



Sheffield &  
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**Sheffield & Rotherham Wildlife Trust**

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*For nature, for everyone*

20<sup>th</sup> December 2018

Dear Sir/Madam

**Response to HS2 Ltd Phase 2b Draft Environmental Statement**

This response is from Sheffield & Rotherham Wildlife Trust. We are a local charity and company limited by guarantee whose vision is *'to see a living landscape – an amazing, green landscape for the wildlife and people of Sheffield and Rotherham which is understood, enjoyed and cared for by local people and organisations.'* We are led by a Board of 13 Trustees elected by our membership. We employ over 30 local people and have over 50 regular volunteers as well as a wider community of occasional volunteers. We have nearly 6,000 local members and manage 16 Nature Reserves ranging from small urban green spaces to the open moorland SSSI of Blacka Moor and the fantastic ancient woodland at Greno. Every year we deliver a wide range of outdoor engagement activities for thousands of people of all ages and abilities.

We are one of 46 Wildlife Trusts working across the country for nature's recovery. We fully support and have contributed to the national work and response 'Volume 3 Route-wide effects' which is being submitted separately by the Wildlife Trusts in relation to HS2 Phase 2b.

We write to register **our strong objection to HS2 Phase 2b as currently proposed as we believe this scheme offers no significant net gain for biodiversity in our area.** In addition to the more detailed response to the consultation in the following pages, we would like to make a number of overarching points in support of our objection:

- Whilst we appreciate this is a working draft, the paucity of evidence compared to what we would normally expect to see in an Environmental Statement eg detailed methodology, survey results, clarity about impact, details of mitigation and compensation, makes it impossible for us objectively assess and offer any constructive comment on the baselines and proposals. There is simply not enough information available to review the scheme at this time.
- The predicted loss of Local Wildlife Sites and Ancient Woodlands, as well as the other wide ranging ecological and community impacts is an unacceptable level of damage, with no clarity about net biodiversity loss/gain.
- In relation to the above, it is time for HS2 Ltd to meet the requirements of all other developers, as set out in Government policy, to seek a 'net gain' for biodiversity.





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- We believe there is still the potential for bats to be permanently adversely affected at a significant level and this needs to be addressed by HS2. We have similar concerns in relation to other s41 species not even mentioned in the ES draft.
- We are especially concerned about the ecological impact and loss of access to nature in relation Firsby Reservoir. This was raised in the South Yorkshire Local Nature Partnership's response earlier in the year. We would like to discuss this site with you and others in more detail.

If you would like to discuss any of the above points, or the more detailed issues raised in the following pages, then please get in touch by emailing: [takeaction@wildsheffield.com](mailto:takeaction@wildsheffield.com)

Yours sincerely,

Liz Ballard, Chief Executive

**Sheffield & Rotherham Wildlife Trust**

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*Our comments are based on the current information. They are not binding and do not limit us from making comments on future versions of the ES as they emerge.*





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## **Detailed Response to HS2 Ltd Draft Environmental Statement for Phase 2b**

Our comments are in response to:

**Route Wide – Volume 1 - Introduction and Methodology and Volume 3 – Route-wide effects**

**Volume 2 - LA11 – Staveley to Aston**

**Volume 2 - LA12 – Ulley to Bramley**

**Volume 2 - LA13 – Ravenfield to Clayton**

**Volume 2 - MML02 – Unstone Green to Sheffield Station**

**Volume 1 Introduction and Methodology**

We appreciate from reading this volume that the working draft is an interim report presenting preliminary environmental information at a point in time and that the design and assessment of the 'Proposed Scheme' are at an early stage of development and will continue to be refined. We also note that nothing included at this stage is intended to limit the form of the final scheme that will be presented in the hybrid Bill and formal ES.

However, knowing this, and knowing that consultants have more up to date information and maps that they are currently working on, we still have used the limited information that has been presented in this public consultation and assume that HS2 and their consultants will be using this draft information as a basis on which to go forward. Our comments are therefore based on this information but our comments are not binding and do not limit us from making comments on other versions of the ES as they emerge.

### **Chapter 5 Permanent Features of the Proposed Scheme**

5.2.2 says 'The rail corridor would be continuously fenced. An integrated approach would be taken when designing fencing layouts since a successful design is dependent on full consideration of numerous design disciplines and physical interfaces.' Yet the figures immediately after this statement all show a tiny short line indicating a fence (obviously not to scale) or no fence at all which is misleading. Details of the fencing, including its height, visual appearance, materials and any gaps for wildlife is important information for us to be able to comment on this paragraph.





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## 5.4 Drainage and watercourse realignments

### Railway drainage

5.4.1 “Drainage parallel to the railway would generally comprise filter drains feeding balancing ponds at intervals along the route of the Proposed Scheme. These ponds would be of three types: attenuation ponds, infiltration ponds and hybrid ponds. Attenuation ponds would attenuate peak flows so that runoff generated from the railway track discharges at an agreed rate to a nearby watercourse, thereby reducing the risk of localised flooding. Infiltration ponds would allow runoff to be absorbed into the ground where conditions are suitable. Many of the ponds would be a hybrid combining features of both types.”

5.4.2 “Balancing ponds would typically be unlined and may have banks with a varying profile. Their size would depend on drainage requirements. The balancing ponds would not be designed to hold water permanently, but would be dry most of the time, except following intense rainfall events. They would be designed to accommodate a one in 100 year annual rainfall probability event, with an allowance for climate change.”

5.4.3 “Surface water runoff within built-up areas may need to be discharged to the urban drainage system, for example, a piped combined sewer, at a controlled rate.”

Our comment on the above paragraphs is that this is a potentially wasted opportunity to create valuable ecological habitat. We understand that the primary functions for the ponds are for drainage and flood waters, but each pond should be considered as to whether it could be made a little deeper to hold some standing water year-round (on top of the capacity needed for drainage or flood storage reasons) which would create a wildlife habitat. Regarding 5.4.3, all options should be explored to create SUDS schemes before the option of discharging into the combined sewer, which should only be a last resort.

5.7.3 and Figure 15. The illustration of a cut and cover tunnel portal shown a heavily engineered tunnel with hard entrances. Where is the greener and softer design in the landscape aspirations in the *HS2 Design Vision*?





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5.11 Green Bridges – we support the content of the paragraphs here but have not seen any potential locations indications on the maps that we are looking at (LA11,12 and 13) and there does not seem to be any link between 5.10 Bridges and 5.11 Green Bridges. We would welcome being involved in any discussions over the potential location of green bridges in these Community Areas – for example, perhaps at Aston? In addition to any green bridges that have been identified from survey work (not sure where these are?) could *all* bridges that are to be constructed anyway for train, road and/or pedestrian reasons (i.e. those in 5.10), also contain at least a strip of natural habitat? This would provide additional connection opportunities for wildlife to partly mitigate for the severance of habitat and ecological connectivity that the HS2 line will create. In addition, all permanent structures should incorporate features for wildlife such as bat and bird boxes.

Lacking in the whole document is a full assessment of the impact of the severance caused by such a sterile, large linear infrastructure barrier. We would like to see this properly assessed. Clevenger and Ford (2010)<sup>1</sup> considered how wildlife habitat connectivity can be connected and planned into transportation projects and found how there is often a risk that project level focus may not consider how a structure fits into the larger landscape. They reiterate the importance of a landscape wide approach to the installation of green bridges. We would therefore support locations of green bridges, tunnels and underpasses to be developed using a landscape led approach through software such as Condatis (a decision support tool to identify the best locations for habitat creation and restoration to enhance existing habitat networks and increase connectivity across landscapes<sup>2</sup>). Green bridges should be constructed as per Landscape Institute Technical Guidance Note<sup>3</sup>, and The Wildlife Crossings Structures Handbook<sup>4</sup> favouring designs such as the natural bridge, wildlife bridge and mixed use bridge designs with inspiration from A21 Scotney Castle, Ecoduct Wambach, Netherlands and Ecoduct Singapore. This would be consistent with other large infrastructure developments in the UK such as the Knutsford to

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<sup>1</sup> Clevenger and Ford (2010). Chapter 2. Wildlife Crossing Structures, Fencing, and Other Highway Design Considerations. In: Beckmann, J.P et al. Wildlife Crossing Structures - Current Practices. Washington: Island Press. 17-49.

<sup>2</sup> <http://wordpress.condatis.org.uk/>

<sup>3</sup> Landscape Institute Technical Guidance Note 09/2015 December 2015

<sup>4</sup> Clevenger and Huijser 2011 Wildlife Crossing Structure Handbook Design and Evaluation in North America federal highway Administration





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Bowdon bypass scheme. Georgii (2011)<sup>5</sup> identified eight aspects that affect green bridge use by wildlife; width, age, vegetation, traffic noise, position and human presence. The use was found to increase according to the width of the bridge, therefore we would expect in sensitive areas for the bridge to be made as large as possible within the scope of the project. When of an appropriate size, the bridges may be utilised to serve a secondary function of reconnecting communities to each other whilst providing the benefits access to nature provides.

5.16 Noise barrier fences – as illustrated in Figure 22. We understand the need for noise barriers on occasions where an embankment or similar is not in place, but we agree with CPRE South Yorkshire that the proposed noise barriers are ugly, intrusive and would make landscaping difficult, as well as being a wildlife barrier. We support CPRE South Yorkshire’s suggestion of using earth works or false cuttings (where this would not result in the loss of quality habitat). If barrier fences are to be used, we would like to see natural habitat e.g. trees or native hedgerows or shrubs, outside of the fences to visually mask the fences but also to provide linear habitat for species such as hedgehogs and bats. Noise can impact wildlife as well as people and this should be included in the assessment.

5.17 Site restoration and landscape treatment.

Para 5.17.2 says “Land used only for construction purposes would be restored as agreed with the owner of the land and the relevant planning authority once the construction works in that area are complete”.

But then para 5.17.3 says “Mitigation design would be developed to respond to the appropriate landscape strategies and design objectives set out in HS2 Ltd’s Landscape Design Approach (e.g. to conserve, enhance, restore or transform landscapes in response to landscape character and context). The following may be provided (among others) within restored areas, to compensate for, or replace, resources adversely affected during construction: habitat for wildlife species; and compensatory planting and restoration of landscape features and elements, to enhance connectivity and integration.”

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<sup>5</sup> Georgii, B et al. (2011). Use of wildlife passages by invertebrate and vertebrate species. Wildlife passages in Germany.





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In order to achieve 5.17.3, we suggest that plans for the after-life of the large amounts of land used only for construction purposes needs to be discussed and agreed with the landowner (and any other interested parties) as part of the ES *before* works commence and not “once construction works in that area are complete”. Otherwise how will you know what land is available for the mitigation and what additional land may be required?

5.17.4 “Any areas of replacement habitat would be established and appropriately monitored to maintain the long-term conservation status of the species/habitat.” We support this para and the ES needs to specifically include monitoring plans that are long enough for the establishment of the habitat. For example, a 5 or 10 year monitoring plan is insufficient when establishing a new woodland area.

5.17.5 and 5.17.6 These paragraphs says that landscaped design solutions can provide multiple benefits, including habitat creation (etc). This is true, but we would like to see any planting/habitat creation influenced by professional ecologists and not just landscape professionals as they can have a different point of view in terms of their overall aim. We were also concerned to learn (at one of the HS2 drop-in information events) that some areas on the Community Area maps are shown as ‘landscape mitigation’ and some are shown as ‘ecological mitigation’ and that consultants were artificially forced to choose one or the other category when an area could be providing multiple benefits. This may not have mattered except for the fact that our understanding is that ‘landscaping’ areas are not necessarily subject to the same medium-long term management and monitoring that the ecological areas are. We would like reassurance that any ecological habitat will receive adequate long-term management and monitoring whatever its primary reason for creation.

5.17.7 We support this paragraph that new trees and shrubs will be of local provenance. They also need to be suited to the National Character Area and be in line with the South Yorkshire Forest recommended tree species for planting in South Yorkshire (available on request).

Related to this, whilst we encourage the aim to reduce transportation during the construction of the scheme, due to the presence of differing National Character Areas and the geology and soils that they support in the Proposed Scheme area, careful consideration must be given when transferring material between cuttings and embankments. Whilst we encourage the reuse of materials and reduction of vehicular movement and material transportation, care must be





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taken not to introduce soils and seed banks which are not compatible with the surrounding landscape. This includes introducing non-native species, such as those listed on Schedule 9 of WCA, or species that will outcompete rare and scarce native species which provide notable features in the landscape. The standard use of limestone chippings in linear infrastructure also need to be assessed to see if it appropriate to geology of the area.

We are surprised that there is no section on lighting in this chapter entitled 'permanent features of the proposed scheme' as we have heard that there are plans to light the whole route with lights every 50m along the route and sub-stations (including one in Rotherham) being highly-lit. We question how necessary this is and whether the potential impacts on wildlife is being considered as part of the ES? We view the ecological impact assessment of lighting and mitigation to be extremely important and currently lacking (apart from 6.7.13 later).

### Chapter 6 Construction of the Proposed Scheme

6.3.1 and 6.3.2 the fact that "The nominated undertaker and all construction contractors would be required to comply with the CoCP and a series of local environmental management plans (LEMPs)." And that site-specific control measures at a local level would be included within the LEMPs which would be developed...in consultation with the relevant stakeholders". It is not clear, however, who is responsible for checking that the CoCP and LEMPs are being adhered to. Although (according to 6.3.11 and 6.3.14) the lead contractor's Environmental Management Systems (EMSs) would cover the activities of all their contractors, the lead contractor may not employ a professional ecologist to specifically monitor the ecological aspects. Will there be an Ecological Clerk of Works (ECOW) for all construction for example?"

6.3.4 We support the proposal that the CoCP includes the mechanisms to engage with the local community and their representative throughout the construction period.

Although 6.3.12 and 6.3.13 are entitled 'Enforcement and local environmental management plans' these paragraphs do not detail the enforcement process or responsibilities. Risks can emerge when several contractors and sub-contractors are working on one scheme.







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### **Community Relations**

Sections 6.3.16-6.3.19 detail how the community relations should work. To date so far, the community engagement has not been up to the standard we would expect. The staff/point of contact has changed continuously and promises made at drop-in events for further contact us and local people/groups are rarely followed up or certainly not in a timely manner.

6.3.38 This paragraph says that the majority of the excavated material would be re-used in the Proposed Scheme, but there is no mention that this should be used as locally as possible as topsoils etc have often established over a long period of time and support locally-specific flora. They should be re-used as locally as possible and any new topsoils or hard-crushed materials should consider the potential impact from differing pHs and soil biota.

6.4.3 Further ecological surveys are clearly needed as this working draft ES does not contain up to date ecological survey information that we can scrutinise.

6.4.5. Says “Most of the areas that will be identified for the provision of ecological compensation would be outside the extent of the construction works. Some areas identified for the translocation of protected or notable species would need to be created in advance, while others may already be suitable for receptor sites.” And sections 6.4.6-6.4.8, plus 6.4.10 add some more detail to this. We agree that much compensation land will be needed outside of the construction footprint, but this is not reflected so far in the Community Area maps that are made available as part of this public consultation. We would very much like to talk to HS2 and their consultants about land outside of the construction footprint (but near the line) and although we have been attempting to do this, the mechanism is not clear. We are pleased that HS2 recognise the fact that any species translocation required may take up to two years and that this should occur before construction, but this is not reflected in the timetable shown in Figure 26.

6.7.13 We are pleased to see the sentence “Lighting of construction compounds would be designed to limit light pollution to the surrounding area, in accordance with the requirements of the draft CoCP.” Strong, 24/7 lighting has the potential to have an impact on wildlife, for example, bat species, and the location of compounds should be assessed by HS2 consultant ecologists, against possible impacts on bats and other potentially vulnerable species. As well as





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limiting light pollution, the level of lighting should be considered e.g. can lights be switched off or dimmed at certain times of night.

6.12 Drainage and watercourse alignment. We are concerned that the impact of draining or realigning watercourses on nearby Local Wildlife Sites, which rely on these watercourses, has not been fully realised. For example, Foer's Wood LWS, Firsby Reservoir LWS/LNR, Nickerwood LWS and Norwood LWS all in Rotherham could all fall into this category but the draft ES does not adequately assess the potential impact on the wet habitats in these designated sites.

## **Chapter 7 Environmental Impact Assessment**

7.1.16 Refers to Volume 5 which contains the technical information and more accurate map books. This is the essential information we need to be able to scrutinise to see if we agree with the ES and it is only going to be made available very late in the process, i.e. deposited alongside the Hybrid Bill. It is inadequate that this information is not being made available earlier in the process to allow adequate time for scrutiny, comments and response to these comments at an earlier stage in the whole process.

## **Chapter 8 Scope and methodology summary for environmental topics**

### **8.6 Ecology and Biodiversity**

8.6.5 Simply says "A wide range of field surveys are being conducted to inform the working draft and formal ES. The survey methodologies used have been based on recognised best practice". This is insufficient detail for us to comment on whether we think the surveys are adequate. We would expect to be able to see detailed methodologies published at this stage (as they must be known now) for such a major infrastructure project. For example, what methodologies are being employed to assess the impact on terrestrial species who may have their territories/migration routes severed by a permanent barrier? And what methodologies are being employed to assess the impact on the full use of the habitats by birds and bats? E.g. foraging and commuting areas for bats, not just roosts. We also have concerns raised in Phase 1 about whether adequate information is being collected in the field on the *distinctiveness* and





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*condition* of habitats (by suitably qualified ecologists) which will later be required when calculating the 'no net loss metric'.

8.6.8 Looking at the draft working ES, it looks like the impact on several (NERC Act) S41 Species have not been considered e.g. brown hare, hedgehogs and harvest mouse. We would like to see all the S41 species included, what is the justification for not including them?

8.6.9 We agree that the precautionary approach should be used, especially where access to land has not been obtained.

### Chapter 9 Approach to mitigation and monitoring (p167)

**9.1.12 Monitoring during operation.** This needs to be of an adequate length of time to properly assess the effectiveness/success or otherwise of ecological mitigation. For example, creating new habitat for species needs several years of monitoring and the creation of a new woodland will need to be adequately monitored over several decades. What is the process if it is found that the mitigation is not proving adequate to result in 'no net loss' for example? Will the Ecology Review Group have the powers and resources to instruct HS2 to create additional compensation land at a later stage, even if this is in 30 years' time?

**9.6.2** There does seem to be some confusion over the terminology. The definitions of 'mitigation' and 'ecological compensation' are clear in your glossary and we would agree with these and also the reference in this paragraph to "Appropriate compensation or enhancements will be identified for effects that are still anticipated following mitigation" but para 9.1.1 suggests that compensation is part of mitigation, rather than dealing with any residual effects following mitigation.

**9.6.4** We support the objective here of "The habitat creation is required to fulfil the objective of no net loss in biodiversity insofar as reasonably practical in the local area, as well as to ensure that the populations of protected and priority species are maintained". And "With these objectives in mind, where reasonable practicable, the locations of habitat creation areas have been selected so as to increase the size of existing higher quality habitat and to increase connectivity". However, looking at the draft Community Area maps, at the moment it looks like





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the majority of the mitigation/compensation land is on the construction footprint and that HS2 need to go further to extend the areas to increase size and connectivity as per the intention above and the intention of HS2's 'Green Corridor' (ref: HS2 More than just a Railway). Our assumption is that the biodiversity metric will suggest that additional land is required in addition to that in the construction footprint, although these details do not form part of this current consultation. We would like to see a *strategic* approach to landscape-scale mitigation and compensation to contribute to and create high quality ecological networks. This ambition is detailed in The Wildlife Trusts '[Greener Vision](#)'<sup>6</sup> full report and accompanying maps. If HS2 and your consultants do not already have these maps in GIS format then they can be supplied again (although please note that Yorkshire Wildlife Trust are supplying some more up to date opportunity maps for LA13-17).

**9.6.5** We support the "commitment to provide long-term management of habitat creation to ensure that the target value of these habitats is achieved" and hope that HS2 are willing for this long-term to be long-enough for habitats to reach maturity and beyond – ideally in perpetuity. We are also potentially supportive of the option of transferring the land for management by a third party, such as a Wildlife Trust" if the resources are made available for this management to be undertaken to the standard required over the long-term.

**9.6.8-10** We support the need for ecological monitoring during construction and long-term and the role of the Ecology Review Group. Please note our earlier concern about the distinction between ecological monitoring and landscape monitoring - which may be for a shorter period for example 9.10.12-14 do not use the words 'long-term'.

### **9.16 Water resources and flood risk mitigation**

**9.16.3** We would like to see 'wet woodland' added to this list.

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<sup>6</sup> <https://www.wildlifetrusts.org/hs2>





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**Volume 2 Community Area reports**

**LA11**

**2. Overview of the area**

Although LA11 includes parts of Bolsover District Council, Chesterfield Borough Council and North East District Council, our response will just focus on the majority of LA11 that is within Rotherham Metropolitan Borough Council as this is the operating area of our organisation. Our neighbouring Wildlife Trust – Yorkshire and Derbyshire Wildlife Trusts will be providing comments on overlapping and neighbouring community areas.

2.1.7 Both Nor Wood and Nicker Wood are identified here as ‘key features’ of the area – we respond in more detail to the proposals for these woods in Chapter 7.

2.1.12 and 2.1.21 Highlights the importance of the Public Rights of Way (PROW) to link scattered dwellings and villages. It also highlights four local walking routes and connections to three long distance foot paths.

2.1.24 Highlights Nor Wood as one of sites that currently offer access to woodland and open space. We will respond to this in chapters 6 and 7. Aston Hall Cricket Club, Aston Park and Aston Fisheries are also amongst the places highlighted that will be impacted.

2.1.32 We note from this section that there is scope for refinement of PROW crossings, some viaduct details and some drainage features – all of which have the potential to impact the natural environment or people’s access to the natural environment.

2.3.97 Permanent diversion of Aston footpath 20, 550m north of its existing alignment – see 3.3.2 below.

**3. Stakeholder engagement and consultation**

3.3.2 We note that one of the main themes to emerge from stakeholder engagement is “retention or alignment of PROW in Derbyshire and Rotherham” and “the potential impacts on ecology assets at Nor Wood and Locks LWS, Foers Wood LWS, Nickerwood, the Rotherham Rivers Corridor (River Rother) and Poolsbrook Country Park”. It is good that you acknowledge these but we are disappointed to find no mention of Foers Wood LWS or the Rotherham Rivers





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Corridor in Chapter 7 and would like to see this addressed by the Formal ES. We also note that another main theme to emerge is the potential severance of communities at Wales, Wales Bar and Aston. We know from speaking to local people that they are extremely upset about this and it is unclear how you plan to minimise or mitigate for this

### 4. Agriculture, soils and Forestry

4.4.36 “Soils and their associated seed banks from ancient woodlands would be stored separately and utilised in species translocation.” Will the success (or otherwise) of these soils translocations be monitored?

### 6. Community

6.4.14 “The construction of Nor Wood viaduct and Wales embankment would temporarily require part of the publicly accessible land from Nor Wood and Woodall Pond. Approximately 30% would be inaccessible for a duration of approximately 3 years and 3 months. The area of open space is semi-regularly used, well sign-posted and is likely to be a moderately valued resource in the local community. Cuckoo Way is a promoted PRow that runs through the open space. The temporary loss of the open space would result in major adverse effect, which would be significant.” We are unclear as to the mitigation and compensation proposed to offset this expected impact?

6.3.16 Also highlights a major adverse effect, which would be significant due to the impact on Aston park and the woodland within it (Engine House Plantation). Again, what are the mitigation and compensation proposed to offset this expected impact? See our comment later (in Chapter 7) about Wood-pasture and Parkland at this site.

6.4.37 “The B6067 Worksop Road diversion would permanently require approximately 10% of publically available land from Aston Park. Aston Park is a moderately used and valued resource in the local community and is well maintained. The B6067 Worksop Road diversion would cut through the park and sever it into two parts. This would permanently compromise the usability of approx. 30% of Aston Park, resulting in a major adverse effect, which would be significant.” Again, what are the mitigation and compensation proposed to offset this expected impact?





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The impacts above are listed in 6.4.40 as having 'likely residual significant effects' but there is no description then of proposed mitigation or compensation to offset these effects at this stage.

## 7. Ecology and Biodiversity

7.2.3 We note that field surveys are on-going and limited by landowner access. However, we question why the surveys are limited to the species listed (plants, great crested newts, wintering and breeding birds, bats, otter and water vole). What about badgers and (NERC Act) S41 species such as brown hare, hedgehogs, harvest mouse and several invertebrates? What about other amphibians and reptiles? Although it is confusing as some species or groups of species are included in Table 19 that are not referred to in the methodology, but not all? Without the details of the survey results being available at this time, it is difficult to comment on the detailed methodology and results. Are ground-nesting birds being specifically looked at? How is mitigation planned for these birds in particular?

Table 19. Have the South Yorkshire Bat Group been approached for bat records for this area?

7.3.8 We note that the Local Wildlife Sites (LWS) we raised concerns about are in this list, although some are not mentioned again in 7.4. Have they been assessed and discounted as not suffering from any effects? This needs to be made clear (see later).

## 7.4 Effects arising during construction – avoidance and mitigation measures

7.4.1 We are pleased to see confirmation that the route will take the form of viaducts over Nor Wood and Locks LWS and Nicker Wood and Ponds LWS which will allow free passage for *terrestrial* (this word needs to be inserted in the Formal ES) wildlife beneath the structures. However, this paragraph does not answer our question raised in previous consultations about whether the viaduct piers could be positioned in such a way as to avoid impact on the ancient woodlands (see later).





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Yes, new woodland planting will *contribute* towards replacing the losses of woodland and enhancing connectivity, but it needs to be stated in this paragraph (and elsewhere) that new woodland planting does not compensate for the loss of ancient woodland, which is an irreplaceable habitat.

One of the avoidance and mitigation measures listed is 'provision of new grassland habitats, including some species rich grasslands'. We question why only *some* of the grasslands are to be species-rich? It is important to ensure that woodland planting does not take place on already valuable grassland or heathland habitats which we understand did occur in some cases in Phase 1.

**Assessment of impacts and effects**

On the basis of the predicted loss figures of LWS and AWIS, and the other wide ranging ecological and community impacts, and the lack of current clarity on proposed ecological mitigation and compensation, we have to oppose the current HS2 as it stands.

*Designated sites*

Para 9. "Construction of Nor Wood embankment, Nor Wood cutting, Wales embankment and Nor Wood viaduct would result in the permanent loss of 18ha of Nor Wood and Locks LWS (31.5%) which supports ancient semi-natural woodland, watercourses and water bodies, and a loss of 4.1ha of ancient woodland in Nor Wood AWIS (12.7%), and a loss of 4.1ha of ancient woodland in Nor Wood AWIS (12.7%). Habitat loss would result in a permanent adverse effect on site integrity that would be significant at county/metropolitan level." As this ancient woodland resource is an irreplaceable habitat (see later), every effort should be made to avoid these impacts, which are significant (see later comments). At Nor Wood does the construction phase land really need to encroach on the extent of ancient woodland shown in the Community Area map 'CT-05-06-40 Construction Phase' or could this be reduced? Could the Nor Wood viaduct piers be located in such a way that this impact on the southern end of the site is reduced? The location of these is not clear on the maps. Also does the Nor Wood Viaduct Satellite Compound and pumping station need to be so close to the ancient woodland?

Para 10. "Construction of Fiddle Neck viaduct would result in the permanent loss of 0.7ha of Nicker Wood and Ponds LWS (6.5%) which supports ancient semi-natural woodland, acid







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grassland and fishing lakes and a loss of 0.4ha of ancient woodland in Nicker Wood AWIS (15.4%). Habitat loss would result in a permanent adverse effect on site integrity that would be significant at up to county/metropolitan level.” Again, the loss of ancient woodland really needs to be a last resort and we cannot see the justification of why the ancient woodland impacts cannot be avoided. Could the Fiddle Neck viaduct piers be located in such a way that this impact on the southern end of the site is reduced? The location of these is not clear on the maps. Does one of the ‘Aston South Embankment Transfer nodes’ (temporary material stockpile) really need to be directly adjacent to the ancient woodland with no buffer? Are impacts of construction adjacent to designated sites and AWIS sites being included in the Formal ES? As the impacts can be significant. We have also been told anecdotally that there may be a possible heronry in Nicker Wood, which would need to be investigated by HS2’s consultant ecologists.

Under **Other mitigation measures** 7.4.29 it says “compensatory measures in response to the permanent loss of parts of three woodland sites that are classified as ancient semi-natural woodland” are amongst those currently being considered, but are not yet part of the design and will be informed by the findings of the on-going field surveys and engagement with relevant stakeholders. It also notes that ancient woodland is an irreplaceable resource and that loss of this habitat is considered to be a permanent adverse residual effect and suggests some potential mitigation measures. At the moment, the community area ‘Proposed Scheme WDES’ maps do not include sufficient planting and habitat connectivity. For example, with regards to Nicker Wood, we suggest bringing the woodland into positive conservation management long-term and (depending on the existing habitat) the possibility of additional woodland planting to the north of Aston cutting to connect to Foer’s Wood LWS. This would more closely achieve HS2’s vision of a Green Corridor as illustrated in the HS2 publications ‘More than a Railway’ and ‘Landscape Design Approach’ as well as The Wildlife Trust’s reports in response to HS2: [Greener Vision](#). At the moment, this draft ES says that “incorporated woodland creation is not expected to reduce the loss to a level that is not significant” meaning more work needs to be done to identify suitable areas for woodland management and planting. As the detailed information is not yet currently available to assess, at this point in time a significant impact is still predicted, we currently *object* to the opposed scheme. However, saying this we are open to working with HS2 and your consultants to develop appropriate mitigation and compensation schemes to





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compensate *as far as is possible* (whilst still acknowledging that ancient woodland is an irreplaceable resource) for habitat loss and impacts.

Although Foer's Wood LWS is listed in the baseline designated sites in 7.3.8, it does not feature in the list of LWS that will be impacted (7.4.4) or the section on woodland (7.4.5) or watercourses (7.4.8-7.4.11). We think this is an omission that needs to be assessed, as we are concerned about impacts on the watercourse feeding into this wet woodland. If the watercourse is compromised, it would affect the ecology for which the site is designated. We request that an assessment of the potential impacts on this site is included in the Formal ES.

Todwick Common LWS and Brampton Common LWS are also included in the list of 22 baseline LWS in 7.3.8 but then not mentioned again in 7.4.4. Both sites are known for their bird populations. Over 100 bird species have been recorded since 1974 in the area of Brampton Common and the area is particularly important for its breeding waders (reference SK58 Birders <http://www.sk58birders.com/Brampton%20Common.htm>) Although these two LWS are not directly in the construction footprint, they are very close and there seems to be no inclusion of the potential impact on these sites and the birds using the sites. We would like to see this in the Formal ES. It is noted that a very knowledgeable local naturalist has reported that the condition of both sites for birds has deteriorated over the years. As possible mitigation and compensation projects, it would be worth investigating with the land owners, local interest groups and ourselves/Yorkshire Wildlife Trust whether there is scope to alter the management of these sites to benefit the bird populations again.

7.4.1 Para 4 – says “ponds lost would be replaced on a minimum 1:1 basis”. As some ponds have established their particular ecology over many years, we would like to see a greater ratio than 1:1 – we recommend at least 2:1. It is also very important that existing and new ponds have sufficient resources allocated to them in the long-term for management to ensure they are maintained as a viable wetland habitat.

7.4.5 Woodland. This should include Wood-pasture and Parkland which we understand is the primary habitat in Aston Park. As this is a Habitat of Principle Importance, we would like to see this included in this section and a proper assessment of this site, even though it is not a designated site.





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### Species

7.4.15 says that “it has been assumed that impacts would result in a permanent adverse effect on the conservation status of the bat populations that would be significant at up to the **regional level**”. This is of concern to us – what do HS2 (and your consultants) propose to do to mitigate and compensate for this potential impact? In **7.5 Effects arising during operation** 7.5.3 and 7.5.6 There is still a potential for bats to be permanently adversely affected that would be significant at up to the county/metropolitan level which is of concern to us and needs to be addressed by HS2. On the basis that these concerns and others are not currently adequately addressed, we are currently objecting to HS2. We would like to see substantial mitigation and compensation for bats including suitable roosting opportunities and foraging grounds/routes.

7.4.16-26 and 7.4.30 Table 20. Without the detail, we cannot comment at this stage on whether we think that the mitigation measures listed are likely to result in the suggested residual effects. In addition, we are concerned about the potential residual effects up to the district/borough/county/metropolitan levels during construction. We request clarity on this and more information about what is planned to mitigate and compensate for these potential impacts. In **7.5 Effects arising during operation** 7.5.4-6 Barn owls are singled out as a Schedule 1 bird species that may suffer from risk of colliding with trains, but there is no explanation as to why other bird species, including other Schedule 1 bird species are not included here? These include: Bewick’s swan, brambling, Cetti’s warbler, fieldfare, hobby, kingfisher, peregrine, redwing and whooper swan. What about ground-nesting birds for example?

7.5.4 then goes on to say “Effects on all other habitats and species would likely be significant at the local/parish level during operation. These effects will be assessed and reported in the formal ES”. It is unclear to us how this assumption has been arrived at and we cannot agree that this will be the case unless further details can be scrutinised.

### 15. Water resources and flood risk

15.3.21 We are pleased to see the recognition that Nor Wood and Locks LWS may be (at least) partly dependent on groundwater and that this is being investigated.



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15.3.22 We think Foer's Wood needs to be added to this list and investigated for potential impact on the watercourses feeding into this LWS (also see our comments in Chapter 7).

## **LA12**

### **6. Community**

6.4.7 Talks about the loss of a pond and ~50% of the rear garden at Slacks Farm in Bramley. We have been sent an anecdotal record (including a photo) of great crested newt possibly residing in this pond which needs to be followed up by HS2 and your consultant ecologists. It is not clear about the relationship between this pond and the pond noted in 7.3.13 that supports great crested newts. There may be scope to further study and potentially expand the population through well planned mitigation. This is talked about in 7.4.20 which is encouraging, but it only seems to be a suggestion here so this needs clarity.

### **7. Ecology and Biodiversity**

7.2.3 We note that field surveys are on-going and limited by landowner access. However, we question why the surveys are limited to the species listed (plants, great crested newts, wintering and breeding birds, bats, otter and water vole). What about badgers and (NERC Act) S41 species such as brown hare, hedgehogs, harvest mouse and several invertebrates? What about other amphibians and reptiles? Although it is confusing as some species or groups of species are included in Table 12 that are not referred to in the methodology, but not all? Without the details of the survey results being available at this time, it is difficult to comment on the detailed methodology and results. Are ground-nesting birds being specifically looked at? How is mitigation planned for these birds in particular?

7.3.15 and Table 12. Have the South Yorkshire Bat Group been approached for bat records for this area? (they are not listed in 3.4.11).

7.3.15 and Table 12. We find it very surprising that there are no records of terrestrial invertebrates at all in LA12. Have the RMBC Ecologist (an entomologist) and Rotherham LRC been approached with this specific request? Sorby Natural History Society may be able to provide additional invertebrate information for this area.





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### 7.4 Effects rising during construction

7.3.6 Identifies Pea Carr wood but does not mention Spring Wood which is shown as an AWIS in the map CTT-10-385b Environmental Baseline. Is this considered to be a 'safe distance' from the railway?

7.4.1 is unclear – is it saying that the new woodland planting proposed here is not indicated in the current map books?

7.4.4 There is an anticipated loss of 0.1ha (2%) of Kings Pond plantation LWS but no discussion about the impacts from adjacent construction. It is noted that there is the potential for deterioration in water quality and we agree that it is important that this is avoided through measures set out in the CoCP but we are concerned that 7.4.12 says that the permanent loss of a section of the watercourse (Kingsforth Brook) feeding into Kings Pond would mean a permanent significant effect at the district/borough level. This suggests that mitigation measures employed in the CoCP may be insufficient to avoid significant impacts. We support the intention to explore the creation of new habitat to address the residual effects upon King's Pond Plantation LWS (7.4.29) and would be interested in being part of these conversations going forward.

7.4.5 Says there would be no direct effects on Pea Carr AWIS but it does anticipate indirect construction effects. According to the maps CT-05-462, Pea Carr Wood is to be *completely* surrounded by construction footprint which will potentially cut off ecological connections to the wider countryside. We would like to see the small construction footprint area to the west of the AWIS (e.g. in square I2 on the map) be removed, as it is furthest from the railways (so presumably not as crucial) but it would maintain a link to and from the AWIS for wildlife that would otherwise be severed for a period of up to a few years. In 7.4.29 you talk about increasing the connectivity of fragmented ancient woodland parcels which is something we would support, but this is not currently reflected in the maps. There is a need to explore this further and this is a conversation that we could potentially engage with.

Brampton Common LWS is listed in 7.3.5 but then no potential impacts are listed in 7.4.5. There needs to be an explanation why. How has the assessment reached the conclusion that there will be no impacts?





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7.4.8 Says that incorporating woodland creation is not expected to reduce the woodland loss to a level that is not significant due to the potential of identifying additional ancient woodland (which has occurred elsewhere on the route of the Proposed Scheme). We would like to revisit this point once more field survey data has been made available and we also think that the indirect impact on Pea Carr AWIS may not be fully mitigated by measures made in the CoCP (see point 7.4.5 above).

7.4.29 and 7.4.30 At King's Pond plantation. There is the potential to improve the condition and management of the current LWS if appropriate discussions could be undertaken with the landowner. Informal discussions with officers at RMBC also indicate that there is scope to improve the PRoW around this site, including the link from Bramley (FP9). Current mitigation suggested by HS2 is not very ambitious in the current maps. This would be a good opportunity to improve the links to this currently relatively isolated LWS, for example an ecological linkage to Wickersley Wood (and perhaps an accompanying PRoW).

7.4.29 and 7.4.30 Without the detail, we cannot comment at this stage on whether we think that the mitigation measures listed are likely to result in the suggested residual effects. It is unclear how HS2 are proposing to compensate for the listed residual effects in Table 13 and Table 14 and this needs to be addressed. We would like more information on this. Again (as in LA11), we are particularly concerned about the potential impacts on bats which is currently listed as significant up to **regional level** during construction and still county/metropolitan level during operation. If this remains the situation in the formal ES we will have to object to the Proposed Scheme. We would like to see substantial mitigation and compensation for bats including suitable roosting opportunities and foraging grounds/routes.

Also again (as in LA11) in 7.4.30, 7.5.4 and 7.5.6 (Table 14) Barn owls are singled out as a Schedule 1 bird species that may suffer from risk of colliding with trains, but there is no explanation as to why other bird species, including other Schedule 1 bird species are not included here? These include: Bewick's swan, brambling, Cetti's warbler, fieldfare, hobby, kingfisher, peregrine, redwing and whooper swan. What about ground-nesting birds for example?

7.5.4 Also says "Effects on all other habitats and species would likely be significant at the local/parish level during operation. These effects will be assessed and reported in the formal





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ES". It is unclear to us how this assumption has been arrived at and we cannot agree that this will be the case unless further details can be scrutinised.

### LA13

The majority of this area will be commented on by our neighbouring Wildlife Trust, Yorkshire Wildlife Trust (YWT). Our comments are restricted to the Rotherham MBC area.

Kilnhurst Ings LWS and Kilnhurst Riverside LWS are both shown on the environmental baseline map CT-10-389-L1, however the construction phase and proposed scheme maps (e.g. CT05-476-L5 and CT06-476-L5) do not extend as far south as Kilnhurst Ings and Riverside. If it were considered that these sites were an acceptable distance for mitigation/compensation, we would like to talk to HS2 and your consultants about these sites, one of which we manage (on a lease arrangement).

2.3.42 Talks about the temporary diversion and then permanent diversion of Firsby Lane by 1.4km to the south and a section of Firsby Lane to the west of the HS2 main line would be permanently closed. It is quite difficult to see this on the maps but we would not like to see any severance of access to Firsby Reservoir LNR (and LWS). In fact, we (and RMBC who own the reserve) would like to see improved access to Firsby reservoir which could form part of a mitigation package (see later).

### 7 Ecology and Biodiversity

7.3.3 and 7.3.10 Conisborough Park Hedgerows LWS (Doncaster which is in Yorkshire Wildlife Trust's operating area)– is in 3 sections, one section is on the boundary of Rotherham and Doncaster (on Firsby Lane) and will be severed by HS2.

7.4.1 Suggests new landscape mitigation planting and woodland habitat creation to enhance connectivity between remaining woodlands around Firsby Brook and contribute to mitigating for the impact described in 7.4.7 (permanent adverse effect significant at the county/metropolitan level). We are supportive of this but we think (and from speaking to the landowner RMBC) that on-going management and improvements at Firsby Reservoir LNR would be the first priority. Scrub and water management (e.g. silt removal and the exploration of





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returning the water to its previous level) at this site are essential for maintaining the bird interest and there could be complimentary meadow creation. It is important that the scheme does not have a negative effect on the watercourses feeding this reservoir as the maps (CT-06-467) show Firsby Brook being culverted under the Proposed Scheme – this is not mentioned in Table 15. Working with adjacent farms to improve ecological connections to the wider countryside would be important to pursue in this area. There may well be scope for planting and improved ecological connections, for example to Hooton Cliff LWS which is nearby, but these are not shown on the maps at the moment. As already mentioned, there is also a need to improve the public access to Firsby Reservoir LNR which could potentially be undertaken in a sensitive manner with site stakeholders. We would be interested in exploring all these options for the reservoir area further with HS2 and your consultants. This was one of the priority areas identified by the participants of a workshop organised by ourselves on behalf of the South Yorkshire Local Nature Partnership – the results of which (including maps) have already been submitted to HS2 and your consultants, but can be supplied again if required. This workshop and maps also highlighted the importance of the PRoW in this area.

As in LA11 and 12, we are concerned by the many potential residual significant effects listed in Tables 15 and 16 and clearly more work needs to be done. There is still a potential for bats to be permanently adversely affected that would be significant at up to the county/metropolitan level which is of concern to us and needs to be addressed by HS2. On the basis that these concerns and others are not currently adequately addressed, we are currently objecting to HS2. We would like to see substantial mitigation and compensation for bats including suitable roosting opportunities and foraging grounds/routes. Again it is not clear how the impact on bats has reduced from **regional level** during construction to up to county/metropolitan level. In this area, a number of Schedule 1 birds have been identified in section 7.4.22 but are not mentioned again in Table 15?

**MMLO2** –Unstone to Sheffield – This currently very slim document does not contain any level of detail that we are able to comment on at the moment. We would like to see the detail as it emerges and comment on it in due course. Please keep us informed.

