such as those of the community, Conservation Board, Natural England and the Highways Authority, and any representations made by other persons about the environmental effects of the development (reg. 2(1)). Any grant of planning permission that does not take this environmental information into consideration is invalid.

This is because the purpose of the environmental information is not just to mitigate or prevent harm occurring, but also to enable public discussion to take place about whether the measures will be successful, or [whether] more effective measures can be taken than those proposed to ameliorate the anticipated harm. The procedural requirement of the EIA that the decision on the project take 'environmental information' into account (reg.3(4)) has therefore not been complied with.

The Environmental Statement should launch the Environmental Impact Assessment, which should, if conducted appropriately, have referred to key parts of legislation put in place to protect wildlife and biodiversity including the Mitigation Hierarchy.

We are in contact with Buckinghamshire Council in this regard and hope that statutory duty will be discharged by all parties to protect the integrity of the Act and the Ecology it purports to protect.

5) If the relevant planning authority is a qualifying authority, it may only refuse to approve plans or specifications for the purposes of this paragraph on the ground that—

(a) the design or external appearance of the building works ought to be modified—

(i) to preserve the local environment or local amenity,

(ii) to prevent or reduce prejudicial effects on road safety or on the free flow of traffic in the local area, or

(iii) to preserve a site of archeological or historic interest or nature conservation value, and is reasonably capable of being so modified, or

(b) the development ought to, and could reasonably, be carried out elsewhere within the development's permitted limits.

We are in touch with Buckinghamshire Council ("BC") on this matter and believe that there are strong grounds for refusal for all the reasons set out above. The Hillingdon case has confirmed that HS2 has a duty to provide BC with adequate information and that the authority is entitled to decline to process, or to refuse, the application during 8 week consultation period until HS2 furnishes them with that information, and we believe that there is a strong possibility of refusal at this stage.

Schedule 17 of the Act states with regards to 'Earthworks':

That the design or external appearance of the works ought to, and could reasonably, be modified—

- (a) to preserve the local environment or local amenity,
- (b) to prevent or reduce prejudicial effects on road safety or on the free flow of traffic in the local area, or
- (c) to preserve a site of archaeological or historic interest or nature conservation value.

If the development does not form part of a scheduled work, that the development ought to, and could reasonably, be carried out elsewhere within the development's permitted limits.

It is in the best interests of all concerned to iron this issue out now so that we can avoid lengthy legal action and adopt the alternatives proposed. As Buckinghamshire Council is a qualifying Authority, it can refuse the designs. From our perspective, the designs do not preserve the local environment or local amenity and they do not preserve nature conservation value.

[1] [Leather Lane Bat Survey 9 May 2021 Metatable](#)

[2] [Watson, S. \(2021\). Anabat Express Detector Report - Leather Lane.](#)

[3] [Threats to bats - About Bats - Bat Conservation Trust](#)

[4] [European Environment Agency. \(2011\). Landscape Fragmentation in Europe. *Joint EEA-FOEN report*. No 2/2011](#)

[5] [Buckinghamshire County Council & Ors, R \(on the application of\) v Secretary of State for Transport \[2013\] EWHC 481 \(Admin\) \(15 March 2013\) \("BCC"\), at \[231\]](#)

[6] [Ashton, J., Lukaszewicz, A. \(2021\) Bat Survey Report Leather Lane, Great Missenden, Buckinghamshire. Wild Horizons Ltd](#)

[7] [Watson, S. \(2021\). Anabat Express Detector Report - Leather Lane](#)

[8] S. 40 NERC Act 2006

[9] Piraccini, R. 2016. *Barbastella barbastellus*. The IUCN Red List of Threatened Species 2016:

e.T2553A22029285. <http://dx.doi.org/10.2305/IUCN.UK.2016-2.RLTS.T2553A22029285.en>

[10] [Microsoft Word - HS2 Review of EclA-3.docx \(hs2actionalliance.org\)](#)

[11] [ecology-technical-group-assessment-and-review-of-the-hs2-ltd-approach-to-the-natural-environment-including-recommendations-for-phase-2.pdf](#)

[12] European Environment Agency. (2011). Landscape Fragmentation in Europe. *Joint EEA-FOEN report*. No 2/2011

[13] https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/397883/Volume2_CFA10_Dunsmore_Wendover_and_Halton.pdf pp 106

[14] [Watson, S. \(2021\). Anabat Express Detector Report - Leather Lane.](#)

[15] European Environment Agency. (2011). Landscape Fragmentation in Europe. *Joint EEA-FOEN report*. No 2/2011 pp 27-28

[16] [Lord Berkeley letter 22 3 21 to Andrew Stephenson and Bns Vere ref. Wendover tunnel](#)

[17] [Microsoft Word - HS2 Review of EclA-3.docx \(hs2actionalliance.org\)](#)

[18] [Volume2_CFA9_Central_Chilterns.pdf \(publishing.service.gov.uk\)](#)

[19] [HS2 Ecology Technical Group | National Trust](#)

[20] [John Altringham HS2 Leather Lane](#)

[21] [John Altringham HS2 Leather Lane](#)

[22] Part IV of the Countryside and Rights of Way **Act** 2000 (**CRoW Act**) provides the main legislative framework for AONBs. The main relevant sections are: **Section 82** – specifies that the primary purpose of designation of an AONB is to conserve and enhance natural beauty.

[23] [6974-Chilterns AONB_HS2 CEIP_Part 1_Detailed Design Principles_low res.pdf](#)

[24] [Microsoft Word - Ecology final \(hs2.org.uk\)](#)

[25] [HS2 Phase One environmental statement: scope and methodology - GOV.UK \(www.gov.uk\)](#)

[26] [HS2 launches plans for unprecedented 'green corridor' stretching alongside the railway - GOV.UK \(www.gov.uk\)](#)

[27] ['Green' bridges will guide bats across HS2](#)

[28] [Natural England. \(2015\). Green Bridges - A Literature Review. Natural England Commissioned Report NECR181](#)

[29] European Environment Agency. (2011). Landscape Fragmentation in Europe. Joint EEA-FOEN report. No 2/2011

[30] [Gunnell, K., Grant, G., Williams, C. 2012. Landscape and urban design for bats and biodiversity. Bat Conservation Trust. Pp. 27, 29](#)

[31] [12676_WC1060AppendixA](#)

[32]

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/593592/C ode_of_Construction_Practice.pdf

[33] HS2. (2020). AWE2b-4 - Ecology Site Management Plan - Jones' Hill Wood Ancient Woodland. 1EW03-FUS_THE-EV-PLN-CS03-000001 pp 64, 66

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[Threats to bats - About Bats - Bat Conservation Trust](#)

[Microsoft Word - Bat flight path legal protection article - draft 18 with photos amended Dec 2007.doc \(biodiversitybydesign.co.uk\)](#)